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PAN AMERICAN UNIVERSITY

-

## Bulletin

## of

## Pan American University

> Pan American University is a Member of Association of Texas Colleges and Universities American Council on Education Association of American Colleges
> American Association of Colleges for Teacher Education Southern Association of Colleges and Schools Approved for Teacher Education by the Texas Education Agency

## Bulletin of Pan American University (USPS 336-050)

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VI. PAN AMERICAN UNIVERSITY AT BROWNSVILLE

# PAN AMERICAN UNIVERSITY CALENDAR 1984-85 

Dates and deadlines for applications for student loans, scholarships, or other financial aid are set up in the Financial Aid office and are listed in the Student Affairs section of this bulletin.
For ACT, GRE, GMAT, and other test information contact the Testing Office.
The Brownsville Campus calendar does not coincide with this calendar in all respects. Refer to the Brownsville supplement for further information.

## FIRST SEMESTER

August 1, Wednesday
Application for admission and supporting documents (transcript of credits and ACT test results for freshmen or GRE test scores for graduate students, also, GMAT scores for graduate business students) must be received by the Office of Admissions and Records by this date to insure processing for admission to the Fall Semester. Prospective students should file documents as early as possible before this deadline.
August 26, Sunday
Dormitories open for occupancy at 1:00 p.m.
August 28, Tuesday
Brownsville campus registration by appointment.
August 29, Wednesday

1. Registration by appointment for evening classes will begin at 5:30 p.m.
2. Dining Service opens for Breakfast (Meal Plan or Cash).

August 30-31, Inclusive
Registration by appointment.
September 3, Monday
Labor Day, No Classes
September 4, Tuesday

1. Classes begin.
2. Schedule changes and late registration.

September 7, Friday
Last day for schedule changes and late registration.
September 19, Wednesday
Twelfth class day.
September 25-26, Inclusive
Tentative dates for disbursement of financial aid checks.
October 1, Monday

1. Deadline for filing Application for Degree form with the Office of Admissions and Records for baccalaureate students expecting to graduate in May 1985, and for graduate students expecting to receive a master's degree in May 1985.
2. Deadline of submission of financial aid application for Spring Semester awards.
October 3, Wednesday
Last day to drop a course or to withdraw from the University without having a
grade recorded. Last day to change to Non-Credit.
October 15, Monday
Unsatisfactory reports will be filed with the Office of Admissions and Records by 9:00 a.m.

## November 1, Thursday

Deadline for filing completed signed thesis with Dean of major school for students expecting to receive a master's degree in December 1984.
November 22-24, Inclusive
Thanksgiving.
December 6, Thursday
Last day to officially drop or withdraw through the Office of Admissions and Records.
December 13-19, Inclusive
First semester final examinations for night classes.
December 13-14, Inclusive

1. Limited departmental final examinations.
2. Dead Days.

December 15-20, Inclusive
First semester final examinations for day classes begin with Saturday.
December 20, Thursday
Dining Service closes at 6:30 p.m.
December 21, Friday

1. Grade reports due in Office of Admissions and Records by 1:00 p.m.
2. End of first semester.
3. Dormitories close at noon.

December 23, Sunday
Commencement exercises.

## SECOND SEMESTER

## December 3, Monday

Application for admission and supporting documents (transcript of credits and ACT test results for freshmen or GRE test scores for graduate students, also, GMAT scores for graduate business students) must be received by the Office of Admissions and Records by this date to insure processing for admission to the spring semester. Prospective students should file documents as early as possible before this deadline.
January 8, Tuesday

1. Brownsville campus registration by appointment.
2. Dormitories open at 12 noon.

January 9, Wednesday
Registration for Edinburg campus by appointment for evening classes will begin at 5:30 p.m.
January 10, Thursday

1. Registration by appointment.
2. Dining Service open for breakfast (Meal Plan or Cash).

January 14, Monday

1. Classes begin
2. Schedule changes and late registration.

January 16, Wednesday
Last day for late registration.
January 18, Friday
Last day for schedule changes.
January 29, Tuesday
Twelfth class day.
February 5-6, Inclusive
Tentative dates for disbursement of financial aid checks.
February 8, Friday
Deadline for filing Application for Degree form with the Office of Admissions and Records for baccalaureate students expecting to graduate in August 1985.
February 12, Tuesday
Last day to drop a course or to withdraw from the University without having a grade recorded. Last day to change to Non-Credit.
March 1, Friday
Deadline for submission of financial aid applications for summer awards.
March 4, Monday
Unsatisfactory reports will be filed with the Office of Admissions and Records by 9:00 a.m.

March 8, Friday

1. Dining Service closes at 6:30 p.m.
2. Dormitories close.

March 11-16, Inclusive
Spring recess
March 17, Sunday
Dormitories reopen.
March 18, Monday
Dining Service opens at breakfast.
April 3, Wednesday
Deadline for filing an Application for Degree form with the Office of Admissions and Records for graduate students expecting to receive a master's degree in August, 1985
April 3, Wednesday
Dining Service closes at 6:30 p.m.
April 4-7, Inclusive
Easter
April 8, Monday
Dining Service opens at breakfast (Meal Plan or Cash).
April 10, Wednesday
Deadline for filing completed signed thesis with the Dean of major school for students expecting to receive a master's degree in May 1985.
April 24, Wednesday
Deadline for filing an Application for Degree form with the Office of Admissions and Records for baccalaureate students expecting to graduate in December 1985.
April 25, Thursday
Last day to officially drop or withdraw through the Office of Admissions and Records.
May 1, Wednesday
Deadline for submission of financial aid application for Fall Semester awards.
May 2-8, Inclusive
Second semester final examinations for night classes.
May 2-3, Inclusive

1. Limited departmental final examinations.
2. Dead Days.

May 4-9, Inclusive
Second semester final examinations for day classes.
May 9, Thursday
Dining Service close at noon.
May 10, Friday
1.' Dormitories close at noon.
2. Grade reports due in Office of Admissions and Records by 1:00 p.m.

May 12, Sunday
Commencement exercises.

## SUMMER SESSION, 1985

April 29, Monday
Application for admission and supporting documents (transcript of credits and ACT test results for freshmen or GRE test scores for graduate students, also, GMAT scores for graduate business students) must be received by the Office of Admissions and Records by this date to insure processing for admission to the summer session. Prospective students should file documents as early as possible before this deadline.
May 30, Thursday

1. Brownsville campus registration by appointment
2. Dormitories open at 12 noon.

May 31, Friday

1. Registration by appointment for first summer term.
2. Dining Service opens for breakfast (Meal Plan or Cash).

June 3, Monday
Classes begin.
June 5, Wednesday
Last day to register or make changes in class schedules.

June 6, Thursday
Fourth class day:
June 11, Tuesday
Deadline for filing an Application for Degree form with the Office of Admissions and Records for graduate students expecting to receive a master's degree in December 1985.
June 12, Wednesday
Last day to drop or withdraw without having a grade recorded.
June 26, Wednesday
Last day to officially drop or withdraw through the Office of Admissions and Records.
July 3, Wednesday

1. First term final examinations on Edinburg campus.
2. Brownsville campus registration by appointment.
3. Dining Service closes at 6:30 p.m. for those students not returning for the second summer session.
July 4, Thursday
Independence Day. No classes. .
July 5, Friday
Registration by appointment for second summer term.
July 6, Saturday
Dormitory closes for students not returning for the second summer session.
July 8, Monday
4. Grade reports due in Office of Admissions and Records by 1:00 p.m.
5. Classes begin.

July 10, Wednesday
Last day to register or make changes in class schedule.
July 11, Thursday
Fourth class day.
July 17, Wednesday
Last day to drop or withdraw without having a grade recorded.
July 19, Friday
Deadline for filing completed and signed thesis with the Dean of major school for students expecting to graduate in August 1985.
August 1, Thursday
Last day to officially drop or withdraw through the Office of Admissions and Records.
August 9, Friday
Second term final examinations.
August 12, Monday

1. Grade reports due in Office of Admissions, and Records by 1:00 p.m.
2. Dining Service closes at $6: 30$ ' p.m.
3. Dormitories close.

# PAN AMERICAN UNIVERSITY <br> CALENDAR 1985-86 

Dates and deadlines for applications for student loans, scholarships, or other financial aid are set up in the Financial Aid office and are listed in the Student Affairs section of this bulletin.

For ACT, GRE, GMAT, and other test information contact the Testing Office.
The Brönnsville Campus calendar does not coincide with this calendar in all respects.
Refer to the Brownsville supplement for further information.

## FIRST SEMESTER

August 1, Thursday
Application for admission and supporting documents (transcript or credits and ACT test results for freshmen or GRE test scores for graduate students, also, GMAT scores for graduate business students) must be received by the Office of Admissions and Records by this date to insure processing for admission to the Fall Semester. Prospective students should file documents as early as possible before this deadline.
August 25, Sunday
Dormitories open for occupancy at 1:00 p.m.
August 27, Tuesday
Brownsville campus registration by appointment.
August 28, Wednesday

1. Registration by appointment for evening classes will begin at 5:30 p.m.
2. Dining Service opens for Breakfast (Meal Plan or Cash).

August 29-30, Inclusive
Registration by appointment.
September 2, Monday
Labor Day, No Classes.
September 3, Tuesday

1. Classes begin.
2. Schedule changes and late registration.

September 6, Friday
Last day for schedule changes and late registration.
September 18, Wednesday
Twelfth class day.
September 24-25, Inclusive
Tentative dates for disbursement of financial aid checks.
October 1, Tuesday
Deadline of submission of financial aid application for Spring Semester awards.
October 2, Wednesday
Last day to drop a course or to withdraw from the University without having a grade recorded. Last day to change to Non-Credit.
October 7, Monday
Deadline for filing Application for Degree form with the Office of Admissions
and Records for baccalaureate students expecting to graduate in May 1986 and for graduate students expecting to receive a master's degree in May 1986.
October 16, Wednesday
Unsatisfactory reports will be filed with the Office of Admissions and Records by 9:00 a.m.

November 1, Friday
Deadline for filing completed signed thesis with Dean of major school for students expecting to receive a master's degree in December 1985.
November 27, Wednesday
Dining Service closes at 6:30 p.m.
November 28-30, Inclusive
Thanksgiving.
December 5, Thursday
Last day to officially drop or withdraw through the Office of Admissions and Records.
December 12-18, Inclusive
First semester final examinations for night classes.
December 12-13, Inclusive

1. Limited departmental final examinations.
2. Dead days.

December 14-19, Inclusive
First semester final examinations for day classes begin with Saturday
December 19, Thursday
Dining Service closes at 6:30 p.m.
December 20, Friday

1. Grade reports due in Office of Admissions and Records by 1:00 p.m.
2. End of first semester.
3. Dormitories close at noon.

December 22, Sunday
Commencement exercises.

## SECOND SEMESTER

December 2; Monday
Application for admission and supporting documents (transcript of credits and ACT test results for freshmen or GRE test scores for graduate students, also, GMAT scores for graduate business students) must be received by the Office of Admissions and Records by this date to insure processing for admission to the spring semester. Prospective students should file documents as early as possible before this deadline.
January 14, Tuesday

1. Brownsville campus registration by appointment.
2. Dormitories open at 12 noon.

January 15, Wednesday
Registration for Edinburg campus by appointment for evening classes will begin at 5:30 p.m.
January 16, Thursday

1. Registration by appointment.
2. Dining Service opens for breakfast (Meal Plan or Cash).

January 20, Monday

1. Classes begin.
2. Schedule changes and late registration.

January 22, Wednesday
Last day for late registration.
January 24, Friday Last day for schedule changes.
February 4, Tuesday Twelfth class day.
February 11-12, Inclusive Tentative dates for disbursement of Financial aid checks.
February 10, Monday Deadline for filing an Application for Degree form with the Office of Admissions and Records for baccalaureate students expecting to graduate in August, 1986.
February 18, Tuesday Last day to drop a course or to withdraw from the University without having a grade recorded. Last day to change to Non-Credit.
March 3, Monday
Deadline for submission of financial aid applications for summer awards.
March 10, Monday
Unsatisfactory reports will be filed with the Office of Admissions and Records by 9:00 a.m.

March 21, Friday

1. Dining Service closes at 6:30 p.m.
2. Dormitories close.

March 24-29, Inclusive
Spring and Easter recess.
March 30, Sunday
Dormitories reopen.
March 31, Monday
Dining Service opens at breakfast.
April 7, Monday
Deadline for filing an Application for Degree form with the Office of Admissions and Records for graduate students expecting to receive a master's degree in August, 1986.
April 11, Friday
Deadline for filing completed signed thesis with the Dean of major school for students expecting to receive a master's degree in May, 1986.
April 23, Wednesday
Deadline for filing an Application for Degree form with the Office of Admissions and Records for baccalaureate students expecting to graduate in December, 1986.
May 1, Thursday

1. Last day to officially drop or withdraw through the Office of Admissions and Records.
2. Deadline for submission of financial aid application for Fall Semester awards.

May 8-14, Inclusive
Second semester final examinations for night classes.
May 8-9, Inclusive

1. Limited departmental final examinations.
2. Dead days.

May 10-15, Inclusive
Second semester final examinations for day classes.
May 15, Thursday
Dining Service closes at 6:30 p.m.
May 16, Friday

1. Dormitories close at noon.
2. Grade reports duein Office of Admissions and Records by 1:00 p.m.

May 18, Sunday
Commencement exercises.

## SUMMER SESSION, 1986

April 28, Monday
Application for admission and supporting documents (transcript of credits and ACT test results for freshmen or GRE test scores for graduate students, also, GMAT scores for graduate business students) must be received by the Office of Admissions and Records by this date to insure processing for admission to the summer session. Prospective students should file documents as early as possible before this deadline.
May 29, Thursday

1. Brownsville campus registration by appointment.
2. Dormitories open at 12 noon.

May 30, Friday

1. Registration by appointment for first summer term.
2. Dining Service opens for breakfast (Meal Plan or Cash).

June 2, Monday
Classes begin.
June 4, Wednesday
Last day to register or make changes in class schedules.
June 5, Thursday
Fourth class day.
June 9, Monday
Deadline for filing an Application for Degree form with the Office of Admissions and Records for graduate students expecting to receive a master's degree in December, 1986.
June 11, Wednesday
Last day to drop or withdraw without having a grade recorded.

June 26, Thursday
Last day to officially drop or withdraw through the Office of Admissions and Records.
July 3, Thursday

1. First term final examinations on Edinburg campus.
2. Brownsville campus registration by appointment.
3. Dining Service closes at 6:30 p.m. for those students not returning for the second summer session.
July 4, Friday
Independence Day, No classes.
July 6, Saturday
Dormitory closes for students not returning for the second summer session.
July 7, Monday
Registration by appointment for second summer term.
July 8, Tuesday
Grade reports due in Office of Admissions and Records by 9:00 a.m.
July 9, Wednesday
Classes begin.
July 11, Friday
Last day to register or make changes in class schedule.
July 14, Monday
Fourth class day.
July 18, Friday
Last day to drop or withdraw without having a grade recorded.
July 21, Monday
Deadline for filing completed and signed thesis with the dean of major school for students expecting to graduate in August, 1986.
August 4, Monday
Last day to officially drop or withdraw through the Office of Admissions and Records.
August 11, Monday
Second term final examinations.
August 13, Wednesday
4. Grade reports due in Office of Admissions and Records by 1:00 p.m.
5. Dining Service closes at 6:30 p.m.
6. Dormitories close.

## Pan American <br> At a Glance:

Character: A four-year, state supported institution.
Location: Edinburg. Texas; close to the Mexican border and the Gulf of Mexico.
History: Founded in 1927 as a two-year junior college, became a four-year institution in December of 1951, joined the state system in 1965, elevated to university status in 1971.

Student Body: 9,622 students, $96 \%$ from the Valley area.
Academics: A multitude of courses available with major areas of study including:
Business
Education
Health Related Professions
Humanities
Science and Mathematics
Social Sciences
Graduate degrees available in:
Business Administration
Bilingual/Bicultural (Elementary)
English Second Language
Reading (Elementary and Secondary).
Education (Elementary and Secondary)
Counseling and Guidance (Elementary and Secondary)
Diagnostic Education (Elementary)
Supervision (Elementary)
Health and P.E.
Educational Administration
English
History
Interdisciplinary Studies: Concentrations in English, History, Mathematics, and Spanish
Biology
Admissions: Pan American University maintains an open admissions policy at the undergraduate level.

## Pan American University

## Statement of Institutional Purpose

Pan American University is a democratic institution which exists for the purpose of providing quality education through the discovery, organization, preservation and dissemination of knowledge. In carrying out this purpose, the University commits itself to:
reflecting and fostering the best features of the multi-cultural heritage of its location;
promoting the exchange of ideas and persons to facilitate an understanding of community - local, state, national, and international;
answering the needs of and encouraging service to the community;
aiding all University members to develop increased skills in communication;
encouraging freedom of thought and the assumption of responsibility for actions
and for expression of ideas;
providing programs and options which recognize that each student, as an individual, has the right to pursue areas of learning for which he is capable and suited and in which he is interested;
providing curricular and extra-curricular experiences conducive to the intellectual, moral, and physical development of all students;
encouraging the humanistic development of every member of the University by
providing strong curriculum offerings in the arts, humanities, and sciences;
recognizing the legitimate concerns of students with vocation and providing strong curricula leading to career opportunities;
providing personal and academic counseling and career planning for all students; encouraging research leading to discovery, organization, refinement, and effective transmission of knowledge;
encouraging the growth of the professions by preparing students for successful graduate and professional study beyond the undergraduate level; and providing a functional and aesthetic campus for the use and pleasure of the University and area communities.

## Non-Discrimination Policy Statement

Pan American University declares and reaffirms a policy of administering all of its educational programs and related supporting services and benefits in a manner which does not discriminate because of a student's or prospective student's race, color, creed or religion, sex, national origin, age, handicap, or other characteristics which cannot be lawfully the basis for provision of such services. These programs, services and benefits include, but are not limited to, admission, class assignments, scholarships and other financial and employment assistance, counseling, physical education and recreational services, and the membership practices of student organizations.

Pursuant to this policy statement; Pan American University will undertake a continuing program of compliance with all federal, state and local laws relating to equal educational opportunity and affirmative action, specifically those addressing the obligations of the institution under Title VI of the Civil Rights Act of 1964 as amended, Title IX of the Educational Amendments of 1972, and Sections 503 and 504 of the Rehabilitation Act of 1973.

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LEARNING RESOURCE CENTER
University Library
Leslie M Gower
Leslie M. Gower............................................................................................................................................................................inistrative Assistant
Barbara Villarreal.........
George Gause, Jr .............................................................................Special Collections Librarian
Susan Hancock .,........................................................................... Head Public Affairs Librarian
Virginia Haynie ..................................................................................... Head Catalog Librarian
Robert McDowell......................................................... Assistant Librarian for Readers Services
David Fisher................................................................................................. Reference Librarian
Katherine Rankin ............................................................................................Catalog Librarian
San Juanita Reyes ................................................................................Head Reference Librarian
Stanley Shabowich ....................................................................................Acquisitions Librarian
Jean Shelander...........................................................Assistant Librarian for Technical Services
William Tinsman ....................................................................................... Documents Librarian
Irene Vavrin ...................................................................................................................... Librarian
University Média Services Center
Kenneth Brock
Assistant Director for Media Services
OFFICE OF ADMISSIONS AND RECORDS
David R. Zuniga.
Director and Registrar
Linda Flores................................................................................................... Assistant Registrar
Linda J. Renner....................................................................... Assistant Director of Admissions
FINANCIAL AID
Clementine Cantu
Director
Jorge Guerra ...................................................................................................Assistant Director
Juan Torres .....................................................................................................Assistant Director
OFFICE OF THE VICE PRESIDENT FOR BUSINESS
AFFAIRS
Roy Flores............................................................................................................. Vice-President
Evelyn Tobin..............................................................................Secretary to the Vice-President
Ellen McGovern .......................................................................... Assistant to the Vice-President
PHYSICAL PLANT
Director
COMPUTER CENTER
Leota Hull.......................................................................................................................Director
BOOKSTORE
B. J. Pigg.......................................................................................................................Manager

COMPTROLLER
William Chess ......................................................................................................... Comptroller
PERSONNEL OFFICE
Tony Villalobos
Administrator
PURCHASING AND CENTRAL SERVICES
Sam Odstrcil
Director
DEAN OF STUDENTS
Judy Vinson....................................................................................................Dean of Students
STUDENT DEVELOPMENT AND UNIVERSITY CENTER
Elvie Watson-Davis ............................................................................................ Assistant Dean
STUDENT PUBLICATIONS
Joyce A: Prock ................................................................................................................Advisor
HEALTH SERVICE CENTER
Dora Castillo............................................................................................................ Coordinator
WOMEN'S RESIDENCE HALL
Mildred A. Fagg
Director
MEN'S RESIDENCE HALL
Darrell D. Troxel
Director

HIGH SCHOOL EQUIVALENCY PROGRAM

Hilario Rincones

Director

UPWARD BOUND
Hortensia Silva.
Director

## Admissions

## 1

## Methods of Admissions

## Undergraduate Admission

A student is admitted to Pan American University through the Office of Admissions and Records. He may gain admission by:

1. Presentation of a transcript of his high school record showing that he is a graduate of an accredited high school, his rank in class, and that he has earned at least 16 accredited high school units. Included among the 16 units must be: three units in English; two units in mathematics, at least one of which must be in algebra; and a minimum of six units from the three fields of: a foreign language, social science, and natural science (with at least two units from each of two of these fields.)
2. A graduate of a nonaccredited high school must submit 'G.E.D. scores that would qualify for the issuance of a Texas high school certificate or submit a composite A.C.T. score of at least 19 .
3. A person who has never graduated from an accredited high school may enter by qualifying for the issuance of a Texas high school certificate based on GED test results.
4. Any student who has ever been enrolled in another college must have on file in the Office of Admissions and Records an official transcript sent directly from each college previously attended before he can be considered for admission to Pan American University. Failure to submit such transcripts is grounds for immediate dismissal from this university when admission has been gained by ignoring previous college work. (Students transfering less than 30 semester hours of acceptable college work must meet the requirements of section 1 above.) An applicant, whether a new student or a former student at the University, who has attended another collegiate institution is not at liberty to disregard any part of the collegiate record and apply for admission to Pan American University on the basis of the high-school record or a partial record of his or her college work, but is subject without exception to the regulations given above.

A student hòlding a bachelor's degree from an accredited institution who does not wish to enter the Graduate School may be permitted to register as a special student in one of the undergraduate schools and is subject to all rules and regulations of that school. Application for special student status is made by completing the undergraduate application form and having an official transcript showing the awarding of at least a bachelor's degree sent to the Office of Admissions and Records from the awarding institution.
A student's previous college work will be evaluated in terms of Pan American University standards. Those students who are on academic suspension by these standards will not be granted admission for a regular semester during the period of suspension. Students on suspension are encouraged to enroll for summer sessions to repeat courses in which they have low or failing grades. For admission to a regular semester while on suspension, see the section on scholastic suspension in this bulletin.

It should be noted that Pan American University is an equal opportunity educational institution. Under this philosophy, students are admitted to the University without regard to race, creed, color, sex, ethnic origin, religion, age or handicap.

## Procedure for Undergraduate Admission

Any student entering Pan American University for the first time must submit the following:

1. A completed Pan American University application for admission form.
2. Complete official transcript.
a. Beginning Freshmen: An official high school transcript.
b. Transfer Students: See Section 4 under Methods of Admission.
3. Scores from the American College Testing Program tests are preferred, but CEEB's SAT scores are acceptable. (Required of all student with less than 30 semester credit hours of college level work.) Test scores must be on file in the PAU Office of Admissions and Records before the student will be able to register for any semester. Students who may not have filed test results with the University may take the test at Pan American University at the time indicated on the official calendar as published in this catalog. A fee will be required.

## University Credit for High School Students

The Program for Concurrent Enrollment at Pan American University is offered to give outstanding high school students who have completed their sophomore year an opportunity to attend under a university supervised program and earn college credit. Course enrollment will be limited to a maximum of 7 hours each summer term and 9 hours each regular semester. This program provides enrichment of education by allowing students to take courses which they might not normally have time to schedule. Early enrollment should also afford financial savings to students since they will be ready to accept employment sooner.
To be admitted to the Program for Concurrent Enrollment, the student must have completed his sophomore year at an accredited ${ }^{1}$ high school and have a composite ACT score of at least 19 , or be in the top $10 \%$ of their class, or have an academic average $\ddagger$ of at least $90 \%$ (GED not accepted for this purpose). The student must also submit a letter of recommendation from one of their high school teachers, and a letter from a high school counselor with the approval of the high school principal. Upon completion of these requirements the student will be interviewed and recommended by a designated member of the Pan American University faculty. Students interested in admission to the program should complete an Application for Deferred Credit Admission and an Application for Admission and return the forms to the Office of Admissions and Records, Pan American University.
Students will be graded in the same manner as are other college students, but no credit will be given until the student graduates from high school. The Director of the Honors Studies Program and the head of the department in which the student plans to major will help prepare the student's academic program. The regular student fees will be assessed in accordance with current rates set for all other students.

## Graduate Admission

Students seeking admission may obtain application forms by writing to the Office of Admissions and Records. To insure processing of an application for a given semester, the applicant should have on file in the Office of Admissions and Records the application for admission with all supporting documents by the dates indicated in this bulletin. Failure to have applications with supporting documents on file by these dates will result in restrictive admission or denial of admission at that time. Supporting documents include the following:
official transcript(s) of all prior undergraduate and graduate work, an official score report of the Graduate Record Examination (Aptitude Test only) and, for business administration majors, scores on the Graduate Management Admissions Test.

## a transcript of TOEFL scores for foreign students.

Applicants should request that registrars of colleges previously attended and the Educational Testing Service send the transcripts directly to the Office of Admissions and Records. GRE and GMAT scores more than five years old are out of date.

[^0]Students working for the Master of Education degree and the professional certificate must file in the Office of Admissions and Records a copy of the certificate(s) which they already possess.

Admission is only for the semester requested and does not imply automatic admission for later semesters. A student who has been enrolled in a graduate program at Pan American University, but who has not been in attendance for the previous regular semester, should apply for readmission at least thirty (30) days prior to registration for the semester in which he plans to resume graduate study.

## Basic Requirements for Graduate Admission

1. Must hold a bachelor's degree or its equivalent from a college or university accredited by the regional accrediting association for the region in which the institution is located.
2. Must meet admission criteria established by the Council of Deans.

## Clear Admission

1. The applicant must have a 3.0 Graduate Admission GPA or more on a 4.0 scale and provide a minimum composite G.R.E. score of 600 or more (Sum of verbal and quantative) or provide a minimum GMAT score of 350 or more, or
2. The applicant must have a composite score of 1000 or more on the GRE or a GMAT score of 470 or more and have completed all transcript requirements, or
3. The applicant must meet requirements for changing "Probationary" to "Clear," or
4. The applicant must hold a Master's Degree from an accredited ${ }^{\text {'university }}$ and have completed all transcript requirements.
5. Prospective MBA students who do not satisfy the above criteria must. submit a GRE score in addition to a GMAT score for determination of university graduation admission classification.

## Tentative Admission

The "Tentative" admissions classification is not applicable to graduate students in the School of Business.

A minimum Graduate Admission GPA of at least 2.5 on a 4.0 scale, a formal application and an unofficial transcript(s); admission limited to one regular semester or one summer session of twelve weeks with a maximum of 6 semester hours of graduate work. At the end of one semester of tentative admissions a student must be classified as "Clear," "Probationary," or "Denied" based on admission requirements.
Official Interpretation: At the end of one semester of "Tentative" admission a student must first be classified as "Probationary," "Clear," or "Denied" based on the admission requirements. To be granted further admission at this time, he must have completed his admission file and must meet the admission standards:

## Probationary Admission

A student who does not meet clear admission requirements, but has a score of 1200 or more based upon the following formula: 200 times the Graduate Admission GPA + the sum of the verbal and quantitative parts of the GRE will be granted probationary admission. This minimum entrance score must be met prior to registration.
Probationary admission is limited to a maximum of 12 hours. If at the end of the semester in which a student's total earned graduate hours are 9 or more and the student's graduate GPA is 3.0 or better, admission classification will be changed to clear.

## Denied Admission

A student is denied admission to the Graduate School of Pan American University for failure to meet minimum admission requirements.
"Denied Admission" can be altered by' meeting admission requirements such as, improving GRE scores and/or Graduate Admission GPA or by appealing to the Council of Deans for an alternative procedure in a letter to the dean of the appropriate school which details extenuating circumstances.

[^1]
## Transfer Admission

A transfer graduate student may take 12 graduate hours for transfer to another graduate school by supplying the Office of Admissions and Records with the following:

1. An Application for admission.
2. A letter of approval sent directly to the PAU Office of Admissions and Records by the Dean of the graduate school to which the work is to be transferred.

## Departmental Admission Requirements

Each department sets the departmental admission requirements for its graduate majors with the approval of the Graduate Council. Consult the bulletin section referring to your major department for these requirements, which must be cleared.
All undergraduate leveling work must be satisfactorily completed prior to taking graduate courses or at least be completed during the first semester of enrollment in graduate courses.

## Reservation of Work by Undergraduates for Graduate Credit

It is possible for undergraduate students to register in graduate courses in their last semester under the following conditions:

1. The undergraduate must lack no more than twelve (12) semester hours of work to complete all requirements for his (first) bachelor degree.
2. These twelve (12) hours (or less) must be completed in the same semester or summer session ( 12 weeks) in which he is taking the graduate courses.
3. Total registration for all work must not exceed fifteen (15) semester hours in a regular semester or twelve (12) semester hours in a summer session ( 12 weeks).
4. The application for such graduate courses must be submitted to the Office of Admissions and Records sixty (60) days before the session begins. Graduate Record Examinations, Aptitude Test, scores and undergraduate grade-point averages must meet those standards for regular admission to the Graduate School. Business administration students must also take the Graduate Management Admissions Test.
The undergraduate cannot count his work in graduate courses toward his bachelor's degree. It will be reserved for credit toward a graduate degree.

## Procedure After Admission

The successful applicant will receive a letter of acceptance from the Office of Admissions and Records, whereupon he should contact the head of his major department, who will appoint a graduate advisor to counsel with the student concerning the details of his registration, degree program, and other required procedures. The student should have his course program approved each semester by his advisor (or an approved substitute) before registering for courses.

## Definitions

Graduate Admission GPA - Section 61.074 of the Texas Education Code requires the Coordinating Board to establish a mandatory uniform method of calculating official grade-point averages of students seeking admission to a graduate or professional school. The following method to be used at Pan American University effective with students seeking admission for the Fall 1982, is in compliance with this policy.
Procedures for calculating the grade-point average for students seeking admission to a graduate program at Pan American University will be as follows:

1. Only official transcripts sent directly to the Office of Admissions and 'Records, Pan American University, from accredited' institution of higher education shall be accepted for evaluation and grade-point calculation for admission to a graduate program at Pan American University.
2. All academic work undertaken and grades or symbols assigned at each institution shall be reflected on the student's official transcript(s). No student's grade may be expunged from his or her record.
3. All grades assigned, including all grades in courses which have been repeated, for academic course work will be used in calculating the grade-point average, except that Pan American shall base the calculation on the last 60 semester credit hours (or equivalent) of college work and any previous work in a graduate or professional school.

[^2]4. A four-point scale will be used in computing the grade-point average (e.g.: A, 4 points per semester hour; B, 3.0; C, 2.0; D, 1.0; F,0.0).
5. A grade or symbol indicating failure (i.e.: F, WF, DF) will count as hours undertaken, but no grade points will be earned.
6. Excluded from the grade-point average will be any credit by examination: CR; Quit (Q); Withdrew (W); Withdrew Passing (WP); Incomplete (I); and a pass grade within a pass/fail system.
7. The grade-point average will be computed by multiplying each grade point (see paragraphs (4) and (5) of this section) by the semester or quarter credit hours earned per course and totaling the products. The semester or quarter hours of courses undertaken will then be totalled. The total of the products will be divided by the total semester or quarter hours. The' result is to calculate to the hundredth place, giving the official cumulative grade-point average for admission to graduate studies.
8. Academic work at foreign colleges, universities, or preparatory schools shall be excluded from the calculation. In such cases, the grade-point average and credit shall be evaluated and computed by the Office of Admissions and Records in consultation with the graduate program to which the student is applying.
GRE Composite Score - Sum of the verbal and quantitative scores of the graduate record exam.

Admission File - Application, official transcripts of all undergraduate and graduate work mailed directly to Pan American University from the Registrar's Office of the institution issuing the transcripts and GRE scores. (If the applicant has a valid Teacher's Certificate, a copy is required.)

## Foreign Students

## Admission of Foreign Students

There are two additional admission requirements for foreign or international students wishing to enroll in either the undergraduate or graduate programs. They are:

1. Foreign students from countries whose native language is not English will ordinarily be expected to take the Test of English as a Foreign Language. Students scoring below 500 on the TOEFL will normally be denied admission, while those scoring between 500 and 550 , but otherwise meeting department requirements, will be expected to take prescribed courses in English.
Further information on the Test of English as a Foreign Language, the Graduate Record Examination, and the Graduate Management Admissions Test may be obtained by writing

The Educational Testing Service<br>20 Nassau Street<br>Princeton, New Jersey 08540

2. A financial deposit equal to the cost of room and board in our dormitory (This is not a reservation for the dormitory. Student must contact the Housing Office for information concerning the dormitory.) for one semester must be received prior to the $1-20$ being issued. This deposit must be in the form of a money order or cashier's check. This deposit must also be made prior to enrollment for each future semester. Students on scholarship are excluded from this financial requirement. In addition, as a "University for all the Americas", students from the Western Hemisphere will be excluded from this financial requirement.
3. All supporting documents must be on file in the Office of Admissions and Records 60 days prior to the beginning of the semester.

## Transfer Credit

## Policy Governing the Transfer of Credit from Other Institutions

Transfer of regular academic credit from another institution to Pan American University involves at least three considerations:

1. The educational quality of the institution from which the student transfers.
2. The comparability of the nature, content, and level of credit earned to that offered by Pan American.
3. The appropriateness and applicability of credit earned to the programs offered by Pan American, in light of the student's educational goals.
Accreditation speaks primarily to the first of these considerations, serving as the basic indicator that an institution meets certain minimum standards. Accreditation affords reason for confidence in an institution's purposes, in the appropriateness of the resources and plans for carrying out these purposes, and in its effectiveness in accomplishing its goals. Pan American University requires that the institution be accredited by the regional accreditation association responsible for the area in which the institution is located.
Institutions that are not accredited may lack that status for reasons unrelated to questions of quality. Such institutions, however, cannot provide a reliable, third-party assurance that they meet or exceed minimum standards.
Comparability of nature, content and level of transfer credit and the appropriateness and applicability of the credit earned to programs offered by Pan American University are as important in the evaluation process as the accreditation status of the institution at which the transfer credit was awarded. Since accreditation does not address these questions, this information must be obtained from the catalog and other materials from the sending institution.

There may be some differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. Pan American University may accept previous work, place a credit value on it, and enter it on the transcript. However, because of its nature and not its inherent quality, it may be determined to have no applicability to a specific degree program to be pursued by the student.

Foreign institutions, in most cases, are chartered and authorized by their national governments, usually through a ministry of education. Although this provides for a standardization within a country, it does not produce useful information about comparability from one country to another. No other nation has a system comparable to the voluntary accreditation used in the United States. The Country Index published by the International Education. Research Foundation, Inc. shall be used as the guide for evaluating postsecondary work from foreign institutions.
There are some courses which do not transfer to Pan American University. These may be grouped as follows:
A. Sub-college courses such as remedial reading, developmental reading, speed reading, remedial science, and orientation are not transferable.
B. Drill or skill courses such as filing methods and vocational or technical training courses such as shop courses, welding, carpentry, plumbing and masonry are not transferable.
C. Terminal courses offered at many junior colleges are not offered for the purpose of transfer to senior colleges and usually are clearly labeled in the college catalog as being non-transferable. Examples of terminal courses are auto mechanics, machineshop, electricity, data processing welding. Nursing work taken at Junior Colleges or from hospitals is normally considered to be terminal and does not transfer.
D. Exegetrical or doctrinal courses in religion are not transferable. Courses in Bible of a historical or literary nature (but non-doctrinal) are transferable up to a maximum of 12 semester hours of lower-division credit.

## Transfer of Credits - Graduate

A maximum of twelve (12) semester hours of appropriate graduate work earned at other institutions, subject to the approval of the head of the major's department, may be transferred for degree credit. Credit may not be transferred for:

1. Courses which would not have received graduate credit at Pan American University.
2. Courses with grades less than B.
3. Correspondence courses.
4. Extension courses.
5. Courses taken at such a date that would exceed the seven-year limit of the student's program.
Transfer of graduate credit hours is not automatic. The student must submit a written request for approval of transfer to the head of the major department, who determines whether all the conditions for transfer have been met before adding the hours to the graduate degree program. The transfer is completed when the Student's Admission to Candidacy form is approved by the Dean of the School (providing that the student graduates within the seven-year time limit.)

## Fees and Deposits

## Student Expenses

The cost of attending Pan American University is relatively low - approximately $\$ 158.00$ per semester of required tuition and fees for a resident of Texas. A large student financial aid program offering part-time employment, scholarships and loans helps most students at Pan American meet the costs of attending college and living expenses.

## Financial Responsibility

State Universities cannot extend credit;-therefore students are expected to meet financial obligations to the University within the designated time allowed.
Registration fees are payable at the time of registration, and students are not entitled to enter class or laboratory until all their fees have been paid. Other charges are due within ten days after a bill is rendered by the University, or according to the special payment instructions that may be printed on the bill. Failure to pay the amount owed in the allotted time can result in the withholding of (1) registration privileges (2) official transcripts, and (3) degrees.
Initial payment of registration fees may be made by personal check, money order payable to Pan American University or cash. Students are advised to exercise care in paying fees by check. (See "Returned Checks") When a bad check for registration fees is returned to the University, a five dollar ( $\$ 5.00$ ) return check service charge is assessed, and the student is given five days from date of notice to make full payment by cash, cashier's check, or money order. Failure to comply can result in cancellation of the student's registration.

## Residency Classifications and Tuition Rates $\ddagger$

Shown in thee Fee Table are required registration fees each semester including:

- tuition
- student service fees (computed at $\$ 5.00$ per semester credit hour up to a
maximum of $\$ 60.00$ per regular semester or $\$ 25.00$ per summer semester)
- building use fees (computed at $\$ 4.00$ per semester credit hour)

For example, by reading from the Fee Table, a student who is a resident of Texas and who enrolls for 12 semester credit hours in a fall or spring semester would pay $\$ 158.00$ of required registration fees.

The Fee table does not include required laboratory fees or individual instruction fees which are listed with the individual course descriptions.
Student Service Fees support student activities such as Intramural and Inter-collegiate Athletics, Student Newspaper and Annual, Band, Choir, Orchestra, Student Health Service, Student Accident Insurance, University Center Program Council, Drama, Debate, Dance Group, and other student services as determined by the Board of Regents.

FEE TABLE $\ddagger$


## Exemptions From Tuition

Fees for students registering concurrently at two Texas public institutions of higher education.

1. A student must register first at the institution with the lower minimum tuition and pay the full tuition charge.
2. Generally, only the hourly rate is paid at the second institution. However, if the minimum amount is less at the first institution, then the student must pay the difference in the two minimums to the second institution, but not less than the hourly rate.
General fees, student service fees, building use fees, and optional fees are billed by each institution at its regularly authorized rates.
Hazelwood Act for. Veterans: Texas Veterans of World War I, World War II, the Korean War, or Vietnam who have no remaining Veterans Administration educational benefits are exempted from payment of tuition fees, laboratory fees and individual instruction fees but are not exempted from payment of student service fees, building use fees nor other fees and deposits.
To obtain the exemption of tuition under this act, an approved application must be on file with the Student Financial Aid Office 15 days prior to registration.

## Other Fees

Vehicle Registration and Operation Permit
All students, whether full or part-time, who will operate a motor vehicle in the campus area must register the vehicle with the Campus Traffic and Security Office. A sticker to be placed on the vehicle indicating the permit number and class " C " parking privileges will be provided. The charge for the academic year beginning September 1 and ending August 31 is $\$ 12.00$ if paid during the fall semester, $\$ 8.00$ if paid during

[^3]the spring semester, and $\$ 4.00$ each summer session. Vehicle operation regulations are available at the Dean of Students' Office or the Campus Traffic and Security Office.
Laboratory Fees
For each laboratory course a fee of $\$ 2.00$ to $\$ 8.00$, depending upon cost of material used, is charged.
Individual Instruction Fees
For courses in art, communications or music, which provide individual coaching or instruction, a fee of $\$ 20.00$ for a one or two hour course or $\$ 35.00$ for a four hour course is charged. Class Piano and Class Voice courses each have a $\$ 10.00$ fee.
Auditing Fees
If auditing a course is permitted by the instructor, a fee of $\$ 20.00$ will be charged.

## Graduation Fee

A fee of $\$ 15.00$ is charged for undergraduate and graduate degrees. This fee is payable at the time the candidate presents his application for graduation to the Office of Admissions and Records. This fee is used to pay for: processing application for graduation, music, graduation speaker, postage, diplomas and other expenses associated with graduation. All students participating in the commencement ceremony are required to purchase the proper graduation regalia from the University Bookstore. (No students will be permitted to participate without the proper regalia.) Students wishing to transfer their application for graduation must do so prior to mid-term of the semester prior to the original graduation date or be required to pay an additional graduation fee.
Transcript Copy Charge
The first official copy of a transcript of a student's grades is provided free; subsequent official copies are $\$ 1.00$ per copy. A student with overdue unpaid obligations to the University will not be provided an official transcript copy unless satisfactory payment arrangements have been made.
Unofficial copies of the student's transcript will be provided for a fee of $\mathbf{2 5 c}$.
Physical Education Activity Course Fees
A fee is charged for some two hour physical education activity courses. The fees for individual courses are listed in the course descriptions and in the tentative schedule. In the case of Bowling, Golf, and Horsemanship there is a required fee for the use of non-university facilities and equipment which is paid directly to the provider of these facilities.
Thesis Binding Fee
An original and two copies of a Master's Thesis must be bound and presented to the University. Although the cost will vary depending on the size of the thesis it will be approximately $\$ 15.00$.
Thesis Microfilming Fee
Each Master's Thesis is microfilmed and placed in the University Library. The cost will be approximately $\$ 20.00$ depending on length of thesis.

## Advanced Standing Examination Fee

A fee of $\$ 15.00$ is charged for each Advanced Standing Examination.
ACT Residual Test Fee
A fee of $\$ 13.50$ is charged for ACT Tests administered at a time other than'a regularly scheduled test date. The regular fee for nationally scheduled tests is $\$ 9.00$.

## Special Tests and Examinations

Fees for tests such as entrance tests, credit by examination tests and other test services may be charged. Please inquire at the Office of Career Planning, Placement and Testing.

## Late Registration Charge

Any student who, with proper permission, registers after the appointed days for regular registration (see calendar), will be required to pay a special charge of five $(\$ 5.00)$ to defray the costs of the extra services required to effect his or her late registration.

## Returned Check Charge

A service charge of five dollars (\$5.00) will be assessed to a student for each bad check. (See "Financial responsibility") The University may refuse to accept a check from a student who has previously given a bad check (insufficient funds, account closed, signature irregular, payment stopped, etc.).
ID Card Replacement Fee
Entering students are provided a free University Photo Identification Card. A fee of $\$ 5.00$ is charged for a replacement of this card.

## Refund of Registration Fees

To officially withdraw from the University or drop a course, a student must go to the Office of Admissions and Records.
A student withdrawing officially during a fall or spring semester will receive a refund of his registration fees according to the following scale:

- 100 per cent before the first day of classes
- 80 per cent during the first five class days
- 70 per cent during the second five class days
- 50 per cent during the third five class days
- 25 per cent during the fourth five clase days
- No refund during the fifth five class days or thereafter.

Refund of fees during a summer term to students withdrawing officially will be made according to the following scale:

- 100 per cent before the first day of classes
-80 per cent during the first three class days
- 50 per cent during the fourth, fifth and sixth class days
- No refund after the 6th class day

Students officially dropping courses but remaining enrolled at the University receive a full refund of registration fees for the dropped classes through the twelfth class day during a fall or spring semester or the fourth class day during a summer term.
Refund checks will be mailed within 30 days to the student's address on file at the Office of Admissions and Records.
Note: Class days refer to days the University schedules classes not the individual students schedule.

## Residence Hall Fees ${ }^{1}$

Dormitory Room and Board is available on campus for 380 students in modern airconditioned facilities.
During fall and spring semesters there are two boarding plans available: a 20 meal per week plan from Monday breakfast through Sunday lunch and a 15 meal per week plan from Monday breakfast through Friday supper. During summer terms only the $\mathbf{2 0}$. meal per week plan is available. The dormitory fees are:

|  | 15 Meal Plan | $\begin{gathered} 20 \text { Meal } \\ \text { Plan } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: |
| Fall or Spring Semester | \$990.00 | \$1040.00 |
| Summer Session............ | (not available) | \$ 400.00 |

Dormitory fees may be paid in monthly installments (Arrangements are made at the Paying and Collections Office, Administration Building Room 137) at an additionial charge of $\$ 5.00$ per month. Each semester the first installment payment is payable at the time the student registers. The remaining payments are scheduled as follows:

| . . . | 15 Meal Plan | 20 Meal Plan |
| :---: | :---: | :---: |
| Fall Semester |  |  |
| First Payment | \$254.00 | \$265.00 |
| Second Payment, Oct. 1st | 252.00 | 265.00 |
| Third Payment, Nov. 1st ......................................... | 252.00 | 265.00 |
| Fourth Payment, Dec. 1st....................................... | 252.00 | 265.00 |
| Spring Semester |  |  |
| First Payment .......................................................... | \$254.00 | \$265.00 |
| Second Payment, Feb. 1st....................................... | 252.00 | 265.00 |
| Third Payment, March 1st ...................................... | 252.00 | 265.00 |
| Fourth Payment, April 1st ...................................... | 252.00 | 265.00 |
| First Summer Session |  |  |
| First Payment .......................................................... |  | \$400.00 |
| Second Summer Session |  |  |
| First Payment .......................................................... |  | \$400.00 |

[^4]Any student who withdraws officially from the University may receive a refund for the remaining portion of the room and board fee computed on a daily basis. A student who cancels his dormitory lease for any reason other than an official withdrawal will be charged for one-fourth of the remaining unexpired portion of the room and board fee. The termination date of a lease will be the end of the boarding week in which the occupant officially notifies the Dean of Students of the termination.

## Telephone Payments

All arrangements and payments for phone service in the dormitories are made directly with Southwestern Bell Telephone Company.
Residence Hall Reservation and Room Deposits
Applications for dormitory room reservations are made in the Housing office. A check for $\$ 35.00$ must accompany the request. This will serve as a reservation fee and will be held as dormitory property and damage deposit. This fee is retained on deposit throughout the period of residence of the student as a guarantee against damage and breakage. The deposit will be refunded, less any property or breakage charges, at the end of residence in the dormitory. Should a student decide not to reside in the dormitory the deposit will be refunded if an application for refund is made by the following dates:

| $\quad$Semester | Refund Request <br> not later than: |
| :--- | :---: |
| ${ }$Semester$}$ | August 8 |
| Spring Semester | January 2 |
| First Summer Session | May 15 |
| Second Summer Session | July 3 |

Reservations are made on a first-come first-serve basis. Students may be placed on a waiting list until space is available through cancellations and no shows.
Holidays and breaks are not included as part of the room and board plan and have been deducted from the fees.

## SUMMARY OF USUAL STUDENT EXPENSES PER SEMESTER

A resident of Texas attending Pan American University and living in a University Dormitory should expect the following expenses:

|  | Each Fall or Spring Semester | Each Summer Session |
| :---: | :---: | :---: |
| Required Fees for Resident |  |  |
| of Texas enrolled in 15 hours | \$180.00 | \$ 74.00 |
| Estimated Laboratory Fees | 4.00 | 2.00 |
| Books and Supplies | 120.00 | 50.00 |
| Dormitory Room and Board ...................................... | 1040.00 | 400.00 |
| Total.......................................................................... | \$1344.00 | \$526.00 |

This summary does not include discretionary and personal expenditures such as for entertainment, transportation or clothing.

## Graduation

## Curricula and Degrees - Undergraduate

Pan American University offers five types of undergraduate curricula: (1) those leading to one of the seven Bachelor Degrees (B.A., B.B.A., B.S.C.J., B.F.A., B.S., B.S.N., or B.S.W.) conferred by Pan American University; (2) those leading to the Associate of Applied Science (A.A.S.) in Nursing Education; (3) those satisfying the requirements leading toward degrees offered at other institutions, such as: curricula leading to the degrees in law, engineering, pharmacy, medicine, and other specialized fields; (4) courses satisfying requirements for a minor field; and, (5) courses meeting requirements for teachers in education.
The School of Business Administration awards the Bachelor of Arts (B.A.) degree in Economics and the Bachelor of Business Administration degree (B.B.A.) in eight areas of Business:

1. Accounting
2. Computer Information Systems
3. Economics
4. Finance
5. General Business
6. Management
7. Marketing
8. Office Administration

The School of Education awards the Bachelor of Science (B.S.) degree with majors in:

1. Elementary Education
2. Health Education
3. Physical Education
4. Recreation Administration
5. Secondary Education
6. The School also offers curricula meeting the certification requirements for teaching in secondary schools.
The Division of Health Related Professions awards the Associate of Applied Science (A.A.S.) degree in Nursing Education, Bachelor of Science (B.S.) degree with a major in Medical Technology and Bachelor of Science in Nursing (B.S.N.).

The College of Arts and Sciences awards

- the Bachelor of Arts (B.A.) degree with majors in:

1. Art
2. Communications
3. English
4. Government
5. History
6. Mexican American Heritage
7. Music
8. Psychology
9. Sociology
10. Spanish
11. Speech and Hearing

- the Bachelor of Fine Arts (B.F.A.) degree with a major in Art.
- the Bachelor of Science (B.S.) degree with majors in:

1. Biology
2. Chemistry
3. Computer Science
4. Mathematics
5. Physics

- the Bachelor of Science in Criminal Justice (B.S.C.J.) degree with majors in:

1. Corrections
2. Police Administration

- the Bachelor of Social Work (B.S.W.) degree with a major in Social Work
- The College also offers curricula meeting the requirements for pre-engineering (two years), pre-dental (with a major in Biology or Chemistry), pre-pharmacy (two years), pre-medical (with a major in Biology or Chemistry for pre-professional work).

Minors are offered in most of the fields which offer majors in addition, minors are offered in Computer Science, Geology, Bilingual/Bicultural Education, Generic-Special Education, French, Statistics, ROTC, Anthropology, Mexican American studies, and Philosophy,
Supporting courses in a variety of fields are available in the various departments including Astronomy, Geography, German.

## Curricula and Degrees - Graduate

Pan American University is authorized to offer the following graduate degrees and certification programs:
Master of Arts (Majors: English, English Second Language, History, Interdisciplinary Studies)
Master of Business Administration
Master of Education (Majors: Bilingual/Bicultural; Counseling and Guidance; Diagnostician; Elementary; Educational Administration; Physical Education; Reading; Secondary; Supervision)
Master of Science (Majors: Biology and Interdisciplinary Studies)
Cooperative Ed.D. Program with the University of Houston School Administrator's Certificate Programs (Middle Management and Superintendency)
Minor work' for the degree may be done in the following fields:

## Biology

Education
English
Government
History
Health and Physical Education Mathematics
Spanish
Support Areas
Art
Music
Sociology
Business Physics
Chemistry . Psychology

## Associate Degree

## Requirements for the Associate of Applied Science Degree in Nursing Education

1. Satisfactory completion of the prescribed curriculum as specified in the bulletin.
2. A minimum of 67 semester hours of work is required with a minimum grade of "C" in each required course.
3. Only nursing courses completed in programs approved by the Coordinating Board, Texas College and University System, and/or Texas Education Agency and Board of Nurse Examiners for the State of Texas will be considered for transfer credit.
4. Transfer credit for first year nursing courses may be granted upon approval of the Head of the Nursing Department and the Director, Division of Health Related Professions.
5. A Degree Plan approved by the Head of the Nursing Department and the Director, Division of Health Related Professions, must be on file in the Office of the Director. This requirement is normally to be
accomplished as soon as possible after the close of the freshman year, but in any event the Degree Plan must be on file before the deadline for making application for a degree.
6. An acceptable Application for Degree must be filed by the student with the Office of Admissions and Records on or before the date specified in the University calendar.

## Bachelor's Degree

## General Requirements for a Bachelor's Degree

All course requirements for a bachelor's degree in any one of the several disciplines are formulated within the department in which the discipline falls, and are announced and listed elsewhere in this bulletin by the respective departments of the University. STUDENTS SHOULD CONTACT THEIR MAJOR DEPARTMENT OFFICE FOR FURTHER DETAILS. Required semester hours for which specific courses are not prescribed are listed as elective hours.
While the degree requirements in the various disciplines may differ to a considerable extent, there are several general requirements for a bachelor's degree which are common to all degree programs. These are:

## UNIVERSITY COLLEGE/GENERAL EDUCATION PROGRAM

## A. Humanities ( 24 Hours)

1. English - 6 hours of Freshman English

Eng 1301 and 1302 (Eng 1387 and 1388 for the Honors Program) Eng 1406 for foreign students replaces Eng 1301.
2. English - 6 hours of literature. Eng 2301, 2302, 2303, 2305, 2307, 2308, 2313. (Eng 2387 and 2388 for the Honors Program.)
3. Language Other Than English - 6 hours in the same language.

Fr 1321, 1322 or higher level courses.
Ger 1331, 1332 or higher level courses.
Port 1361, 1362 or higher level courses.
Span 1301, 1302, 1303, 1304 or higher level courses.
4. General Topics - 6 hours to be selected from 2 of the following 3 areas:
a. Area 1: The Arts

Art 1301, 3381
Comm (Theatre) 2312
Mus 1301, 1302, 2307, 3311
b. Area 2: Communications

Comm (Speech) 1303 or 1313
c. Area 3: Philosophy

Phil 1310, 1320, 2320, 2330, 2380
B. Mathematics and Science ( 11 Hours)

1. Mathematics (3 hours) Math 1335 or higher level course
2. Natural Science ( 8 hours in same discipline)

Astr 1401 and 1402
Biol 1405 and 1406, 1401 and 1402
Chem 1401 and 1402
Geol 1401 and 1402
Phys 1401 and 1402, 1405 and 1406
Psci 1401 and 1402, 1403 and 1404
C. Computer Literacy ( 3 Hours to be selected from the following).

## D. Physical Education (4 Hours)

Four semester hours of Physical Education OR ROTC courses taken at the freshmen and sophómore level. (NOTE: Physical Education, four semester hours of activity courses to be taken during the freshmen and sophomore years. Only twelve semester hours of activity courses may be counted toward graduation. ROTC courses, but only those taken at the freshmen and sophomore level, may be substituted for required hours of physical education on the basis of one ROTC credit for one credit of PE).
HE 2301 is required if a WAIVER of this requirement is obtained under the following circumstances: NOTE: (a) A student who has been honorably discharged from the military service, and who has served a minimum of one year therein, may obtain a waiver of the required hours in physical education on the basis of one semester hour for each six months of military service or major fraction thereof. (b) A student unable to participate in physical education activity courses because of a health or physical condition may obtain a waiver based upon a physician's certificate to that effect. (c) A woman student who is a mother with her child or children in her care may obtain a waiver of required physical. education hours. (d) A student who is at least 25 years of age at time of initial admission, or at time of readmission after an absence from college of at least two years, may obtain a waiver from PE. Any other student is required to take physical education activity courses after reaching age 25 ONLY TO THE EXTENT that he has failed to earn one PE credit during each semester of his freshmen and sophomore year completed prior to reaching age 25.

## E. Social Sciences

1. State Requirements ( 12 Hours)
a. History (6 hours)

Hist 2313 or 2333, 2314 (2387, 2388 Honors Plan)
b. Political Science ( 6 Hours)

Pols 2313, 2314 (Pols 2387 and 2388 Honors Plan)
2. 6 hours to be selected from 2 of the following 4 areas:
a. Anthropology

Anth 1313, 1323, 2323, 2353
b. Economics

Eco 1301, 2353
c. Psychology

Psy 1313, 1323 (1387, 1388 Honors Plan)
d. Sociology

Soc 1313, 1323, 2333
Students seeking an associate degree are exempt from the foregoing requirements, but only to the extent approved by the School in which the degree is to be earned.

## Graduation Requirements

As noted under the heading Curricula and Degrees, Pan American University offers seven types of bachelor degrees. The general requirements for graduation are the same for each degree and are listed below. Associate degrees are exempt from these provisions to the extent approved by the School in which the degree is conferred. Specific requirements for each major field are listed in the catalog sections dealing with these majors. It is the responsibility of the student to be familiar with all the requirements for the degree he seeks.

1. A minimum of 124 semester hours of work is required, with an overall minimum grade point average of 2.00 .
2. A minimum grade point average of 2.00 in the required hours for both the major and minor fields, or for the broad-field major, is required. Graduates who seek certification as elementary or secondary teachers must have a minimum grade point average of 2.25 in each case.
3. A minimum grade of " C " must be achieved in each of the two required freshman English courses (those specified under General Requirements for a Bachelor's Degree, above).
4. The completed course work required for the degree must include a minimum of 36 semester hours of advanced-level work.
5. All requirements listed under the heading General Requirements for a Bachelors' Degree, above, must have been met.
6. The work must include a minimum of 30 semester hours of work in a major field of concentration (a department may specify not more than 36 hours), including at least 15 hours of advanced-level work, and 18 semester hours in a minor field, including at least 6 semester hours of advanced-level work. A minimum of 48 semester hours of work in a broadly integrated area (such as Business Administration, Inter-American Studies, Law Enforcement Science, Music) may be substituted for the major and minor requirement. In such cases, at least 21 advanced hours must be included, and a department may specify not more than 60 total hours in the area. A course may not be used to satisfy a requirement for both a major and a minor or for two majors or for two minors.
7. For those seeking secondary teacher certification, a minimum of 24 semester hours is required in each of two teaching fields, except that a second teaching field is not required in the broadly integrated areas (see major field departmental area, Secondary Plan II for the major and certification requirements).
8. The major-minor or broad-field major course distribution must follow the requirements set forth by the various departments, subject to any limitations and requirements noted under General Requirements for a Bachelor's Degree and these Graduation Requirements, or in published form issued by the various departments or schools of the University.
9. The student must complete a minimum of 24 semester hours of work in residence during the senior year. If he has not established credit in courses at Pan American University prior to his senior year, he must complete 30 semester hours in residence. A minimum of 6 semester hours of advanced work in the major must be completed in residence.
10. For Medical Technology majors the last 30 semester hours of college work must be completed àt Pan American University; must include at least eight semester hours of biology or chemistry, and a minimum of six advanced semester hours.
11. A Degree Plan approved by the student's Department Chair and Dean must be on file in the office of the Dean of his School. This requirement is normally to be accomplished as soon as possible after the close of the sophomore year, but in any event the Degree Plan must be on file before the deadline for making application for a degree.
12. An acceptable Application for a Degree must be filed by the student with the Office of Admissions and Records on or before the date specified in the University calendar.

## Additional Baccalaureate Degrees

A student from Pan American University may receive an additional bachelor's degree from Pan American University of a different type and major.

A student holding a baccalaureate degree from another accredited institution may receive an additional bachelor's degree in a different major from Pan American University.

Such a student continues to be classified as an undergraduate and must:

1. Complete a minimum of 30 semester hours of credit in Pan American University courses (of which at least 12 must be advanced and a minimum of six of these must be in the major field) for each baccalaureate degree sought beyond the first.
2. Complete all requirements for the additional major(s), as set forth in this catalog.
3. Complete all requirements for the additional degree(s), including gradepoint average requirements, elective courses, and advanced courses, as set forth in this catalog.

## Non-Traditional Education Credit

A maximum of 45 semester hours of college credit will be accepted towards a Bachelor Degree by any combination of extension, examination and correspondence with an 18hour limit on correspondence credit.

## Master's Degree

## Requirements for All Master's Degrees

1. Thirty-six (36) hours of course work or with the thesis option twentyfour (24) hours of course work plus six (6) hours for the thesis will be required.
2. During or at the end of the student's final semester of work, he will be given a comprehensive written examination.
3. All degree programs will allow a student the option to include a minimum of six (6) semester hours of work which is not a part of his major field. It is the option of each graduate program to determine if graduate courses taken outside of the school are acceptable.
4. A maximum of eighteen (18) hours in 5000 level courses may be taken for graduate credit toward a master's degree.

## Special requirements for the MA/MS Interdisciplinary Studies degree.

1. At least 12 hours but no more than 18 of graduate work must be taken in one of four areas of concentration, English, history, mathematics, or Spanish.
2. At least 6 hours of coursework in the area of concentration must be upper level graduate work ( 6000 level).
3. At least 3 hours of coursework must be taken in research methods or statistics in the area of concentration.
4. At least 12 hours must be taken outside the field of concentration. These courses must be taken from at least two additional disciplines.
5. No more than 12 hours of coursework may be taken from the professional schools: Business Administration (A maximum of six semester hours may be taken in the School of Business Administration) and Education.
6. Advisement will be the responsibility of the department chair in the area of concentration selected by students. Advisement for certification will be the responsibility of the School of Education.
7. Students seeking the MA/MS degree in Interdisciplinary Studies must successfully complete 36 hours of graduate work ( 30 if they choose to conduct a thesis) and meet all other university and program requirements.
8. Admission to the MA/MS Interdisciplinary Studies program presumes that students have met general admissions requirements to the PAU graduate school.

## Additional Master's Degrees

A student from Pan American University may receive an additional master's degree from Pan American University of a different type and major.
A student holding a master's degree from another accredited institution may receive an additional master's degree in a different major from Pan American University.

A student, attempting to receive an additional master's degree, is classified as a special graduate and must:

1. Complete a minimum of 24 semester hours of graduate credit in Pan American University courses for each master's degree sought beyond the first.
2. Complete all requirements for the additional major, as set forth in this catalog.
3. Complete all requirements for the additional degree, including gradepoint average requirements, elective courses, etc., as set forth in this catalog.

## Special Procedure and Regulations for Completion of Graduate Degree

Time Limits
All requirements for a master's degree must be completed within one seven-year period. Work over seven years old is lost and can be reinstated only by special permission of the Council of Deans, upon recommendation of the student's graduate advisory committee.

## Graduation Under a Particular Catalog

General and specific requirements for degrees in Graduate School 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, within a seven-year limit. At his discretion the student may choose to fulfill the requirements of a subsequent catalog.
Thesis Requirements
Graduate programs at Pan American University have a thesis and a non-thesis option. Some program faculties encourage the thesis option, while others encourage the nonthesis option. A graduate student should consult with the school and the graduate faculty in the school or discipline concerning their philosophies and options early in the program. However, any graduate student who is contemplating doctoral study is encouraged to consider the thesis option.
Each school and/or department has its own guidelines for the development and completion of the thesis. A student considering the thesis option should contact the department head or graduate studies director in their school for specific procedures. In addition, a manual that details the University requirements for the format and submission of a thesis is available at the University Bookstore.
The candidate for the master's degree writes a thesis (if the thesis option is selected) under the direction of a supervising instructor who is chairman of the supervisory committee appointed by the Dean. The thesis subject requires the approval of both the supervisory committee and the Dean. The researching and writing of the thesis carries with it six semester hours of credit, Prior to enrolling in thesis hours, a student must have received credit for a minimum of twelve semester graduate hours. Once a student registers for 7600 , he must continue to register each succeeding semester or summer session until the thesis is completed. Credit is counted only once and then only upon successful completion of the master's program. Registration for 7600 is not counted in determining load limit for a semester or summer session.

The original thesis and three copies (signed by the student's committee) must be submitted to the Office of the Dean thirty (30) days prior to graduation. (See calendar in front of bulletin for exact date.) A department may require additional copies of the thesis (at additional binding expense to the student).
Individual department deadlines for submission of a thesis to the student's supervisory committee will be established to complement the thesis time schedule for the Office of the Dean.

Before qualifying for graduation, the student must pay a fee for microfilming and binding the thesis and the publication of the thesis abstract in Masters Abstracts. If a student wishes to copyright his thesis, a fee will provide this service by arrangement with Microfilms Incorporated. A receipt for these fees must be presented to the Dean of the School before the thesis will be processed.

Two copies of a non-illustrated abstract which does not exceed 150 words in length must accompany the signed thesis. This abstract is to be printed in Masters Abstracts.
If a student wishes to have additional copies of his thesis bound for his personal use, he may do so at an additional cost.

## General Academic Information

Advanced Level Work: Coursés numbered either 3000 or 4000 are called advanced or upper division courses. Normally, a student with fewer than 60 semester hours of credit may enroll in 3000 or 4000 courses only when his schedule includes enough lower level ( 1000 and 2000 courses) work to total at least 60 semester hours, in addition to the upper level courses for which he wishes to enroll. Approval of the Department Chair or Dean of the School is required if the conditions given above are not met for advanced level enrollment.
Auditor: A student who has special permission (For graduate courses, student must be eligible to enroll in the course for credit before he/she will be allowed to audit.) to audit or visit a class without receiving academic credit is listed as an auditor. One may enroll as an auditor at ANY TIME BY: obtaining the proper audit card from the Office of Admissions and Records, having it approved by the instructor of the class to be audited, paying the required fee to the University Cashier and using the receipt as an admission card to the class. Such approval may be granted only when space is available and if the instructor permits the student (or nonstudent) to be a visitor. Instructors reserve the right to refuse any request to visit a course. Enrollment as an auditor does not permit the enrollee to take examinations, have tests or other papers checked by the instructor, or to participate in the class discussion. Audited courses are not posted on the student's permanent record. Audit fees are non-refundable.
Change of Address and/or Telephone: If a student, after application, changes his local address or telephone number, he is expected to notify the Office of Admissions and Records in writing at once. He will be held responsible for any communication from the University offices sent to him at the address last given to the Office of Admissions and Records and may not claim indulgence on the plea of having moved his lodgings and, therefore, of not having received the communication.

Class Load: Normally 18 semester hours in a regular semester or 7 semester hours in a summer semester is the maximum load that a student can carry and maintain satisfactory grades.
Classification of Students: Students are classified according to the number of semester hours of college credit they have earned.

A student is classified as a freshman if he has fewer than $\mathbf{3 0}$ semester hours of college credit.
Sophomores have 30-59 semester hours of semester credit.
Juniors have credit for 60-89 semester hours of credit.
Seniors are students who have credit for 90 or more semester hours.
Specials are students who hold at least a bachelor's degree and are enrolled in undergraduate courses.
Graduates are students who have an undergraduate degree and have been accepted in a Master's Degree program.
Special Graduates are students who have a graduate degree and are continuing in a graduate program.

## Clubs and Organizations

A wide array of clubs and organizations offer the Pan American student friendship, relationships with people of similar interests, and avenues for organized and 'meaningful service.

## NATIONAL HONOR SOCIETIES

Alpha Chi
Alpha Psi Omega
Beta Gamma SigmaPhi Kappa Phi
NATIONAL PROFESSIONAL SOCIETIES
Alpha Kappa Psi
Kappa Delta Pi
Lamda Alpha Epsilon
Mu Phi Epsilon
National Association of Jazz Educators
Pi Omega Pi
Sigma Alpha Eta
Student National Education Association
DEPARTMENTAL CLUBS
Accounting Club
American Chemical Society
American Society for Personnel Administration
Bilingual Education Student Organization
Bronc Cadet Corps
Tri Beta (Bio League)
Health \& Physical Education Club
Music Educators National Conference
National Honors Council
Pan American University Choir Club
Pan American University Communications Association
Pan American University Data Processing Management Association
Pan American University Geological Society
Pan American Honorary Pre-Medical \& Bio-Medical Society
Pan American University Writing Club
Pan American Society of Medical Technology
Phi Alpha Theta
Psychology Club
Residence Hall Association
Texas Student Nurses Association
SERVICE ORGANIZATIONS
Alpha Phi Omega
Intercollegiate Knights
Inter-Service Council
Ladies of Camelot
Pan American University Student Association
University Center Program Council
RELIGIOUS ORGANIZATIONS
Baptist Student Union
Catholic Campus Ministries
Latter Day Saints Student Association
United Methodist Campus Ministry
MISCELLANEOUS ORGANIZATIONS
CAMP Alumni Association
El Sol
HEP
Interfraternity Council
International Student Association
Intervarsity Christian Fellowship
Los Arcos
Panhellenic Council
PAU Social Workers
PAU Weight-Lifting Club
PAU Young Democratic Club
President's Leadership Scholarship Program
Veteran's Club
Visions
NATIONAL FRATERNITIES
Kappa Sigma
Phi Kappa Tau
Phi Kappa Theta
Phi Sigma Kappa
Tau Kappa Epsilon

## NATIONAL SORORITIES

Delta Zeta
Kappa Delta

## College Assistance Migrant Program

## Purpose

The College Assistance Migrant Program is an effort to provide higher education opportunities for migrant young adults to attend college. Students selected for the program will receive assistance in the application process, supportive services and financial assistance.

Supportive services consist of tutorial and counseling assistance. The program will offer tutoring classes in History, Biology, Chemistry, English, Spanish, Sociology, Psychology, and Mathematics. The counseling component provides learning skills in academic careers, and social awareness as well as self-awareness.
This program is designed to assist entering college freshmen who have worked as migrants or seasonal farm workers due to a lack of financial resources and other factors resulting from the migrant way of life.

## Eligibility

To be eligible to participate in the CAMP project, a person must be a migrant or other seasonal farmworker, or a dependent of a migrant or other seasonal farmworker.

1. "Migrant farmworker" means a seasonal farmworker whose employment required travel that precluded the farmworker from returning to his or her domicile (permanent place of residence) within the same day.
2. "Seasonal farmworker" means a person who, within the past 24 months, was employed for at least 75 days in farmwork, and whose primary employment was in farmwork on a temporary or seasonal basis (that is, not a constant year-around activity).
3. Be enrolled or be admitted for enrollment as a full-time and first-time in college student at the participating IHE.
4. Not be beyond the first academic year of a program of, study at the IHE, as determined under the standards of the IHE.
5. Be determined by the grantee to need the academic and supportive services and financial assistance provided by the project in order to complete an academic program of study at the IHE:
6. Students must be either high school graduates or have a G.E.D.
7. Students must be either citizens of the U.S. or have a permanent visa.

CAMP assists the student financially through a grant which is computed along with his financial aid package from the University. Additionally, CAMP provides indepth tutoring, individual and group counseling and many supportive services.
The CAMP student, as a freshman, gets a full package of financial aid, CAMP continues to follow-up and help in his other years in higher education.

The freshman CAMP student gets non-credit Study Skills courses and takes regular core subjects in the college curriculum. The student takes compulsory tutoring and counseling.
Prospective interested migrant students may apply to CAMP, Pan American University, or call 512/381-2574.
Course Numbers: Courses are numbered to show both the collegiate level at which they are offered and the semester hour value of the course. The first digit shows the level and the second digit shows the credit hours. The last two digits are merely departmèntal designations.

1000 courses are at the freshman level.
2000 courses are at the sophomore level.
3000 courses are at the junior level and limited to junior level or above students. 4000 courses are at the senior level and limited to junior level or above students. 5000 courses are at the graduate level and limited to graduate students only and is usually offered with a 4000 level course. (Student can not receive credit in the 5000 level course if the student already has credit for the comparable 4000 level course.)
6000 courses are at the graduate level and limited to graduate students only.
7000 courses are at the graduate level and limited to graduate students only.

For example the catalog entry, Spanish 1301, shows that the course is given in the freshman year and that it carries three hours of credit per semester. All courses ending in the numbers 87 and 88 are honors courses.

## Credit by Examination

Pan American University offers college credit to qualified students by examination as follows:

College Entrance Examination Board<br>Advanced Placement

and
Achievement Examinations

## American History

1. Credit for three hours in American history (History 2313) is given with College Entrance Examination Board (CEEB) Advanced Placement Test scores of 4 or 5. A grade of $A$ is given for a 5 ; a grade of $B$ for a 4. If the score is 3 , the faculty reviews the examination and decides whether or not to give credit for History 2313.
2. Credit without a grade for three hours in American history is given with a score of 550 or higher on the College Entrance Examination Board (CEEB) Achievement Test in American history.

## Biology

1. Credit for eight hours of biology (Biology 1401-1402) is given with College Entrance Examination Board (CEEB) Advanced Placement Test scores of 4 or 5 . A grade of $A$ is given for a 5 ; a grade of $B$ for a 4.
2. If the score is 3 , the faculty reviews the examination and decides whether or not to grant credit for either Biology 1401 or 1402.

## Chemistry

1. Credit for eight hours of chemistry (Chemistry 1401-1402) is given with College Entrance Examination Board (CEEB) Advanced Placement Test scores of 4 or 5. A grade of $A$ is given for a 5 ; a grade of $B$ for a 4.
2. If the score is 3 , the faculty reviews the examination and decides whether or not to grant credit for either Chemistry 1401 or 1402.
3. Students with scores of 600 or more on CEEB Achievement Test in Chemistry may enroll for Chemistry 1402 as independent credit without the prerequisite of Chemistry 1401. No credit is given for Chemistry 1401. If the CEEB Achievement Test score is 550 but less than 600, the student may request consideration of the Chemistry Department Chair to waive the Chemistry 1401 prerequisite on the basis of his score, the ACT score, and the high school record.
English
4. Credit for six hours in English (English 1301-1302) is given with College Entrance Examination Board (CEEB) Advanced Placement Test scores of 4 or 5. A grade of $A$ is given for a 5 ; a grade of $B$ is given for a 4.
5. If the score is 3 , the faculty reviews the examination and decides whether or not to give credit for either English 1301 or 1302.

## European History

1. Credit for six hours in European history (History 1333-1334) is given for College Entrance Examination Board (CEEB) Advanced Placement Test scores of 4 or 5 . An $A$ is given for a 5 ; a B for a score of 4.
2. If the score is 3 , the faculty reviews the examination and decides whether or not to grant credit for either History 1333 or 1334.

## Mathematics

1. Credit for three hours in mathematics (Math 1370) is given for College Entrance Examination Board (CEEB) Advanced Placement Mathematics Form AB Test scores of 4 or 5 . An A is given for a 5 ; a $B$ for a 4.
2. If the score on the Mathematics Form $A B$ Test is 3, the faculty reviews the examination and decides whether or not to grant credit for Math 1370.
3. Credit for six hours in mathematics (Math 1370-2342) is given for College Entrance Examination Board (CEEB) Advanced Placement

Mathematics Form BC Test. scores of 4 or 5. An A is given for a 5; a B for a 4.
4. If the score on the Mathematics Form $B C$ Test is 3 , the faculty reviews the examination and decides whether or not to grant credit for either Math 1370 or 2342.

## Nursing

Credit for twenty-four (24) semester hours in nursing (lower level) is given after passing an Entrance Examination administered by the BSN program.

## Physics

1. Credit for eight hours in physics (Physics 1401, 1402) is given for College Entrance Examination Board (CEEB) Advanced Placement Physics $B$ or $C$ Test scores of 4 or 5 ' An $A$ is given for a 5 ; a $B$ is given for a 4.

## Advanced Placement based on American College Testing Program Scores

English
A student scoring 26 or 27 on the English section of the ACT may receive three. semester hours credit in freshman English 1301. A student scoring 28 or higher on the English section of the ACT may receive six semester hours credit in freshman English 1301 and 1302. Credit will be given when the student earns at least 6 hours of academic credit at Pan American University.
Math
A student scoring 28 or above on the mathematics section of the ACT may receive three semester hours credit in Mathematics 1340 (college algebra) provided he has completed three units of high school mathematics including one year or one unit of algebra and one year or one unit of geometry. A Student scoring 28 or above on the mathematics section of the ACT may also receive three semester hours credit in Mathematics 1356 (trigonometry) provided that he has completed the following: three units of high school mathematics, including one year or one unit of algebra, one year or one-half unit of trigonometry. The mathematics credit will be given when the student earns at least 6 hours of academic credit at Pan American University.
A student receiving 21 or above on the mathematics section of the ACT may apply to the Office of Admissions and Records for credit in College Algebra upon completion of Analytic Geometry with a grade of " C " or better.
High school seniors anticipating advanced placement should make arrangements with their counselors to take the proper examination. This should be far enough in advance of their first college semester for their scores to be received by the University and to be evaluated by the faculty before first registration period begins. Inquiries and requests for credit should be addressed to the Office of Admissions and Records.

## College Level Examination Program - Subject Examinations

Application forms, examination dates and examination descriptions may be obtained from the Pan American University Testing Center.
Successful completion of a Subject Examination will be recorded on the student's official transcript as credit received - "CR." Unsuccessful attempts to earn credit by examination will not be recorded on the student's official transcript.
The CLEP'Subject Examination List, along with the minimum examination scores for credit and the number of credit hours, are available in the Pan American University Testing Center.

## Advance Standing Examinations

To be eligible to receive credit by means of an Advanced Standing Examination, a student must meet the following conditions:

1. He must satisfy the Department Chair that he has the proper background to qualify for the test over which he desired to be examined. The application for the test must be approved by the appropriate school dean.
2. He must make a minimum grade of " $B$ " in order to receive credit for the course. Successful completion of an advanced standing examination will be recorded on the student's official transcript as credit received - "CR". Application forms may be obtained from the Pan American University Testing Center.

Degree Plan: In general, a student may follow the degree requirements listed in this catalog by the respective Departments of the University, thus planning his own schedule of courses. However, having a Degree Plan on file is a requirement for graduation, and a student is well advised to have the Degree Plan drawn up by his Department Chair on the proper form as soon as possible after the close of the sophomore year, before any advanced courses are taken. This will preclude the possibility of taking courses which will not satisfy requirements for the degree which he seeks. This precaution is particularly appropriate in the case of transfer students and those who have changed their major.
Upon request, the Department Chairs will aid students in preparing Degree Plans that may be required by institutions or agencies other than Pan American University. As an illustration, some public school systems require teachers who have not completed their degrees to file an approved Degree Plan in the superintendent's office.

Dropping a Course: To drop a course a student must execute a formal drop procedure through the Office of Admissions and Records at least two weeks prior to the end of a regular semester and one week prior to the end of a summer semester.
A student dropping a course during the first month of classes ( 10 days in a summer session) will receive a DR on his permanent record for the course that he has dropped. If he drops a course later in the semester, he will be given a grade of DP or DF by the instructor for the course he dropped.
Educational Talent Search: The purpose of this public, nonprofit program which has been contracted to Pan American University by the Department of Education is to encourage and assist students in their quest for a college education after completion of their high school studies.
We provide students throughout the Rio Grande Valley with extensive and specific information on educational opportunities, including college scholarships, grants, and loans for access to higher education. Talent Search advisors assist students in applying for financial assistance; help youths make contact with the college of their choice and cooperate with college personnel in both admissions and financial aid offices in helping students in college placement. Talent Search advisors also help high school counselors in their tasks of acquainting students with career opportunities; as well as lending a hand in helping them register for college placement exams.
Talent Search has accumulated a library which includes all types of information on post-secondary educational programs and the various financial aid opportunities that exists.

Talent Search is open Monday through Friday from 8:00 am to 4:30 pm to offer guidance and assistance to students seeking help in mapping out their plans for the future. Call 381-3651 for more information.
Exclusion of " $F$ " grades: All " $F$ " grades seven or more years old shall be excluded from grade point average computation, except in determining Graduate Admission GPA (See graduate section for additional information).
Faculty Artists Series: During the school year, the Music Department presents a series of performances by regular faculty members along with student recitals. Included in these recitals are pianists, violinists, and professional singers. Also performing for students and the general public is the choir, the PAU Dancers, the stage band, and the Valley Symphony Orchestra.
Family Education Rights and Privacy Act of 1974:
Institutional Policy The Family Educational Rights and Privacy Act of 1974 is a Federal law which states (a) that a written institutional policy must be established and (b) that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that the institution will maintain the confidentiality of student education records.
Pan American University accords all the rights under the law to all students. No one outside the institution shall have access to nor will the institution disclose any information from students' education records without the written consent of students except to personnel within the institution, to officials of other institutions in which students seek to enroll, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, and to persons in an emergency in order to protect the health or safety of students or other persons. All these exceptions are permitted under the Act.

Within the Pan American University community, only those members, individually or collectively, acting in the students' educational interest are allowed access to student education records. These members include personnel in the Office of Admissions and Records, Business Affairs, Student and University Affairs, and academic personnel within the limitations of their need to know.

At its discretion the institution may provide Directory Information in accordance with the provisions of the Act to include: student name, address, telephone number, date and place of birth, major field of study, dates of attendance, degrees, honors and awards received, the most recent previous educational agency or institution attended by the student, participation in officially recognized activities and sports, and weight and height of members of athletic teams. Students may withhold Directory Information by notifying the Office of Admissions and Records in writing during the first twelve(12) class days of a fall or spring semester, or the first four (4) class days of a summer semester.

Request for non-disclosure will be honored by the institution for only the current enrollment period; therefore, authorization to withhold Directory Information must be filed each semester or term in the Office of Admissions and Records.
The law provides students with the right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if they feel the decisions of the hearing panels to be unacceptable. The Assistant to the Vice President for Academic Affairs at Pan American University has been designated by the institution to coordinate the inspection and review procedures for student education records, which include admissions, personal, academic, financial, cooperative education, and placement records. Students wishing to review their education records must make written requests to the Assistant to the Vice President for Academic Affairs listing the item or items of interest. Only records covered by the Act will be made available within forty-five days of the request. Students may have copies made of their records with certain exceptions, (e.g.; an official copy of the academic record for which a financial "hold" exists, or a transcript of an original or source document which exists elsewhere). These copies would be made at the students' expense at prevailing rates which are listed in the current catalog. Education records do not include records of instructional, administrative, and educational personnel which are the sole possession of the maker and are not accessible or revealed to any individual except a temporary substitute, records of the law enforcement unit, student health records, employment records or alumni records. Health records, however, may be reviewed by physicians of the students' choosing.

Students may not inspect and review the following as outlined by the Act: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment or job placement, or honors to which they have waived their rights of inspection and review; or education records containing information about more than one student, in which case, the institution will permit access only to that part of the record which pertains to the inquiring student. The institution is not required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975, provided those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected.
Students who believe that their education records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy or other rights may discuss their problems informally with the Assistant to the Vice President for Academic Affairs. If the decisions are in agreement with the students' requests, the appropriate records will be amended. If not, the students will be notified within a reasonable period of time that the records will not be amended; and they will be informed by the Assistant to the Vice President for Academic Affairs of theirright to a formal hearing. Student requests for a formal hearing must be made in writing to the Dean of Students.
Students who believe that the adjudications of their challenges were unfair, or not in keeping with the provisions of the Act may request in writing, assistance from the President of the institution. Further, students who believe that their rights have been abridged, may file complaints with The Family Educational Rights and Privacy Act Office (FERPA), Department of Health, Education, and Welfare, Washington, D.C. 20201, concerning the alleged failures of Pan American University to comply with the Act.

Revisions and clarifications will be published as experience with the law and institution's policy warrants.
In compliance with P. L. 93-380 Education Amendments of 1974, the following information is provided concerning student records maintained at Pan American University.
I. Areas in which student records are maintained.
A. Academic Records

1. Office of Admissions and Records - David Zuniga
2. Schools, Department and Faculty Offices
3. Foreign Student Advisor's Office - Judy Vinson
B. Student Affairs Records
4. Placement and Testing Office - Derly Guajardo
5. Dean of Students, Foreign Student Advisor, and Housing Director's Office - Judy Vinson
6. Student Health Service Office - Dora Castillo
7. Student Government Office
C. Financial Records
8. Business Affairs Office - William Chess
9. Financial Aid Office - Clementine Cantu
II. Directory Information - This is information which may be released to the general public without the written consent of the student. A student may request that all of the directory information be withheld from the public by making written request to the Office of Admissions and Records during the first 12 class days of a fall or spring semester, or the first 4 class days of a summer term. This request will apply only to the current enrollment period. The following is to be included as directory information:
A. Name
B. Current and Permanent Address
C. Date and Place of Birth
D. Telephone
E. Major (s) or Minors (s)
F. Current Class Schedule
G. Number of Hours Enrolled Current Semester
H. Classification
I. Participation in Officially Recognized Activities and Sports
J. Weight and Height of Members of Athletic Teams
K. Dates of Attendance
L. Degrees and Awards Received
M. All Previous Educational Agencies or Institutions Attended.
III. Review of Record - Any student who desires to review his record may do so upon request to the appropriate office immediately responsible for the record.
IV. Challenge to accuracy of record-keeping - any student who desires to challenge the accuracy of his record should follow the procedure outlined in the Pan American University Student Handbook.
Grade Point Average: The grade point average is computed by dividing the total grade points earned by the total semester hours attempted. (See the sections on Quality of Work: (1) Grading System and (2) Grade Points.) (See Graduate Section for special grade-point calculation method for admission to graduate school.)

## Grading System and Grade Points

The following grades are used to designate achievement in classwork. Their corresponding grade values are indicated.

A - Excellent (4 grade points per semester hour)
B - Good (3 grade points per semester hour)
C. - Satisfactory (2 grade points per semester hour)

D - Below average (1 grade point per semester hour) not applicable to graduate level courses.
F - Failure (0 grade points per semester hour)
P. - Pass (not considered in calculating grade points or hours)

NP - No Pass (not considered in calculating grade points or hours)
I - Incomplete (not considered in calculating grade points)
CR - Credit (not considered in calculating gradepoints, however, hour(s) are |counted in total earned hours)
NC - No credit (not considered in calculating grade points)
DR - Course dropped (not considered in calculating grade points)

DP - Drop Passing (not considered in calculating grade points)
DF - Drop Failing (considered an $F$ in calculating grade points)
W - Withdrawal from school (not considered in calculating grade points)
WP - Withdrawal Passing (not considered in calculating grade points)
WF - Withdrawal Failing (considered an F in calculating grade points)
Grade reports are sent to the student's local mailing address at the end of each semester.
A grade of "I" may be given when a student has not completed the required work of a course within the allotted time of a regular semester or summer term if the instructor 'determines that the reasons for the work being incomplete are valid and that the grade of " I " is justified. A grade of " 1 " must be changed within one regular (fall or spring) semester from the date received, unless an extension is requested by the student's instructor or it will automatically be recorded as an " $F$ " on the official transcripts.
Improper use of the " $I$ " Grade- A student must not be given an " $I$ " grade to permit the student (1) time to prepare course work in addition to that assigned the entire class, (2) time to repeat the entire course, or (3) opportunity to raise a grade for any reason other than the above approyed reasons. Incomplete grades are not issued for student or faculty convenience; they may be issued for the reasons stated above only in the . case of compelling, nonacademic circumstances beyond the student's control.
Graduation under a specific Bulletin: The student may meet the requirements for graduation that are listed in the bulletin of the year in which he enters college or some later bulletin. However, the student must graduate within seven years from the academic year of entrance or he will be placed under the provisions of a later bulletin. Any changes in his degree plan to comply with a later bulletin must be approved by his Department Head and the Dean of his school.

## GRE and GMAT Tests

The GRE and GMAT are administered by the Testing office several times a year. The dates are set by the Educational Testing Service. Applications must be in Princeton, New Jersey, about a month before the scheduled test date. Check with the Testing office for application blanks and exact test dates.
Financial Responsibility: State Universities cannot extend credit, therefore, students are expected to meet financial obligations to the University within the designated time allowed. Registration fees are payable at the time of registration, and students are not entitled to enter class or laboratory until all their fees have been paid. Other charges are due within ten days after a bill is rendered by the University, or according to the special payment instructions that may be printed on the bill. Failure to pay the amount owed in the alloted time can result in the withholding of (1) registration privileges (2) official transcripts, and (3) degrees.
Initial payment of registration fees may be made by personal check, money order payable to Pan American University or cash. Students are advised to exercise care in paying fees by check. (See "Returned Checks") When a bad check for registration fees is returned to theUniversity, a five dollar ( $\$ 5.00$ ) return check service charge is assessed, and the student is given five days from date of notice to make full payment by cash, cashier's check, or money order. Failure to comply can result in cancellation of the student's registration.
Full-Time Undergraduate Student - An- undergraduate student who is enrolled for at least 12 semester hours of credit during a regular semester or at least 6 semester hours of credit during a summer session. (A student officially accepted in the Nursing Program and enrolled for at least 9 semester hours credit in Nursing Education courses shall be considered a full-time student. This does not include students receiving V.A. Educational benefits.)
Full-time Graduate Student - A graduate student who is enrolled for at least 9 semester hours of credit during a regular semester or at least 4 semester hours of credit during a summer session.
Grade Change: If an error in computation, evaluation or recording warrants a grade change, the instructor may process a grade change form through the Office of the Dean of his school. If the grade change is made after graduation, for a course taken prior to graduation, the change request form must have written justification by the instructor, recommendation of the school dean, and be approved by the Council of Deans.

Honor Roll: After each regular semester an honor roll is published listing the names of all full-time undergraduate students who have a grade point average of 3.5 or better for courses taken that semester,
Honors: At graduation, students are listed with "Honors" in accordance with the following standards based on their final over-all grade point average:

Cum Laude - A grade point average of 3.5 to 3.69
Magna Cum Laude - A grade point average of 3.7 to 3.89
Summa Cum Laude - A grade point average of 3.9 or more.
Identification Cards: are issued through the supervision of the Assistant Dean of Students. Use of the student ID card is governed by the following conditions:

1. It remains the property of Pan American University and must be surrendered to any faculty member, administrative official or security officer of the university on demand.
2. It must be presented for:
(a) Any school or faculty sponsored activity.
(b) Admission to all varsity and freshman athletic events.
(c) Identification for cashing checks on the campus.
(d) Authorization to resell books to the Book Store.
(e) Checking out equipment from the University Center recreation room checkout counter.
3. This card is non-transferable. Loss or mutilation must be reported to the Office for Business Affairs, A CHARGE OF \$5.00 WILL BE MADE FOR REPLACEMENTS.

Learning Assistance Center: The purpose of the Learning Assistance Center is to assist PAU students in their efforts to acquire and to develop both the academic and personal skills necessary for successful college work. All services of the LAC are provided to PAU students at no cost.

## Tutoring and Academic Skills. Development

1. Tutoring

Small group and individual tutoring are provided in many freshman and sophomore courses including:

| Biology | History |
| :--- | :--- |
| Chemistry | Math |
| English |  |

2. Mini-Courses

Short Courses lasting between 3 and 6 hours of contact are provided in the following topics.
Exam Review: helps students review material several days prior to major exams
Term Paper: assists students in learning to identify subjects, to use research material, and to organize information.
3. Individualized Learning Materials

Audio-cassette tapes are available for students who want basic instruction in English and reading. In addition, several professors in other areas have provided lectures for students to use. Both cassettes and players can be checked out to students for use on campus.

## Counseling Services

1. Group Counseling

In order to assist students in their social and personal development, group counseling sessions are conducted in the following areas. Group participants are limited to ten students, and groups generally meet once per week for 10 weeks.

## Assertion

Training: helps students develop confidence and express themselves in an assertive rather than an aggressive manner.
Communication: helps participants to become aware of their feelings and to communicate them to others in a coherent manner.

Human
Relationships:

Self Awareness:
Value
Clarification:

Effective
Parenting:
assists students to examine their own feelings, values, and morals when making decisions about dating.
examines the need for self-understanding and allows participants to explore feelings toward the self.
allows participants to explore their own value system and to determine whether their own values are freely chosen or imposed by others.
develops knowledge, skills and attitudes that will lead to more effective parenting.
2. Individual Counseling Students can receive individual assistance in such areas of personal concerns as: home and family matters, interpersonal conflicts; selfconcept; alienation and isolation; and friendships and dating. All information discussed with professional counselors is kept in strict confidence.

## Academic Advisement

The advisement program will assure that students with a wide range of academic abilities are provided"the opportunity to successfully complete their'educational, personal and career goals.
Beginning freshmen are assigned an advisor who will meet with them about three times a year to discuss the student's academic options, personal needs, career goals and help them design a schedule of classes to best meet their needs.

## Orientation

The orientation program is geared to welcome incoming freshmen to Pan American University and to acquaint students with the campus. Students are briefed on college requirements and definitions, and are helped to schedule their first semester's classes.

## Reading Improvement and Study Skills

1. Reading Improvement Course

The Reading-Vocabulary Improvement Course is designed to prepare University students for their academic assignments. The course is an English Department offering and provides the student with 3 hours of credit. The course includes an initial diagnosis of the student's skills using standardized and informal tests. A typical class involves 15 minutes of pre-reading activities, 20 minutes of uninterrupted silent sustained reading, and 15 minutes of follow up exercises and individual skill application. Discussions and lectures cover topics such as the structure and functions of words and sentences, how to deal effectively with the reading in a specific type of course, and useful techniques in taking examinations.
Student participation in reading laboratory adjunct activities is a class requirement. Adjunct activities are diagnostic, prescriptive and individualized according to students' needs. Adjunct activities provide reinforcement and application of vocabulary and comprehension skills presented in English 1310-Reading Improvement.
2. Reading Lab Services

The Reading Laboratory services are also available to any university student who wishes to improve his reading skills. Underlying this aspect of the program is the belief that if the student is determined, he will improve his reading ability with guidance and practice. He may work selectively in improving vocabulary, reading comprehension, or any other area of needs. Each incoming student is given a standardized reading test and based on his score is guided into an individualized reading program. The reading laboratory services are offered to the student at no cost.
3. Study Skills

Assists students in identifying their own strengths and weaknesses in studying, and orients students to other LAC services that can improve study skills.
Maximum Course Load: The normal load for a full time graduate student is nine (9) semester hours. A student may be permitted to enroll for fifteen semester hours with the approval of his graduate advisor and the Dean of the School.

## Name Change

A student may change the full, legal name on his or her permanent academic record by presenting to the Office of Admissions and Records the appropriate documentation. To correct the spelling or the proper sequence of the name, the student must present a copy of his or her birth certificate. To change a legal name to a new legal name, the student must present the proper name change form and a copy of the signed court order showing the authorized new legal name. To assume her husband's name by repute following marriage, the student must present the proper name change form and a copy of the marriage certificate. A female student who wishes to discontinue the use of her married name and resume the use of her former maiden name, or another name, must present a divorce decree or signed court order showing court restoration of the maiden, or other, name. A former student (not currently enrolled) may change a legal name to a new legal name by following the above procedure.
Non-credit Enrollment: A student who enrolls in a course for credit may change his enrollment to non-credit. Any change in credit status must be made through the Office of Admissions and Records not later than one month in a regular semester or ten days in a summer semester from the date classes begin. The student may take tests, have papers graded and receive the same classroom attention given students enrolled for credit, but may not receive credit for the course at the close of the semester.

## Quality of Work

While a grade of $D$ is considered passing in a subject, an overall average of $C$ which corresponds to a grade point average of 2.0 must be maintained by the student if he expects to graduate. Pan American University has certain specific grade requirements also. For example, the student must make a C in his required freshman English courses. He must also make an average of C in both his major and minor fields.
Students who expect to be certified as teachers are required to have a grade point average of 2.25 in both the major and minor fields. This applies to applicants for the elementary certificate and to those planning to teach under a secondary certificate.
Calculation of Grade Point Average. An illustration of the method of calculating the grade point average follows:


Payment of fees as a part of registration: A student is not registered in the University and is not entitled to University privileges until he or she has paid all required fees. A hold against reentry is imposed on a student who fails to pay a debt owed to the University. A person who fails to pay registration fees during the assigned time for registration will have his or her classes cancelled.

## Placement, Testing and Cooperative Education

In a time when heavy academic emphasis is being placed on career oriented programs, Pan American University's Office of Placement, Testing and Cooperative Education is an important component of any student's preparation.
Through this office, students gain a new insight into their future career plans - what the trends are, the different job opportunities, average pay scales, and many other useful pieces of information. A career information center is located in the office and is available to any interested student.
In addition, the Office sponsors a Testing Service, whereby students may take state, national, and special examinations.
The Pan American Office of Placement, Testing and Cooperative Education puts students in jobs in two ways. During a student's college years, the Office will assist them in locating part-time employment. As graduation draws closer, a large number of top employers visit the campus to recruit new employees. Major employers such as Mobil Oil, IBM, National Band Examiners, J.C. Penney's, Exxon, Haskins \& Sells, and Southwestern Bell Telephone, as well as many others, recruit at Pan American.

Placement: A placement credential service and on-campus employment interviews are available for seniors. Special activities are also held for all PAU students and alumni in preparation for the career search. These include Career Day, Teacher Job Fair, Nursing Career Day, Job Interview Skills Seminars, as well as a variety of other activities.
Career Information Center: The Career Information Center houses various sources of occupational information, registers and directories, and information on hundreds of different companies, school districts, government agencies, fellowship/scholarship information and graduate and professional school catalogs.
Student Employment Services: A number of local businesses and agencies contact the office for the purpose of seeking students for part/full-time employment. The Student Employment Service operates a referral system to match these employers and PAU students.
Institutional Testing Service: Pan American University is a test center for numerous national and specialized examinations such as the American College Test (ACT), Graduate Record Examination (GRE), National Teachers Examination (NTE), Graduate Study in Management (GMAT), Test of English as a Foreign Language (TOEFL), Credit by Examination Testing Program (CLEP), Law School Admissions Test (LSAT), Miller's Analogy Test (MAT), General Educational Development Test (GED), the Local Advanced Placement (LAP) tests, and a number of others.
Cooperative Education Program The Cooperative (Co-Op) Education Program at Pan American University offers students an opportunity to gain actual work experience in an area related to the student's, major course of study. Pan Am students should meet the following qualifications:

1. Student must have completed at least 30 hours, but not more than 100 hours;
2. Students must be enrolled at least half-time ( 6 hours); and
3. Students must have a 2.0 or better grade point average.

The Co-Op Program has three options: 1) students may alternate semesters or six month terms of study with semesters or six months of full-time employment with a major corporation or federal agency; 2) students may work part-time and attend school on a full-time or half-time basis; and 3) students may work with major corporations during the summer as summer interns.
The Co-Op student is eligible for academic free elective credit under certain departments. Refer to catalog for course descriptions.
The Co-Op Program offers students an opportunity to:
A. Work in an area related to the student's major;
B. Test their career choices and explore other careers; and
C. Finance part of their education.

American Humanics: The American Humanics Program at Pan American University, provides a unique opportunity for students interested in careers in Youth Agency Administration to receive a specific, practical, educational emphasis in this area. They will include internships, workshops, conferences and field trips with specific courses in fund raising, working with volunteers, community organization and other areas relevant to youth and human-service voluntary agencies.
American Humanics is a national program based on 15 university campuses. The major thrust of the program is to provide selective recruiting, career preparation and placement for those students interested in youth agency administration careers. Scholarships and loans are also available for students interested in this program.
Prerequisite: This term means that specified requirements must be met before one can enroll in a course. Specific prerequisites are listed in course descriptions.

Repeated Courses: When a course is repeated, only the last grade and hours earned are used to calculate the grade point average, except in determining Graduate Admission GPA (See graduate section for additional information.).
Probation: A student is placed on scholastic probation when he fails to achieve the required overall grade point average. A student may be placed on disciplinary probation for infraction of any university regulation. In either case, he must satisfy specific requirements placed on him before he can return to a non-probationary status.
Registration for courses: The only way to become a member of a class is to register for it through the proper registration procedure, or to add a course during the scheduled schedule change period. In either case, the instructor receives the student's name by
official notice from the Registrar and in no other way. A student may not receive credit for a course for which he or she is not officially registered.
Regular Attendance Policy: Regular attendance in all meetings of courses for which a student is registered is expected.
When a student is absent excessively (when in the judgment of the instructor the student has missed more work than can be made up successfully) the student may be dropped from the course with a grade of "DP" or "DF". The Office of Admissions and Records advises the student of the action taken.
A student who enrolls for a course and then does not attend is considered absent from class until he officially drops the course or until he has accumulated an excessive number of absences and is dropped by the instructor.

## Satisfactory Progress

At the beginning of the first regular semester in which a student enrolls with an excess grade point deficiency, the student will be notified that satisfactory progress is not being made and failure to remove the excess deficiency in grade points by the end of the semester will terminate certification of satisfactory progress until such a time as the excess grade point deficiency is removed. This is an addition to the University's scholastic probation and suspension policy stated above.

## Satisfactory Progress for Financial Aid Recipients ${ }^{1}$

## INTRODUCTION

Federal regulations state that students receiving financial assistance under Title IV programs must be maintaining satisfactory progress whether or not the student was receiving financial aid during the period of prior enrollment. It is the institution's responsibility to define satisfactory progress. The institution must certify annually that the student is maintaining satisfactory progress in his course of study.

## POLICY

## Beginning Freshmen

Satisfactory progress for finanicial aid is described as maintaining enrollment status for which they received financial aid during any regular semester. Students may receive financial assistance until the completion of a baccalaureate degree or the minimum semester hours required for a degree within the time frame and increments per year noted below.

## All Other Undergraduate Students and Graduate Students

Satisfactory progress for financial aid is described as maintaining enrollment status for which they received financial aid during any regular semester or not having excessive grade point deficiencies. (See "enrollment status" and "excessive deficiencies" in the definition section.) Students may receive financial assistance until the completion of a baccalaureate degree or the minimum semester hours required for a degree within the time frame and increments per year noted below. Graduate students can receive financial aid according to the time frame given below.
TIME FRAME*
Enrollment Status Years to receive F. A. Undergraduate

| Full-time | 6 years |  |
| :--- | :---: | :---: |
| Three quarter time | 9 years |  |
| Half-time | 12 years |  |
| Combination | Cal. proportionately |  |
|  | (Not to exceed 12 yrs.) |  |
|  | Graduate |  |


| Full-time | 2 years |
| :--- | :---: |
| Half-time | 4 years |
| Combination | Cal. proportionately |
|  | (Not to exceed 4 yrs.$)$ |

*One year equals two semesters. The two summer sessions equal one semester. Attendance one summer session will not count as one semester.


|  | eligible for financial aid. Dropping below enrollment status will result in suspension status once again. |
| :---: | :---: |
| Transfer Students: | Students who transfer into the university will have their transcripts evaluated. If the student is not making satisfactory progress according to university policy, the student will be placed on probation for one semester. |
| DEFINITIONS |  |
| Financial aid: | Includes grants, loans, work-study and need based scholarships. Examples of programs covered by this policy include, but are not limited to: Pell Grant, Supplemental Educational Opportunity Grants, National Direct Student Loans, Hinson-Hazlewood Student Loans, College WorkStudy, Guaranteed Student Loans, Texas Public Educational Grant, Pan American University Scholarships and Tuition Scholarships. |
| Enrollment Status: | Refers to the number of hours a student is enrolled as of the twelfth class day: |
|  | Undergraduate (Regular Semester) |
|  | Full-time 12 semester hours or more |
|  | Three quarter time $9-11$ semester hours <br> Half-time $6-8$ semester hours |
|  | Graduate (Regular Semester) |
|  | Full-time 9 semester hours or more <br> Half-time 4 semester hours |
|  | $\quad$ Undergraduate $/$ Graduate (Summer Sessions) Full-time Half-time |
| Regular Semester: | Refers to the fall and spring terms. Two (2) consecutive summer sessions will be treated as one (1) semester only if the student is attempting to remove financial aid suspension or probationary status. |
| Excessive Deficienc | Excessive deficiencies would be more than eleven (11) for sixty (60) or less semester hours students or more than six (6) for sixty-one (61) semester hour students. Students with excessive deficiencies would not be eligible to enroll according to academic policy. |

## APPEALS

Exceptions to the rule will be reviewed on an individual basis. Appeals will be presented in writing and substantiated by verifiable documentation to the financial aid director. The director will schedule appeal hearings with the Financial Aid Committee at least once a semester.

CANCELLATION OF FINANCIAL AID
Pan American University reserves the right to review and cancel financial aid awards at any time for the following reasons:

1. Failure to maintain satisfactory progress.
2. Changes in the financial status of the recipient or his family.

When a student accepts financial aid, it is understood that the student is aware of the conditions under which the aid is offered and agrees to all necessary requirements.

## Scholastic Probation and Suspension - Undergraduate

1. Scholastic probation or suspension will be determined annually on the basis of the student's cumulative grade point average. The term "grade point deficiency," as used here refers to the number of grade points less than twice the total hours attempted with Drop and Drop Pass hours not counted. The student will be placed on probation for the spring semester if at the time of registration in January:
a. His accumulated hours earned are 60 or less and his grade point deficiency is 12 or more; or
b. His accumulated hours earned are 61 hours or more and his grade point deficiency is six or more.
2. During this semester of probation, the student must remove his excessive deficiency in grade points or be placed on a one year academic suspension September through May of the following year.
3. A student on suspension may not enroll for the next two regular semesters.
4. A student on suspension may enroll for summer sessions to remove excess grade point deficiencies. This can be most efficiently accomplished by only enrolling for courses in which he has earned a low or failing grade.
5. A student on suspension who removes his excess grade point deficiency during the summer will be reinstated as a student in good standing upon applying to the Office of Admissions and Records for reinstatement.
6. If a student who has been suspended for failure to meet scholastic probation requirements feels that unusual circumstances warrant a review of his case, he may direct a written appeal to the Admissions Committee, in care of the Office of Admissions and Records, no later than one week prior to registration. Such a petition should detail his reasons for thinking the circumstances of his case warrant special consideration and should indicate valid reasons why the circumstances will not recur. The Committee will reinstate a suspended student, who has not served the period of suspension, only when it is convinced the best interests of both the University and the student will be served by such action.
Warning: Each student is responsible for knowing whether he is eligible to continue at the University. An ineligible student who nevertheless registers at the University shall be dropped and cannot attend classes; and the student shall not receive special consideration on his plea of lack of knowledge of his scholastic status, regardless of whether he registered or preregistered and paid his fees.

## Scholastic Probation and Suspension - Graduate

Grade points are assigned graduate students as follows: 4 for each semester hour of A, 3 for $\mathrm{B}, 2^{\text {af }}$ for $\mathrm{C}, 0$ for F . ( D is not given.) all grades earned (including those for repeated courses) will be used to compute the gradepoint average. A minimum grade-point overall average of 3.0 ( $B$ ) is required for a graduate degree. Every semester hour of $C$, therefore, must be balanced by one of $A$, since an overall average of $B$ is required for a degree. Should a graduate student make less than a B average in a given semester, he will be placed on scholastic probation and warned that his continuance is in jeopardy. During the following semester or summer school, he must recoup an overall B average or be automatically suspended. He may be readmitted only after petitioning the Dean of the School and receiving his approval and that of the Council of Deans.
Students with other than clear admission are subject to criteria set forth under General Admission Requirements.

## Selection of Courses

The student should plan to satisfy during his freshman and sophomore years not only the General Requirements for a Bachelor's Degree, but any introductory or prerequisite. courses in his major and minor field, as specified by the departments. Also, he must, unless excused by waiver, enroll in one activity course in physical education each semester until he has satisfied these required hours.
Although each of the departments of the University lists many of the specific courses required in the major and minor areas, usually some choice of courses is permitted at the lower level, or at the advanced level, or at both levels. Choice is permitted when hours áre specified as elective hours. While the departments may not specify more than 36. hours in the major field ( 60 hours in the broad-field major) nor more than 18 hours in the minor field, students may take additional hours of work in both the major and minor fields if they wish to use elective hours. The student should develop his own outline of courses which he is required to take, supplementing it with those courses he wishes to take in satisfaction of any elective hours allowed him by his department. Any deviation from courses required must be approved by his department head and by the Dean of his School, and must be incorporated into his Degree Plan. If deviations are made which subsequently are not approved, the student may find that these will merely add hours to his graduation requirements.
Many courses listed in the catalog are not offered every semester. This is particularly the case with upper-level courses. In planning his program the student should ascertain that there is a likelihood that a particular course will be offered during the
semester he plans to take it. Further, he should determine that his planned sequence of courses provides that any prerequisite courses will be taken by the time the course for which they are prerequisite is scheduled to be taken. The same precaution is advised with reference to semester-hour (that is, class standing) prerequisites.
When a student enters this University with the expectation of subsequently transferring to another institution, he should be certain to obtain a copy of the catalog of that other institution and use it as a guide of courses for which he will register at Pan American University. It is his responsibility to check the requirements for his program, though a faculty advisor will be glad to help him interpret requirements of other colleges.
Students who plan to graduate from Pan American University should consult the : catalog sections on: General Requirements for a Bachelor's Degree, Graduation Requirements, and the specific requirements and suggestions listed under their respective schools and departments to insure that all required work is satisfied. The department heads and deans will be glad to help clarify matters about which the student may be uncertain.

It is expected that all beginning freshmen will meet with academic advisors prior to or at the time of actual registration and that they will be counseled concerning the best selection of courses. Deans and department heads are in their offices the week preceding registration for the purpose of advising students about course selections and schedules. Those above the freshman level who can do so are urged to seek advice during the year because of the difficulty of obtaining appointments the week before registration.
Semester Hour: College credit is measured in terms of semester hours. Ordinarily, a class that meets one 50 -minute period per week for a semester will carry a credit of one semester hour. Since the majority of classes meet three periods, or their equivalent, each week, these classes carry three semester hours of credit. Two or three laboratory hours per week are usually required for one semester hour of laboratory credit.

## Student Financial Aid

Financial Aid has changed rapidly in the past couple of years. Despite all the changes, financial aid still plays a vital role at Pan American University. The Work-Study program, Educational Opportunity Grants and Loan programs are still very much alive. Programs such as the Nursing Scholarship and Law Enforcement Educational Program no longer exist. Also, students are now required to show need in order to apply for a Guaranteed Student Loan, whereas before, it was geared toward middle income students.
A large percentage of students are receiving some type of assistance because of the low income area in which the University is located. Tuition and fees are significantly lower than private colleges and equal to, or lower than, most public colleges. This, together with the availability of financial aid funds, makes Pan American University a very reasonable cost institution.

## Financial Aid

## General Information

Pan American University is an equal employment opportunity institution in the administration of its financial aid program. In keeping with this policy, financial aid is extended to students without regard to race, creed, sex, ethnic origin, religion, age or handicap.
An applicant will be approved for financial assistance if he/she meets the following criteria:
a) is a U.S. citizen or permanent resident;
b) has filed an affidavit which states that all funds received from financial aid programs will be used solely for educational or educationally related purposes;
c) is enrolled for a minimum of 12 hours as an undergraduate, or 9 hours as a graduate in each of the regular sessions; or for a minimum of 6 hours in each of the summer sessions. (EXCEPTIONS: Seniors and students enrolled for off-campus field work courses. Also, Pell Grant and. TGSL are awarded to students enrolled $3 / 4$ time or $1 / 2$ time.)
d) is not delinquent on any loan, either long term or short term; and does not owe a refund on any grant program;
e) demonstrates financial need, except when applying for funds from a program which does not call for financial need;
f) is in satisfactory standing, and making satisfactory progress at the university. Satisfactory progress is defined by institutional policy.
Financial assistance will be awarded to all eligible applicants on a first applied, first completed application basis. In the event where two or more completed applications are submitted on the same date, the applicant with the greatest need will be given priority. Application should be submitted to the Financial Aid Office located in Room 108 of the University Center.
Students who receive financial aid and withdraw during the semester are required to reimburse part of their financial aid in accordance with an approved repayment schedule.
There are several sources of student aid: through employment at the University, placement in part-time jobs off campus, scholarships, grants, and loan funds. All applications should be made to the Director of Financial Aid in the University Center building.

## Application Deadlines

Deadline for submission of applications, to insure processing before registration, for the National Direct Student Loan, Educational Opportunity Grants, Work-Study and Hinson-Hazlewood Student loan are as follows:

| Fall Awards | Spring Awards | Summer Awards |
| :---: | :---: | :---: |
| June 1st | November 1st | March 1st |

All applications received after these dates are considered only if money is available to cover the request and, if eligible, will receive the award during the semester. With few.exceptions, one application can and should be used for all assistance. Special application is forwarded upon examination of the general application, or upon request. It is highly recommended that the application process begin in early Spring for the upcoming Fall semester.

## Work-Study Program

The College Work-Study program enables the University to employ a sizable number of students. To qualify for the program a student must satisfy both the economic and scholastic requirements set forth under the program. Employment is available under the Work-Study program both on-campus and off-campus. Students work for an average of 12 hours a week when classes are in session and for a maximum of 40 hours a week during periods of non-enrollment. It is possible to combine the Work-Study program with other types of financial aid in order to help secure adequate finances for a student's university expenses.

## Grants

Pell Grants (formerly Basic Grants): This grant is available by completing an application for Federal Student Aid which is mailed directly to the processing center in Los Angeles. The Financial Aid Office determines the amount of the grant after the U.S. Department of Education has calculated family contribution. Applications are available at the Financial Aid Office. Pell Grants are available to students enrolled for at least half-time. They are not available to students who have already received a Bachelor's degree.
Supplemental Educational Opportunity Grants (SEOG): The Federal Government established this program for students with great financial need. The grant may not exceed $\$ 2,000$ per year, and the minimum that may be awarded is $\$ 200$. Graduate students or undergraduates who have already received a baccalaureate degree are not eligible for S.E.O.G. The actual amount and qualification is determined after the family financial statement, completed on the financial aid application, is processed.
Pan American University Scholarship: This program is designed to provide scholarships from institutional funds to students with exceptional financial need. Up to $10 \%$ of the funds may be allocated to out-of-state students.

## Loans

National Direct Student Loan (NDSL): Recognizing the fact that loans are an increasingly important aspect of financing an education, Pan American University by participating in the N.D.S.L. program, has some funds available with which a student may finance a substantial part of his education. Interest and repayment of funds borrowed begins six months from the last date of attendance, at least half time, in an
accredited institution of higher learning. Applicants are considered on the basis of financial need and demonstrated academic ability. Funds are limited and preference is given to renewal borrowers. Further information and application forms may be obtained from the Financial Aid Office.
Hinson-Hazlewood Student Loan (TOP): The State of Texas, recognizing its responsibilities to the residents of Texas, established this loan program. A student may borrow $\$ 2,500$ per academic year at a low interest rate. Repayment of funds borrowed does not start until the student is no longer attending an accredited institution of higher learning, at least half time, provided that the total amount of the loan is repaid within fifteen years of the date of the first promissory note. Applicants are considered on the basis of financial need and demonstrated academic ability, and must be residents of Texas. Further information and application forms may be obtained from the Financial Aid Office.

Texas Guaranteed Student Loan (TGSL): This loan is handled through the student's local bank or credit union, and it is the responsibility of each applicant to work with the bank to secure the loan. The Financial Aid Office certifies that the student is or has been accepted for enrollment during the period the application covers, and recommends the amount of loan that the student would need in order to meet his educational costs. A student may borrow up to $\$ 2,500$ per year. Additional information and application forms may be obtained at the Financial Aid Office.
College Short-Term Loans: These loan funds have been made possible through donations from a number of individuals and organizations. These funds are administered by the Financial Aid Office and are available to students for short-term loans. Loans are limited to $\$ 198$ per semester and must be repaid within the semester for which said funds are borrowed. The loans are designed to aid students who do not have sufficient funds to pay tuition, purchase books and supplies, and other such items, or to assist students when emergencies arise. A $\$ 2.00$ charge is assessed against each loan.

## Scholarships

There are many scholarships given directly to students from specific organizations in their home towns that are not available for listing at this time. A partial list of these scholarships follows:

TYPE \& NAME
Art \& Music
Music Scholarship
Lemont Wilcox Scholarship

## Business

AICPA
Central Power \& Light
Scholarship
Exxon Scholarship
Mobile Scholarship
Cano Coors Scholarship
Mr. \& Mrs. Rodrigo Gonzalez, Jf. Scholarship
Kraft Foods Co. Scholarship

## Communications

Drama Scholarship
Criminal Justice
Lambda Alpha Epsilon Scholarship
Officer Rosalin Suarez, Jr. Memorial Scholarship
Sheriff's Association of Texas Scholarship
Foreign Students
Good Neighbor Scholarship

## Geology

Magic Valley Gem \& Mineral Society Scholarship

## LOCATION

Music Dept
Financial Aid Office

School of Business
Financial Aid Office
School of Business, (for internship only)
School of Business
School of Business
School of Business
School of Business

Communication Department

Criminal Justice Dept.
Criminal Justice Dept.
Criminal Justice Dept.

International Student Advisor

Physical Science Dept. Mr. Robert Rodgers

## Pre-Engineering \& Related

TAME-Texas Alliance for Minorities in Engineering
Harry Wilcox Scholarship
Veterans
Hazlewood Act
Unrestricted Majors
College Assistance Migrant Program
Haggar Scholarship
Handicapped Scholarship
Honors Scholarship
James Cullen Looney Scholarship
Joe \& Jess Crump Scholarship
Legislative Academic Scholarship
President Leadership Scholarship
Valedictorian Scholarship

High School Counselors
Physical Science Dept.

Financial Aid Office

PAU CAMP Office
Financial Aid Office
Division of Vocational Rehabilitation
Honors Program Office
Financial Aid Office
Financial Aid Office
Financial Aid Office
High School Counselors
or U.C. 105
High School Counselors

Students interested in applying for any of the above scholarships should contact the locations listed for necessary applications and deadlines. In general, application process should be initiated in early Spring for the Fall Semester.

## Student Health Service

Student Health Service, located in Emilia Hall is open five days a week from 8:00 a.m. - 4:30 p.m. and offers the following services.

1. Physician Service-, the Pan American University doctor will be in the Health Service office every Tuesday and Thursday from $1-4$ p.m. and every Wednesday and Thursday from 9-12 a.m. Students must sign in and they must present their ID's. First come, first served basis.
2. Registered Nurses- Registered Nurses' hours are Monday through Friday, 8:00 to $4: 30$. In emergencies, students will be referred to the local hospital. Transportation will be made available if needed.
3. Maintenance of Student Health Records-Student's health and immunization records are kept on file at the Student Health Service office. This serves as a point of reference each time the student consults the Health Service for information or treatment. All records are confidential.
4. Notification of Absences-Call the Health Center when absent from class more than three days due to illness. A notice; not an excuse, will be sent to your instructors.
5. Referral Service-Dentist, and other specialists.
6. Student Insurance-Each student is covered by a limited insurance policy for injuries sustained while in attendance at the University. Forms to be completed in case of injury may be obtained from the Health Service office. (See "Student Insurance" in Business Affairs section for a complete description of benefits.) Optional Medical Surgical Hospital Insurance is available through Student Affairs.
7. Tuberculin Skin Test-Tuberculin skin tests are available to any student wishing to obtain one. They are especially available to those students who wish to meet their student teaching requirements.
8. Loan of medical equipment such as crutches, canes, heating pads, etc.
9. Health and Drug Information-This office is a Health Information Center. Brochures and health films are available on many varied subjects. Students desiring any type of health and drug information should feel free to inquire at the Health Service office. All consultations and information are confidential.
10. Family planning information
11. Approve handicap parking permit applications.
12. Provide tests for mono, diabetes, pregnancies, and V.D.
13. Permission to Administer Preparations-Before a member of the Student Health Service staff may administer to a student a preparation ordered by a private physician, the student must present a signed letter from the prescribing physician containing the following information:
a. the type of preparation;
b. the dosage schedule;
c. any cautions and contradictions to be observed in using the preparation; and
d. the request by and the authorization from the physician for administration of the preparation, together with a statement describing the method of administration.

## Student Housing

On-Campus Housing
Two Residence Halls are provided on the Pan American University campus for housing:
Residence Hall for Women
Residence Hall for Men
192 students

The Residence Halls are air-conditioned and centrally heated for year-around comfort. For reservations and further information contact the Housing Office, University Center, Room 102.

## Linen Service

Arrangements have been made for linen service for those students who want it. The following items will be furnished upon request:
To be delivered each week:

> 2 sheets 1 pillow case 4 bath towels 4 wash cloths

## Cost:

| 1 long-term sem | \$18.00 |
| :---: | :---: |
| 2 long-term semesters | 36.00 |
| 16 -wk. summer seme | . 00 |

1 6-wk. summer semester ..................................................................................... 9.00
2 6-wk. summer semesters..................................................................................18.00
Conditions: Students will be expected to pay for lost linens, burns and unnecessary damage while linens are in their possession. If a student leaves the university within the first six weeks of the semester, a refund of $50 \%$ of deposit will be made. After the first six weeks there will be no refund.

## Rules and Regulations

Dormitory residents must comply with University regulations as stated above and, in addition, are subject to specific regulations governing each dormitory.
Directions for making dormitory room reservations, the schedule of fees, deposits, and other details concerning dormitories will be found under the section of the catalog headed STUDENT EXPENSES.

## Student Insurance

Each student is covered by a limited insurance policy for injuries sustained in attendance at the university or in going directly from home to the university, or from the university directly home. There is protection up to $\$ 1,500$ for death, dismemberment or loss of sight. Medical expenses in excess of $\$ 25.00$ may be paid up to the amount of $\$ 1,500.00$.
Form to be completed in case of injury may be obtained from the Health Service Office at the University and this office has a detailed description of the coverage offered by the policy. These forms must be completed within twenty days of the date of the accident.
The cost of this coverage is included in the student service fee paid by each student.
An optional student health and accident insurance plan may be purchased by students. For further information contact the Student Health Center, Emilia Hall.

## Student Publications

"The Pan American"
Pan American University students write and edit the university's weekly newspaper.
Communications students and others may make contributions and work as volunteers on the staff. Writing, editing and picture-taking usually starts prior to the opening of classes in the fall semester.

Some junior and senior positions on the papers are compensated and volunteer workers are sought as reporters, copy-readers and headline writers. The office is at Emilia Hall 100.

## "Èl Bronco"

El Bronco is the university's yearbook, a publication by and for the students. Writers, editors and photographers are students, many of them volunteers who supplement the paid staff. Volunteers who wish to join the staff may apply at any time at Emilia Hall 100.

## Student Responsibility

Students are expected to inform themselves thoroughly concerning the regulations of the University and the course requirements for degrees and to make inquiries in case of doubt. It shall not be the University's responsibility should complications arise because of failure to follow regulations and requirements. Regulations will not be waived nor exceptions to requirements made on a plea of ignorance of the regulation or requirement. Students, therefore, should become familiar with all of the information related to the program contained in the printed university bulletins.
Procedural changes, as well as changes in regulations and requirements, may be made from time to time after notice to the student body or to the individuals concerned. For this reason, a student is responsible for keeping the Office of Admissions and Records advised on his local mailing address.
The student should work directly with the person in his major department who is assigned the responsibility of supervising his program concerning course requirements and options, deficiencies, degree plan, and special regulations.
Requests to waive regulations and/or requirements should be directed in writitg to the Dean of the School, who notifies the student of the decision on his request.
Students become responsible to deans: Each student, by registering, enters some school or division of the University and, except as to conduct, is thereafter under the jurisdiction of the dean or director of that school or division. This involves jurisdiction over the student's program of study and degree requirements.

## Summer Session

As a part of its regular program, the University offers a Summer Session consisting of two five and one-half week terms. Classes given in the summer are arranged to meet the requirements of students who need to do summer work and are selected on the basis of the requests made by those who are enrolled during the spring term.

## Teaching Certificates

Students may pursue work toward professional'certification simultaneously with work toward a graduate degree.
Candidates for the Master of Education degree should complete the academic requirements for the professional certificate as a classroom teacher, a counselor, an educational diagnostician, a supervisor, or an administrator. Candidates for the Master of Arts or the Master of Science degree should complete the academic requirements for the professional certificate in the major field selected for the degree.
Candidates who already hold the master's degree may qualify for the professional certificate and are particularly urged to do so as their individual educational objectives will be further by professional certification.
Applicants for the professional certificate must hold the provisional certificate, must have completed three years of satisfactory teaching experience (except for the administrator's certificate, which requires only two years of satisfactory teaching experience) and must have completed all of the requirements for the appropriate master's degree. Because the provisional certificate is based upon the bachelor's degree, no more than six semester hours of the work used to obtain the master's degree may apply toward this certificate. These six hours may not also be applied toward the professional certificate.
An application for the professional certificate should be made in the office of the Dean of the School of Education during the semester in which the certification requirements will be completed. Students may not qualify for a professional certificate at Pan American University unless they already hold the master's degree or have also completed all of the requirements for the appropriate master's degree.

## Texas Rehabilitation Commission

The Texas Rehabilitation Commission is a state agency which provides handicapped individuals with services that will enable them to enter or return to gainful employment. Eligibility depends on two criteria: (1) there is a disability (physical or mental) that constitutes or results in a substantial handicap to employment; (2) vocational rehabilitation services may reasonably be expected to benefit the individual in terms of employment. Available services include evaluation, counseling and guidance, interpreter services for the deaf, medical treatment, assistive devices, tuition costs, room, board, and transportation, tools, supplies and licenses, placement and follow-up. For further information contact the Texas Rehabilitation Commission offices in McAllen or Harligen.

## Transcripts

A student may secure an official transcript of his or her Pan American University record at a cost of $\$ 1.00$ per copy. Unofficial copies of transcripts from other institutions are furnished, in accordance with the Texas Open Records Act, upon payment of a fee at the Office of Admissions and Records. The term transcript of records is understood to refer to the recorded results of the student's work in the classroom and is a comprehensive record of an individual's total academic progress at Pan American University. This statement will contain all the important facts pertaining to the student's admission, academic level, and scholarship. No partial or incomplete classroom records (for example, with grades of $F$ omitted) will be given.

Students who owe debts to the University may have their official transcripts withheld until the debts are paid.
V.T.C.A., Education Code, Title One, Section 4.29, provides that "no person may buy, sell, create, duplicate, alter, give, or obtain or attempt to buy, sell, create, duplicate, alter, give, or obtain a diploma, certificate, academic record, certificate of enrollment, or other instrument which purports to signify merit or achievement conferred by an institution of education in this state with the intent to use fraudulently such document or to allow the fraudulent use of such document."
"A person who violates this Act or who aids another in violating this Act is guilty of a misdemeanor and upon conviction is punishable by a fine of not more than $\$ 1,000$ and/or confinement in the county jail for a period not to exceed one year."

## Varsity Athletes

To be in compliance with Division I NCAA eligibility requirements for athletic participation and/or athletically related financial aid, a student athlete must meet the following "progress towards graduation" requirements in addition to the university's grade point progress requirements stated above:

1. Enrollment during each regular semester must not drop below 12 semester hours.
2. Subsequent to the student athlete's first academic year in residence and prior to each term in which a season of competition begins, 24 hours of additional credit required for a baccalaureate degree in a designated program of studies must be accumulated since the beginning of the student athlete's last season of competition.

## Veterans' Program

Veterans Cost of Instruction Program
The Veterans Cost of Instruction Program (VCIP) provides the following services:
A. Information and referrals
B. Individualized V.A. tutoring
C. Income verification
D. Explanation of educational benefits
E. Assistance with V.A. educational benefit applications.

## G.I. BILL EDUCATIONAL BENEFITS

(G.I. bill rates are subject to change by Congressional Legislation)

|  | Credit Hours Graduate Hour Equivalents in Parenthesis Reg. Sem. | Sum. Sem. | No dependent | One dependent | Two dependents | Each <br> addit. <br> depen- <br> dent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Full | 12 Hours (9) | 4 Hours |  |  |  |  |
| Time | or More | or More | \$342 | \$407 | \$464 | \$29 |
| $3 / 4$ Time | 9.11 Hours (6) | 3-Hours | \$257 | \$305 | \$348 | \$22 |
| $1 / 2$ Time | 6-8 Hours | 2 Hours | \$171 | \$204 | \$232 | \$15 |

## Withdrawal

To withdraw from school a student must execute a formal withdrawal procedure through the Office of Admissions and Records at least two weeks prior to the end of a regular semester and one week prior to the end of a summer semester.
A student withdrawing during the first thirty days ( 10 days in a summer session) will receive a " $W$ " on his permanent record for each course in which he was enrolled. If he withdraws later in the semester, he will be given a grade of "WP" or "WF" by the instructor for each course in which he was enrolled.

# The University College/ General Education Requirements 

## A Liberal Arts Education

Your education at Pan American University will be better measured by the skills you learn and the knowledge you gain than by the number of credit hours you take. We want you to improve your abilities to analyze, synthesize, determine values, use and understand mathematics, and communicate. No matter what subject you choose to major in, you will be required to complete courses in fields that reinforce those skills.
To understand Pan American's University College/General Education requirements you should understand the goals we have set for you. These are the characteristics we want you to gain from your work and study here.

## The Goals of a Liberal Arts Education

1. An inquiring attitude which acknowledges the many-sided nature of most important questions, recognizes the need to examine inherited judgments, and reveals a desire for continued learning and creative expression.
2. Competence in the processes of learning, including the ability to read and listen, a knowledge of logic and scientific method, and the mental self-discipline needed for rigorous, critical analysis and synthesis of facts and ideas.
3. The ability to use words and numbers accurately and effectively, and communicate clearly through spoken and written word as well as through the symbols of mathematics.
4. A historical perspective provided by familiarity with the most significant events, people and achievements of the past; an understanding of the most enduring ideas and values in human history and a knowledge of the many ways these are expressed in world cultures and in social, political and economic institutions.
5. A general knowledge and appreciation of nature, science and technology.
6. A general knowledge and appreciation of the fine and performing arts and of literature.
7. An understanding of self, along with the empathy for the strengths, weaknesses, rights and needs of others, as well as the ability to relate to others with human understanding.
8. An appreciation for the responsibilities of the individual to family and society; skill in serving as a constructive member in groups and organizations; sensitivity to the need for informed, independent moral and ethical decisions.
9. Knowledge of the economic and geographical interrelationships of regions and nations and their resources.
These are the goals of a liberal arts education. These are the qualities that distinguish a liberally educated person. These are the skills and characteristics that we hope to nurture in our students through the University College/General Education Requirements.

## The University College and General Education Requirements

The University College and General Education Requirements apply to all students who enter Pan American University in the Fall semester of 1984 or thereafter. Together, the requirements total 60 semester credit hours of work in the humanities, the social sciences, the natural sciences, and mathematics. These 60 hours must be completed before graduation. Thirty of these 60 hours must be completed within your first 60 hours of college work.

## General Requirements

## HUMANITIES (24 hours)

A. 6 semester hours of Freshman English
B. 6 semester hours of Sophomore Literature
C. 6 semester hours of the same foreign language
D. 6 semester hours from two of these areas: the arts, communication, and philosophy
SCIENCE AND MATHEMATICS (11 hours)
A. 3 semester hours of Math 1335 or higher level mathematics
B. 8 semester hours of a laboratory science

## COMPUTER LITERACY

A. 3 semester hours

## PHYSICAL EDUCATION

A. 4 semester hours of physical education or ROTC 1200 through ROTC 2299

SOCIAL SCIENCE (18 hours)
A. 6 semester hours of American History
B. 6 semester hours of American and Texas government
C. 6 semester hours from any two of these areas: anthropology, economics, psychology, sociology
The University College requirements constitute any 30 hours of the 60 hours of requirements listed above. These 30 hours must be completed in your first 60 hours of college-level coursework. The remaining 30 hours constitute the General Education requirements and must be completed before graduation.
Junior level students may begin taking upper-division courses - those on the junior and senior levels - once they have completed their first 30 hours of the UC/GE requirements with at least a 2.0 grade point average. Students who fail to complete 30 hours of the approved courses in the UC/GE requirements with a 2.0 average may not enroll in other courses until they do so.
All students must earn 6 hours of Freshman English and 3 hours of mathematics in their first 30 hours of UC/GE coursework and they will not be allowed to take upperdivision courses until they do. Students must register for Freshman English and mathematics every semester until they satisfactorily meet those requirements with at least a grade of C ( 2.0 grade point) in each course.

## Transfer Students

Transfer students with 30 or more hours but without the UC/GE approved courses or courses deemed comparable by Pan American University, may take upper-division courses if otherwise qualified, but they too must complete all UC/GE requirements before graduation.

Transfer students who lack six hours of Freshman English or equivalent and 3 hours of mathematics with grades of at least $C$ in each course must complete these requirements within their first two semesters at Pàn American University.

## Specific Courses That Meet the University College/General Education Requirements

A. Humanities ( 24 Hours)

1. English - 6 hours of Freshman English

Eng 1301 and 1302 (Eng 1387 and 1388 for the Honors Program)
Eng 1406 for foreign students replaces Eng 1301.
2. English - 6 hours of literature

Eng 2301, 2302, 2303, 2305, 2307, 2308, 2313. (Eng 2387 and 2388 for the Honors Program.)
3. Language Other Than English - 6 hours in the same language.

Fr 1321, 1322 or higher level courses.
Ger 1331, 1332 or higher level courses.
Por 1361, 1362 or higher level courses.
Span 1301, 1302, 1303, 1304 or higher level courses.
4. General Topics - 6 hours to be selected from 2 of the following 3 areas:
a. Area 1: The Arts

Art 1301, 3381
Comm (Theatre) 2312
Music 1301, 1302, 2307, 3311
b. Area 2: Communications

Comm (Speech) 1303, 1313
c. Area 3: Philosophy

Phil 1310, 1320, 2330, 2380
B. Mathematics and Science (11 Hours)

1. Mathematics ( 3 hours)

Math 1335* or higher level course
2. Natural Science ( 8 hours in same discipline)

Astr 1401 and 1402
Biol 1405 and 1406,1401 and 1402
Chem 1401 and 1402
Geol 1401 and 1402
Phys 1401 and 1402, 1405 and 1406
PSci 1401 and 1402, 1403 and 1404
C. Computer Literacy (3 Hours)

CIS 1301 or an appropriate computer course.
D. Physical Education (4 Hours)

Any 2 PE activity courses or equivalent Military Science courses. Students excused from PE courses or equivalent Military Science courses must take H.E. 2372.

1. State Requirements (12 Hours)
a. History (6 hours)

Hist 2313 or 2333, 2314 (2387, 2388 Honors Plan)
b. Political Science ( 6 Hours)

Gov 2313, 2314 (Gov 2387 and 2388 Honors Plan)
2. 6 hours to be selected from 2 of the following 4 areas:
a. Anthropology

Anth 1313, 1323, 2323, 2353
b. Economics

Eco 1301, 2353
c. Psychology

Psy 1313, 1323 (1387, 1388 Honors Plan)
d. - Sociology

Soc 1313, 1323, 2333

## Suggested Course Sequence for University College and General Education Requirements

## Freshman Year

| First Semester: |  | Second Semester: |  |
| :--- | ---: | :--- | ---: |
| Course: | Credits: | Course: | Credits: |
| English 1301 (1) | 3 | English 1302 (1) | 3 |
| Math 1335 (1) | 3 | Computer Literacy | 3 |
| Foreign Language | 3 | Foreign Language | 3 |
| Humanities | 3 | Humanities | 3 |
| Social Sciences | 3 | Social Sciences | 3 |
| P.E. (2) | 2 | P.E. (2) | 3 |
| Total | 17 | Total | 17 |

Total credit hours for the UC/GE requirements to be taken during the Freshman year: 34

## Sophomore Year

| First Semester: |  | Second Semester: |  |
| :--- | ---: | :--- | ---: |
| Course: | Credits: | Course: | Credits: |
| Science | 4 | Science | 4 |
| Political Science | 3 | Political Science | 3 |
| History | 3 | History | 3 |
| Literature | 3 | Literature | 3 |
| Total | 13 | Total | 13 |
| Other | $3-6$ | Other | $3-6$ |
| Total |  | $16-19$ | Total |

Total number of credit hours to be taken for the UC/GE requirements during the Sophomore year: 26.
Total for the UC/GE requirements: 60.
(1) All students must pass English 1301. 1302 and Math 1335 or their equivalants with a " C " average in the first 30 hours of UC/GE work to proceed to upper level classes. Students must register in these classes every semester until they have met these requirements.
(2) P.E. can be taken at a later time if student must start a major during the Freshman year.

## The Freshman Studies Program

In college, in a career, in everyday life, the basic skills of reading, writing, and mathematics are essential. It is difficult to succeed without these skills. The Freshman Studies Program helps students improve their basic skills so they will be better prepared to succeed in college, in a career, and in everyday life.
In addition to work in mathematics, reading, and composition, the Freshman Studies program helps students study and think about career possibilities and helps them build up the study skills they need to succeed in their later college coursework.
Students will be selected for the Freshman Studies Program on the bases of their scores on standardized tests and their performance in high school and prior academic work.

# Academic Programs <br> College, Schools, Departments, and Courses of Study 

## The College of Arts and Sciences

Dr. Ernest Baca, Dean

The College of Arts and Sciences includes disciplines traditionally considered to be the liberal arts in American higher education. It includes the Departments of Art, Biology, Chemistry, Communications, Criminal Justice, English, Foreign Languages, History, Mathematics and Computer Science, Military Science, Music, Physical Sciences, Political Science, Psychology, and Sociology and Social Work. Degree options are explained in detail in the departmental descriptions that follow this section of the catalog.

All Pan American students, regardless of major, are required to get a broad, or liberal, education. The term "liberal arts" comes from classical usage by the early Greeks and Romans, from a time when only free men were allowed to study such subjects. Hence, the word "liberal" relating to freedom or liberty. The classical liberal arts included seven subjects: grammar, logic, rhetoric, arithmetic, geometry, music, and astronomy. The modern term encompasses much more. We encourage you to read and to think about the goals of a liberal arts education that we have listed on page 60. These are also the goals of the College of Arts and Sciences.

## The School of Business Administration

Dr. F. J. Brewerton, Dean

The School of Business Administration at Pan American University was established in 1965 to offer professional training in business. The number of students enrolled in the School has grown to about 2,500 .
The undergraduate programs of the School of Business Administration are fully accredited by the American Assembly of Collegiate Schools of Business.

## Statement of Objectives

The primary purpose of the School of Business Administration is to provide professional academic training which prepares its graduates for administration of private and public institutions and organizations both nationally and internationally. In addition, the school exists and is organized to provide for the research and service needs of the various publics it serves.

Pan American University is a regional university located in the center of diverse cultures and economies that directly influence the programs of the School of Business Administration. The primary service-area of the institution is a region of south Texas known as the Lower Rio Grande Valley, which is characterized by low levels of income and educational achievement. This region, covering an area of more than 4,000 square miles, is populated by approximately 440,000 people, primarily of Hispanic origin, and is economically and culturally distinct from the remainder of the state and nation. The local economy depends primarily upon agriculture, tourism, trade and government activfities. The business establishments are typically small and frequently operated by persons with limited levels of educational achievement and entrepreneurial skills. These factors have caused the School of Business Administration to develop programs and curricula which recognize this unique situation, capitalizing upon its strengths and compensating for its limitations.

The basic purpose of this university is to help perpetuate the best of American cultural heritage and to blend with it the outstanding features of Latin American culture. The academic program of the School of Business Administration supports this philosophy by providing its students with a broad foundation in the Liberal Arts and Sciences in addition to specialized professional business curricula. This training enables our students to cope with the varied demands of business and society while recognizing the unique environmental characteristics of the institution and its constituents. As a professional school, several additional goals are recognized as necessary in the development of graduates from this area to fulfill their role in society. They include:

## - The development of a critical thinking ability coupled with a logical problem

 solving approach.- The development of a professional attitude and an appreciation of the role of business and business-persons in a free enterprise economy.
- The development of basic quantitative skills and the expansion of analytical abilities.
- The development of basic written and oral communications skills.

The regional nature of the University and its obligation to serve the needs of the Lower Rio Grande Valley are recognized and emphasized in the research and service functions of the School of Business Administration. Student and faculty research is focused on regional concerns. Programs, short courses and seminars are conducted for the area business community and governmental agencies as needs are recognized.
In 1975, the Master of Business Administration degree program was established and a new Business Administration Building was completed. The School conducts research for state, county and city agencies and private firms and holds short courses, seminars and workshops for business and governmental agencies. These non-credit programs have served thousands of persons in the Valley and have provided opportunities for students to work for and with the business world.

Other special programs and activities enrich and augment the regular curriculum of the School. Among such programs are a Small Business Institute and an Executive-inResidence.
Chapters of Alpha Kappa Psi, a professional fraternity and Beta Gamma Sigma, a national honor fraternity are open to all business administration majors. $\mathrm{Pi} \mathrm{Omega}^{\mathrm{Pi}}$, a national honor society for business education is also on campus. A chapter of Data Process Management Association (DPMA) is open to business and CIS majors.

A Business Advisory Council, composed of 15 business leaders, provides assistance and advice for the school, serves as a liason with the business community, and helps provide job opportunities for graduates and a foundation for financial support for the School.

## Business Advisory Council - 1984

Mr. Thomas Backus, Manager of Plans \& Controls
International Business Machines Corp. Corporation - Austin
Mr. Frank Birkhead, Executive Vice President
McAllen Industrial Board - McAllen
Mr. H. E. Butt, III, Division Manager
H.E.B. Food Stores - McAllen, TX

Mr. William P. Cameron, Vice-President
Gulf Oil Corporation - Houston, TX
Mr. Eddie Cano, President
Cano Coors Distributing Co. - McAllen
Mr. Carl S. Chilton, Certified Public Accountant
Long, Chilton, Payte \& Hardin - Brownsville
Mr. Mike Frost, President
McAllen Fruit \& Vegetable Company - McAllen
Mr. Joe G. Garza, President
Valley Federal Savings \& Loan - McAllen
Mr. Ruben Hinojosa, Executive Vice-President
H \& H Meats - Mercedes, TX
Mr. Gasper Mir III, Certified Public Accountant
Peat, Marwick, Mitchell, \& Co. - Houston
Dr. Darrell Piersol, Associate Dean, School of Business Administration Southwest Texas State University - San Marcos, TX
Mr. Mark L. Rigg, Vice President of Human Resources
The Southland Corporation - Dallas

## Mr. Glen Roney, President

McAllen State Bank - McAllen
Mr. L. L. Rudd, Employee Relations Advisor
Mobil Oil Corporation - Dallas
Mr. Ron Wornick, Owner
Right Away Foods Corporation - McAllen, TX

## The School of Education

Dr. Peter Garcia, Dean

## Statement of Mission

The School of Education, recognizing its unique multi-cultural setting, supports the written purposes of Pan American University and commits itself to:

- Preparing, through exemplary teaching, professional educators at the graduate and undergraduate levels for positions at local, state, and national levels.
- Engaging in research designed to improve the quality of education.
- Providing continuing education activities, both credit and non-credit, for educational practitioners.
- Fostering cooperation with local schools by implementing the concepts of teacher centering.
- Assisting local schools by engaging in consultative activities.
- Demonstrating program quality by maintaining accreditation from the National Council for the Accreditation of Teacher Education and the Texas Education Agency.
- Encouraging faculty to serve as officers and participants in local, state, and national professional educational organizations.
- Providing students with relevant advisement and counseling and sponsoring honor societies and clubs.
- Cooperating with other divisions/schools of Pan American University in the achievement of institutional goals.
The School of Education includes the Department of Curriculum and Instruction Elementary and Secondary, the Department of School Services and Counseling, the Department of School Administration and Supervision, and the Department of Health, Physical Education and Recreation.

The School offers a Bachelor of Science degree in Elementary Education, Secondary Education, Physical Education, and Health Education. Students are encouraged to see the Departments early in their program for specific degree requirements and development of degree plans.
The School of Education also offers a Master of Education degree with specialization in Elementary Education, Secondary Education, Reading, Educational Diagnostician, Bilingual Education, Counseling and Guidance, Educational Administration, Supervision, and Physical Education.
The graduate programs in education are intended primarily for personnel in public schools, but the knowledge and skills are applicable to other agencies (social, community, city, state, federal, etc.). A student may complete some M.Ed. programs at PAU without meeting all the specific certification requirements. However, the eighteen (18) semester hours of undergraduate education requirements may not be waived. Please consult with the director of each program for more specific guidelines and information.

Credit for a 5000 level course is not given to a student with previous undergraduate credit in a similar course.
All programs in the School of Education are fully accredited by the National Council for Accreditation of Teacher Education and the Texas Education Agency.

## Certificate Requirements for Teachers

Teachers in Texas elementary and secondary schools are required by law to hold a valid Texas teacher's certificate for the grade level, specialization area, or position to which they are assigned.
Prospective secondary school teachers are required to have 24 hours of credit in each of two teaching fields. Prospective elementary majors must have a second field with 18 to $\mathbf{2 4}$ hours credit. The Head of the Department of specialization or the Heads of the Departments of Curriculum and Instruction - Elementary and Secondary Education and Department of School Services and Counseling should be consulted for specific course requirements. Please note that Ed 2100 is a prerequisite to all teacher education courses.

## Texas Testing Requirements:

-ADMISSIONS:
"To be admitted to an approved teacher education program, students must achieve a satisfactory level of performance on a competency examination of basic skills. The basic skills areas have been identified as mathematics, reading, and writing/ composition. The Pre-Professional Skills Test by Educational Testing Service shall be the test of basic skills required as a criterion for admission into an approved teacher education program. This requirement shall apply to all persons admitted into an approved teacher education program after May 1, 1984."

## CERTIFICATION:

"Beginning May 1, 1986, in order to be approved for the provisional or professional teacher's certificate, the superintendent's certificate, or other administrative certificates, persons, including those holding a valid out-of-state certificate, shall be required to achieve a satisfactory level of performance on an examination prescribed by the State Board of Education."

## Criminal Records:

## NOTICE:

"In accordance with Article 6252-13c, Texas Civil Statutes, the Texas commissioner of education may suspend or revoke a teaching certificate, or refuse to issue a teaching certificate for a person who has been convicted of a felony or misdemeanor for a crime which directly relates to the duties and responsibilities of the teaching profession."
All potential certificate applicants with criminal felony or misdemeanor convictions should contact the Certification Officer immediately to seek clarification of their certification status.

## Admission to Teacher Education

Effective May 1, 1984, a student must meet the following criteria for Clear Admission to the Teacher Education Program in the School of Education:

1. Must satisfactorily pass reading, writing and mathematics of the PreProfessional Skills Test as approved by the State Board of Education.
Minimum Scores on P-PST: (Subject to change by State Board)
Reading 172
Writing 173
Mathematics 171
2. Junior status or above ( $60+$ semester hours).
3. Minimum 2.0 GPA' in major, minor, and over-all.
4. Completion of the "core" course requirements for students admitted to Pan American University Fall, 1981 thru August 30, 1984. Completion of University College course- requirements for students admitted to Pan American University after September 1, 1984.
5. Ed. 2100 - Admission to Teacher Education
6. No more than six semester hours of upper division professional education courses.
7. Transfer students must delay application until successful completion of above requirements.

A student may apply for Admission to Teacher Education at any time after completion of $60+$ semester hours.
Application for Admission to Teacher Education may be filed at the Teacher Education Office in the School of Education.

## The Teacher Education Committee

The committee is made up of faculty members from the School of Education and from appropriate departments of the other Schools of the University.
To be recommended for certification to teach in the State of Texas, students completing their work at Pan American University will be evaluated and approved by the Teacher Education Committee. The Teacher Education Committee not only formulates policies for the admission of students to the teacher education program, but also approves course offerings in the various teaching fields and the professional preparation for certification.
The Teacher Education Committee will review a student's application for Admission to the Teacher Education program and the recommendation of the department head of his major field and inform the student that he/she has (a) Clear Admission or (b) has been Denied Admission.
A student denied Admission to Teacher Education may re-apply for admission after he/she has removed the deficiencies which were noted.
Students pursuing a B.S. degree in Elementary or Secondary Education under the 84-85 catalog and thereafter will be required to complete 6 semester hours of student teaching as part of their degree/certification requirements. There will notbe any substitutions allowed for these hours.
As of January, 1984, no deficiency plans for new non-degreed education majors will be granted. Only those students who are already under an emergency permit and require a second year permit will be provided with a deficiency plan. These students will be permitted to graduate non-certified.
It shall be understood that approval of an application does not constitute subsequent recommendation on the part of the University for a certificate to teach. Such recommendation is contingent upon continued demonstration of promise as a prospective teacher and completion of the certification requirements both in professional education and in the major and/or minor teaching field.

## The Pan American University Local Cooperative Teacher Center Advisory Board

This council is made up of college personnel and members of the faculties in the public schools in the area. The purpose of the council is to advise the School of Education and the Teacher Education Committee regarding admission requirements, course offerings, new programs, and student teaching.
Dr. Peter A. Garcia, Dean, School of Education, Pan American University
Dr. Ana Maria Rodriguez, Chair, Department of School Services and Counseling, Pan American University
Director of PAU Teacher Center, Pan American University
Mr. Jose Peralez, Superintendent, Edinburg C.I.S.D.
Mr. Augusto Guerra, Superintendent, PSJA I.S.D.
Dr. Bruce Hawkins, Region I Education Service Center, (temporary)
Mr. Jose Edin Garcia, T.S.T.A. Representative, Memorial 9th Grade School, PSJA
Ms. Maria Alaniz, A.T.P.E. Representative, Wilson Elementary School, McAllen
Ms. Juanita Atwood, C.T.A. Representative, Freddy Gonzalez Elementary School, Edinburg
Mr. Lauro Guerra, Executive Director, Region I Education Service Center, Edinburg

## Graduate School Requirements by the School of Education

In addition to the general admission requirements set out elsewhere in this bulletin, the following specific requirements must be met:

1. Applicants for admission will be required to have completed eighteen semester hours of undergraduate work in their proposed graduate major field. These eighteen hours will include a minimum of twelve hours of advanced work. Each minor graduate field presented will require
evidence of completion of twelve hours of undergraduate work, of which six must be advanced hours.
2. The choice of courses in the major and minor fields, as well as the nature of the supporting work, will be determined through consultation between the student and his graduate advisor.
3. Requirements for admission to certification programs in Educational Administration are specifically outlined in the Educational Administration section of this catalog.
4. Satisfactory completion of an oral examination following the completion of twelve-eighteen (12-18) semester hours of graduate work.
5. Satisfactory completion of a written comprehensive examination at the end of the program.
6. The student must also complete any specific admission, program, and exit requirements by the program he/she wishes to pursue.

# Department of <br> Accounting and Economics 

## Accounting

## Full-time Faculty

Carter, Forest C. (DBA, Indiana 1962; CPA; prof.) Accounting
Kettering Ronald C. (DBA, Louisiana Tech 1977; CPA; CMA; CIA; prof.) Accounting
Nichols, Richard G. (MBA, Texas A \& M 1967; CPA; asst. prof.) Accounting Reese, Craig E. (PhD, Texas 1979; prof.) Accounting Strong, Charles R. (PhD, Alabama 1972; CPA; prof.) Accounting Yundt, Charles L. (MBA, Chicago 1960; asst. prof.) Accounting
The Department of Accounting and Economics offers the BBA degree with a major in Accounting or Economics. In addition, the Department offers a BA degree and a minor in Economics. A major in Accounting is designed to prepare graduates for entry-level positions in both private and public accounting. The degree entitles a graduate to take each of the accounting certification examinations; CPA, CMA, CIA, depending on the graduate's interest. Since each examination is structured to test the candidates over a broad range of accounting topics, students should seek advice from the accounting faculty to select elective courses that will aid their satisfactory completion of certification requirements. Students majoring or minoring in economics may seek careers in government or business.

The coursework leading to the BBA degree in Accounting or Economics is classified as follows:

| A. University College/General Education and |  |  |
| :--- | ---: | ---: |
| Business Foundation Courses | 76 hours |  |
| B. Business Core Courses | 33 hours |  |
| C. Specialization (Major) Courses | $24-30$ hours |  |
|  |  | $133-139$ hours |

## University College/General Education \& Business Foundation Courses

Course

Hours

English - 1301, 1302 plus 6 hours of sophomore literature 12
GENB 1331
3
CIS 1301
ECO 2353, 2354
ACC 2421 plus 2322 or 2329
in
oreign Language - 6 hours in same language6

COMM 1303
Math 2316, 23176
Natural Science - 8 hours in same discipline ..... 8
History 2313 or 2333 plus 2314 ..... 6
Political Science - POLS 2313, 2314 ..... 6
PE - 4 hours - any 2 courses ..... 4
3 hours from: ANTH 1313, 1323, 2323, 2353PSY 1313, 1323, SOC 1313, 1323, 23333

3 hours from: ART 1301, 3381, COMM 2312 MUSIC 1301, 1302, 2307, 3311, PHIL 1310, 1320, 2330, 2380

## Business Core

Course HoursFINA 33833
GENB 3335, 3337, 4330, 4369 ..... 12

MANA 3341, 3342, 3361, 3390, 4363
MARK 3371

NOTE: A student must make either a " C " grade in each of the following five courses or a 2.25 GPA in them before enrollment in 3000 or 4000 level courses in business is allowed.

CIS 1301, ECO 2353, 2354, ACC 2421 and 2322 or 2329

## Degree Requirements

## Major in Accounting

The admission and graduation requirements for an accounting major involves two steps: First, all students desiring an accounting degree must initially specify "PreAccounting" as their major. This designation would be effective for all changes in major; transfer students, special students, and entering freshmen. Second, the student then applies to the Accounting Admission Committee for a change to "Accounting" major status when the following guidelines are met:

1. Applicants must be in good academic standing (nonprobationary status).
2. Applicants must have completed at time of application at least ten semester hours of accounting, including Acc 2421, 2322 and 3321, with an accounting grade point average of 2.2 for all accounting courses taken at the time of application.
3. Admission of the applicant to the accounting concentration will be determined by the Accounting Admission Committee or their designated representative(s).
4. Students who have been denied admission to the accounting program can appeal to the dean of the School of Business Administration according to his appeal requirements.
In addition to the General Education and Business Foundation courses and the Business Core requirements, accounting majors must have an average grade point of at least 2.5 in all accounting courses taken in order to graduate.
General Education and Business Foundation, and Business Core Courses

ACCOUNTING SPECIALIZATION COURSES
ACC 3321 Intermediate Accounting I
ACC 3322 Intermediate Accounting II
ACC 3323 Income Tax Procedure
ACC 3324 Cost Accounting
ACC 4320 Advanced Accounting I
ACC 4323 . Contemporary Accounting Theory
ACC 4324 Auditing
CIS 2310 Cobol Programming . 24 hours
ACCOUNTING ELECTIVES* - Select 6 hours from:
ACC 3325 Fund Accounting
ACC 3326 Accounting Information Systems
ACC 3328 , Advanced Cost Accounting
ACC 4321 Advanced Accourting II
ACC 4327 Auditing II
ACC 4329 Advanced Income
Tax Procedure 6 hours $\quad 30$ hours
Total Requirements
139 hours

[^5]
## Course Descriptions

## Accounting

## ACC 2421 PRINCIPLES OF ACCOUNTING I

## Fall, Spring, Summer

An introduction to basic accounting with a balance sheet approach. The accounting cycle is emphasized to promote an understanding of accrual accounting. The primary emphasis is on accounting for the sole proprietorship. Course content: Lecture, three hours per week; mandat lab, two hours per week.
Prerequisite: Three semester hours of college math with a grade of " C " or better.

## ACC 2322 PRINCIPLES OF ACCOUNTING II

Fall, Spring, Summer
Designed to introduce the student to professional accounting. Subsequent to an intensive review of the accounting cycle, emphasis will be placed on partnership, corporate, and debt equity. Additional areas include statements of changes in financial position, introduction to manufacturing components, analysis of financial statements, and other related topics. Prerequisite: ACC 2421 with Grade "C" or better.

## ACC 2329 MANAGERIAL ACCOUNTING

Fall, Spring, Summer
Emphasis upon implementation of accounting data, ratio analysis, fund statements, cost and budget projections, variance analysis, and relevant accounting tools for managerial decision making. Designed for non-accounting majors. (This course will not count toward accounting major requirements.)
Prerequisite: ACC 2421.

## ACC 3321 INTERMEDIATE ACCOUNTING I

## Fall, Spring, Summer

The accounting process and financial statements; present value concepts; a detailed study of current assets and current liabilities; property, plant and equipment; intangible assets.
Prerequisite: ACC 2322 and Math 2316 with a grade of " $C$ " or better.

## ACC 3322 INTERMEDIATE ACCOUNTING II

## Fall, Spring, Summer

A continuation of Intermediate Accounting I; long-term liabilities; long-term investments; capital structure and earnings per share; pension costs; leases; statement of changes in financial position. Prerequisite: ACC 3321 with a grade of " C " or better.

## ACC 3323 INCOME TAX PROCEDURE

## Fall, Spring, Summer

Analysis of federal tax laws, emphasis being placed on the determination of net taxable income and the preparation of income tax returns for individuals.
Prerequisite: ACC 2322 or ACC 2329 with a grade of "C" or better.

## ACC 3324 COST ACCOUNTING

## Fall, Spring, Summer

Basic cost accounting concepts and techniques, with an emphasis on providing information for management decision-making. Topics include job and process costing, cost-volume-profit analysis, budgeting, standard costs and variance analysis, direct costing, cost behavior, discretionary costs, and relevant costs.
Prerequisite: ACC 2322 or ACC 2329 with a grade of " $C$ " or better.

## ACC 3325 FUND ACCOUNTING

On Demand
The special features of fund accounting as applied to not-for-profit entities, municipalities, school districts, and other governmental units.
Prerequisite: ACC 2421 with a grade of " $C$ " or better.

## ACC 3326 ACCOUNTING INFORMATION SYSTEMS

On Demand
Basic concepts and techniques associated with the analysis, design, and installation of manual and computerized accounting information systems.
Prerequisite: ACC 2322 or ACC 2329 with a grade of "C" or better, and CIS 1301.

## ACC 3328 ADVANCED COST ACCOUNTING

## On Demand

A continuation of ACC 3324. Topics include cost allocations, process costing with spoilage and scrap losses, decentralization, inventory control, mix-and-yield variance analysis, and quantitative subject areas such as linear programming and regression analysis.
Prerequisite: ACC 3324 with a grade of " $C$ "' or better.
All 4000 level Accounting courses are limited to students who have been admitted to the accounting major or to special students who are in conformity with Accounting major admission standards.

## ACC 4320 ADVANCED ACCOUNTING I

## Fall, Spring, Summer

Selected topics including accounting for income taxes, price level changes, foreign operations, estates and trusts, corporate reorganization and liquidation, and non-profit organizations.
(Formerly ACC 4322, Accounting Topics; credit cannot be given for both courses.)
Prerequisite: ACC 3322 with grade of " $C$ " or better.

## ACC 4321 ADVANCED ACCOUNTING II

## Spring

Theory and techniques of consolidated financial statements. Accounting for partnerships and branches.
Prerequisite: ACC 3322 with grade of " $C$ " or better.

## ACC 4323 CONTEMPORARY ACCOUNTING THEORY

## Fall, Spring

Contemporary advanced accounting and auditing theory, including controversial issues, with emphasis on income determination and asset valuation; particular attention is given to current publications of the professional and governmental agencies.
Prerequisite: ACC 3322 with grade of " $C$ " or better; credit for or concurrent enrollment in ACC 4324.

## ACC 4324 AUDITING I

Fall, Spring
A survey of auditing standards and procedures applied by public accountants and internal auditors in examining financial statements and verifying underlying data. The scope of this course includes elements of operational auditing.
Prerequisite: ACC 3322 with a grade of " C " or better and credit or concurrent enrollment in MANA 3342.

## ACC 4327 AUDITING II

On Demand
An advanced study of selected standards of auditing. The course will emphasize: new topics in auditing, cases, readings, and problems used to illustrate applications of auditing. Included are such topics as statistical sampling, auditing effects of EDP, internal auditing functions, operational auditing, and work paper techniques.
Prerequisite: ACC 4324 with a grade of "C" or better.

## ACC 4329 ADVANCED INCOME TAX PROCEDURE

On Demand
Tax regulations applicable to partnership and corporations, together with the preparation of federal tax returns for such businesses. Federal gift, Estate and Inheritance taxes are considered. Prerequisite: ACC 3323 with a grade of C or better.

## ACC 6320 FINANCIAL AND MANAGERIAL ACCOUNTING

Fall
A study of the principles, conventions and concepts underlying internal and external reporting of accounting information by business organization, and the application of these principles in evaluation, interpretation and utilization of accounting data for managerial decisions.
Prerequisite: ACC 2322 or 2339, FINA 3383. Since this course replaces ACC 6326, a student cannot receive credit for both courses.

## ACC 6323 ACCOUNTING SEMINAR

## On Demand

A study of current and special topics concerning accounting. Emphasis will be toward literature from the professional public accounting societies and governmental agencies.
Prerequisite: Recommended 15 hours of accounting; including ACC 3321, 3323, 3324 or its equivalent.

## Economics

## Full-time Faculty

Cardenas, Gilbert (Ph D, Illinois 1977; prof.) Economics
Crews, R. Michael (Ph D, Utah State 1981; assoc. prof.) Economics
Ellard, Charles J. (Ph D, Houston 1974, prof.) Economics
Vento, Edward (Ph D, Texas A\&M 1972; assoc. prof.) Economics

## Major in Economics

Economics Major - BBA
University, College, General Education, Business Foundation
and Business Core Courses


## Minor in Economics

ECO 2353 Principles of Economics I

ECO 2354 Principles of Economics II
ECO 3351 Macroeconomic Theory
ECO 3352 Microeconomic Theory
ECO Electives (6 hours)
Total 'minor requirements
18 hours

## Course Descriptions

## Economics

## ECO 1301 INTRODUCTION TO ECONOMICS

Fall, Spring, Summer
Economics for students who have active interests in fields other than business administration or economics. Primary emphasis is given to developing an understanding of man in relation to his economic environment. Students will gain a knowledge of the purpose, functions and results of a capitalistic system and understanding of current economic problems.

## ECO 2353 PRINCIPLES OF ECONOMICS, I

Fall, Spring, Summer
An introduction to basic microeconomic concepts and methods. The competitive market system. Problems of resource allocation and economic efficiency in the market economy. Government regulation and the public sector. (Formerly ECO 2352, may not be repeated for credit.)
Prerequisite: MATH 1335 or equivalent.

## ECO 2354 PRINCIPLES OF ECONOMICS, II

Fall, Spring, Summer
An introduction to basic macroeconomic concepts of aggreate supply and demand and income determination. Money and banking. Unemployment, inflation and economic policy. International economics and comparative economic systems. (Formerly ECO 2351; may not be repeated for credit.)
Prerequisite: ECO 2353.

## ECO 3336 THE POLITICAL ECONOMY OF MEXICO

On Demand
Surveys the growth of the Mexican economy, its institutions and problem. Emphasis is placed on the relative roles of government and private enterprise in the development process.
Prerequisite: ECO 2353 and 2354.

## ECO 3351 MACROECONOMIC THEORY

Fall, Spring, Summer
An analysis of the construction, character and operational uses of macro-economic models of classical, keynesian, and Monetarist origin. Applications of the foregoing models to problems of inflation, unemployment, interest rates and investment in the United States economy. Prerequisite: ECO 2353 and 2354.

## ECO 3352 MICROECONOMIC THEORY

## Fall, Spring, Summer

The theory of consumer demand and the theory of the firm. Supply and demand analysis, distribution theory and imperfect competition.
Prerequisite: ECO 2353 and 2354.

## ECO 3353 INTERNATIONAL TRADE

## On Demand

The mechanism of international trade and its effects on a national economy. Foreign investments, cartels, international output and price controls.
Prerequisite: ECO 2353 and 2354.

## ECO 3355 ECONOMIC DEVELOPMENT

## On Demand

A study of the multidimensional factors/forces influencing material development and the eradication of poverty. Topics include: theories of economic growth and development, investment and capital development, market efficiency and growth, technology and technological transfers, international trade and development.
Prerequisite: ECO 2353 and 2354.

## ECO 3357 ECONOMICS OF POVERTY

## On Demand

Causes and social consequences of poverty, natures and effectiveness of income transfer programs, includes topics such as welfare reform, social security, pension plans, medicare, national health and negative income tax programs.
Prerequisite: ECO 2353 and 2354.

## ECO 3358 LABOR ECONOMICS

## On Demand

Labor market structures and processes; patterns and determinants of work and wages; labor force participation, unemployment, discrimination, and human capital. Public policy on manpower development and utilization.
Prerequisite: ECO 2353 and 2354.

## ECO 3359 MEXICAN-AMERICAN LABOR

## On Demand

This course is designed to analyze the role and contribution of Mexican-Americans in the U.S. labor market. Employment patterns of Mexican-Americans will be studied. Special emphasis will be given to such issues as the relationship between education, work and poverty; discrimination; human resources development; and the labor market along the United States-Mexico Border. Prerequisite: ECO 2353 and 2354.

## ECO 4357 REGIONAL-URBAN ECONOMICS

## On Demand

Introduction to economic theories and policies associated with regional and urban development.
The role of the policy making, government agencies and firms in regional urban development. Includes topics such as industrial development, poverty, housing and transportation.
Prerequisite: ECO 2353 and 2354.

## ECO 4359 HISTORY OF ECONOMIC THOUGHT

On Demand
A survey of the entire field of economics. Prescientific, classical and contemporary works will be studied to gain a knowledge of the development of economic theory and view of current direction and scope.
Prerequisite: ECO 2353 and 2354.

## ECO 4361 STUDIES IN ECONOMICS

## On Demand

A special topic selected by the instructor will be assigned. Total course content will be established a priori.
Prerequisite: ECO 3351 and 3352.

## ECO 6350 MANAGERIAL ECONOMICS

Spring
The application of economic analysis to management in the business firm. Considers demand analysis, production costs, pricing policies and investment planning. Extensive use is made of case problem analysis. (Previously Eco 5352 and Eco 6359, may not be repeated for credit.) Prerequisite: ECO 2353.

ECO 6351 ECONOMICS SEMINAR
On Demand
Readings and discussion of selected topics in economics.

## Anthropology

See Department of Psychology

## Department of Art

Richard P. Hyslin, Chair

## Full-Time Faculty

Browne, Norman A. (Ed. D., Indiana University, 1968, professor), biological illustration, painting, elementary and middle school art education, drawing
Field, Philip S. (MFA, Rhode Island School of Design, 1965, assistant professor), printmaking, painting, aesthetics
Hyslin, Richard P. (MA, University of New Mexico, 1968, assistant professor and chair), ceramics, sculpture, drawing
Nichols, Edward E. (MFA, University of Kansas, 1959, associate professor), drawing, painting and watercolor
Prince, Nancy M. (Ph.D., Southern Illinois University, 1970, professor), drawing, metal/jewelry design, art education
Swenson, Sandra (MA, University of Northern Colorado, 1964, instructor), History of Western Art, Pre-Columbian Art
The Department of Art includes eight subjects, Advertising Art, Art Education, Art History, Ceramics, Jewelry, Painting, Printmaking and Sculpture.
A major and a minor in art are available. The Bachelor of Arts Degree is offered in Art Education (all-level teaching plan). The Bachelor of Fine Arts Degree is offered in Studio Art and Secondary Art Education. A specialization in Advertising Art is also available.

After graduation, an undergraduate who chooses the studio major may continue his studies in graduate school or work as an artist. The art education major will be certified to teach art in the secondary or elementary schools. The Bachelor of Fine Arts (BFA) major with specialization in Advertising Art may freelance, work for an advertising agency or work on his/her own. Art courses are also offered for students seeking certification in a second teaching field at the elementary or secondary level.
Although all majors are required to take courses in drawing, design and art history, studio courses and education courses are chosen in compliance with the student's interest and goals.

## Degree Requirements

## Major in Art Education

(BA, All-level Certification)
Fifty one (51) semester hours in art, of which 24 semester hours must be advanced; including ART 1311, 1331, 2303, 2312, 2321 or 2322, 2332, 2351 and 2352, 3381, 3382, 3383,4383 , three (3) additional hours in art history, and 12 semester hours in studio courses (at least nine (9) advanced hours).
Nineteen (19) hours in education are required, of which 18 must be advanced, including ED 2100, 3302, 3311 or 3312, ED S 3302 or 3305, ED S 3307, ED 4311 and ED S 4398.

## Major in Art

(BFA, Studio)
Sixty seven (67) semester hours in art, of which 40 semester hours must be advanced; including ART 1311, 1312, 1331, 2312, 2332, three to nine hours from 2321 or 2322, 2341, 2351, 2352 and 2361; three to six hours from 2303, 2371; 12 semester hours advanced studio; nine semester hours from art history; 12 semester hours of advanced art electives; ART 4193.
(BFA, Studio - 18-hour Specialization in Advertising Design)
Sixty one (61) semester hours in art, of which 34 semester hours must be advanced; including ART 1311, 1331, 1332, 2312, 2321 or 2322, 2332, 2334, 2351, 2352, 3331, 3333, 4333, 4334, 4391 and 4392; six (6) semester hours of advanced art history and three (3) hours of advanced art electives; ART 4193.
Twelve (12) semester hours in communications are required, of which six (6) semester hours must be advanced, including COMM 1308, 2304, 4317 and 4321.

## Major in Art Education

(BFA, Secondary Certification)
Sixty four (64) semester hours in art, of which 31 semester hours must be advanced, including ART 1311, 1331, 2312, 2332; 12 semester hours from ART 2303, 2321 or 2322, 2341, 2351, 2352, 2361, 2371, 3383, 4383, 6 semester hours of advanced studio; and nine (9) semester hours of art history, nine (9) semester hours of advanced art electives, ART 4193.
Nineteen (19) semester hours in education are required, of which 18 semester hours must be advanced, including ED 2100, ED S 3301, 3302, 3307 and three (3) hours from ED S 3303, 3305, 4318, 4351, 4353, and ED S 4641.

## Minor in Art

Eighteen (18) semester hours in art, of which nine (9) semester hours must be advanced, including ART 1311, 1331, 2332, 4353, and six (6) semester hours of advanced art history or studio.

## Teacher Certification in Art as a Minor Field

Elementary Plan I: 18 semester hours in Art, of which 9 semester hours must be advanced; must include Art 1311, 1331, 2332, 3381, 4353.
Elementary Plan II: 24 semester hours in Art, of which 12 semester hours must be advanced; must include Art 1311, 1331, 2321, 2332, 3381, 3382, 4353 and 3 advanced semester hours in Art History or studio.
Secondary Plan I: 24 semester hours in Art, of which 12 semester hours must be advanced; must include Art 1311, 1331, 2321 or 2322, 2332, 4353, 3383, 4383, and 3 advanced semester hours from Art History.

## Departmental Requirements

Transfers: Students wishing to transfer into Art at the junior level or above must submit a portfolio of their work and meet with the Art faculty for program planning.
Majors: Students majoring in Art are required to have an interview with the Art faculty at the end of their junior year.

Exhibits: Senior Art majors are required to exhibit examples of their work during their senior year. B.F.A. studio majors will be included in a 1- or 2 -person show during their senior year. A grade of $C$ or better in Art 4193 as determined by a faculty studio panel, is required for the B.F.A. degree.
The letter grade " C " will be the minimum prerequisite grade for continuing Studio courses in sequence.

## Course Descriptions

## ART 1301 ART APPRECIATION

## Fall, Spring, Summer

Values and meanings in the visual arts. This is a general art lecture course concentrating on development and differences in artistic style.

## ART 1311 DRAWING I

## Fall, Spring, Summer

Introduction to drawing, including work in a variety of drawing media. Basic concepts are explored. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.

## ART 1312 DRAWING II

## Fall

Continuation of ART 1311 with problems in illumination, foreshortening, perspective and chiaroscuro as expressive concepts. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 1311

## ART 1331 DESIGN I

## Fall, Spring

Principles of design and development of design structures on two-dimensional surfaces. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.

## ART 1332 LETTERING

## Fall, Spring

Introduction to lettering styles. Basic serif and sans serif type faces are studied. Emphasis is placed upon spacing, rough lettering and color usage. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.

## ART 2303 , JEWELRY/METALWORKING I

Fall
Instruction is given in the use of hand tools, metals handling, and creative use of shop equipment. Emphasis is on creative artistic expression focusing on jewelry as a portable art form. Other materials may be considered. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.

## ART 2304 JEWELRY/METALWORKING II

Fall
The continuance of portable art includes techniques such as stone setting, plastics, fabrication and casting. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2303

## ART 2312 DRAWING III

Spring and on demand
The human figure as expressive subject matter in drawing. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 1311

## ART 2313 TECHNICAL DRAWING

On demand
Acquaints the student with tools and symbols used in professional drafting. Methods of drawing to scale are presented. $\$ 4$ laboratory fee.
Prerequisite: Six semester hours of drawing

## ART 2321 PAINTING I

Fall, Spring, Summer
Introduction to water painting media involving individual development and invention. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisites: ART 1311, 1331

## ART 2322 PAINTING II

Spring and on demand
An introduction to oil and/or acrylic painting techniques working from nature and the living model. Observation and interpretation are stressed. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 1331.

## ART 2331 ILLUSTRATION

Spring
Learning to illustrate for mass duplication. This course covers the principles of illustration and the adaption of all art media to the needs of the illustrator. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 1311, 1331, 2312

## ART 2332 DESIGN II

## Spring and on demand

Three-dimensional design includes investigation into the phenomena existing in the threedimensional arts. A variety of materials handling and creative methods for the purposes of creating a three-dimensional form are considered. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 1331

## ART 2334 PHOTOGRAPHY AS AN ART FORM

On demand
Introduction to photography as a means of personal expression. The history of photography as an art form is included. Emphasis is on black and white processes. Students must furnish their own cameras. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 1331

## ART 2341 SCULPTURE I

## Spring

Introductory course in sculptural concepts through basic sculptural media. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2332

## ART 2342 SCULPTURE II

## Spring

Continuation of ART 2341 with emphasis on individual development. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2341
ART 2351 ART SURVEY I
Fall
Historical survey of art from Paleolithic through the Middle Ages.

## ART 2352 ART SURVEY II

Spring
Historical survey of art from the Renaissance through modern times.

## ART 2361 PRINTMAKING I

Fall, Spring
Introduction to Printmaking with concentration on intaglio processes. A minimum of three hours of outside assignments per week is required. \$4 laboratory fee.
Prerequisites: ART 1311, 1331

## ART 2362 PRINTMAKING II

Fall, Spring
Introduction to color with continuation of intaglio and relief printing systems. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2361

## ART 2371 CERAMICS I

Fall, Spring
Introduction to ceramic design concentrating on handbuilding. Some work with potter's wheel, glazing and firing. A minimum of three hours of outside assignments per week is required. \$4 laboratory fee.

## ART 2373 CERAMICS II

Fall, Spring
Emphasis on basic wheel-thrown shapes and introduction to glaze calculation. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2371

## ART 3303 JEWELRY/METALWORKING III

Spring
Introduction of techniques in silversmithing such as raising, fabricating, smithing and casting:
These are pursued in the production of expressive holloware. Additional materials are considered. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2304

## ART 3304 JEWELRY/METALWORKING IV

## Spring

Continued exploration of metalsmithing techniques, die forming, electroforming and machining are included. A minimum of three hours of outside assignments per week is required, $\$ 4$
laboratory fee.
Prerequisite: ART 3303

## ART 3321 ADVANCED PAINTING

Fall, Spring
Advanced studio problems in painting. (May be repeated for a total of 12 hours' credit) A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee. Prerequisite: ART 1331 and 1331

## ART 3331 VISUAL COMMUNICATIONS I

Fall
The translation of verbal language into visual language through a variety of media. A minimum of three hours of outside assignments per week is required. \$4 laboratory fee.
Prerequisite: ART 3333

## ART 3333 ADVERTISING DESIGN

Fall and on demand
Introduction to advertising design. Developing graphic images from words and preparing them for mass duplication. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prevequisites: ART 1331, 1332

## ART 3341 ADVANCED SCULPTURE

.Spring and on demand
Advanced studio problems in sculpture (May be repeated for a total of 12 hours' credit) A minimum of three hours of outside assignments per week is required. \$4 laboratory fee. Prerequisite: ART 2342

## ART 3351 MEDIEVAL AND RENAISSANCE ART

## Alternate years

Art history beginning with the Christian era after the fall of Rome through the Byzantine, Romanesque, Gothic, Renaissance, Baroque and Rococo styles.
Prerequisites: ART 2351 and 2352 or 3350

## ART 3352 CONTEMPORARY ART

## Alternate years

Art history from the 19th century in Europe until modern times. Development and growth of today's arts and aesthetics.
Prerequisites: ART 2351 and 2352 or 3350

## ART 3353 ART OF THE ANCIENT WORLD

## Alternate years

An in-depth historical study of art styles from 5000 B.C. to 325 A.D.
Prerequisite: ART 3350 or ART 2351 and 2352

## ART 3361 ADVANCED PRINTMAKING

Fall, Spring
Advanced studio problems in printmaking. (May be repeated for a total of 12 hours' credit) A minimum of three hours of outside assignments per week is required. \$4 laboratory fee. Prerequisite: ART 2362

## ART 3371 ADVANCED CERAMICS

## Fall, Spring

Advanced studio problems in ceramics. (May be repeated for a total of 12 hours' credit) A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 2373

## ART 3381 PERCEPTION AND EXPRESSION IN ART I

## Fall, Spring, Summer

A course designed to strengthen visual perception and divergent thinking through visual and conceptual stimuli with primary emphasis on studio activities for prospective teachers of elementary art.
Prerequisite: Junior standing

## ART 3382 PERCEPTION AND EXPRESSION IN ART II

## Spring and on demand

Emphasis on further studio development in depth and on curriculum development for teachers of upper elementary and middle school art.
Prerequisite: ART 3381 or permission of instructor

## ART 3383 ART IN THE SECONDARY SCHOOL

Fall
Survey of visual education at the secondary level. Required for teaching art in the junior and senior high schools.
Prerequisites: Junior standing; prerequisite for student teaching

## ART 4193 SENIOR EXHIBIT

Fall, Spring
A one-or two-person studio show.
Prerequisite: Senior standing

## ART 4301 PHILOSOPHIES OF ART

On demand
A study of the relationship of art to philosophy. A study of the various theories of art and of the philosophical presuppositions regarding being, knowledge, and value inherent in these theories.

## ART 4311 ADVANCED DRAWING

## On demand

Topics covered include biological illustration, pastel portraiture, advanced figure drawing and . other advanced.drawing problems. (May be repeated for a total of 12 hours' credit) A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: Consent of instructor

## ART 4333 ADVERTISING ART II

Spring and on demand
Exploration of production in various advertising media, increased familiarity with type
specification and applied design. May also include work in the field. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 3333

## ART 4334 ART DIRECTION I

Spring and on demand
Advanced problems in advertising communication for printed mass media. Course covers newspaper and magazine (editorial and advertising), billboard art production, brochures and corporate identity and photography application. A minimum of three hours of outside assignments per week is required. $\$ 4$ laboratory fee.
Prerequisite: ART 3333, 4333

## ART 4351 LATIN AMERICAN ART: PRE-CONQUEST

Fall
An in-depth historical study of the arts of Mexico, Central and South America prior to the Spanish Conquest.

## ART 4352 LATIN AMERICAN ART: POST-CONQUEST

Spring
Mexican art under the Spanish influence is discussed from the colonial period to the present.

## ART 4353 AMERICAN ART

Fall and on demand
History of the visual arts in the United States, 17th century to the present, including the art of the American Indian.
Prerequisites:-ART 2351 and 2352 or 3350

## ART 4383 RESEARCH IN TEACHING SECONDARY ART

Spring
Methods for teaching creative art in the junior and senior high schools.
Prerequisite: Junior standing
ART 4391 INDIVIDUAL PROBLEMS
Fall, Spring, Summer
Advanced problems in an area of the student's choice, painting, drawing, sculpture, crafts, printmaking, art education, art history. (May be repeated for a total of 12 hours' credit)
Prerequisite: All courses in the area of choice

## ART 4392 INDIVIDUAL PROBLEMS

Fall, Spring, Summer
Advanced problems in the area of student's choice.
Prerequisite: ART 4391

## ART 5383 SEMINAR IN ART EDUCATION

On demand
Issues in art education will be discussed in conjunction with methods of research and writing about art. Independent directions within this framework will be encouraged.

## Astronomy

See Department of Physical Science

## Bible

See Department of History

## Department of Biology

Dr. S.L. Sides, Chair

## Full-Time Faculty

Allison, Terry C. (PhD. Texas A\&M University 1967; prof.) Parasitology, Marine Zoology
de la Pena, Antonio M. (MS. Texas A\&I University 1969; inst.) Physiology, Curriculum development

Edwards, Robert J. (PhD. The University of Texas at Austin 1980; asst. prof.) Ichthyology, Ecology, Population Biology.
James, Pauline (PhD. Cornell University 1949; prof.) Ornithology, Vertebrate Ecology.
Judd, Frank W. (PhD. Texas Tech University 1973; prof.) Ecology, Ecological Physiology.
Lonard, Robert I. (PhD. Texas A\&M University 1970; prof.) Plant Taxonomy, Grass Systematics.
Lyles, Donald J. (MS. Louisiana Tech. University 1966; asst. prof.) Microbiology, Immunology.
Ortega, Jacobo (PhD. The University of Minnesota 1960; assoc. prof.) Plant pathology, Mycology.
Savage, Norman L. (PhD. University of Oklahoma 1966; prof.) General and Medical Microbiology.
Sides, Sammie L. (PhD. North Carolina State University 1972; prof. and chair) Plant Anatomy, Phycology
The Department offers a major and a minor in Biology.
Biology students may elect a curriculum for a major in Biology or a Biology elementary or secondary teaching plan
(The student is expected to furnish his own transportation for all courses requiring laboratory sessions and field work.)
The Department of Biology also offers study beyond the Bachelor's Degree leading to a Master of Science in Biology. A limited number of Teaching Assistantships are usually available. Interested persons should consult the Graduate portion of the catalog or the Head of the Biology Department.

## Degree Requirements

## Major in Biology

30 semester hours in Biology, of which 15 semester hours must be advanced: must include Biology 1401, 1402, 4100, and at least 3 semester hours from each of the following areas: Cellular Biology or Microbiology - 3401, 3412; Genetics or Evolutionary Biology - 2306, 3303; Developmental or Morphological Biology - 2401, 2402, 3405, 3407, 3408, 4306; Organismal or Environmental Biology - 2305, 2407, 4314, 4407, 3403, 4412, 4303, 4304, 4401, 4402, 4406, 4408, 4309, 4410; Physiology - 2403, 3411, 4305; 6 semester hours of Mathematics 1335 and 2330 or 6 semester hours from 1340, 1356, 1360, 1370, 2330. Chemistry 1401, 1402, and 3401. Computer Information Systems 1301 and Computer Science 2325 (or higher level courses in Computer Science). Physics or Geology 1401 and 1402 are recommended.

Biology majors who are predental or premedical students should include Biology 2402 in their major, should minor in Chemistry, and should include in their programs: Chemistry 2401, 3401, 3404; Physics 1401, 1402; Psy. 1313; and Calculus I (Math 1370) required for the University of Texas Medical Schools. (Math not required for admission to Baylor College of Medicine or to Dental Schools.)

## Major in Biology with Teacher Certification:

30 semester hours in Biology, of which 15 semester hours must be advanced; must include Biology 1401, 1402, 4100 and one course from each of the following areas: Cellular Biology or Microbiology - 3401, 3412; Genetics or Evolutionary Biology 2306, 3303; Vertebrate Morphology or Physiology - 2401, 2402, 2403, 3411; Environmental Biology - 2305, 2407, 4401, 4402, 4410; Advanced Zoology - 4407, $4412,3405,3407,4303,4304$; Advanced Botany - 3403, 3408, 4305, 4309, 4314, 4406, 4408.

## Minor in Biology

Eighteen semester hours in Biology, of which six semester hours must be advanced.

## Teacher Certification in Biology:

Elementary Plan I: 18 semester hours, at least nine of which are advanced to include: Biology 1305 and 1306 or 1401 and 1402; one course from Biology 2305, 2306, 2401, 2402,2403 or 2407 ; Biology 4314 or 3408 ; Biology 4401; plus additional advanced hours to complete requirements.
Elementary Plan II: 24 semester hours, at least 12 of which are advanced to include: Biology 1305 and 1306 or 1401 and 1402; One course from Biology 2305, 2306, 2401,

2402, 2403, or 2407; Biology 4314 or 3408; Biology 4401; plus additional advanced hours to complete requirements.
Secondary Plan I: 24 semester hours, at least 12 of which are advanced to include: Biology 1401 and 1402; one course from Biology 2305, 2306, 2401, 2402, 2403 or 2407; Biology 4314 or 3408; Biology 4401; plus additional advanced hours to complete requirements.

## The Department of Biology Graduate Program

The Department of Biology offers courses leading to a Master of Science in Biology and providing minor and support areas for degrees in other fields.
Undergraduate requirements for a minor or specialization area: 12 semester hours of Biology, 6 hours of which must be advanced.
Credit for a 5000 level course is not given to a student with previous undergraduate credit in a similar course only 15 hours of 5000 level courses may count toward a graduate degree.
Students pursuing a Master's degree in related fields can include 12 to 18 hours of work in Biology for a minor.
Students pursuing the Master of Science degree with a major in Biology can include 6 to 9 hours of work in an approved minor or support area.

## Requirements by the Department of Biology

1. Acceptance by the Graduate School of Pan American University.
2. Admission to the graduate program with a major in Biology requires a minimum of 24 hours of undergraduate Biology with at least 12 hours at the Junior-Senior level. As undergraduate preparation each student should have completed the following courses or their equivalents: Genetics (Biol 3303), Cell Biology (Biol 3412) or Bacteriology (Biol 3401), Ecology (Biol 3409), and Mammalian Physiology (Biol 3411) or Plant Physiology (Biol 4305). Entering graduate students that have deficiencies in one or more areas must remove them the first time that the course(s) is offered.
3. Full-time graduate students, who must meet the above requirements, may take up to 9 semester hours of levelling work while taking a limited number of graduate hours. (Refer to Item 5.)
4. A minimum grade point average of 2.75 in upper level undergraduate Biology courses (based upon a 4.0 system) is required.
5. Special requirements:
a. During the first semester, all new graduate students majoring in Biology are required to take an examination covering the major conceptual areas of Biology. The results of this examination will be used to advise and counsel the student in his graduate program. It will not be a "pass-fail" examination.
b. Biological Problems:

One Biological Problem will be required of all, and for those choosing the thesis plan, a Biological Problem should be successfully pursued prior to starting the thesis.
c. Biol. 6101 and 6305 will be required.
6. For those enrolled in the thesis program:
a. Graduate students selecting the thesis option must complete 30 semester hours with a thesis. The choice of courses in major, minor and support areas will be determined through consultation between the student and his graduate advisor and have the approval of the Head of the Department.
b. During the first semester of study following admission to graduate study, the student should choose from the Graduate Faculty a major professor who will serve as chairman of his Graduate Committee and two other faculty members chosen in conference with the major professor and the Head of the Department. This Committee will approve a plan of study for the student which must be approved by, and a copy filed with, the Department Head and the Dean of the Graduate School. The major professor and student should each retain a copy.
c. A thesis topic and plan for research will be chosen by the student and his major professor, subject to approval by the Committee.
d. The research will culminate in a thesis written in the style approved by the Graduate School and should be worthy, in whole or in part, of submission for publication in a reputable journal. Approval must be affirmed by the Head of the Department and the Dean of the School.
Following acceptance of the thesis, evidenced by the signatures of the committee members and by the administrators indicated above, four copies should be presented for binding and a fee to cover the cost of binding should be paid to Pan American University. The four bound copies will be distributed as follows: the first (original) and second copies in the library, the third copy with the Department of Biology, and the fourth copy with the student.

A non-thesis student must complete 27 or 30 hours of Biological Sciences and may include in his program a maximum of 6 to 9 hours in a related field for a total of 36 hours.

A member of the Graduate Faculty will be chosen by the student as a major professor. In conference the student, the major professor and the Head of the Department will choose two other members of the Graduate Faculty to form a committee of three which will plan the student's overall program, oversee his progress and supervise the required comprehensive examination. As previously stated, these students must successfuilly complete at least one graduate research problem.

## Master of Science Degree


Required Courses:


## Course Descriptions

## Biology

## BIOL 1305 BIOLOGY FOR ELEMENTARY TEACHERS

Fall, Spring, Summer (alternate years)
A basic introductory course stressing fundamental zoological principles and concepts. It is designed to acquaint the future elementary teacher with the various structures, functions, life histories and occurrence of local animals. Credit cannot be given for 1305 and 1401. Three hours lecture and two hours laboratory. $\$ 3.00$ laboratory fee.

## BIOL 1306 BIOLOGY FOR ELEMENTARY TEACHERS

Fall, Spring, Summer (alternate years)
An introductory course stressing basic botanical principles and concepts. It is designed to acquaint the future elementary teacher with the anatomy, physiology, development and distribution of the local flora. Credit cannot be given for both 1306 and 1402. Three hours lecture and two hours laboratory. $\$ 3.00$ laboratory fee.

## BIOL 1487 (HONORS BIOLOGY)

Fall, Summer
An accelerated study of the basic principles of Biology. Topics covered include cellular biology, photosynthesis, respiration, protein synthesis, cellular reproduction, genetics, microbial genetics and a survey of the diversity of organisms. Open to students enrolled in the Honors Program or by permission of the instructor. $\$ 3.00$ laboratory fee.

## BIOL 1488 (HONORS BIOLOGY)

Spring, Summer
An accelerated study of the basic concepts of Biology. Topics covered include reproduction and development, digestion and nutrition, transport, homeostasis, the nervous system, ecology and evolution. Open to students enrolled in the Honors Program or by permission of the instructor. $\$ 3.00$ laboratory fee.
BIOL 1401 GENERAL BIOLOGY
Fall, Spring, Summer
A study of the basic principles of Biology. Topics covered include cellular biology and the anatomy and physiology of living organisms. Three hours lecture and three hours laboratory. $\$ 3.00$ laboratory fee.

## BIOL 1402 GENERAL BIOLOGY

## Fall, Spring, Summer

A continuation of Biology 1401 including cellular reproduction, genetics, development, evolution, ecology and a survey of the diversity of organisms.
Prerequisite: Biology 1401. Three hours lecture and three hours laboratory. $\$ 3.00$ laboratory fee.

## BIOL 2305 MAN AND HIS ENVIRONMENT

Spring (alternate years)
A consideration of the biological problems of population expansion, environmental destruction and resource conservation as they relate to man's past, present and future. Three hours lecture and two hours laboratory. $\$ 3.00$ laboratory fee.

## BIOL 2306 BIOLOGICAL EVOLUTION

Spring, Summer (alternate years)
Genetic, ecological and paleontological aspects of evolution, including that of man. Preequisite: BIOLOGY 1401-1402 or permission of the instructor. Three hours lecture.

## BIOL 2401 VERTEBRATE ZOOLOGY

## Fall, Spring

A basic introductory course dealing with the fundamental biological principles and concepts. Designed to acquaint the student with structure, physiology and life histories of representative vegtebrate types. Three hours lecture and three hours laboratory.
Prerequisite: BIOLOGY 1401 or 1305. $\$ 4.00$ laboratory fee.

## BIOL 2402 COMPARATIVE VERTEBRATE ANATOMY

## Fall, Spring, Summer

Comparative studies of the morphological, embryological and physiological relationships among vertebrates, with inclusion of histological and paleontological date. Three hours lecture and three hours laboratory.
Prerequisite: BIOLOGY 1401 or 1305. $\$ 5.00$ laboratory fee.

## BIOL 2403 ANATOMY AND PHYSIOLOGY

## Fall, Spring, Summer

Gross anatomy of the human body: The various physiological processes and fundamentals of heredity. Three hours lecture and three hours laboratory.
Prerequisite: BIOLOGY 1401, 1305 or 1402. $\$ 4.00$ laboratory fee.

## BIOL 2407 INVERTEBRATE ZOOLOGY

## Spring

Study of the compatative morphology, evolution, systematics and natural history of the invertebrates. Recommended as a preparatory course for Biol. 4402.
Prerequisite: 6 to 8 hours of biology.

## BIOL 3303 GENETICS

## Spring

Introduction to Genetics with consideration of its application in Biology and human welfare. Three hours lecture.
Prerequisite: Nine semester hours of Biology.

## BIOL 3401 BACTERIOLOGY

Fall, Spring, Summer
A general survey of the field of Bacteriology. The laboratory work includes culturing, staining and identifying of micro-organisms. Three hours lecture and three hours laboratory. Prerequisite: BIOLOGY 1402 and six semester hours of Chemistry. $\$ 4.00$ laboratory fee.

## BIOL 3403 . MEDICAL MICROBIOLOGY AND IMMUNOLOGY

## Spring

A study of microorganisms that cause disease and immune response of the host to these pathogens. Emphasis will be on principles of immunology and selected infectious disease processes. Laboratory exercises will include a study of basic serologic procedures and cultural characteristics of related pathogenic microorganisms. Three hours lecture and three hours lab. Prerequisite: BIOL 3401. \$4.00 lab. fee.

## BIOL 3405 HISTOLOGY <br> Fall

Lectures in this offering will place major emphasis on the structure and function of major tissue types and their cellular components. The laboratory will provide an opportunity for first-hand experience in examining the microscopic structure of the major tissue types and their relationships in organ structure. Three hours lecture and three hours laboratory. Prerequisites: 12 semester hours of biology including 4 hours from 2401, 2402 or 2403.

## BIOL 3407 COMPARATIVE EMBRYOLOGY

Spring, Summer
Developmental studies from the zygote through embryological stages (chiefly concerned with amphibians, birds and mammals). Three hours lecture and three hours laboratory.
Prerequisite: Nine semester hours of BIOLOGY, including four hours from 2401, 2402 or 2403. \$4.00 laboratory fee.

## BIOL 3408 PLANT MORPHOLOGY

Fall, Summer (alternate years)
A study of the morphology, development and relationships of fungi, algae, liverworts, mosses, ferns, gymnosperms and angiosperms. Particular attention is given to the evolution of these groups. Three hours lecture and three hours laboratory.
Prerequisites: Nine semester hours of BIOLOGY, including BIOLOGY 1420 or 1306. $\$ 4.00$ laboratory fee.

## BIOL 3409 ECOLOGY

Fall (alternate years)
A study of the basic environmental factors affecting plants and animals, and their relation to economic and conservation problems. Three hours lecture and three hours laboratory and field work.
Prerequisite: 12 semester hours of Biology. $\$ 4.00$ laboratory fee.

## BIOL 3411 MAMMALIAN PHYSIOLOGY

Spring
A survey of the physiological mechanisms of the organs and organ systems of mammals with emphasis on man. The laboratory will provide experiences with modern techniques. Topics will include muscle, nerve, digestive, urinary, respiratory, circulatory and reproductive systems. Three hours lecture and three hours lab.
Prerequisites: 12 semester hours of biology including 4 hours from 2401, 2402 or 2403 and 6 hours chemistry.

## BIOL 3412 CELL BIOLOGY

Fall
A study of cell structure and function with emphasis on bio-energetics, membranes, genes and genetic control, cell division and its regulation, and cellular differentation. Three hours lecture and three hours lab. (Formerly Biol 4403, may not be repeated for credit.)
Prerequisite: Two semesters of general biology, one semester or organic chemistry. \$4.00 lab fee.

## BIOL 4100 BIOLOGY SEMINAR

Fall, Spring, Summer
A study of current biological literature and the discussion of research in progress. Required of all Biology majors in their senior year, open only to nonmajors by permission.

## BIOL 4201 BIOLOGY PROBLEMS

Offered on Demand
A course adapted to the study of special topics in Biology. For advanced students capable of developing a problem independently through conference and activities directed by the instructor. Problem is chosen by the student with the approval of the instructor prior to registration. The class meets each week equivalent to one hour lecture and two hours laboratory. Prerequisite: Major in Biology with at least a junior standing. $\$ 4.00$ laboratory fee.

## BIOL 4202 BIOLOGY PROBLEMS

Offered on Demand
A continuation of Biology 4201.
Prerequisite: 4201. \$4.00 laboratory fee.

## BIOL 4303 MAMMALOGY

Fall (alternate years)
A study of anatomy, evolution, distribution, systematics, ecology and physiology of mammals of North America with special emphasis on local forms. Two hours lecture and three hours laboratory.
Prerequisite: Nine semester hours of Biology. $\$ 4.00$ laboratory fee.
BIOL 4304 ICHTHYOLOGY

## Offered on Demand

Ecology, physiology, morphology and taxonomy of marine and fresh water fishes. Includes practical application of modern fishery management techniques. Two hours lecture and three hours laboratory.
Prerequisite: Nine semester hours of Biology. $\$ 4.00$ Lab fee.

## BIOL 4305 PLANT PHYSIOLOGY

Spring
Basic chemical and physical processes in plant growth and development. Three hours lecture and three hours laboratory.
Prerequisites: Nine semester hours of BIOLOGY and one semester of ORGANIC CHEMISTRY. $\$ 5.00$ laboratory fee.

## BIOL 4309 HERPETOLOGY

Fall (alternate years)
A study of the anatomy, evolution, distribution, systematics, ecology and physiology of amphibians and reptiles; primarily of North American species with special emphasis on local forms. Two hours lecture and three hours laboratory.
Prerequisites: BIOL. 1401, 1402 or 1305, 1306 and 2401 or 2402. $\$ 4.00$ laboratory fee.

## BIOL 4314, PLANT TAXONOMY

## Fall, Summer

Identification of vascular plants, with emphasis on native flowering plants. Two hours lecture and three hours laboratory. (Formerly Biol 3309, may not be repeated for credit.)
Prerequisites: Nine semester hours of Biology, including BIOLOGY 1402 or 1306. $\$ 4.00$ laboratory fee.

## BIOL 4402 MARINE ZOOLOGY

## Summer

A study of the common marine animals, especially invertebrates in coastal waters, particular attention is to be given to structural and physiological relationships. Three hours lecture and three hours laboratory and field work.
Prerequisite: 12 semester hours of Biology. $\$ 4.00$ laboratory fee.

## BIOL 4404 ELECTRON MICROSCOPY

A survey of procedures used in transmission electron microscopy. The course includes practical and theoretical work in fixation, embedding, sectioning and staining of biological material as well as operation of the electron microscope and photographic procedure. Two hours of lecture and six hours of laboratory, $\$ 8.00$ laboratory fee.
Prerequisite: BIOL 3405.

## BIOL 4406 MYCOLOGY <br> Fall

Morphology, physiology, taxonomy and culture of selected fungi. Emphasis will be given to those having economic significance. Three hours lecture and three hours laboratory. Prerequisites: 12 hours of BIOLOGY including BIOLOGY 3401. $\$ 4.00$ laboratory fee.

## BIOL 4407 ANIMAL PARASITOLOGY

## Spring, Summer

Introduction to study of parasitic protozoa and worms (especially trematodes, cestodes, nematodes and acanthocephala). Three hours lecture and three hours laboratory. (Formerly Biol 3402, may not be repeated for credit.)
Prerequisite: Nine semester hours of BIOLOGY including four hours from 2401, 2402, 2403 or 2407. \$4.00 laboratory fee.

## BIOL 4408 PLANT PATHOLOGY <br> Spring

An introductory course on the causes, nature and control of plant diseases. Emphasis will be given to diseases of plants that have economic importance. Three hours lecture and three hours laboratory or field work.
Recommended: BIOL. 3401 and 4406. $\$ 4.00$ laboratory fee.

## BIOL 4410 MARINE BOTANY

## Fall, Summer

A study of the common local marine flora with emphasis on the microscopic algae forms. Three hours lecture and three hours laboratory. The student is expected to furnish his own transportation to nine or ten field laboratory sessions.
Prerequisites: Nine semester hours of BIOLOGY, including BIOLOGY 1306 or 1402. Credit may not be earned under the new course number if previously earned under the old number. $\$ 4.00$ laboratory fee.

## BIOL 4412 ORNITHOLOGY

## Spring

Principles of avian classification, morphology and ecology, including migration, distribution and relation to man. Three hours lecture and three hours laboratory and field work. (Formerly Biol 3404, may not be repeated for credit.)
Prerequisites: Nine semester hours BIOLOGY, including four hours from 2401, 2402, or 2403. \$4.00 laboratory fee.

## BIOL 5304: ADVANCED ICHTHYOLOGY

## Fall, alternate years

A study of ecology, distribution, adaptations, physiology, systematics and evolution of freshwater and marine fishes, with an emphasis on local forms. Laboratories will stress identification and other practical applications of modern ichthyological techniques. Two hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.
Prerequisite: Nine semester hours of Biology.

## BIOL $5307^{\circ}$ HOST-PARASITE RELATIONSHIPS

## Fall, Spring, Summer

A comprehensive analysis of the interrelationships between host and parasite. Modern laboratory techniques essential to understanding these interrelationships will be considered. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee. (Formerly Biol 6304, may not be repeated for credit.) Credit cannot be given if Biol 3402 or 4407 has been taken.

## BIOL 5309 ADVANCED HERPETOLOGY <br> Fall (alternate years)

A study of the anatomy, evolution, distribution, systematics, ecology and physiology of amphibians and reptiles; primarily of North American species with special emphasis on local forms. Two hours lecture and three hours laboratory.
Prerequisites: BIOL. 1401, 1402 or 1305, 1306 and 2401 or 2402. $\$ 4.00$ laboratory fee.

## BIOL 5311 ADVANCED ECOLOGICAL PHYSIOLOGY

Spring (alternate years)
A comparative study of the physiological adaptations of animals to their environments. Emphasis will be placed on physiological basis of animal distribution and evolution. $\$ 4.00$ laboratory fee. (Formerly Biol 6311, may not be repeated for credit.)

## BIOL 5312 ADV.ANCED ORNITHOLOGY

## Offered on Demand

Studies in avian Biology with emphasis on concepts of speciation, behavior, and ecology. Three hours lecture and three hours laboratory. Previous course in Biology 3404 recommended. $\$ 4.00$ laboratory fee. (Formerly Biol 6312, may not be repeated for credit.)

## BIOL 5314 ADVANCED PLANT SYSTEMATICS

Spring (alternate years)
A study of literature and methods of experimental plant systematics, Phylogenetic considerations, procedures in monograph preparation, field and herbarium techniques and modern biosystematic approaches applied to selected taxa will be emphasized. $\$ 4.00$ laboratory fee. (Formerly Biol 6314, may not be repeated for credit.)

## BIOL 5344 ADVANCED MAMMALOGY

Fall (alternate years)
A study of Anatomy, Evolution, Distribution, Systematics, Ecology and Physiology of mammals of North America. A collection and research project are required. Critical review of current literature and studies of recent advances in Mammalogy are emphasized. $\$ 4.00$ laboratory fee.

## BIOL 5345 ADVANCED PLANT PHYSIOLOGY

Spring
Physiology of plants; cell structure and functions, nutrition, metabolism, and factors influencing' growth and development.
Prerequisite: Graduate standing and one semester of ORGANIC CHEMISTRY.
BIOL 5408 ADVANCED PLANT PATHOLOGY
Spring
The causes, nature, and control of plant diseases giving emphasis to economically important diseases. A research paper or research work will be assigned individually. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## BIOL 5410 MARINE PLANT SCIENCE

## Fall, Summer

The common local marine flora with emphasis on the macroscopic algal forms. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## BIOL 5446 ADVANCED MYCOLOGY

Eall
Detailed studies of the fungi, including biological aspects of selected genera, culturing techniques and laboratory methods. Not open to students with previous credit for BIOLOGY 4406. \$4.00 laboratory fee.
Prerequisite: 18 semester hours of BIOLOGY.

## BIOL 5452 ADVANCED MARINE ZOOLOGY

Summer
Structural, physiological and ecological relationships of common marine animals, stressing invertebrates of coastal waters. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## BIOL 6101 BIOLOGY GRADUATE SEMINAR

Fall, Spring, Summer
All graduate students will be required to enroll for credit in Biology Graduate Seminar three separate semesters. All biology graduate students are strongly encouraged to attend seminar each semester they are enrolled in graduate school. Each student, when enrolled for credit will, with the approval of the seminar director, select some particular aspect of current biological research and present a scholarly review of it before seminar participants, other graduate students and the Biology faculty.
BIOL 6302 SPECIAL TOPICS IN BIOLOGY-MARINE ECOLOGY
On Demand
A study of current topics in biology, may be repeated for credit as topics change. $\$ 4.00$ laboratory fee.
Prerequisite: Consent of Instructor.

## BIOL 6303 ADVANCED ECOLOGY

## Spring (alternate years)

Utilization of modern techniques to analyze interrelationships between plants, animals and the environment. Terrestrial and freshwater environments will be considered. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## BIOL 6305 BIOMETRY

Fall
Statistical analysis and principles as applied to biological problems. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## BIOL 6308 SPECIAL TOPICS IN BIOLOGY - FRESHWATER PHYCOLOGY

On Demand
A study of current topics in biology, may be repeated for credit as topics change. $\$ 4.00$ laboratory fee.
Prerequisite: Consent of Instructor.

## BIOL 6309 SPECIAL TOPICS IN BIOLOGY - MARINE PHYCOLOGY

## On Demand

A study of current topics in biology, may be repeated for credit. as topics change. $\$ 4.00$ laboratory fee.
Prerequisite: Consent of Instructor.

## BIOL 6310 SPECIAL TOPICS IN BIOLOGY - IMMUNOLOGY

On Demand
A study of current topics in biology, may be repeated for credit as topics change. $\$ 4.00$ laboratory fee.
Prerequisite: Consent of Instructor.

## BIOL $6313^{\circ}$ ADVANCED CELL BIOLOGY AND PHYSIOLOGY

## Fall, alternate years

Detailed lecture and laboratory analysis of typical cellular structure and dynamics with emphasis on the anatomical and physiological mechanisms underlying the functioning of selected specialized cells. Two hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee. Prerequisite: Biol 3412.

## BIOL 6316 ADVANCED GENETICS <br> Fall

Lectures and laboratory dealing with facts of modern Genetics, and developments in molecular nature of hereditary determinants.
Recommended: BIOLOGY 3303 and ORGANIC CHEMISTRY. $\$ 4.00$ laboratory fee.
BIOL 6365 GRADUATE BIOLOGICAL RESEARCH PROBLEMS
The student in conference with a member of the graduate faculty will define and independent research problem. The subject of the research may be in the area of botany, microbiology or zoology. The student's committee or the Department Head, if the student has not yet formed a committee, will approve the problem prior to enrollment. If undertaken in a summer, the student should enroll in no other course that summer term. The student's report will be written and in an approved thesis style. One copy will be retained by the faculty member directing the research and one copy will be placed in the student's file in the departmental office. A maximum of 3 (three) credit hours undertaken in graduate biological research problems will count towards a Master's Science degree in Biology.

# Business Administration, Master's Degree (MBA) 

Dr. Vern Vincent, Director

## Full-time Graduate Faculty

Bartley, Douglas (MA, Pittsburgh 1961; assoc. prof.) Management
Brewerton, Francis J. (DBA, Louisiana State 1968; prof.) Management, Business Policy
Cardenas, Gilbert (PhD, Illinois 1977; prof.) Economics
Carter, Forest C. (DBA, Indiana 1962; CPA, prof.) Accounting
Crews, Michael R. (PhD, Utah State 1981; assoc. prof.) Economics
Ellard, Charles J. (PhD, Houston 1974; prof.) Economics
Fox, Harold (Phd, Rutgers 1967; prof.) Marketing
Gratz, Jerre E. (Ed.D, Houston 1961; prof.) Business Communications
Kettering, Ronald C. (DBA, Louisiana Tech 1977; CPA; CMA; CIA; prof.) Accounting
Munneke, Leslie E. (PhD, Iowa 1955; prof.) Management
Platzer, Willard B., Jr. (PhD, Arkansas 1973; prof.) Marketing
Popp, Gary E. (PhD, Louisiana State 1972; prof.) Management
Prock, Jerry D. (DBA, Arizona 1970; prof.) Finance
Reese, Craig E. (PhD, Texas 1979; prof.) Accounting

Rydl, Lester M. (PhD, Texas A\&M, 1955; assoc. prof:) Statistics/Computer Information Systems
Slacum, Donald S. (DBA, Mississippi 1969; assoc. prof.) Finance/Economics
Strong, Charles R. (PhD, Alabama 1972; CPA; prof.) Accounting
Vento, Edward (PhD, Texas A\&M 1972; assoc. prof.) Economics
Vincent, Vern C. (PhD, Northern Colorado 1972; assoc. prof.) Statistics/Research Methodology
Wilson, James M. (PhD, Arkansas 1971; assoc. prof.) Management

## Graduate Program

## Purpose

The graduate studies program of the School of Business Administration provides for advanced study leading to the Master of Business Administration Degree.
The program is designed for those who desire to pursue advanced study as a means of enhancing their business and administrative careers. Specifically, the program is designed to aid in meeting the career needs of those:

1. in business, industry, and government;
2. in the service industries as well as those seeking careers in these industries;
3. who wish to broaden their knowledge to become more effective as teachers of business subjects; and
4. who are just starting their business careers or who plan to continue their study leading to the Doctor of Philosophy or Doctor 'of Business Administration Degree.

## Scope

The MBA degree is a broad-based, highly structured program designed to give the student exposure to management and analytical decision-making skills necessary to function in a changing business environment. The Pan American MBA program is for those individuals who have a bachelor's degree in either a business or non-business discipline; however, MBA prerequisite courses need to be completed prior to enrolling in the graduate program. The graduate program requires 36 semester hours of study and generally is completed within two academic years of study.

A student may enter the program at the beginning of either semester or summer session provided all admission criteria are satisfactorily completed. The MBA courses are scheduled to start in the early evening hours to accommodate the large number of students with full-time jobs.

## Admission to the MBA Program

In order to be admitted to the MBA program, the student must first meet all requirements for admission to the Graduate School of Pan Amerikan University, as well as MBA requirements specified below. Application for admission to the University must be made to the Office of Admissions and Records, Pan American University, Edinburg, Texas 78539.

All students applying for admission to the MBA program are required to provide the Director of Graduate Studies in the School of Business Administration the following:

1. A Graduate Management Admission Test (GMAT) which must be provided before a student is allowed to enroll in the MBA program;
2. Graduate Record Examination' (GRE), if necessary, (see University
, Graduate Admission requirements);
3. Official transcripts; and
4. If necessary, catalog(s) for evaluation of transcript(s).

## Student Classification and Admission Criteria for the MBA Program

The student should note that classification and admission criteria to the MBA program are different than that for admission to the University's graduate school.
I. Special Student Admission - student with an undergraduate or graduate degree from a regionally accredited institution recognized by the Council on Postsecondary Accreditation (COPA) but lacking one or more of the following:
A. Official Transcripts of all undergraduate and graduate work
B. MBA prerequisite courses
C. GMAT score (minimum acceptable score 350)
D. Graduate Record Exam (GRE) score, (required only if overall grade point average is less than 3.0 (4.0 system) or GMAT score is less than 470

Students in this classification will not be permitted to enroll in the MBA program and take graduate courses.
II. Graduate Student Admission Classification - students that in addition to meeting the Special Student admission criteria must be classified according to the following for admission to the MBA program.

## Unconditional Admission to MBA Program

Students should have 1000 points or more based on the following formula: 200 times the Graduate Admission Grade Point Average ( 4.00 system) + GMAT score. The minimum acceptable GMAT score for entrance in the MBA program is 350 regardless of student classification.

## Conditional Admission

In addition, a minimum number of students who do not meet the MBA Admission criteria may be granted Conditional Admission status in the MBA program based on the following priority list of indicators of success:
A. "Admission Formula"
B. GRE Scores
C. Relevant work and leadership experience
D. Letters of recommendation
E. An interview with the Director of Graduate Studies in the School of Business Administration

Conditional Admissions is limited to a maximum of 12 semester hours. ConditionalAdmission will be removed at the end of the semester in which a student's total earned graduate hours toward the degree are 9 or more and the student's total grade point average is 3.0 or better. If the graduate grade point average drops below 3.0 pursuant to earning 9 semester hours, the student will be suspended from the School of Business graduate program.

## Denied Admission

A student is denied admission to graduate study in the School of Business Administration for failure to meet the above admission criteria. Denied Admission status can only be changed by improving test scores or undergraduate grade point average.

## Tentative Admission

The University's Tentative Admission category does not apply to students interested in graduate study in the School of Business Administration.

Students classified under Tentative Admission in other degree programs will not be allowed to enroll in graduate level courses in the School of Business Administration.

## Special Graduate Students

Students who already have a graduate degree in business and are interested in taking additional graduate business courses for professional improvement purposes are permitted to enroll in graduate business courses.

## Admission of Foreign Students

Foreign students from countries whose native language is not English will be expected to take the Test of English as a Foreign Language (TOEFL). Students scoring below 540 on the TOEFL will be denied admission, while those scoring between 540 and 560 , but otherwise meeting MBA admission requirements, may be expected to take prescribed courses in English.

## MBA Degree Requirements

The MBA requires 36 hours, 30 of which must be in courses open only to graduate students ( 6000 or higher).
In addition to fulfilling general requirements for a master's degree specified by the Pan American University Graduate School, candidates for the MBA will be required to complete successfully the MBA prerequisite courses plus 36 semester hours of graduate courses of which 27 semester hours are required core courses.

## MBA Prerequisite Courses

ACC 2421, 2329 or 2322 (Accounting) 7 semester hours
ECO 2353, 2354 (Economics) 6 semester hours
FINA 3383 (Managerial Finance) 3 semester hours
GENB 3337 (Business Law)
MANA 3341, 3342 (Business Statistics)
MANA 3361 (Principles of Management) 3 semester hours

MANA 3390 (Management Information Systems) 6 semester hours

MARK 3371 (Principles of Marketing)
MATH 2317 (Business Calculus)

3 semester hours
3 semester hours 3 semester hours 3 semester hours

MBA prerequisites must be completed prior to admission as a graduate student in the MBA program unless granted approval from the Director of Graduate Studies in the School of Business Administration.

## MBA Core Courses

| GENB | 6310 | Business Research |
| :--- | :--- | :--- | :--- |
| ACC | 6320 | Financial and Managerial Accounting |
| MANA | 6330 | Management Theory and Organizational Behavior |
| FINA | 6340 | Financial Administration |
| ECO | 6350 | Managerial Economics |
| MANA | 6360 | Operations Management |
| MARK | 6370 | Marketing Policy and Management |
| GENB | 6380 | International Business |
| GENB | 6390 | Administrative Policy and Strategy |

The student will select the remaining 9 semester hours from approved graduate offerings of the University. Six hours may be taken from offerings outside the School of Business Ádministration with the approval of the Director of Graduate Studies. However, three of the nine hours must be in 6000 or 7000 level courses. A student may elect to write a thesis in lieu of six hours of graduate elective course-work.
Each MBA candidate, regardless of the option selected, must successfully pass a written comprehensive examination over the MBA core curriculum.

## Comprehensive Written Examination

Each candidate for the Masters of Business Administration (MBA) degree is required to satisfactorily pass a comprehensive written examination. The purpose of the examination is to evaluate the ability of the student to articulate the application and integration of the MBA core courses through a comprehensive written examination. In order for a student to be eligible to take the examination, the student must be in good standing in accordance with the Three " C " Rule.

## Three "C" Rule

A master's candidate is ineligible to continue in the program or to take the comprehensive written examination whenever a grade of " C " or lower is received in three or more of the following core courses, even if the course is repeated and an " A " or " $B$ " grade is attained:

1. Business Research
2. Financial and Managerial Accounting
3. Management Theory and Organizational Behavior
4. Financial Administration
5. Managerial Economics
6. Operations Management
7. Marketing Policy and Management
8. International Business

If the possibility exists that a student could have three " C " grades in core courses based on a combination of previously earned " C " grades, current enrollment or future required core courses, then the student will be denied permission to take the comprehensive written examination until such time core course grades are determined.

## MBA Degree Program

Recommended Schedule
1st Term-Fall
GENB 6310 Business Research
ACC 6320 Financial and Managerial Accounting
MANA $6330 \quad$ Management Theory and Organizational Behavior
2nd Term-Spring
FINA $6340 \quad$ Financial Administration
ECO $6350 \quad$ Managerial Economics
MANA $6360 \quad$ Operations Management
3rd Term-Fall
MARK $6370 \quad$ Marketing Policy and Management
GENB 6380 International Business
Graduate Business Elective
4th Term-Spring
GENB 6390 Administrative Policy and Strategy
Graduate Business Elective
Graduate Business Elective
Business Graduate Course Descriptions
MBA Core Courses

## GENB 6310 BUSINESS RESEARCH

Fall
Business research techniques and methodologies. Topics include: identifying valid research activities, review of literature, data sources and collection, research design and methodology, computer statistical analysis, and written and oral communication of the research paper. (Since this course replaces GENB 6332, a student cannot receive credit for both courses.)

## ACC 6320 FINANCIAL AND MANAGERIAL ACCOUNTING

 FallA study of the principles, conventions and concepts underlying internal and external reporting of accounting information by business organization, and the application of these principles in evaluation, interpretation and utilization of accounting data for managerial decisions. (Since this course replaces ACC 6326, a student cannot receive credit for both courses.)
Prerequisite: ACC 2322 or 2339, FINA 3383.

## MANA 6330 MANAGEMENT THEORY AND ORGANIZATIONAL BEHAVIOR

 FallAn analysis of formal organizational theory and the interrelationship of individuals in organizations. A study of the organization as a system of authority, status, leadership, direction, communication and influence, includes readings, cases and special reports. (Since this course replaces MANA 6361, a student cannot receive credit for both courses.)
Prerequisites: MANA 3361.

## FINA 6340 FINANCIAL ADMINISTRATION

Spring
Management of the flow of funds in the firm. Analysis for obtaining the optimum utilization of funds, behavior of financial institutions and markets. (Since this course replaces FINA 6381, a student cannot receive credit for both courses.)
Prerequisites: FINA 3383.

## ECO 6350 MANAGERIAL ECONOMICS <br> Spring

The application of economic analysis to management in the business firm. Considers demand analysis, production costs, pricing policies and investment planning. Extensive use is made of case problem analysis. (Previously Eco 5352 and Eco 6359, may not be repeated for credit.)
Prerequisite: ECO 2353.

## MANA 6360 OPERATIONS MANAGEMENT

Spring
This course focuses on the role of the production function in business systems and the study of production system operations. Emphasis is placed on production system design, integration of system inputs, outputs, and transformations, and computer applications to decision processes utilized in managing operations and achieving optimal production. (Since this course replaces MAN 5363, a student cannot receive credit for both courses.)
Prerequisite: MATH 2317 or the equivalent.
MARK 6370 MARKETING POLICY AND MANAGEMENT
Fall
A study of marketing policy and decision making based upon a consumer orientation; innovation and creative adaptation to change; cultural implication of marketing action; and the role of theory in marketing. (Since this course replaces MARK 6377, a student cannot receive credit for both courses.)
Prerequisite: MARK 3371.

## GENB 6380 INTERNATIONAL BUSINESS <br> Fall

Readings and cases in international business. Emphasis is placed on the impact of comparative differences in the domestic and international business environments and operations, including the impact of historical, economic, cultural, and political foundations on business operations. Special international business topics of unique contemporary importance are also studied.
Prerequisite: 12 semester hours of graduate business courses.
GENB 6390 ADMINISTRATIVE POLICY AND STRATEGY
Spring
A study of management problems under dynamic conditions. Comprehensive, integrative cases will be studied and analyzed. Decision making and involvement in the management process is provided through a computerized management simulation. (Since this course replaces GENB 6369, a student cannot receive credit for both courses.)
Prerequisite: 18 semester hours of MBA core courses.

## MBA Elective Courses

## GENB 6311 PROJECT PLANNING AND PROPOSAL WRITING <br> On Demand

The course develops skills in designing, evaluating and funding private and public projects. The project design and evaluation techniques integrate needs assessment, objectives, procedures, and program budgets. The funding process is investigated in detail. (Since this course replaces HR 6310, a student cannot receive credit for both courses.)
Prerequisite: $A$ graduate level research course.

## GENB 6316 BUSINESS RESPONSE TO GOVERNMENT REGULATIONS

On Demand
Review of government laws and regulations affecting the business operation including anti-trust, mergers and investments, consumer rights and safety, wage and hour law, industrial relations, health and safety and equal employment opportunity as well as business response to deregulation laws; with a view toward minimizing compliance cost. (Since this course replaces GENB 6329, a student cannot receive credit in both courses.)

## GENB 6317 ADMINISTRATIVE COMMUNICATION

On Demand
Interdisciplinary study of the communication processes in business. Includes systems and technologies, and the organizational and psychological processes. Formulating, conducting and reporting a significant research project in communications. (Since this course replaces GENB 6335, a student cannot receive credit for both courses.)

## ACC 6323 ACCOUNTING SEMINAR

## On Demand

A study of current and special topics concerning accounting. Emphasis will be toward literature from the professional public accounting societies and governmental agencies.
Prerequisite: Recommend 15 hours of accounting, including ACC 3321, 3323, 3324 or its equivalent.

## MANA 6331 PERSONNEL ADMINISTRATION AND INDUSTRIAL RELATIONS

On Demand
An analysis of the functions of personnel administration and of the relationship between the personnel-industrial relations system and the total organization system. Contemporary industrial relations, philosophies and practices. (Since this course replaces MANA 6362, a student cannot receive credit for both courses.)
Prerequisite: MANA 6330.

## MANA 6332 MANAGEMENT SEMINAR

On Demand
The development of management thought and practice with emphasis on current trends and problems in management. (Since this course replaces MANA 6366, a student cannot receive credit for both courses.)
Prerequisite: 12 semester hours of graduate credit.

## FINA 6341 FINANCE SEMINAR

On Demand
Readings, reports and discussion of selected topics in finance.
Prerequisite: 12 semester hours of graduate business courses.
ECO 6351 ECONOMICS SEMINAR
On Demand
Readings and discussion of selected topics in economics.
MARK 6371 MARKETING SEMINAR
On Demand
A study of historical and current thought in marketing theory and practice.

## MARK 6372 MARKETING STRATEGY

On Demand
A study of current promotion management techniques for consumer products. Skills will be developed in utilizing consumer research, sales analysis, and mass media data for promotion planning, creation, execution, and evaluation. (Since this course replaces MARK 5372, a student cannot receive credit for both courses.)
GENB 7600 THESIS
On Demand
Research and writing of the thesis.

# Department of Chemistry: 

Dr. Jose P. Castrillon, Chair

## Full-Time Faculty:

Baca, Ernest J. (PhD, University of New Mexico, 1969; Prof.) Physical Chemistry.
Castrillon, Jose P. (PhD, University of Buenos Aires, 1951; Assoc. Prof. and Chair) Organic Chemistry
Estrada, Andres (MS, Texas A \& I University, 1959; Assoc. Prof.) Analytical Chemistry
Otken, Charles C. (PhD, Cornell University, 1954; Prof.) Biochemistry
Sager, Ray S. (PhD, Texas Christian University, 1968; Assist. Prof.) Inorganic Chemistry
Villarreal, John R. (PhD, Texas A \& M University, 1976; Assist. Prof.) Physical Chemistry
The Department of Chemistry offers a major and a minor in chemistry.
In addition to a program of study for those students interested in the profession of chemistry, the department also offers a program for predental and premedical students which leads to the Bachelor of Science Degree in Chemistry.
The Department of Chemistry also has a plan of study for pre-pharmacy students and for students interested in teacher certification. The departmental course offerings also serve as supporting courses for other majors that require a knowledge of Chemistry.
The laboratories of the Chemistry Department are well equipped for undergraduate chemistry courses. The following major instruments are available: infrared and ultraviolet and visible spectrophotometers, nuclear magnetic resonance and mass spectrometers, gas chromatographs and high pressure liquid chromatograph. In addition to the formal laboratory work offered in the department, the Chemistry major may choose to work on an independent research project under the supervision of a faculty member. A grant under the Minority Biomedical Support Program of the National Institutes of Health allows selected students to work at the interphase of Chemistry and Biology.

## Degree Requirements

Chemistry majors should include eight semester hours of Physics, eight semester hours of Biology, Math 1370 and 2342, and C.S. 2425 in their programs. Students who expect to do graduate work should take two years of French or German.

## Major in Chemistry:

31 or 32 semester hours of chemistry; must include Chemistry 2401, 3301, 3401, 3402 or $4488,3404,4401,4402$ and one or two from 3403, 4301, 4302, 4488, 4403. NOTE: Chem. 1402 or its equivalent under CEEB or CLEP is a prerequisite for all other courses in Chemistry.

## Major in Chemistry with Biology Minor:

(Predental or Premedical):
Same as a major in Chemistry (above) and must also include: 18 semester hours in biology, including Biology 1401, 1402, 2402, and six advanced semester hours; Physics 1401, 1402 and Psychology 1313.

## Minor in Chemistry:

18 semester hours of which 6 must be advanced.

## Teacher Certification in Chemistry:

Elementary Plan I: 18 semester hours in Chemistry of which 9 must be advanced.
Elementary Plan II: 24 semester hours in Chemistry of which 12 must be advanced.
Secondary Plan I: 24 semester hours in Chemistry of which 12 must be advanced.

## Suggested Curriculum

Prepharmacy
Freshman Year
Sophomore Year
Biol. 1401, 1402
Chem. 1401, 1402
Eng. 1301, 1302
Eng. (Soph. Lit.) 6 hours ${ }^{1}$

Math 1340, 1356, 1360
Chem. 3401, 3404
Phys. 1401, 1402
1370
Hist. 2313, 2314
P.E. 2 hours

A knowledge of typing is expected.

Eco. 1301
Govt. 2313, 2314
Biol 3401², Biol $2403^{3}$
P.E. 2 hours

## Course Descriptions

## Chemistry

## CHEM 1401 GENERAL CHEMISTRY

Fundamental principles of pure and applied chemistry. Includes theories of the physical and chemical structure of elements, compounds and mixtures. Three hours lecture and three hours laboratory.
Prerequisite: Four years of high school Mathematics or MATH 2307, 1335, 1340 or 2340 or concurrent enrollment in MATH 2307, 1340 or 2330. $\$ 3.00$ laboratory fee.

## CHEM 1402 GENERAL CHEMISTRY

A continuation of Chemistry 1401 including ionic equilibrium, oxidation-reduction, qualitive analysis, inorganic and introductory organic chemistry. Three hours lecture and three hours laboratory.
Prerequisite: CHEM. 1401. \$3.00 Laboratory Fee.

## CHEM 2401 QUANTITATIVE ANALYSIS

An introductory study of methods, equipment and practices of quantitative inorganic chemistry. Both volumetric gravimetric procedures will be covered in the laboratory work. Two hours lecture and six hours of laboratory.
Prerequisite: CHEM. 1402. \$4.00 Laboratory Fee.

## CHEM 3201 CHEMISTRY AND ITS LITERATURE

Discussion and problems on using the chemical literature, and reports on specific literature topics. Each student will be expected to present a scholarly seminar on some particular topic of current interest in chemistry.
Prerequisite: 12 hours of chemistry.

## CHEM 3301 INORGANIC CHEMISTRY

An introductory study of the elements other than carbon and their compounds based on the periodic classification and certain related theoretical concepts explaining structure and reactivity. Three hours lecture.
Prerequisite: 12 hours of chemistry.

## CHEM 3401 ORGANIC CHEMISTRY

A study of carbon compounds including an introduction to aromatic compounds. This course is either terminal or continuous with chemistry 3404. Laboratory work is mainly basic techniques and preparation and purification of compounds. Three hours lecture and three hours laboratory. Prerequisite: CHEM. 1402. $\$ 4.00$ Laboratory Fee. ${ }^{\text {. }}$

## CHEM 3402 QUANTITATIVE ANALYSIS

A continuation of Chemistry 2401 covering the more advanced quantitative method, with special emphasis on separation and analysis of mixtures. Two hours lecture and six hours laboratory. Prerequisite: $A$ " $C$ " or better in CHEM. 2401. $\$ 4.00$ Laboratory fee.
CHEM 3403 BIOCHEMISTRY
An elementary course in physiological chemistry or bidchemistry. Three hours lecture and three hours laboratory.
Prerequisite: CHEM. 3401. $\$ 4.00$ Laboratory Fee.

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## CHEM 3404 ORGANIC CHEMISTRY

A continuation of Chemistry 3401. Coverage of compounds is detailed. Three hours lecture and three hours laboratory.
Prerequisite: CHEM. 3401. \$5.00 Laboratory Fee.
CHEM 4201 CHEMISTRY PROBLEMS
A course adapted to the study of special topics in chemistry. For advanced students capable of developing a problem independently through conference and activities directed by the instructor. Problem is chosen by the student with the approval of the instructor prior to registration.
Prerequisite: Major in chemistry with at least junior standing. $\$ 4.00$ Laboratory Fee.

## CHEM 4202 CHEMISTRY PROBLEMS

A continuation of Chemistry 4201.
Prerequisite: CHEM. 4201. $\$ 4.00$ Laboratory Fee.

## CHEM 4301 HISTORY AND PHILOSOPHY OF CHEMISTRY

A study of the historical and philosophical development of chemical concepts. Three hours lecture.
Prerequisite: 12 semester hours of chemistry:

## CHEM 4302 BIOCHEMISTRY

The reactions of intermediary metabolism. Three hours lecture.
Prerequisites: CHEM. 3401 and CHEM. 3403.

## CHEM 4378 SPECIAL TOPICS IN CHEMISTRY

A course designed to cover in more detail the more specialized areas in the field of chemistry. Prerequisite: Twelve hours of chemistry.

## CHEM 4401 PHYSICAL-CHEMISTRY

Explanation and mathematical development of the theories and principles of chemistry with attention to the subjects of atomic structure, the gas laws, thermodynamics, the phase rule and similar topics. Three hours lecture and three hours laboratory.
Prerequisites: Six semester hours of calculus. $\$ 4.00$ Laboratory Fee.

## CHEM 4402 PHYSICAL CHEMISTRY

A continuation of Chemistry 4401. Three hours lecture and three hours laboratory. Prerequisite: CHEM. 4401. \$4.00 Laboratory Fee.

## CHEM 4403 MOLECULAR SPECTROSCOPY

The interpretation of infrared, ultraviolet, nuclear magnetic and mass spectra, particularly in regard to applications in organic chemistry. Laboratory work deals mainly with problems which require the reading of spectra from available reference data. Three hours lecture and three hours laboratory.
Prerequisite: CHEM. 3401. $\$ 4.00$ Laboratory Fee.
CHEM 4488 INS゙TRUMENTAL ANALYSIS
A study of measurement techniques and methods using instruments to obtain qualitative and quantitative information. Includes a study of instrument modules, transducers, amplifiers, control and readout devices. Will usually include computer application either to instrument control or data reduction. Two hour lecture and six hours laboratory. Lab fee $\$ 5.00$.
Prerequisite: A knowledge of quantitative analytical technique.

## CHEM 5301 BIOCHEMISTRY

The reactions of intermediary metabolism. Three hours lecture.
Prerequisites: CHEM. 3401 and CHEM. 3403.

## Clinical Laboratory Science

See Division of Health Related Professions

## Department of Communications

Carl McGovern, Chair

## COMMUNICATION DISORDERS

Austin, Raquenel (M.S., N. Texas 1981; asst. prof.) speech-language pathology Hook, Pauline (Ph.D., N. Texas 1982; asst. prof.) speech-language pathology

McGovern, Carl (M.S., E. Texas 1965; assoc. prof.) speech-language pathology and audiology

## MASS MEDIA

Copold, Steve (B.S., Pan American 1979) television engineer
Davis, Vernon (M.A., E. Texas 1969; assoc. prof.) journalism
Stanley, Jack R. (Ph.D., Michigan 1973; asst. prof.) television film production

## SPEECH COMMUNICATION

Applbaum, Ronald L. (Ph.D., Penn. State, 1969; professor) group and organizational communication
Courtney, Janice Ray (M.F.A., Texas 1961; asst. prof.) interpersonal communication
McLemore, George (M.A., Houston 1971; instructor) speech communication, rhetorical criticism
Rieke, R. Neal (M.S., N. Texas 1976; asst. prof.) organizational communication

## THEATRE

Cummins, Doug (Ph.D., Texas Tech 1980; asst. prof.) acting, directing, theatre management
Grabowski, Thomas (M.F.A., Illinois 1981) technical director and designer
Hawley, James A. (Ph.D., Ohio State 1967; assoc. prof.) design, criticism, and photography
Monta, Marian F. (Ph.D., Cornell 1971; prof.) acting, directing, literature
The Department of Communications offers two majors and a minor.
There is a major in speech and hearing therapy. which consists of COMM 1309, 2309, $2310,2311,3319,3420,3421,3422,4410,4311$, and 4312 , (plus practicum courses). There is a major in communications, which is a broad-based major of 48 semester hours from the speech, theatre, television and journalism areas, of which 24 must be advanced. The required sequence of courses for all communications majors, regardless of concentration are: COMM 1301, 1302, 1303 or 1313, 1304 and 1305. All. communications majors are required to take the research course appropriate to their discipline within the last 30 hours prior to graduation. Students concentrating in speech must take COMM 4304. Students concentrating in journalism must take COMM 4325. Students take an additional 21 hours in any single area of communications (speech, theatre, or journalism) and twelve hours from the other two areas. Students wanting to take more than twenty four hours in a single area of concentration must do so by taking elective courses. Students may certify for teaching in the areas of speech, theatre, or journalism by taking required courses. There is no certification for radio-tvfilm. Students wanting to concentrate as a non-teaching area in radio-tv-film may select the television-related courses in the areas of journalism and theatre.
Students not majoring in communications may take a minor by selecting any 18 semester hours, six of which must be advanced. Communications majors do not need to select a minor. Students majoring in speech and hearing therapy are encouraged to earn Language Learning Disability endorsement (LLD) in addition to certification. The department also encourages speech and hearing therapy majors to choose a minor in Psychology and Spanish as a foreign language in order to fulfill professional employment requirements upon graduation.
Students concentrating in speech may develop an individual program focus in persuasion/rhetorical theory or human relations/organizational communication, with options in elementary certification. Speech communication training constitutes preprofessional preparation for fields such as law, business and public management, personnel administration, social work and/or community relations. In addition, the speech area offers a varied co-curricular program in oral communication training and leadership.
The forensics program provides students with occasion to develop and apply their communicative skills in various competitive and public settings. The Speakers Bureau provides opportunities for students to prepare programs on current issues and to deliver them to a wide array of campus and community groups. Additional areas in the program provide experiences for listening and critical feedback, and conference operation.
Students concentrating in theatre generally prepare for careers in teaching, the professional theatre, community recreation, and radio, television and film production. Courses of interest to students in other disciplines as electives include the introductory courses, courses in dramatic literature and theatre research and history courses. Any student may participate in departmental theatre productions, and college
credit is available for participation by registering for a theatre practicum course.
Students concentrating in journalism are generally preparing for professional careers in electronic and print media. Journalism courses give the general student an understanding of the influence of media on life and society.

The Communications Department has the following honorary fraternities as chapters on campus:

Alpha Psi Omega-national theatre honorary
Pi Kappa Delta-national forensic honorary

## Degree Requirements

## Communications Major:

48 semester hours of which 24 must be advanced. Communications majors are not required to take minors. The following courses are required of all majors: COMM 1301, 1302,1303 or $1313,1304,1305$ plus one of the following: 4303, 4324, 4325.

## Elementary theatre certification:

25 semester hours as follows: 3 hours practicum, plus COMM 1310, 1411 or 1412, 1305, 3308, 3309, 3317, 4305.

## Secondary theatre certification:

25 semester hours as follows: 3 hours practicum, plus COMM 1411, 1305, 3311, 3312, 4301, 4302, 4322.

## Elementary speech certification:

24 semester hours of speech as follows; 3 hours practicum, plus COMM 1303, 1307, 2309, 3308, 3314, 3316, 3317.

## Secondary speech certification:

24 semester hours of speech as follows: 3 hours practicum, plus COMM 1303, 1307 or $1310,2303,3314,3315$ or $3316,4308,4307$ or 4309.

Speech therapy certification:
36 semester hours of speech therapy as follows: COMM 1309, 2309, 2310, 2311, 3319, 3420, 3321, 3422, 4410, 4311, 4312.

## Secondary journalism certification:

24 semester hours of which 12 must be advanced. The required courses are: 3 hours practicum, plus COMM 1301, 1304, 1306, 1308, 4323.

## Communications Minor:

18 semester hours of which 6 must be advanced.

## Course Descriptions

Following each entry in the course inventory is a code which lists the concentration to which the course can be applied. The code is as follows:
CO communications courses required of all communications majors
JO journalism
SP speech
ST speech and hearing therapy
TH theatre
TV telèvision-film

## COMM 1301 INTRODUCTION TO COMMUNICATIONS I

Fall
A survey of the areas of communications, including but not limited to speech, speech therapy, drama, journalism, television, film, radio, public relations, and advertising. Career possibilities and employment opportunities are discussed. Students are given projects in each of the various areas to aid in their understanding of the requirements of each field. Some diagnostic testing to aid students in career choices and in appreciation of the qualities of each discipline. Two hours lecture and two hours lab. Required of all majors in communications. CO

## COMM 1302. INTRODUCTION TO COMMUNICATIONS II <br> Spring

A continuation of COMM 1301, with particular emphasis on improvement of those skills necessary for a career in communications. Writing and speaking exercises are used extensively to improve student skills and to demonstrate the various stylistic requirements of different forms of communications. Two hours lecture and two hours lab. Required of all majors in communications. CO

## COMM 1303 FUNDAMENTALS OF PRESENTATIONAL SPEAKING

## Every Semester

Introduction to speech preparation and delivery. Audience analysis, selecting and developing the topic, drafting the speech outline, arranging and intensifying the speech, use of visual aids and supporting materials, effective delivery techniques and speech evaluation. Logical thinking as a basis for formulation of the communications message is stressed. Required of all majors in communications. CO SP

## COMM 1304 REPORTING I

Fall
A study of news sources, newswriting and news values, including finding, gathering, evaluating and writing news for print, radio and television. The student newspaper is used as a laboratory for the course, with students submitting material to the newspaper. Required of all majors in communications. CO JO

## COMM 1305 ACTING I

Fall
Improvisational acting techniques and the application of these principles to stage, TV and film. Required of all majors in communications. CO TH

## COMM 1306 REPORTING II

Spring
A continuation of COMM 1304, with increased emphasis on specialized types of news reporting. The student newspaper is used as a laboratory for this course.
Prerequisite: COMM 1304 (C average) CO JO

## COMM 1307 FUNDAMENTALS OF INTERPERSONAL COMMUNICATION

Fall
Introduction to the principles of intrapersonal and interpersonal communications. Self-concept and self-disclosure; creating meaning-perception; listening and feedback; verbal communication and language; nonverbal communication, attitudes, beliefs and values; assertiveness and communication relationships. SP

## COMM 1308 PHOTOGRAPHY

## Fall, Spring

An introduction to the techniques of taking photographs for a variety of purposes and processes of developing a printing, enlarging, cropping and dodging. JO TV

## COMM 1309 VOICE AND PHONETICS

Fall
Introduction to speech science basics and the characteristics of proper voice and diction. The International Phonetic Alphabet is used to present the speech sounds of American English. Students learn to recognize and analyze production of speech sounds and to modify speech production. Course is designed for speech therapy majors and prospective elementary teachers. ST

## COMM 1310 ORAL INTERPRETATION

## On Demand

Introduction and practice in the principles of speech as applied to the oral presentation of various literary forms. Includes prose and poetry, dramatic and duo-dramatic interpretation as well as storytelling. SP TH

## COMM 1313 FUNDAMENTALS OF SPEECH COMMUNCIATION

Theory and application of the various elements of the speech communication process; through lecture, class discussion and active participation students develop skills in specific types of communication behavior including listening, interviewing, small group interaction and public speaking. CO SP

## COMM 1400 SPEECH IMPROVEMENT

Fall, Spring
Analysis of student speech, concentrated drill on English speech sounds, bilingual language interference, language intonation patterns, and body movement. Three hours lecture and two hours lab.

## COMM 1411 TECHNICAL PRODUCTION I

Alternate Fall
Instruction and practice in the methods of construction, painting, rigging, shifting stage scenery and properties, as well as the application of these techniques to television production. (three hours lecture and three hours arranged lab) TH TV

## COMM 1412 TECHNICAL PRODUCTION II

## Alternate Spring

A continuation of COMM 1411. Instruction and practical experience in production problems, including light and sound. (three hours lecture and three hours lab) TH TV

## COMM 1615 SUMMER THEATRE WORKSHOP

## Summer I

Designed to introduce beginning students to basic techniques of theatre staging through practical situations, this workshop requires students to participate in a series of productions for public viewing. Because of the intensive nature of this course, students are not allowed to take other studies or outside employment during their workshop enrollment period without permission of the instructor. TH

## COMM 2101 PRACTICUM - THEATRE

## Fall, Spring, Summer 1

Participation in theatre programs sponsored by the department. One hour of credit requires a minimum of 60 hours of satisfactory participation, plus any additional requirements set by the advisor. May be repeated for credit a maximum of four times. TH

## COMM 2102 STAGE MOVEMENT

## Fall, Spring, Summer I

Work on pantomime, special techniques and exercises designed to improve motor activity for stage purposes. Students are expected to provide practice clothes for the course. The class will meet three hours per week. May be repeated for credit a maximum of four times. TH

## COMM 2103 PRACTICUM - FORENSICS

## Fall, Spring

Participation in forensic programs sponsored by the department. One hour of credit requires a minimum of 60 hours of satisfactory participation plus any additional requirements set by the advisor. May be repeated for credit a maximum of four times. SP

## COMM 2104 PRACTICUM - PRINT MEDIA

Fall, Spring
Participation in print media programs sponsored by the department. One hour of credit requires a minimum of 60 hours of satisfactory participation plus any additional requirements set by the advisor. May be repeated for credit a maximum of four times. JO

## COMM 2105 PRACTICUM - RADIO-TV-FILM

Fall, Spring
Participation in radio-TV-film programs sponsored by the department. One hour of credit requires a minimum of 60 hours of satisfactory participation plus any additional requirements set by the advisor. May be repeated for credit a maximum of four times. TV

## COMM 2106 PRACTICUM - SPEECH THERAPY

## Every Semester

Participation in speech therapy programs sponsored by the department. One hour of credit requires a minimum of 60 hours of satisfactory participation plus any additional requirements set by the advisor. May be repeated for credit a maximum of four times. ST

## COMM 2302 COMMUNICATION THROUGH GROUP PROCESS

## Spring

A study of group theory and technique. Principles and methods of discussion, organization, preparation of agendas. Students observe and participate in small group discussions on contemporary issues. SP

## COMM 2303 ARGUMENTATION AND DEBATE

Fall
Principles of argumentation and educational debate. Includes decision-making, argument, analysis, briefing and reasoning, evidence and credibility, logic, strategic refutation and rebuttal, responsibilities of the advocate. Students debate contemporary questions. SP

## COMM 2305 CINEMATOGRAPHY

Spring
Introduction to the tools, theory and techniques of motion picture photography and film production. Planning, continuity, filming and editing for film. Three hours lecture and one hour lab. JO TV

## COMM 2306 ACTING II

Spring
Intensive study of the techniques of building and developing a characterization. TH

## COMM 2308 HISTORY AND SIGNIFICANCE OF MOTION PICTURES

## On Demand

A historical survey of movies and picture techniques from 1890 to the present. Focus on styles and techniques. Viewing of movies of various periods, styles, genres, including foreign films. TV

## COMM 2309 INTRODUCTION TO SPEECH CORRECTION

Fall
Designed to acquaint the student with various types of communication disorders and their etiologies, identification, basic intervention and remediation procedures. Recommended for speech therapy majors, elementary and special education majors. ST

## COMM 2310 . ANATOMY AND PHYSIOLOGY OF THE SPEECH AND HEARING MECHANISM <br> Spring

A detailed study of the anatomical and physiological structure and function of the speech and hearing mechanism, including neurological aspects. ST

## COMM 2311 SPEECH PATHOLOGYI

Fall
In depth investigation of disorders of articulation, voice and rhythm, with emphasis on the practical applications of theory. Therapy techniques are presented and material developed.
Prerequisite: COMM 1309, 2309 and 2310. ST

## COMM 2312 THEATRE APPRECIATION

Fall, Spring
An introduction to the theatre, how to enjoy and understand plays, an appreciation and understanding of the various factors which make up a live theatre performance. Three hours lecture, one hour lab. Designed for non-majors.

## COMM 2313 READINGS IN DRAMATIC LITERATURE

Fall, Spring
Critical review and analysis of selected classic plays from Greek antiquity to the present time, designed to clarify the nature and major achievements of western dramatic art. Can be counted as English or Communications. TH

## COMM 2404 TELEVISION PRODUCTION

## Fall, Spring

Introduction to television studio operation with emphasis on television production. Covers cameras, microphones, lights, setting and performers. Three hours lecture and three hours lab. TV

## COMM 2407 MAKEUP AND COSTUMING

On Demand
A study of makeup for stage, film and television camera. Includes the study of makeup design and application and special effects makeup. A study of costume design and construction with emphasis on problems encountered in designing clothes for theatre, television and dance. Students must provide their own makeup for the course. Three hours lecture and three hours lab. TH TV

## COMM 3301 THE RHETORIC OF TELEVISION

## Spring

A consideration of television and its pervasive influence upon contemporary social, political and cultural institutions. Course explores the forms of persuasion embedded in television and methods by which these rhetorical structures affect human perceptual systems and resulting human behavior. SP TV

## COMM 3302 SPEECH FOR STAGE AND SCREEN

## Spring

An intensive course in high quality diction for those planning to speak professionally on stage, TV, radio or film. Work on diction, foreign accents and dialects. Some voice work included. TH TV

## COMM 3304 ADVERTISING

Fall, Spring
Principles of advertising as they are applied and used in radio, television, film, print media and theatre. Practice in writing advertising copy, layout and design. JO

## COMM 3305 EDITING

Fall
Copyreading, headline writing and planning newspaper makeup; processing articles for the university newspaper.
Prerequisite: COMM 1304. JO

## COMM 3306 FEATURE WRITING

Spring
Interpreting trends in reader appeal; analyzing feature story structure; finding ideas for gathering materials; writing and selling feature articles.
Prerequisite: COMM 1304. JO

## COMM 3307 EDITORIAL WRITING AND INVESTIGATIVE REPORTING

 FallDetermining editorial policies for print and broadcast media; studying the major types of editorial; writing editorials for particular purposes and different audiences; conducting investigations leading to significant news stories; analyzing and interpreting situations and timely events.
Prerequisite: COMM 1304. JO

## COMM 3308 CREATIVE DRAMATICS

On Demand

## COMM 3309 ADVANCED TECHNICAL PRODUCTION AND DESIGN

Alternate Fall
Principles of design as applied to modern stage and television production. TH TV
COMM 3310 LIGHTING FOR THE STAGE, FILM AND TELEVISION Alternate Spring
Problems of lighting design and execution as applied to the various media-stage, screen and television. TH TV

## COMM 3311 CONTEMPORARY DRAMA

Alternate Spring
A study of trends and movements in 20th century American, British and European drama with emphasis on works of major playwrights.
Prerequisite; 12 semester hours of English (may be counted as Eng 3311) TH

## COMM 3314 PERSUASIVE COMMUNICATION

Summer I
Persuasive techniques and rhetorical principles as they apply to verbal and nonverbal communications where the goal is social influence. In-class speeches and projects stress practical application of persuasive strategies. Persuasive characteristics of contemporary culture, structure and content of persuasive messages, source credibility, propaganda, ethics and role of attitudes, belief systems and values in persuasive communication. JO SP

## COMM 3315 COMMUNICATION IN HUMAN RELATIONS

 SpringApplication of the speech communication perspective as a dynamic process of human interaction. Helps students understand their own communication problems, communication breakdowns, and become more effective communicators. Models and theories of communication: general semantics in communication; non verbal communication; transactional analysis in interpersonal communication; influence of communication on attitude formation and change; relationship between communications systems and human value systems; and communication in conflict situation. SP

## COMM 3316 INTERCULTURAL COMMUNICATION

On Demand
Study of the symbolic and relativistic nature of culture and the resultant problems in attempting to communicate meaning across cultural lines. JO SP

## COMM 3317 SPEECH FOR THE ELEMENTARY TEACHER

## On Demand

A study of the teacher's speech personality, desirable classroom techniques and speech activities. Includes storytelling, poetry interpretation, discussion, speech choir, a comparison of EnglishSpanish phonology and problems of language interference. SP

## COMM 3319 SREECH PATHOLOGY II

## Spring

Further investigation of communication disorders including aphasia, neurologically related disorders and physical anomalies. Emphasis on the multiple handicapped child.
Prerequisite: COMM 2309 and 2310. ST

## COMM 3321 LANGUAGE DEVELOPMENT <br> Spring

A review of the theories of speech and language development including psycholinguistic considerations. Includes description of developmental norms of speech and language and information pertaining to the acquisition of language in the bilingual child. Relationship between language, sensory and motor development is presented. Special emphasis on the diagnosis and treatment of delayed language development. May be counted as Ed 4301. ST

## COMM 3403 RADIO AND TELEVISION NEWS PRODUCTION

Spring
Application of principles from basic newswriting to production of various types of news for the electronic media. Three hours lecture and three hours lab.
Prerequisite: COMM 1304. JO TV

## COMM 3412 ARTS MANAGEMENT AND PUBLICITY

## On Demand

Basic principles of managing arts events or arts centers. Practical experience in publicity, release writing, box office management, program and poster production and public relations. Three hours lecture, three hours lab. JO TH

## COMM 3420 AUDIOLOGY

Fall
Basic orientation to audiology including physics of sound, anatomy and physiology of the hearing mechanism, pathology of hearing and evaluation of hearing which includes emphasis on pure tone and impedance audiometry. Three hours lecture and three hours lab.
Prerequisite: COMM 2309 and 2310. ST

## COMM 3422 DIAGNOSTIC PROÇEDURES

## Spring

Study of diagnostic techniques and specific testing instruments utilized in the evaluation of disorders of communications with special emphasis on the evaluation of communication disorders in the bilingual child.
Prerequisite: COMM 2309, 2311 and 3321. ST

## COMM 3623 PROFESSIONAL INTERNSHIP - COOPERATIVE EDUCATION - THEATRE

 On DemandA planned program of half-time ( 20 hours per week) work, for a minimum of one semester or two continuous summer sessions, related to the field. Enrollment must be completed prior to the work period. Students should be classified as seniors. Credit will be determined on the basis of satisfactory employer's evaluation and the student's written report. TH
COMM 3624 PROFESSIONAL INTERNSHIP - COOPERATIVE EDUCATION - FORENSICS On Demand
A planned program of half-time ( 20 hours per week) work, for a minimum of one semester or two continuous summer sessions, related to the field. Enrollment must be completed prior to the work period. Students should be classified as seniors. Credit will be determined on the basis of satisfactory employer's evaluation and the student's written report. SP

## COMM 3625 PROFESSIONAL INTERNSHIP - COOPERATIVE EDUCATION - PRINT MEDIA <br> On Demand <br> A planned program of half-time ( 20 hours per week) work, for a minimum of one semester or two continuous summer sessions, related to the field. Enrollment must be completed prior to the work period. Students should be classified as seniors. Credit will be determined on the basis of satisfactory employer's evaluation and the student's written report. JO

COMM 3626 PROFESSIONAL INTERNSHIP - COOPERATIVE EDUCATION - RADIO-TVFILM.
On Demand
A planned program of half-time ( 20 hours per week) work, for a minimum of one semester or two continuous summer sessions, related to the field. Enrollment must be completed prior to the work period. Students should be classified as seniors. Credit will be determined on the basis of satisfactory employer's evaluation and the student's written report. TV
COMM 3627 PROFESSIONAL INTERNSHIP - COOPERATIVE EDUCATION - SPEECH THERAPY

## On Demand

A planned program of half-time ( 20 hours per week) work, for a minimum of one semester or two continuous summer sessions, related to the field. Enrollment must be completed prior to the work period. Students should be classified as seniors. Credit will be determined on the basis of satisfactory employer's evaluation and the student's written report. ST

## COMM 4101 COMMUNICATIONS PRACTICUM - THEATRE

Fall, Spring, Summer I
Participation in University Theatre activities or another theatre program approved by the instructor. One hour of credit requires a minimum of 60 hours of satisfactory participation, plus any additional requirements set by the instructor. May be repeated for credit a maximum of four times. TH

## COMM 4102 STAGE MOVEMENT

Fall, Spring, Summer I
Advanced study of movement on the stage for the actor. Students will provide practice clothes for the course. May be repeated for credit a maximum of four times. TH

## COMM 4103 COMMUNICATIONS PRACTICUM - FORENSICS

## Fall, Spring

Participation in the forensics program of the University. One hour of credit requires a minimum of 60 hours of satisfactory participation, plus any additional requirements set by the instructor. May be repeated for credit a maximum of four times. SP

## COMM 4104 COMMUNICATIONS PRACTICUM - PRINT MEDIA

## Fall, Spring

Participation in the yearbook, student newspaper or another print program approved by the advisor. One hour of credit requires a minimum of 60 hours of satisfactory participation plus any additional requirements set by the instructor. May be repeated for credit a maximum of four times. JO

## COMM 4105 COMMUNICATIONS PRACTICUM - RADIO-TV-FILM

Fall, Spring
Participation in the Radio-TV-Film program of the University or any other Radio-TV-Film program approved by the instructor. One hour of credit requires a minimum of 60 hours of satisfactory participation plus any additional requirements set by the instructor. May be repeated for credit a maximum of four times. TV

## COMM 4106 COMMUNICATIONS PRACTICUM - SPEECH THERAPY

## Every Semester

Participation in the therapy clinic of the University or any other therapy program approved by the instructor. One hour of credit requires 60 hours of satisfactory participation, plus any additional requirements set by the instructor. May be repeated for credit a maximum of four times. ST

## COMM 4301 DIRECTING I

Alternate Fall
Study, observation and practice in selecting scripts and working with problems, methods, and techniques of direction and production. Two hours lecture, two hours lab. TH TV

## COMM 4302 DIRECTING II

Alternate Spring
A continuation of Directing I with stress upon student direction and production of plays and television programs. One hour lecture, four hours lab. TH TV

## COMM 4303 COMMUNICATION RESEARCH - THEATRE AND TELEVISION

On Demand
Major methods of research used in theatre and television. Each student is responsible for the successful completion of a research project. TH TV

## COMM 4304 SCRIPTWRITING FOR STAGE AND SCREEN

On Demand
Advanced level course in the arts and crafts of scriptwriting for stage and screen (motion picture and/or television). Course would be repeatable for credit with new work or work with a different medium. TH TV

## COMM 4305 CHILDREN'S THEATRE

On Demand
Play selection, casting, direction and supervision of a children's theatre production. Students work with and in a children's production and each student is required to design a project for staging with youngsters. May be counted for credit as Ed 4320. TH

## COMM 4306 LEADERSHIP AND ORGANIZATIONAL COMMUNICATION

On Demand
Communication as an aid in the development and maintenance of organizations. Interaction, motivation and leadership. Role of communication within organizations, and organizational barriers to communication. Study of the principles and practice of parliamentary procedure, duties of officers, committee procedures and regulations for drafting constitutions and by-laws. SP

## COMM 4307 CONTEMPORARY RHETORIC OF SOCIAL AND POLITICAL MOVEMENTS

 On DemandRhetoric as an instrument of change within current political and social protest movements. Analysis of strategies and tactics of agitation and control Study of pamphlets, speeches, underground publications, files, music, nonverbal symbols and body rhetoric. Includes such movements as the far right, new left, black power, Chicano movements and women's liberation. JO SP

## COMM 4308 SPECIAL PROBLEMS IN RHETORICAL CRITICISM.

## On Demand

Significant issues and topics in rhetorical criticism. Principles of criticism applied to political and social communication behavior. May be repeated once for credit. JO SP

## COMM 4309 COMMUNICATION FOR THE SECONDARY TEACHER - SPEECH

On Demand
Methods of teaching speech communication in the high school. Materials for intramural and interschool speech activities in both junior and senior high schools. Methods of training participants in these activities. SP

## COMM 4311 CLINICAL PRACTICUM I

Fall, Summer I
A minimum of 60 clock hours of actual supervised clinical practice with communicatively handicapped individuals. Involves application of diagnostic, prescriptive and therapeutic techniques. ST

## COMM 4312 CLINICAL PRACTICUM II

## Spring, Summer II

A minimum of 60 clock hours of actual supervised clinical practice with communicatively handicapped individuals. Involves application of diagnostic, prescriptive and therapeutic techniques. SP
COMM 4313 ETHICS AND LAW OF MASS COMMUNICATIONS On Demand
Rights, privileges and responsibilities of news, editorial and advertising personnel; other legal implications, planning guides of conduct for mass communications. JO

## COMM 4314 ADVANCED TV/FILM PRODUCTION Spring

Advanced level course stressing the application of basic arts and skills developed in COMM 2304 and making use of advanced students in directing, technical crafts, performance and scriptwriting. Repeatable for credit with new productions. TH TV

## COMM 4315 HISTORY OF THE THEATRE I

On Demand
A thorough study of the history of theatre from its origins until the end of the Jacobean era. TH

## COMM 4316 HISTORY OF THE THEATRE II

On Demand
A thorough study of the history of theatre from the Restoration until the present. TH

## COMM 4321 PUBLIC RELATIONS

## On Demand

Planning and preparation of publicity materials for various media application of public relations techniques, and clinical study of current public relations campaigns. Some laboratory work in the Communications department. JO
COMM 4322 COMMUNICATION FOR THE SECONDARY TEACHER - THEATRE

## On Demand

Methods for teaching theatre in high school. Materials for intramural and interschool theatre activities in junior and senior high school, with particular attention to the UIL one act play. Methods of training participants in these activities. TH

## COMM 4323 COMMUNICATION FOR THE SECONDARY TEACHER - JOURNALISM

 On DemandMethods of teaching journalism in high school. Materials for activities in junior and senior high schools, with particular attention to the student newspaper and yearbook. Methods of training participants in these activities. JO

## COMM 4324 COMMUNICATIONS RESEARCH - SPEECH

On Demand
Major methods of research used in the field of speech communication. Each student is responsible for the successful completion of a research project. SP

## COMM 4325 COMMUNICATIONS RESEARCH - JOURNALISM <br> On Demand

Major methods of research used in journalism. Each student is responsible for the successful completion of a research project. JO

## COMM 4326 PHOTOJOURNALISM

## On Demand

Principles and practices of photo communication. Topics include general and spot news photography, news portraits, picture stories and essays, layout and other techniques of photojournalism. Further experience with exposure and development controls of black and white photography. Emphasis placed on actual newspaper and yearbook assignments. Participation in campus publications is encouraged. Laboratory required.
Prerequisite: COMM 1308. JO

## COMM 4327 HISTORY OF MASS MEDIA

On Demand
Study of the development of American journalism and mass media from colonial times to the present. Emphasis is on the role and influence of the media in the historical development of American society and culture, the contributions of important individual personalities associated with various media, technical advances in the print and electronic media, and the growth of the concept of freedom of the press. JO

## COMM 4410 AUDITORY AND VISUAL COMMUNICATION

Spring
Methods and techniques utilized in the aural rehabilitation or habilitation of the acoustically handicapped. Three hours lecture and three hpurs lab. ST

## COMM 4417 RADIO AND TELEVISION ADVERTISING PRODUCTION

 SpringApplication of principles of advertising to production of eadio and television commercials. Three hours lecture and three hours lab.
Prerequisite: COMM 2404 and 3304 JO TV

## COMM 4418 THEORY AND STYLES OF ACTING

Alternate Fall
Techniques of period acting styles and exploration of major theories of acting techniques. Two hours lecture and four hours lab. TH

## COMM 4419 PROBLEMS IN ACTING

## Alternate Spring

Acting techniques to adapt performance to varying situations such as large and small proscenium, film, television, etc. preparation of audition material and problems in developing range of characterization. Two hours lecture and four hours lab. TH

## COMM 4615 SUMMER THEATRE WORKSHOP

For the advanced undergraduate, experience in all areas of theatrical presentation. Students assume responsibility for one or more of the following areas: technical theatre, production problems in acting and directing, theatre business management. Because of the intensive nature of this course students are not allowed to take other studies or outside employment during the workshop enrollment period without permission of the instructor.

## COMM 5303 COMMUNICATIONS RESEARCH

Major methods of research used in the various fields of communication. Each student is responsible for the successful completion of a research project.

## COMM 4303 SCRIPTWRITING

Advanced level course in the arts and crafts of scriptwriting for stage and screen (motion picture and/or television), Course would be repeatable for credit with new work or work with a different medium.

## COMM 5311 CONTEMPORARY DRAMA

Trends and movements in 20th century American, British and European drama, with emphasis on works of major playwrights.

## COMM 5615 SUMMER THEATRE WORKSHOP

Experience in all areas of theatrical presentation. Students assume responsibility for one or more of the following areas: technical theatre; production problems in acting and directing, and theatre business management. Because of the intensive nature of this course students are not allowed to take other studies or outside employment during their workshop enrollment period without permission of the instructor.

## Computer Information Systems

See Department of Management and Computer Information Systems

## Computer Science

See Department of Mathematics and Computer Science

## Department of Criminal Justice

Daniel K. Dearth, Chair

## Full-Time Faculty

Carter, David L. (PhD, Sam Houston State, 1980; assoc. prof.) policing problems - and issues, research methods in criminal justice

Dearth, Daniel K. (MS, San Jose 1975; asst. prof. and chair) police administration and policing issues
O'Daniel, Linda J. (MA, Sam Houston State, 1974; asst. prof.) correctional systems, probation, parole, and juveniles
Stanford, Rose Mary (PhD, Florida State, 1983; asst. prof.) correctional problems, nature of crime, women and crime
Wilkinson, William V. (MA, Texas at San Antonio 1979; asst. prof.) criminal justice generalist, private security, computer systems
The Department of Criminal Justice prepares the student to enter such careers as law enforcement, criminal justice planning and research, probation, parole, institutional corrections, youth services, and police management at all levels of government. The degree program also provides an excellent background for individuals interested in private and/or industrial security. The well-rounded academic experience provided by the Department of Criminal Justice additionally serves as a strong foundation for those
students interested in graduate study in criminal justice. (Some credit is available by examination)

The Department of Criminal Justice is one of the largest in Texas and enjoys an excellent reputation both within the state and nationally. Graduates have been successfully placed in various agencies at all levels of government in addition to pursuing graduate work.

A Criminal Justice minor is also available to supplement the academic experience of students majoring in such areas as political science, sociology, psychology, business and related disciplines.

Students interested in a Criminal Justice career may select one of two majors: (1) Police Administration or (2) Corrections. For further information on the requirements of these majors, please contact the department. 381-3566. (All degree requirements are in addition to, the University College/General Education Requirements.) ,

## Degree Requirements

## Major: Corrections

The Bachelor of Science Degree in Corrections is-designed to prepare students to enter a career in various aspects of adult and juvenile corrections whether at institutions, probation, parole, or other forms of community-based correctional treatment. The total degree program is a four year, 124 semester hour curriculum (including general education courses). The Corrections major is broadfield requiring 66 semester hours from the course lists below. At least 35 semester hours in the major must be advanced (3000-4000 level). A minor is not required, however, one can be earned at the student's discretion.
Among the unique elements of this degree program are contemporary coursework in Corrections, flexibility to tailor courses to a student's career interests, and incorporation of both interdisciplinary and social science support courses.

| CRIMINAL JUSTICE CORE COURSES (14 hours): |  |  |
| :---: | :---: | :---: |
| CRIJ | 1301 | Introduction to the Criminal Justice System |
| CRIJ | 3303 | Nature of Crime |
| CRIJ | 3402 | Current Literature and Research in Criminal Justice |
| CRIJ | 4401 | Practicum-Field Experience |
| CORR | ECTIONS | CONCENTRATION COURSES (19 hours): |
| CRIJ | 2303 | The Juvenile Justice System |
| CRIJ | 2342 | Overview of Correctional Philosophies |
| CRIJ | 2344 | Correctional Administration |
| CRIJ | 3331 | Legal Aspects of Corrections |
| CRIJ | 4441 | Correctional Casework and Counseling |
| CRIJ | 4343 | Seminar of Issues in Corrections |
| CRIMINAL JUSTICE ELECTIVES (Choose any 4 courses-12 hours): |  |  |
| CRIJ | 2331 | Legal Aspects of Law Enforcement |
| CRIJ | 2332 | Criminal Procedure and Evidence |
| CRIJ | 3341 | Probation and Parole |
| CRIJ | 3344 | Interviewing Techniques \& Processes for Correctional Agencies |
| CRIJ | 3361 | Crime and Justice in America |
| CRIJ | 4361 | International Study of Crime and Justice |
| CRIJ | 4362 | Special Topics in Criminal Justice* |
| CRIJ | 4363 | Directed Readings and Independent Studies in Criminal Justice* |
| CRIJ | 4402 | Specialized Internship for Criminal Justice |
| *CRIJ | 4362 AND | CRII 4363 MAY EACH BE TAKEN TWICE FOR CREDIT. |
| SOCIAL SCIENCE SUPPORT COURSES ( 12 hours): Choose One cqurse from Each Group: |  |  |
| Group 1 (Sociology-3 hours) |  |  |
| SOC | 1313 | Principles of Sociology |
| SOC | 1323 | Study of Social Problems |
| Group 2 (Psychology-3 hours) |  |  |
| PSY 1323 |  | General Psychology |
| PSY/S | OC 2324 | Social Psychology |

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| Group | 3 | (Government-3 hours) |
| :--- | :--- | :--- |
| POLS | 4321 | American Constitutional Law: Civil Liberties |
| POLS | 4367 | American Judicial Process |
| Group | 4 | (Sociology-3 hours) |
| SOC | 3313 | Criminology |
| SOC | 3353 | Juvenile Delinquency |
| SOC | 4313 | American Minorities |
| SOC | 4314 | Sociology of Deviance |
| SOC | 4323 | The Mexican American People |
| SOC | 4324 | Methods of Population Analysis |

INTERDISCIPLINARY SUPPORT COURSES ( 9 hours):
Choose any three courses from one of the below course groups. (NOTE: It is recommended that the student consider enrolling in the remaining courses in the selected group as free electives.)


## Major: Police Administration

The Bachelor of Science degree in Police Administration is designed to prepare students to enter a career in law enforcement at any level of government or in the field of private/corporate security. The total degree program is a four year, 124 semester hour curriculum (including general education courses). The Police Administration major is broadfield requiring 65 semester hours from the course lists below. At least 35 semester hours in the major must be advanced (3000-4000 level). A minor is not required, however, one can be earned at the student's discretion.

Among the unique elements of this degree program are contemporary coursework in Police Administration, flexibility to tailor courses to a student's career interests, and incorporation of both interdisciplinary and social science support courses.

| CRIMINAL JUSTICE CORE COURSES (14 hours): |  |  |
| :---: | :---: | :---: |
| CRIJ | 1301 | Introduction to the Criminal Justice System |
| CRIJ | 3303 | Nature of Crime |
| CRIJ | 3402 | Current Literature and Research in Criminal Justice |
| CRIJ | 4401 | Practicum-Field Experience |
| POLICE | ADMI | STRATION CONCENTRATION COURSES (18 |
| CRIJ | 1312 | Police Organization and Administration |
| CRIJ | 2331 | Legal Aspects of Law Enforcement |
| CRIJ | 2332 | Criminal Procedure and Evidence |
| CRIJ | 4311 | Advanced Police Organization and Administration |
| CRIJ | 4312 | Principles of Law Enforcement Supervision |
| CRII | 4313 | Seminar of Issues in Law Enforcement |


| CRIMINAL JUSTICE ELECTIVES (Choose any 4 courses-12 hours): |  |  |
| :--- | :---: | :--- |
| CRIJ | 2303 | The Juvenile Justice System |
| CRIJ | 2304 | Police-Community Relations |
| CRIJ | 2323 | Criminal Investigation |
| CRIJ | 3314 | Public and Private Security |
| CRIJ | 3361 | Crime and Justice in America |
| CRIJ | 4361 | International Study of Crime and Justice |
| CRIJ | 4362 | Special Topics in Criminal Justice ** |
| CRIJ | 4363 | Directed Readings and Independent Studies in |
| CRIJ | 4402 | Criminal Justice * |
| Specialized Internship for Criminal Justice |  |  |

SOCIAL SCIENCE SUPPORT COURSES ( 12 hours):
Choose one course from each Group:


## INTERDISCIPLINARY SUPPORT COURSES (9 hours):

Choose any three courses from one of the below course groups. (NOTE: It is recommended that the student consider enrolling in the remaining courses in the selected group as free electives.)

| Group | A-General | Management and Personnel Administration |  |
| :--- | :---: | :--- | :---: |
| CIS | 1301 | Computer Systems and Basic Programming |  |
| MANA | 3332 | Human Relations in Management |  |
| MANA | 3361 | Principles of Management |  |
| MANA | 3362 | Personnel Management |  |
| MANA | 4361 | Human Behavior in Organization |  |
| Group | B-Accounting |  |  |
| ACC | 2421 | Principles of Accounting I |  |
| ACC | 2322 | Principles of Accounting II |  |
| ACC | 2329 | Managerial Accounting |  |
| ECO | 1301 | Introduction to Economics |  |
| ECO | 2353 | Principles of Economics: I |  |
| ECO | 2354 | Principles of Economics: II |  |
| FINA | 3390 | Public Finance |  |
| MANA | 3361 | Principles of Management |  |
| Group C-Labor | Management and Public Administration |  |  |
| FINA | 3390 | Public Finance |  |
| MANA | 3332 | Human Relations in Management |  |
| MANA | 3365 | Wage and Salary Administration |  |
| MANA | 4361 | Human Behavior in Organization |  |
| POLS | 3323 | Introduction to Public Administration |  |
| POLS | 3324 | Government Organization and Administrative |  |
|  | Theory |  |  |
| POLS | 4312 | Urban and Metropolitan Planning |  |
| POLS | 4365 | American Administrative Process |  |
| SOC | 3334 | Sociology of Work |  |
| Group D-Community Services and Interaction |  |  |  |
| PSY | 3325 | Psychology of Adjustment |  |
| PSY | 3373 | Sensation and Perception |  |


| PSY | 4313 | Abnormal Psychology |
| :--- | :---: | :--- |
| PSY | 4333 | Theories of Personality |
| PSY/SOC 2324 | Social Psychology |  |
| SOC | 3333 | Urban Sociology |
| SOCW | 2324 | Human Behavior and the Social Environment |
| SOW | 3314 | Social Welfare Policy and Programs |

## Minor in Criminal Justice

The minor in Criminal Justice is directed toward those students whose primary academic expertise could benefit from a specified concentration of Criminal Justice coursework.
19 semester hours of Criminal Justice, 10 hours of which must be advanced ( 3000 or 4000 level); must include CRIJ 1301 and CRIJ 3402.

## Course Description

## Criminal Justice

## CRIJ 1301 INTRODUCTION TO THE CRIMINAL JUSTICE SYSTEM

## Fall, Spring

The history, development and philosophy of professional law enforcement; an overview of law enforcement and civil rights; discussion of jurisdictional responsibilities in law enforcement; A survey of the criminal justice system and its administration; career opportunities.

## CRIJ 1312 POLICE ORGANIZATION AND ADMINISTRATION Spring

Discussion of basic principles of administration, organization, and management; methods of applying administrative techniques to law enforcement agencies; interdisciplinary resources available to police administrators, functional responsibilities of the police administrator.

## CRIJ 2303 THE JUVENILE JUSTICE SYSTEM

Fall, Spring
An overview of the nature of juvenile delinquents; the detection and apprehension of juvenile delinquents; the theory and practice of juvenile courts. A general discussion of leading case law concerning juvenile rights; crime prevention through officer interaction with juveniles.

## CRIJ 2304 POLICE - COMMUNITY RELATIONS

Fall
A study of the problems involving law enforcement agencies and the community; how to make effective use of the mass media to furnish information regarding law enforcement activities; the philosophy of community action groups and boards; theories regarding police involvement in community projects and the principles and techniques used in establishing a proper law enforcement image; principles and techniques of crime prevention and various approaches to crime prevention programs.

## CRIJ 2323 CRIMINAL INVESTIGATION <br> Fall

An introduction and analysis of current criminal investigation procedures; philosophy of the crime scene investigation; an advanced study of important areas involved in criminal investigation; such as proper handling of physical evidence, arrest, search and seizure, hearings, and probable cause, a discussion of techniques involved in drug, and narcotic investigations. Prerequisite: 12 semester hours of criminal justice, CRIJ 1301.

## CRIJ 2331 LEGAL ASPECTS OF LAW ENFORCEMENT

Fall
A discussion of the constitutional aspects of criminal law; philosophy of criminal law making process; basic concepts of Texas criminal law, including general provisions of the penal code; the law of principles, accomplices and accessories; an overview of offenses against public peace, persons and property, stressing elements and proof; a study of offenses against morals and chastity; and a survey of case study and briefings.

## CRIJ 2332 CRIMINAL PROCEDURE AND EVIDENCE

Spring
A survey of rules of evidence with particular import at the level of operation; the theory of signed statements; the philosophy of a hearing for the arrested person; the philosophy of the trial procedure and the law enforcement officer's place in the court; and the theory of probable cause. A review of the Texas code of criminal procedure.
Prerequisite: CRIJ 2331.

## CRIJ 2342 OVERVIEW OF CORRECTIONAL PHILOSOPHIES

Fall, Spring
The study of prisoner custody and management; an overview of prisoner rights and institutional liability; comprehensive overview of modern correctional technology, in house rehabilitation programs, transitional problems of the incarcerated, and administrative problems of correctional management. (Formerly CRIJ 3342, credit cannot be received for both courses.)

## CRIJ 2344 CORRECTIONAL ADMINISTRATION

Fall, Spring
Fundamental concepts of management, organization, and administration as specifically applicable to correctional institutions, field services, and community-based corrections,

## CRIJ 3303 NATURE OF CRIME

## Fall, Spring

Provides an overall perspective of the crime problem with special emphasis given to philosophical and theorectical ideas pertaining to crime and its control. Includes examination of the victim and criminal typologies.

## CRIJ 3314 PUBLIC AND PRIVȦTE SECURITY

Spring
Study of security measures taken by industry, retail stores, private policing agencies, military services, and the United States Government. Distinguishes between law enforcement and security responsibilities.

## CRIJ 3331 LEGAL ASPECTS OF CORRECTIONS .

Fall
Legal problems and principles from conviction to release. To include consideration of convictions, imprisonment, sentencing, conditional release, post conviction procedures, prisoner rights, probationers rights and validity of conviction.

## CRIJ 3341 PROBATION AND PAROLE

Spring
The philosophy, history and principles of probation, parole and other community-based treatment programs, philosophy of punishment and rehabilitation; trends, practices and current research in probation and parole, including methods of analysis, selection and prediction.

## CRIJ 3344 INTERVIEWING TECHNIQUES AND PROCESSES FOR CORRECTIONAL AGENCIES

Fall
Addresses techniques and interaction involved in the face to face interview; knowledge of behavioral reactions; development of an awareness of likely responses to the behavior of the interviewer; and interview techniques for pre-sentence investigations, classification, supervision, and related correctional tasks.

## CRIJ 3361 CRIME AND JUSTICE IN AMERICA

On Demand
This course is designed to give both majors and non-majors a broad overview of crime and the Criminal Justice System in the United States. Materials presented on an issue basis, address system capabilities and responses, the dynamics of criminal incidence and reporting, and the future of crime and criminal justice.

## CRIJ 3402 CURRENT LITERATURE AND RESEARCH IN CRIMINAL JUSTICE

 Fall, SpringA review of current literature and examination of selected problems affecting the criminal justice system; instruction of steps involved in the scientific approach to problem solving. Discussion of research techniques and paper writing; applications of research in criminal justice.

## CRIJ 4311 ADVANCED POLICE ORGANIZATION AND ADMINISTRATION Fall

In-depth discussion of organizational and administrative theory; comparative discussion of philosophies utilized in business and public administration with potential relationships to police organizations; methodology of societal trends affecting criminal justice administration. Prerequisites: CRIJ 1301, 1312.

## CRIJ 4312 PRINCIPLES OF LAW ENFORCEMENT SUPERVISION

Spring
An examination of the principles involved in law enforcement supervision; principles of leadership in dealing with people; psychology involved in handling grievances and in building morals; duties and responsibilities of command level personnel; law enforcement budgeting procedures, supervisory problems and responsibilities relating to discipline and internal affairs investigations.

## CRIJ 4313 SEMINAR OF ISSUES IN LAW ENFORCEMENT

Fall
Analysis and discussion of contemporary issues in policing with particular attention to current developments, service delivery, and the changing police role. Integration of established scientific knowledge with practical police experiences in various areas of policing function.

## CRIJ 4343 SEMINAR OF ISSUES IN CORRECTIONS Spring

Analysis and evaluation of contemporary correctional systems; discussion of recent research concerning correctional institutions and various corrections field services. Emphasis is given to both administrative and treatment concern in corrections.

## CRIJ 4361 INTERNATIONAL STUDY OF CRIME AND JUSTICE

On Demand
The study of criminal justice programs and institutions outside of the United States through incountry visitations supplemented by assigned readings, papers, discussion, and dialogue with leading in-country criminal justice personnel. The course permits students to obtain a realistic comparative study of criminal justice in countries other than the United States through first-hand experiences.

## CRIJ 4362 SPECIAL TOPICS IN CRIMINAL JUSTICE

On Demand
Designed to give advanced undergraduate student academic flexibility and opportunity to study contemporary issues in crime and criminal justice. May be retaken once for credit upon approval of the Director of the Criminal Justice Program.

## CRIJ 4363 DIRECTED READINGS AND INDEPENDENT STUDIES IN CRIMINAL JUSTICE

 On DemandDesigned for advanced students who are capable of independent study and research to examine an issue or project of specific interest. Registration upon approval of the Director of the Criminal Justice Program and the professor directing the course. May be retaken once for credit upon approval.

## CRIJ 4401 PRACTICUM-FIELD EXPERIENCES

Fall, Spring
Four hours duty per week with a law enforcement agency; three hours seminar of consultation per week; evaluation of student and agency critiques and reports; expansion of the law enforcement philosophy encountered in field work, problems and issues.
Prerequisites: 12 hours of CRIJ and senior standing.

## CRIJ 4402, SPECIALIZED INTERNSHIP FOR CRIMINAL JUSTICE

 On DemandThis course consists of an Internship under special curricular conditions. The Internship may involve compensated support for agency work under special instructional programs, cooperative education, research internships, or other specialized experiential learning.
Prerequisite: CRIJ 4401 and Consent.

## CRIJ 4441 CORRECTIONAL CASEWORK AND COUNSELING

 SpringExamines the role and techniques of casework in corrections with emphasis on the integration of casework and counseling responsibilities and procedures. Includes examination of therapeutic techniques and processes in various correctional settings and the study of service delivery programs tailored to the specific needs of correctional clients. This course requires a minimum of 30 hours of casework experience in addition to regular coursework.
Prerequisite: CRIJ 3344.

# Department of Curriculum and Instruction - Elementary and Secondary 

## Full-Time Faculty

Dowell, Nancy (MED., East Texas State 1967; Assistant Professor) Elementary, Early Childhood, Kindergarten (Post Masters, East Texas State) Early Childhood
*Frazier, Irene (Ed.D., Northern Colorado 1970; Professor) Reading, Language Arts
*Gonzalez, George (Ph.D., University of New Mexico, 1973, Professor), Curriculum and Instruction and Bilingual Education
*Gratz, Elizabeth (Ph.D., University of lowa 1973; Associate Professor) English Education, Curriculum and Instruction, Child and Adolescent Literature
*McBride, John (Ed.D., Houston 1977; Associate Professor) Elementary, Science Education, North Education
${ }^{*}$ Muniz, Amadita (Ph.D., East Texas State 1982; Assistant Professor) Education, Reading, Counseling and Guidance
*Perez, Ricardo (Ph.D., University of Michigan, 1979, Assistant Professor), Curriculum and Instruction and Bilingual Education

[^7]*Simmons, Thomas (Ph.D., Texas A \& M, 1976; Associate- Professor) Curriculum and Instruction and American History
*Solis, Juan (Ed.D., Houston 1977; Associate Professor) Curriculum and Instruction, Spanish, Reading, Social Sciences
Tevis, Martha (Ph.D., Texas 1967; Professor) The History and Philosophy of Education (Cultural Foundations of Education and Latin)
*Tolar, Roger (Ph.D., Texas 1971; Associate Professor) Elementary Curriculum and Instruction, Early Childhood, Counseling and Guidance
Willeford, Janice (M.Ed., Pan American, 1974; Instructor) Counseling and Guidance; Doctoral Program - Texas A \& M, Educational Psychology (Gifted and Talented)

The Department of Curriculum and Instruction - Elementary and Secondary offers a Bachelor of Science degree with a major in Elementary Education, a major in Elementary Education with specialization in bilingual education, a minor in Reading, a kindergarten speciality, a bilingual endorsement, and a competency based teacher certification program in Secondary Education requiring a 30 -semester hour major in a teaching discipline, 25 semester hours in professional secondary education, and 24 semester hours in a second teaching discipline.
Satisfactory completion of a degree with a major in Elementary Education leads to a provisional elementary teaching certificate.
The fact that a degree in education from the University may lead to a certificate to teach in the public schools of the state imposes a singular obligation on the part of the University to determine the suitability of the candidate for the profession of teaching. A great deal more than mere scholastic ability is involved. Physical and mental health, moral ideals, and professional attitudes are among these additional considerations. The right is reserved, therefore, to restrict the teacher education curriculum to those who measure up to these criteria.
Specialized endorsements to the provisional elementary certificate are offered for teaching kindergarten, for early childhood teachers of exceptional children, and for bilingual education teachers. A specialization in the teaching of reading is also offered.

The elementary teacher education program includes opportunities for working with children in the public schools. Through the Department's Teacher Centers, relevant and practical field experiences are provided for learning.
Many career opportunities are open to students who major in Elementary Education and who attain any one of the specialized endorsements.

The Department of Curriculum and Instruction - Secondary offers 19-hour teaching certificate for the junior and senior high school. Specific teaching competencies are required for the Secondary Education Degree. This degree requires student teaching in a secondary school or in either junior or senior high schools.
The Department of Curriculum and Instruction - Secondary requires a four-year clinical course of study for those students choosing to obtain teacher certification through completion of the Secondary Education Degree. Professional Centers located in local valley secondary schools (teacher-centers) presently provide laboratory facilities for student teachers and teacher trainees.

## UC/GE Requirements for Teacher Education Majors

Students pursuing a Bachelor of Science degree in Elementary or Secondary Education and teacher certification are required to take the following courses in the UC/GE requirements as specified by the State Board of Education and the Texas Education Agency:

English 1301, 1302
English - Sophomore Literature - 6 sem. hrs.
Language Other Than English - 6 sem. hrs.
(Span. 2301, 2302 or Span. 2307, 2308 for Bilingual Education Majors)
Communication 1303
Math 1335, 2306, 2307
Science -8 sem. hrs.
Biol. 1405 and 1406 or Psci. 1411 and 1412
Computer Science 1301
History 2313, 2314

Political Science 2313, 2314
Six semester hours from:
Art 3381
Music 3311
Philosophy 1310, 1320, 2330, 2380
Six semester hours from 2 of the following 4 areas:
Anthropology 1313, 1323, 2323, 2353
Economics 1301, 2353
Psychology 1313, 1323
Sociology 1313, 1323, 2353

## Degree Requirements

## Major in Elementary Education and Elementary Certificate:

Ed 2100 is a prerequisite for all 3000 \& 4000 level Education courses.
(Professional Development and Elementary Content Courses to qualify for the provisional (life) certificate.)
36 semester hours ( 27 advanced) in Elementary Education; must include Ed 1201, 3302, 3311, 3323, 3325, 3328, 4611 (or 4311 and 4312 for the Kindergarten endorsement); 6 semester hours from Ed 3301, 3303, 3305, 3312; 6 semester hours from Ed 3313, 3321, 3326, 3327; or a choice 3 semester hours from Ed 3313, 3321, 3326, 3327 and 3 semester hours from Ed 3322, 3324, 3329.

## Minor for Elementary Education Majors:

Elementary Plan I and Plan II, Areas of Specialization: Art, Biology, Bilingual/ Bicultural Studies, Chemistry, Drama, Earth Science, Elementary Mathematics Education, French, Generic Special Education, Government, Health and Physical Education, History, Mathematics, Physical Science, Physics, Psychology, Sociology, Spanish, Speech; in addition Music Education and English Elementary Plan II and Reading Plan I. (See minor field departmental Area Elementary Plan I or Plan II for certification requirements.)
Elementary Plan I: 18 semester hours in one subject, of which nine semester hours must be advanced. These may include courses in general education.
Related Area: 18 semester hours from Art 3381, 3382, Ed 4392; Geog 2301, 2313; Mus 3311, 3312; P E 3356, 3357; H E 2352; Comm 3317, 3308, 4305. (6 semester hours may be taken from Psy 1313; Eco 1301; Soc 2313, 4324; Anth 1323, 2344, 2353)

Elementary Plan II: 24 semester hours in one subject of which 12 semester hours must be advanced. These may include courses in general education.
Related Area: 12 semester hours from Art 3381, 3382, Ed 4392; Mus 3311, 3312; P E 3356, 3357, H E 2352, Comm 3317; Comm 3308, 4305, Geog 2301, 2313. (3 semester hours may be taken from Psy 1313; Eco. 1301, Soc. 1313, 4324; Anth. 1323, 2353 or 2344).

## Minor in Reading, Reading Specialization:

The teaching of reading minor (Plan I) for Elementary Education majors must include: ED $3314,3316,3329,4367,4368$, and 4369 . In addition, the following supporting ' courses are offered as part of the regular Elementary Education curriculum: Ed 3313 and 3321. For those students who minor in reading, the Texas Education Agency indicates reading as an area of specialization on the Elementary Teaching Certificate.

## Early Childhood Education Program for Exceptional Children Endorsement

The endorsement of the Early Childhood Education Program for Exceptional Children shall require 12 semester hours of senior level courses. The program requires the following courses in recommended sequence: Ed 4390, Ed 4371, Ed 4372, Ed 4391. The program must be completed with a minimum 2.25 GPA.

## Kindergarten Endorsement:

For individuals who are seeking a baccalaureate degree and an Elementary Certificate with Kindergarten endorsement.
To qualify for the Kindergarten Endorsement, a student shall be required to complete 15 advanced semester hours, three of which are to be student teaching at the kindergarten level (Ed 4312). The remaining 12 hours are: Ed 4390, Ed 4391, Ed 4392, and either Ed 4393 or 4314 . Ed 4391 must be completed prior to enrolling in Ed 4312. The student must have a minimum GPA of 2.25 in the 15 hours required.

For individuals who possess a baccaluareate degree and an Elementary Certificate and desire a Kindergarten endorsement.
To qualify for a Kindergarten endorsement, a student will be required to complete 15 advanced hours in Kindergarten education with a GPA of 2.25. Two options are available:

Option I: The student may complete the following 15 graduate hours to apply as apart of the Professional Development component toward a Master's Degree in Elementary Education: Ed 5390 or $6390,5391,5392,5393,5314$.
Option II: The student may complete the following 15 advanced undergraduate hours: Ed 4390, 4391, 4392, 4393 and 4314.
In addition, under either of the above options, in order for the individual to receive a Kindergarten endorsement, the Superintendent of Schools in the district where the teacher is employed must certify to the Texas Education Agency that the teacher has taught full time for one year in an accredited Kindergarten classroom.

## Major in Elementary Education with Bilingual Certification

Ed. 1201 is a pre-requisite for all 3000 and 4000 level professional education courses
Professional Development and content methodology courses (courses with asterik must be taken in sequence)

| ED | 3301 | Instructional Technology |
| :---: | :---: | :---: |
| ED | 3302 | Educational Psychology |
| ED | 3305 | Foundations of Cross-Cultural Education |
| ED | 3322 | Teaching the Bilingual Child |
| *ED | 4301 | Language Development |
| *ED | 3622 | Teaching Content Areas in the Bilingual 'School |
| *ED | 3624 | Teaching Reading and Other Communication Skills in English and Spanish |
| *ED | 3325 | Functional Reading and Study Skills in the Elementary School |
| *ED | 4611 | Directed Teaching |

Minor for Elementary Education Majors in the Bilingual/Bicultural Program
SOC 4323 The Mexican American People or SOC 4313 .
HIST 2363 Mexican American Heritage
ENG 3319 Introduction to Descriptive Linguistics
ENG 3330 English Grammar
SPAN 3330 Spanish Grammar
ENG/SPAN 4330. Theories of Grammar, Dialects, and Language Performance
ENG/SPAN 4331. Problems in Grammar, Dialects, and Language Performance
Choice of three (3) semester hours from:
ENG 3312 Survey of American Literature
ENG 3313 Survey of American Literature
ENG 4316 Mexican American Literature
Choice of three (3) semester hours from:
SPAN ${ }^{\prime} 3310$ Masterpieces of Spanish-American Literature I
SPAN 3311 Masterpieces of Spanish-American Literature II

## Endorsement for Bilingual Teachers

Requirements:

1. Baccalaureate Degree
2. Valid Texas Teachers Certificate
3. Twelve semester hours from the following options

Option 1 (Undergraduate) Ed 3315, 3624, and 4301 Option 2 (Graduate) Ed 6309, 6316, 6324, and 6335 Option 3 (Combination) Ed 3624 or 6324 and 6309 and Ed 3315 or 6335
4. One year teaching experience in a bilingual classroom as certified by the school district
5. Demonstration of oral and written language proficiency (state mandated tests)

## Degree Requirements for Secondary

The prospective secondary teacher has two options available in preparing to teach in secondary schools: Option A offers a bachelor's degree (B.A., B.S., B.F.A., or B.B.A.) with appropriate secondary certification in two teaching fields, and Option B offers a Bachelor of Science in Secondary Education degree with a major in Secondary Education and appropriate secondary certification in two teaching fields. Broad field certification in Business Education, Music Education, Composite Science, and Social Studies is available in both options.
Option A requires Ed 2100 and the following advanced Secondary Education courses: Ed S 3301, 3302, 3307, 4641 or 4398 and Ed 4313, and 3 semester hours from Ed S 3303, 3305, 4318, 4351 and 4353.
Option B requires Ed 2100, Ed S 1301, 2301 and the following advanced Secondary Education courses: Ed S 3301, 3302, 3307, 4641 or 4398 and Ed 4313, and 3 semester hours from Ed S 3303, 3305, 4318, 4351 and 4353.
Note: Ed S 3301, 3302, and 3307 are required to be completed before Directed Teaching. Also, a student may not take more than 6 semester hours of additional course work during the semester in which Directed Teaching is taken.

## Secondary Plan I

Major ( 30 hours): Art Education, Biology, Business Education, Chemistry, Drama, English, English-Language Arts, Geology, Health Education, History, Mathematics, Music, Physical Education, Physics, Political Science, Psychology, Sociology, Spanish and Speech.
Minor/Second Teaching Field (24 hours): Art Education, Biology, Business Education, Chemistry, Computer Science, Drama, English, English-Language Arts, French, Generic Special Education, ${ }^{1}$ Geology, Health Education, History, Mathematics, Music, Physical Education, Physics, Psychology, Sociology, Spanish, and Speech.

## Secondary Plan II

Major: Business Education, Music Education, Social Studies; second teaching field (minor) is not required. Consult the major teaching field department for the major and certification requirements. For the B.S. in Secondary Education the Department of Curriculum and Instruction-Elementary and Secondary is the major field department. Note: A composite Science Certification program is available, also.

## All-Level

Major: Art, Physical Education, and Music. Physical Education all-level major requires a second teaching field (minor) of 24 hours; however, a second teaching field is not required for Art and Music all-level majors. Education courses for all-level majors: Ed 3302; Ed 3311 or Ed 3312; Ed S 3302 or Ed S 3305; Ed S 3307; ED 4311, Ed S 4398.
Both major and minor fields (Secondary Plan I, Secondary Plan'II, and All-level) may include courses in General Education, except for P.E. activity courses.

## Generic Special Education

Teaching Field: Ed 1305, 2304, 4301, 4302, 4303; 4371, 4372, and 4309.

## Teaching Endorsement for Teaching Mentally Retarded:

The student must meet the requirements for the provisional elementary or secondary certificate. Twelve additional hours are required: Ed 4371, Ed 4372, Ed 4373, and Ed 4374.

## Teaching Endorsement for Language/Learning Disabilities:

The student must meet the requirements for the provisional elementary or secondary certificate. Fifteen additional hours are required: Psy 4318, Ed 4301 or Ed 4302, Ed 4303, Ed 4372, and Ed 4378 and a G.P.A. of 2.25 or better.

## Directed Teaching

The Department of Curriculum and Instruction - Elementary and Secondary offers the directed teaching experience as a critically important component in the preparation of competent teachers. The requirements for entering student teaching are as follows:

## Elementary Education

1. English 1301 and 1302 completed with a minimum of " C " in each course.
2. Having completed at least $3 / 4$ semester hours in major with 2.25 grade point average.
3. Have completed at least $1 / 2$ semester hours required in the minor with a 2.25 grade point average. If the students is to teach in his minor field, he must have completed $3 / 4$ of the semester hours in the minor.
4. The General Education requirements must be completed. (If no more than 6 semester hours are incomplete a department head may choose to conditionally admit a prospect.)
5. At least 90 semester hours of college work completed.
6. For Elementary Majors: Satisfactory completion of Ed. 3302, 3311, 3323, 3325, and 3328.
7. For Elementary Bilingual majors: Satisfactory completion of Ed. 3302, 3305, 3322; 4301, 3622, 3624
8. For Kindergarten student teaching: Satisfactory completion of Ed. 4391.

## Secondary Education

1. Have senior standing.
2. Have completed all required courses in the General Education sequence.
3. Have at least 2.00 Grade Point Average in all university courses.
4. Have completed at least $3 / 4$ semester hours in major with a 2.25 grade point average.
5. Have completed at least $1 / 2$ semester hours in minor with a 2.25 grade point average.
6. Have completed required freshman English courses with at least a C in each course.
7. Have completed at least 18 semester hours in the assigned teaching field (s) and 12 semester hours of professional secondary education, 3 hours of which must be Ed.S. 3307.
8. Have completed additional requirements as specified by the department of your major field.
9. Education secondary courses must be completed with an overall grade point average of 2.25 .

## Graduate Program

The Department of Curriculum and Instruction - Elementary and Secondary offers a Master of Education degree in Elementary Education, Elementary Bilingual Education, Secondary Education, and Reading.

## M.ED. Degree in Elementary Education and Reading

## Master of Education Degree <br> (36 Hour Non-Thesis Program)

Major
Elementary Education
Non-Certification
CONTENT COURSES
ED 6308 Foundations of Reading Instruction
ED 6309 Topics in Reading
ED . 6310 Child and Adolescent Literature
ED 6323 Problems in the Teaching of Reading
ED 6325 Practicum in Reading Instruction
ED 6326 Science in the Elementary School Curriculum
ED 6327 Social Studies in the Elementary School Curriculum
ED 6328 Mathematics in the Elementary School Curriculum
ED ' 6329 Diagnostic Teaching of Reading
ED 6330 The Curriculum in the Elementary School
PROFESSIONAL DEVELOPMENT
ED 5314 Practicum in Kindergarten Education
ED 5390 Advanced Studies in the Development of
Young Children

| ED | 5391 | Constructing Curriculum for Early Childhood Centers |  |
| :---: | :---: | :---: | :---: |
| ED | 5392 | Research and Development of Creative Activities For Young Children |  |
| ED | 5393 | Advanced Studies of Cultural Diversity in Early Childhood Centers |  |
| ED | 6301 | Instructional Media in Teaching |  |
| ED | 6302 | Advanced Educational Psychology |  |
| ED | 6303 | Advanced Philosophy of Education |  |
| ED | 6306 | The Supervision of Student Teaching |  |
| ED | 6307 | Comparative Education |  |
| ED | 6308 | Foundation of Reading Instruction |  |
| ED | 6311 | Advanced Child Psychology |  |
| ED | 6313 | Individual Educational Testing |  |
| ED | 6316* | Perceptual Basis of Language Development |  |
| ED | 6317* | Perceptual Motor Development in Young Children |  |
| ED | 6318* | Diagnostic and Prescriptive Teaching |  |
| ED | 6322 | The Bilingual Child |  |
| ED | 6330 | The Curriculum in the Elementary School |  |
| ED | 6360 | Introduction to Guidance and Counseling |  |
| ED | 6367 | Statistical Methods |  |
| ED | 6370 | Supervision of Instruction' |  |
| ED | 6390 | Education of Young Children |  |
| RESOURCE AREAS |  |  | (9 hours) |
| *ED | 5372 | Individual Differences: Survey and Treatment |  |
| ED | 6302 | Advanced Educational Psychology |  |
| ED | 6306 | The Supervision of Student Teaching |  |
| ED | 6336 | Problems in Education |  |
| ED | 6390 | Education of Young Children |  |
| ED | 6397 | Analysis of Teaching Behavior |  |
| PSY | 5318** | Learning Theories |  |
| PSY | 5333* | Theory of Personalities |  |
| Or 6 hours from any of the graduate level courses outside the major or minor fields may be taken as resource area courses. |  |  |  |
| DEGREE REQUIREMENTS |  |  | (6 hours) |
| ED | 6312 | Educational Measurement |  |
| ED | 6300 | Introduction to Research |  |
|  |  | Total | 36 hours |
|  |  | Master of Education Degree (30 Hour Thesis Program) |  |
| Major |  |  |  |
| Elementary Education |  |  | Non-Certification |
| CONTENT COURSES |  |  | (12 hours) |
| ED | 6308 | Foundations of Reading Instruction |  |
| ED | 6309 | Topics in Reading |  |
| ED | 6323 | Problems in the Teaching of Reading |  |
| ED | 6325 | Practicum in Reading Instruction |  |
| ED | 6326 | Science in the Elementary School Curriculum |  |
| ED | 6327 | Social Studies in the Elementary School Curriculum |  |
| ED | 6328 | Mathematics in the Elementary School Curriculum |  |
| ED | 6329 | Diagnostic Teaching of Reading |  |
| ED | 6330 | The Curriculum in the Elementary School |  |
| PROFESSIONAL DEVELOPMENT |  |  | (12 hours) |
| ED | 5314 | Practicum in Kindergarten Education |  |
| ED | 5372 | Individual Differences: Survey and Treatment |  |
| ED | 5390 | Advanced Studies in the Development of Young Children |  |
| ED | 5391 | Constructing Curriculum for Early Childhood Centers |  |

[^8]\(\left.$$
\begin{array}{lll}\text { ED } & 5392 & \begin{array}{l}\text { Research and Development of Creative } \\
\text { Activities for Young Children }\end{array} \\
\text { ED } & 5393 & \begin{array}{l}\text { Advanced Studies of Cultural Diversity in } \\
\text { Early Childhood Centers }\end{array} \\
\text { ED } & 6301 & \begin{array}{l}\text { Instructional Media in Teaching }\end{array} \\
\text { ED } & 6302 & \begin{array}{l}\text { Advanced Educational Psychology } \\
\text { ED }\end{array}
$$ <br>

Edvanced Philosophy of Education\end{array}\right]\)| ED | 6303 |
| :--- | :--- |
| ED | 6307 |
| The Supervision of Student Teaching |  |
| ED | 6308 |
| ED Foundations Ed Reation |  |

## RESOURCE AREA

The student may substitute 6 hours from any of the graduate level courses outside the field of education for the 6 hours of professional development courses.

| THESIS |  | ( 6 hours) |
| :--- | :--- | :--- |
| ED | 7300, | 7301 Thesis |
| DEGREE REQUIREMENTS |  |  |
| ED | 6312 | Educational Measurement |
| ED | 6300 | Introduction to Research |
| TOTAL |  |  |

## Master of Education Degree 36 Hour Non-Thesis Program

Major
Elementary Education

Certificate
specIalization ARE
SPECIALIZATION AREA (minor)
12 hours of graduate level courses in one of the following fields or a combination of two divided 9-3 or 6-6. Biology, English, Government, Health and Physical Education, History, Mathematics, Spanish.

| PROFESSIONAL DEVELOPMENT |  |  | (6-12 hours) |
| :---: | :---: | :---: | :---: |
| ED | 5314 | Practicum in Kindergarten Education |  |
| ED | 5372 | Individual Differences: Survey and Treatment |  |
| ED | 5390 | Advanced Studies in the Development of Young Children |  |
| ED | 5391 | Constructing Curriculum for Early Childhood Centers |  |
| ED | 5392 | Research and Development of Creative Activities for Young Children |  |
| ED | 5393 | Advanced Studies of Cultural Diversity in Early Childhood Centers |  |
| ED | 6301 | Instructional Media in Teaching |  |
| ED | 6302 | Advanced Educational Psychology |  |
| ED | 6303 | Advanced Philosophy of Education |  |
| ED | 6306 | The Supervision of Student Teaching |  |
| ED | 6307 | Comparative Education |  |
| ED | 6308 | Foundations of Reading Instruction |  |
| ED | 6311 | Advanced Child Psychology |  |
| ED | 6313 | Individual Educational Testing |  |
| ED | 6322 | The Bilingual Child |  |
| ED | 6330 | The Curriculum in the Elementary School |  |
| ED | 6360 | Introduction to Guidance and Counseling |  |
| ED | 6367 | Statistical Methods |  |
| ED | 6370 | Supervision of Instruction |  |
| ED | 6397 | Analysis of Teaching Behavior |  |

$\left.\begin{array}{llll}\text { RESOURCE AREAS } & \text { ( } 6 \text { Hours Minimum) } & \text { (6-12 hours) } \\ \text { ED } & 6323 & \text { Problems in the Teaching of reading }\end{array}\right)$

$\left.\begin{array}{lrr}\text { Major } & & \begin{array}{r}\text { Certificate }\end{array} \\ \text { Reading All-level } & \text { Reading Specialist }\end{array}\right)$ (18 hours)

[^9]ED 6331 ${ }^{2}$ Curriculum in the Secondary School
DEGREE REQUIREMENTS (6 hours)
ED 5313 . Reading Tests
ED ` 6300 Introduction to Research
TOTAL 36 hours
Master of Education Degree 30 Hour Thesis Program

| Major | Certificate |
| :---: | :---: |
| Elementary Education | Professional Elementary |
| SPECIALIZATION AREA | (12 hours) |
| 12 hours of graduate leve combination of two divid | g fields or a Government, Physical |
| Education, History, Mathe |  |

PROFESSIONAL DEVELOPMENT
(6 hours)
ED 7300, 7301 Thesis
RESOURCE AREA
ED 5314 Practicum in Kindergarten Education
ED 5372 Individual Differences: Survey and Treatment
ED 5390. Advanced Studies in the Development of Young Children
ED 5391 Constructing Curriculum for Early Childhood Centers
ED 5392 Research and Development of Creative
Activities for Young Children
ED $5393 \quad$ Advanced Studies of Cultural Diversity in Early Childhood Centers
ED 6306 The Supervision of Student Teaching
ED 6322 The Bilingual Child
ED 6323 Problems in the Teaching of Reading
ED 6325 Practicum in Reading Instruction
ED 6326 Science in the Elementary School Curriculum
ED- 6327 Social Studies in the Elementary School
Curriculum
ED 6328 Mathematics in the Elementary School
Curriculum
ED 6329 Diagnostic Teaching of Reading
ED 6330 The Curriculum in the Elementary School
Or 6 hours from any other graduate level courses outside the major or minor fields may be taken as resource area courses.


Major
Certificate
Biology
Professional Elementary
English

SPECIALIZATION AREA
12 hours of graduate level courses in one of the following areas: Biology, English
PROFESSIONAL DEVELOPMENT
(12 hours)
Required:
ED 6312 Tests and Measurements for the Elementary
ED 6311 Advanced Child Psychology 1
ED 6330 The Curriculum in the Elementary School

[^10]| 3 hours | selected from: |  |
| :--- | :--- | :--- |
| ED | 6301 | Instructional Media in Teaching |
| ED | 6306 | Supervision of Student Teaching |
| ED | 6322 | Teaching the Bilingual Child |
| ED | 6323 | Problems in the Teaching of Reading |
| ED | 6332 | Research in Elementary Education |
| ED | 6397 | Analysis of Teacher Behavior |

RESOURCE AREA
6 semester hours in a second specialization area or 6 semester hours selected from the following:

| ED | 6308 | Foundations of Reading Instruction |
| :--- | :--- | :--- |
| ED | 6323 | Problems in the Teaching of Reading |
| ED | 6325 | Directed Practice in Remedial Reading |
| ED | 6326 | Science In the Elementary School Curriculum |
| ED | 6327 | Social Studies In the Elementary School <br> Curriculum |
| ED | 6328 | Math in the Elementary School Curriculum |
| ED | 6329 | Diagnostic and Remedial Teaching of Reading |

## DEGREE REQUIREMENTS

The student should consult the department of his major for specific information on degree requirements, which are in addition to the above certification requirements.

## M.Ed Degree in Bilingual Education

The role of the bilingual/bicultural education specialist is that of a leader and master teacher in the field. Such a field includes knowledge, skills, and attitudes which are characterized by language, cultural, and instructional dimensions. The M.Ed Degree with specialization in Bilingual Education provides an opportunity to develop such characteristics.
The following is the program for the M.Ed Degree with specialization in Bilingual Education:

## Master of Education Degree 36 Hour Non-Thesis Program

Major<br>Elementary Education

Certificates
Professional Elementary Provisional Bilingual
PROFESSIONAL DEVELOPMENT
(12 hours)
ED 6309 Topics in Reading
ED 6335 Teaching Elementary School Subjects in the Bilingual School
ED 6319. Practicum in Bilingual Education
ED ' 6324 Second Language Teaching: Theory and Methodology
SPECIALIZATION AREA (12 hours)
Language Component
(6 hours)
SPAN 6307 Advanced Spanish Grammar and Composition for the Classroom Teacher
Select three (3) hours from:
ENG 6350 Introduction to Descriptive Linguistics for Teachers
ENG 6351 Problems in Linguistics
Socio-Historical Component
(6 hours)
Select three (3) hours from:
SOC 5313 American Minorities
SOC 5323 The Mexican-American People
SOC 5324 Demography of the Southwest
SOC 5353 Social Stratification
Select three (3) hours from:
HIST 6306 Studies in Texas and Southwestern History
HIST 6316 Studies in Mexican and American Heritages

RESOURCE AREA
ED 6302. Advanced Educational Psychology
Choice of (3) hours from:
ED 6388 Socio-Cultural Foundations of Education
ED 6322 The Bilingual Child
DEGREE REQUIREMENTS (6 hours)
ED 6312 Educational Measurement
ED 6300 Introduction to Research
TOTAL 36 hours

## M.Ed. Degree in Secondary Education

# Master of Education Degree 30 Hours Thesis Program 

## Major

Non-Certification
Secondary Education
SPECIALIZATION AREA
(12 hours)
12 semester hours of graduate level courses in one of the following fields: Biology, Business Administration, English, Government, Health and Physical Education, History, Mathematics, Psychology, Spanish

RESOURCE AREA
(6 hours)
6 semester hours from any of the graduate level courses (excluding education and the specialization area) that will improve the classroom teacher's competency


TOTAL $\quad 30$ hours

## Master of Education Degree 36 Hour Non-Thesis Program

Major
Secondary Education
SPECIALIZATION AREA
(12 hours)
12 semester hours of graduate level courses in one of the following fields:
Biology, Business Administration, English, Government, Health and Physical Education, History, Mathematics, Psychology, Spanish
RESOURCE AREA
(6 hours)
6 semester hours from any of the graduate level courses (excluding education and the specialization area) that will improve the classroom teacher's competency.
PROFESSIONAL DEVELOPMENT
(12 hours)
12 semester hours selected from the following for non-thesis programs:
Required:

| ED | 6331 | The Curriculum in the Secondary School |
| :--- | :--- | :--- |
| ED | 6380 | Practicum for Secondary Teachers |

6 hours selected from:

ED 5351 Teaching Reading to the Secondary Student
ED 5352 Secondary Classroom Methods and Materials
ED 6301 : Instructional Media in Teaching
ED . 6303 Advanced Philosophy of Education
ED 6306 Supervision of Student Teaching
ED 6307. Comparative Education
ED 6333 Research in Secondary Education
ED 6336 Problems in Education
ED 6341 Advanced Adolescent Psychology
ED 6353 Teaching the Disadvantaged Secondary Learner


## Education

## ED 1201 INTRODUCTION TO TEACHING

Fall, Spring
An orientation course in general education in a democratic society. It presents a survey of the school system in the United States, its growth, its structure, its problems and its trends as they affect and are affected by the schools. Includes field experience activities, may be taken as an elective. Does not count toward certification.

## ED 1303 EARLY CHILDHOOD EDÚCATION, FIELD EXPERIENCE LEVEL I

## On Demand

Field experience in early childhood learning centers to develop, under supervision, competencies in child care giving such as organizing learning centers, maintaining planned arrangement of furniture and materials for motor development and classroom organization and other activities contributing to setting up and maintaining a safe and healthy learning environment.

## ED 1304 EARLY CHILDHOOD EDUCATION, FIELD EXPERIENCE. LEVEL II

 On DemandField experience in early childhood learning centers designed to develop, under supervision, competencies in advancing physical and intellectual development of children.

## ED 1351 ART WORKSHOP FOR TEACHERS

On Demand
An activity course designed for the inexperienced pre-school teacher or worker. The fundamentals of art are emphasized with a practical application at the pre-school level.

## ED 1352 MUSIC WORKSHOP FOR TEACHERS

On Demand
An activity course designed for the inexperienced pre-school (worker, teacher). Fundamentals of music will be taught but emphasis is on building a repertoire of songs and rhythm activities through class participation.

[^11]
## ED 1651 WORKSHOP FOR TEACHER-AIDES

- On Demand

A workshop course designed to assist in the development of concepts and skills considered desirable among teacher-aides in migrant and/or disadvantaged pupil programs. Extensive instruction and training will be given in the various roles of the teacher-aide. Instructional and training activities will include lectures, conferences, demonstrations and a wide variety of practical work in the preparation of audio-visual materials and in the use of audio-visual equipment. Prerequisite: Appointment to the workshop under the guidelines set forth by Pan American University.

## ED 2100 ADMISSION TO TEACHER EDUCATION

Fall, Spring, Summer
Orientation to teacher education programs and job requirements. Assessment program required for completion of orientation course. This course must be completed with minimum grade of " C " prior to enrolling in professional upper level (3000-4000) Education courses. Required of all students seeking a teaching certificate.

## ED 2302 EARLY CHILDHOOD EDUCATION, FIELD EXPERIENCE. LEVEL III

## On Demand

Field experience in early childhood learning centers designed to develop, under supervision, competencies in coordinating home and center child-rearing practices and expectations.
ED 2303 EARLY CHILDHOOD EDUCATION, FIELD EXPERIENCE. LEVEL IV On Demand
Field experience in early childhood centers to develop competencies in methods and techniques for building children's self concepts.

## ED 3313 CHILDREN'S LITERATURE

## Spring, Summer II

A course which deals with criteria of good literature for the elementary school with consideration of children's needs and reading interests. The student will read and evaluate children's books in categories such as picture-story books, folk tales, poetry and fiction.
ED 3314 INTRODUCTION TO THE READING PROCESS
Fall, SSI
This course provides the student with a knowledge and understanding of the following concepts as they relate specifically to the reading process: neurological, physiological, and psychological influences; motivation; interaction of sensory systems; and essential concepts of communication. This course includes a field experience designed to demonstrate the relationship of these concepts to observed behavior of children in a public school setting.

## ED 3316 READING SEMINAR

## Spring, SSII

This field-based course is designed to help the student locate and observe the use of resources which deal with current literature and specialized vocabulary in the field of reading, as well as locate and be able to demonstrate the use of equipment and materials specifically designed for reading instruction in public school settings.

## ED 3321 TEACHING LANGUAGE ARTS

Fall, SSI
Methods of teaching the language arts in the elementary school with special reference to the building of communication skills in the curriculum.

## ED 3323 DEVELOPMENTAL READING IN THE ELEMENTARY SCHOOL

Fall, Spring, SSI, SSII
The nature of the reading process, beginning reading, and appropriate strategies for the acquisition of basic reading skills. Provisions will be made for the teaching of reading to children who are culturally and linguistically diverse.

## ED 3325 FUNCTIONAL READING AND STUDY SKILLS IN THE ELEMENTARY SCHOOL

 Fall, Spring, SSI, SSIIMethods and materials for developing maturity in reading and study skills, especially in the content areas. Special emphasis is given to the development of interest, individualization of instruction through the matching of students to proper materials, techniques for integrating the teaching of skills with the teaching of content, and the development of flexibility of reading rate.
Provision ill be made for the teaching of reading to children who are culturally and
linguistic y diverse.
Prerequisite: ED 3323

## ED 3326 TEACHING ELEMENTARY SCIENCE

## Spring, SSII

A study of those phases of science which are usually dealt with in teaching at the elementary level. Pertinent demonstrations and skills will be taught to help teachers become more proficient in helping children better understand and appreciate the natural forces which shape their physical environment.
Prerequisite: Must have completed a laboratory science.

## ED 3327 TEACHING SOCIAL SCIENCE

Fall, SSI
Teaching social sciences in the elementary schools. The role of social sciences in the elementary schools with special reference to building units of work in the curriculum.

## ED 3328 TEACHING ARITHMETIC

Fall, Spring, SSI, SSII
A treatment of the methods of teaching Arithmetic at the elementary school level. It includes basic number concepts, fractions, decimals, percentage, thought problems and such Arithmetical skills as are deemed necessary for the teaching of Arithmetic and the sciences.
Prerequisite: Must have completed MATH 2306 and 2307.

## ED 3329 CORRECTING READING PROBLEMS

Spring, SSII
Analysis of reading difficulties encountered during regular classroom instruction, with emphasis on prevention or early correction. Includes an appraisal of materials and techniques useful to classroom teachers at both elementary and secondary levels.
Prerequisite: ED 3323

## ED 3331 LANGUAGE ARTS IN THE ELEMENTARY CURRICULUM

On Demand
Methods of teaching the language arts in the elementary school with special emphasis on the communication skills and children's literature. Attention will be given to teaching English as a second language.

## ED 3332 SOCIAL STUDIES AND SCIENCE IN THE ELEMENTARY CURRICULUM On Demand

Methods of teaching the social studies and science in the elementary school. Emphasis will be placed on the discovery and multi-disciplinary approaches.
Prerequisite: Must have completed six hours of laboratory science.

## ED 3622 TEACHING CONTENT COURSES IN THE BILINGUAL SCHOOL

A course emphasizing a variety of learning and teaching methods and techniques promoting an active learning process in teaching modern elementary Mathematics, Science and Social Studies to the bilingual child. Competency will be established in understanding appropriate concepts and their relationships, conceptual schemes and processes and precise terminology in English and Spanish.
Prerequisite: Six semester hours of Mathematics a completed laboratory science and 12 semester hours in the Social Sciences.

## ED 3624 TEACHING READING AND OTHER COMMUNICATION SKILLS IN ENGLISH AND SPANISH

Consideration of different materials and methods for teaching children to understand, speak, read and write in both English and Spanish. Emphasis is placed on (1) the teaching of reading to second language learners and initial reading in Spanish; (2) the development of oral language skills in both first and second languages; (3) understanding how children acquire language. Approximately one-half of the course is devoted to the teaching of reading. Laboratory experience is required.

## ED 4311 DIRECTED TEACHING - ELEMENTARY

Fall, Spring
Course consists of observation, limited participation in teaching, then full teaching responsibility in an elementary public school (TEA accredited) classroom to which the student is assigned. This work is done under the guidance of the teacher of the class to which the student is assigned and the supervision of a college professor who makes periodic observations and evaluations of the student's progress. Seminars and individual conferences are required. Students are assigned to the public school classroom for a minimum number of hours as dictated by TEA. The number of hours per day and the number of days per week are regulated by TEA, PAU Student Teaching Handbook, and local school districts.
Prerequisite: Approval of PAU Teacher Education Committee

## ED 4312 DIRECTED TEACHING - KINDERGARTEN

Fall, Spring
Course consists of observation, limited participation in teaching, then full teaching responsibility in an elementary public school (TEA accredited) kindergarten classroom to which the student is assigned. This work is done under th, guidance of the teacher of the class to which the student is assigned and the supervision of a college professor who makes periodic observations and evaluations of the student's progress. Seminars and individual conferences are required. Studènts are assigned to the public school classroom for a minimum number of hours as dictated by TEA. The number of hours per day and the number of days per week are regulated by TEA, PAU Student Teaching Handbook, and local school districts.
Prerequisite: Approval of PAU Teacher Education Committee

## ED 4314 SEMINAR \& PRACTICUM IN KINDERGARTEN ED.

## Fall, Spring

Student will develop and implement curriculum projects in a kindergarten center. Projects will include planning and managing learning situations for children. Field experience in a TEA accredited kindergarten emphasizing action research will also be a part of the course. Seminars will be held to guide the student in implementing his or her program. May not be substituted by undergraduates for ED. 4312, if they are working toward the kindergarten endorsement as a part of a B.S. degree in elementary education.

## ED 4315 PRINCIPLES OF TEACHING WORKSHOP FOR ELEMENTARY/SECONDARY TEACHERS

On Demand
A workshop course designed for the person entering the teaching profession to set a theoretical and practical base for inquiry into introduction to teaching and planning for guidance of learning activities. Special permission must be given to each participant before enrollment in the course.

## ED 4367 READING FOR THE CULTURALLY DIVERSE STUDENT

Fall, SSI
This course provides the student with knowledge and instructional strategies for teaching reading to children of diverse cultural or language backgrounds. An emphasis will be placed on developing or selecting and appropriately using instructional materials designed specifically to meet the needs of such learners.

## ED 4368 ORGANIZATION AND MANAGEMENT OF READING PROGRAMS

Spring, SSII
This course allows the student to study various management and organizational plans for efficient reading instruction and to develop techniques for use in working with parents and support personnel in related professional areas.

## ED 4369 READING PRACTICUM

Fall, SSI
The student integrates and implements knowledge and skills gained from all previous courses within the reading specialization program as he (1) administers group diagnostic tools and uses results to organize the class for effective reading instruction, (2) uses individual diagnostic techniques appropriate for classroom instruction, (3) makes use of sound classroom management and organizational techniques to teach reading efficiently, and (4) uses appropriate reading instructional strategies (material and techniques) to teach individual learners effectively.

## ED 4391 EARLY CHILDHOOD CURRICULUM: ORGANIZATION, METHOD AND

 MATERIALSFall, Spring, SSI
Consideration of the philosophy, purposes and objectives of an early childhood program.
Consideration of curricular experiences that make up the programs; planning a daily program the learning experiences and activities that provide the young child with a rich environment that will meet his needs, interests and, abilities. Emphasis will be on activities and skills to broaden the child's understanding and knowledge of this physical environment - health, safety, science and social studies concepts. Emphasis will be on developmental skills for readiness of number concepts; oral language development; reading centers of interest, of individual, group and class activities. Lectures, readings, class participation and projects, observation.

## ED 4392 CREATIVE ACTIVITIES IN THE KINDERGARTEN

Fall, Spring
Consideration of methods of teaching and materials - equipment and supplies - to be used with young children. Experiences emphasized will be literature - picture-story books, poetry, story-telling, dramatization, etc. Other activities considered will be music and art for young children. Consideration will be given to development of motor-coordination through work and play activities (indoor and outdoor) with specific tasks outlined; as well as activities to develop eye-hand coordination and visual-tactile skills. Lectures, readings, class participation and projects, observation.

## ED 4610 DIRECTED TEACHING - ELEMENTARY

On Demand
This part of directed teaching requires the student teacher to assume complete responsibility for planning and implementation of instruction and for classroom discipline and management under the supervision of the public school teacher. The student will be assigned to a teacher in a public school for one-half of a semester, Monday through Friday. A weekly seminar and individual conferences are a required part of the course. Ed 4610 must be taken along with six other semester hours of directed teaching.
Prerequisite: Approval by the Teacher Education Committee.

## ED 4611 DIRECTED TEACHING - ELEMENTARY

Fall, Spring
Course consists of observation, limited participation in teaching, then full teaching responsibility in an elementary public school (TEA accredited) classroom to which the student is assigned. This work is done under the guidance of the teacher of the class to which the student is assigned and the supervision of a college professor who makes periodic observations and evaluations of the student's progress. Seminars and individual conferences are required. Students are assigned to the public school classroom for $\ddagger$ minimum number of hours as dictated by TEA. The number of hours per day and the number of days per week are regulated by TEA, PAU Student Teaching Handbook, and local school districts.
Prerequisite: Approval of PAU Teacher Education Committee

## ED 4612 DIRECTED TEACHING - KINDERGARTEN

On Demand
This part of directed teaching consists of the preparation and implementation of learning experiences for young children under the direction of an assigned kindergarten teacher. The student teacher will be observed periodically by an assigned University supervisor. The student teacher is assigned to a public school kindergarten teacher for one-half of a semester, Monday through Friday. A weekly seminar and individual conferences are a required part of the course. ED 4610 must be taken with ED 4612.
Prerequisite: Approval by Teacher Education Committee.

## ED 4651 WORKSHOP FOR ELEMENTARY TEACHERS

On Demand
A workshop course designed to assist teachers in planning for an elementary curriculum to meet the needs of migrant and/or disadvantaged children. Special permission must be given to each participant before enrollment in the course.

## ED 5313 READING TESTS

Spring
A major function of this course is to help graduate students develop competencies in the selection, administration, scoring and interpretation of standardized tests, with particular emphasis upon their application to reading instruction. Special emphasis will also be given to the development and use of informal evaluative instruments to meet particular reading needs of students.

## ED 5314 PRACTICUM IN KINDERGARTEN EDUCATION

Fall, Spring
Guided experiences in an early childhood center, wherein the student develops curricular projects, including planning and implementing discrete learning situations and episodes, for the children in that setting. Student to be in an early childhood center $1 / 2$ day each day of the semester and attend such seminars and conferences as suggested by the course instructor. Available to students seeking the endorsement for teaching in kindergarten.

## ED 5321 CAREER EDUCATION

On Demand
The course includes the definition and rationale for the concept of career education as a comprehensive program wherein the student's attention is focused on careers, beginning in early childhood and continuing throughout the adult years. Describes a sequentially developed education program offering career awareness, career exploration and job preparation for all students. For elementary and secondary, the program includes a structuring of basic subjects, grades K-12, around the theme of career opportunities and requirements in the world of work and emphasized the contribution that subject matter can make to a successful career.

## ED 5351 TEACHING READING TO THE SECONDARY STUDENT

Spring, Summer
The relation of reading ability to academic achievement, procedures for teaching reading skills needed in content area reading, and reading difficulties encountered by secondary students are included in this course. The student will use diagnostic tools and techniques to determine reading needs of secondary students and will develop reading-learning activities to meet those needs.

## ED 5352 SECONDARY CLASSROOM METHODS AND MATERIALS

Fall, Spring, Summer
This course is for students who have had no classroom or student teaching experience and provides students with opportunities (1) to apply modern methods and materials to problems in the secondary classroom and (2) to observe the methods and materials used by classroom teachers. Credit will not be granted for this course if ED 4352 or Ed.S. 3307 has been taken.

## ED 5390 ADVANCED STUDIES IN THE DEVELOPMENT OF YOUNG CHILDREN

 On DemandReview of development of the child from birth to age 8 with foci roots of individuality, origins of behavior and formation of cognitive structures. Survey of early acquisition of language and information skills. Principal course emphasis: physical characteristics, modes of learning. management of emotion, self-identification and responsiveness to the demands of social living by children ages 3,4 and 5 . Course activities include observation and interaction with young children, projects, readings and lectures. Credit not offered for both ED 4390 and ED 5390.

ED 5391 CONSTRUCTING CURRICULUM FOR EARLY CHILDHOOD CENTERS SSI<br>Identification of basic beliefs about the nature of young children, assumptions concerning the process of development, theories of learning, sociocultural factors and values upon which curricula are based. Construction of a curriculum in Math, Science, Social Learning and Language for children of ages $3 ; 4$ and 5 , including planning both learning environment and daily activities. Frequent observing, assisting and teaching in early childhood centers required. Credit not permitted for both ED 4391 and ED 5391.<br>\section*{ED 5392 RESEARCH AND DEVELOPMENT OF CREATIVE ACTIVITIES FOR YOUNG CHILDREN<br><br>Fall}<br>Opportunities for research and development of creative activities for young children in all areas of curriculum. Specific emphasis on Creative Dramatics, Literature, Art, Music, Creative Play and the development of motor skills. Student research, lectures, readings, projects, and observation. Credit not permitted for both ED 4392 and ED 5392.

## ED 5393 ADVANCED STUDIES OF CULTURAL DIVERSITY IN EARLY CHILDHOOD

 CENTERSSpring; On Demand
Designed to investigate facets of cultural diversity in young children and its relationship to child growth and development, instructional competencies of teachers and home-school relationships.

## ED 6305 PROBLEMS AND PRACTICES IN COLLEGE TEACHING

## On Demand

A methods course in which systematic instructional processes applied to the teaching of education will be learned. Emphasis will be upon writing and using instructional modules focused on behavioral outcomes. The utilization of instructional technology and evaluation. Required of all teaching assistants in the department of education. Does not count toward degree or certification.

## ED 6306 SUPERVISION OF STUDENT TEACHING

Fall, On Demand
Practical application of the supervisory role in the supervision of student teachers in a competency based teacher education program.

## ED 6308 FOUNDATIONS OF READING INSTRUCTION

 FallThis course places major emphasis on the nature of the reading process and the essential components of a systematic, sequential program for developmental reading instruction, various approaches for teaching reading will be scrutinized and analyzed.
Prerequisite: ED 3323 or admission by test placement.

## ED 6309. TOPICS IN READING

Spring
This course is concerned primarily with innovations and current issues in reading instruction. Trainees will select topics of pafticular interest and concern to them for intensive study. Experiences of the trainee may include action research, working with classroom teachers and other adults in the school community to enhance the reading program. May be repeated once, when emphasis is on study in resource areas or professional areas related to the field of reading.

## ED 6310 CHILD AND ADOLESCENT LITERATURE

Fall
This course is designed to help the trainee gain competence in (1) selecting and recommending literature for children and adolescents and (2) providing leadership and guidance to help students develop maturity in reading. The trainee will be provided with experiences which will enable him to locate and select appropriate literature for students and to apply appropriate strategies for stimulating voluntary participation and continuous growth in independent reading.

## ED 6323 PROBLEMS IN THE TEACHING OF READING

Fall
This course is concerned with analyzing and prescribing materials and techniques for reading instruction to meet common reading problems, integrating reading instruction with other facets of communication, relating reading instruction to socio-cultural and linguistic characteristics of the learner. Recreational reading, grouping, content area reading and other problems are among those considered.
Prerequisite: ED 6308.

## ED 6325 PRACTICUM IN READING INSTRUCTION

 SSISupervised experience in working with individual children who have reading difficulties. Prerequisite: ED 6329.

## ED 6326 SCIENCE IN THE ELEMENTARY SCHOOL CURRICULUM

 SSIIDeals with the purposes, selections and organization of content, teaching and learning procedures and evaluation of outcomes in elementary school science.
Prerequisite: A course in physical science and a course in life science.

## ED 6327 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL CURRICULUM

## SSI

Instructional procedures and latest theories in elementary school social studies. Techniques of teaching History and Geography with emphasis on development of Americanism, conceptual skills, economic and conservation education, use of maps, unit organization, projects and pupil involvement in community problems.

## ED 6328 MATHEMATICS IN THE ELEMENTARY SCHOOL CURRICULUM SSI

Study is made of recent research in the teaching of Mathematics. Application of research finding to the teaching of Mathematics is emphasized.

## ED 6329 DIAGNOSTIC TEACHING OF READING <br> Spring

This course is designed to help the student gain competency in diagnosing reading behavior and in prescribing appropriate reading instruction. The student will develop or select, administer and interpret appropriate diagnostic materials and techniques. He will also be able to make appropriate recommendations for reading instruction on the basis of such diagnosis.
Prerequisite: ED 6323.

## ED 6330 THE CURRICULUM IN THE ELEMENTARY SCHOOL

Development of the elementary school curriculum, significant factors which help to determine the curriculum and implications of research in curriculum construction are studied. Opportunity to select and organize appropriate learning experiences for the different levels is offered.

## ED 6331 THE CURRICULUM IN THE SECONDARY SCHOOL

An overview of theories, principles and issues in curriculum planning for modern educational experiences. In addition to an examination of current curricular practices, particular emphasis will be placed upon promising research ideas and local efforts toward improvement in the secondary school.

## ED 6332 RESEARCH IN ELEMENTARY EDUCATION

On Demand
A course in which each student will be given an opportunity to choose for study special problems to fit his particular needs and interests: research procedures needed in the preparation of a thesis or other research reports; to demonstrate his mastery of these procedures. The student will present a research paper on a selected problem.

## ED 6333 RESEARCH IN SECONDARY EDUCATION

On Demand
An individualized approach to current problems in secondary education. Each student will choose a topic or problem of his choice and summarize available research on it.

## ED 6336 PROBLEMS IN EDUCATION

Fall, Spring, Summer
This course's major emphasis is on current innovations in education. Students will conduct research related to selected problems. Experiences of the student may include conducting action research, working with educational determinants, newt education programs, and/or working with classroom teachers and other persons in the community in order to improve the education program. Credit may be applied toward the graduate programs in education when the appropriate problem is chosen by the student. This course may be repeated once for credit.

## ED 6380 PRACTICUM FOR SECONDARY TEACHERS

## Spring

Examination of the discipline of the subject-field selected coupled with intensive study of research findings, publications of learned societies and advanced experimentation with the improvement of instruction.

## ED 6390 THE EDUCATION OF YOUNG CHILDREN

 FallThis course is designed for teachers of children of preschool age with emphasis on the developmental tasks and growth and development characteristics of four and five year olds. Special consideration will be given to selection and guidance of curriculum experience which contribute to the development of young children as individuals and in groups, records and reports, working with parents and observation of preschool groups.
Prerequisite: ED 3311.

## Education-Secondary

## ED S 1301 CLINICAL INTRODUCTION TO SECONDARY EDUCATIÓN (FIELD EXPERIENCE)

Fall, spring
This overview of secondary education emphasizes the role of the teacher as a person. This course includes a comparative study of personal value systems, ethical conduct and their relationship to teaching.

ED S 2301 INTRODUCTION TO THE TEACHING-LEARNING PROCESS (FIELD EXPERIENCE)
Spring, on demand
This course focuses on the individual as a teacher by examining the role of the teacher in the teaching-learning process. This involves analysis of learners and learning environment as well as preparation for and performance of teaching activities within university and public school classrooms.

## Drama

## See Department of Communications

## Economics

See Department of Accounting and Economics

## Education

## See

- Department of School Administration and Supervision
- Department of Curriculum and Instruction - Elementary and Secondary
- Department of Health, Physical Education and Recreation
- Department of School Services and Counseling


## Engineering

See Department of Physical Science

## Department of English

## Full-time Faculty

Anderson-Mejias, Pamela (PhD, Indiana 1980; asst. prof.) applied linguistics, second language acquisition
Baltis, Margaret (MA, McNeese State 1967; asst. prof.) Eng. lit., Shakespeare, American lit., rhetoric
Bloom, Leonard (MA, St. Mary's, San Antonio 1968; instr.) modern American and modern British lit.

Cararas, Sandra A. (MA, Northeast Louisiana 1968, asst. prof.) technical writing, Shakespeare, renaissance and 17th century Eng. lit.
Crews, Ruth (MM, Texas, Austin 1973; instr.) vocal pedagogy, lit.
Davis, Will (PhD, Rice 1982; assoc. prof.) composition, critical theory, modern poetry
De La Fuente, Patricia (PhD, Texas, Austin 1976; assoc. prof.) comparative lit., renaissance Eng, lit.
Dean, Paula (PhD, Auburn 1971; assoc. prof.) American lit.
Dowell, Bob (PhD, Denver 1962; prof:) American lit., comparative lit.
Evans, James L. (PhD, Texas, Austin 1967; assoc. prof.) American lit. after Civil War, frontier lit., folklore, bibliography
Frankenberger, Earl (MA, Texas Christian 1967; asst. prof.) 18th century satire, American naturalist and environmental lit., composition and developmental skills
Fritz, Donald E. (PhD, Missouri, Columbia 1975; assoc. prof.) modern British and American lit., criticism
Fulton, Richard (MA, Alabama 1951; asst. prof.) Shakespeare
Grantz, Carl L. (PhD, Texas, Austin 1968; prof.) English lit., rhetoric, composition
Hamilton, Lee (PhD, Louisiana State University 1982; asst. prof.) 19th century British lit., William Blake; Jungian criticism; bibliography
Haule, James M. (PhD, Wayne State 1974; assoc. prof.) modern and contemporary British lit.
Heckler, Edward (PhD, Michigan 1975; asst. prof.) linguistics, ESL
Holliday, Howard (PhD, Texas Christian 1970; assoc. prof.) 20th century British and American lit.
Lyford, Roland (PhD, California-Davis 1968; prof.) 20th century American lit., structural linguistics
Mendez-Egle, Beatrice (PhD, Texas A\&M 1981; asst. prof.) rhetoric and composition, 19th century British lit., linguistics
Miller, Clyde (PhD, Denver 1969; assoc. prof.) creative writing; rhetoric and composition, Mexican cinema
Mitchell, Paul (PhD, Southern Mississippi 1971; assoc. prof.) 19th century British lit., rhetoric, composition
Reed, Michael D. (PhD, Oregon 1974; assoc. prof.) colonial and 19th century American lit., Psychoanalytic criticism; logic
Schmidt, Dorothy (PhD, Bowling Green State 1979; assoc. prof.) American studies, women's studies, creative writing
Seale, Jan (MA, North Texas State 1970; instr.) creative writing
von Ende, Frederick (PhD, Texas Christian 1972; prof.) medieval Eng. lit., Authurian legend \& lit., Milton, 17th century Eng. lit.
Wade, Seth (MA, Louisiana State 1954; asst. prof.) creative writing and translation; 20th century Eng. and American poetry; American lit
The Department of English offers undergraduate major and minor programs in English, with specializations in literature, language, or English as a Second Language. Teacher certification plans in English are available at both secondary and elementary levels. In addition, the department also offers graduate major programs leading to the M.A. in English, the M.A. in Interdisciplinary Studies with a concentration in English and the M.A. in English as a Second Language
Major and minor programs in English offer students an opportunity to discover more about the world they live in, to learn to appreciate the artistic works of fellow humans, and to develop literary and language aptitudes of their own. To students who view education primarily as career training, English programs afford excellent preparation for any profession requiring a high degree of skill and comprehension in oral and written communication.

## Major in English:

36 semester hours of English, of which 24 must be advanced. English 2301 and 2302 (or 2387 and 2388) are recommended sophomore literature courses for English majors. Required courses: 3319; six hours from Art 1301, Music 2307, Comm. 1300 or 1303.

The Department of English offers courses in literature, language (linguistics), English as a Second Language, and writing. Students may consider the offerings below in order to develop an individual degree plan in consultation with an advisor from the English department.

## Offerings in Literature:

2301, 2302, 2303, 2305, 2307, 2308 (when special topic is literary), 2313, 2387, 2388, $3301,3303,3304,3305,3306,3307,3309,3310,3311,3312,3313,3317,3320$ (when topic is literary), 3322, $3324,3325,3326,4301,4306,4309,4310,4312,4316,4318,4324$.

Offerings in Language (Linguistics):
$1310,3319,3320$ (when topic is linguistic) $3321,3330,4302,4308,4313,4314,4317$, 4326, 4330, 4331.

Offerings in English as a Second Language:
3319*, 3330", 4326, 4328*, 4329, 4330, 4331.

## Offerings in Writing:

$1300,1301,1302,1310,1387,1388,1405,1406,2308$ (when special topic is writing), 2309,3320 (when special topic is writing), 3327, 4322, 4325.

## Minor in English:

18 semester hours of English, of which 6 must be advanced. English 2301 and 2302 (or 2387 and 2388) are recommended sophomore literature classes for English minors.

## Teacher Certification in English (Elementary or Secondary):

24 semester hours of English, of which 12 must be advanced and must include 3319 and 4325. Students wishing certification with a concentration in literature, language, English as a Second Language, or writing should consult the offerings listed above for English majors.

## The Department of English Graduate Program

The Department of English offers courses leading to a Master of Arts in English, a Master of Arts in Interdisciplinary Studies with a concentration in English and a Master of Arts in English as a Second Language In addition, the Department provides support and specialization areas in English for degrees in other fields.

Students intending to use English as a support or specialization area must have six advanced undergraduate hours in the discipline.

## Requirements by the Department of English for a Master of Arts Degree with a Major in English

In addition to the general requirements set out elsewhere in this bulletin, the following specific requirements must be met:

1. Applicants for admission will be required to have completed 24 semester hours of undergraduate work in English 12 hours of which must be advanced. Each related graduate field presented will require evidence of completion of 12 hours of undergraduate work, of which 6 must be advanced hours.
2. The choice of courses in the major and related fields will be determined through consultation between the student and the departmental graduate advisor.

Master of Arts Degree
Major
English
Thesis
English
Major
Thirty semester hours (of which at least 24 will be in English) including a thesis, with the option of taking 6 hours in one or more related fields.

| Requirements; |  |  |
| :--- | :--- | :--- |
| ENG | 6300 | Bibliography and Research Methods |
| ENG | 7300, |  |
|  | 7301 | Thesis |

[^12]
## Master of Arts Degree

Major
Non-Thesis
English
Major
Thirty-six semester hours (at least 27 of which will be in English) and no thesis, with the option of taking 9 hours in one or more related fields.
Requirements:
ENG 6300
Bibliography and Research Methods
TOTAL
36 hours

## Requirements by the Department of English for a Master of Arts Degree with a Major in English as a Second Language

In addition to the general requirements set out elsewhere in this bulletin, the following requirements must be met:

1. A minimum score of 500 on the verbal section of the GRE for native speakers of English; a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) for non-native speakers of English (foreign students).
2. The choice of courses in the major and related fields will be determined through consultation between the student and the departmental graduate advisor.

## Master of Arts Degree

Major
Thesis
English as a Second Language
Major
Thirty-six semester hours including a thesis, with the option of taking 6 hours in one or more related fields.
Requirements (30 semester hours)

| ENG | 6300 | Bibliography and Research Methods <br> Introduction to Descriptive Linguistics for <br> Teachers |
| :--- | :--- | :--- |
| ENG | 6350 |  |
| ENG | 6321 | Studies in Language and Culture <br> ENG <br> 6302 |
| ENG | Modern English Syntax |  |
| ENG | Introduction to English as a Second Language |  |
| ENG | 6329 | Problems in English as a Second Language |
| ENG | 6352 | Practicum in English as a Second Language |
| ENG | 6353 | ESL Testing |
| ENG | 7300 | Thesis |
| ENG | 7301 | Thesis |

Electives (6 semester hours):
ENG 6317 English Phonological Systems
ENG 6325 Studies in Composition Techniques
ENG 6351 Problems in Linguistics
ED 6324 Second Language Teaching: Theory and Methodology
PSY 5318 Learning Theories
PSY 5333 Theories of Personality
SOC - 5313 American Minorities
SOC 5360 Sociology of Education
SPAN 6303 Studies in Hispanic Civilization
Electives not from this group must have the approval of the graduate advisor.

## Master of Arts Degree

Major
English as a Second Language
Major
Thirty-six semester hours and no thesis, with the option of taking 9 hours in one or
more related fields.

| Requirements |  |  |
| :--- | :--- | :--- |
| ENG | 6350 | Introduction to Descriptive Linguistics for <br> Teachers |
| ENG | 6321 | Studies in Language and Culture <br> ENG 6302 |
| ENG | Modern English Syntax |  |
| ENG | 6328 | Introduction to English as a Second Language |
| ENG | Problems in English as a Second Language |  |
| ENG | 6352 | Practicum in English as a Second Language |
| ENG | 6353 | ESL Testing |

(21 semester hours):

Electives
(15 semester hours):
At least 6 semester hours from the following:
ENG . 6317 English Phonological Systems
ENG 6325 Studies in Composition Techniques
ENG 6351 Problems in Linguistics
No more than 9 semester hours from the following:
ED 6324 Second Language Teaching: Theory and Methodology
PSY 5318 Learning Theories
PSY 5333 Theories of Personality
SOC 5313 American Minorities
SOC 5360 Sociology of Education
SPAN 6303 Studies in Hispanic Civilization
Electives not from these groups must have the approval of the graduate advisor.

$$
\text { TOTAL } \quad 36 \text { hours }
$$

## Requirements by the Department of English for a Master of Arts Degree in InterDisciplinary Studies with Concentration in English

In addition to the general requirements set out elsewhere in this bulletin, the following specific requirements must be met:

1. Applicants who wish to concentrate in English must have completed at least six advanced undergraduate hours in English.
2. The choice of courses in the concentration and other fields will be determined through consultation between the student and the departmental graduate advisor.

Master of Arts Degree in Interdisciplinary Studies
Concentration Thesis
English
Eighteen semester hours in English (including thesis) and eighteen semester hours in other fields.

| Requirements: |  |  |
| :---: | :---: | :---: |
| ENG 6300 | Bibliography and Research Methods |  |
| ENG $\begin{aligned} & 7300, \\ & 7301\end{aligned}$ |  |  |
|  | Thesis |  |
|  | TOTAL | 36 hours |
|  | Master of Arts Degree in Interdisciplinary Studies |  |
| Concentration |  | Non-Thesis |
| English |  |  |

Eighteen semester hours in English without thesis and eighteen semester hours in other fields.

Requirements:
ENG 6300 Bibliography and Research Methods

## Course Descriptions

## English

## ENG 1300 FUNDAMENTALS OF WRITTEN COMMUNICATION

Fall, Spring, Summer
Intensive study and practice in forming the basic unit of written communication, the sentence. Emphasis upon syntax, diction, punctuation, spelling, types of sentence construction and other basic writing skills. (Required of students scoring 10 or below on the English portion of the ACT test.) This course does not count toward the student's hours for graduation or in the determination of hours attempted or earned. Student will receive either a "P" - Pass or a "NP" No Pass grade in this course.

## ENG 1301 COMPOSITION

Fall, Spring, Summer
Development of the student's ability to communicate effectively and responsibly through written discourse. Emphasis upon mechanical proficiency and organization skills in writing expository essays, analysis of style, tone and point of view of expository prose. (Credit for this course may be obtained by qualified students through advanced placement or advanced standing examinations.) Prerequisite: A score of 11 or above on the English portion of the ACT test or a pass in English 1300.

## ENG 1302 RHETORIC

Fall, Spring, Summer
Development of the student's ability to recognize and to employ the principles of rhetoric in written discourse. Analysis of rhetoric and logic, writing of essays, and study of research and documentation techniques. Requires the completion of a research project. (Credit for this course may be obtained by qualified students through advanced placement or advanced standing examinations.)
Prerequisite: A grade of C or better in ENG 1301, 1387 or 1406.

## ENG 1310 READING-VOCABULARY

Fall, Spring, Summer
Development of the student's ability to read college level materials. Emphasis on vocabulary and word recognition skills, comprehension skills, study skills, efficiency in content area reading. Course does not satisfy general education requirements, but carries elective credit.

## ENG 1387 RHETORIC AND COMPOSITION (HONORS PLAN)

Fall
Study and practice of writing effectiveness, emphasis on expository writing and the research paper.
Prerequisite: Admission to honors studies or by invitation.

## ENG 1388 RHETORIC AND LITERATURE (HONORS PLAN)

Spring
Study and practice of writing effectiveness and literary interpretation. Emphasis on critical analysis of essays, fiction, and poetry.
Prerequisite: ENGLISH 1387 or by invitation.

## ENG 1405 ENGLISH FOR FOREIGN STUDENTS

Fall, Spring
For foreign students or any student born outside the United States who lacks proficiency in English. Intensive practice and drill, both oral and written, in vocabulary and sentence patterns, with particular attention to the English idiom. Three hour lecture and assigned lab. Course does not satisfy general education requirements, but carries elective credit.
Prerequisite: Minimum score of 500 on TOEFL or minimum score of 60 on M.T.E.L.

## ENG 1406 ENGLISH FOR FOREIGN STUDENTS

Fall, Spring
For foreign students or any student born outside the United States who lacks proficiency in English. Expository themes and readings in the essay, with a brief introduction to literature. Includes a language lab. (Student may receive credit once for ENG 1301, 1387, 1406.)

## ENG 2301 SURVEY OF ENGLISH LITERATURE

## Fall, Spring

A chronological study of the principal authors, their works, and the trends in English literature from the Anglo-Saxon period to the beginning of the romantic movement. A course designed specifically for English majors and minors.
Prerequisite: Minimum grade of " C " in six semester hours of required freshman English.

## ENG 2302 SURVEY OF ENGLISH LITERATURE

Fall, Spring
A chronological study of the principal authors, their works, and the trends in English literature from pre-romantic poetry to the Twentieth Century. A course designed specifically for English majors and minors.
Prerequisite: Minimum grade of " C " in six semester hours of required freshman English.

## ENG 2303 READINGS IN AMERICAN LITERATURE

## Fall, Spring, Summer

A study of several masterpieces of American literature, with emphasis on careful reading and on writing critical essays about individual works.
Prerequisite: Minimum grade of " $C$ " in six semester hours of required freshman English.

## ENG 2305 READINGS IN ENGLISH LITERATURE

## Fall, Spring, Summer

A study of several masterpieces of English literature, with emphasis on careful reading and on writing critical essays about individual works.
Prerequisite: Minimum grade of " $C$ " in six semester hours of required freshman English.

## ENG 2307 READINGS IN GENERAL LITERATURE

## Fall, Spring, Summer

A study of several masterpieces of world literature in translation, with emphasis on careful reading and or writing critical essays about individual works.
Prerequisite: Minimum grade of "C" in six semester hours of required freshman English.

## ENG 2308 READINGS IN SPECIAL TOPICS

Fall, Spring, Summer
A study of the literature associated with a special group, area, movement, or technique. The topic to vary with each section. (Special topics to be announced in the schedule of classes. Student may receive credit in this course only once.)
Prerequisite: Minimum grade of " $C$ " in six semester hours of required freshman English.

## ENG 2309 TECHNICAL REPORT WRITING

## Fall, Spring, Summer

A course designed especially for students who desire further training in composition of a practical and advanced character. Exercises in fundamental forms followed by the special types of reports used in engineering, science, and business, one research paper, letter, and oral reports. Prerequisite: Minimum grade of " C " in six semester hours of required freshman English.

## ENG 2313 READINGS IN DRAMATIC LITERATURE

## Fall, Spring

Critical review and analysis of selected classic plays from Greek antiquity to the present time. Designed to clarify the nature and major achievements of western dramatic art. May be counted as English or Drama.
Prerequisite (For English credit): Minimum grade of "C" in six semester hours of required freshman English.

## ENG 2387 READINGS IN WORLD LITERATURE (HONORS PLAN)

Fall
A study of selected works from the literature of Greece, Rome, and medieval Europe.
Prerequisite: Admission to honors studies or by invitation.

## ENG 2388 READINGS IN WORLD LITERATURE (HONORS PLAN) Spring <br> A study of selected works from western literature: Renaissance through modern. Prerequisite: Admission to honors studies or by invitation.

## ENG 3301 MEDIEVAL LITERATURE

## Spring ' 86

A study of various types of medieval literature, including the epic, the romance and the allegory, with special attention to middle English writers.
Prerequisite: 12 semester hours of English.

## ENG 3303 THE SEVENTEENTH CENTURY

## Spring ' 85

A study of the literature of England from the beginning of the Jacobean period through the restoration.
Prerequisite: 12 semester hours of English.

## ENG 3304 THE EIGHTEENTH CENTURY

Spring ' 86
A study of the major works of English writers of the Neo-classical period, including Dryden, Congreve, Pope, Swift, Sterne and Samuel Johnson.
Prerequisite: 12 semester hours of English.

## ENG 3305 THE ROMANTIC PERIOD

Fall ' 84
A study of the development of romanticism in France, Germany and England, with the main emphasis on English writers.
Prerequisite: 12 semester hours of English.

## ENG 3306 THE ENGLISH NOVEL TO 1850

Fall ' 84
A study of the origins and development of the English novel with emphasis on the major novelists.
Prerequisite: 12 semester hours of English.

## ENG 3307 THE ENGLISH NOVEL FROM 1850 TO PRESENT

Spring ' 85
A study of the continuing development and techniques of the English novel with emphasis ón the major novelists.
Prerequisite: 12 semester hours of English.

## ENG 3309 DEVELOPMENT OF THE AMERICAN NOVEL

## Spring ' 85

A study of the American novel from its beginnings to the present, with emphasis on the major novelists.
Prerequisite: 12 semester hours of English.

## ENG 3310 TWENTIETH CENTURY ENGLISH AND AMERICAN POETRY

Summer I '85
A study of the trends, movements in contemporary poetry, with emphasis on the works of the major writers.
Prerequisite: 12 semester hours of English.

## ENG 3311 CONTEMPORARY DRAMA

## See Comm. listing

See COMM 3311 for course description, may be counted as English or COMM.
Prerequisite: 12 semester hours of English.

## ENG 3312 SURVEY OF AMERICAN LITERATURE

Fall '84, '85
A chronological study of the principal authors, their works and the trends in American literature, from the Colonial period to the Civil War.
Prerequisite: 12 semester hours of English.

## ENG 3313 SURVEY OF AMERICAN LITERATURE

Spring ' 85 , ${ }^{\prime} 86$
A chronological study of the principal authors, their works and the trends in American literature, from the Civil War to the Twentieth Century.
Prerequisite: 12 semester hours of English.

## ENG 3317 THE SHORT STORY AND THE NOVELLA <br> Fall '85

A study of the development and technique of the short story and novella with emphasis on
literary appreciation.
Prerequisite: 12 semester hours of English.
ENG 3319 INTRODUCTION TO DESCRIPTIVE LINGUISTICS
Fall '84, Summer I '85, Fall '85, Summer I '86
An introduction to the methods of linguistics science with emphasis on problem solving techniques and the application to specific problems.
Prerequisite: 12 semester hours of English.

## ENG 3320 ADVANCED TOPICS IN ENGLISH

Spring ' 85 , Spring ' 86
A course adapted to the study of advanced special topics in English. Course may be offered for open enrollment when topic is selected by the instructor, or course may be conducted as independent/conference study when topic is selected by student and approved by the instructor. May be repeated for credit when topics vary.
Prerequisite: 12 semester hours of English.

## ENG 3321 LANGUAGE AND CULTURE

Spring ' 85
Systematic exploration of social aspects of language and language use, inçluding language attitudes, sociolinguistic dynamics of language contact situations, language learning, and the social and linguistic nature of dialects, language variation, and language change.
Prerequisite: 12 semester hours of English.
ENG 3322 POETRY
Summer II '85
An in-depth study of the art and nature of poetry, with emphasis on sounds, the forms, the language and the modes of poetry and including a survey of the techniques and terminology of poetry analysis.
Prerequisite: 12 semester hours of English.

## ENG 3324 THE LATER NINETEENTH CENTURY

## Summer II '85

A study of literature from 1832 to the end of the Nineteenth Century, with the chief emphasis upon the great prose writers of Victorian England: Carlyle, Ruskin, Arnold, Huxley, Dickens, Thackeray.
Prerequisite: 1.2 semester hours of English.

## ENG 3325 THE MEXICAN FILM

## Summer II '86

A critical examination of Mexican films, concentrating on approaches to aesthetic and technical criticism of the motion picture as an art form and as a communications medium. The course includes viewing and discussion of films as well as study of screenplays from which the films are derived.
Prerequisite: 12 semester hours of English. Not open to students with credit in MC 3325.

## ENG 3326 THE NEW SPANISH CINEMA

On Demand
Significant trends in Spanish cinema 1960-1975. Pioneering efforts of neo-realist directors like Luis Berlanga and Carlos Saura as well as formalistic experiments of Catalonian directors like Gonzalo Suarez and Antonio Ribas will also be emphasized in the course. Films will have English subtitles and will be shown at the Filmoteca Nacional in Madrid which will also provide classroom facilities for the course. (The course is sponsored by ACUIIS.)
Prerequisite: 12 semester hours of English. Not open to students with credit in MC 3326.

## ENG 3327 PRACTICAL WRITING IMPROVEMENT FOR THE NON-ENGLISH MAJOR

## On Demand

A course for the non-English major based on the awareness that writing is both an exploration of the self and a communication with others. Emphasis to be placed on improving style and fluency in analysis exposition, and argument.
Prerequisite: 12 semester hours of English.

## ENG 3330 ENGLISH GRAMMAR

Spring ' 85 , Summer II ' 85 , Spring '86, Summer II ' 86
A study of grammatical concepts with concentration on basic sentence structure principles of punctuation, and functional grammar. Course designed for, but not limited to, prospective teachers of students with limited English speaking/writing ability and/or ESL. students. Prerequisite: ENG 3319.

## ENG 3371 COOPERATIVE EDUCATION I

On Demand
A planned program of full-time work (minimum of one semester or two continuous five-week summer sessions) related to the field of English. Enrollment should be determined on the basis of a satisfactory employer's evaluation and the student's written report. Carries elective credit only and cannot be applied toward fulfillment of major or minor requirements.
Prerequisite: Approval of the department.

## ENG 4301 SHAKESPEARE

Spring '85, Spring ' 86
A study of representative plays in comedy, history and tragedy.
Prerequisite: 12 semester hours of English.

## ENG 4302 MODERN ENGLISH SYNTAX

Fall '85
Studies in modern English syntax with attention given to investigative methods and findings of contemporary linguistic analysis.
Prerequisite: ENGLISH 3319.

## ENG 4306 THE FRONTIER IN AMERICAN LITERATURE

Spring ' 86
A study of the influence of the American frontier on American literature, with special emphasis on the literature and folklore of the southwest and of the cattle kingdom.
Prerequisite: 12 semester hours of English.

## ENG 4308 HISTORY OF THE ENGLISH LANGUAGE

Spring ' 86
A history of the English language from the Anglo-Saxon period to the present.
Prerequisite: 12 semester hours of English.

## ENG 4309 CHAUCER

Summer I'86
A study of selected works of the greatest English poet of the Fourteenth Century.
Prerequisite: 12 semester hours of English.

## ENG 4310 AMERICAN LITERATURE OF THE SOUTH

Summer II '86
A study of the works of representative writers of the South.
Prerequisite: 12 semester hours of English.

## ENG 4312 MILTON

Fall '85
A study of the major poems and selected prose and minor poetry.
Prerequisite: 12 semester hours of English.

## ENG 4313 CONTRASTIVE PHONOLOGY

## Summer I'85

A comparison of English and Spanish sound systems providing detailed study of the phonemic and phonotactic similarities and differences of the languages. Course open only to students with proficiency in both English and Spanish. May be counted as English or Spanish 4313.
Prerequisite: ENGLISH 3319 or SPANISH 3306.

## ENG 4314 CONTRASTIVE GRAMMAR

## Summer I'86

A comparison of English and Spanish grammatical systems with emphasis on substantive and descriptive problems arising from the differences in the systems. Course open only to students with proficiency in both English and Spanish. May be counted as English or Spanish 4314. Prerequisite: ENGLISH 4302 or SPANISH 3305.

## ENG 4316 MEXICAN AMERICAN LITERATURE <br> Fall ' 84

A study of the literature by and about Mexican Americans, with emphasis on the literary techniques and the cultural reflection in this literature.
Prerequisite: 12 semester hours of English.

## ENG 4317 ENGLISH PHONOLOGICAL SYSTEMS

## Spring " 85

A study of the sound structure and system of modern English with attention given to the methods and findings of contemporary linguistics.
Prerequisite: ENGLISH 3319.

## ENG 4318 TEACHING SECONDARY SCHOOL LITERATURE

## Fall' 85

A study of methods and materials available to the teacher, with emphasis on procedures in analyzing specific works in various genres.
Prerequisite: 12 semester hours of English.

## ENG 4322 CREATIVE WRITING I

Fall "84, Fall '85
Practice in the writing of poetry and brief prose; with a study of literary forms, techniques and values from the writer's point of view.
Prerequisite: 12 semester hours of English or permission of instructor.

## ENG 4324 HISPANIC-AMERICAN LITERATURE IN ENGLISH TRANSLATION <br> \section*{On Demand}

A study of contemporary Hispanic-American literature, including essays by Octavio Paz, fiction by Azuela, Fuentes, Rulfo (Mexico), Garcia-Marques (Colombia), poetry by Neruda (Chile), and short fiction by Borges (Argentina).
Prerequisite: 12 semester hours of English.

## ENG 4325 COMPOSITION TECHNIQUES

Fall '84, Summer I'85, Fall '85, Summer I'86
A study of advanced composition techniques, including theories and methods of teaching composition skills.
Prerequisite: 12 semester hours of English.

## ENG 4326 LANGUAGE ACQUISITION

Spring ' 86
An analysis of the process of language learning, the normal development of speech and language, and the relationship of language to cognitive and social development.
ENG 4328 INTRODUCTION TO ENGLISH AS A SECOND LANGUAGE
Fall '84, Summer II '85, Fall '85, Summer II ' 86
A study of the process of learning English as a second language. Special attention given to problems encountered in reading, writing, and comprehending English.

## ENG 4329 ESL THEORY AND PRACTICE

Spring ' 85 , Spring ' 86
Review and assessment of various current pedagogical theories concerning the teaching of English as a Second Language. Requires tutorial participation in the departmental ESL laboratory. Prerequisite ENGLISH 4328
ENG 4330 THEORIES OF GRAMMAR, DIALECTS, AND LANGUAGE PERFORMANCE Fall '84, Fall '85
A survey of dialects, language performance, and contrastive analyses of grammar as they are applicable to the bilingual and/or second language learner. Designed for, but not limited to, prospective teachers of students with limited English proficiency and/or teachers of ESL.
students.
Prerequisites: ENG 3319, 3330, SPAN 3330.

## ENG 4331 PROBLEMS IN GRAMMAR, DIALECTS, AND LANGUAGE PERFORMANCE

Summer I '85, Summer I '86
A study of the second language learner's transition from regional Spanish to standard English.
Emphasis on the particular characteristics of the English and Spanish dialects of the region and the manner in which they interrelate. The course will treat theory already learned as well as that presented in the course in the light of practical methodological tools.
Prerequisites: SPAN 2302, 2308.
Prerequisites for bilingual certification students: ENG 3319, 3330, SPAN 3330, ENG/SPAN 4330.

## ENG 6300 BIBLIOGRAPHY AND RESEARCH METHODS

## Spring ' 86

A survey of the chief source materials of literary history and criticism and an introduction to methods and aids in literary research methods. Required of all graduate English majors.

## ENG 6302 MODERN ENGLISH SYNTAX <br> Fall '85

Studies in Modern English syntax with attention given to investigative methods and findings of contemporary linguistic analysis. Special emphasis on the structure of English as a language.
Prerequisite: English 6350, or consent of Instructor.

## ENG 6315 WORKSHOP IN CREATIVE WRITING

Fall '84, Fall' 85
Work in all genres for advanced students with a serious interest in publishing.

## ENG 6316 STUDIES IN MEXICAN-AMERICAN LITERATURE

Fall 85
Advanced study of the literature by and about Mexican Americans, with emphasis on the literary techniques and the cultural reflections in this literature.

## ENG 6317 ENGLISH PHONOLOGICAL SYSTEMS

## Spring ' 85

A study of sound structure and system of modern English with attention given to methods and findings of contemporary linguistics. Special emphasis on the articulatory means and the variables influencing the sound system as it is used.
Prerequisite: English 6350.

## ENG 6318 LITERATURE IN THE SECONDARY SCHOOL

 Fall 85Resources available for the teacher of English with consideration of analytical techniques..

## ENG 6321 STUDIES IN LANGUAGE AND CULTURE

Spring ' 85
Advanced study of social aspects of language and language use, including language attitudes, sociolinguistic dynamics of language contact situations, language learning, and the social and linguistic nature of dialects, language variation, and language change. Requires a research project.
ENG 6325 STUDIES IN COMPOSITION TECHNIQUES
Fall '84, Fall' '85
Advanced study of composition theory and techniques and methods of teaching composition, with special emphasis on teaching college freshman English composition. Required of all English graduate teaching assistants.
ENG 6328 INTRODUCTION TO ENGLISH AS A SECOND LANGUAGE
Fall '84, Summer II '85, Fall '85, Summer II '86
A study of ESL teaching methods and techniques and their application to specific language performance skills. Special emphasis on the linguistic, sociolinguistic, and psycholinguistic bases for selecting appropriate ESL methods and techniques.
Prerequisite: Eng 3319 or 6350 (Eng 3330 or 6351 recommended for ESL Endorsement students.)

## ENG 6329 PROBLEMS IN ENGLISH AS A SECOND LANGUAGE

Spring ' 85 , Spring ' 86
Studies in special problem areas of language and practice which prospective teachers of ESL students will encounter in the classroom. May be repeated once for credit when the topic varies. Prerequisite: English 6328:
ENG 6344 STUDIES IN GRAMMAR, DIALECTS, AND LANGUAGE PERFORMANCE
Fall '84, Fall ' 85
Studies of grammar, dialects, and language performance as they are applicable to the bilingual and/or second language learner.

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ENG 6345 PROBLEMS IN GRAMMAR, DIALECTS, AND LANGUAGE PERFORMANCE
Summer I '85, Summer I'86
A study of the second language learner's transition from regional usage to standard usage.
Emphasis upon practical implementation of theories of grammar, dialects, and language
performance.
Prerequisite: ENG/SPAN 6344.
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## ENG 6347 PROBLEMS IN LITERARY CRITICISM

Spring ' 85
Major aesthetic theories related to exercises in practical criticism.

## ENG 6350 INTRODUCTION TO DESCRIPTIVE LINGUISTICS FOR TEACHERS

## Fall '84, Summer I'85, Fall '85, Summer I'86

An introduction to the methods of linguistics science with emphasis on problem solving techniques and the application to specific problems, includes a research project exploring the application of linguistics to specific teaching situations. Not open to students with credit in ENG 3319.

## ENG 6351 PROBLEMS IN LINGUISTICS

Spring '85, Summer II '85, Spring '86, Summer II '86
Studies in modern linguistics with emphasis on the practical help which the science offers to the student of the English language. May be repeated once when the emphasis varies. (Special topics to be announced in schedule of classes.)
Prerequisite: ENGLISH 3319, 6350 or consent of the instructor.

## ENG 6352 PRACTICUM IN ESL

Spring ' 85 , Spring ${ }^{\prime} 86$
Supervised experience in teaching/working with learners of ESL in (a) the English 1405-1406 track, (b) a tutorial or (c) a laboratory. Actual experience will be based on theoretical principles and methodology of modern language teaching. Sample lesson plans will be developed and tried under the supervision of trained ESL personnel in a university context in order to meet the needs of ESL learners.
Prerequisite: English 6329, or consent of Instructor.

## ENG 6353 ESL TESTING

Summer I'86
Evaluation of second language learners of English following the principles and guidelines for diagnostic, placement, proficiency, and classroom testing in ESL. Areas covered include principles and procedures for (a) selecting (b) preparing (c) administering and (c) interpreting results of tests of ESL learning.
Prerequisite: English 6328, 6329.

## ENG 6360 STUDIES IN ENGLISH LITERATURE

Usually 3 per year
Extensive study in English literature. May be repeated for credit when the topic varies. (Special topics to be announced in schedule of classes.)
ENG 6370 STUDIES IN AMERICAN LITERATURE
Usually 3 per year
Extensive study in American literature. May be repeated for credit when the topic varies. (Special topics to be announced in schedule of classes.)

## ENG 6379 STUDIES IN COMPARATIVE LITERATURE: CLASSICAL TO MEDIEVAL

 On DemandThe comparison of particular topics, motifs, or genres in the literature of two or more languages or cultures.
ENG 6380 STUDIES IN COMPARATIVE LITERATURE: RENAISSANCE TO MODERN On Demand
The comparison of particular topics, motifs, or genres in the literature of two or more languages or cultures.

## ENG 6390 STUDIES IN SPECIAL TOPICS

On Demand
Extensive study in topics not limited to American or English literature. May be repeated for credit when the topic varies.
ENG 7300 THESIS
On Demand
ENG 7301 THESIS
On Demand

## Finance

See Department of Marketing, Finance and General Business

# Department of Foreign Languages 

## Academic Instructional Staff*

Barrena, Eduardo* (Ph. D, Texas 1976; assoc. prof.)! Spanish
Contreras, Victoria (M.A, Pan A'merican 1973; asst. prof.) Spanish
Dominguez, Sylvia M.* (Ph.D, Arizona 1971; prof.) Spanish
Garcia, Lino (Ph.D. Tulane 1981; assoc. prof.) Spanish
Gonzalez, Mauricio (Ph.D, Tulane 1982; asst. prof.) Spanish
Heartfield, Gilbert* (Ph.D, New Mexico 1971; assoc. prof.)' Spanish
Maloney, James C." (Ph.D, Arizona 1973; assoc. prof.) Spanish
Mejias, Hugo* (Ph.D. New York State 1978; assoc. prof.) Spanish
Rea, Ramiro R. (M.A, Sam Houston State 1969; asst. prof.) Spanish
Sanchez, Encarnacion (M.A, Sam Houston State 1970; inst.) Spanish
The Department of Foreign Languages consists of the subject areas of French, German, Portuguese and Spanish.

A major and a minor are offered in Spanish. Beginning courses in French, German, and Portuguese are provided. Teacher certification plans in Spanish are available at both the elementary and secondary level. The Department also offers a graduate major program leading to a concentration in Spanish within the Master of Arts in an Interdisciplinary Studies degree.

## Departmental Requirements

Art Appreciation 1301 or Music Appreciation 2307 and Comm 1300 or 1303.

## Major in Spanish (with certification)

36 semester hours of Spanish of which 24 semester hours must be advanced; must include 1301, 1302, or 1303, 1304; 2301, 2302 or 2307,$2308 ; 3303$ or 3304, 3306, 3330. 4316; 6 hours from $3301,3302,3310,3311 ; 6$ hours from $3309,3316,3321,4303,4304$, $4305,4306,4307,4308,4309,4317,4318,4325,4326,4327,4329,4330,4331$.

## Major in Spanish

Same as above excluding Spanish 4316, which may be taken as an elective.

## Minor in Spanish

18 semester hours in Spanish of which 6 semester hours must be advanced.

## Minor in Spanish (with certification)

Elementary Plan I: 21 semester hours of Spanish of which 9 must be advanced; must include 1301 and 1302 or 1303 and 1304; 2301 and 2302 or 2307 and 2308; 3303 or 3304; 3306, 3330

Elementary Plan II: 24 semester hours of which 12 must be advanced; must include 1301 and 1302 or 1303 and 1304; 2301 and 2302 or 2307 and 2308; 3303 or 3304; 3306; 3330, 3 advanced hours of Spanish electives.

Secondary Plan I: 24 semester hours of which 12 must be advanced; must include 1301 and 1302 or 1303 and 1304; 2301 and 2302 or 2307 and 2308; 3303 or 3304, 3306, 3330, 4316.

## Bilingual Administrative Assistant, Translator Program

Departmental certification in written translation is available at two levels: Bilingual Administrative Assistant (general translation) and Translator (advanced level). Three program options are offered in combination with the Spanish major/Business Administration minor:

1. Spanish major, Business Administration minor with one or both translation options and teacher certification.
2. Spanish major, Business Administration minor with one or both translation options, no teacher certification.
3. Non-university degree program in translation.

Courses required for the Bilingual Administrative Assistant certificate are: SPAN 3332, 3333, 3334, 3335. For the Translator option, SPAN 4332, 4333, 4334, 4335 are required. For degree plans, see the Department Head.

## The Department of Foreign Languages Graduate Program

The Department of Foreign Languages offers a graduate level concentration in Spanish within the Master of Arts in Interdisciplinary Studies degree program. Students enroll in eighteen hours in Spanish as a concentration, and take the remaining hours in other areas of study.

## Special Departmental Requirements

In addition to the general admission requirements set forth elsewhere in this bulletin, the following specific requirements must be met:

1. Applicants who wish to specialize in Spanish must have completed at least 12 semester hours of Spanish at the advanced undergraduate level.
2. Students who do not specialize but wish to take graduate courses in Spanish must have linguistic ability equivalent to that attained on completion of the intermediate level in Spanish. Non-specialists who wish to enroll in literature in translation courses are exempted from the language ability requirement.
3. Specialists will choose courses in Spanish and in related areas through consultation with their advisor.

## Master of Arts Degree in Interdisciplinary Studies

Concentration
Thesis
Spanish
Eighteen semester hours in Spanish including a thesis. Eighteen semester hours in related fields.

| Requirements: |  |  |
| :--- | ---: | :--- |
| SPAN | 6300 | Methods of Bibliography and Research |
| SPAN | 7300 | Thesis |
| SPAN | 7301 | Thesis |

TOTAL $\quad 36$ hours
Master of Arts Degree in Interdisciplinary Studies
Concentration
Non-Thesis
Spanish
Eighteen semester hours in Spanish and no thesis. Eighteen hours in related fields.
Requirements:
SPAN 6300 Methods of Bibliography and Research
TOTAL
36 hours

## Course Descriptions

## French

## FR 1321 BEGINNING FRENCH

Fall. Spring
A study of the essentials of French grammar, pronunciation, elementary conversation and prose reading.
FR 1322 BEGINNING FRENCH
Fall, Spring
A continuation of French 1321.
Prerequisite: French 1321.

## FR 1323 FRENCH CONVERSATION

Fall. Spring
Designed for students with an elementary knowledge of French who wish to strenghten their oral ability. Contemporary topics will be discussed. Active student participation is required. Prerequisite: French 1322.

## German

## GER 1331 BEGINNING GERMAN <br> Fall

A study of the essentials of German grammar, pronunciation, elementary conversation, and prose reading.

## GER 1332 BEGINNING GERMAN

## Spring

A continuation of German 1331.
Prerequisite: German 1331.

## Portuguese

## PORT 1361 BEGINNING PORTUGUESE

Fall
A practical course in listening, reading and writing modern Portuguese.
PORT 1362 BEGINNING PORTUGUESE

## Spring

A continuation of Portuguese 1361.
Prerequisite: PORT 1361.

## Spanish

## SPAN 1301 BEGINNING SPANISH

Fall, Spring, Summer .
A course designed to develop the ability to understand, speak; read and write the Spanish language. Open only to persons whose native tongue is not Spanish.

## SPAN 1302 BEGINNING SPANISH

Fall, Spring, Summer
A continuation of Spanish 1301.
Prerequisite: SPAN 1301.

## SPAN 1303 BEGINNING SPANISH

## Fall, Spring, Summer

A course designed to develop the ability to read and to write the Spanish language. For students whose native language is Spanish but who have not studied it.
SPAN 1304 BEGINNING SPANISH
Fall, Spring, Summer
A continuation of Spanish 1303.
Prerequisite: Spanish 1303.

## SPAN 2301 INTERMEDIATE SPANISH FOR NON-NATIVE SPEAKERS

Fall, Spring, Summer
Continuation of oral practice with special emphasis on reading and writing skills.
Prerequisite: Spanish 1302:

## SPAN 2302 INTERMEDIATE SPANISH FOR NON-NATIVE SPEAKERS

Fall, Spring, Summer
A continuation of Spanish 2301.
Prerequisite: Spanish 2301.

## SPAN 2307 INTERMEDIATE SPANISH FOR NATIVE SPEAKERS

## Fall, Spring, Summer

A comprehensive review of Spanish grammar with special emphasis on writing.
Prerequisite: Spanish 1304.
SPAN 2308 INTERMEDIATE SPANISH FOR NATIVE SPEAKERS
Fall, Spring, Summer
A continuation of Spanish 2307.
Prerequisite: Spanish 2307.
SPAN 3301 SPANISH LITERATURE (1100-1750)
Fall even year, Summer I odd year
A survey of the literature of Spain to the beginning of romanticism. Given in Spanish. Prerequisite: Spanish 2302 or 2308.

## SPAN 3302 SPANISH LITERATURE ( 1750 to our times)

Spring even year, second Summer II odd year
A survey of the literature of Spain from romanticism to the Modern period. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.
SPAN 3303 ADVANCED SPANISH COMPOSITION
Fall odd year, Summer I even year
Intensive training in Spanish composition. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

SPAN 3304 ADVANCED SPANISH COMPOSITION
Spring odd year, Summer Il even year
Additional work in composition. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 3306 BASIC CONCEPTS OF SPANISH PHONETICS AND PHONOLOGY

Fall, Summer I
An analysis of the phonetic and phonological system of Spanish with special emphasis on the relationship between the phonetic system and writing. Prerequisite: Spanish 2302 or 2308.

## SPAN 3308 SPANISH GRAMMAR AND COMPOSITION FOR THE CLASSROOM

 TEACHERSpring every three years.
The study of the Spanish language applicable to the concerns of the elementary classroom. Skills and knowledge in basic instructional Spanish language varieties in the school and the community are elements of the course. A strong application to the Spanish of the Bilingual classroom is stressed. Given in Spanish.
Prerequisite: Spanaish 2302 or 2308.

## SPAN 3309 TECHNIQUES OF LITERARY ANALYSIS.

Spring every 3 years.
A study and practical application of the fundamentals of literary criticism. Several different approaches to literary analysis will be presented in order to construct a solid basis for the interpretation of literature.
Prerequisite: Spanish 2302 or 2308.

## SPAN 3310 MASTERPIECES OF SPANISH-AMERICAN LITERATURE, I.

## Fall even year, Summer I

An investigation of the literary works of the principal narrators, poets and dramatists of Spanish America from the beginnings of Spanish colonialism to modernism. Analysis of form and content and study of the historical background and literary currents in each work. Prerequisite: Spanish 2302 or 2308.

## SPAN 3311 MASTERPIECES OF SPANISH-AMERICAN LITERATURE, II

Spring even year, Summer II
An investigation of the literary works of the principal narrators, poets and dramatists of Spanish America from modernism to the present. Analysis of form and content and study of the historical background and literary currents in each work. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 3316 THE MEXICAN NOVEL

Fall once every three years
The study of the major novels of Mexico. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 3321 SHORT STORY IN SPANISH AMERICA

## Spring once every three years

The study of the evolution of the very important genre in Spanish American literature. Themes, techniques and literary movements will be investigated. The writers studied in this course will include: Echeverria, Palma, Guierrez Najera, Quiroga, Borges, Garcia Marquez, and others. Prerequisite: Spanish 2302 or 2308.

## SPAN 3330 SPANISH GRAMMAR

Fall, Spring, Summer II
A study of grammatical concepts with concentration on basic sentence structure, the paragraph, principles of punctuation, and functional grammar. Course designed for Spanish majors and minors as well as those interested in bilingual endorsement.
Prerequisite: Spanish 2302 or 2308 (Prerequisite for aspirants to bilingual/bicultural endorsement: Spanish 2302 or 2308 and English 3319.)
SPAN 3332 INTRODUCTION TO SPANISH-ENGLISH TRANSLATION
Fall even year
A basic orientation in the theory and practice of translating a text from Spanish to English, including consideration of both cultural and morpho-syntactical problems.
Prerequisites: English 3330, Spanish 1301, 1302, or 1303, 1304; 2301, 2302, or 2307, 2308; 3303, 3304, 3306 and 3330.

## SPAN 3333 INTRODUCTION TO ENGLISH-SPANISH TRANSLATION <br> Spring even year

A basic orientation in the theory and practice of translating a text from English to Spanish, including consideration of both cultural and morpho-syntactical problems.
Prerequisites: English 3330, Spanish 1301, 1302, or 1303, 1304; 2301, 2302, or 2307, 2308; 3303, 3304, 3306, and 3330 .

## SPAN 3334 BUSINESS SPANISH I

Summer I even year
Basic orientation and intensive practice in professional correspondence and report writing with close reference to actual practice in Mexico and other Hispanic countries.
Prerequisites: English 3330, Spanish 1301, 1302 or 1303, 1304; 2301, 2302 or 2307, 2308; 3303, and 3304, 3306, 3330.

## SPAN 3335 BUSINESS SPANISH II

Summer II even year
Review of basic principles and Spanish nomenclature of political economy, accounting, marketing, management, and finance. Theory and practice of commercial and civil registers. Differences between U. S. and Latin American business and government practices.
Prerequisites: English 3330, Spanish 1301, 1302, or 1303, 1304; 2301, 2302, or 2307, 2308; 3303, 3304 , 3306 , and 3330 .

## SPAN 4303 SPANISH CIVILIZATION

Fall every three years.
A survey course covering the entire range of Iberian history outlining the major differences between Spanish culture and the cultures of other Western nations. Given in Spanish.
Prerequisite: Sphnish 2302 or 2308.

## SPAN 43Q4 SPANISH LYRIC POETRY

Spring once every three years.
A survey of lyric poetry from its beginning to the present. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4305 CERVANTES

Spring once every three years.
A study of the principal works of Miguel de Cervantes with particular emphasis on the DON
QUIXOTE. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4306 HISTORY OF THE SPANISH LANGUAGE

Spring every three years.
A study of the development of Spanish as a language.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4307 . SPANISH-AMERICAN NOVEL

## Fall every three years.

Begins with a study of literary and historical influence in the 19th century Spanish American Gaucho and costumbrista novels and those showing European influence: Guiraldes, Blest Gana, Gamboa. Examination of recent literary trends: Mallea, Sabato, Roa Bastos, Vargas Llosa.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4308 MEDIEVAL SPANISH LITERATURE

Spring every three years.
A study of the principal literary works of Spain from EL CID to the ROMANCERO. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4309 CONTEMPORARY SPANISH LITERATURE

Summer every three years.
A study of the principal literary works of Spain from the Generation of 1898 to the Present. Given in Spanish.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4316 TECHNIQUES AND METHODS OF TEACHING SPANISH

 SpringA study of methods and techniques utilized in teaching Spanish at the secondary level.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4317 GOLDEN AGE PROSE

## Fall every three years.

A critical study of the most representative prose works of Golden Age Spain. Given in Spanish, Prerequisite: Spanish 2302 or 2308.

## SPAN 4318 THEATER AND POETRY OF THE GOLDEN AGE

Fall every three years.
Study of the principal dramatists and poets of the age such as Lope de Vega, Tirso de Molina,
Juan Ruiz de Alarcon, Garcilaso de la Vega, Fernando de Herrera, Luis de Gongora, and others. Prerequisite: Spanish 2302 or 2308.

## SPAN 4325 CARIBBEAN LITERATURE

Spring every three years.
This course will investigate the contemporary literature of Puerto Rico, the Dominican Republic and Cuba with special study of the following literary figures: Rene Marquez, Luis Pales Matos, Juan Bosch, Nicolas Guillen and Alejo Carpentier. Emphasis on Afro-Antillean influence with special attention to the relevance of these works, in today's social and political atmosphere. Prerequisite: Spanish 2302 or 2308.

## SPAN 4326 CONTEMPORARY SPANISH AMERICAN LITERATURE: A NEW ERA

 Summer every three years.An investigation of contemporary Spanish American literature through a four genre study that will include discussions on the following topics: The quest for identity, the Qustions of communication and alienation and the problems of existential man in the universe.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4327 SPANISH AMERICAN LITERATURE OF CONFLICT

Summer II every three years.
Since literature and political philosophies have always been closely allied in Spanish America, this course will begin with a brief study of the revolutionary aspects of the enlightment in Spanish America and will proceed with investigations concerning 19th century political romanticism, the Peruvian "Indinista" novel, the Mexican revolutionary novel and the political thoughts of Neruda, Vallejo, Asturias and Cardenal.
Prerequisite: Spanish 2302 or 2308.

## SPAN 4329 MEXICO'S CONTEMPORARY LITERATURE

Fall every three years.
An investigation of Mexico's latest literature taking into account the psychological effects stemming from the industrial surge, the problems of the migration of the poor, the rebirth of the malinchista spirit, the new identity and the erosion of old traditions in the last two decades. Prerequisite: Spanish 2302 or 2308.

## SPAN 4330 THEORIES OF GRAMMAR, DIALECTS, AND LANGUAGE PERFORMANCE

 Fall, Summer IA survey of contrastive analysis of grammar, dialects, and lianguage performance as they are applicable to the bilingual and/or second language learner. Designed for, but not limited to, prospective teachers of students with limited English proficiency and/or teachers of ESL students.
Prerequisite: Spanish 2302 or 2308.
Prerequisite for students in the bilingual program: English 3319, 3330, Spanish 3330.

## SPAN 4331 PROBLEMS IN GRAMMAR, DIALECTS, AND LANGUAGE PERFORMANCE Spring, Summer II <br> A study of the second language learner's transition from regional Spanish to standard English. Emphasis on the particular characteristics of the English and Spanish dialects of the region and the manner in which they interrelate. The course will treat theory already learned as well as that presented in the course in the light of practical methodological tools. <br> Prerequisites: Spanish 2302 or 2308. <br> Prerequisites for bilingual certification students: English 3319, 3330, Spanish 3330, English/Spanish 4330.

## SPAN 4332 ENGLISH-SPANISH COMMERCIAL TRANSLATION

Fall odd year
Intensive practice in the translation from English to Spanish of commercial, financial, and marketing texts, as well as shipping, insurance, and costums house documents.
Prerequisite: Completion of the Bilingual Administrative Assistant Curriculum.

## SPAN 4333 SPANISH-ENGLISH COMMERCIAL TRANSLATION

## Spring odd year

Intensive practice in the translation from Spanish to English of commercial, financial, and marketing texts, as well as shipping, insurance, and customs house documents. Prerequisite: Completion of the Bilingual Administrative Assistant Curriculum.

## SPAN 4334 ENGLISH-SPANISH LEGAL TRANSLATION

## Summer I odd year

Intensive practice in the translation from English to Spanish of contracts and government regulations, as well as texts relating to both civil and criminal court cases.
Prerequisite: Completion of the Bilingual Administrative Assistant Curriculum.

## SPAN 4335 SPANISH-ENGLISH LEGAL TRANSLATION

Summer II odd year
Intensive practice in the translation from Spanish to English of contracts and government regulations, as well as texts relating to both civil and criminal court cases and extracts from the civil registries of Hispanic countries.
Prerequisite: Completion of the Bilingual Administrative Assistant Curriculum.

## SPAN 6300 METHODS OF BIBLIOGRAPHY AND RESEARCH

Fall even year
A systematic study of bibliographic and reference information. Emphasis will be placed upon the study of indexes, national bibliographies, and bibliographical control. Also includes practice and guidance in the writing of graduate level papers. Required of those with concentration in Spanish.
Prerequisite: Graduate standing and 12 hours of advanced Spanish.

## SPAN 6303 STUDIES IN HISPANIC CIVILIZATION

Fall odd year
A critical study of the physical, ethnic, racial, and historical aspects of Hispanic civilization from its advent to the present, Iverian as well as American Hispanic cultures will be studied and compared.
Prerequisite: Graduate standing and 12 hours of advanced Spanish.

> SPAN 6307 ADVANCED SPANISH GRAMMAR AND COMPOSITION FOR THE CLASSROOM TEACHER
> Summer II odd year
> An examination of the Spanish language concerns of public educators as applicable to the elementary classroom. Skills and knowledge in basic communication, its theoretical principles and the varieties of language function and style in the school and communities are elements of this study. A strong application to the Spanish of the bilingual classroom is stressed. Given in Spanish and English. Not recommended for Spanish majors.

## SPAN 6313 HISTORY OF THE SPANISH LANGUAGE

Summer II even year
A detailed study of the growth of the Spanish language from the beginning to the present. Given in Spanish.
Prerequisite: Graduate standing and 12 hours of advanced Spanish.
SPAN 6339 SPECIAL STUDIES IN SPANISH-AMERICAN LITERATURE
Spring even year, Summer I odd year
Special topics from the field of Spanish-American literature. This course may be taken three times as the topic varies.
Prerequisite: Graduate standing and 12 hours of advanced Spanish.
SPAN 6341 SPECIAL STUDIES IN SPANISH LITERATURE
Spring odd year, Summer I even year
Special topics from the field of Spanish literature. This course may be taken three times as the topic varies.

SPAN 7300 THESIS
SPAN 7301 THESIS

## French

See Department of Foreign Language

## General Business

See Department of Marketing, Finance and General Business

## Geography

See Department of Physical Science

## Geology

## See Department of Physical Science

## German

See Department of Foreign Language

# Department of Health, Physical Education and Recreation 

Dr. Amilda Thomas, Chair

## Full-Time Faculty

*Black, W. Darrel (Ph.D., Indiana 1953; prof.) Motor Learning, Supervision, Methodology
Guerrero, Oton Jr. (M.S., Texas A\&I 1955; assoc. prof.) Coaching
*Guinn, Robert (Ph.D., Texas A\&M 1974; assoc. prof.) Health Education
Hawkins, Jeanette (M.Ed., West Texas State 1966; asst. prof.) Gymnastics
*Jorgensen, Layne (Ph.D. Louisiana State 1971; assoc. prof.) Biomechanics, Research Methods
Ogletree, Alfred H. (M. Ed., Texas A\&M 1955; assoc. prof.) Coaching
*Parkinson, Charles (PED, Indiana 1966; prof.) Health Education and Tests and Measurements
*Rábke, Mary Lee (Ph.D., Texas Woman's 1959; prof.) Motor Learning, Coaching, History of Physical Education
*Semper, Thomas (Ph.D., Texas A\&M 1971; assoc. prof.) Physiology of Exercise, Secondary School Methods
Sturdivant, Diane F. (M.S. Kansas State Teacher's 1955, asst. prof.) Movement Education, Elementary School Methods
*Thomas, Amilda (Ph.D. Texas Woman's 1969; prof. and chair) Dance, Curriculum, Adapted Physical Education
Williams, Walter S. (M.S. North Texas State 1955; prof.) Sports Education
The Department of Health, Physical Education and Recreation offers a Bachelor of Science degree with majors in Health Education, in Physical Education, and in Recreation Administration. The department offers minors in Health Education and in Physical Education. The Recreation Administration major is a non-teaching field.
At the graduate level, the Department of Health, Physical Education and Recreation offers a Master-of Education degree with a specialization in Physical Education.

In teacher certification the following plans are offered:

## Health Education

Elementary Plan I
Elementary Plan II
Secondary Plan I
Physical Education
Elementary Plan I
Elementary Plan II
Secondary Plan I
All-Level Physical Education
The University College requirement for all students is four semester hours of credit in physical education. This requirement is met during the freshman and or sophomore years. Students who are unable to participate in physical activity courses are required to take HE 2301 to satisfy the requirement.
Physical Education majors and minors are required to have credit in eight physical education activity courses. Physical education activity courses are not counted toward a major or a minor in Physical Education.
A minimum of 12 semester hours of professional Health Education or Physical Education must be taken on the Pan American University campus.

# Special UC/GE Requirements for Bachelor of Science Degrees in Health Education, in Physical Education, and in Recreation Administration 

Natural Science
8 hours
Biol. 1401, 2403 required
Physical Education and Recreation Administration majors and minors are required additional hours in activity courses. Consult degree requirements for specific listings.

## Health Education Degree Requirements

## Major in Health Education

30 semester hours in Health Education of which 15 semester hours must be advanced; must include HE 1354, HE 4350 and 4352. Biology 1401 and 2403 are required.

## Minor in Health Education: Non-Certification

18 semester hours in Health Education, of which 6 semester hours must be advanced.

## Teacher Certification in Health Education

Elementary Plan I: 18 semester hours in Health Education of which 12 semester hours must be advanced; must include HE 1354, HE 2352, and 12 hours electives. Biology 1401 and 2403 are required.
Elementary Plan II: 24 semester hours in Health Education, of which 12 semester hours must be advanced; must include HE 1354, HE 2352, and 18 hours electives. Biology 1401 and 2403 are required.

Secondary Plan I: 24 semester hours in Health Education of which 12 semester hours must be advanced; HE 1354, HE 4350, and 4352. Must include 19 semester hours in Education: Ed 2100; Ed S 3301 or 3303, 3302, 3305, 3307, 4641. Biology 1401 and 2403 are required.

## Physical Education Degree Requirements

Physical Education Majors and Minors are required to take Biology 1401 and 2403. It is recommended that the student, by the end of the sophomore year, possess both knowledge and skills in individual and team sports, dance, gymnastics and aquatics. Majors and minors must have credit in PE 1200, 1201 or 2226 or 2230, 2203, 2204, 2207, $2208,2225,2257$. Any required activity course may be waived through a proficiency examination and another activity course substituted.

## Major in Physical Education

30 semester hours in professional Physical Education of which fifteen semester hours must be advanced; must include PE 1351, 2354, 3312, 3319, 3353, 4351, 4354, 3 semester hours from $3300,3302,3303,3310$, or 3320 and six additional semester hours. PE 1200, 1201 or 2226 , or $2230,2203,2204,2207,2208,2225$, and 2257 are required. Biology 1401 and 2403 are required.

## Minor in Physical Education: Non-Certification

18 semester hours in Physical Education of which six semester hours must be advanced.

## Teacher Certification in Physical Education

Elementary Plan I: 18 semester hours in Physical Education, of which 12 semester hours must be advanced; must include PE 1351, 3313, 3317, 3356, 3357, 4351.

Elementary Plan II: 24 semester hours in Physical Education, of which 12 semester hours must be advanced; must include PE 1351, 3310, 3313, 3317, 3356, 3357, 4351 and three semester hours elective.

Secondary Plan I: 24 semester hours of Physical Education of which 12 semester hours must be advanced; PE 1351, 2354, 3312, 3319, 3353, 4351, 4354 and three semester hours elective. Includes ED 2100, ED S 3301 or 3303, 3302, 3305, 3307, 4641. Biology 1401 and 2403 are required.
All-Level: 27 semester hours of Physical Education, of which fifteen semester hours must be advanced; must include PE 1351, 2354, 3312, 3319, 3353, 3356, 3357, 4351, and 4354. Includes ED 2100, ED S 3301 or 3303, 3302, 3305, 3307, 4398. ED 3302 or 3305, 3311, 4311. Biology 1401 and 2403 are required.

## Recreation Administration Degree Requirements

Recreation majors are required to take BIO 1401 and 2403. Majors must have credit in PE 1200, 1201, 1255, 2201, 2202, 2203, 2204, 2221, 2225, 2257, 2258, 2259.

## Major in Recreation Administration

45 semester hours in Recreation and related areas. REC 1351, 2351, 3360, 4353, 4354, 4356, 4656; 9 semester hours from ART 2303, 2304, 2371 and 3303; 9 semester hours from COMM 3308, 4305, MUSIC 3311, 3312; HE 1354.

## Minor Area

Psychology - 18 semester hours. PSY 1313, 1323, 2324, 2336, 4333, and 3 semester hours advanced electives in Psychology.

## Athletic Coaching Specialization

The Department of Health, Physical Education and Recreation has the primary responsibility of preparing teachers in the areas of Physical Education and Health Education. In an effort to meet the demand for more men and women coaches in all sports, an Athletic Coaching Specialization program is offered. With the completion of this program, a Departmental Certificate is awarded. The student need not be either a major or minor in Physical Education to complete this program.
To be eligible to receive the Athletic Coaching Specialization Certificate, the student must complete the following program of study:

| REQUIRED COURSES: |  |  |
| :--- | :--- | :--- | :--- |
| PE | 2354 | Biomechanics |
| PE | 3352 | Care and Prevention of Athletic Injuries |
| PE | 3353 | Physiology of Exercise |
| HE | 1354 | First Aid |
| SELECT | FOUR | FROM THE FOLLOWING: |
| PE | 3300 | Theory of Coaching Football |
| PE | 3302 | Teaching Individual Sports |
| PE | 3303 | Theory of Coaching Basketball |
| PE | 3304 | Theory of Coaching Baseball |
| PE | 3305 | Theory of Coaching Track and Field |
| PE | 3320 | Theory of Coaching Volleyball |

## Graduate Program

The Department of Health, Physical Education and Recreation offers a Master of Education Degree with a specialization in Physical Education. Students must meet minimum Graduate School and School of Education entrahce requirements, complete an oral examination following the completion of twelve semester hours of graduate work, and pass a comprehensive written examination at the end of the program.

## Master of Education Degree in Physical Education

Major
Physical Education

| SPECIALIZATION AREA | (24 hours) |  |
| :--- | :--- | :--- | :--- |
| Required: |  | (12 hours) |
| PE | 6301 | History and Philosophy of Physical Education |

Certificate Professional
(24 hours)
12 hours)
(12 hours)


## Course Descriptions

## Health Education

HE 1352 COMMUNITY AND ENVIRONMENTAL HEALTH Fall
Basic community health problems with emphasis upon communicable disease, waste disposal, safe water, food and drug control and the improvement of community health education.
H E 1354 SAFETY EDUCATION AND FIRST AID
Fall, Spring
Basic knowledges for safe and effective living. The essential aspects of home, work, motor vehicle, and public safety. Includes both theoretical and practical aspects of emergency care. Standard First Aid and Personal Safety and Cardio-Pulmonary Resuscitation (CPR) certification upon completion of specific requirements.

## H E 2301 PERSONAL HEALTH APPRAISAL

Fall, Spring
Introduction to personal health risk appraisal procedures that are intended to provide the intellectual and motivational base for positive health related behavior modification.

## H E 2352 THE HEALTH EDUCATION PROGRAM IN THE ELEMENTARY SCHOOL

 Fall, SpringBasic principles of school health education, methods of teaching and the administration of the health program in the elementary school. For elementary majors only.
H E 2371 HEALTH PROBLEMS IN THE USE OF ALCOHOL, TOBACCO AND NARCOTICS Spring
Examination of the psychological, physiological and social effects of the misuse of drugs and other harmful agents. Legal and ethical implications for the individual and society.

## HE 2372 NUTRITION AND HEALTH <br> Eall

Human growth patterns and systemic development. Organismic nutritive needs and sources. Physical fitness defined and related to total fitness. The nature, source, control and treatment of non-communicable disease.

## H E 2373 GROWTH, DEVELOPMENT, AND FITNESS

Spring
A study of the growth process and systemic development of the human organism. The concept of physical fitness is analyzed and related to organismic function and well being.

## H E 3373 SOCIAL HEALTH AND FAMILY LIFE

 SpringAdjustment of the individual to life in the social group with emphasis upon problems occurring in mental and emotional health, aging, family living and human sexuality.

## H E 3374 CHRONIC AND DEGENERATIVE DISEASE

Fall
A study of chronic and degenerative disease with respect to the nature source, incidence, control, and treatment of diseases such as: cancer, cardio-vascular anomalies, neurological disorders, mental retardation, and genetic disorders. Emphasis is upon providing sufficient and usable information which will provide the basis for responsible action in matters of personal health.

## HE 3375 CONSUMER HEALTH

Spring
Selection, evaluation and understanding of health information, medical services, health product and advertising and socio-cultural factors in consumer health protection.

## H E 4350 SECONDARY SCHOOL HEALTH PROGRAM

Fall
Organization and structure of the secondary school health program. Delineation and function of the various phases of the program, and examination of alternative teaching techniques and methodologies.
Prerequisite: 15 hours of Health Education.

## H E 4352 PRACTICUM IN HEALTH EDUCATION

## Spring

The development of curriculum materials appropriate to current methodologies. Special emphasis are placed upon Texas Education Agency recommended guidelines and teaching demonstrations of designed units.
Prerequisite: HE 4350

## H E 4357 HEALTH EDUCATION WORKSHOP

SS II alternating years
For teachers, nurses, principals, superintendents and community leaders to gain perspective and insight into essential cooperative efforts of home, school and community to meet the growing health needs of our society.

## H E 4358 CURRENT HEALTH READINGS AND REPORTED RESEARCH

Fall, Spring
Extensive gleaning of the literature to identify the latest concepts and research findings to provide the basis for discussion and the analysis of the relevance of such to the school health education program.

## Physical Education

## ACTIVITY COURSES

## PE1160 DANCE PERFORMANCE-FOLKLORIC

An organization open to all college students who possess sufficient interest and skills in the area of dance. Membership is determined by audition. The course includes rehearsals and performance designed to promote individual growth in a particular dance form appropriate for public performances. Credit may not be used to satisfy physical education requirement. May be repeated for credit.

## P E 1161 DANCE PERFORMANCE-JAZZ

An organization open to all college students who possess sufficient interest and skills in the area of dance. Membership is determined by audition. The course includes rehearsals and performance designed to promote individual growth in a particular dance form appropriate for public performances. Credit may not be used to satisfy physical education requirement. May be repeated for credit.

## PE1200 SWIMMING I

## PE1201 FITNESS AND MOTOR DEVELOPMENT

## PE 1203 ADAPTIVE PHYSICAL EDUCATION

Required of all students who do not qualify medically for regular activity courses. Courses may be taken independently.

## PE 1204 ADAPTIVE PHYSICAL EDUCATION

Required of all students who do not qualify medically for regular activity courses. Courses may be taken independently.

## PE1250 SPEEDBALL-SOCCER

## PE1255 SOFTBALL

P E 2117 RULES AND OFFICIATING OF INDIVIDUAL SPORTS
The teaching of officiating, study of DGWS rules. Laboratory experience required.

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PE 2202 VOLLEYBALL
$3.00 fee.
PE 2203 BADMINTON I
$6.00 fee.
P E 2204 TENNIS I
$6.00 fee.
P E 2205 WRESTLING
$3.00 fee.
P E 2206 WEIGHT TRAINING I
$5.00 fee.
P E 2207 TRACK AND FIELD
PE 2208 GYMNASTICS I
$3.00 fee.
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P E 2209 ADAPTIVE PHYSICAL EDUCATION
Required of all students who do not qualify medically for regular activity courses. Courses may be taken independently.

## P E 2210 ADAPTIVE PHYSICAL EDUCATION

Required of all students who do not qualify medically for regular activity courses. Courses may be taken independently.
P E 2213 BADMINTON II
$\$ 6.00$ fee.
PE 2216 WEIGHT TRAINING II
$\$ 6.00$ fee.
PE 2221 BASKETBALL
$\$ 3.00$ fee.
PE 2225 FOLK AND SQUARE DANCE
$\$ 3.00$ fee.
P E 2226 MODERN DANCE I
$\$ 3.00$ fee.
P E 2227 TAP DANCE I
$\$ 3.00$ fee.
PE 2228 MODERN DANCE II
$\$ 3.00$ fee.
P E 2229 TAP DANCE II
$\$ 3.00$ fee.
PE 2230 MODERN JAZZ I
This course includes a brief history of jazz dance, terminology, jazz movements, and recreational jazz dance.

P E 2231 MODERN JAZZ II
$\$ 3.00$ fee.
PE 2232 AEROBIC DANCE
$\$ 3.00$ fee.
P E 2235 MEXICAN FOLKLORIC DANCE
PE 2236 BALLET I
$\$ 3.00$ fee.
PE 2237 BALLET II
\$3.00 fee.
PE 2252 SWIMMING II
PE 2253 SOCIAL DANCE
PE 2256 TENNIS II
$\$ 6.00$ fee.
PE 2257 GOLF
There is a fee required to be paid directly to the golf course for the use of non-university facilities. At the time of publication of this bulletin the fee was $\$ 6.00$.

## PE 2258 ARCHERY

$\$ 8.00$ fee.

## PE 2259 BOWLING

There is a fee required to be paid directly to the bowling alley for the use of non-university facilities. At the time of publication of this bulletin the fee was $\$ 35.00$.

## P E 2264 FENCING

$\$ 5.00$ fee.
P E 2273 GYMNASTICS II
$\$ 3.00$ fee.
PE 2280 ADVANCED LIFE SAVING
$\$ 5.00$ fee.

## P E 2281 WATER SAFETY INSTRUCTION

Prerequisite: P E 2280 or current senior life saving certificate. $\$ 5.00$ fee.

## PE 2282 SKIN AND SCUBA DIVING

To acquaint the student with the basic scientific principles related to skin and scuba diving; to insure that the student has the basic qualifications to operate near, in or under water. Certification as a scuba diver by the National Association of Underwater instructor will be available.
Prerequisites: P E 2252 or 2280 or equivalent training. $\$ 10.00$ fee.

## P E 2291 HORSEMANSHIP

There is a fee required to be paid directly to the stables for the use of non-university facilities. At the time of publication of this bulletin the fee was $\$ 99.00$.

## THEORY COURSES

P E 1351 INTRODUCTION TO HEALTH, PHYSICAL EDUCATION AND RECREATION Fall, Spring
Orientation to the field of health, physical education and recreation, its scope, organization of professional activities, vocational opportunities and professional qualifications.

## PE 1354 SAFETY EDUCATION AND FIRST AID

## Fall, Spring

Basic knowledges for safe and effective living. The essential aspects of home, work, motor vehicle, and public safety. Includes both theoretical and practical aspects of emergency care. Standard First Aid, Personal Safety and Cardio-Pulmonary Resuscitation (CPR). Certification upon completion of specific requirements.

## P E 2354 BIOMECHANICS

## Fall, Spring

A study of the structural and mechanical factors which interact with human movement.
Prerequisite: BIOL 1401, 2403.

## P E 3300 THEORY OF COACHING FOOTBALL

## Fall, Alternate years

A study and participation in the fundamentals and techniques, rules and strategies of football.

## P E 3302 TEACHING INDIVIDUAL SPORTS

On demand
The current theories and practices in teaching tennis, badminton and golf.
Prerequisites: P E 2204, 2203, 2257 ar demonstrated proficiency.

## P E 3303 THEORY OF COACHING BASKETBALL

## Spring

A study and participation in the fundamentals, techniques, rules and strategies of basketball.

## P E 3304 THEORY OF COACHING BASEBALL

## Spring, Alternate years

A study involving the use of theory in the analysis and interpretation of coaching techniques and fundamentals in baseball.

## P E 3305 THEORY OF COACHING TRACK AND FIELD

Spring alternate years
A study involving the use of theory in the analysis and interpretation of coaching techniques and fundamentals in track and field.
P E 3310 TEACHING TEAM SPORTS
Fall alternate years
Analysis of skills and techniques in teaching volleyball, basketball, soccer/speedball.

## PE 3312 TEACHING DANCE ACTIVITIES

Fall, Spring
Analysis of skill and techniques in teaching social, folk, square and modern dance.
Prerequisites: P E 2225, 2226 and 2253 or demonstrated proficiency.

## PE 3313 DANCE FOR CHILDREN

Fall, Spring
This course is intended to provide both theory and practice in planning, organizing and presenting dance activities appropriate for grades K-6. Special emphasis are placed upon the techniques of teaching rhythm skills, creative rhythms, singing games, and folk dances appropriate for children enrolled in the elementary school. Prerequisites: P E 2225 or P E 2226. Required of elementary education majors for certification in physical education.
PE 3317 METHODS OF TEACHING GYMNASTICS IN THE ELEMENTARY SCHOOL Fall, Spring
Analysis of skills and techniques of teaching gymnastics-related activities to elementary level students. Safety procedures in the use of playground facilities are stressed. This course is designed primarily for elementary education majors who are minoring in physical education.

## PE 3319 TEACHING TUMBLING AND GYMNASTICS

Fall, Spring
Analysis of skills and techniques in teaching basic tumbling and gymnastics. Laboratory experience to be arranged.
Prerequisites: P E 2208 or demonstrated proficiency.

## P E 3320 THEORY OF COACHING VOLLEYBALL

Fall
A study involving the use of theory in the analysis and interpretation of coaching techniques and fundamentals of volleyball.

## PE 3352 CARE, TREATMENT AND PREVENTION OF ATHLETIC INJURIES

 FallPrevention and correction of accidents in physical education and athletic activities. The use of proper personal and field equipment, support methods, conditioning exercises, therapeutic aids, medical examinations and massage.
Prerequisite: Six semester hours of biology.

## PE 3353 PHYSIOLOGY OF EXERCISE

Fall, Spring
Basic systemic adaptations to exercise with specific emphasis on teaching physical education, and on training and conditioning athletes.
Prerequisite: P E 2354.

## PE 3356 MOVEMENT EDUCATION

## Fall, Spring

A problem solving approach to the optimal development of human movement. The underlying principles, methods and techniques of movement education at the elementary level are presented.

## PE 3357 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL

Fall, Spring
Curriculum construction, material selections and methods of presenting physical education activities in the elementary school.

## PE 4313 WORKSHOP IN PHYSICAL EDUCATION

Fall, Spring
This course is designed to provide in-depth experiences for the prospective teacher, coach and recreation leader in the development of both current theories and practices in presenting selected areas of physical education such as aquatics, dance, gymnastics and/or sports. The course may be repeated for credit, up to nine semester hours, when topic is different.
Prerequisite: 12 semester hours of physical education or approval of instructor.
PE 4351 THE ADAPTED PHYSICAL EDUCATION PROGRAM
Fall, Spring
The selection and planning of physical education for students whose activity must be adapted due to demands by gravity, trauma, injury, congenital defect, illness, or disease.
PE 4352 THE INTRAMURAL PROGRAM
On demand
The organization and administration of intramural programs for both boys and girls.
PE 4353 RECREATION LEADERSHIP
On demand
The organization and administration of recreation leadership in public and private agencies. Offered alternate years.
P E 4354 PHYSICAL EDUCATION FOR THE SECONDARY SCHOOLS
Fall, Spring
A survey of activities for program planning in junior and senior high schools including unit construction, lesson planning, class organization, special programs and sources of materials. Laboratory experience to be arranged.

# PE4355 ORGANIZATION AND SUPERVISION OF THE PHYSICAL EDUCATION PROGRAM <br> On demand <br> History and philosophy, principles, policies of supervision, planning and administering the school physical education and interscholastic programs and a brief introduction to test and measurements as each relates to physical education. 

## - GRADUATE THEORY COURSES

## PE 5313 WORKSHOP IN PHYSICAL EDUCATION

Fall, Spring
This course is designed to provide in-depth experiences for the prospective teacher, coach and recreation leader in the development of both current theories and practices in presenting selected areas of physical education such as aquatics, dance, gymnastics and/or sports. The course may be repeated for credit, up to nine semester hours, when the topic is different.
Prerequisite: 12 semester hours of physical education or approval of the instructor.
P E 5351 PHYSICAL EDUCATION CURRICULUM FOR THE HANDICAPPED STUDENT The selection and planning of physical education for students whose activity must be adapted due to demands imposed by gravity, trauma, injury, congenital defect, illness or disease. Laboratory work with students will be scheduled.

## P E 5355 SUPERVISION AND ADMINISTRATION OF THE PHYSICAL EDUCATION PROGRAM

## On demand

A study of the principles and policies of supervising and administrating the physical education program in the public schools.

## P E 5356 ORGANIZATION AND ADMINISTRATION OF THE SCHOOL HEALTH PROGRAM <br> On demand

The organization and administration of the school health education program with special emphasis on curriculum problems in health education, community and school health council, the health service program. A study of local, state, and national health agencies and their use and intergration with the school health program.

## PE 5357 HEALTH EDUCATION SEMINAR

 SS II alternating yearsFor administrators, teachers, nurses, and community leaders. Topical discussion areas will center around the interests and needs of the participants and the communities.

## P E 6301 HISTORY AN'D PHILOSOPHY OF PHYSICAL EDUCATION

 SpringHistorical development of Physical Education from primitive to modern times. Philosophy of modern Physical-Education with application to present day educational programs.

## P E 6302 METHODS OF RESEARCH IN PHYSICAL EDUCATION

Fall
Introduction to methods and materials to research in the field. Approved methods of writing term papers and research papers.

## P E 6303 APPLIED TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION Spring

A critical consideration of the importance and limitations of measurements in physical education. Emphasis placed on those measurements that are most needed today. The statistical treatment and interpretation of research data.

## P E 6304 SCIENTIFIC FOUNDATIONS OF PHYSICAL EDUCATION

 FallBackground of physical education from biological, anatomical, and physiological aspects.

## P E 6305 CURRICULUM CONSTRUCTION IN PHYSICAL EDUCATION

## SS I alternate years

A critical study of principles, problems and procedures in the construction of a physical education program. Attention will be given to the application of these principles in the construction of a course of study for a specific situation.

## P E 6306 PLANNING AND USE OF FACILITIES FOR HEALTH AND PHYSICAL EDUCATION

SS I alternate years
Principles, terminology and standards for planning construction, use and maintenance of facilities.

## PE 6307 PSYCHOLOGY OF MOTOR LEARNING

A study of the application of principles of psychology to learning situations involved in competitive sports. Emphasis will be given both to the general learning situations involved in the mastery of motor skills and to the special situations involved with individual and group problems of motivation and response.

## P E 6308 CURRENT READING IN PHYSICAL EDUCATION

On demand
Extensive readings and discussion of selected topics in the field.

## P E 6309 ADVANCED TECHNIQUES FOR TEACHING MOTOR SKILLS, ELEMENTARY

 LEVELSS II alternate years
Practical and theoretical study of technique in presenting motor activity.

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P E }6310\mathrm{ ADVANCED TECHNIQUES OF TEACHING MOTOR SKILLS, SECONDARY
LEVEL
SS II alternate years
Practical and theoretical study of technique in presenting motor activity.
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P E 6311 THE TEACHING OF PHYSICAL EDUCATION ACTIVITY CLASSES Fall
Designed to discuss problems of organization, evaluation, use of facilities, and other problems with teaching activity courses on the college level. Required of all graduate assistants.
P E 6312 ORGANIZATION AND CONDUCT OF DANCE IN EDUCATION On demand
This course is intended to provide both theory and practice in presenting dance in the educational setting. It includes historical background programs of dance for grades $\mathrm{K}-12$, conduct of performing groups, and production of public performances.

## PE 6320 INDEPENDENT RESEARCH

Fall, Spring
Individual investigation of a problem in physical education that involves one of the techniques of research. Students will work under a designated faculty member and must have their research approved prior to registering.

P E 7300 THESIS
On demand
P E 7301 THESIS
On demand

## Recreation

## REC 1351 MAN, HIS LEISURE AND RECREATION

Fall
Study of historic development of leisure, attitudes taken toward it, and theories as to its cause. An opportunity to develop a personal philosophy of leisure and recreation and an understanding of professional preparation.

## REC 2351 INTRODUCTION TO COMMUNITY RECREATION

On demand
Scope of community recreation; its organization, and relation to other social institutions; program content and leadership.

## REC 3360 OUTDOOR SPORTS ACTIVITY

On demand
Methods and procedures for conducting activity in swimming, boating, fishing, hunting, hiking, and camping.

## REC 4353 RECREATION LEADERSHIP

On demand
Development of face to face leadership, enthusiasm and creative leadership methods and techniques that can be applied to all recreational settings through the use of creative recreational activities.

## REC 4354 COMMUNITY RECREATION PROGRAM PLANNING

On demand
Varied aspects of playground and community center operations; development of programs and identifying problems relating to planning and operation of these programs.
REC 4356 ADMINISTRATION OF RECREATIONAL PROGRAMS
On demand
Introduction to the basic principles of administration covering such aspects as goals and objectives, policies, departmental organization, budgets, personnel, office management, and evaluation, especially as related to sub-administrative and supervisory positions.
REC 4655 PROFESSIONAL FIELD WORK
On demand
Practical field experience working in a community recreation department under recreation director and faculty supervision.

# Division of <br> Health Related Professions 

Julian Castillo, Director


#### Abstract

Recognizing the need for the University to take a leading role in the education of the nurse and allied health professional, the Division, with the assistance and the cooperation of the Valley's Health Care Delivery Systems, is dedicated to providing educational programs necessary to meet the needs for competent health workers in the Lower Rio Grande Valley and Texas.

The division of Health Related Professions offers an Associate of Applied Science degree in Nursing Education, a Bachelor of Science degree in Medical Technology or Nursing. General Admission requirements conform with those of the University. Specific variations of requirements are stated with each program description.

Interdisciplinary courses in health related professions are offered to: (1) promote and provide understanding of the role of personnel involved in the delivery of health care. (2) focus on the team approach to patient care. and (3) introduce the student to the wide range of health careers available.

The faculty and staff of the Division provide academic advisement and assistance to students pursuing health careers. Curricula for all health related programs are structured to provide theory as well as clinical learning experience. In order to provide the proposed clinical practicum, the University negoitated affiliation agreements with a number of health service facilities in the tri-county area. Courses in health related professions are offered to: (1) promote and provide understanding of the role of personnel involved in the delivery of health care, (2) focus on the team approach to patient care, and (3) introduce the student to the wide range of health careers available.

Faculty: Burkholder; Joanne V. (M.S., Virginia Polytechnic Institute) CUP in Dietetics. Garcia, Rebecca H. (B.S., Pan American University; Division of H.R.P.)


## Course Descriptions

## Health Related Professions

## HRP 1302 INTRODUCTION TO PATIENT CARE

SSI \& SSII
This course is designed to introduce the pre-professional student to unique theories, concepts, and practices related to patient care. The student will be introduced to the social, legal, and ethical components of patient care.
Prerequisite: Approval of department.

## HRP 1401 INTRODUCTION TO HEALTH RELATED PROFESSIONS

Fall \& Spring
A survey of careers within the health service industry, their educational and clinical practice requirements, and employment opportunities. Correlated health service organization, history and trends, terminology, ethics, legal aspects, professional affiliations, team roles and relationships. Lecture/discussions will be designed to provide the student with specific information concerning the health related professions' roles in the provision of health care services. Three hours lecture and four hours lab per week. No prerequisite.

## HRP 2351 INTRODUCTION TO CLINICAL NUTRITION

Fall, Spring, SSI E SSII
A survey of nutrition of people in the life cycle: infancy (effects of early malnutrition), old age, pregnancy, lactation. Principles of diet in the treatment of disease. Diseases or conditions treated by diet. Modification of the normal diet in the various nutrient consistency and selection.

## HRP 2402 MEDICAL TERMINOLOGY

Fall \& Spring
This course is designed to introduce the student to analysis techniques, correct spelling and pronunciation of medical terms. The student will acquire a medical vocabulary, develop skills in recognizing medical terms by analyzing their elements and relating them to the corresponding anatomical site. Three hours of lecture and four hours of lab per week.

## HRP 3301 INTRODUCTION TO SOCIAL AND LEGAL ASPECTS OF ALCOHOLISM

 Fall \& SpringIntroduction to traditional and contemporary bicultural aspects of alcoholism and alcohol abuse as related to family and social dysfunction. Identification of alcohol abuse characteristics which relate social deterioration to law enforcement and judicial systems. 3 hours lecture.
HRP 3302 INTRODUCTION TO TREATMENT AND CONTROL OF ALCOHOLISM Fall \& Spring
A survey of medical and psychological treatment modalities used with alcoholic individuals. Procedures for identification, referrals and follow-up are incorporated in context of total alcoholism treatment process. 3 hours lecture.
HRP 3303 CURRENT HEALTH LEGISLATION OF NATIONAL HEALTH POLICY SEMINAR Fall
Health legislation and its effect on health care and administration will be reviewed and implications for providers and consumers of services will be explored. Issues of liability, responsibility, malpractice insurance, health labor law and others will be examined. Titles XVIII, XIX, and XX of the Social Security Act will be studied. The most current national insurance bills before Congress will be reviewed. Three lecture hours.
Prerequisite: Approval of department, or Advanced Standing.

## HRP 3304 HEALTH PLANNING AND DEVELOPMENT OF COMMUNITY HEALTH CARE

 SpringTheories, methods and approaches to health planning will be studied by means of lecture, readings, case studies, and visiting health planners' lectures. The philosophical basis for various planning methodologies will be examined. Study of the National Health Planning and Resource Development Act (P.L. 93-641) will be done. Concepts of regionalization and its impact on health care delivery will be explored. Planning for specific services and community health care will be emphasized. Three lecture hours.
Prerequisite: HRP 2301 or department approval.

## HRP 3310 SPECIAL TOPICS IN PATIENT CARE ISSUES

Arrangement
The topics will vary according to current issues in the provisions of health care and prevention. Offering of course will be contingent on student demand. May be repeated once for credit, as topics vary.
Prerequisite: Approval of department.

## HRP 3351 CLINICAL NUTRITION IN HUMAN SERVICES AGENCIES

 SpringEffect of culture on food choices and acceptance. Psychological aspects of food and eating. Effects of emotional stress on dietary habits. Dietary interviewing and counseling.

## Clinical Laboratory Science


#### Abstract

Abraham, John P. (B.S., Texas A \& M; M.T., Methodist Hospital, Lubbock, Board Certified Specialist in Hematology, SH (ASCP); assoc. prof.) Vidales, Jose Luis, B.S., Pan American University, MT (ASCP) Accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association. Medical Technology is a profession in which theoretical knowledge in the fields of Biology, Chemistry, and Physics are applied in analysis of various cells, tissues, and body fluids from patients for diagnostic purposes. Medical Technologists assist in diagnosis, treatment, and prognosis of disease conditions through laboratory procedures in Hematology, Microbiology, Immunology, Blood Banking, Clinical Chemistry, and Urinalysis. The pre-professional curriculum is composed of 99 semester hours of general education requirements, biology, and chemistry courses. Admission to the professional portion (senior year) of the Medical Technology program is limited; therefore, the competition is keen. Students are urged to keep high standards of performance during their pre-professional years. In order to be accepted into the senior year professional medical technology curriculum, the student must make application to the Medical Technology Program upon completion of 70 semester hours of pre-professional course work, but no later than May 31st of each year. The Admissions Committee meets twice a year, in April and June. In their April meeting the committee will consider all applications received


before March 31st. Applications received after March 31st are considered on a space available basis. A completed application must contain official transcripts, three letters of reference, entrance examination scores, and a complete medical evaluation. Those Pan American University students not accepted into the program may satisfy their degree requirements by completing a one-year training program in a CAHEA accredited hospital-based Medical Technology program.
A student who does not wish to receive a degree from Pan Ámerican University, but who wishes to attend the professional portion of the curriculum must either:
hold a baccalaureate degree from an accredited institution and have completed 20 semester hours of Biology including a course in Microbiology and Immunology, 16 semester hours of Chemistry including a course in Biochemistry, and 3 semester hours of college level Mathematics.

OR
have at least 90 semester hours of College credits completed, with 20 semester hours of Biology including a course in Microbiology and Immunology, 16 semester hours of Chemistry including a course in Biochemistry or Organic Chemistry, and 3 semester hours of college leviel Mathematics.
The student should also produce a notarized letter from the registrar of his or her parent university stating that upon satisfactory completion of the Medical Technology curriculum offered at Pan American University, the student will be awarded a baccalaureate degree.

## Medical Technology Advisory Council

Dr. Larry Dahm, Pathologist, Valley Baptist Medical Center, Harlingen, Texas
Dr. Richard Ballard, Pathologist, McAllen Methodist Hospital, McAllen, Texas
Mr. Neal Murray, M.T. (ASCP), Administrative Director of Pathology, McAllen Methodist Hospital, McAllen, Texas
Mr. Robert Vanderveer, Administrator, Knapp Memorial Methodist Hospital, Weslaco, Texas
Mr. John Mims, Administrator, McAllen Methodist Hospital, McAllen, Texas
Dr. Rodolfo Garza, Pathologist, Knapp Memorial Methodist Hospital, Weslaco, Texas
Mr. Wayne Brannon, Associate Administrator, Rio Grande Regional Hospital, McAllen, Texas
Mr. Bill Elliot, Educational Director, Valley Baptist Medical Center, Harlingen, Texas
Mr. David Almquist, Laboratory Manager, Rio Grande Regional Hospital, McAllen, Texas
Mr. Jim Parrot, Chief Technologist, Valley Baptist Medical Center, Harlingen, Texas
Dr. Ernest Baca, Dean of Science and Math, Pan American University, Edinburg, Texas
Mr. Ken Schill, Chief Technologist, Knapp Memorial Methodist Hospital, Weslaco, Texas
Mr. Jim Elkins, Associate Administrator, Valley Baptist Medical Center, Harlingen, Texas
Dr. David Flory, Medical Director, Valley Baptist Medical Center, Harlingen, Texas
Dr. Domingo Useda, Medical Director, McAllen Methodist Hospital, McAllen, Texas

## Degree Requirements:

A total of 142 semester hours including
24 semester hours in Biology, 20 semester hours in Chemistry, 8 semester hours of Physics or Clinical Laboratory Instrumentation, and 46 semester hours of Clinical Laboratory Sciences. Required courses are outlined in the curriculum below.

## Certification Requirements:

Baccalaureate degree including 16 semester hours of Biological Sciences, 16 semester hours of Chemistry, 3 semester hours of College Algebra, and completion of the accredited Medical Technology program. Microbiology, Immunology, and Organic Chemistry courses should be part of the curriculum.
General Education Requirements for Bachelor of Science Degree in Medical Technology:
English (Freshman) ..... 6 hours
English (Sophomore) ..... 6 hours
Biology ..... 24 hours
Chemistry ..... 20 hours
College Algébra ..... 3 hours
Political Science ..... 6 hours
History ..... 6 hours
P.E. Activities ..... 4 hours
Computer Literacy ..... 3 hours
Designated Electives: ..... 6 hours
Six hours from one of the following:
a. Foreign language

                    orb. Psy 1313, 2301, Soc 1313, 2301, Anth 1323, Art 1301
    TOTAL 84 hours
Departmental Requirements:
HRP 1401 4 hours
CLSC 3401, 3402. ..... 8 hours
TOTAL ..... 12 hours
PROGRAM REQUIREMENTS
CLSC 4214, 4222, 4301, 4302, 4303, 4304, 4313, 4332, 4410, 4412, 4420, 4421, 4430, 4431(total hours: 46).
SUGGESTED CURRICULUM
Medical Technology Major
Freshman Year $\quad$ Sophomore Year

ENG 1301, 1302
BIOL 1401, 1402
CHEM 1401, 1402
PE 2 hours
HRP 1402
MATH 1340
Junior Year
POLS 2313, 2314
ENG (Soph Lit) 6 hours
BIOL ${ }^{2} 3401,3403$
CHEM 3401, $3403^{3}$
Electives 6 hours
Apply to Medical Technology
Program
Special Notes:

1. Medical Technology Program is exempt from the University College General Education Requirements.
2. Senior year courses include clinical practicum. Incomplete grades will be carried until completion rotation in the appropriate clinical department.
[^13]
## Course Descriptions

## Clinical Laboratory Science

## CLSC 3401 CLINICAL LABORATORY INSTRUMENTATION I

## Fall

Basic clinical chemistry instrumentation such as colorimeters, spectrophometers, flame photometers, atomic absorption photometers, fluorometers, gamma counters, centrifuges, incubators, gas analyzers, and electrophoretic equipment will be dealt with. Basic laboratory mathematics, statistics, and electronics for general understanding, operation, and quality control of these instruments will also be presented.
Students of Biology, Bio-chemistry, and Health Related Professions will find this course extremely useful.
Three hours of lecture and four hours of laboratory per week. Lab fee $\$ 4.00$.
Prerequisite: MATH 1340, CHEM 1401, 1402, and BIOL 1401, 1402, or Special Approval.

## CLSC 3402 CLINICAL LABORATORY INSTRUMENTATION II <br> \section*{Spring}

Continuation of CLSC 3401. Automated clinical laboratory instruments in Chemistry, Hematology, Coagulation, Blood Banking, and Microbiology, and brief introduction to data handling. Three hours of lecture and four hours of laboratory per week. Lab fee $\$ 4.00$. Prerequisite: CLSC 3401 or Special Approval.

## CLSC 4214 IMMUNOHEMATOLOGY II

SS II
Continuation of Immunohematology I to include clinical application. One hour lecture and three hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4222 CLINICAL CHEMISTRY III

## Spring

Continuation of Clinical Chemistry II to include special chemistries. One hour lecture and three hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4301 GENERAL INTRODUCTION TO THE CLINICAL LABORATORY

SS II
Specimen collection and processing, basic microscopic techniques in Urinalysis, Microbiology, and Hematology. Two hours of lecture and three hours of laboratory. Lab fee $\$ 4.00$.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4302 SEROLOGY

Fall
Serodiagnostic tests for syphilis and febrile diseases; identification of antistreptococcal, antinuclear, and antihyroid antibodies; serologic procedures for C reactive proteins, rheumatoid arthritis, and parasitic and fungal infections. Two hours lecture and three hours laboratory. Lab fee $\$ 4.00$.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4303 MEDICAL LABORATORY LEADERSHIP

SSI
General principles of management, supervision, education, research, record keeping, and legal aspects of laboratory medicine will be presented. Overall review of all professional techniques and procedures and a comprehensive final examination will be administered.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4304 URINALYSIS

Spring
Lectures present the physiology of urine formation and the relationship of abnormalities in the urine of renal and systemic disease. Chemical tests and microscopic examination are utilized in the laboratory. One hour lecture and six hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4313 IMMUNOHEMATOLOGY I

Fall
Theoretical aspects of the immune response, its relation to the diagnosis of disease and to blood banking are presented. Detection, identification, and characterization of antibodies, blood grouping, and typing and compatibility testing are presented by laboratory experiments. Two hours lecture and three hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4332 CLINICAL PARASITOLOGY

## Spring

Lecture and laboratory study on animal parasites producing disease in the human with emphasis on life cycle, identifying characteristics, and the pathology these parasites provoke in men. Two hours lecture and three hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4410 HEMATOLOGY I

Fall
Studies on the formation, function, and identifying characteristics of the cellular elements of blood in health. Lecture and laboratory emphasize the enumeration, morphology, and staining characteristics of normal blood cells. Two hours' of lecture and six hours laboratory. Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4412 HEMATOLOGY II

SS I
Continuation of Hematology I to include disease states and abnormal cells. Lecture and laboratory studies in blood coagulation physiology and methods of detecting defects are presented. Two hours lecture and six hours laboratory.
Prerequisite; Admission to Medical Technology Programi, or Special Approval.

## CLSC 4420 CLINICAL CHEMISTRY I <br> Fall

Studies in clinical chemistry with emphasis on the physiology of normal and abnormal metabolism. Manual and automated laboratory procedures for the quantitation of body constituents employing gravimetric, volumetric, gasometric, titrametric, and spectrophotometric techniques. Two hours lecture and six hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4421 CLINICAL CHEMISTRY II

Spring
Continuation of Clinical Chemistry I. Two hours lecture and six hours laboratory,
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## CLSC 4430 CLINICAL MICROBIOLOGY I

Fall
Lecture and laboratory studies of human pathogenic bacteria. Emphasis on staining, cultural and differential biochemical characteristics, methods of isolation from body fluids, and susceptibility to therapeutic agents. Two hours lecture and six hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.
CLSC 4431 CLINICAL MICROBIOLOGY II
Spring
Continuation of Clinical Microbiology I including fungi, viruses, and rikettsia. Two hours lecture and six hours laboratory.
Prerequisite: Admission into Medical Technology Program, or Special Approval.

## Department of History

## Dr. Rondel V. Davidson, Chair

## History

## Full-time Faculty

Bain, Kenneth R. (PhD, Texas 1977; asst. prof.) U.S. diplomatic
Davidson, Rondel V. (PhD, Texas Tech 1970; prof. and chair) modern Europe; European intellectual
Fleming, William J. (PhD, Indiana 1976; asst. prof.) South America, Mexico
Gormly, James (PhD, Connecticut 1977; asst. prof.) U.S. diplomatic
Miller, Hubert J. (PhD, Loyola 1965; prof.) Mexico, Central America
Neitzel, Sarah C. (PhD, Texas Tech 1974; assoc. prof.) Germany, Russia, European social and cultural
Prather, Charles (MA, North Texas State 1969; asst. prof.) U.S. colonial Rocha, Rodolfo (PhD, Texas Tech 1981; asst. prof.) borderlands, Chicano, Mexico
Salmon, Roberto M. (PhD, New Mexico 1978; asst. prof.) U.S. Southwest, Chicano studies
Stratton, Porter A. (PhD, Texas Tech 1967; prof.) U.S. Southwest, Texas, recent U.S.

Troxel, Darrel K. (MA, Oklahoma State, 1947; instr.) U.S. Survey
Vassberg, David (PhD, Texas 1971; prof.) Spain, Brazil, early modern Europe
Welch, Raymond P. (PhD, Pennsylvania 1970; asst. prof.) U.S. intellectual, U.S. recent

The Department of History offers both a major and a minor in history. In addition, it offers courses for students seeking a second teaching field for teacher certification. On
the graduate level, the Department of History offers a Master of Arts in History with a specialization in Teaching, and a Master of Arts in Interdisciplinary Studies with a concentration in History. Students majoring or minoring in history may become teachers or seek employment in business or government. History is excellent background for those who wish later to go to law school or enter journalism. The Department of History, in conjunction with the Departments of Foreign Languages and of Sociology and Social Work also offers a B.A. degree in Mexican American Heritage.
Beginning history majors are urged to take Civilization Through the Centuries, American Heritage, and Texas history early in their academic career. Well-prepared students are encouraged to establish credit in some of these beginning courses by passing advanced standing examinations.
The department also welcomes non-history majors who may wish to take interesting courses in Mexican-American Heritage, Russia, or a wide assortment of courses in Latin American, American, and European history.

## Degree Requirements

## Major in History

(with or without Teacher Certification):
30 semester hours in history. Must include HIST 1333,* 1334,* 2313,** 2314,** and 2333. Fifteen advanced hours required, and must include at least three semester hours from each of the three fields of American, European, and Latin American history.

## Minor in History

(without Teacher Certification):
18 semester hours of which 6 must be advanced. Must include $1333^{*}$ or $1334^{*}, 2313^{* * *}$ 2314,** and 2333.

## Minor in History

(with Teacher Certification):
Elementary Plan I: 21 semester hours in history, must include HIST 1333* or 1334,* 2313,** 2314,** 2333 and 9 advanced semester hours with 3 semester hours from each of the American, Latin American and European fields of history.
Elementary Plan II: 24 semester hours in history, of which 12 semester hours must be advanced; must include HIST 1333* or 1334,* 2313,** $2314,^{* *} 2333$ and 3 advanced semester hours from each of the three fields: American, Latin-American and European History.
Secondary Plan I: 24 semester hours of history, of which 12 semester hours must be advanced; must include HIST 1333* or 1334,* 2313,** 2314,** 2333 and 3 advanced semester hours from each of the three fields: American, Latin-American and European history.
History Majors and Minors May Elect Teacher Certification in Social Sciences: .
Secondary Plan II: 48 semester hours in the social sciences. Must include HIST 2313,** 2314,** 2333; POLS 2313, 2314; ECO 2354 or 1301; GEOG 2313 or 2301; and SOC 1313. 24 semester hours must be divided among advanced History and Political Science courses with not fewer than nine semester hours in each field.

## Major in Mexican American Heritage

The B.A. degree in Mexican American Heritage is an interdisciplinary program taught by the faculty of the departments of History, Foreign Languages and Sociology and Social Work and administered by the Department of History. The program is designed as a broad field, secondary teaching degree which enables the student to concentrate in the field of Mexican American Heritage and to obtain teacher certification in three fields: History, Sociology and Spanish. The degree will provide the graduate many options in the teaching profession.

## Major Requirements: History $\mathbf{2 3 6 3}$ Mexican American Heritage <br> SPANISH Required courses: 24 semester hours <br> 1301 and 1302 or 1303 and 1304 Beginning Spanish 2307, 2308 Intermediate Spanish (or equivalent courses)

${ }^{*}$ Honors 2387, 2388 may be substituted for HIST 1333, 1334.
**Honors HIST 2387, 2388 may be substituted for HIST 2313, 2314.

3303 Spanish Composition
Spanish Grammar
Basic Concepts of Spanish Phonetics and Phonology
4316
Techniques of Teaching Spanish
HISTORY Required courses: 18 semester hours
1333 or 1334 Civilization through the Centuries (or equivalent)
2333 A General Survey of the History of Texas
Choose 2 from these Latin American courses:
3333 Colonial Latin America
4345 Mexico's First Century
$4353 \quad$ History of Mexican Culture
$4354 \quad$ Contemporary Mexico
Choose 1 from these American History courses:
4322 The Spanish Southwest to 1821
4325 The American Southwest after 1821
Choose 1 from these European History courses
3341 History of England I, to 1688
3342 History of England II, after 1688
4370 The Renaissance and the Reformation, 1300 to 1650
4375 Absolutism and Enlightenment in Europe, 1650-1789
4376 Revolutionary Europe, 1789-1850
SOCIOLOGY Required courses: 24 semester hours
1313 Principles of Sociology
1323 Current Social Issues
4323 The Mexican American People
Choose 1 from the following basic Sociology courses
3301 Methods of Social Research
4333 Social Theory
Choose four from the following
2301 Statistics for the Behavioral Sciences
2373 Latin American Institutions
4313 American Minorities
$4324 \quad$ Methods of Population Analysis
$4352 \quad$ Social Inequality
4360 Sociology of Education
4363 Society of Modern Mexico
4373 Latin American Society
ADDITIONAL RECOMMENDED COURSES INCLUDE:
ANTH 1323 Introductory Cultural Anthropology
ANTH 2353 Introduction to Folklore
ANTH 3345 Ritual, Belief and Healing
ANTH 3375 Mexican American Folklore
ENG 3321 Language and Culture
ENG 4316 Mexican American Literature
SPAN 3310 Masterpieces of Spanish-American Literature, I
SPAN 3311 Masterpieces of Spanish-American Literature, II
SPAN 3316 The Mexican Novel
SPAN 3321 . Short Story in Spanish America
SPAN 4329 Mexico's Contemporary Literature
GOVT 3360 American Minority Politics

## Minor in Mexican American Studies

This is an interdisciplinary program, taught by the faculty of the departments of History, Foreign Languages, English and Sociology and Social Work which is aimed at giving the Mexican American student a more appreciable understanding of the heritage of his ancestry and its contributions to his present environment.
Mexican American studies offers a minor only, but it is a minor which offers excellent support for majors in Spanish or the Social Sciences as well as providing support for

Secondary Education majors with teaching fields in the Social Sciences or Spanish and for Elementary Education majors specializing in Bilingual Education.
The curriculum for this program is divided into two classifications: impact courses, which deal specifically and directly with the Mexican American; and support courses, which, for the most part, are concerned with Mexico, aspects of its culture, and the Spanish language. Programs of study will be influenced by the student's major. Any course may be taken as an elective.

## Minor Requirements

18 semester hours, of which 9 must be from the impact courses.

| Impact | Courses: |  |
| :---: | :---: | :---: |
| ENG | 4316 | Mexican American Literature |
| HIST | 2363 | Mexican American Heritage |
| HIST | 4322 | The Spanish Southwest Through 1821. |
| SOC | 4323 | The Mexican American People. |
| Support | Courses | in History: |
| HIST | 4325 | The American Southwest After 1821. |
| HIST | 4345 | Mexico's First Century as an Independent Republic. |
| HIST | 4353 | History of Mexican Culture. |
| HIST | 4354 | Contemporary Mexico |
| Support Courses in Spanish: |  |  |
| Six hou | urs of F | reshman or Intermediate Spanish |
| SPAN | 3303 | Advanced Spanish Composition |
| SPAN | 3304 | Advanced Spanish Composition |
| SPAN | 3310 | Masterpieces of Spanish-American Literature I. |
| SPAN | 3311 | Masterpieces of Spanish-American Literature II. |
| SPAN | 3321 | Short Story in Spanish-America. |
| SPAN | 3330 | Spanish Grammar |
| SPAN | 4307 | Spanish-American Novel. |
| SPAN | 4326 | Contemporary Spanish-American Literature: A New Era. |
| SPAN | 4329 | Mexico's Contemporary Literature |

## Department of History Graduate Program

The department of history offers courses leading to a Master of Arts in History with a specialization in Teaching, and a Masters of Arts in Interdisciplinary Studies with a concentration in History and providing minor and support areas for degrees in other fields.

## Departmental Requirements for the Master of Arts Degree in Interdisciplinary Studies-

Before admission to candidacy by the department of history, applicants must have completed or must complete as leveling work 24 semester hours of undergraduate history courses, half of which must be at the upper division level.
Full time graduate students, who must meet the above requirements, should take up to 9 semester hours of such leveling work while taking a limited number of graduate hours.

Graduate history majors are required to consult with the departmental graduate advisor concerning course work and schedules until admitted to candidacy.
Candidates may elect one of two options to complete the Master of Arts degree with a concentration in History.

1. Thesis program: $\mathbf{3 0}$ semester hours degree with 18 hours in history, including the thesis which is required. Candidates must select the remaining 12 hours from 2 or more related fields such as political science, sociology, English, economics, Spanish, education, or business.
2. Non-thesis program: 36 semester hours degree with 12-18 hours in history. Candidates must select the remaining 18-24 hours from 2 or more related fields.

## Master of Arts Degree <br> Interdisciplinary Studies

## Concentration <br> History

Thesis

CONCENTRATION
(12 hours)
A minimum of 12 semester hours of course work in history with no more than half at the 5000 level.

History 6300 required of all students.
THESIS
(6 hours)
HIST 7300,
7301 Thesis
RESOURCE AREAS
(12 hours)
A minimum of 12 semester hours selected from 2 or more related areas.
TOTAL $\quad 30$ hours

## Master of Arts Degree <br> Interdisciplinary Studies

Concentration Non-Thesis
History
CONCENTRATION
(12-18 hours)
12-18 semester hours of History with no more than half at the 5000 level. History 6300 required of all students.

## RESOURCE AREAS

(18-24 hours)
18-24 hours selected from 2 or more related areas, with not more than 12 hours from education and business.

TOTAL
36 hours

## Departmental Requirements for Master of Arts Degree in History with a Specialization in Teaching

In addition to the general requirements set out elsewhere in this bulletin for graduate admission, the following requirements must be met:

1. Applicants for admission must have a Secondary School Teaching Certification.
2. Applicants for admission must have completed, or must complete as leveling work, 24 semester hours of undergraduate history courses, half of which must be at the upper division level.
3. The choice of courses in the History Core and History elective field will be determined through consultation between the student and the history Department Graduate Advisor. The choice of courses in the Education elective field will be determined through consultation between the student and the Chairperson, Department of Curriculum and Instruction-Secondary, School of Education.

## Master of Arts Degree.

| Major: History |  |
| :--- | :--- | :--- |
| Specialization: Teaching | Thesis |
| History Core: | Teaching History in the Junior High School |
| HIST 6304 | (6-9) |
| HIST 6305 | Teaching History in the Senior High School |
| History Electives: |  |


| HIST | 6311 | Seminar and Problems Study in Modern <br> European History |
| :--- | :--- | :--- |
| HIST | 6316 | Studies in Mexican and American Heritages |
| HIST | 6380 | The Golden Age of Spain and Portugal, 1300 <br> to 1700 |
| HIST | 7300 | Thesis |
| HIST | 7301 | Thesis |

Education Electives:

## TOTAL

The choice of courses in the Education Elective field will be determined through consultation between the student and the Chairperson, Department of Curriculum and Instruction - Secondary, School of Education.

| Master of Arts Degree |  |  |  |
| :---: | :---: | :---: | :---: |
| Major: History <br> Specialization: Teaching |  |  | Non-Thesis |
|  |  |  |  |
| History | Core: |  | (6-9) |
| HIST | 6304 | Teaching History in the Junior High School |  |
| HIST | 6305 | Teaching History in the Senior High School |  |
| History | Elective |  | (18-21) |
| HIST | 6301 | Seminar and Problems Study in Eras in American History to $\mathbf{1 8 6 0}$ |  |
| HIST | 6303 | Seminar and Problems Study in Eras in American History Since 1860 |  |
| HIST | 6306 | Studies in Texas and Southwestern History |  |
| HIST | 6307 | Seminar and Problems Study in the History of South America |  |
| HIST | 6309 | Seminar and Problems Study in the History of Middle America |  |
| HIST | 6311 | Seminar and Problems Study in Modern European History |  |
| HIST | 6316 | Studies in Mexican and American Heritage |  |
| HIST | 6380 | The Golden Age of Spain and Portugal, 1300 to $\mathbf{1 7 0 0}$ |  |

Education Electives:
TOTAL
${ }^{1}$ The choice of courses in the Education Elective field will be determined through consultation between the student and the Chairperson, Department of Curriculum and Instruction - Secondary, School of Education.

## Course Descriptions

## History

## HIST 1333 CIVILIZATION THROUGH THE CENTURIES

## Fall \& Summer

A thorough survey of the political, social and cultural history of Europe through the treaty of Utrecht. Emphasis will be given to the contributions of Greece and Rome to the western world, the fall of Rome, the beginning of feudalism and the rise of national states, the Renaissance and the Protestant reformation.

## HIST 1334 CIVILIZATION THROUGH THE CENTURIES

## Spring \& Summer

A continuation of History 1333 to the present time. Emphasis will be given to European expansion, the French Revolution and Napoleon, the Industrial Revolution, the spread of Socialism, and the world conflicts of the Twentieth Century.

## HIST 2313 AMERICAN HERITAGE I

## Fall, Spring, Summer

An integration of social, political and economic history of the United States with attention directed to geography and its influences. The approach is by problems which move chronologically from the earliest Colonial Period through the Civil War. Open to freshmen who have completed HIST 2333 or who enter with a credit in American History from high school. Credit may be received in only one of HIST $2313,2387$.

## HIST 2314 AMERICAN HERITAGE II

## Fall, Spring, Summer

An integration of social, economic and political history of the United States with attention to the geographical influences. The approach is by problems which move chronologically from Reconstruction to the present. Open to freshmen who have completed HIST 2333 or who enter with a credit in American History from high school. Credit may be received in only one of HIST 2314, 2388

## HIST 2333 A GENERAL SURVEY OF THE HISTORY OF TEXAS

## Fall, Spring, Summer

A survey of the history of Texas from the period of Spanish ownership to the present. Open to freshmen. May be substituted for HIST 2313 to meet state requirement for students expecting to graduate from Pan American University.

## HIST 2335 THE AMERICAN MILITARY EXPERIENCE

Fall
The American Military Experience will be examined from the colonial period to the present. The course will examine not only the operational history of the American military but the causes and consequences of war and the role of the military in American society.

## HIST 2363 MEXICAN AMERICAN HERITAGE

Fall, Spring, Summer
An interpretation of the historical heritage of the Mexican American in the United States. (Previously HIST 3373; may not be repeated for credit.)
Prerequisite: Six semester hours of History.

## HIST 2387 AMERICAN HERITAGE I Honors Plan

Fall
An integration of social, political and economic history of the United States with attention directed to geography and its influences. The approach is by problems which move chronologically from the earliest Colonial Period through the Civil War.
Prerequisite: Admission to honors studies or by invitation.
Credit may be received in only one of HIST 2313, 2387.

## HIST 2388 AMERICAN HERITAGE II Honors Plan

Spring
An integration of social, economic and political history of the United States with attention to the geographical influences. The approach is by problems which move chronologically from Reconstruction to the present.
Prerequisite: Admission to honors studies or by invitation.
Credit may be received in only one of HIST 2314, 2388

## HIST 3301 THE HISTORY OF IDEAS

Spring, 85
A study of major belief's and patterns of thought in Western culture, emphasizing, the development of the arts and sciences, social thought and religion.
Prerequisite: Six semester hours of history.

## HIST 3313 AMERICAN COLONIAL ERA TO 1783

Fall, 84
A study of American Colonial history from the founding of the first colony through the American Revolution with emphasis given to the development of American civilization; causes, course and results of the American Revolution.
Prerequisite: six semester hours of History.

## HIST 3324 FORMATIVE PERIOD OF THE AMERICAN NATION, 1783-1840

Fall, 85
A study of the early years of the American nation from the Critical period to the adoption of the Constitution and launching of the new government through the transformation of American society by the Jacksonian Era of the Common Man.
Prerequisite: six semester hours of History.

## HIST 3333 COLONIAL MEXICO, CENTRAL AND SOUTH AMERICA Spring, 85

A study of the establishment of Spanish dominion; geography and natural resources; institutional and social development; cultural aspects and contribution.
Prerequisite: Six semester hours of History.

## HIST 3335 HISTORY OF SPAIN

Spring
The historical development of the Spanish nation from earliest times to the present. Emphasis will be given to the evolution of the political, economic and social institutions that are important to the conquest and colonization of the Americas.
Prerequisite: Six semester hours of history.

## HIST 3341 HISTORY OF ENGLAND I, TO 1686

Fall, 84
English history from earliest times through the period of the Stuart kings. Emphasis will be given to the factors which have influenced the development of British and American institutions.
Prerequisite: Six semester hours of History.

## HIST 3342 HISTORY OF ENGLAND II, AFTER 1686

Summer, 85
The period of the Glorious Revolution to the British Empire and common-wealth of nations. Prerequisite; Six semester hours of History.

## HIST 4303 THE EMERGENCE OF MODERN AMERICA, 1877-1917

Fall, 84
A study of the growth of American business and industry, the emergence of the United States as a world power, the populist protest and progressive reform movements.
Prerequisite: Six semester hours of History.

## HIST 4313 TWENTIETH CENTURY AMERICA, 1917 TO THE PRESENT Fall, 85

A study of the history of the United States from World War I to the present with emphasis on domestic and foreign affairs in their relationship to and effect on each other.
Prerequisite: Six semester hours of History.

## HIST 4322 THE SPANISH SOUTHWEST TO 1821

Spring, 85
A study of the northward colonization of Mexico with emphasis on institutions and the settlement of the interior provinces of Texas, New Mexico, Arizona and California.
Prerequisite: Six semester hours of History (was HIST 3322, may not be repeated for credit).

## HIST 4325 THE AMERICAN SOUTHWEST AFTER 1821

Summer 85
The American penetration of Texas and the Mexican War, subjugation of the Indians, extension of mining, railroad, cattle industry, and farming across the Southwest; and the transition from raw frontier to modern states of the Southwest.
Prerequisite: Six semester hours of History (was HIST 3325, may not be repeated for credit).

## HIST 4343 ERA OF SECTIONAL CONFLICT, 1840-1877

## Spring

United States history from 1840 to 1877 with emphasis upon the development of sectionalism, Southern nationalism, the breakdown of American political parties, Civil War and Reconstruction.
Prerequisite: six semester hours of History.

## HIST 4344 ORAL HISTORY RESEARCH AND METHODOLOGY

On demand :
The course will focus on the theoretical and experiential aspects of oral history research and methodology. Students will be exposed to both field and archival techniques in the collection, preservation, and analysis of oral history data and its utilization in anthropology, government, history, social work, sociology, linguistics, language research, education and other areas. May also be counted as SOC 4344.
Prerequisites: HIST 2313, 2314 and SOC 1313.

## HIST 4345 .MEXICO'S FIRST CENTURY AS AN INDEPENDENT REPUBLIC

Fall. 85
A study of the political, social and economic development of Mexico from the independence movement to the Revolution of 1910. A study of the problems of Mexico and the various distinct eras of its first century as a republic.
Prerequisite: Six semester hours of History (was HIST 3343, may not be repeated for credit).

## HIST 4352 BRAZIL AFTER INDEPENDENCE

## Fall, 85

A study of Brazil as an empire and a republic with emphasis on the social, geographic and political factors that make it a unique nation in the Western hemisphere.

## HIST 4353 HISTORY OF MEXICAN CULTURE

Spring, 85
A study of the Mexican people, including development of their social institutions, thinking, concepts, attitudes, values, reactions, and sensitivities.
Prerequisite: Six semester hours of History.

## HIST 4354 CONTEMPORARY MEXICO

## Spring, 86

A study of the nature and impact of the social, political and economic transformations since the revolutionary epoch of 1910-1917; greatest emphasis on the contemporary factors that have made Mexico's experience unique.
Prerequisite: Six semester hours of History.

## HIST 4355 SPANISH SOUTH AMERICA SINCE INDEPENDENCE

Fall, 84
The historical development of the major Hispanic South American republics; general trends in their social, economic and political growth.
Prereguisite: Six semester hours of History. History 3333 is recommended to precede this course (was HIST 3353, may not be repeated for credit).

## HIST 4363 UNITED STATES - LATIN AMERICAN RELATIONS

Summer, 86
The development of a distinctive system of international relations - economic, cultural, and political - between the nations of Latin America and the United States.
Prerequisite: six semester hours of history.

## HIST 4370 THE RENAISSANCE AND THE REFORMATION, 1300 to 1650

Fall, 84
A study of the political, social and cultural developments of Western Europe from the decline of the Medieval system, through the Age of the New Monarchies, with emphasis on France, Germany and Italy.
Prerequisite: Six semester hours of History with HIST 1333 recommended.
HIST 4371. RUSSIA SINCE 1905
On Demand
Russia from the precursors of the Revolution through the Revolutions of 1905, 1917 and the development of the Soviet regime to current trends.
Prerequisite: Six semester hours of History with HIST 1334 recommended. (was HIST 3371, credit cannot be received if HIST 3371, or HIST/GOVT 3372 have previously been completed).

## HIST 4374 THE CARIBBEAN AND CENTRAL AMERICA

Summer, 85
A study of the nineteenth-century efforts of these nations to emerge as separate entities and an evaluation of their twentieth-century experiences.
Prerequisite: Six semester hours of History with HIST 3333 recommended.

## HIST 4375 ABSOLUTISM AND ENLIGHTENMENT IN EUROPE, 1650-1789

Summer, 85
Traces the development of the Absolutist State, benevolent depotism, and the intellectual and scientific trends of the Enlightenment.
Prerequisite: Six semester hours of History with HIST 1334 recommended. (was HIST 3375, may not be repeated for credit).

## HIST 4376 REVOLUTIONARY EUROPE, 1789-1850

On demand
A study of Europe of this period with emphasis on the growth of democratic institutions from the beginning of the French Revolution through the Revolution of 1848.
Prerequisite: Six semester hours of History with HIST 1334 recommended. (was HIST 3374, may not be repeated for credit).

## HIST 4383 EUROPE'S AGE OF IMPERIALISM, 1850-1919

Summer, 86
A study of European History through the period of growing nationalism and imperialism leading to World War I.
Prerequisite: Six semester hours of History with HIST 1334 recommended. (was HIST 3383 may not be repeated for credit).

## HIST 4393 CONTEMPORARY EUROPE, 1919 TO PRESENT

## Spring, 86

A study of the causes of World War II, its resulting problems, and current trends.
Prerequisite: Six semester hours of History with HIST 1334 recommended. (was HIST 3393, may not be repeated for credit).

## HIST 4395 SPECIAL TOPICS IN HISTORICAL STUDY

On demand
A study of selected topics in history, including comparative history and philosophies of history.
Topics are varied according to availability of faculty and student interest. Course can be repeated for credit as topics change.
Prerequisite: Six semester hours of history.

## HIST 5343 ERA OF SECTIONAL CONFLICT, 1840-1877 <br> Spring

United States History from 1840-1877 with emphasis upon the development of sectionalism, Southern nationalism, the breakdown of American political parties, Civil War, and Reconstruction.

## HIST 5345 MEXICO'S FIRST CENTURY AS AN INDEPENDENT REPUBLIC

Fall, 85
A study of the political, social and economic development of Mexico from the independence movement through the revolutionary movement of 1910-1917. A study of the problems of Mexico and the various eras of its first century as a republic.

## HIST 5363 UNITED STATES - LATIN AMERICAN RELATIONS

Summer, 86
The development of a distinctive system of international relations - economic, cultural, and political - between the nations of Latin America and the United States.
HIST 5383 EUROPE'S AGE OF IMPERIALISM, 1850-1919
Summer, 86
A study of European history through the period of growing nationalism and imperialism leading to World War I.

## HIST 6300 HISTORIOGRAPHY AND HISTORICAL METHOD

Fall
A description of the chief source materials of history and bibliography; methods of the aids in historical research; and explanations of generally accepted usages in historical composition. (This course is required of all graduate students majoring and minoring in history and should be taken at the start of the graduate's program.)
HIST 6301 SEMINAR AND PROBLEMS STUDY IN ERAS IN AMERICAN HISTORY TO 1860
Spring, 85
A survey and critique of the bibliography and problems of various exas in American history before the Civil War. May be repeated for credit when topic varies.
HIST 6303 SEMINAR AND PROBLEMS STUDY IN ERAS IN AMERICAN HISTORY SINCE 1860
Fall, 86
A survey and critique of the bibliography and problems of various eras in American history since 1860. May be repeated for credit when topic varies.

## HIST 6304 TEACHING HISTORY IN THE JUNIOR HIGH SCHOOL

Summer
This course will explore selected themes in World, United States, Texas and local history, and examine how-such topics can be better integrated into junior high school (grades 6 through 9) curricula. Emphasis will be focused on creative teaching techniques designed to stimulate student interest in learning history. May be repeated for credit when the topic varies.

## HIST 6305 TEACHING HISTORY IN THE SENIOR HIGH SCHOOL

Summer
This course will explore selected themes in World, United States, Texas and local history, and examine how such topics can be better integrated into senior high school (grades 9 through 12) curricula. Emphasis will be focused on creative teaching techniques designed to stimulate student interest in learning history. May be repeated for credit when the topic varies.

## HIST 6306 STUDIES IN TEXAS AND SOUTHWESTERN HISTORY

Spring, 86
An intensive investigation of selected problems in southwestern history with emphasis on Texas. May be repeated for credit when topic varies.

## HIST 6307 SEMINAR AND PROBLEMS STUDY IN THE HISTORY OF SOUTH AMERICA

 Spring, 85An investigation and critique of the problems and contributions made by the various South American countries in the 19th and 20th centuries and their roles in Inter-American relations. May be repeated for credit when topic varies.

## HIST 6309 SEMINAR AND PROBLEMS STUDY IN THE HISTORY OF MIDDLE AMERICA Fall, 84 <br> An investigation and critique of the problems and contributions made by Mexico, the Central American, and Caribbean Island nations in the 19th and 20th centuries and their roles in InterAmerican relations. May be repeated for credit when topic varies.

## HIST 6311 SEMINAR AND PROBLEMS IN MODERN EUROPEAN HISTORY <br> \section*{Fall}

A survey and critique of the bibliography associated with investigations of selected era studies and problems experienced by modern Europe. May be repeated for credit when topic varies.

## HIST 6316 STUDIES IN MEXICAN AND AMERICAN HERITAGES <br> \section*{Spring}

An intensive investigation of selected historical problems in the Mexican-American and AngloAmerican cultural heritages and the fusion and clash of these cultures.

## HIST 6380 THE GOLDEN AGE OF SPAIN AND PORTUGAL, 1300 to 1700 Summer, 86

A study of the political, social, and cultural developments of Spain and Portugal from the era of the Moors to the end of the Hapsburg Dynasty, including colonial expansion into North Africa.

## HIST 7300 THESIS

Research and writing of the thesis.
HIST 7301 THESIS
Research and writing of the thesis. '

## Philosophy

## Full-time Faculty

Carter, David K. (Ph.D. Yale, 1982; asst. prof.) ethics, American philosophy
The department of History and Philosophy offers a minor in philosophy. The study of philosophy can serve many useful purposes, but perhaps the most important are these: 1. Training in philosophy helps one to think more clearly, more perceptively, and more effectively. Regardless of one's personal and occupational goals, and regardless of the projects in which one is interested, being able to think clearly and well about them is an essential tool. 2. The study of philosophy uniquely helps one to better understand and appreciate oneself, the world outside, and how the two are related. One of the deepest human needs is to make sense of life and one's place in it, and the satisfaction of that need is the central concern of philosophy. A minor in philosophy would provide excellent support for majors in numerous fields, particularly history, government, English, psychology, sociology, math, and certain areas in science and business administration.

## Minor in Philosophy:

18 semester hours in Philosophy, of which 6 hours must be advanced; must include PHIL 1310 or 2330, and 1320.

## Philosophy

## PHIL 1310 INTRODUCTION TO PHILOSOPHY

## Fall, Spring, Summer

An introduction to some of the major philosophical questions that have intrigued mankind over the centuries. This will be done through an examination of the thought of some of the most important figures in the history of philosophy from the early Greeks to modern times. (Formerly PHIL 2313, may not be repeated for credit.)

## PHIL 1320 INTRODUCTION TO LOGIC

Fall, Spring, Summer
The subject matter of this course will be clear and'effective thinking. It will examine principles for correct reasoning and ways to distinguish good reasoning from bad, and it will consider the kinds of mistakes in reasoning that are most commonly made in everyday life. (Formerly PHIL 2343, may not be repeated for credit.)

## PHIL 2310 METAPHYSICS

On demand
An examination of selected metaphysical problems of historical and contemporary importance, such as freedom and determinism, the nature and existence of God, time, and space, causality, mind and matter, knowledge and truth.

## PHIL 2320 PHILOSOPHY OF SCIENCE

On demand
A philosophical examination of the assumptions and methodology of scientific inquiry, with examples drawn from the natural sciences. This course will consider the structure, meaning, confirmation, and use of scientific theories, as well as the philosophical implications of current theories in science.

## PHIL 2330 ETHICS

On demand
This course will be concerned with human values: our own, and those of other people. It will ask where those values come from and how we can know they are worth something, and it will examine several related questions such as personal freedom and the meaningfulness of human life. (Formerly PHIL 1330, 2323, may not be repeated for credit.)

## PHIL 2380 PHILOSOPHY IN WESTERN CIVILIZATION

## On demand

An examination of the major issues and trends in Western Philosophy viewed in the context of the nature and development of Western Civilization.

## PHIL 3320 SYMBOLIC LOGIC

On demand
This course will be a continuation of Philosophy 1320, Introduction to Logic, and will be concerned with the principles and methods used in symbolic logic to distinguish between valid and invalid arguments.
Prerequisite: PHIL 1320 or consent of instructor.

## PHIL 3340 PHILOSOPHY OF THE PERSON

On demand
A philosophical examination of what it is to be human. This course will deal with such issues as the problem of personal identity, the nature and structure of the self, the nature mind and its place in the world, and the question of "human nature".

## PHIL 3370 PHILOSOPHY OF RELIGION

## On demand

A philosophic study of the nature and varieties of religious experience, the meaning and validation of religious belief, the act of faith, the nature and existence of God, the problem of evil, mysticism, immortality, religious belief and moral conduct, religion and myth, and religion and culture.

## PHIL 3380 LATIN AMERICAN THOUGHT

On demand
An examination of some of the most important and influential contributions to Latin American thought. Material to be studied will be drawn from both past and contemporary sources. (Formerly PHIL 2353 may not be repeated for credit.)

## PHIL 3390 <br> AMERICAN PHILOSOPHY

On demand
An examination of the contributions of great American thinkers to the philosophical deposit of the world. (Formerly PHIL 3313, may not be repeated for credit.)
Prerequisite: Three semester hours of Philosophy.

## Bible Chairs

William Starbird, Acting Director
Bible courses are taught for full college credit at church centers adjacent to the campus at no expense to the University. A total of twelve hours of Bible may be applied as electives toward a degree. When a student's professional objectives require additional hours in Bible or religion, his Department Head and the Vice-President for Academic Affairs may allow him to enroll for additional credit.

## Course Descriptions

## Bible

## BIBL 1310 OLD TESTAMENT SURVEY

A survey of the history and literature of the Old Testament. Particular emphasis is placed upon the teaching concerning God, man, salvation and social relations; especially those teachings which deal with the preparation for the coming of Christ.

BIBL 1311 NEW TESTAMENT SURVEY
A brief survey of the Christian movement in the Mediterranean world during the first century, the life of Christ, the beginning of the Christian church, the life and letters of Paul and the general development of the New Testament as considered from the historical viewpoint.

## BIBL 1312 BIBLE AND EVERYDAY LIVING

A study of some aspects of the nature of man and of his relationship to Christ as studied in related bible readings.

BIBL 1314 ACTS OF THE APOSTLES
An historical study of the beginning and extension of Christianity, based on the Book of Acts.
BIBL 2301 THE LIFE OF CHRIST
A study of the life of Christ as contained in the Gospels.
BIBL 2302 THE LIFE AND LETTERS OF JOHN
A study of the life and works of John. A special emphasis given to his gospel and epistles with a brief review of revelation.
BIBL 2303 THE LIFE AND LETTERS OF PAUL
A detailed study of the life and teachings of the Apostle Paul as depicted in the Book of Acts and the Letters of Paul. The missionary journeys and expansion of Christianity will be given major attention.

BIBL 2304 COMPARATIVE RELIGION
A nonsectarian approach to and a comparison of, the great religions or systems of personal philosophies of the world including Judaism, Buddhism, Mohammedanism, Confucianism, Christianity and some less-known faiths or philosophies.

# Latin American Studies 

Dr. Gilbert Cardenas, Director

## Full-time Faculty

The faculty associated with the Latin American Studies Center and the Latin American Studies major are drawn from a wide variety of departments and programs throughout the University. A list of all Latin Americanist faculty members is available in the Director's office.

## General Description

The undergraduate major in Latin American Studies offers students a unique opportunity to combine concentrated work in one or more academic fields with specific skill/professional study in preparation for careers in a wide variety of areas. These include government and industry, banking and international commerce, international organizations and agencies, private foundations, journalism, and teaching. In addition, the LAS major provides excellent preparation for advanced study in graduate or professional schools whose degree programs are related to Latin American concerns.
Established in 1983 to provide an academic focus for the University's unique linguistic, cultural, and geographic characteristics, the Latin American Studies Center is charged with developing, implementing, and enhancing the Latin American Studies major. The Center began work on reforming the old Inter-American Studies major (see previous catalogues) in the Fall, 1983. Those responsible for the reforms expected to have coursework available leading to the LAS major by the Fall, 1984 that would permit students to combine studies in the Humanities and Social Sciences with such professional areas as Business, Health, and Communications. Students wishing to take advantage of the unique LAS major should consult with the Director of the Center for the most recent opportunities and degree requirements. In addition to the unique degree options being developed a basic major in Latin American Studies is available. The degree requirements for this plan are listed below.

## Degree Requirements

Major in Latin American Studies
(with or without Teacher Certification): ${ }^{1}$
48 hours including a minimum of 36 advanced hours. Must include:

1. 12 hours from HIST 3333, 3335, 4322, 4345, 4352, 4353, 4354, 4355, 4363, 4374
2. SPAN 1301-1302, or 1303-1304; and 2301-2302, or 2307-2308
3. SPAN 3303 or 3304
4. 9 hours from SPAN 3310, 3311, 3316, 3321, 4307, 4325, 4326, 4327, 4329
5. GOVT 4383 or 4386
6. 9 hours from ART 4351, ECO 3336, 3353, SOC 4323, 4363, 4373

## Law-Pre

## See Department of Political Science

# Department of Management and Computer Information Systems 

Dr. Les Rydl, Chair

## Full-time Faculty

Bartley,' Douglas L. (Master of Arts, 1961; University of Pittsburgh; assoc. prof.) Personnel Management
Brewerton, F. J. (DBA, 1968, Louisiana State University; prof. and dean) Production Management, Business Policy.
Cell, Robert F. (MBA, 1976, University of Missouri, at Kansas City; asst. prof.) Management
Chance, Joseph C. (Ph.D., 1971, University of Texas; prof.) Statistics
Hodges, DeWayne L. (Ph.D., 1984, University of Northern Colorado; asst. prof.) Statistics
Lee, Daniel (Ph.D., 1977, University of Florida; prof.) Management Information Systems
Munneke, Leslie E. (Ph.D., 1955, State`University of Iowa; prof.) Management, Industrial Relations
Popp, Gary E. (Ph.D., 1972 Louisiana State University; prof.) Management
Rydl, Lester M. (Ph.D., 1978, Texas A \& M University; assoc. prof. and Chairman) Statistics
Vincent, Vern C. (Ph.D., 1972, University of Northern Colorado; assoc. prof.; Director of Graduate Program; School of Business Administration) Research, Statistical Methodology
Villar, Edna (Ph.D., 1984, University of Texas; assist. prof.) Management, Business Policy
Wilson, James M. (Ph.D., 1971, University of Arkansas; assoc. prof.) Management
The Department of Management and Computer Information Systems offers a major in Management and a major and a minor in Computer Information Systems.
As may be implied from the department name, students majoring in this department may select between a management and computer information systems option. The curricula for the two options are shown below. In addition to completing The University College/General Education courses as outlined in the Pan American University catalog, the student will be responsible for fulfilling the requirements of his selected option.
The minor in Computer Information Systems is available to students from all areas of the University and is designed to prepare the student for entry-level positions in computer data processing.
NOTE: The student majoring in management or computer informations systems
MUST file a degree plan before his/her application for graduation will be processed.
, Each student shall have full responsibility for meeting this requirement. This responsibility does not lie with the department.

## Curriculum in Management - Computer Information Systems

The coursework leading to the BBA degree is classified as follows:
A. General Education and Business Foundation Courses

76 hours
B. Business Core Courses

33 hours
C. Specialization (Major) Courses

## GENERAL EDUCATION AND BUSINESS FOUNDATION COURSES <br> HOURS

English 1301, 1302 plus 6 hours of Sophomore literature ..... 12
GENB 1331 ..... 3
CIS 1301 ..... 3
ECO 2353, 2354 ..... 6
ACC 2421 and 2322 or 2329 ..... 7
Foreign Language - 6 hrs . in same language ..... 6
COMM 1303 ..... 3
Natural Science - 8 hrs . in same discipline ..... 8
History 2313 or 2333 plus 2314 ..... 6
Political Science - POLS 2313, 2314 ..... 6
PE - 4 hrs - any 2 activity courses ..... 4
3 hours from: ANTH 1313, 1323, 2323, 2353
PSY 1313, 1323, SOC 1313, 1323, 2333 ..... 3

3 hours from: ART 1301, 3381, COMM 2312

3 hours from: ART 1301, 3381, COMM 2312 PHIL 1310, 1320, 2330, 2380
MUSIC 1301, 1302, 2307, 3311,
PHIL 1310, 1320, 2330, 2380
MUSIC 1301, 1302, 2307, 3311,
PHIL 1310, 1320, 2330, 23803$-76$
(PHIL 1320 recommended for CIS majors)(ACC 2322 required for CIS majors)
BUSINESS CORE COURSES Hours
FINA 3383 ..... 3
GENB 3335, 3337, 4330, 4369 ..... 12
MANA 3341, 3342, 3361, 3390, 4363 ..... 15
MARK 3371 ..... 33

NOTE: A student must make either a " C " grade in each of the following five (5) courses or a 2.25 GPA in them before enrollment in 3000 or 4000 level courses in business is allowed:

CIS 1301, ECO 2353, 2354, ACC 2421 and ACC 2322 or 2329

## Specialization (Major) Courses

In addition to the University College, General Education Program requirements, the
Business Foundation Courses, and the Common Body of Knowledge Courses,
Management-Computer Information majors must comply with the following:
Major in Management

|  |  | Hours |
| :---: | :---: | :---: |
| General Education, Business Foundation, Common |  |  |
| Body of Knowledge Courses |  | 109 |
|  |  | 12 |
| Management | Specialization Courses |  |
| MANA 3332 | Human Relations in Management (was MANA 4332) |  |
| MANA 3362 | Personnel Management |  |
| MANA 4364 | Societal Problems in Business |  |
| CIS 2310 | COBOL Programming |  |
| Management Electives . Select 12 hours from: |  | 12 |
| MANA 4300 | Topics . |  |
| MANA 4361 | Human Behavior in Organization |  |
| MANA 3365 | Wage and Salary Administration (was MANA 4365) |  |
| MANA 4366 | Small Business Management |  |
| MANA 4368 | Industrial Relations (new title) |  |
| ECO 3354 | Macroeconomic Theory |  |

Major in Computer Information Systems

|  |  |  |
| :--- | :--- | ---: |
| General Education, Business Foundation, Common | Hours |  |
| Body of Knowledge Courses |  |  |
| Computer Information Systems Specialization Courses |  |  |
| CIS | 2310 | COBOL Programming |
| CIS | 2311 | Advanced Programming Techniques |
| CIS | 2312 | Microcomputer Concepts with Business |
|  |  | Applications |
| CIS | 3330 | File Structures for On-Line Systems |
| CIS | 3335 | Data Base Management Systems |
| CIS | 3336 | Systems Analysis |

Total Requirements 133 hours

## Minor in Computer Information Systems

ACC 2421 Principles of Accounting I
MANA 3361 Principles of Management
CIS 2310 COBOL Programming
CIS 3330 File Structures for On-Line Systems
CIS Electives (6 semester hours)
Total Minor Requirements 19 hours

## Course Descriptions

## Management

## MANA 3332 HUMAN RELATIONS IN MANAGEMENT

Fall, Spring, Summer
The theory and application of behavioral sciences to the human element in organizations. Individual behavior and motivation, as well as small group interaction in organizations, is emphasized. The human resource is portrayed as a vital complex factor in management. (Previously MANA 4332, a student cannot receive credit in both courses.)
Prerequisite: MANA 3361.

## MANA 3341 ELEMENTARY BUSINESS AND ECONOMIC STATISTICS

 Fall, Spring, SummerAn analysis of descriptive statistics and statistical inference. Topics include collection, organization and presentation of numerical data; central tendency, variation, skewness, probability, probability distribution, sampling distributions, estimation theory and hypothesis testing. Computer laboratory assignments covering the above topics will be assigned. (Since this course replaces GENB 3341, a student cannot receive credit in both courses.)
Prerequisite: MATH 2316, CIS 1301.

## MANA 3342 INTERMEDIATE BUSINESS AND ECONOMIC STATISTICS

Fall, Spring, Summer
A continuation of elementary statistics, including regression and correlation, index numbers, time series, nonparametric statistics and other decision making tools. Computer laboratory assignments covering the above topics will be assigned. (Since this course replaces GENB 3342, a student cannot receive credit for both courses.)
Prerequisite: GENB/MANA 3341, MATH 2317.

## MANA 3361 PRINCIPLES OF MANAGEMENT AND ORGANIZATIONAL BEHAVIOR

 Fall, Spring, SummerA study of the management functions of planning, organizing, and controlling. Emphasis is placed on organizational theory and behavior.

## MANA 3362 PERSONNEL MANAGEMENT

Fall, Spring, Summer
Current developments within the field of personnel administration. A study of concepts, principles, policies and organizational procedures utilized by business institutions in the management of personnel; selection, placement, compensation morale, labor turnover, collective bargaining, employee service and supervisory activities.
Prerequisite: MANA 3361, or consent of the instructor.

## MANA 3365 WAGE AND SALARY ADMINISTRATION

Fall, Spring
Principles and practices of the determination of relative values for jobs and their application to basic wage and salary structure. The formulation in class of a job evaluation plan and wage structure. (Previously MANA 4365, a student cannot receive credit in both courses.)
MANA 3390 MANAGEMENT INFORMATION AND DECISION SUPPORT SYSTEMS Fall, Spring
A study of business information systems which includes the role, analysis, design, development and implementation of financial, technical, and strategic information systems. These systems use computer hardware and software, decision models and data bases to provide managers with information used in the decision making process.
Prerequisite: MANA 3341, MANA 3361
MANA 4300 TOPICS IN MANAGEMENT
On Demand
A course of supervised independent study and research into management theory and practice.
Prerequisite: 12 hours of Management courses with at least a 3.0 GPA in these courses.

## MANA 4361 HUMAN BEHAVIOR IN ORGANIZATION

Fall, Spring
Development of management theory with emphasis on the investigation of individual and group behavior in organizations.
Prerequisite: MANA 3361.

## MANA 4363 PRODUCTION MANAGEMENT

## Fall, Spring, Summer

The concept of the production function and its applicability to all types of business firms, problems which provide background for the integration of scientific decision processes relative to an analysis of production activities, and computer applications in the production/operations environment.
Prerequisite: MANA 3342

## MANA 4364 SOCIETAL PROBLEMS IN BUSINESS

Fall, Spring
The behavior and social responsibilities of business firms and other business institutions in modern society.

## MANA 4366 SMALL BUSINESS MANAGEMENT

## Fall, Spring

A study of the special characteristics of small business. Emphasis will be placed on the selecting and starting of a small business and the essential function of management in the first years of operation.
Prerequisite: MANA 3361, MARK 3371 and FINA 3383.

## MANA 4368 INDUSTRIAL RELATIONS

Fall, Spring
An examination of current issues and problem areas facing management and unions in their relationship with employees, government and the community. Emphasis is placed on the role of union and management in the process, on the relationship of this process to contemporary labor legislation, contract negotiations, and day by day administration of company and union relations.

## MANA 6330 MANAGEMENT THEORY AND ORGANIZATIONAL BEHAVIOR

On Demand
An analysis of formal organizational theory and the interrelationship of individuals in organizations. A study of the organization as a system of authority, status, leadership, direction, communication and influence, includes readings, cases and special reports. (Since this course replaces MANA 6361, a student cannot receive credit for both courses.) Prerequisite: MANA 3361.

## MANA 6331 PERSONNEL ADMINISTRATION AND INDUSTRIAL RELATIONS

On Demand
An analysis of the functions of personnel administration and of the relationship between the personnel-industrial relations system and the total organization system. Contemporary industrial relations, philosophies and practices. (Since this course replaces MANA 6362, a student cannot receive credit for both courses.)
Prerequisite: MANA 6330.

## MANA 6332 MANAGEMENT SEMINAR

On Demand
The development of management thought and practice with emphasis on current trends and problems in management. (Since this course replaces MANA 6366, a student cannot receive credit for both courses.)
Prerequisite: 12 semester hours of graduate credit.

## MANA 6360 OPERATIONS MANAGEMENT

On Demand
This course focuses on the role of the production function in business systems and the study of production system operations. Emphasis is placed on production system design, integration of system inputs, outputs and transformations, and computer applications to decision processes utilized in managing operations and achieving optimal production. (Since this course replaces MANA 5363, a student cannot receive credit for both courses.)
Prerequisite: MATH 2317 or the equivalent.

## Computer Information Systems

## CIS 1301 COMPUTER SYSTEMS AND BASIC PROGRAMMING

Fall, Spring, Summer
A course with emphasis on computer appreciation and the BASIC programming language. Computer appreciation topics include: history, terminology, system components (hardware), internal data representation, language (software), applications and the cultural impact of computers. BASIC programming topics include: algorithms, flowcharting and coding concepts with reinforcement of these topics by laboratory experience. (Previously CS 1301, may not be repeated for credit.)
Prerequisite: Math 1335 with grade " $C$ " or better, or the equivalent.

## CIS 2309 FOŔRTRAN PROGRAMMING

## Fall, Spring

A programming course designed to familiarize the student with the FORTRAN language and some of its basic applications. (Previously CS 2309, may not be repeated for credit.)
Prerequisite: MATH 2316, CIS 1301 recommended.

## CIS 2310 COBOL PROGRAMMING

Fall, Spring
A programming course designed to familiarize the student with the COBOL language and some of its basic applications. (Previously CS 2310, may not be repeated for credit.)
Prerequisite: CIS 1301, GENB 1331 or consent of instructor.

## CIS 2311 ADVANCED PROGRAMMING TECHNIQUES

## Fall, Spring

A programming course designed to thoroughly familiarize the student with advanced programming techniques such as modular programming, binary table searches, variable length record techniques, hashing and other techniques not normally covered in a basic programming course.
Prerequisite: CIS 2310.

## CIS 2312 MICROCOMPUTER SOFTWARE AND HARDWARE CONCEPTS WITH BUSINESS APPLICATIONS <br> Fall, Spring <br> A survey of technical topics related to microcomputer systems with emphasis on the relationship between hardware architecture, systems software and application software. <br> Prerequisite: CIS 2310.

## CIS 2320 RPG PROGRAMMING <br> Fall, Spring

A programming course using the latest version of RPG language with emphasis on problem definition, processing logic, input/output specifications, file processing, and other programming techniques.
Prerequisite: CIS 2310 or consent of department head.

## CIS 3330 FILE STRUCTURES FOR ON LINE SYSTEMS

## Fall, Spring

An introduction to the organization of data for on line retrieval purposes. The course includes a study of tools for the on line analyzation of data, ordered lists, file structures, pointers and linkages, directories, memory management, and data access methods.
Prerequisite: CIS 2310.

## CIS 3335 DATA BASE MANAGEMENT SYSTEMS

Fall, Spring
An introduction to the logical organization of data bases. The Hierarchial, network and relational approaches to data base design are developed and evaluated. Data independence, security, and integrity are discussed in detail as are commercially available data base management systems. (Previously CS 3335, may not be repeated for credit.)
Prerequisite: CIS 3330.

## CIS 3336 SYSTEMS ANALYSIS

Fall, Spring
This course is concerned with the critical analysis of data processing operations in an organization and their redesign vis-a-vis computer applications.
Prerequisite: CIS 3330.

## CIS 4330 PROGRAMMING LANGUAGES

 SpringPresents a systematic approach to the study of programming languages, thus providing the student with the knowledge necessary to learn and evaluate such languages, formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix and postfic notation, global properties of Algorithmic languages, including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks, list processing, string manipulation, data description and simulation languages, run time representation of program and data structures. (Previously CS 4330, may not be repeated for credit.)
Prerequisite: CIS 3330 and senior standing.

## CIS 4333 INFORMATION SYSTEMS

## Spring

A practical course that applies previous courses of study in computer information systems to the design of information systems that are capable of handling ad-hoc reporting requests.
Prerequisite: CIS 3335.

# Department of Marketing, Finance and General Business 

Dr. Bill Platzer, Chairman

The department of Marketing, Finance and General Business houses four BBA degree programs and two minor programs. The major programs are: Marketing, Finance, General Business, and Office Administration. A student may minor in Business
Administration or may elect a second teaching field in Business Administration.
Full Time Faculty
Allison, Margaret (M.Ed., 1976, University of Houston; instructor) Business Education
Buitenbos, Clara (M.Ed., 1956, University of South Dakota; associate professor) Business Education
de los Santos, Gilberto (Ph.D., 1972, University of Texas at Austin; professor) Marketing
Fox, Harold (Ph.D., 1967 Rutgers; professor) Marketing
Gratz, Jerre G. (Ed.D., 1961, University of Houston; professor) Business Education
Jarvis, Susan S. (J.D., 1974, Tulane University; School of Law; assistant professor) Business Law
Pardi, Patrick R. (M.B.A., 1959, Xavier University; instructor) Marketing
Platzer, Willard B., Jr. (Ph.D., 1973, University of Arkansas; professor) Marketing
Prock, Jerry D. (D.B.A., 1970, Arizona State; professor) Finance
Slacum, Donald S. (D.B.A., 1969, Mississippi State University; associate professor) Finance
Williams, Ivan R. (M.B.A., 1976, Eastern Illinois University; assistant professor) Finance

## Curriculum in Marketing, Finance and General Business

The coursework leading to the B.B.A. degree is classified as follows:

| A. | General Education and Business Foundation Courses | 76 hours |
| :--- | :--- | ---: |
| B. | Business Core Courses | 33 hours |
| C. | Specialization (Major) Courses | 24 hours |
|  | Total Degree Requirements | 133 hours |

General Education and Business Foundation
Course Hours
English - 1301, 1302 plus 6 hours of sophomore literature ..... 12
GENB 1331 ..... 3
CIS 1301' ..... 3
ECO 2353, 2354 ..... 6
ACC 2421 plus 2322 or 2329 ..... 7
Foreign Languages - 6 hours in same language ..... 6
COMM 1303 ..... 3
MATH 2316, 2317 ..... 6
Natural Science - 8 hours in same discipline ..... 8
History 2313 or 2333 plus 2314 ..... 6
Political Science - POLS 2313, 2314 ..... 6
PE - 4 hours - Any 2 activity courses ..... 4
3 hours from: ANTH 1313, 1323, 2323, 2353,
PSY 1313, 1323, SOC 1313, 1323, 2333 ..... 3
3 hours from: ART 1301, 3301, COMM 2312, MUSIC 1301, 1302, 2307,3311, PHIL 1310, 1320, 2330, 2380

## Business Core Courses

Course Hours
FINA 3383 ..... 3
GENB 3335, 3337, 4330, 4369 ..... 12
MANA 3341, 3342, 3361, 3390, 4363 ..... 15
MARK 3371 ..... 3

NOTE: A student must make either a " C " grade in each of the following five courses or a 2.25 GPA in them before enrollment in 3000 or 4000 level courses in business is allowed.

CIS 1301, ECO 2353, 2354, ACC 2421 and 2322 or 2329

## Specialization (Major) Courses

In addition to the University College General Education Program requirements, the business foundation courses and the common body of knowledge covering majors in the Department of Marketing, Finance and General Business must comply with the following requirements.

| Major in Marketing |  |  |  |
| :---: | :---: | :---: | :---: |
| General Education, Foundation and Business Core Cour |  |  |  |
| Marketing Specialization Courses Required |  |  |  |
| MARK | 3372 | Consumer Behavior |  |
| MARK | 3374 | Intermediate Marketing | Strategy |
| MARK | 4377 | Marketing Management |  |
| MARK | 4378 | Marketing Research |  |

Advanced Pprofessional Electives 6 hours
All $3000 \& 4000$ courses taught in the School of Business Administration
Marketing Electives - Select 6 hours from: 6 hours

MARK 2373 Principles of Salesmanship
MARK 3373 Wholesaling and Industrial Marketing
MARK 3375 Retailing
MARK 4372 Sales and Advertising Management
MARK, 4379 Special Problems in Marketing
Total Requirements
Major in Finance

| General Education Foundation and Business Core Courses | 109 hours |  |
| :--- | :--- | :---: |
| Finance Specialization Courses Required | 12 hours |  |
| FINA | 3381 | Money and Banking |
| FINA | 3382 | Investment Principles |
| FINA | 3386 | Financial Institutions and Markets |
| FINA | 3389 | Commercial Banking |

Advanced Finance Electives : 9 hours
Professional elective to be selected from the following: 3 hours
ACC 3321, 3322, 3324, CIS 2309, 2310,
GENB 4345, 4346; MANA 4366

## Major in General Business

General Education Foundation and Business Core Courses 109 hours
General Business Specialization Courses Required
6 hours

[^14]| GENB | 4345 | Small Business Institute |
| :--- | :--- | :--- |
| MANA | 4366 | Small Business Managem |
| Eighteen hours from the following with |  |  |
| course from each of the five groups |  |  |
| a. | ACC | 3323, |
| b. | ECO | $3324 ;$ CIS 2310 |
| b. | FINA | 3382, |
| c. | 3353,4357 |  |
| d. | MANA | 3362, |

18 hours

## Major in Office Administration

| General Education Foundation and Business Core Courses | 109 hours |  |  |
| :--- | :--- | :--- | ---: |
| Office Administration Specialization Courses Required | $\mathbf{2 4}$ hours |  |  |
| GENB | 1302 | Production Typewriting |  |
| GENB | 1306 | Intermediate Shorthand |  |
| GENB | 1307 | Advanced Shorthand |  |
| GENB | 2308 | Secretarial Training |  |
| GENB | 2335 | Fundamentals of Business Communication |  |
| GENB | 3312 | Administrative Office Procedures |  |
| MANA | 3362 | Personnel Management |  |
| MANA | 4332 | Human Relations in Management |  |
|  |  |  |  |

## Minor in Business Administration

| ACC | 2329 | Managerial Accounting <br> ACC <br> 2421 |
| :--- | :--- | :--- |
| ECO Principles of Accounting. I |  |  |
| ECO | 2353 | Principles of Economics I |
| MANA | 3361 | Principles of Management |
| MARK | 3371 | Principles of Marketing |
| FINA | 3383 | Managerial Finance |

Total Requirements

19 hours

## Teacher Certification in Business Administration

All majors in the School of Business Administration may obtain certification to teach in Texas secondary schools by completing the following courses in addition to, or as a part of the electives permitted in the curriculum.

| GENB | 1302 | Production Typewriting |
| :--- | :--- | :--- |
| GENB | 3315 | Seminar: Teaching Business Subjects |
| ED S | 3301 | Instructional Technology |
| ED S | 3302 | Adolescent Behavior and the Learning Process |
| ED S | 3307 | A Clinical and A Systematic Approach to |
|  |  | Teaching and Learning |
| ED S | 4398 | Clinical Teaching |
| ED S | 4399 | Clinical Teaching |

plus three hours from the following:
ED S 3303 Education Past and Present
ED S 3305 Evaluation for Secondary Teachers
ED S 4318 Problems Seminar for Secondary Teachers
ED S 4351 Development Reading in Secondary Schools
ED S 4353 Secondary School Methods - Teaching the
Disadvantaged Learner

## Second Teaching Field (Minor) in Business Administration

A secondary teaching field (minor) is offered in Business Administration. Students may choose a secretarial or non-secretarial option. The plan requires 28 hours in the Business Administration area (ACC, CIS, ECO, FINA, GENB, MANA, MARK) of which 12 hours must be advanced, as follows:

| ACC | 2421 | Principles of Accounting I |
| :--- | :--- | :--- |
| ACC | 2329 | Managerial Accounting |
| GENB | 1302 | Production Typewriting |
| GENB | 1331 | Introduction to Business |
| GENB | 3315 | Seminar: Teaching Business Subjects |


| T | ours | following: |
| :---: | :---: | :---: |
| GENB | 1306 | Intermediate Shorthand (Secretarial Option) or |
| GENB | 1307 | Advanced Shorthand (Secretarial Option) or |
| CIS | 1301 | Computer Systems \& Basic Programming (Non Secretarial Option) <br> (Non-Secretarial Option) |

Upper Level Electives: Select 9 hours from the following areas:

ACC, CIS, ECO, FINA, GENB, MANA, MARK
Total Minimum Requirements

## Course Descriptions

## Finance

## FINA 1381 PERSONAL FINANCE

## Fall, Spring, Summer

Personal income, budgeting and consumer credit problems, development of plans for purchasing insurance, real estate and securities, taxation as it affects the individual's income, assets and estate is studied. (Was BA 1381, may not be repeated for credit.)

## FINA 3381 MONEY AND BANKING

Fall
The components, nature, functions, creation and destruction of money and credit; financial institutions and their functions; introduction to monetary theory and policy for the purpose of establishing the framework of the monetary economy.
Prerequisite: 3 hours ECO

## FINA 3382 INVESTMENT PRINCIPLES

On Demand
Analysis and valuation of investment securities of corporations and governmental agencies. The purchase and sale of securities through brokerage houses and investment banking firms will be studied. (Was BA 3382, may not be repeated for credit.)

## FINA 33833 MANAGERIAL FINANCE

## Fall, Spring, Summer

The finance function in the firm and the specific responsibilities of the firm's financial manager. Emphasis is on financial decisions using managerial information systems as an integrating force to deliver planned results. This includes but is not limited to decisions affecting the internal management of the firm and the acquisition of new assets and funds.
Prerequisite: ACC'2322 or 2329.
FINA 3384 FUNDAMENTALS OF REAL ESTATE
Fall
Physical and economic characteristics of real estate, applicable law, taxation, appraisal, marketing and finance.

## FINA 3385 PRINCIPLES OF̈ INSURANCE <br> Spring

Identification and control of risks facing the individual and the business firm, and the use of insurance and other mechanisms in dealing with them. Risk analysis, loss prevention, personal and property insurance, insurance programs and estate plans.

## FINA 3386 FINANCIAL INSTITUTIONS AND MARKETS

## On Demand

The dynamics of financial markets and their interaction with suppliers of funds, particularly financial intermediaries.
Prerequisites: 6 semester hours each of accounting and economics.

## FINA 3387 REAL ESTATE FINANCE

On Demand
An analysis of the nature and problems of developing the financing of real estate. Involved is a study of financial markets and instruments which are used to solve the financial needs of various real estate activities.
Prerequisite: FINA 3384 or consent of instructor.

## FINA 3389 COMMERCIAL BANKING

On Demand
The principles and policies affecting the services, organization and management of funds in the commercial bank; policy formulation is emphasized; coordination with general economic and money market conditions is covered.
Prerequisite: FINA 3381.

## FINA 3390 PUBLIC FINANCE

On Demand
Public expenditures, their nature, changes and classifications, sources of public revenues, debt management, introduction of fiscal theory and policy.
Prerequisites: 6 semester hours each of accounting and economics.

## FINA 4300 TOPICS IN FINANCE

## On Demand

A special topic will be selected by the instructor. Total course content and requirements will be established on an individual basis by the instructor.
Prerequisite: Consent of instructor and 12 hours of advanced courses in Finance.

## FINA 4381 INTERNATIONAL FINANCE, <br> On Demand

Application of finance principles in the international environment; including the nature of the balance of payment mechanism, the factors affecting the foreign exchange market; defensive techniques to protect the business against foreign exchange risk; and investing, financing, and work capital management within a multinational firm.
Prerequisites: 6 hours of Finance.

## FINA 4382 PORTFOLIO MANAGEMENT

On Demand
Provides the theoretical framework, techniques and applications of investment management. Develops models for performance evaluation emphasizing optimum combination of risk and return.
Prerequisites: FINA 3382.

## FINA 4383 ADVANCED MANAGERIAL FINANCE

## On Demand

Considers the commitment of funds to asset purchases and the measuring and influencing of cost of capital. Emphasizes the development of tools and techniques utilizing quantitative methods for the analytical study of financial administration and applications in the major problem areas of corporate finance.

## FINA 4386 MANAGEMENT IN FINANCIAL INSTITUTIONS

On Demand
An analysis of the policy and operating decisions needed by the management of financial institutions to maximize shareholder benefits.
Prerequisites: FINA 3381, 3386, 3389.

## FINA 6340 FINANCIAL ADMINISTRATION Spring <br> Management of the flow of funds in the firm. Analysis for obtaining the optimum utilization of funds, behavior of financial institutions and markets. <br> Prerequisites: FINA 3383. Since this course replaces FINA 6381, a student cannot receive credit for both courses.

## FINA 6341 FINANCE SEMINAR

## On Demand

Readings, reports and discussion of selected topics in finance.
Prerequisite: 12 semester hours of graduate business courses.

## General Business

## GENB 1301 BASIC TYPEWRITING COMMUNICATIONS

## Fall, Spring, Summer

For those who have had little or no training in typewriting keyboard introduction, skill, improvement, personal and business letters, tabulation problems, reports, outline and keypunch simulation. May not be counted for major or minor credit in business administration. \$2.00 lab fee:

## GENB 1302 PRODUCTION TYPEWRITING

Fall, Spring, Summer
For those who have had at least one semester of typewriting. Designed for students to become proficient in typewriting production improvement, manuscript writing, advanced report writing, and skills improvement.
Prerequisite: GENB 1301 or equivalent. $\$ 2.00$ lab fee.

## GENB 1305 ELEMENTARY SHORTHAND

## Fall, Spring, Summer

For students who desire a mastery of the principles of Gregg shorthand. The writing of shorthand, intensive vocabulary building, elementary dictation and transcription. May not be counted for major or minor credit in business administration.

## GENB 1306 INTERMEDIATE SHORTHAND

## Fall, Spring

A continuation of GENB 1305. Review of the principles of Gregg shorthand, vocabulary building, dictation and transcription. A student should be able to acquire a dictation speed of $70-90$ words per minute by the end of this semester. For those in the secretarial sequence of Business
Education, this course must be taken prior to student teaching.
Prerequisites: GENB 1305 or equivalent and credit for"or concurrent enrollment in GENB 1302.

## GENB 1307 ADVANCED SHORTHAND

## On Demand

Enables the student to acquire speed in dictation and transcription and acquaints the student with acceptable forms of business letters. A student should be able to acquire a dictation speed of approximately 110 words per minute by the close of the semester.
Prerequisite: GENB 1306 or equivalent.

## GENB 1331 INTRODUCTION TO BUSINESS

Fall, Spring, Summer
A survey of the field of business and industry in our economic system. Basic principles of business organization and the formation and operation of the several divisions of a business concern; finance, production, marketing and personnel. Designed to acquaint the beginning student with the problems, procedures and practices of modern business. Recommended only for freshmen and sophomores.

## GENB 2308 SECRETARIAL TRAINING

Spring
Secretarial procedures performed in business offices. Personal relations, business etiquette, handling of mail and telegrams, using the telephone, filing, banking procedures, using directories, interviewing callers, office equipment, keeping office records and minutes of meetings.
Prerequisite: GENB 1302 or equivalent.

## GENB 2335 FUNDAMENTALS OF BUSINESS COMMUNICATIONS

On Demand
A thorough application of writing principles to the various types of business letters, including statements of policy, inter-office memos and procedural minutes, informal report writing and the practicing of dictation.

## GENB 2346 COOPERATIVE PROGRAMS IN BUSINESS ADMINISTRATION

On Demand
A planned program of full-time work (minimum of one semester or two continuous five week summer sessions) related to the student's major field. Credit will be determined by a satisfactory employer's evaluation, interviews between the student and a supervising professor, and a supervised written report by the student. This course counts only as elective hours, and may be repeated once for credit. Students enroll on a credit/no credit basis.

## GENB 3312 ADMINISTRATIVE OFFICE MANAGEMENT

Fall
The management functions of planning, organizing, actuating and controlling in a facilitating administrative system are applied to case problems in office administration. Principles of internal organization, motivational theories and informational technology are studied through the medium of the role playing, panels and critiques, as well as the discussion technique. Pertinent research applicable to the field of office management is also studied.

## GENB 3315 SEMINAR: TEACHING BUSINESS SUBJECTS

Fall
Explores the methods and techniques of teaching all business subjects. In addition, the
psychological aspects of learning are reviewed and applied to the teaching process. Designed for the business student who is preparing to teach at the secondary or post-secondary level.

## GENB 3335 ORGANIZATIONAL COMMUNICATIONS

Fall, Spring, Summer
A systems approach to information processing which concerns itself with the psychological and practical aspects of communications applied to organizations networks. Research, both applied and experimental, in communications is a basic ingredient of this course. The areas of kinetic and mental communication are also explored on an intra- and inter- personal basis.
Prerequisite: Satisfaction of general requirements for freshmen English and ability to use the typewriter.

## GENB 3337 BUSINESS LAW I

Fall, Spring, Summer
The study of the development and functioning of our legal environment. The development of case law and precedents; the application of procedural and substantive law pertaining to civil and penal matters and the study and analysis of cases and rules of law relating to basic business practices. Governmental regulations of business, property rights, and business ethics. Course also includes torts, contracts, commercial transactions, and agency.

## GENB 3338 BUSINESS LAW II <br> Spring

A continuation and expansion of the study of rules of law in a business society including sales, commercial paper and credit transactions with emphasis on the Uniform Commercial Code; business organizations; and government regulations, property, wills and trusts, consumer protection, bankruptcy.
Prerequisite: GENB 3337.

## GENB 3356 BUSINESS ENTERPRISE AND PUBLIC POLICY

On Demand
The nature, scope and effect on the business community of governmental involvement and regulation in the functioning of the economy. Emphasis is on the impact of federal legislation as it pertains to antitrust enforcement and the maintenance of competition, the regulation of public utilities and inter-regional transport, agricultural adjustment, labor relations and public ownership. Designed to give a broad understanding of the many ways in which business and economic life are shaped and influenced by government.

## GENB 4330 INTERNATIONAL BUSINESS

On Demand
Business concepts, analytical processes, and philosophical bases for international business operations. Emphasis is on environmental dynamics, multinational business organizations, cultural and economic constraints, unique international business practices, and international operations, strategy, and policy.
Prerequisite: MANA 3361, MARK 3371, FINA 3383.

## GENB 4345 SMALL BUSINESS INSTITUTE

Fall, Spring
This course involves the on-premise evaluation of a small business. It focuses on the analysis of the accounting, finance, production, marketing and management functions as they pertain to the successful operation of the business. The student, acting as a counselor, diagnoses, analyzes and proposes possible solutions for problems currently affecting the business. This course may be repeated once for credit.
Prerequisites: MANA 3361, 3363, 3371; FINA 3383.

## GENB 4346 TOPICS IN GENERAL BUSINESS

On Demand
Designed to give students professional experience in actual business situations or applied research into business and economic problems. This course does not count for the CO-OP program; see GENB 2346.
Prerequisite: Consent of instructor and 12 hours advanced Business Administration courses.

## GENB 4347-48 BUSINESS APPLICATIONS AND RESEARCH

Offered on Demand
Designed to give students professional experience in actual business situations or applied research into bưsiness or economic problems. Projects and opportunities for such experience are varied and change from semester to semester. Sequential registration for up to twelve semester hours is permitted as topics vary. May be counted as business administration or economics. Prerequisite: Consent of instructor.

## GENB 4369 BUSINESS POLICY

Fall, Spring, Summer
A broad course in business management designed to integrate earlier studies in business. Comprehensive case problems are studied, with student participation in decision making related to business operations under conditions of uncertainty. A computerized business simulation provides for decision making under dynamic conditions.
Prerequisite: ACC 2322 or 2329, MANA 3361, 4363; MARK 3371; FIN 3383

## GENB 6310 BUSINESS RESEARCH

Fall
Business research techniques and methodologies. Topics include: identifying valid research activities, review of literature, data sources and collection, research design and methodology, computer statistical analysis, and written and oral communication of the research paper. (Since this course replaces GENB 6332, a student cannot receive credit for both courses.)

## GENB 6311 PROJECT PLANNING AND PROPOSAL WRITING

On Demand
The course develops skills in designing, evaluating and funding private and public projects. The project design and evaluation techniques integrate needs assessment, objectives, procedures, and program budgets. The funding process is investigated in detail. (Since this course replaces HR 6310, a student cannot receive credit for both courses.)
Prerequisite: A graduate level research course.

## GENB 6316 BUSINESS RESPONSE TO GOVERNMENT REGULATIONS

On Demand
Review of government laws and regulations affecting the business operation including anti-trust, mergers and investments, consumer rights and safety, wage and hour law, industrial relations, health and safety and equal employment opportunity as well as business response to deregulation laws; with a view toward minimizing compliance cost. (Since this course replaces GENB 6329, a student cannot receive credit in both courses.)

## GENB 6317 ADMINISTRATIVE COMMUNICATION

On Demand
Interdisciplinary study of the communication processes in business. Includes systems and technologies, and the organizational and psychological processes. Formulating, conducting and reporting a significant research project in communications. (Since this course replaces GENB 6335, a student cannot receive credit for both courses.)

## GENB 6380 INTERNATIONAL BUSINESS

## Fall

Readings and cases in international business. Emphasis is placed on the impact of comparative differences in the domestic and international business environments and operations, including the impact of historical, economic, cultural, and political foundations on business operations. Special international business topics of unique contemporary importance ate also studied.
Prerequisite: 12 semester hours of graduate business courses.

## GENB 6390 ADMINISTRATIVE POLICY AND STRATEGY

Spring
A study of management problems under dynamic conditions. Comprehensive, integrative cases will be studied and analyzed. Decision making and involvement in the management process is provided through a computerized management simulation. (Since this course replaces GENB 6369, a student cannot receive credit for both courses.)
Prerequisite: 18 semester hours of MBA core courses.

## GENB 7600 .THESIS

On Demand
Research and writing of the thesis.

## Marketing

## MARK 2373 PRINCIPLES OF SALESMANSHIP

## Fall, Spring

Modern salesmanship, the product, the buyer, planning the presentation, meeting the prospect, the interview, overcoming resistance, closing the sale, building good will. Practical applications of selling in the form of structured class participation.

## MARK 3371 PRINCIPLES OF MARKETING <br> \section*{Fall, Spring, Summer}

The marketing structure as it operates in our economic system. With emphasis on improving the flow of goods and services from producer to consumer. Practical application of principles and techniques. Designed as a beginning course in marketing.
Prerequisite: ECO 2353.

## MARK 3372 CONSUMER BEHAVIOR

## Fall Summer

An overall view of the basic perspectives of consumer behavior. An interdisciplinary approach is utilized by studying the fields of economics, psychology, sociology and anthropology as they relate to marketing. Emphasis is placed on the fundamental process of motivation, perception and learning, as well as analysis of individual predispositions and group influences in marketing. Prerequisite: MARK 3371 or consent of instructor.

## MARK 3373 WHOLESALING AND INDUSTRIAL MARKETING

## On Demand

A comprehensive study of marketing in other than the retail area. Topics include: Wholesale institutions, their competitive positions and strategies; channels of distribution; physical distribution; marketing to industrial consumers and industrial buying behavior. Readings, cases and special projects.
Prerequisites: MARK 3371 and 3374 or consent of the instructor.

## MARK 3374 INTERMEDIATE MARKETING STRATEGY

## On Demand

Applications of marketing principles to strategy formulation. Topics include: target market selection, market mix development, and new product planning. Both consumer and industrial marketing is stressed through the use of cases, readings and special projects. Recommended as the second course in marketing.
Prerequisite: MARK 3371.

## MARK 3375 RETAILING

Fall, Summer
Principles and methods buying, of modern retailing, emphasis on problems of store location and layout, buying, pricing, credit, stock control, personnel and sales promotion. Designed for students who wish to gain a general knowledge of the retail field as well as those specializing in marketing.
Prerequisite: MARK 3371.

## MARK 4372 SALES AND ADVERTISING MANAGEMENT

On Demand
Management of the promotional mix. Analysis and application of advertising and sales promotion methods through mass communications and management of the sales force for both consumer and industrial goods.
Prerequisite: MARK 3371, 3374.

## MARK 4377 MARKETING MANAGEMENT Spring

Emphasis on acquiring a knowledge of various tools and models that may be useful in assisting the marketing manager in his decision-making process. All areas of marketing are discussed within the decision-making framework, with practical application of techniques emphasized. Prerequisites: MARK 3371.

## MARK 4378 MARKETING RESEARCH

Fall, Spring
Quantitative research procedures and techniques utilized in business today. Problems definition, sources of research data, survey methods, questionnaire design and sampling techniques. Practical application of procedures and techniques is emphasized through class research projects. Prerequisite: ECO 2352, MANA 3342, MARK 3371.

## MARK 4379 SPECIAL PROBLEMS IN MARKETING

On Demand
An in-depth study of some problems in marketing. A weekly conference is scheduled with the supervising faculty member.
Prerequisite: 12 hours in marketing and consent of instructor.

## MARK 6370 MARKETING POLICY AND MANAGEMENT

Fall
A study of marketing policy and decision making based upon a consumer orientation; innovation and creative adaptation to change; cultural implication of marketing action; and the role of theory in marketing. (Since this course replaces MARK 6377, a student cannot receive credit for both courses.)
Prerequisite: MARK 3371.

## MARK 6371 MARKETING SEMINAR

On Demand
A study of historical and current thought in marketing theory and practice.

## MARK 6372 MARKETING STRATEGY

On Demand
A study of current promotion management techniques for consumer products. Skills will be developed in utilizing consumer research, sales analysis, and mass media data for promotion planning, creation, execution, and evaluation. (Since this course replaces MARK 5372, a student cannot receive credit for both courses.)

## Department of Mathematics and Computer Science

## Full-time Faculty

Aftabizadeh, Abdol-Reza (PhD, University of Texas 1981; asst. prof.) Differential Equations.
Brazier, Gerald (PhD, Ohio State University 1974; asst. prof.) Mathematics Education.
Crofts, Alfred E., Jr (PhD, Southern Methodist University 1969; prof.) Statistics
Paredes, Miguel (PhD, University of Utah 1982; asst. prof.) Mathematical Economics and Mathematical Modelling.
Pontius, Paul (MA, University of Illinois 1965; asst. prof.) Mathematics Education.
Schaefer, Sister M. G. (PhD, University of Texas 1967; prof.) Mathematics Education.
Wallace, Edward C. (PhD, University of Texas 1980; asst. prof.) Mathematics Education.

Watkins, William (PhD, University of Wyoming 1980; asst. prof.) Topology, Semigroups, Microcomputers.
Wiener, Joseph (PhD, University of Leningrad 1964; prof.) Differential and Integral Equations, Mathematical Analysis.
The Department of Mathematics and Computer Science offers majors in Computer Science, mathematics and minors in mathematics, elementary mathematics education, computer science and statistics. In addition, it offers courses for students seeking a second teaching field for teacher certification in mathematics or computer science.
Three distinct plans are available for the mathematics major - Plan 1, a conventional major in mathematics without teacher certification, Plan II, a major in applied mathematics with a minor in statistics, and Plan III, a major in mathematics with teacher certification for prospective secondary teachers. Each major must complete the requirements of one of these plans.
An undergraduate specializing in mathematics begins with a study of trigonometry. Well prepared students are encouraged to establish credit in this pre-calculus course by passing advanced standing examinations. Each of the three plans available for a major in mathematics requires coursework in calculus, computer science, linear algebra and statistics. In addition, mathematics majors have options available for elective : coursework both in and out of the Department. Mathematics majors should work closely with their departmental advisor in order to choose these electives wisely.
A major and minor in Computer Science is available for students from all areas of the University. The Computer Science major and minor are designed to provide the student with a marketable expertise in computer science.

The minor in applied statistics is available for students in mathematics and science as well as for students in other disciplines needing statistics as a tool. Course work in statistics using advanced mathematics, however, is available.
The minor in elementary mathematics education is available for prospective elementary teachers seeking a specialization in mathematics. This minor is the only program of its kind in the State of Texas that focuses on the mathematical needs of the teacher in the elementary classroom.

Many of the more challenging positions in mathematics require study beyond a bachelor's degree. The department offers a Master of Science in Interdisciplinary Studies degree with concentrations in mathematics and mathematics education for qualified and interested students.

## Degree Requirements

## A. Major in Mathematics:

## Plan I: Major in Mathematics Without Teacher Certification

## University College/General Education Special Requirements

A. Humanities

1. Language other than English FR 1321, 1322 or higher level courses or GER 1331, 1332 or higher level courses required.
2. General Topics PHIL 1320 recommended.
B. Mathematics and Sciences
3. Mathematics MATH 1356 recommended beginning course.
4. Natural Science PHYS 1401, 1402 required.
C. Computer Literacy

CS 1380, 2380 or CS 2325 recommended (those planning further CS work must take 1380 and 2380).

## Other General Education Requirements

A. English

ENG 2309.
B. Natural Science

In addition to PHYS 1401, 1402, eight hours chosen from BIOL 1401, 1402; CHEM 1401, 1402; PHYS 2101 or 2301

## Mathematics Requirements

36 semester hours of mathematics of which 21 must be advanced; must include MATH 1356, 1360, 1370, 2342, 2345*, 3347, 3337 (or 4339), 3349, 4351**, 4357** and six advanced hours in mathematics other than MATH 3303, 3311, 3312, 3313, 3314, 3315, 3318 , and 4316.
Students intending to work in applied mathematics should choose their advanced electives from MATH 3337, 3338, 4339, 4340, 4348, 4468, 4371, 4373 and 4379.

## Plan II Major in Mathematics With A Minor in Statistics

## General Requirements

The same as under Plan I

## Mathematics Requirements

50-52 hours of mathematics and statistics of which 34 must be advanced including:
I) MATH 1356, 1360, 1370, 2342, 2345*, 3347, 3349, 4357** and 4468.
II) STAT 2330, 3337, 3338, 4336 and 4339.
III) 6 advanced hours in mathematics or statistics other than MATH 3303, $3311,3312,3313,3314,3315,3316,3318$, and 4316.

## Plan III Major in Mathematics With Teacher Certification

## University College/General Education Special Requirements

A. Humanities

1. Language other than English FR 1321, 1322 or higher level courses or GER 1331, 1332 or higher level courses required.
2. General Topics PHIL 1320 recommended.
B. Mathematics and Sciences
3. Mathematics

MATH 1356 recommended beginning course.
2. Natural Science

PHYS 1401, 1402 or CHEM 1401, 1402 or GEOL 1401, 1402 or BIOL 1401, 1402 required.
C. Computer Literacy CS 1380, 2380 or CS 2325 recommended (those planning further CS work must take 1380 and 2380).

## Education Course Requirements

18 hours of coursework including Secondary Education 3301, 3302, 3307, 4641 and 3 hours from Secondary Education 3303, 3305, 4350, 4353. NOTE ED 2100 is a prerequisite for all upper level Education courses.

## Second Teaching Field

A 24 hour approved second teaching field is required for secondary certification, of which 12 semester hours must be advanced.

## Mathematics Requirements

36 hours of mathematics of which 18 must be advanced, must include 1356, 1360, 1370, $2342,2345^{*}, 3304^{* *}, 3311,3314$, and $4351^{* *}$. The remaining hours must be selected from MATH $2330,3303,3317,3337,3347$ and 4316 or other approved Mathematics courses above MATH 2330 and other than MATH 3312, 3313, 3315, 3316, and 3318.

## B. Major in Computer Science

## University College/General Education Special Requirements

## A. Humanities

1. Language other than English

FR 1321, 1322 or higher level courses or
GER 1331, 1332 or higher level courses required.

[^15]2. General Topics

PHIL 1320 recommended.
B. Mathematics and Sciences

1. Mathematics

MATH 1356 recommended beginning course.
2. Natural Science

PHYS 1401, 1402 required.
C. Computer Literacy

CS 1380 recommended
Other General Education Requirements
A. English

ENG 2309.
B. Mathematics

MATH 1356, 1360, 1370, 2342, 2345, 3373, and 3 additional hours from 3337, 3349, 4372, and 4339.

## Computer Science Requirements

36 semester hours in Computer Science which must include CS 1380, 2380, 2333, 3333, 3334, 3336, 3350, and 15 additional hours ( 9 must be advanced) of Computer Science.

## C. Minors in Computer Science, Mathematics, Statistics and Elementary Mathematics Education

## Minor in Mathematics Without Teacher Certification

24 semester hours of mathematics of which 9 must be advanced including MATH 1356, 1360, 1370, 2342, $2345^{*}, 3347$ and 9 advanced hours in mathematics other than MATH 3303, 3311, 3312, 3313, 3314, 3315, 3318, and 4316.

## Minors in Mathematics With Teacher Certification

Elementary Plan I:
18 semester hours in mathematics, of which 9 hours must be advanced; must include MATH 2306, 2307 and 1360.
Elementary Plan II:
24 semester hours in mathematics of which 12 hours must be advanced; must include MATH 1356, 1360, 1370 and 2342.
Secondary Plan I:
25 semester hours in mathematics of which 12 must be advanced including MATH 1356, 1360, 1370, 2342, 2345*, 3304, 3311, 3314, and 3 additional advanced hours in mathematics other than MATH 3312, 3313, 3315, 3316 a nd 3318.

## * Minor In Statistics Without A Mathematics Major

22 semester hours of which 9 must be advanced including:
I) MATH 1360 and $2345^{* *}$;
II) STAT 2330, 3337, 3338 and 4336
III) C S 2325

Minor in Computer Science without Teacher Certification
18 semester hours of which 6 must be advanced
I) C S 1380, 2380, 2333, 3333, 3334
II) 3 additional semester hours of approved Computer Science, Computer Information Systems, or Mathematics.

Minor in Computer Science with Teacher Certification
24 semester hours of which 12 must be advanced including:
I) C S 1380, 2380, 2333, 3311, 3333
II) 9 additional hours ( 6 advanced) of approved Computer Science, Computer Information Systems, or Mathematics

[^16]
## Minor in Elementary Mathematics Education

21 semester hours of which nine must be advanced including:
I) MATH 2306, 2307, 1340
II) 9 hours from MATH 3312, 3313, 3315, 3316 and 3318.

## Department of Mathematics Graduate Program

The Department of Mathematics offers courses leading to a Master of Science in Interdisciplinary Studies with a concentration in Mathematics and provides courses for minor and support areas for degrees in other fields.

## Department Requirements for the Master of Science Degree in Interdisciplinary

 StudiesBefore admission to candidacy by the Department of Mathematics, applicants must have completed or must complete as leveling work 24 semester hours of undergraduate mathematics, half of which must be at the upper division level, and include MATH 4351.

## Master of Science <br> Interdisciplinary Studies

## Concentration

Mathematics Thesis
CONCENTRATION
A minimum of 12 semester hours of graduate course work in mathematics*** including MATH 6351 and 6395.
THESIS
(6 hours)
MATH 7300, 7301.
RESOURCE AREA
(18 hours)
A minimum of 18 semester hours selected from 2 selected areas. At least half of the hours must be at the 6000 level. No more than 12 of these hours may be taken from Business Administration and Education.

TOTAL 36 hours

## Concentration

Mathematics
CONCENTRATION
A minimum of 18 semester hours of graduate course work in mathematics*** including MATH 6351, 6357 and 6395.
RESOURCE AREA
(18 hours)
A minimum of 18 semester hours selected from 2 related areas. At least half of the hours must be at the 6000 level. No more than 12 hours may be taken from Business Administration and Education.

TOTAL
36 hours

## Course Descriptions

## Computer Science

## CS 1380 INTRODUCTION TO COMPUTER SCIENCE

## Fall, Spring

An introduction to computer science and computer programming. The fundamentals of a high level programming language will be introduced. Methods of problem-solving, techniques of algorithmic development, and concepts of structured programming will be emphasized. Prerequisite: Grade of " $C$ " or better in MATH 1340 or equivalent.

## CS 2333 COMPUTER ORGANIZATION AND MACHINE LANGUAGE

## Fall, Spring

An introduction to computer organization, machine language programming and use of assembly language programming systems, Basic instructional sets, arithmetic and logical operations, indexing, indirect addressing, Macro definition and interpreters. Several computer programming projects are included.
Prérequisite: CS 2325, 2380 or consent of instructor

## CS 2380 COMPUTER SCIENCE $1 I$

## Fall, Spring

A second programming course including the fundamentals of a second high-level programming language, a continuation of problem-solving techniques emphasizing larger problems and their solution by top-down design and structured programming.
Prerequisites: MATH 1356 or equivalent and CS 1380 with a grade of " C " or better.

## CS 2325 SURVEY OF ELEMENTARY SCIENTIFIC PROGRAMMING

## Fall, Spring

An introduction to computer programming and problem solving in a scientific programming language with special emphasis on problems from science and mathematics. Not to be taken for credit toward a CS major or minor.
Prerequisite: Grade of " C " or better in MATH 1340 or equivalent

## CS 3311 COMPUTER PROGRAMMING FOR SECONDARY TEACHERS

## Spring

This course provides secondary education majors with the background necessary to teach computer programming and/or computer mathematics in the high school. Topics include applications of programming to areas in mathematics and science as well as techniques of data processing.
Prerequisite: 12 hours of Computer Science

## CS 3333 DATA STRUCTURES

Spring
Basic concepts of data and computer storage structures. The organization and maintenance of data files and sorting/searching techniques are studied. Linear lists, string arrays, orthogonal lists, trees and multilinked structures are developed.'
Prerequisite: CS 2333

## CS 3334 SYSTEMS PROGRAMMING

Fall
An introduction to the organization and structure of the major hardware components of computers, the design of assemblers, linkers and loaders, and the fundamental concepts of operating systems.
Prerequisite: CS 2333

## CS 3336 ORGANIZATION OF PROGRAMMING LANGUAGES <br> Spring

Introduction to the specification analysis and implementation of programming languages, including the runtime behavior, desirable features, and limitations of various'languages. Prerequisite: CS 3333

## CS 3340 SOFTWARE DESIGN AND DEVELOPMENT

On Demand
A formal approach to the state-of-the-art techniques in software design and development.
Provides the student with the opportunity to work on large projects in a group situation.
Prerequisite: CS 3333, 3334, ENG 2309

## CS 3350 NUMERICAL METHODS

Spring
This course includes interpolation, numerical integration, numerical solutions to differential equations and a study of numerical solutions to systems of equations.
Prerequisite: MATH 2345, 2342, CS 3333.

## CS 3351. SURVEY OF MICROCOMPUTER SYSTEMS

On Demand
A survey of the hardware and software specifications of a variety of microcomputers. A study of the applications of microcomputers to a variety of fields.
Prerequisite: CS 3333 and 3334

## CS 4333 DATA STRUCTURES II AND ALGORITHMIC ANALYSIS

## Spring Alternate Years

Study of data structures not covered in CS 3333. Algorithmic design and analysis, memory management algorithms, and system design of a data base management system.
Prerequisite: CS 3333, 3334

## CS 4334 OPERATING SYSTEMS

Fall Alternate Years
Detailed study of operating system principles, including procedure activation, memory management, process management, resource allocation, and protection.
Prerequisite: CS 3333, 3334

## CS 4335 COMPUTER ARCHITECTURE

Fall Alternate Years
Computer organization and architecture of computer systems, basic logic design, coding, and micro-programming. May be repeated for credit.
Prerequisite: CS 3334.

## CS 4341 TOPICS IN COMPUTER SCIENCE

On Demand
Topics or problems in computer science, subject matter changes from semester to semester. Prerequisite: Consent of instructor.

## CS 4350 SIMULATION AND MODELING

## On Demand

A study of simulation models. Problems illustrative of the models will be solved using special purpose simulation languages.
Prerequisite: STAT 3337, 4339 and CS 3333

## CS 4390 SENIOR PROJECT

On Demand
Students will construct a software product, following it through the stages from initial specification to the final completed project including user manual.
Prerequisite: CS 3340 and consent of instructor.

## Math

## MATH 1300 BASIC MATHEMATICS

## Fall, Spring, Summer

A course designed for the student with a minimal background in mathematics. This course should prepare one for basic algebra or other mathematics coursework recommended for the student in education, fine arts, the humanities or social science. Topics include basic arithmetical operations on whole numbers, fractions and signed numbers, decimal arithmetic, percentages, elementary geometry, measurements, consumer mathematics, and an introduction to algebra. This course may not be used to satisfy any general university graduation requirements but may be counted only as a general elective.

## MATH 1327 MATHEMATICS APPRECIATION I

## On Demand

This course is the first semester of a two semester sequence designed to acquaint non-science majors with both the historical and contemporary uses of mathematics- Developing mathematical skills for problem solving is emphasized. Topics are chosen from algebra, consumer and investment problems, probability, modeling and computers.
Prerequisite: MATH 1300 with a grade of C or better or satisfactory grade on ACT or placement exam. This course replaces MATH 1316. A student may use MATH 1327 to replace a grade received in MATH 1316; however, one may not receive credit for both MATH 1316 and MATH 1327.

## MATH 1328 MATHEMATICS APPRECIATION II

## On Demand

This course is a continuation of MATH 1327. Emphasis is placed on mathematical structures. Topics are chosen from logic, analytic geometry, probability, and statistics.
Prerequisite: MATH 1327. This course replaced MATH 1317. A student may use MATH 1328 to replace a grade received in MATH 1317; however, one may not receive credit for both MATH 1317 and MATH 1328.

## MATH 1335 BASIC ALGEBRA

Fall, Spring, Summer
A course in beginning algebra designed to prepare the student for College Algebra. Topics include a review of basic mathematics, polynomials, special products and factors, rational expressions, linear equations and graphs, simple quadratics, and introduction to functions, systems of linear equations in two unknowns, and elementary inequalities.
Prerequisite: MATH 1300 with a grade of C or better or satisfactory grade on ACT or placement exam. This course replaces MATH 1303. A student may use MATH 1335 to replace a grade in MATH 1303; however, one may not receive credit for both MATH 1303 and MATH 1335.

## MATH 1340 COLLEGE ALGEBRA

## Fall, Spring, Summer

Topics include a review of basic algebra, functions, quadratic and polynomial equations, systems of equations, inequalities, exponents and radicals, logarithms, complex numbers, and binomial theorem.
Prerequisite: MATH 1335 with a grade of $\mathcal{C}$ or better or satisfactory grade on ACT or placement exam. This course replaces a grade received in MATH 1304 or 2360; however, one may receive credit only for one of MATH 1304 or 1340 or 2360.

## MATH 1356 TRIGONOMETRY

Fall, Spring, Summer
Topics include circular functions, identities, special angles, rectangular and polar coordinates, and graphs.
Prerequisite: MATH 1340 or its equivalent with a grade of $C$ or better or satisfactory grade on ACT or placement exam. The course replaces MATH 1305; however, one may not receive credit for both MATH 1305 and MATH 1356.

## MATH 1360 ELEMENTARY CALCULUS

Fall, Spring, Summer
This course studies rational and transcendental functions and their graphs, intuitive limits and an introduction to the derivative and its applications.
Prèrequisite: MATH 1356.

## MATH 1370 CALCULUS I•

Fall, Spring, Summer
This course covers the differentiation and integration of algebraic, trigonometric, and inverse trigonometric functions; and includes limits, summations, and applications of the derivative and integral.
Prerequisite: MATH 1356 and MATH 1360 with a grade of C or better in each, or MATH 1460 with a grade of C or better. This course replaces, MATH 1318; however, one may not receive predit for both MATH 1318 and MATH 1370.

## MATH 2306 MATHEMATICS FOR ELEMENTARY TEACHERS I

## Fall, Spring, Summer

This course provides the Mathematical background for meaningful teaching of Number Concepts, Precise Definitions, Findamental operations and Problem Solving in elementary school Mathematics. The structure of the real number system is developed through the use of elementary logic and set theory.
Prerequisite: MATH 1300 with grade of $C$ or better or satisfactory grade on ACT or placement exam. This course replaced MATH 1314. A student may use MATH 2306 to replace a grade recorded in MATH 1314; however, one may not receive credit for both MATH 1314 and MATH 2306.

## MATH 2307 MATHEMATICS FOR ELEMENTARY TEACHERS II

## Fall, Spring, Summer

This course is a continuation of MATH 2306. Topics include measurements, Geometry, Probability, Statistics, elementary Algebra and problem solving.
Prerequisite: Grade of "C" or better in MATH 2306 or its equivalent. This course replaces MATH 1315. A student may use MATH 2307 to replace a grade recieived in MATH 1315, however, one may not receive credit for both MATH 1315 and MATH 2307.

## MATH 2316 BUSINESS ALGEBRA

Fall, Spring, Summer
This course is designed for students who plan to major within the School of Business Administration. Topics include a review of basic algebra, quadratic functions and equations, series and sequences, math of finance applications, matrices and determinants, inequalities, linear programming, logarithms, and exponential functions. Use of electronic calculators and microcomputers reemphasized to perform numerical computations.
Prerequisite: MATH 1335 with a grade of " C " or better or satisfactory grade on $A C T$ or placement exam. - Credit may not be received for both MATH 1340 and 2360.

## MATH 2317 BUSINESS CALCULUS

Fall, Spring, Summer
This course is designed for students who plan to major within the School of Business Administration. Topics include differential calculus with business optimization applications, multivariable calculus including optimization techniques and applications, and an introduction to integral calculus.
Prerequisite: MATH 2316 with a grade of " C " or better.

## MATH 2330 SURVEY OF ELEMENTARY STATISTICS

Fall, Spring
This course is intended to provide the student with an elementary overview of the nature and uses of descriptive and inferential statistics. Recommended for majors or minors in Biology, Business, Community Services, Law Enforcement, Political Science, Psychology, Sociology and othere who need the ability to interpret data and make simple statistical inferences. Topics include descriptive statistics, measures of central tendency and dispersion, simple probability, tests of hypotheses and estimation for both large and small samples, comparisons, chi-square tests, regression and correlation.
Prerequisite: MATH 1335 with a grade of "C" or better. This course replaces MATH 1313 and is the same as STAT 2330. A student may use MATH 2330 to replace a grade received in MATH 1313, however, one may receive credit for no more than one of MATH 1313, MATH 2330 or STAT 2330.

## MATH 2342 CALCULUS II

## Fall, Spring

This course is a continuation of Calculus I covering further topics of differential and integral calculus including derivatives and integrals of exponential, logarithmic and hyperbolic functions, parametric equations, methods of integration, indeterminate forms, limits by, improper integrals, volumes, surface area and other applications, polar coordinate calculus.
Prerequisite: MATH 1370 with a grade of "C" or better. This course replaces MATH 1319. Students may use MATH 2342 to replace a grade received in MATH 1319, however, one may not receive credit for both MATH 1319 and MATH 2342.

## MATH 2345 COMPUTATIONAL LINEAR ALGEBRA

Fall
Topics include systems of linear equations, matrices and their algebraic properties, determinants, vectors, Euclidean N -space, and introduction to linear transformations and their matrix representations, and applications to business and the sciences. Emphasis is given to computer application of the above topics.
Prerequisite: C S 2325 or 2380 and MATH 1356. This course replaces MATH 2304. A student may use. MATH 2345 to replace a grade received in MATH 2304, however, one may not receive credit for both MATH 2304 and MATH 2345.

## MATH 3302 VECTOR ANALYSIS

On demand
A study of the applications of vector methods to the problems of mathematics and physics. Topics discussed include vector and scalar products, differentiation of vector valued functions, the divergence theorem, and Stokes theorem.
Prerequisite: MATH 2342 with a grade of " C " or better.

## MATH 3303 HISTORY OF MATHEMATICS

On demand
This course is a study of the historical development of ideas that shape modern mathematical thinking. Although mathematicians are studied, emphasis is placed on mathematical development.
Prerequisite: MATH 2342.

## MATH 3304 GEOMETRIC STRUCTURES

Fall
This course studies one or many abstract geometric systems for the purpose of developing the students' understanding of and ability to create mathematical proofs.
Preerequisite: MATH 2342.

## MATH 3311 MATHEMATICS FOR SECONDARY TEACHERS

 FallThis course includes a study of Mathematics education in the United States, an examination of curricular recommendations, experimental programs, teaching strategies. Throughout the course an integration of content and pedagogy is maintained.
Prerequisite: 12 semester hours of Mathematics including MATH 1370. This course replaces MATH 3304. A student may not receive credit for both MATH 3304 and MATH 3311.

## MATH 3312 MEASUREMENT AND GEOMETRY FOR ELEMENTARY TEACHERS <br> On demand

An in depth study of measurement and geometry relevant to grades $\mathrm{K}-8$. Topics will include length, area, volume, the metric system, transformations, symmetry, congruency, similarity, and coordinate systems. This course can be used only for elementary math certification.
Prerequisite: Grade of "C" or better in MATH 2307 or equivalent.

## MATH 3313 ALGEBRAIC STRUCTURES FOR ELEMENTARY TEACHERS

On demand
Algebraic concepts and structures relevant to elementary school mathematics will be examined with an emphasis on the group and field properties. This course can only be used for elementary math certification.
Prerequisite: Grade of "C" or better in MATH 1340.

## MATH 3314 GEOMETRY FOR SECONDARY TEACHERS Spring

This course is designed to prepare junior and senior high school mathematics teachers to teach geometrical concepts. Topics include axiomatic geometry, symmetry, congruency, similarity, transformations, and measure.
Prerequisite: 12 semester hours of Mathematics including MATH 1370. This course replaces MATH 3306. A student may use MATH 3314 to replace a grade received in MATH 3306, however, one may not receive credit for both MATH 3306 and MATH 3314.

## MATH 3315 PROBABILITY, STATISTICS, AND NUMBER THEORY FOR ELEMENTARY TEACHERS <br> On demand <br> An indepth study of probability and statistics relevant for grades K-8. Topics include constructing and enterpreting tables, graphs, and charts; descriptive measures; and elementary concepts of probability. This course can be used only for elementary math certification. <br> Prerequisite: Grade of " C " or better in MATH 1340 or equivalent.

## MATH 3316 MICROCOMPUTERS IN ELEMENTARY MATHEMATICS On demand

This course surveys the available microcomputer hardware and discusses its impact on the elementary mathematics curriculum. Special attention is given to the ways in which microcomputers can be used to demonstrate selected mathematical topics. Programs are written that are directly applicable to the elementary mathematics class.
Prerequisite: MATH 2306 and 2307 and a knowledge of a programming language.
MATH 3317 MICROCOMPUTERS IN SECONDARY MATHEMATICS On demand
This course is designed to provide pre and in-service mathematics teachers with a broad background in the fields of microcomputer hardware and software. Evaluation of available hardware and software is conducted. The feasibility of developing custom software to supplement the secondary mathematics curriculum is discussed and, where feasible, such software is written.
Prerequisite: Knowledge of a programming language.

## MATH 3318 DIAGNOSIS AND REMEDIATION IN ELEMENTARY SCHOOL MATHEMATICS <br> On demand

An indepth study of the diagnosis of mathematical difficulties experienced by elementary school children and of related remediation procedures. This course can be used only for elementary math certification.
Prerequisite: Grade of "C" or better in each MATH 2306, 2307, and ED 3328 or equivalent.

## MATH 3337 APPLIED STATISTICS I

Fall
This course concerns itself with probabilistic models, yegression analysis, nonparametric statistics, and the basics of experimental design. Computer laboratory experience will be an important part of the class.
Prerequisite: Junior level standing, C S 2325 and either MATH 1365, 1370, or 2317. It is highly recommended that the student have some knowledge of statistics such as offered in MATH 2330. This course replaces MATH 3308 and is the same as STAT 3337. A student may use MATH 3337 to replace a grade received in MATH 3308, however, one may receive credit for at most one of MATH 3308, MATH 3337, or STAT 3337.

## MATH 3338 APPLIED STATISTICS II

 SpringThis course is a continuation of MATH 3337 and includes special designs, analysis of variance and covariance, multiple comparisons, and coding.
Prerequisite: MATH or STAT 3337. This course replaces MATH 3309 and is the same as STAT 3338. A student may use MATH 3338 to replace a grade received in MATH 3309, however, one may receive credit for at most one of MATH 3309, MATH 3338 or STAT 3338.

## MATH 3347 CALCULUS III

## Fall

'This course is a continuation of MATH 2342 and MATH 2345. Topics include Infinite Series, 3dimensional Analytic Geometry, Partial Derivatives and Multiple Integrals.
Prerequisite: MATH 2342 with a grade of " C " or better. This course replaces MATH 2305 and 2347. A student may use MATH 3347 to replace a grade received in MATH 2305 and 2347, however, one may receive credit for only one of MATH 2305, 2347 and MATH 3347.

## MATH 3349 DIFFERENTIAL EQUATIONS <br> Fall

This course contains a study of ordinary differential equations, and applications.
Prerequisite: MATH 3347. This course replaces MATH 3301. A student may use MATH 3349 to replace a
grade received in MATH 3301, however, one may not receive credit for both MATH 3301 and MATH 3349.

## MATH 3373 DISCRETE STRUCTURES

Fall
This course is an introduction to discrete mathematics, studying enumeration, lattices, graphs and other topics in combinatories. Particular emphasis is given to those structures applicable in Computer Science. (Formerly MATH 4373, may not be repeated for credit.)
Prerequisite: MATH 1340 and junior standing.

## MATH 4302 THEORY OF NUMBERS

## On demand

This course includes a study of Peano's postulates, prime and composite integers, divisibility properties of the integers, congruence, and diophantine equations.

## MATH 4316 MATHEMATICS FOR SECONDARY TEACHERS II

## On demand

This course covers the content and methodology of topics taught in junior and senior level school mathematics. The course may be repeated for credit when topic changes.
Prerequisite: MATH 3311 or consent of instructor. This course replaces MATH 4313. A student may use MATH 4316 to replace a grade received in MATH 4313, however, one may not receive credit for both MATH 4313 and MATH 4316.

## MATH 4339 MATHEMATICAL STATISTICS I

Fall
This course introduces the student to the Mathematical theory of statistics and probability. Topics include Probability Densities, Mathematical Expectation, the Distribution of Linear Combinations of Random Variables and the Central Limit Theorem.
Prerequisite: MATH 2342 with a grade of "C" or better. This course replaces MATH 4308 and is the same as STAT 4339. A student may use MATH 4339 to replace a grade received in MATH 4308, however, one may receive credit for at most one of MATH 4308, MATH 4339, or STAT 4339.

## MATH 4340 MATHEMATICAL STATISTICS II

Spring
This course is a continuation of MATH 4339. Topics include a study of sampling distributions estimation, tests of hypotheses, correlation and regression, and the analysis of Variance.
Prerequisite: MATH or STAT 4339. This course replaces MATH 4309 and is the same as STAT 4340. A student may use MATH 4340 to replace a grade in MATH 4309, however, one may receive credit for at most one of MATH 4340 or STAT 4340.

## MATH 4348 LINEAR ALGEBRA

On demand
Topics include an Introduction to Vector Spaces, Linear Transformations and Associated Matrices, Bilinear and Quadratic Forms, Eigenvalues and Eigenvectors, and Similarity of Matrices. Prerequisite: MATH 2345 with a grade of "C" or better. This course replaces MATH 4303. A student may use MATH 4348 to replace a grade received in MATH 4303, however, one may not receive credit for both MATH 4303 and MATH 4348.

## MATH 4351 MODERN ALGEBRA Spring

This course provides an introduction to Algebraic structures. Topics to be taken from Groups, Rings and Fields.
Prerequisite: MATH 2342. This course replaces MATH 4303. A student may use MATH 4351 to replace a grade received in MATH 4304, however, one may not receive credit for both MATH 4303 and MATH 4351.

## MATH 4357 REAL ANALYSIS

Spring
This course presents a rigorous introduction to the elements of real analysis. Topics include Sequences, Series, Functions, Limits, Continuity, and Derivatives.
Prerequisite: MATH 2342. This course replaces MATH 4315. A student may use MATH 4357 to replace a grade received in MATH 4315, however, one may not receive credit for both MATH 4315 and MATH 4357.

## MATH 4360 TOPOLOGY

On demand
This course presents a rigorous introduction to the elements of topology. Topics include a study of metric spaces, separation axioms, topological spaces, and topological properties of point sets and mappings.
Prevequisite: MATH 2342. This course replaces MATH 4312. A student may use MATH 4360 tofeplace a grade received in MATH 4312, however, one may not receive credit for both MATH 4312 and MATH 4360.

## MATH 4364 SPECIAL PROBLEMS IN MATHEMATICS

On demand
This course covers special undergraduate topics in Mathematics which are not taught elsewhere in the department. May be repeated for credit.
Prerequisite: MATH 4345 and consent of instructor.

## MATH 4371 MULTIVARIABLE ANALYSIS

On demand
This course covers various topics selected from the theory and application of the Calculus of Functions of Several Variables.
Prerequisite: MATH 3347. This course replaces MATH 4314. A student may use MATH 4371 to replace a grade received in MATH 4314, however, one may not receive credit for both MATH 4314 and MATH 4371.

## MATH 4372 LINEAR PROGRAMMING

On demand
This course studies optimization of linear functions subject to constraints. Applications of such techniques to business and the sciences will be discussed.
Prerequisite: MATH 2342, 2345.

## MATH 4379 SPECIAL PROBLEMS IN APPLIED MATHEMATICS

On demand
This course covers special undergraduate topics in applied mathematics which are not taught elsewhere in the department. May be repeated for credit when topic is different. Prerequisite: Consent of instructor. This course replaces MATH 4311. A student may use MATH 4379 to replace a grade received in MATH 4311, however, one may not receive credit for both 4311 and MATH 4379.

## MATH 4468 NUMERICAL ANALYSIS

On demand
This course includes interpolation, numerical integration, numerical solutions to differential equations, and a study of numerical solutions to systems of equations.
Prerequisite: MATH 3349 or consent of instructor. This course replaces MATH 4307. A student may use MATH 4468 to replace a grade received in MATH 4307, however, one may not receive credit for both MATH 4307 and MATH 4468.

[^17]
## MATH 6306 DIAGNOSTIC AND CORRECTIVE PROCEDURES IN ELEMENTARY SCHOOL MATHEMATICS <br> On demand <br> This course is a study of diagnostic and corrective procedures for children experiencing, difficulty in elementary school mathematics. This course cannot be used toward a mathematics <br> concentration for a Master of Science degree in Interdisciplinary Studies. <br> Prerequisite: Grade of "C" or better in MATH 2306, 2307, and ED 3328 or equivalent. <br> MATH 6308 TOPICS IN ALGEBRA FOR TEACHERS <br> On demand <br> This course examines algebraic structures and investigates research and recent trends in the teaching of algebra. <br> Prerequisite: MATH 4351 or equivalent.

## MATH 6312 TOPICS IN GEOMETRY FOR TEACHERS

## On demand

This course examines geometric structures and investigates research and recent trends in the teaching of geometry.
Prerequisite: MATH 3314 or consent of instructor.

## MATH 6314 RESEARCH METHODS IN MATHEMATICS EDUCATION

On demand
The student will present an exposition of supervised independent research in a particular form of mathematics. This course is required for all graduate mathematics majors.
Prerequisite: Consent of instructor.

## MATH 6320 COMPUTER APPLICATIONS IN SECONDARY MATHEMATICS

On demand
The purpose of this course is to explore the impact of computer technology in our society, to examine computer assisted instruction, to study the function of the computer as an instructional tool and modeling device for teaching secondary mathematics, and to review computer concepts and techniques that will strengthen the understanding of mathematics.
Prerequisite: Knowledge of programming and consent of instructor.

## MATH 6328 SPECIAL PROBLEMS IN TEACHING MATHEMATICS

 On demandA critical analysis of issues, trends, and historical developments in secondary Mathematics teaching with emphasis on the areas of curriculum and methodology. This course may be repeated for credit when topic changes.
MATH 6339 ADVANCED PROBLEMS IN PROBABILITY AND STATISTICS On demand
Design of experiments, multivariate analysis, analysis of variance and multiple regression. Prerequisite: Consent of instructor.

## MATH 6351 TOPICS IN ALGEBRA

On demand
Topics selected from abstract and linear algebra. May be repeated for credit when the topics change.
Prerequisite: MATH 4351 and consent of instructor.
MATH 6357 TOPICS IN ANALYSIS
On demand
Topics selected from real, complex, and abstract analysis.
Prerequisite: MATH 4357 and consent of instructor.

## MATH 6360 TOPOLOGY

On demand
This course is an introduction to the techniques and applications of point-set topology through the study of continuity, separation axioms, separability, basis for topologies, topological properties, and metric spaces.
Prerequisite: MATH 4360.

## MATH 6364 ADVANCED PROBLEMS IN MATHEMATICS

On demand
This course covers advanced topics in Algebra, Analysis, and Topology not taught elsewhere in the department. May be repeated once for credit when topic is different.
Prerequisite: MATH 6351, 6357 or 6360 and consent of the instructor.

## MATH 6390 MATHEMATICS SEMINAR

On demand
Introduction to the methods and tools of Mathematical research. The work of the course consists in the solution by students of assigned problems in various fields of Mathematics and presentation of these solutions in both written and oral form.
Prerequisift: Twelve hours of graduate Mathematics.
MATH 7300 THESIS
On demand
MATH 7301 THESIS
On demand

## Statistics

STAT 2330 SURVEY OF ELEMENTARY STATISTICS
This course is intended to provide the student with an elementary overview of the nature and uses of descriptive and inferential statistics. Recommended for majors or minors in biology, business, community services, law enforcement, political science, psychology, sociology, and others who need the ability to interpret data and make simple statistical inferences.
Topics include descriptive statistics, measures of central tendency and dispersion, simple probability, tests of hypotheses and estimation for both large and small samples, comparisons, chi-square tests, regression and correlation.
Prerequisite: MATH 1335 with a grade of "C" or better. This course is the same as MATH 2330. A student may receive credit for STAT 2330 or MATH 2330.

## STAT 3337 APPLIED STATISTICS I

This course concerns itself with probabilistic models, regression analysis, nonparametric statistics, and the bases of experimental design. Computer laboratory experience will be an important part of the course.
Prerequisite: Junior level standing, CS 2325 and either MATH 1365, 1370 or 2317. It is highly recommended that the student have some knowledge of statistics such as offered in STAT 2330. This course is the same as MATH 3337. A student may receive credit for STAT 3337 or MATH 3337.
STAT 3338 APPLIED STATISTICS II
This course is a continuation of STAT 3337 and includes special designs, analysis of variance and covariance, multiple comparisons, and coding.

## STAT 4336 SAMPLING

This course surveys the basic elements of sampling including concepts of population and sample, the organization of a sample survey, coverage content error, questionnaire design, basic survey designs and computation of estimates and variances.
Prerequisite: STAT 3337 or MATH 3337.
STAT 4339 MATHEMATICAL STATISTICS I
This course introduces the student to the mathematical theory of statistics and probability. Topics include probability densities, mathematical expectation, the distribution of linear combinations of random variables and the central limit theorem.
Prerequisite: MATH 2342 with a grade of "C" or better. This course is the same as MATH 4339. A student may receive credit for STAT 4339 or MATH 4339.
STAT 4340 MATHEMATICAL STATISTICS II
This course is a continuation of STAT 4339. Topics include a study of sampling distributions estimation, tests of hypotheses, correlation and regression, and the analysis of variance. Prerequisite: STAT or MATH 4339. This course is the same as MATH 4340. A student may receive credit for at most one of STAT 4340, or MATH 4340.

## Mexican American Heritage

See Department of History

## Mexican American Studies

See Department of History

# Department of Military Science (Army ROTC) 

Major Michael R. Shields, Chair

## Full-time Faculty

Desosa, Maximo T., Captain (B.S., University of Miami) Military Science
Livas, Fernando, Captain (M.S., Pan American University) Military Science
Miller, Heber W., Captain (B.S., Indiana University of Pennsylvania) Military Science
Shields, Michael R., Major (M.S., Florida Institute of Technology) Military Science.

The Military Science Department offers a minor in Military Science and a commission as an officer in the U.S. Army through the Reserve Officer Training Corps (ROTC) program at the Edinburg campus as well as Brownsville campus through a crossenrollment agreement with Texas Southmost College and Pan American UniversityBrownsville. Commissions may be offered in the Active Army, U.S. Army Reserve or Army National Guard.
Students need not seek a career in the U.S. Army to enroll in lower level courses such as Marksmanship; Rappelling and Survival which provide the opportunity to increase individual skills and knowledge in leadership and management techniques in and outside the classroom.

## Requirements for Advanced ROTC Standing and Commissioning

1. Complete four semesters of lower level ROTC courses or have advanced credit as a Veteran, from USAR/ARNG Basic Training, ROTC Basic Camp, or JROTC credit and approval.
2. Maintain full-time student status.
3. Pass a military physical examination.
4. Pass the ROTC Physical Aptitute Examination.
5. Pass the Officer Selection Battery.
6. Maintain an overall grade point average of $\mathbf{2 . 0}$.
7. Sign an Advanced ROTC and Commissioning Agreement.
8. Successfully complete 4 semesters of Advanced ROTC courses.
9. Successfully complete ROTC Advanced Camp
10. Successfully complete an undergraduate degree program.

## Minor Requirements

Eighteen semester hours: HIST 2335; plus fifteen hours in Military Science instruction, of which twelve hours must be advanced.

## Course Descriptions

## ROTC

## ROTC 1203 MARKMANSHIP AND FIRST AID

Studies the fundamentals of rifle and pistol markmanship and provides practical experience in marksmanship in an indoor range. In-depth study of weapons safety and Texas Hunter Safety. Examines basic first aid procedures and is supplemented by approved training in cardiopulmonary resuscitation (CPR). Two hours lecture and one hour leadership laboratory.
ROTC 1204 SURVIVAL TRAINING
An introduction to basic military science. Studies basic leadership principles at the lowest organizational level and examines the organization and role of the United States Army at the lower levels of command. Emphasis is placed on methods and techniques of survival in various situations, but is also designed to enhance self confidence and physical fitness through active participation in rappelling and adventure training. Two hours lecture and one hour leadership laboratory. Optional weekend field training exercise is offered.

## ROTC 1205 DRILL AND CEREMONIES

An application of the techniques of conducting individual and small unit drill up to company level and studies the history and methods of ceremonial drill. It emphasizes physical conditioning, instructional techniques, use of command voice, active student participation and provides leadership experience. Two hours lecture and one hour leadership laboratory. Optional weekend field training exercise is offered.

## ROTC 1207 LAND NAVIGATION

A continuation of basic military science and leadership training with primary emphasis on land navigation providing the student with practical experience in terrain association and the use of a map and compass. Further provides an introduction to basic rifle marksmanship and first aid and provides the student an opportunity to build self confidence and physical fitness through active participation in rappelling and adventure training. Two hours lecture and one hour leadership laboratory. Optional weekend field training exercise is offered.

## ROTC 2101 SEMINAR IN NATIONAL DEFENSE

A six week course of instruction in special or current problems involving national defense matters.
Prerequisite: Permission of Instructor.

## ROTC 2102 SEMINAR IN NATIONAL DEFENSE

A six week course of instruction in special or current problems involving national defense matters.
Prerequisite: Permission of Instructor.

## ROTC 2103 SEMINAR IN NATIONAL DEFENSE

A six week course of instruction in special or current problems involving national defense matters.
Prerequisite: Permission of Instructor.

## ROTC 2203 BASIC MILITARY LEADERSHIP \& TACTICS I <br> Fall ONLY

An application of leadership principles and basic military skills. Provides instruction in fire team and squad level tactics and examines the organization and role of the U.S. Army up to company level with increased emphasis on advanced land navigation and first aid techniques and weapons systems. Stresses physical fitness and provides adventure training in leadership positions. Two hours lecture and one hour leadership laboratory. Optional weekend field training exercise is offered.

## ROTC 2204 BASIC MILITARY LEADERSHIP \& TACTICS II

## Spring ONLY

A continuation of the application of leadership principles and basic military skills. Personnel management and motivational techniques are studied through placement of students in positions of small unit leadership given assigned missions. Introduction to military communications equipment and procedures. Studies the organization of the U.S. Army through Battalion level and more advanced weapons systems. Stresses physical fitness and provides adventure training in leadership positions. Two hours lecture and one hour leadership laboratory. Optional weekend field training exercise is offered.

## ROTC 3301 ADVANCED MILITARY LEADERSHIP <br> Fall ONLY

This course introduces the student to the responsibilities, character, and uniqueness of the commissioned officer as a profession. Topics include the roles of the small unit leader and staff officer, advanced military leadership and training management as well as tactical operations and comparative adversary weapons systems. Three hours lecture and one hour leadership laboratory. Weekend field training exercise.
Prerequisite: Advanced ROTC Standing.

## ROTC 3303 SMALL UNIT TACTICS

Spring ONLY
Analysis of the leaders' role in directing and coordinating the efforts of individuals and platoon size units in the execution of offensive and defensive tactical missions, communications, weapons systems, land navigation and terrain association. Three hours lecture and one hour leadership laboratory. Weekend field training exercise.
Prerequisite: Advanced ROTC Standing.

## ROTC 4302 TRAINING AND STAFF MANAGEMENT

Fall ONLY
An examination of the garrison and administrative responsibilities of the commissioned officer.
In depth analysis of staff procedures, military correspondence, training programs and procedures, and the decision making process. Three hours lecture and one hour leadership laboratory.
Weekend field training exercise.
Prerequisite: Advanced ROTC Standing.

## ROTC 4304 ADVANCED MILITARY SCIENCE

## Spring ONLY

This course delves into the ethical and professional responsibilities of the commissioned officer and studies the military justice system as well as the Army personnel Management and Logistics systems. Three hours lecture and one hour leadership laboratory. Weekend field training exercise.
Prerequisite: Advanced ROTC Standing.

## Department of Music

Dr. Carl Seale, Chair

Anderson, John D.* (Ph.D., George Peabody; prof.)
Byrom, Edward (M.M., Southern Methodist University; instructor)
Canty, Dean R.* (Ph.D. University of Texas; assoc. prof.)
Grossman, Morley K. (Ph.D. Indiana University; asst. prof.)
Raimo, John* (D.M.A., Eastman School of Music; prof.)
Richardson, Marlene (M.S., St. Frances College; instructor)
Seale, Carl (B.M., M.M., D.M.A., North Texas State University; prof.)
Stover, James A.* (M.A., Columbia University; assoc. prof.)
Tucker, Wallace E. (M.M., North Texas State University; asst. prof.)
Waldman, Lucila Montoya (M.M., Manhattan School of Music; assoc. prof.)
Worman, Harold L.* (M.M.E., University of Wichita; asst. prof.)
The Department of Music offers majors and minors in Applied Music and in Music Education. In addition, it offers teaching areas for majors in both Secondary and Elementary Education.
All majors, in addition to courses in general education and in the theory and literature of music, pursue excellence in performance in their areas of major interest. Instruction is offered in Voice, Piano, and all of the instruments of the Band and Symphony Orchestra.

## Degree Requirements

## Major in Music

(Applied Music):
77-96.semester hours in Music of which 35-43 semester hours must be advanced; including Music 1301, 1302, 1401, 1402, 2401, 2402, 3307, 3301, 3302, 3305, 4301, 4303; Applied Music: eight semesters minimum, of which four semesters must be advanced; Music Ensemble: eight semesters minimum, of which four semesters must be advanced; eight semesters minimum of Applied Mus. Lab.; proficiency in Piano; onehalf Junior Recital and a full Senior Recital. A minor is not required.

## Major in Music Education

(with All-Level Teacher Certification):
74-90 semester hours in Music, of which 33-41 semester hours must be advanced; including Music 1301, 1302, 1401, 1402, 2121, 2122, 2123, 2124, 2125, 2401, 2402, 3307, 3301, 3302, 3305, 3312, 4301, 4303, 4311; Applied Music: eight semesters minimum, of which four semesters be must advanced; Music Ensemble; eight semesters minimum, of which four semesters must be advanced; 2 semesters of Voice, proficiency in Piano, and eight semesters minimum of Applied Music Lab. Second Teaching Field (Minor) is not required.

## Major in Music Education

(with Secondary Level Teacher Certification):
71-87 semester hours in Music, of which 30-38 semester hours must be advanced; including Music 1301, 1302, 1401, 1402, 2121, 2122, 2123, 2124, 2125, 2401, 2402, 3307, 3301, 3302, 3305, 4301, 4303, 4311; Applied Music: eight semesters minimum, of which four semesters must be advanced; Music Ensemble; eight semesters minimum, of which four semesters must be advanced; 2 semesters of Voice, proficiency in Piano,

[^18]and eight semesters minimum of Applied Music Lab. Second Teaching Field (Minor) is not required.

## Minor in Music

(Applied Music):
32-36 semester hours in Music, including Music 1301, 1302, 1401, 1402; Music Electives: 6 advanced hours; Applied Music: four semesters; Music Ensemble: four semesters.

## Minor in Music Education

(with Elementary Level Teacher Certification):
37-41 semester hours in Music, including Music 1301, 1302, 1401, 1402, 2121, 2122, 2123, 2124, 2125, 3312; Applied Music: four semesters; Music Ensemble: four semesters, and proficiency in Piano.

## Departmental Requirements

All students desiring to declare Music as a major must take the Music Department Theory Placement Exam prior to the semester in which they intend to declare Music as their major. Based on the results of this exam, they are either admitted to First Year Theory or Preparatory Theory. Upon successfully completing Preparatory Theory they may be enrolled as a Music Major. It is advisable to request this exam prior to the second summer session since the Preparatory Theory course is offered during that session.

No grade below $C$ in any of the required courses in Music will apply toward a degree with a major in Music or Music Education.
Transfer students may be required to validate (by examination) credits earned in Applied Music and Music Theory at other institutions. Failure to pass validation will result in the repetition of courses required to reach proper standards. Precise definition of standards is provided by the department and examination in Applied Music is before a faculty jury.
Music majors and Music Education minors must enroll in piano until the piano proficiency examination has been passed. The piano proficiency examination must be passed as a prerequisite to enrolling in upper level music courses.
Each full-time Music major must be a member of the large ensemble of his area of concentration each semester during which he is enrolled. These assignments are as follows: Wind and Percussion-Band; Strings-Orchestra; Voice, Piano and others-Choir or Chorus. Participation in smaller ensembles is strongly encouraged.
A Music major who selects the performance curriculum will perform one-half of a public recital during the junior year and a complete public recital during the senior year. A Music Major who selects the teacher preparation curriculum will prepare onehalf of a music recital during the senior year, and, at the discretion of a faculty committee, perform it in public.
Piano and other instrumental students in Music Education will study either class or applied voice a minimum of two semesters.
Music majors will study privately in their areas of concentration during each semester they are enrolled full-time ( 12 hrs . or more). Music majors enrolled in Applied Music will enroll in Applied Music Lab and attend university concerts and recitals as a part of course requirement. Examinations in Applied Music are given at the end of each semester before a jury of music faculty members. Students enrolled in Applied Music will appear in recitals at the discretion of their instructor.

## Course Descriptions

## Music

MUS 1205/3206 SYMPHONY ORCHESTRA

## Fall, Spring

Instrumental music organization open to university by audition students who play appropriate instruments. Concerts on and off the campus. Each number may be repeated any number of times. Only eight hours of each number may be counted toward a music degree.

## MUS 1204/3205 UNIVERSITY BAND

Fall, Spring
Instrumental music organization open to all university students. Concerts on and off the campus, and other performances on behalf of the University and the Rio Grande Valley. Each number may be repeated any number of times. Only eight hours of each number may be counted toward a music degree.
MUS 1203/3204 UNIVERSITY CHOIR
Fall, Spring
Vocal music organization open by audition to all university students. Concerts on and off the campus. Each number may be repeated any number of times. Only eight hours of each number may be counted toward a music degree.

## MUS 1207/3208 STAGE BAND

Fall, Spring
An instrumental music organization open to all college students who have an ability to play an appropriate instrument. Membership is determined by audition. Organization rehearses and performs popular, rock, and jazz music for its own musical development and to satisfy requests on and off the campus. Each number may be repeated any number of times.

## MUS 1109/3110 UNIVERSITY CHORUS

On demand
Vocal music organization open to all university students who desire to participate in such an ensemble. No audition required.
MUS 1111/4112 CHAMBER MUSIC
Fall, Spring
Small performing ensembles of voices and/or instruments. Performance literature selected from repertoire appropriate to each ensemble.
MUS 1185/3186 APPLIED MUSIC LAB
Fall, Spring
Music majors enrolled in Applied Music must register for Applied Music Lab. Each number may be repeated any number of times. Only four hours of each number may be counted toward a music degree.
MUS 1221 CLASS PIANO
Fall, Spring
Piano instruction for students who have no previous training in piano. May be used to satisfy the minimum piano requirements for non-pianist music majors. Three class hours a week.
Instructional fee of $\$ 10.00$

## MUS 1222 CLASS PIANO

Fall, Spring
Piano instruction for students who have had 1221 or equivalent. May be used to satisfy the minimum piano requirements for non-pianist music majors. Three class hours a week. Instructional fee of $\$ 10.00$

MUS 1223 CLASS VOICE
Fall, Spring
Vocal instruction for students who have no previous training in voice. May be used to satisfy the voice requirements for non-vocal Music majors. Three class hours a week with outside preparation of materials for examination. Instructional fee of $\$ 10.00$.

## MUS 1224 CLASS VOICE

## Fall, Spring

Vocal instruction for students who have no previous training in voice. May be used to satisfy the voice requirements for non-vocal Music majors. Three class hours a week with outside preparation of materials for examination. Instructional fee of $\$ 10.00$.
MUS 1229/4230 OPERA WORKSHOP
Fall, Spring
Preparation and production of musical stage works including opera, oratorio, cantata, operetta and musical comedy. Open to all students wishing to participate in either on-stage or off-stage musical theatre activities.

## APPLIED MUSIC

## Fall, Spring

Private instruction in the concentration of the student's major area. Credit is earned on the basis of one-half hour lesson and one hour minimum daily practice for two semester hour credits, or two half-hour lessons per week and two hours minimum daily practice for four semester hours credit. Applied music fee: two semester hour course, $\$ 20.00$; four semester hour course, $\$ 35.00$. Music majors must register for Applied Music Lab.
MUS 1231, 1431, 3232, 3432 APPLIED PIANO
MUS 1233, 1433, 3234, 3434 APPLIED VOICE
MUS 1235, 1435, 3236, 3436 APPLIED PERCUSSION
MUS 1241, 1441, 3242, 3442 APPLIED TRUMPET

MUS 1243, 1443, 3244, 3444 APPLIED FRENCH HORN
MUS 1245, 1445, 3246, 3446
MUS 1247, 1447, 3248, 3448
MUS 1249, 1449, 3250, 3450
MUS 1261, 1461, 3262, 3462
MUS 1263, 1463, 3264, 3464
MUS 1265, 1465, 3266, 3466
MUS 1267, 1467, 3268, 3468
MUS 1271, 1471, 3272, 3472
MUS 1273, 1473, 3274, 3474
MUS 1275, 1475, 3276, 3476
MUS 1277, 1477, 3278, 3478 APPLIED SAXOPHONE
APPLIED TROMBONE
APPLIED BARITONE HORN
APPLIED TUBA
APPLIED VIOLIN
APPLIED VIOLA
APPLIED VIOLONCELLO
APPLIED STRING BASS
APPLIED FLUTE
APPLIED OBOE

MUS 1279, 1479, 3280, 3480 APPLIED BASSOON
MUS 1300 PREPARATORY THEORY
Summer II
A course designed for those students who desire to major in music but do not have the skills to enter First Year. This course may be used as elective credit. It does not fulfill any university or departmental requirements.

## MUS 1301 MUSIC LITERATURE

## Fall

A survey of the literature of music for all media from earliest Greek music to contemporary works. A chronological study of the principal composers, their works and the development of music in relation to simultaneous historical developments. A course designed specifically for majors and minors.

## MUS 1302 MUSIC LITERATURE

Spring
Continuation of Music 1301.
MUS 1401 FIRST YEAR MUSIC THEORY
Fall
Intervals, scales, chord structures, chord progressions, simple cadences, use of inversions, nonharmonic tones, seventh chords, simple modulations and harmonization of melodies, partwriting, music reading, aural and keyboard skills.
Prerequisite: Satisfactory achievement level on theory placement exam.
MUS 1402 FIRST YEAR MUSIC THEORY
Spring
Intervals, scales, chord structures, chord progressions, simple cadences, uses of inversions, nonharmonic tones, seventh chords, simple modulations, and harmonization of melodies, partwriting, music reading, aural and keyboard skills.
Prerequisite: Music 1401 with grade of C or satisfactory achievement level on 1401 placement exam.

## MUS 2121 VOCAL METHODS AND MATERIALS

Fall
Methods and materials for teaching vocal soloists and vocal groups.
MUS 2122 PERCUSSION METHODS AND MATERIALS
Fall
Methods and materials for teaching the basics of percussion instruments and techniques.

## MUS 2123 BRASS METHODS AND MATERIALS

Spring
Methods and materials for teaching the basics of brass instruments and techniques.

## MUS 2124 WOODWIND METHODS AND MATERIALS

Fall
Methods and materials for the teaching of the basics of woodwind instruments and techniques.
MUS 2125 STRING METHODS AND MATERIALS
Spring
Methodology for teaching beginning violin, viola, cello, and string bass.

## MUS 2307 MUSIC APPRECIATION

- Fall, Spring, Summer

An introductory course in the elements, forms and stylistic eras in music. Designed for non-music majors and minors.

## MUS 2401 SECOND YEAR MUSIC THEORY <br> Fall

Continuation of Music 1401, 1402, harmonization of melodies, using diatonic and altered triads and seventh chords, nonharmonic tones and modulations. Continued music reading, aural and keyboard skills.
Prerequisite: Music 1402 with a grade of C or satisfactory achievement level on 1402 placement exam.

## MUS 2402 SECOND YEAR MUSIC THEORY

Spring
Continuation of Music 2401.
Prerequisite: Music 2401 with a grade of C or satisfactory achievement level on 2401 placement exam.

## MUS 3307 CONDUCTING

## Spring

Study of baton techniques as related to both instrumental and choral conducting, fundamental phrasing, balance, mood and attack and release technique.
Prerequisite: Junior standing.

## MUS 3301 HISTORY OF MUSIC

Fall, alternate years
Advanced study of the evolution of the musical art from its beginnings through the Baroque era. Prerequisite: Junior standing.

## MUS 3302 HISTORY OF MUSIC

Spring, alternate years
Continuation of Music 3301.
Prerequisite: Music 3301.

## MUS 3305 COUNTERPOINT

Fall, alternate years

- Seventeenth and 18th Century counterpoint in all species and its application in arranging for two, three and four voices.
Prerequisites: Music 2402.
MUS 3311 MUSIC METHODS FOR THE ELEMENTARY CLASSROOM TEACHER Fall, Spring, Summer I
Musical activities, methods and materials to aid in the social, emotional, physical, intellectual and musical growth of children in the elementary school. Special emphasis is given to making music an integral part of the daily curriculum.
Prerequisite: 60 hours.


## MUS 3312 MUSIC EDUCATION IN THE ELEMENTARY GRADES K-6

## Spring, alternate years

A general methods course for music majors and minors or by permission of instructor; topics include objectives and instructional strategies for the development of basic musical concepts and skills in elementary classroom music.
Prerequisite: 60 hours

## MUS 4301 FORM AND ANALYSIS

Spring
Historical development of form and consideration of balance, symmetry and the principles of musical structure, analysis of phrase structure, simple part forms, variation forms and contrapuntal forms. Special consideration of the sonata-allegro form as found in the symphony, concerto and sonata.
Prerequisites: MUS 2402.

## MUS 4303 ORCHESTRATION AND ARRANGING

Fall, alternate years
Techniques of scoring and editing music for band, orchestra and instrumental ensembles, ranges, timbres, voicings and limitations of the instruments.
Prerequisite: MUS 2402.

## MUS 4207 ADVANCED BAND TECHNIQUES

## On demand

Band organization and recruiting, rehearsal procedures, instrumentation, library, uniforms,
discipline, marching, program planning and general instrumental administration.

## MUS 4311 SECONDARY SCHOOL MUSIC

Spring, alternate years
Methods, materials, aims and procedures for teaching music in the junior and senior high school.
Some advanced classes will be offered in alternate years.
Prerequisite: 90 hours.

## MUS 5301 WORKSHOP IN MUSIC FOR ELEMENTARY TEACHERS

Summer I
A workshop designed to assist teachers in the utilization of music in the elementary classroom.

## Department of Nursing Education

Wayne D. Hooker, Chairperson.

The Nursing Education Department offers two programs. The first is a two-year Associate Degree Nursing Program (ADN), which is fully accredited by the Board of Nurse Examiners for the State of Texas and the National League for Nursing.

Graduates of the Associate Degree Program will receive an Associate of Applied Science Degree. Graduates will be eligible to make application to the State Board of Nurse Examiners to write the National Council Licensure Examination. After successfully completing this examination, the graduate is issued a license to practice as a Registered Nurse ( RN ) in the state of Texas.

This ADN program is specifically designed to provide initial levels of skills, knowledge, and sensitivities that will enable graduates to enter the nursing profession at a functioning level. The area of emphasis is to provide the technical and human relations preparation necessary for a student to enter the profession of Nursing.
The second program is a non-traditional Baccalaureate Program offering registered nurses the opportunity to complete requirements for a Bachelor of Science Degree in Nursing. Completion of the two year Bachelor of Science in Nursing program (BSN) will enable registered nurses to integrate knowledge from theory and research, high level skills, and concepts of leadership into the practice of professional nursing care of individuals, families, and groups. The BSN program provides a foundation for graduate study.

## Academic Instructional Staff

Carlson, Rita A. (M.S.N., U.T.M.B. at. Galveston; prof.)
Diaz, Maria I. (M.S.N., Texas Women's University; prof.)
Esparza-Dawson, Herma (M.S.N., University of Texas at Austin; asst. prof.)
Fossum, Patricia Ann (M.Ed., Pan American University; asst. prof.)
Hooker, Wayne D. (Ph.D., St. Louis University; assoc. prof.)
Huerta, Maria Carolina (M.S.N., University of Texas at Austin; asst. prof.)
McCormick, Emily (M.S.N., University of Texas at Galveston; asst. prof.)
Robinson, Billie Jeanne (M.S.N., Texas Woman's University; asst. prof.)
Rodriguez, Wanzell Nix (M.S.N., Texas Woman's University; asst. prof.)
Sanchez, M. Sandra (M.S.N., University of Texas at Austin; C.N.M., State University of New York at Downstate; asst. prof.)
Skinner, Gwendolynne (M.A., University of Northern Colorado; asst. prof.)
Tucker, Barbara A. M. (M.S.N., Texas Woman's University; asst. prof.)

## Requirements for Admission into ADN Program:

A. Meet admission requirements to Pan American University. An application for admission may be obtained from the Office of Admissions (381-2206) or the Department of Nursing Education (381-3491).
B. Complete and submit Admission Application from the Department of Nursing Education.
C. Submit verification of completion of the following admission criteria. Students are ranked according to their level of achievement in each area.

1. ACT or SAT scores.
2. Nelson Denny Reading Grade Level.
3. Math Placement Test or Math 1300.
4. College Grade Point Average (GPA).
5. Complete all prerequisite courses with a grade of a " C " or above. These include: MATH 1300 (if required), BIOL 1401, BIOL 1402, and HRP 1302 (Introduction to Patient Care).

## Admission Selection is Based Upon:

A. Space Available.
B. Completion of prerequisite courses.
C. Total Rank Score of Admission Criteria.
D. Admission is not guaranteed. It is the STUDENT'S responsibility to provide the Department of Nursing Education with the above information needed for the selection process.
LVN'S MAY CHALLENGE N.ED. 1701 (Fundamentals of Nursing). Challenge exam includes a written examination and practical performance. Exams are valid only for the current academic year. Repeat examinations will not be offered.

## Readmission

Readmission is not automatic. Students desiring readmission must notify the Department of Nursing Education in writing at least ONE semester (or two summer sessions) in advance. Complete information regarding readmission can be obtained in the current Student Handbook available in the Nursing Department.

## Requirements for the Associate of Applied Science Degree in Nursing Education:

1. Satisfactory completion of the required curriculum within a four (4) year period.
2. A minimum grade of " C " in each required course.
3. A Degree Plan approved by the Chair of the Nursing Department must be on file.
4. An acceptable Application for Degree must be filed by the student with the Registrar on or before the date specified in the University calendar.
5. Satisfactory completion of comprehensive testing in the five major areas of nursing prior to graduation.

## Degree Plan for Associate Degree Nursing Program

A letter grade of " C " is required in each of the following courses for the Associate of Applied Science Degree in Nursing. Non-nursing courses may be taken at times other than listed. All other courses must be taken as designated. Students may take additional University courses as their schedule allows.

## Curriculum:

The minimum grade of " C " required for each course.

| Prerequisite Cou | urses: | Semester Hours: |
| :---: | :---: | :---: |
| HRP 1302, Intro. | to Patient Care* | 3 |
| BIOL 1401 | General Biol | 4 |
| BIOL 1402 | General Biol | 4 |
| MATH 1300 | General Math** | 0 or 3 |
| Freshman Year*** Fall Semester: |  |  |
|  |  |  |
| N Ed 1701 | Fund of Nursing | 7 |
| BIOL 2403 | Anatomy \& Physiology (Recommended before N Ed 1802) | 4 |
| PSY 1313 | Intro to Psychology | 3 |
| Spring Semester: |  |  |
| N Ed 1802 | Medical-Surgical Nursing I | 8 |
| ENG 1301 | Composition | 3 |
| PSY 2337 | Psychology of Lifespan | 3 |
| Summer Session |  |  |
| N Ed 2403 | Medical-Surgical Nursing II | 4 |
| SOC 1313 | Introduction to Sociology | 3 |
| Summer Session | I: |  |
| N Ed 2404 | Medical-Surgical Nursing III | - 4 |
| HRP 2351 | Introduction to Nutrition | 3 |
| Sophomore Year Fall Semester: |  |  |
| N Ed 2805 | Family Health Nursing | 8 |
| ENG 1302 | Rhetoric | 3 |
| Spring Semester: |  |  |
| N Ed 2906 | Psycho-Social Nursing | $\bigcirc$ |

[^19]
## Requirements for Admission into the BSN Program:

1. Be a registered nurse in the state of Texas or have a temporary permit to practice professional nursing in Texas. (Students will not be permitted to continue in clinical courses if a temporary permit expires without a license being issued or if a license to practice registered nursing has been suspended, cancelled, revoked, or expired.)
2. Provide two positive letters of recommendation from health care professionals, one of whom must be a registered nurse.
3. Have a 2.0 grade point average on a 4.0 scale.
4. Complete prerequisites. Prerequisites may be waived for graduate RN's in selected nursing courses.
5. Provide evidence of no active infectious pulmonary disease.
6. Pass entrance examination(s) consisting of two parts:
a. Written examination(s) covering the five major areas of nursing: maternal, pediatric, mental health, medical, and surgical.
b. Clinical practicum.
7. Meet admission requirements set by the University.
8. Be admitted by the BSN Admissions Committee.
9. Have and maintain at least $\$ 200,000$ in liability insurance.

## Requirements for the Bachelor of Science Degree in Nursing:

1. A minimum grade of " C " in each required course.
2. Satisfactory completion of all required courses.
3. All required non-nursing courses must be completed within five years after the last BSN nursing course has been taken.
4. A Degree Plan approved by the Chairperson of the Nursing Education Department must be on file.
5. An acceptable Application for Degree must be filed by the student with the Office of Admissions and Records on or before the date specified in the University calendar.
6. PAU General Requirements for a Bachelor's Degree must be met.

Suggested Degree Plan for the BSN Program
LOWER LEVEL PREREQUISITES Semester Hours

| Biology | Must include Human Anatomy and Physiology | 12 |
| :--- | :--- | ---: |
| Math | Prerequisite for Statistics | 3 |
| Chemistry |  | 4 |
| Humanities | Freshman English | 6 |
|  | Any Humanities Course | 3 |
| Social Science | United States and Texas Government | 6 |
|  | American History | 6 |
|  | Introduction to Psychology | 3 |
|  | Growth and Development | 3 |
|  | Introduction to Sociology | 3 |
| Computer Literacy |  | 3 |
| Nursing Education | Credit after passing Entrance Examination | 24 |
|  |  | TOTAL |
|  |  | 76 |

UPPER LEVEL REQUIREMENTS
Junior Year: First Semester
Biology 3411 Physiology (or equivalent) ..... 4
Nursing Ed 3301 Health Care Delivery System ..... 3
Nursing Ed 3403 Physical Assessment ..... 4 ..... 3
Junior Year: Second Semester
Nursing Ed 3402 Planning Patient Care ..... 4
Nursing Ed 3404 Community Health ..... 4
English Sophomore ..... 3
****Foreign Language ..... 14
Senior Year: First Semester
Nursing Ed 3405 Rural Health ..... 4
Nursing Ed 4806 Clinical Concentration ..... 8
****Foreign Language ..... 15Senior Year: Second Semester
Nursing Ed 4607 Leadership in Nursing ..... 6
Nursing Ed 4308 Problems Seminar ..... 3
English Sophomore ..... 3
**Physical Education ..... 14

- GRAND TOTAL 134 or 135


## Course Descriptions

## Nursing Education

## N ED 1701 FUNDAMENTALS OF NURSING

Fall
This course enables the student to develop basic skills and knowledge which assist him to apply the Nursing Process in patient care. Students practice and demonstrate competency in performing skills in a simulated situation before providing nursing care to adults in the secondary health care setting. Five hours lecture and eight hours laboratory per week.
Prerequisites: HRP 1301, BIOL 1401, BIOL 1402, MATH 1300, if required. Admission to ADN Program.

## N ED 1802 MEDICAL-SURGICAL NURSING I

## Spring

This course provides continued utilization of the Nursing Process in the care of the patients experiencing alterations of selected body systems. Students will provide care in secondary health care settings. Five hours lecture and twelve hours laboratory per week.
Prerequisite: NED 1701.

## N ED 2403 MEDICAL-SURGICAL NURSING II

SS I
This course provides continued utilization of the Nursing Process in the care of patients experiencing more complex alterations in selected body systems. Four hours lecture and sixteen hours laboratory per week.
Prerequisites: NED 1701, 1802.

## N ED 2404 MEDICAL-SURGICAL NURSING III

SS II
$\bar{A}$ continuation of Medical-Surgical Nursing II. Continued use of the Nursing Process with patients whose nursing needs are more complex. Four hours lecture and sixteen hours laboratory per week.
Prerequisites: N ED 1701, 1802, 2403

## N ED 2805 FAMILY HEALTH NURSING <br> Fall

This two part course provides for continued utilization of the Nursing Process in the care of maternity patients, newborns, and children. Five hours lecture and twelve hours laboratory per week.
Prerequisites: N ED 1701, 1802, 2403, 2404.

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## N ED 2906 PSYCHO-SOCIAL NURSING

Spring
This course is designed to assist in the transition from role of student to graduate. Major emphasis is placed on conditions affecting the psychological, emotional, and physical integrity of individuals in various stages of the life span and/or groups. The leadership role of the nurse is heavily emphasized. Five hours lecture and sixteen hours laboratory per week.
Prerequisites: N ED 1701, 1802, 2403, 2404, 2805.

## N ED 3301 HEALTH CARE DELIVERY SYSTEM

 SpringA study of the health care delivery system with emphasis on past, present, and potential influences upon the system. Students will use information from the physical sciences, social sciences, humanities, and health care disciplines to relate health care needs to the health care delivery system. Three hours lecture.
Prerequisite: Admission to the BSN Program or consent of the department.

## N ED 3402 NURSING II: PLÁNNING PATIENT CARE

 FallAn indepth study of the nursing process components including: assessment, analysis, planning, implementation, and evaluation. The student will utilize a practice setting to develop, utilize, and evaluate patient care plans. Two hours lecture. Six hours laboratory.
Prerequisite: N ED 3403 and/or consent of the department.

## N ED 3403 NURSING I: PHYSICAL ASSESSMENT

 SpringApplies psychological, social, and cultural concepts conjointly with normal physiology and with assessment skills used in evaluating the health status of clients. The student will use practice settings to develop cognitive, affective, and psychomotor skills in the assessment of clients and their environment. Two hours lecture. Six hours laboratory.
Prerequisites or corequisites: BIOL 3411, N ED 3301, and/or consent of the department.

## N ED 3404 NURSING III: COMMUNITY HEALTH PRACTICE

 FallFocuses on the role of the nurse in planning and providing primary care to individuals and groups. The course will allow the student the opportunity to gain a broad overview of complex social, cultural, health, and economic problems within a community. The nurse will use the nursing process to recognize and meet nursing needs of individuals and groups. Two hours lecture. Six hours laboratory.
Prerequisite or corequisite: N ED 3402 and/or consent of the department.
N ED 3405 NURSING IV: RURAL HEALTH NURSING

## Spring

The focus is on the health needs of rural areas students will have guided experiences in planning and implementing care to individuals and groups in isolated areas. Two hours lecture. Eight hours laboratory.
Prerequisite: N ED 3404.

## N ED 4806 NURSING V: CLINICAL CONCENTRATION

Spring
Provides an indepth study of a major area of clinical nursing. Classroom activities will focus on the concepts and cognitive processes which form the basis for clinical decision making. In the clinical setting the student will apply general and specific knowledge and skills in a nursing specialty area. Three hours lecture. Nine hours laboratory.
Prerequisite or corequisite: N ED 3405.

## N ED 4607 NURSING VI: LEADERSHIP IN NURSING <br> Fall

A study of nursing leadership as related to organizational structure and management systems in health care institutions. Class content will focus on nursing leadership, management principles and practices. Health care settings will be used to develop skills in leadership and management functions. Three hours lecture. Nine hours laboratory.
Prerequisite: N ED 4806.

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## Physical Education

See Health, Physical Education and Recreation

# Department of Physical Science 

Dr. Frederic M. Glaser, Chair

Full-time Faculty
Burandt, Norman A. (MS, Texas A\&I University, 1967; assistant professor) Electronics.
Ellis, Frederick E. (Ph.D., Louisiana State University, 1965; associate professor) Computer Graphics.
Giuoco, Samuel E. (Ed.D, Oklahoma State University, 1971; assistant professor) Acoustics.
Glaser, Frederic M. (Ph.D., Ohio State University, 1963; associate professor) Spectroscopy.
LeMaster, Edwin W. (Ph.D., Unịversity of Texas, Austin, 1970; professor) Remote Sensing.
Rodgers, Robert W. (MA, Baylor University, 1961; associate professor) Dimensional Geology.
Shockley, William C., Jr. (MA, University of Texas, Austin, 1966; assistant professor) Environmental Physics.
The Department of Physical Science offers a major in physics and minors in geology, physical science and physics.
There are secondary and elementary teaching fields in physics, physical science and earth science. The department also offers courses in subject areas of astronomy and geography.
The department offers a combination degree in physics and engineering in cooperation with Columbia University in New York City and, tentatively, with Texas A \& M University, University of Texas, and University of Houston. This combination degree is called a 3-2 Program, because a student majors in physics for 3 years at Pan American University then transfers to one of the above universities and completes 2 years of study in an engineering curriculum. Upon successful completion, he receives a Bachelor's Degree in physics from Pan American University and a Bachelor's Degree in engineering from the second university. Further details are available from the department chairman.

## Engineering

Pan American University does not offer a degree in engineering. The courses ENGR 1201 and 2303 are designed specifically for engineering students. Each student who plans to do his first two years of work at Pan American must obtain a catalog from the engineering school to which he plans to transfer and arrange his courses accordingly. Students electing the 3-2 plan are also eligible for participation in the co-op program at the engineering school they plan to atterid.

## Geology

The geology minor is compatible with major fields of study in physics, chemistry, education, biology, engineering, and business.

## Degree Requirements

## Minor in Geology

' 20 semester hours in geology, of which eight semester hours must be advanced; must include: Geology 1401, 1402, 2402, 3401, 3402.

## Teacher Certification in Earth Science:

Elementary Plan II: 24 semester hours in geology, of which twelve semester hours must be advanced; must include Geology 1401, 1402, 2401, or 2402, 3401, 3402 and 3301.
Secondary Plan I: May be counted as second teaching field only. 24 semester hours in geology, of which twelve semester hours must be advanced; must include Geology $1401,1402,2401$ or $2402,3401,3402$ and 3301.
Students are expected to furnish their own transportation and expenses on field trips.

## Major in Physics:

The major in physics requires 60 semester hours taken in physics, mathematics, and computer science. This broad field major must include PHYS 1401, 2301, 2101, 2302, 2102, and 3402; MATH 1360, 1370, 2342, 3347, and 3349; and CS 2325, 2333 and 3368. Fourteen (14) semester hours of advanced physics courses and 6 semester hours of advanced mathematics and/or computer science are required to complete the 60 hours.

## Minor in Physical Science:

18 semester hours in the physical sciences, of which 6 hours must be advanced; must include PHYS 1401, 1402 or PHYS 1405, 1406; CHEM 1401, 1402; and any combination of advanced courses in, Chemistry, Geology, Physical Science and Physics.

## Minor in Physics:

18 semester hours in physics of which six semester hours must be advanced must include PHYS 1401, 2301, 2101, 2302, 2102 and 3402.

## Teacher Certification in Physics:

Elementary Plan I: 21 semester hours in physics, of which 9 semester hours must be advanced; must include PHYS 1401, 2301, 2101, 2302, 21.02 and 3402.
Elementary Plan II: 24 semester hours in physics, of which 12 semester hours must be advanced; must include PHYS 1401, 2301, 2101, 2302, 2102 and 3402.
Secondary Plan I: 24 semester hours in physics, of which 12 semester hours must be advanced; must include PHYS 1401, 2301, 2101, 2302, 2102 and 3402.

## Teacher Certification in Physical Science:

Elementary Plan II: 24 semester hours in physical sciences, of which 12 must be advanced; must include PHYS 1401, 1402 or PHYS 1405, 1406; CHEM 1401, 1402 and other courses from physics, physical science and chemistry.
Secondary Plan I: 24 semester hours in the physical sciences, of which 12 must be advanced; must include PHYS 1401, 1402 or PHYS 1405, 1406; CHEM 1401, 1402 and other courses from the physical sciences which satisfy these requirements.
Secondary Plan II - Composite Science Certification
50 semester hours in the sciences, including 18 advanced hours. These must include (with a grade of "C" or better); BIOL 1401, 1402; CHEM 1401, 1402; GEOL 1401, 1402; PHYS 1401, 1402. The remaining hours may be choosen from astronomy, biology, chemistry, geology, physical science, physics, and earth science.
Suggested Pre-engineering Program
Summer before Freshman year:
Math 1340, 1356
Freshman Year
MATH 1360, 1370, 2342
PHYS. 1401, 2301, 2101
CHEM. 1401
ENGR. 1201, 2303

## Sophomore Year

MATH 3347, 3349
CS 2325
PHYS. 2302, 2102
CHEM. 1402
Advanced Phys. or Chem. course, depending on engineering field

## 'Suggested 3-2 Plan

The first two years are the same as pre-engineering.

Junior Year
PHYS. 3402 and 6 advanced hours
CS 2333, 3368
Eight (8) advanced hours in science and/or engineering elective courses are transferred back from engineering school to meet the advanced physics hours. An additional six (6) advanced hours in mathematics or computer science are transferred back to Pan American University. The student must also meet the 60 hours of University core curriculum courses with course work taken at Pan American University and the engineering school.

## Course Descriptions


#### Abstract

Astronomy ASTR 1401 GENERAL ASTRONOMY Fall A study of basic concepts in Astronomy and of the solar system. Telescopes and other instruments, including the planetarium, are used as an integral part of the course. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.


## ASTR 1402 GENERAL ASTRONOMY <br> Spring

A study of the stellar universe. Telescopes and other instruments, including the planetarium, are used as an integral part of the course. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## Engineering

## ENGR 1201 SCIENCE AND ENGINEERING ANALYSIS

Fall
Introduction to computational methods and solutions of problems in engineering and science using a computer programming model.
NOTE: Credit is given for either PHYS 1201 or ENGR 1201 but not both.

## ENGR 2303 STATICS AND ELEMENTARY KINEMATICS

Spring
Elementary vector algebra, center of mass, equations of equilibrium, friction, kinematics of particles and rigid bodies.
Prerequisite: Physics 1401. Note: credit is given for either PHYS 2303 or ENGR 2303 but not both.

## Geography

## GEOG 2301 CONSERVATION OF NATURAL RESOURCES

## Fall, Spring

A study of the conservation and use of our natural resources. Includes topics in soils, minerals, water and energy resources. Designed to meet the conservation requirements for elementary education. Can be counted in the supporting areas of elementary curriculum.

## GEOG 2313 PRINCIPLES OF GEOGRAPHY: PHYSICAL ELEMENTS

## Fall, Spring

An overview of the earth's natural features systematically described and interpreted through basic geography principles. Emphasis on earth-sun relations, the world pattern and distribution of water and climate; landscape development under the influence of vulcanism and mountainbuilding forces, rivers, underground water, glaciers, waves and currents, and the wind; the nature and classification of the principal soil groups of the world. Can be counted in the supporting areas of elementary education curriculum.

## GEOG 3333 LATIN-AMERICAN GEOGRAPHY

On demand
A regional study of the geography of Mexico, the Caribbean, Central and South America, includes an investigation of the physical, cultural and economic factors of various regions and how these affect present day conditions.

## Geology

## GEOL 1401 PHYSICAL GEOLOGY

## Fall

Involves a comprehensive description of materials composing the earth, and deals with the classification and analysis of geologic agents responsible for the origin, structure, and evolution of the earth's crust. Three hours lecture and recitation, and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.

## GEOL 1402 HISTORICAL GEOLOGY

Spring
A course dealing with the geological history of the earth and its inhabitants as revealed by the fossil record with emphasis on North America. Three hours lecture and recitation, and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.

## GEOL 2401 GEOMORPHOLOGY

## On demand

A course designed for sophomore Geology majors and teachers of Earth Science. An analysis of land forms of the earth and processes by which they are formed. Also, comparative studies of lunar-earth land forms. Emphasis will be placed on mapping and interpretation of local geomorphology. Three hours lecture and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.

## Prerequisite: GEOL 1401. <br> GEOL 2402 STRUCTURAL GEOLOGY

On demand
A course designed for Geology majors, minors and teachers of Earth Science. A study of the architecture of the earth, including the causes of deformation, resulting structures and their interrelationships. Three hours lecture and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.
Prerequisite: GEOL 1401, 1402.

## GEOL 3301 OCEANOGRAPHY

On demand
An introduction to Physical Oceanography designed for Geology and Biology majors and Earth Science teachers. A study of the origin, motions, and the physical and chemical properties of marine waters. Three hours of lecture and field problems.
Prerequisite: GEOL 1401 or advanced standing in any of the related sciences or consent of the instructor.

## GEOL 3401 MINERALOGY

On demand
A course designed for Geology or Chemistry majors, minors, or teachers of Earth Science. A study of the major mineral groups, their atomic structure, chemical composition, external forms, properties and geologic interpretation. Three hours lecture and three hours laboratory and field trips. \$4,00 laboratory fee.
Prerequisite: GEOL 1401 or CHEM 1401, 1402.

## GEOL 3402 INVERTEBRATE PALEONTOLOGY

On demand
A course designed for Geology or Biology majors, minors, or teachers of Earth Science. An introduction to the study of fossils, including comparison of living and fossil forms, their morphology, classification, ecology and geologic history. Three hours lecture and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.
Prerequisite: Geology 1402 or Biology 1401, 1402.

## GEOL 3404 STRATIGRAPHY-SEDIMENTATION

On demand
A study of sedimentary processes and principles of stratigraphy, followed by a survey of stratified rocks of North America, their correlation, stratigraphic relations, and guide fossils. Three hours lecture and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.
Prerequisites: GEOL 1401, 1402, 2402, 3401.

## GEOL 3405 PETROLOGY

On demand
A course designed for Geology majors or minors, or teachers of Earth Science. A study of the major rock groups, their origin, classification and chemical and physical properties. Both megascopic and petrographic techniques will be emphasized. Three hours lecture and three hours laboratory and field trips. $\$ 4.00$ laboratory fee.
Prerequisite: GEOL 3401.

## Physical Science

## PSCI 1421 PHYSICAL SCIENCE

Fall, Summer
A survey course designed to provide an introduction to the concepts and principles of physical science for non-science and elementary teaching majors. The topics covered include astronomy, chemistry and mechanics.
Prerequisite: MATH 1300 with a grade of "C" or better, or the equivalent. NOTE: credit given only for one of the following: PSCI 1421, 1411, 1301, 1303. $\$ 4.00$ laboratory fee.

## PSCI 1422 PHYSICAL SCIENCE

## Spring, Summer

A survey course that introduces the concepts and principles of physical science for non-science and elementary teaching majors. Geology, meteorology, and physics will be included in this course of study. Three hours lecture and two hours laboratory. $\$ 4.00$ laboratory fee. Prerequisite: MATH 1300 with grade of " C " or better, or the equivalent. NOTE: Credit for only one course of the following: PSCI 1422, 1412, 1302, 1304.

## PSCI 3301 INTERMEDIATE PHYSICAL SCIENCE

On demand
Advanced treatment of topics covered in PSCI 1421 and PSCI 1422. Emphasis is on problems of our environment.
Prerequisite: MATH 1335 and 8 hours of a physical science, or consent of instructor.

## PSCI 3307 COOPERATIVE EDUCATION I

On demand
A planned program of full-time work experience of minimum duration - one semester or a complete summer session of 10 weeks. The work experience must be related to physical science. Enrollment should be completed prior to the beginning of the work period; credit will be determined on the basis of the employer's evaluation and the student's written report. This course will count only as elective credit.
Prerequisite: Departmental advisor's approval.

## PSCI 3308 COOPERATIVE EDUCATION II

On demand
A planned program of full-time work experience of minimum duration - one semester or a complete summer session of 10 weeks. The work experience must be related to physical science. Enrollment should be completed prior to the beginning of the work period; credit will be determined on the basis of the employer's evaluation and the student's written report. This course will count only as elective credit. Prerequisite: PSCI 3307.

## PSCI 3309 COOPERATIVE EDUCATION III

On demand
A planned program of full-time work experience of minimum duration - one semester or a complete summer session of 10 weeks. The work experience must be related to physical science. Enrollment should be completed prior to the beginning of the work period; credit will be determined on the basis of the employer's evaluation and the student's written report. This course will count only as elective credit.
Prerequisite: PSCI 3307 and PSCI 3308.

## PSCI 4311 TOPICS IN PHYSICAL SCIENCE

On demand
A course which incorporates many different topics in physical science. Guest lecturers, student participation and basic concept presentation will be utilized for each topic. The course may be taken more than one semester for different topics.
Prerequisite: MATH 1335 and 8 hours of a physical science, or consent of instructor.

## PSCI 5321 GRADUATE TOPICS IN PHYSICAL SCIENCE

On demand
A course designed for physical science teachers to study current and classical topics in the physical sciences. The announced topics covered in the course will change in search of current literature including a written and oral report will be required of each student.
Prerequisite: PSCI 3301, or 1 year of classroom teaching experience in physical science.

## Physics

## PHYS 1401 GENERAL PHYSICS

## Fall, Spring, Summer

An algebra based introduction to the principles of mechanics, fluids, heat, waves and sound.
Three hours lecture, three hours laboratory. $\$ 4.00$ laboratory fee.
Prerequisite: MATH 1340. Recommended credit for or concurrent enrollment in MATH 1356.

## PHYS 1402 GENERAL PHYSICS

Fall, Spring, Summer
A continuation of PHYS 1401 covering the principles of electricity, magnetism, light, and modern physics. Three hours lecture, three hours laboratory. Credit will not be given for this course and PHYS 2301 or PHYS 2302.
Prerequisite: Physics 1401.

## PHYS 1405 PHYSICS IN THE MODERN WORLD

## On demand

This course is designed to meet the needs of those in the life sciences and related fields. Fundamental concepts of physics are presented with special emphasis on the principles of mechanics, heat, and sound which lend themselves to life science applications. Three hour's lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## PHYS 1406 PHYSICS IN THE MODERN WORLD

On demand
This course is designed to meet the needs of those in the life sciences and related fields. Fundamental concepts of physics are presented with special emphasis on the principles of light, electricity, and modern physics which lend themselves to life science applications. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.

## PHYS 2101 INTERMEDIATE LABORATORY

## Spring

Laboratory exercises illustrating the principles of mechanics, heat and sound. Emphasis is placed on statistical data analysis and error treatment.

## PHYS 2102 INTERMEDIATE LABORATORY

Fall
Laboratory exercises illustrating the principles of electricity, magnetism, waves, and optics.
Prerequisite: Concurrent with or credit in Physics 2302.

## PHYS 2301 . INTERMEDIATE PHYSICS

## Spring

A calculus based study of mechanics, heat, thermodynamics, wave motion and sound. Three hours lecture.
Prerequisite: PHYS 1401 and MATH 1370 with concurrent enrollment in MATH 2342. Students should also enroll in Physics 2101.

## PHYS 2302 INTERMEDIATE PHYSICS

Fall
Treatment of electricity, magnetism, wave phenomena and optics using calculus.
Prerequisite: PHYS 2301 and MATH 2342. Student should be enrolled in PHYS 2102.

## PHYS 2307 INTRODUCTION TO COMPUTER GRAPHICS

On demand
Use of computer-driven $X-Y$ plotter and other graphic devices for the graphic presentation of scientific and technical data, and for the generation of maps, designs, and plans. This course is designed for pre-architecture, pre-engineering, chemistry, geography, geology, and physics • students.
Prerequisite: MATH 1335 or equivalent and demonstrated knowledge of computer language (CIS 1301/CS 2325/PHYS 1201), or consent of instructor.

## PHYS 3101 JUNIOR LABORATORY

## Fall, Spring

The course is designed to acquaint the student with the experimental method. Experiments are chosen to cover as many fields of physics as possible in keeping with the background and abilities of the students. Three hours laboratory. Credit, one hour. $\$ 4,00$ laboratory fee. Prevequisite: 12 semester heurs of Physics.

## PHYS 3102 JUNIOR LABORATORY

Fall, Spring
A continuation of PHYS 3101. \$4.00 laboratory fee.

## PHYS 3301 ELECTROMAGNETIC THEORY

On demand
Theory of electrostatics, electromagnetics, magnetic properties of materials, units, and thermoelectricity, simple treatment of alternating current, oscillating circuits, electro-magnetic radiation and Maxwell's Equation. Three hours lecture.
Prerequisites: 12 semester hours of Physics and MATH 2342 which may be taken concurrently.

## PHYS 3303 HEAT AND.THERMODYNAMICS

On demand
Study of heat measuring devices, thermal expansion, behavior of gases, elementary thermodynamics, change of state, specific heats and transfer of heat. Three hours lecture. Prerequisite: 12 semester hours of Physics and MATH 2342 which may be taken concurrently.

## PHYS 3304 OPTICS

On demand
A study of physical optics, including diffraction, interference, polarization and the beginning of spectroscopy together with some geometrical optics. Three hours lecture.
Prerequisites: 12 semester hours of Physics and MATH 2342 which may be taken concurrently.

## PHYS 3305 MECHANICS I

## On demand

A rigorous treatment of the motion of a particle in one, two and three dimensions; the motion of a system of particles with a detailed treatment of the conservation laws; the statics of fluids and solids; an introduction to the motion of rigid bodies. Three hours lecture.
Prerequisites: 12 semester hours of Physics; MATH 3349, which may be taken concurrently.

## PHYS 3401 ELECTRONICS

On demand
Study of the phenomena of electronics including the application of electronic devices. Three hours lecture and three hours laboratory. $\$ 4.00$ laboratory fee.
Prerequisite: Physics 2302 and 2102.

## PHYS 3402 MODERN PHYSICS

On demand
Introduction to relativity, physics of atoms and solids and other topics in twentieth century physics. Three hours lecture and three hours laboratory. \$4.00 laboratory fee.
Prerequisites: Physics 2302 and 2102.

## PHYS 3403 DIGITAL ELECTRONICS

On demand
An introduction to electronic measurement, control and data manipulation using digital techniques. The course meets the needs of science majors in designing and using digital equipment and provides a background in the fundamentals of computer hardware. Microprocessors, their use, architecture, and methods of interfacing with measurement and control systems will be stressed. Primary emphasis will be placed on laboratory evaluation of circuits, devices, and techniques. Two hours lecture and four hours laboratory per week. $\$ 4.00$ laboratory fee.
Prereguisite: PHYS 3401 or consent of instructor.

## PHYS 4101 SENIOR LABORATORY

Fall, Spring
The student performs experiments of greater complexity and difficulty than those in junior laboratory. In addition, the student is encouraged to design and carry out original experiments in his field of interest. Three hours laboratory. $\$ 4.00$ laboratory fee.
Prerequisites: Physics 3101, 3102.

## PHYS 4102 SENIOR LABORATORY

Fall, Spring
A continuation of PHYS 4101. \$4.00 laboratory fee.
PHYS 4103 SENIOR LABORATORY
Fall. Spring
A continuation of PHYS 4102. $\$ 4.00$ laboratory fee.

## PHYS 4308 SEMINAR IN PHYSICS

On demand
Investigations of problems and progress in contemporary physics will be undertaken. Individual research and reporting will be emphasized. Courses may be repeated once for credit.
Prerequisite: I year of PHYSICS and consent of instructor.

## PHYS 5306 ADVANCED MECHANICS

On demand
The Lagrangian formulation of mechanics is treated extensively with an introduction to the Hamiltonian formulation. Selected topics inclyding variational principles, tensor algebra as applied to rigid body motion and the theory of small amplitude vibrations.
Prerequisites: Graduate standing and Physics 3305.

## PHYS 5307 SOLID STATE PHYSICS

On demand
Crystal structure studies, classical and quantum theories of specific heat and band theory of metals and semi-conductors.
Prerequisites: Graduate standing and Physics 3402.

## PHYS 5308 SEMINAR IN PHYSICS

On demand
Investigations of problems and progress in contemporary physics will be undertaken. Individual research and reporting will be emphasized.
Prerequisites: Graduate standing and 1 year of Physics.

## Physics

## See Department of Physical Science

# Department of Political Science 

Dr. J. L. Polinard, Chair

## Full-time Faculty

Bokina, John (Ph.D, Illinois, 1979; asst. prof.) Political Theory, Western \& Eastern Europe
Chandler, Carolyn A. (M.A., Texas Tech, 1983; instructor) United States and Texas Government and Politics
Freeman, Samuel (Ph.D., Kentucky, 1978; asst. prof.) State and Local Government, Political Parties, American Presidency

Hall, Harry (M.A., American University, 1957; instr.) Middle-Eastern Politics, American and Texas Politics
Hinojosa, Jose (Ph.D., Notre Dame, 1980; asst. prof.) Public Administration, American Presidency, Political Parties, Minority Politics
Lee, Kuo-Wei (Ph.D., Oregon, 1966; assoc. prof.) Far Eastern Politics, International Politics
Miller, Lawrence (Ph.D., Texas Tech, 1977; assoc. prof.) Public Law, Methodology
Morgan, Glynn (M.A., Mississippi, 1961; assoc. prof.) American \& Texas Politics; Govt. 2313-14 Coordinator
Mounce, Gary (M.A., Mississippi, 1977; assoc. prof.) Central and South American Politics
Noyes, Lillian (Ph.D., Texas, 1971; assoc. prof.) Public Administration, Developing Nations
Polinard, J. L. (Ph.D., Arizona, 1970; prof. and chair) Public Law, Minority Politics
Wrinkle, Robert (Ph.D., Arizona, 1967; prof.) Public Policy, Urban Politics; Intern Coordinator
Political Science majors and minors take courses in four fields: (1) American government, including local, state, and national. (2) Comparative government and international relations, including totalitarian government, and government and politics of Asia, comparative governments - Western Democracies politics of emerging nations, Africa and Middle East; international politics and international organization. (3) Political theory and methodology, including scope and methods of political science, and political theory. (4) Public Administration. The Political Science faculty and students are actively involved in such campus activities as pre-law, student government and other student political activities. Political Science majors and minors also may become involved in the Department's Urban Intern program, whereby selected students receive college credit while working with local, municipal and county governments.
Students majoring in Political Science may pursue active careers in Law, National and State government, Diplomatic Services, Journalism and Teaching. Regardless of their chosen careers, Political Science majors all share an interest in the struggle to obtain and use political power; this interest is recognized in the nature of the courses offered by the Political Science faculty.
Pre-Law
Admission to law school is becoming increasingly selective. Applicants are selected primarily on these factors: the Law School Admissions Test (LSAT), which should be taken in the Junior or Senior year; a writing ability score, which is a separate part of the LSAT; the student's overall grade point average; co-curriculum activities and maturing experiences. Many law schools also request letters of recommendation.
The student should aim for a minimum GPA of 3.0 and a minimum LSAT score of 600 . Virtually all law schools have admissions policies which allow exceptions to these figures, but the closer the student is to these scores, the better the chance of admission.
While any undergraduate major will prepare a student for law school, those majors which emphasize the fundamental skills necessary for effective oral and written communication are advisable. The student especially is encouraged to seek a course of study which requires a lot to reading and writing as these are the skills tested most fully by the LSAT. Any course that challenges one's ability to organize a body of data and reason from it will be beneficial. Recommended courses for pre-law study are listed below. Students should take as many of these as their degree requirements allow.

Pre-Law students should consult the current Pre-Law Handbook prepared by the Law School Admission Test Council and the Association of American Law Schools. Students are encouraged also to join the Pre-Law Society at PAU, which arranges short courses on the LSAT and assists students in their preparation for law school.
For further information please contact the Department of Political Science, 381-3341.

## Degree-Requirements

## Major in Political Science

30 semester hours in Pol Sci. Must include POLS 2313, 2314, 2333; 21 semester hours must be at the advanced level and must include six hours in American Government and Politics and three hours from each of the other three fields in Pol Sci:

Comparative Government and International Relations; Political Theory and Methodology; and Public Administration. ECO 2353, 2354 (required).

## Minor in Political Science

18 semester hours in Political Science, of which 9 semester hours must be advanced, must include POLS 2313, 2314, 2333.

## Teacher Certification in Political Science

Elementary Plan I: 18 semester hours in Political Science, of which nine must be advanced; must include POLS 2313, 2314, 2333; and three hours from three of the above four fields of political science.

Elementary Plan II: 24 semester hours in Political Science, of which 15 must be advanced; must include POLS 2313, 2314, 2333; and three hours from each of the above four fields of political science.

Secondary Plan I: 24 semester hours in Political Science of which 15 hours must be advanced, must include POLS 2313, 2314, 2333; and six advanced hours from American Government and Politics, three hours from each of the other three fields of political science.

## Teacher Certification in Social Sciences:

Secondary Plan II: 48 semester hours in Social Sciences. Must include HIST 2313, 2314, 2333; POLS 2313, 2314; ECO 1301 or 2354; GEOG 2313 or 2301; and SOC 1313. 24 semester hours must be divided among advanced History and Political Science courses with not fewer than nine semester hours in each field.

## Course Descriptions

## Political Science

## POLS 2313 UNITED STATES AND TEXAS GOVERNMENT AND POLITICS

Fall, Spring, Summer
The origins and development of the American governmental system; U.S. and Texas constitutions; federal-state and interstate relations; the indiyidual as a citizen, person and voter; political parties. Fulfills three hours of the legislative requirements of six hours of American and Texas government. Open to freshmen.

## POLS 2314 UNITED STATES AND TEXAS GOVERNMENT AND POLITICS

Fall, Spring, Summer
A functional study of the American and Texas constitutions and governmental systems in relation to legislation, executive functions, judicial functions, administrative structures and functions; structures and functions of lesser units of government; financing governmental activities; foreign relations; governmental services and functions in the field of business, labor, agriculture, social welfare, public safety and conservation. Fulfills three hours of the legislative requirements of six hours of American and Texas government. Open to freshmen.

## POLS 2333 INTRODUCTION TO POLITICAL SCIENCE

Fall, Spring
Emphasis on political fundamentals, public law, theory and organization of the modern state, political dynamics and institutions. Required of all government majors and minors. Open to freshmen.

## POLS 2343 COOPERATIVE EDUCATION AND GOVERNMENT

On Demand
This course is designed for students seeking government credit through the cooperative education program provided the following conditions are met: (A) the student's project must be directly related to his major; (B) the student must be under direct academic supervision; (C) the student must complete written assignments to be evaluated by the supervising teacher; and (D) the student must undergo an oral examination administered by the major department. Credit applies as an elective only.

## POLS 2387 U.S. AND TEXAS GOVERNMENT AND POLITICS

## Fall, Spring

Honor Plan
The origins and development of the American governmental system; U.S. and Texas constitutions; federal-state and interstate relations; the individual as a citizen, person, and voter; political parties. Fulfills three hours of the legislative requirements of six hours of American and Texas government.
Prerequisite: Admission to honors studies or by invitation.

## POLS 2388 U.S. AND TEXAS GOVERNMENT AND POLITICS

Fall/Spring
Honor Plan
A functional study of the American and Texas constitutions and governmental systems in relation to legislation', executive functions, judicial functions, administrative structures and functions; structures and functions of lesser units of goverrment; financing governmental activities; foreign relations;' governmental services and functions in the field of business, labor, agriculture, social welfare, public safety and conservation. Fulfills three hours of six hours of American and Texas government.
Prerequisite: Admission to honors studies or by invitation.

## POLS 3185 INTERNSHIP

## On Demand

This course is designed for students seeking credit through an internship placement. The internship must be directly related to government; the student must be under direct academic supervision and the student must complete written assignments to be evaluated by the supervising teacher. The course may be repeated for credit with a maximum of four hours counted toward fulfillment of the requirements for a major in Government. Prerequisite: POLS 2313, 2314.

## POLS 3314 AMERICAN STATE AND LOCAL GOVERNMENT

Fall, odd years
A study of the basic functions, structure, procedures and problems of American state, and local government, with an emphasis upon intergovernmental relations.
Prerequisites: POLS 2313, 2314.

## POLS 3316 AMERICAN PUBLIC POLICY

## Spring, odd years

An analysis of rationales underlying selected governmental programs and assessments of the effectiveness of these programs.
Prerequisites: POLS 2313, 2314.

## POLS 3318 SPECIAL TOPICS

## On demand

Significant issues and problems in politics and political system. Course may be repeated for credit provided different topics are the focus of each class.
Prerequisite: POLS 2313 and 2314.

## POLS 3322 POLITICS OF EMERGING NATIONS

Fall, even years
Analysis of political institutions and processes with focus on "Third World" emerging nations. Prerequisites: POLS 2313, 2314.

## POLS 3323 INTRODUCTION TO PUBLIC ADMINISTRATION

## Fall, even years

A survey of public administration in the United States, highlighting a wide variety of topics in the discipline, but with emphasis upon the general machinery of the national bureaucracy and on the powers, problems and control of its agencies.
Prerequisites: POLS 2313, 2314.

## POLS 3324 GOYERNMENT ORGANIZATION AND ADMINISTRATIVE THEORY

Fall, odd years
An analysis of the vaxious theories of public administration and government organization. The contribution of such theorists as Weber, Taylor, Mayo, McGregor, Maslow, Simon, and others will be studied. The development" of public administration will be surveyed.
Prerequisites: POLS 2313, 2314.

## POLS 3331 METHODS OF POLITICAL SCIENCE RESEARCH

Spring
Analysis of the study of politics, models of inquiry, research methods, and introduction to the use of computers in political science research.
Prerequisite: POLS 2313, 2314 (was GOVT 4331; may not be repeated for credit)

## POLS 3333 CLASSICAL POLITICAL THEORY

Fall, Even
A study of classical political philosophy from the Socratic EPA to Machiavelli.
Prerequisite: POLS 2313, 2314.

## POLS 3343 INTERNATIONAL POLITICS

Fall
A study of the political principles, problems and factors involved in the foreign policies and relations of the nation-state with particular emphasis on the sources and uses of national power and the difficulties in limiting the use of such power.
Prerequisites: POLS 2313, 2314.
POLS 3344 CONTEMPORARY POLITICAL THEORY
Spring, Even
A study of 20th Century Political Philosophy.
Prerequisite: POLS 2313, 2314.

## POLS 3345 <br> MODERN POLITICAL THEORY

Spring, Odd
A study of political philosophy from Machiavelli to the end of the 19th Century.
Prerequisite: POLS 2313, 2314.

## POLS 3360 AMERICAN MINORITY POLITICS

Fall, Odd years
An analysis of the political policies and techniques embraced by minorities in American political system. Minorities studies include Mexican-Americans, blacks and women.
Prerequisites: POLS 2313, 2314.

## POLS 3371 SOVIET POLITICS

Summer, Odd years
An examination of applied Marxism through the study of the ideology institutions and political processes of the Soviet Union.
Prerequisite: POLS 2313, 2314 (cannot be taken for degree credit if student has previously completed Government 3372).

## POLS 4300 ACUI IS DIRECTED STUDY IN INTERNATIONAL ACTIVITIES

On demand
A program of special study consisting of three phases: (1) directed, self-study preparation for one month on special and general aspects of the United Nations. (2) Two weeks of directed seminar study and practical experiences in the United Nations. (3) One month for writing a term paper on the project.

## POLS 4310 COMPARATIVE PUBLIC ADMINISTRATION

On demand
A comparative analysis of the administrative systems of different governments. Particular attention is focused on the relationship of administrative practices and decision-making processes in the various states.
Prerequisites: POLS 2313, 2314.

## POLS 4312 URBAN AND METROPOLITAN PLANNING

On demand
An analysis of the various political factors shaping the direction and tasks of the planner. Attention is given to zoning, capital improvement budgeting, subdivision control and related aspects of the interrelationship of such planning with that done by other local units of government.
Prerequisites: POLS 2313, 2314.

## POLS 4313 COMPARATIVE GOVERNMENTS: WESTERN DEMOCRACIES

Fall, even years
A study of the major democracies of Europe: Great Britain, France. West Germany, Italy, low countries, Scandinavian countries, Switzerland and Austria. A comparative study of peoples and their institutions,
Prerequisites: POLS 2313, 2314.

## POLS 4320 AMERICAN CONSTITUTIONAL LAW: FEDERALISM

Fall
A study of the allocation of government powers by use of court cases, with special emphasis on the national government and an introduction to the judicial functions of the American legal system.
Prerequisites: POLS 2313, 2314.

## POLS 4321 AMERICAN CONSTITUTIONAL LAW: CIVIL LIBERTIES

 SpringA study of the limitations of governmental powers in the United States by use of court cases, with primary emphasis on civil and political rights.
Prerequisites: POLS 2313, 2314.

## POLS 4332 AMERICAN POLITICAL THEORY

Spring, Odd years
An analysis of American political theory and values from the Colonial period to the present. The work of Jefferson, Jackson, Calhoun, Bellamy, Hoover and Galbraith are included.
Prerequisites: POLS 2313, 2314.

## POLS 4353 INTERNATIONAL ORGANIZATION

Spring
An analysis of the judicial-political foundations. Actual machinery and activities of the principal international organizations, particularly the U.N. and related bodies. An appreciation of theirachievements toward international peace.
Prerequisites: POLS 2313, 2314.

## POLS 4360 AMERICAN EXECUTIVE PROCESS

## Fall, Even year

Advanced study of the development of the power and influence of the president and other American executives; procedures and politics of the executive process; executive policy outputs; the relation of the executive to the other elements of the political system.
Prerequisites: POLS 2313, 2314.

## POLS 4363 AMERICAN LEGISLATIVE PROCESS

Spring, Even years
Advanced study of the legislative process; structure, powers, organization, political control and procedures of congress, state legislatures and local legislative bodies in the rest of the political system.
Prerequisites: POLS 2313, 2314.

## POLS 4365 AMERICAN ADMINISTRATIVE PROCESS

## Spring

Advanced study of law and procedures of national, state and local administrative agencies and their behavior; problems in administrative management; theory of complex organizations; policy outcomes of the administrative process.
Prerequisites: POLS 2313, 2314.

## POLS 4367 AMERICAN JUDICIAL PROCESS

## Summer

Advanced study of the structure, functions and procedures of the national, state and local judicial systems; the interrelationship between the American judiciary and other components of the political system; the impact of judicial decision-making on public policy.
Prerequisites: POLS 2313, 2314.

## POLS 4373 AMERICAN POLITICAL PARTIES AND POLITICS

 Fall, Odd yearsA study of the history, organization, function and leadership of political parties and the role they play in the operation of national, state and local governments in the United States and a study of the role of group politics and voting behavior in the American political process.
Prerequisites: POLS 2313, 2314.

## POLS 4382 GOVERNMENTS AND POLITICS OF ASIA <br> Spring

The socio-economic setting, constitutional framework, political forces, authoritative decisionmaking agencies and certain major policy outputs of selected governments of Asian nations. Emphasis on Japan, India, Thailand, Indonesia and the Phillipines.
Prerequisites: POLS 2313, 2314.

## POLS 4383 POLITICS IN MEXICO, CENTRAL AMERICA AND THE CARRIBEAN Fall

A survey of governmental structures and politics in Latin America, examines competing ideologies, group developments, party interests, influence of revolution, relationship between political, social and economic structures and Latin America's role in the world political arena. Prerequisites: POLS 2313, 2314 (was GOVT 3383, may not be repeated for credit).

## POLS 4384 SEMINAR IN LOCAL GOVERNMENT PROBLEMS I

Fall
An examination and study of administrative problems in local government.
Prerequisites: POLS 2313, 2314.

## POLS 4385 SEMINAR IN LOCAL GOVERNMENT PROBLEMS II

 SpringAn examination of problems encountered by the interns in their work with various local governmental agencies and efforts to find solutions by applications of latest governmental administrative theories.
Prerequisites: POLS 2313, 2314.

## POLS 4386 SOUTH AMERICAN POLITICS

Spring
A survey of governmental structures and politics in South America. Examines competing ideologies, group developments, party interests, influence of revolution, relationship between political, social and economic structures and South America's role in the world political arena. Prerequisite: POLS 2313, 2314.

## POLS 5360 AMERICAN EXECUTIVE PROCESS AND POLICY OUTPUTS

Fall, Even years
Advanced study of the development of the power and influence of the president and other American executives; procedures and policies of the executive process; executive policy outputs; the relation of the executive to the other elements of the political system.

## POLS 5367 AMERICAN JUDICIAL PROCESS

Summer
Advanced study of the structure, functions and procedures of the national, state and local judicial systems, the interrelationship between the American judiciary and other components of the political system; the impact of judicial decision-making on public policy.

## POLS 5386 POLITICS OF SOUTH AMERICA

## Spring

A survey of governmental structures and politics in South America. Examines the political processes and their relationship to existing social and economic structures of South America.

## Portuguese

See Department of Foreign Language

## Pre-Law

See Department of Political Science

# Department of Psychology ${ }^{1}$ 

Dr. Valerie G. James-Aldridge, Chair

## Psychology

## Full-time Faculty

Alamia, Alfonso, J. (M.Ed., Pan American, 1972; asst. prof.) developmental, adolescence, behavior modification, bilingual testing.
Aldridge, James W.,* Jr. (Ph.D. SUNY-Binghamton, 1976; assoc. prof.) perception, cognition, memory.
Arnold, Bill R. (Ph.D., North Texas State, 1976; assoc. prof.) counseling and rehabilitation psychology.
Cain, Roy E.* (Ph.D., Texas Tech, 1972; assoc. prof.) physiological psychology, biofeedback.
James-Aldridge, Valerie G.* (Ph.D., Oklahoma State, 1975; assoc. prof.) animal behavior, apes and language.
Kendrick, Sherrill* (Ph.D., Southern Mississippi, 1974; asst. prof.) clinical, behavior modification.
Levine, Bert D.* (Ph.D., Texas, 1953; prof.) personality theories; abnormal behavior, adjustment.
Montgomery, Gary T.* (Ph.D., Texas Tech, 1972; assoc. prof.) developmental, psychophysiology.
Winkel, Mark H. (Ph.D., Oklahoma State, 1982; asst. prof.) social influence, persuasion.
Wisener, Robert H. III,*. (Ed. D., Northern Colorado, 1975; asst. prof.) school, clinical.

A major is offered in psychology with either a Bachelor of Arts or a Bachelor of Science degree. A demand exists for undergraduate psychology majors in public and private agencies dealing with human relations. However, the more challenging and specialized fields in psychology usually require further study beyond the Bachelor's degree. High academic standards are required of those students planning to do graduate work, and the B.S. program is designed to insure that students planning further study acquire a background that will maximize their chances of success in graduate school. Training in research methods, statistics, and theory are required of all majors. According to their own interests, majors take further courses in the areas of clinical, experimental, community, social and developmental psychology. Students pursuing the B.S. degree also take further courses in the natural sciences and computer science. Whenever possible, students are involved in the many ongoing research programs of the department, giving them practical experience in the discipline.
In addition, the department offers a minor in psychology; and courses are also offered for students seeking a second teaching field for teacher certification in both elementary and secondary education,

[^22]
## Degree Requirements

## Major in Psychology (B.A. Degree):

30 semester hours in Psychology of which 15 hours must be advanced; must include PSY 1313 or 1387, 1323 or 1388, 2301, 2325, 3343, 4313.

## Major in Psychology (B.S. Degree):

30 semester hours in Psychology of which 15 hours must be advanced; must include:
PSY 1313 or 1387; 1323 or 1388; 2301; 2325
Select two from PSY 3353, 3373, 4318
Select one from PSY 4319, 4320, 4363
Select one from PSY 4313, 4333
Select one from PSY 3343, 4384
Select two sequences from: (total of 16 hours)
a. Physics 1401, 1402 (Prerequisite: Math 1340) Physics 1405, 1406
b. Biology 1401, 1402
c. Chemistry 1401, 1402

## Select one from:

a. Biology 3303
b. Physics 3401
c. Computer Information Systems 2309 or Computer Science 2425
d. Chemistry 3401

## Minor in Psychology:

18 semester hours in Psychology of which 6 must be advanced; must include PSY 1313 or 1387, and 1323 or 1388.

## Teacher Certification in Psychology:

Elementary Plan I: 18 semester hours of Psychology of which 9 hours must be advanced. PSY 1313 or 1387, and 1323 or 1388 are required.
Elementary Plan II: 24 semester hours in Psychology of which 12 hours must be advanced. PSY 1313 or 1387 , and 1323 or 1388 are required.
Secondary Plan I: 24 semester hours in Psychology of which 12 hours must be advanced. PSY 1313 or 1387, and 1323 or 1388 are required.

## Coursé Descriptions

## Psychology

## PSY 1301 ACADEMIC AND CAREER AWARENESS

Fall, Spring
Designed to assist the freshman and sophomore level student with career and academic plans through aptitude, interest and personality testing, career research, determining personal values, and through the use of a decision-making process. Especially relevant for students who are unsure of educational and future career plans. May not. be counted toward a major or-minor in Psychology.

## PSY 1313 INTRODUCTION TO PSYCHOLOGY

Fall, Spring, Summer
An introduction to the study of mental processes. Topics include: the scientific methods used in psychology; the scope and gohls of psychology, the influences of heredity, physiology and environment; and the conditions governing learning, memory, sensation and perception. (Formerly PSY 2313, may not be repeated for credit.)

## PSY 1323 GENERAL PSYCHOLOGY

## Fall, Spring, Summer

Emphasis is on feelings and motives, the normal and abnormal personality, individual differences, the child, the adult and society. (Formerly PSY 2323, may not be repeated for credit.)

## PSY 1387 , INTRODUCTORY PSYCHOLOGY (HONORS PLAN)

## Every year

Emphasis is placed upon evolution and heredity, the brain and behavior, perception, states of awareness, and learning. The course is discussion-centered with emphasis on independent study. Prerequisite: admission to Honors Studies or by invitation.

## PSY 1388 GENERAL PSYCHOLOGY (HONORS PLAN)

## Every year

- Emphasis is placed upon intelligence, personality, motivation, vocational choice and the application of psychological principles to behavioral problems.
Prerequisite: admission to Honors Studies or by invitation.


## PSY 2301 STATISTICS FOR THE BEHAVIORAL SCIENCES

## Fall, Spring

A practical study of the procedures used in handling psychological and sociological data including descriptive statistics, central tendency, variation, correlation and inference. May be counted as Psychology 2301 or Sociology 2301
Prerequisite: 3 hours of MATH (except MATH 2306) and 6 hours from the following: PSY 1313, SOC 1313, 1323. (formerly PSY 4301, may not be repeated for credit.)

## PSY 2324 SOCIAL PSYCHOLOGY

Fall, Spring
A study of psychological and sociological principles as they relate to human social behavior. Relevant areas of theory and research in social psychology will be covered. May be counted as PSY 2324 or SOC 2324.
Prerequisite: 6 hours from the following: PSY, 1313, 1323, SOC 1313, 1323.

## PSY 2325 EXPERIMENTAL PSYCHOLOGY I

## Fall, Spring

Lecture - laboratory approach in illustrating the techniques of psychological research. Prerequisite: PSY 1313, 1323, and 2301 or STAT 2330.

## PSY 2330 COOPERATIVE EDUCATION I

On Demand
A planned program of full-time work (minimum of one semester or two continuous five-week summer sessions) related to the major or minor field. Credit will be determined by a satisfactory employer's evaluation, interviews between the student and a supervisory professor; and a supervised written report by the student. The course counts only as elective hours outside of the specified major or minor field. Students enroll on a credit/no credit basis.

## PSY 2335 DEVELOPMENTAL PSYCHOLOGY: INFANCY AND CHILDHOOD

## Every year

A study of the physical, mental, emotional and social growth from conception through childhood.
Prerequisite: PSY 1313.

## PSY 2336 DEVELOPMENTAL PSYCHOLOGY: ADOLESCENCE

Alternate years
A study of the physical, mental, emotional and social growth from childhood through adolescence.
Prerequisite: PSY 1313 or 1323.

## PSY 2337 PSYCHOLOGY OF LIFESPAN DEVELOPMENT AND AGING

Fall, Spring
An overview of the cognitive, social-role and motivation changes that occur with age from a psychological/developmental viewpoint.
Prerequisite: PSY 1313 or PSY 1323. May not be counted if credit is received for either PSY 2335 or PSY 3333.

## PSY 2340 PSYCHOLOGY OF SUBSTANCE ABUSE

Fall
Provides an introduction to the field of substance abuse. A knowledge and understanding of psychological and physiological effects of substance abuse will be gained. The course provides an historical overview of the evolving attitudes, values, and treatment approaches to substance abuse. It will also review current state of the art research on the primary prevention of substance abuse and innovations in service delivery, such as employee assistance programs.

## PSY 2345 • PSYCHOLOGY OF LEARNING

Every year
An introduction to the methods, result and interpretations of experimental studies of learning. Emphasis will be placed on classical and instrumental conditioning procedures.
Prerequisite: PSY 1313 (formerly 3323 and 4324, may not be repeated for credit.)

## PSY 3305 BEHAVIOR MANAGEMENT AND MODIFICATION

Fall, Spring
An overview of existing behavioral control techniques for the remediation and prevention of problem behaviors and for the optimization of normal behaviors in real life settings. Contrasting therapeutic approaches will be examined as well as the ethics of behavior control and the impact of behaviorism on 20th Century man.
Prerequisite: PSY 1313 and 1323.

## PSY 3325 PSYCHOLOGY OF ADJUSTMENT

Every year
This course is devoted to a study of the normal personality and the influences which foster effective adjustment.
Prerequisites: PSY 1313, 1323.

## PSY 3326 CONTEMPORARY ISSUES IN SOCIAL PSYCHOLOGY

Alternate years
A review and discussion of recent issues and advances in social psychology. Focuses on contemporary concerns with regard to both theory and research in the laboratory and the community. May be counted as PSY 3326 or SOC 3326.
Prerequisite: PSY 2324 or SOC 2324.

## PSY 3330 PSYCHOLOGY OF DISABILITY

Spring
Provides a survey of psychological aspects of disability, with emphasis on severe mental and physical disability. Includes an overview of research areas and findings. Describes major disability groups, and the general psychological processes that are observed in patients and their families as they react and adjust to their disabilities. State of the art rehabilitation technology and devices will also be presented.
Prerequisite: PSY 1313 or 1323.

## PSY 3333 PSYCHOLOGY OF ADULTHOOD: MATURITY AND OLD AGE

## Every year

A study of such aspects of adulthood as job selection, marriage, child rearing and old age.
Prerequisite: PSY 1313 and 1323.

- PSY 3343 TESTS AND MEASUREMENTS IN PSYCHOLOGY

Fall, Spring
Concentrates on the theoretical aspects of test construction and on extensive survey of the major types of standardized tests used in industry, schools and mental health settings.
Prerequisite: PSY 1313, 1323, 2301.

## PSY 3353 PHYSIOLOGICAL PSYCHOLOGY

## Alternate years

An analysis of the basic physiological mechanisms underlying behavior with emphasis on the role of the central nervous system in sensation, emotion, motivation, learning and memory. A knowledge of biology is helpful but not necessary.
Prerequisite: PSY 1313, 1323, (formerly 4343, may not be repeated for credit.)

## PSY 3363 EMOTION AND MOTIVATION

## Alternate years

A selected review of experimental and theoretical literature of emotion and motivation in man and animals.
Prerequisite: PSY 1313 and 1323.

## PSY 3373 SENSATION AND PERCEPTION

## Every year

A study of the basic mechanisms underlying sensation and perception. Experimental methods, research findings and theory are emphasized.

## Prerequisite: PSY 1313 and 1323.

## PSY 3383 INTRODUCTION TO ANIMAL BEHAVIOR

## Every year

An introduction to the methods, results, and interpretation of studies of animal behavior from the perspectives of comparative psychology and ethology. An emphasis will be placed on social and communicative behavior.
Prerequisite: PSY 1313

## PSY 4312 FEMALE AND MALE

Fall, Odd years
An examination of the physiological, psychological influences of sex role development including such topics as human liberation, sexual behavior, child rearing practices and career opportunities. (Formerly PSY 4311 and SOC 4311, may not be repeated for credit.)
Prerequisite: 9 hours of psychology or consent of instructor.

## PSY 4313 ABNORMAL PSYCHOLOGY

## Fall, Spring

Analysis, etiology and incidence of neurosis and psychosis, mental hygiene problems and adjustive behavior.
Prerequisite: PSY 1313 and 1323.

## PSY 4318 THEORIES OF LEARNING

Twice per year
A historical review of major theoretical positions in the field of animal and human learning. Prerequisite: PSY 1313, 1323, or consent of instructor.

## PSY 4319 COGNITIVE PROCESSES

## Alternate years

The experimental study of conscious, voluntary mental processes. Topics include recognition of written words and other patterns, recognition of speech and comprehension of language, limits on ability to divide attention, concept formation, problem solving, and reasoning. Emphasis is on adult processes rather than on development of the processes in children.
Prerequisite: PSY 1313, 1323.

## PSY 4320 VERBAL LEARNING AND MEMORY

Alternate years
The experimental study of the acquisition, storage, retrieval, and forgetting of verbal information. Emphasis is on basic research and theory about adult processes, and little consideration is given to either applications or development of the processes in children.
Prerequisite: PSY 1313, 1323.

## PSY 4333 THEORIES OF PERSONALITY

## Twice per year

Emphasis is placed on the major theories of personality which attempt to explain the psychological nature and behavior of people. Some consideration is given to the process involved in developing a theory of personality.
Prerequisite; PSY 1313, 1323.

## PSY 4350 COMMUNITY MENTAL HEALTH

## Spring

A review of the basic historical and legislative context of the community mental health movement, and its future directions for development. Includes a study of the impact of traditional and nontraditional models of service delivery on diverse populations, as well as newly emerging technologies such as consultation and preventative interventions.
Prerequisite: PSY 1313, 1323.

## PSY 4351 COMMUNITY PSYCHOLOGY

Fall
Reviews the critical issues and applied research related to the psychology of community life.
Includes an overview of community problems from a psychological perspective, including mental health-mental retardation, substance abuse, juvenile and adult justice systems, problems in the schools, aging, and unemployment. Emphasis is placed on the social psychological influences effecting individual adaptation.
Prevequisite: PSY 1313, 1323.

## PSY 4353 INTRODUCTION TO CLINICAL PSYCHOLOGY

## Every year

A comprehensive overview to clinical psychology today. This course provides a basic understanding of its history, diverse theoretical orientations, functions and problems. Both theory and research are emphasized.
Prerequisite: PSY 4313 or 4333.

## PSY 4355 PSYCHOLOGY AND MYTHOLOGY

Fall, odd years
This course will study the impact and interrelationships of psychological thought and mythological theory. The impact of the theories of Freud, Adler, Jung, Levi-Strauss and others on mythology will be studied. May be counted as ANTH 4355.
Prerequisites: PSY 1323 or ANTH 1323 or ANTH 2353 or instructor's consent.

## PSY 4363 SYSTEMS AND THEORIES IN PSYCHOLOGY

## Every year

A history of the development of psychology and a study of theories in contemporary psychology. Prerequisite: PSY 1313, 1323.

## PSY 4383 SPECIAL PROBLEMS

## On demand

Selected topics assigned according to the interest of the class and/or student. Sequential registration for up to nine hours is permitted as topics vary.
Prerequisite: 9 hours of Psychology and consent of instructor.

## PSY 4384 SPECIAL PROBLEMS

On demand
Selected topics assigned according to the interest of the class and/or student. Sequential registration for up to nine hours is permitted as topics vary.
Prerequisite: 9 hour's of Psychology and consent of instructor.

## PSY 4385 SPECIAL PROBLEMS

## On demand

Selected topics assigned according to the interest of the class and/or student. Sequential registration for up to nine hours is permitted as topics vary.
Prerequisite: 9 hours of Psychology and consent of instructor.

## PSY 5313 ABNORMAL PSYCHOLOGY

Fall, Spring
Analysis, etiology, and incidence of neurosis and psychosis; mental hygiene problems; and adjustive behavior. A research project and supportirig specialized readings will be emphasized. Prerequisite: 6 semester hours of Psychology.

## PSY 5318 LEARNING THEORIES

Twice per year.
A review of the major theories of learning based on animal and human research.
Prerequisites: PSY 1313, 1323 or consent of instructor.

## PSY 5333 THEORIES OF PERSONALITY

Twice per year
A study of the development, structure, and assessment of personality with a consideration of the major theoretical attempts to account for the psychological nature and the behavior of man. A research project and supporting specialized readings will be emphasized.
Prerequisite: 6 semester hours of Psychology.

## PSY 5355 PSYCHOLOGY AND MYTHOLOGY

Fall, odd years
This course will study the impact and interrelationships of psychological thought and mythological theory. The impact of the theories of Freud, Adler, Jung, Levi-Strauss and others on mythology will be studied. May be counted as ANTH 4355.
Prevequisites: PSY 1323 or ANTH 1323 or ANTH 2353 or instructor's consent.

## PSY 6310 EXPERIENTIAL ASPECTS OF BEING BILINGUAL/BICULTURAL

Offered on Demand
A study of the experience of being Bilingual/Bicultural focusing on cultural and socio-economic factors, learning and other factors which directly and/or indirectly affect the relationship between the speech pathologist and bilingual/bicultural client. Emphasis is on the juxtaposition of empirical data to expand consciousness about the experience of being bilingual/bicultural. May be counted as Psy 6310 or Soc 6310.
Prerequisite: 9 hours of Psychology or Sociology or consent of instructor.

## Anthropology

## Full-time Faculty

Glazer, Mark* (Ph.D. Northwestern, 1973; prof.) folklore, anthropological theory
Trotter, Robert T. II* (Ph.D. Southern Methodist 1976; assoc. prof.) medical. anthropology, ethnopharmacology.
A minor is offered in Anthropology. The primary focus is on anthropology as a broadbased discipline, with special emphasis on cultural anthropology, physical anthropology, archaelogy, and folklore. Special topics courses are also available in advanced folklore, medical anthropology, and anthropological theory and methods. One graduate level course in Psychology and Mythology is offered.

## Minor in Anthropology:

18 semester hours in Anthropology, of which 6 hours must be advanced; must include ANTH 1323, 1324 , and 4345.

## Course Description

Anthropology<br>\section*{ANTH 1323 INTRODUCTORY CULTURAL ANTHROPOLOGY}<br>Fall<br>An introduction to cultural anthropology. Major aspects of culture (social orgánization, economics, religion, etc.), cultural patterns and socio-cultural change are emphasized. (Formerly SOC 2323, may not be repeated for credit.)

## ANTH 1324 HUMAN EVOLUTION

Fall
An introduction to human evolution, homonid morphology, human variation, and prehistoric development, a survey to the biological and cultural evolution of human beings to the present. (Formerly ANTH 1313 and 1413; may not be repeated for credit.)

## ANTH 2323 MEXICAN AMERICAN CULTURE

On demand
An introduction to the culture and tradition of Mexican Americans. The cultural history, organization of the family, traditions, lifestyle, kinship patterns, values, and social organization of Chicano culture will be emphasized.

## ANTH 2353 INTRODUCTION TO FOLKLORE

## Fall, Spring

General introduction into the field of folklore data including collection, preservation, analysis and interpretation according to the main social science theories of folklore. Emphasis on folk music, narrative, drama, art, medicine and material culture. Credit may not be received for both ANTH 2353 and SOC 2353.

[^23]
## ANTH 2371 AZTEC AND MAYA CIVILIZATION

## On demand

A review of the development of Aztec and Maya Civilization. The social organization, religion, mythology, family, folk life and archaeology of the Aztec and the Maya is covered in this course. Prerequisites: ANTH 1313 or 1323.

## ANTH 3345 RITUAL, BELLEF AND HEALING

## On demand

A socio-cultural analysis of existing medical systems. Both modern medical systems and folk medical systems will be discussed, with special emphasis on the current social science theories relating to health and human behavior. Credit may not be received for both ANTH 3345 and SOC 3345.

Prerequisite: Three hours of anthropology or sociology, or consent of instructor.

## ANTH 3375 MEXICAN AMERICAN FOLKLORE

## On demand

This course is designed to introdúce Mexican American folklore. The course includes the study of Chicano legends, folktales, riddles, folk music, ballads, and festivals. Students will also be trained to collect and archive folklore materials. Credit may not be received for both ANTH 3375 and SOC 3375.
Prerequisite: ANTH 2353 or consent of instructor.

## ANTH 4345 ANTHROPOLOGICAL THEORY AND METHODOLOGY

## On demand

Instruction in the methodology (interviewing, participant observation, network analysis, etc.) and theoretical perspectives of anthropology.
Prerequisite: Six hours of anthropology.

## ANTH 4353 FOLKLORE OF THE LOWER RIO GRANDE VALLEY

On demand
A field research approach to the folklore of the Valley. A review of the legends, fairy tales, ballads, proverbs, riddles, and folklife of the Lower Rio Grande Valley. Bilingual.
Prerequisite: ANTH 2353 or 3375.

## ANTH 4355 PSYCHOLOGY AND MYTHOLOGY

Fall, odd years
This course will study the impact and interrelationships of psychology thought and mythological theory. The impact of the theories of Freud, Adler, Jung, Levi-Strauss and others on mythology will be studied. May be counted as PSY 4355.
Prexequisites: PSY 1323 or ANTH 1323 or ANTH 2353 or instructor's consent.

## ANTH 4363 SPECIAL SOCIO-CULTURAL ISSUES

## On demand

Designed to give students experiences in significant socio-cultural issues. Projects and opportunities are varied according to student interest and availability of faculty. Sequential registration for up to nine hours is permitted as topics vary. (Formerly ANTH 4387, a maximum of 9 hours from ANTH 4363, 4387, 4388, 4389 and SOC 4387, 4388, 4389.)
Prerequisite: 9 hours of Anthropology or consent of instructor.

## ANTH 5355 PSYCHOLOGY AND MYTHOLOGY

Fall, odd years
This course will study the impact and interrelationships of psychology thought and mythological theory. The impact of the theories of Freud, Adler, Jung, Levi-Strauss and others on mythology will be studied. May be counted as PSY 4355.
Prerequisites: PSY 1323 or ANTH 1323 or ANTH 2353 or instructor's consent.

## Recreation

See Health, Physical Education and Recreation

# Department of School Administration and Supervision 

## Full-time Faculty

*Cannady, Alvin R. (Ed. D. Texas Tech 1973; prof.) administration and supervision
*Carlan, Carl (Ed. D. University of California at Berkeley 1972; assoc. prof.) administration and supervision
*Cunningham, Fred J. (Ed. D. Texas Tech 1964; prof.) administration and supervision
*Garcia, Peter A. (Ph.D. Oregon State University, 1970; prof.) Educational Administration
*Nichols, John C. (Ph.D. Texas 1967; prof.) Educational Administration
*Pulley, Jerry (Ed. D. Univ. of Missouri-Columbia 1968; prof.) administration and supervision
${ }^{*}$ Reeves, B.E. (Ed. D. Texas Tech 1965; prof.) administration and supervision
The Department of School Administration and Supervision offers the Master of Education Degree in elementary and secondary supervision and in school administration.
In addition to the supervisor certification and degree, a 45 semester hour program leading to the Middle Management certificate and a 60 hour school superintendent's certificate are also offered.

All students desiring to complete an M.Ed. program in the Department of School Administration and Supervision must meet minimum Graduate School and School of Education entrance requirements, complete an oral examination following the completion of twelve semester hours of graduate work, and pass a comprehensive written examination at the end of the program.

## Degree Certification Requirements: Supervision

## M. Ed. Degree in Supervision

The instructional supervisor is an integral part of the leadership team which manages the systems of public education in American society. The Masters degree program in supervision emphasizes the training of personnel for change-oriented supervision who are competent in such areas as curriculum improvement, leadership skills, instructional practices improvement, the selection and utilization of media and materials, and in planning and directing personnel development activities.

The thirty-nine hour program provides opportunities for several areas of specialization at both the elementary and secondary school levels.
It is recommended that the student complete the following courses prior to the oral examination: ED 6300, ED 6370, ED 6301, ED 6302 or PSY 5318. The Practicum, ED 6371 and ED 6379, should be the last six hours of the student's program.

Major: Supervision<br>Certificate Supervisor<br>(39 Hour Non-Thesis)

## LEADERSHIP FOR INSTRUCTIONAL IMPROVEMENT

Curriculum and Staff Development

| ED | 6330 | The Curriculum in the Elementary School |
| :--- | :---: | :--- |
| ED | or | 6331 | | The Curriculum in the Secondary School |
| :---: |
| ED | $\mathbf{6 3 3 4}$| Curriculum Development - Problems and |
| :---: |
| ED |
| Erocedures |

[^24]| Theory | and Practice of Instruction Leadership |  |
| :--- | :--- | :--- |
| ED | 6370 | Supervision of Instruction |
| ED | 6371 | Practicum in Supervision |
| ED | 6379 | Problems in Educational Supervision |

LEARNING THEORY AND INSTRUCTIONAL
TECHNOLOGY

| ED | 6301 | Instructional Media in Teaching |
| :--- | :--- | :--- |
| ED | 6302 | Advanced Educational Psychology or |

PSY 5318 Learning Theories

RESEARCH TOOLS
ED 6300 Introduction to Research
ED 6367. Statistical Methods
RESOURCE AREA
With approval of the advisor, the student will select graduate courses from such areas as: Elementary Education, Secondary Education, Bilingual/Bicultural Education, Reading, Early Childhood Education, Special Education, disciplines outside of Education, or professional development courses.

# Major: Supervision <br> Certificate: Supervisor <br> (36 Hour Thesis Program) 

LEADERSHIP FOR INSTRUCTIONAL IMPROVEMENT

Curriculum and Staff Development
ED 6330 The Curriculum in the Elementary School or

| ED | 6331 | The Curriculum in the Secondary School |
| :---: | :---: | :---: |
| ED | 6334 | Curriculum Development - Problems and <br> Process |

ED 6397 Analysis of Teaching Behavior
Theory and Practice of Instructional Leadership
ED $6370 \quad$ Supervision of Instruction
ED 6371 Practicum in Supervision.
ED 6379 Problems in Educational Supervision
LEARNING THEORY AND INSTRUCTIONAL TECHNOLOGY
ED 6302 Advanced Educational Psychology or PSY 5318 Learning Theories

RESEARCH TOOLS
ED 6300 Introduction to Research
ED 6367 Statistical Methods
ED 7300 Thesis (Problem Definition)
ED 7301 Thesis Completion
RESOURCE AREA
With approval of advisor, the student will select coursework from such areas as: Elementary Education, Secondary
Education, Bilingual/Bicultural Education, Reading, Early Childhood Education, Special Education, disciplines outside Education or professional development courses.

## Degree/Certification Requirements: Administration

The educational administrator's program is designed to produce change-oriented administrators who are competent in such areas as administrative leadership, school organization and management, school law, finance, and contemporary personnel practices.
A thirty-six hour M. Ed. program is offered. Upon the successful completion of an additional fifteen hours minimum in administration, the student may earn the Middle Management Certificate.
The endorsement for the Superintendent requires an additional, specified hours beyond the Middle Management Certificate.

Students desiring to enter either the degree or certificate programs in Educational Administration must meet admission and other requirements specified.

1. Admission Requirements:
a. Admission to the Graduate School.
b. A complete application for Admission to the Administrator's Program.
c. Approval by the Department of School Administration and Supervision Admissions Committee.
2. Master of Education Degree Program:

For the student who is interested in attaining a Master of Education Degree and at the same time have these courses count toward certification, the Department of School Administration and Supervision offers a 36 hour Master of Education Degree.
After obtaining the Master of Education Degree in Educational Administration, the student wishing to obtain certification must complete the appropriate program discussed below.
3. Certification Programs:
a. Middle Management Certification: For the student who already possesses a Master of Education degree and who is interested in obtaining a Professional Administrator's Certificate with Middle Management (Principal) endorsement, the Department offers a 45 hour minimum Certification Program.
b. School Superintendent: For the student who already possesses a Master of Education Degree and who wishes to obtain a Professional Administrator's Certificate with a School Superintendent endorsement, the Department of School Administration and Supervision offers the 60 hour Certification Program.
4. The Temporary Administrator's Certificate: Current certification regulations permit the issuance of a temporary certificate to persons being employed as administrators prior to their completing the requirements for full certification. This temporary certificate shall be valid for five years and cannot be renewed. Pan American University will recommend applicants for Temporary Administrator's Certificate if they meet the following criteria:
a. Assistant Principal

1. Holds a bachelor's degree
'2. Holds a Provisional Teacher's Certificate
2. Has two years of creditable classroom teaching experience.
3. Has a minimum of 12 graduate hours of Common Core required for the Professional Administrator's Certificate.
4. Has been approved by the Department of School Administration and Supervision Admissions Committee for the Administrator's Program.
5. Has been admitted to Graduate School.
6. Has completed application for the Temporary Administrator's Certificate.
7. Has obtained a Money Order or Cashier's Check for ten ( $\$ 10.00$ ) dollars.
b. Principal
8. Holds a master's degree.
9. Holds a Provisional Teacher's Certificate
10. Has two years of creditable classroom teaching experience.
11. Has a minimum of 12 graduate hours of the Common Core required for the Professional Administrator's Certificate.
12. Has been approved by the Department of School Administration and Supervision Admissions Committee for the Administrator's Program.
13. Has been admitted to Graduate School.
14. Has completed application for the Temporary Administrator's Certificate.
15. Has obtained a Money Order or Cashier's Check for ten ( $\$ 10.00$ ) dollars.
c. Superintendent
16. Holds a Professional Administrator's Certificate.
17. Has been approved by the Department of School Administration and Supervision Admissions Committee for the Superintendent's Program.
18. Has been admitted to Graduate School.
19. Has completed application for the Temporary Administrator's Certificate.
20. Has obtained a Money Order or Cashier's Check for $\$ 10.00$.

## Educational Administration Certification Program (36 Hour Program)

## Major:

Educational Administration
EDUCATIONAL RESEARCH
ED 6300* Introduction to Research
ED 6367 Statistics
COMMON CORE
ED $6330 \quad$ Elementary Curriculum

ED 6331 Secondary Curriculum

| ED | $6384^{*}$ | Introduction to Educational Administration |
| :--- | :--- | :--- |
| ED | 6370 | Supervision of Instruction |

Three hours from:
ED 6385 School Law
ED 6389 Administration of School Business Services
ED 6334 Curriculum Development
RESOURCE AREA
Required for M. Ed.: Human Relations and Communication

| ED | 6364 | Consulting in Human Relations |
| :---: | :---: | :---: |
| ED | or |  |
|  | 6317 | Administrative Communications |

ED 6317
Choice of 3 hrs . from Multi-Cultural Component:
ED 6388 Socio-Cultural Foundations of Education or
SOC 5313 American Minorities or
SOC 5323 The Mexican Americans
Choice of 3 hrs. from:
GOVT 5367 The American Judiciary Process or
MANA 6361 Management Theory and Organization
Behavior or
PSY 5318 Learning Theory or
ED 6369 Educational Data Processing
SPECIALIZED PREPARATION IN ADMINISTRATION
Required for M. Ed.
ED 6337 Administration of Special Instructional Programs
ED 6338 The School Principalship
Select 3-9 hours from:
ED 6381 Problems in Organization and Administration of Public Schools
ED 6386 Administration of Pupil Personnel Services
ED 6393 The Administration of Staff Personnel
ED 6394 Psychology of Decision-Making
ED 6397 The Analysis of Teaching
ED 6336 Problems in Education
Select 0-3 hours from:
ED 6308 Foundations of Reading Instruction
ED 5351 Teaching Reading to the Secondary Student

# Educational Administration Certification Program <br> Middle Management Certificate 

COMMON CORE
(18 hours)

| ED | 6330 | Elementary Curriculum |
| :--- | :---: | :--- |
|  | or |  |
| ED | 6331 | Secondary Curriculum |
| ED | $6384^{*}$ | Introduction to Educational Administration |
| ED | 6370 | Supervision of Instruction |
| ED | 6385 | School Law |
| ED | 6389 | Administration of School Business Services |
| ED | 6334 | Curriculum Development |

RESOURCE AREA
Human Relations and Communication Component (9 hours)

Human Relations and Communication Component
ED 6364 Consulting in Human Relations
or
GENB 6317 Administrative Communications
Multi-Cultural Component - choice of 3 hours from:
ED 6388 Socio-Cultural Foundations of Education or
SOC 5313 American Minorities or
SOC 5323 The Mexican Americans
Choice of 3 hours from:
GOVT 5367 The American Judiciary Process or
MANA 6361 Management Theory and Organization
Behavior or
PSY 5318 Learning Theory or
ED 6369 Educational Data Processing
SPECIALIZED PREPARATION FOR ADMINISTRATION ( 18 hours)
Required:

TOTAL
45 hours

# Educational Administration Certification Program <br> (60 Hour Program) 

Major:
Educational Administration

| COMMON CORE |  |  |
| :--- | :---: | :--- |
| ED | 6330 | Elementary Curriculum |
|  | or |  |
| ED | 6331 | Secondary Curriculum |
| ED | 6384 | Introduction to Educational Administration |
| ED | 6370 | Supervision of Instruction |
| ED | 6385 | School Law |
| ED | 6389 | Administration of School Business Services |
| ED | 6334 | Curriculum Development |

[^25]| RESOURCE AREA |  | (9. hours) |
| :---: | :---: | :---: |
| Human Relations and Communication Compon |  |  |
| ED 6364 | Consulting in Human Relations |  |
| or |  |  |
| GENB 6317 | Administrative Communications |  |
| Multi-Cultural Component - choice of 3 hours from. | Component - choice of 3 hours from: |  |
| ED 6388 | Socio-Cultural Foundations of Education or |  |
| SOC 5313 | American Minorities or |  |
| SOC 5323 | The Mexican Americans |  |
| Choice of 3 hours from: |  |  |
| GOVT 5367 | The American Judiciary Process or |  |
| MANA 6361 | Management Theory and Organization Behavior or |  |
| PSY 5318 | Learning Theory or |  |
| ED 6369 | Educational Data Processing |  |
| Or other graduate level courses to provide breadth and understanding of the role of the professional administrator must have consent of major advisor. |  |  |
| SPECIALIZED PRRequired: | PREPARATION FOR ADMINISTRATION | (18 hours) |
|  |  |  |
| ED 6337 | Administration of Special Instruction Program |  |
| ED 6338 | The School Principalship |  |
| ED 6398 | Internship in Middle Management |  |
| Select 6-9 hours from: |  |  |
| ED 6381 P | Problems in Organization and Administration of Public Schools |  |
| ED 6386 | Administration of Pupil Personnel Services |  |
| ED 6393 | The Administration of Staff Personnel |  |
| ED 6394 | Psychology of Decision-Making |  |
| ED 6397 | The Analysis of Teaching |  |
| ED 6336 | Problems in Education |  |
| Select 0-3 hours from: |  |  |
| ED 6308 | Foundations of Reading Instruction |  |
| ED 5351 | Teaching Reading to the Secondary Student |  |
| SUPERINTENDEN | ENT ENDORSEMENT | (15 hours) |
| ED 7310 | Administration of School Facilities |  |
| ED 7312 S | Social-political Problems and the Superintendency |  |
| ED 7313 | Internship for the Superintendent |  |
| ED 7314 | The Superintendency |  |
| ED 7315 | Texas School Finance |  |
|  | TOTAL | 60 hours |
| Course Desc | scriptions |  |

## ED 6330 THE CURRICULUM IN THE ELEMENTARY SCHOOL

Spring, Summer
Development of the elementary school curriculum, significant factors which help to determine the curriculum and implications of research in curriculum construction are studied. Opportunity to select and organize appropriate learning experiences for the different levels is offered.

## ED 6331 THE CURRICULUM IN THE SECONDARY SCHOOL

## Fall, Summer

An overview of theories, principles and issues in curriculum planning for modern educational experience. In addition to an examination of current curricular practices, particular emphasis will be placed upon promising research ideas and local efforts toward improvement in the secondary school.

## ED 6334 CURRICULUM DEVELOPMENT - PROBLEMS AND PROCESSES

Fall, Spring, Summer
The examination of systematic approaches to developing and evaluating elementary and secondary school curriculums at the national, state, local school district and campus levels. Methods of developing and applying criteria for curriculum analysis of each of the major curriculum areas to be studied.
Prerequisite: ED 6330, ED 6331, or equivalent.

## ED 6336 PROBLEMS IN EDUCATION

Fall, Spring, Summer
This course's major emphasis is on current innovations in education. Students will conduct research related to selected problems. Experiences of the student may include conducting action research, working with educational determinants; new education programs, and/or working with classroom teachers and other persons in the community in order to improve the education program. Credit may be applied toward the graduate programs in education when the appropriate problem is chosen by the student. This course may be repeated once for credit.

## ED 6337 ADMINISTRATION OF SPECIAL INSTRUCTIONAL PROGRAMS

## Fall, Spring, Summer

Emphasis is placed on the administration of special elementary and secondary school programs including: career, vocational, technical, special, compensatory, and reading education.
ED 6338 THE PRINCIPALSHIP

## Fall, Spring, Summer

A study of the unique functions of the principalship as they relate to the administration of elementary, middle, junior, and secondary schools. Special emphasis will be focused on the leadership role of the principal in the management and instructional aspects of the school programs.

## ED 6369 EDUCATIONAL DATA PROCESSING

## Fall, Spring

Survey of data processing applications to student accounting, grade reporting and payroll; a study of model data processing programs available go streamline public school management problems.

## ED 6370 SUPERVISION OF INSTRUCTION

Fall, Spring, Summer
Fundamental problems of the supervision of instruction in the small and moderately sized public schools; the nature and organization of supervision, supervisory plans and principles; teacher participation in forming education policies; effort of recent educational practices upon supervision; duties, relationships and training of supervisory officials; standards for judging teachers; methods of improving instruction; case studies in supervision; the use of conferences, teacher's meetings, demonstration teaching, visitation and research studies as supervisory agencies.

## ED 6371 PRACTICUM IN SUPERVISION

Fall, Spring, Summer
Actual experiences in supervisory methods and practices for the elementary school and secondary school supervisor. Teacher rating scales, in-service programs and staff development processes will be analyzed and implemented by each participant. A strong focus clinical supervision. Prerequisite: ED 6370.

## ED 6379 PROBLEMS IN EDUCATIONAL SUPERVISION

Fall, Spring, Sumper
Each participant will define and resolve a supervisory problem in his specific area of interest. Each participant will be directed in his study by a graduate faculty member and a formal research paper dealing with a specific supervisory problem will be required.
Prerequisite: ED 6370.

## ED 6381 PROBLEMS IN ORGANIZATION AND ADMINISTRATION OF PUBLIC SCHOOLS <br> Fall, Summer <br> Research, readings and thorough study of the organization and administration of elementary and secondary schools; a careful analysis of the role of middle management personnel in the improvement of instruction; an analysis of administrative function and leadership style will be emphasized.

## ED 6384 INTRODUCTION TO EDUCATIONAL ADMINISTRATION

Fall, Spring, Summer
An overview of public school administration introducing such topics as: processes of organization and administration, instructional personnel and staff, finance, leadership roles, curriculum, physical plant operation, maintenance and legal aspects.

## ED 6385 PUBLIC SCHOOL LAW

Fall, Spring, Summer
Constitutional provisions, statutory laws, court decisions, torts and regulations governing public schools with special reference to their influence upon the administration and function of public schools.

## ED 6386 ADMINISTRATION OF PUPIL PERSONNEL SERVICES

Spring, Summer
A problem approach to the understanding, development and management of special pupil services of concern to the teacher, counselor, supervisor, and administrator.

## ED 6389 ADMINISTRATION AND ORGANIZATION OF SCHOOL BUSINESS SERVICES <br> Fall, Spring, Summer <br> Principles and procedures of developing and managing a sound financial plan for local school districts with emphasis upon Texas Education Agency financial and accounting procedures. Emphasis upon school law, taxation, property management, and maintenance, school transportation and management of business personnel.

## ED 6393 ADMINISTRATION OF SCHOOL STAFF PERSONNEL

Fall, Spring
Analysis of personnel organization, administration and function in school systems; relationships of various school positions; a study of ethics, welfare, security and professional improvement.

## ED 6394 PSYCHOLOGY OF DECISION MAKING

## Spring, Summer

Analysis of skills and techniques needed by an effective administrator in the modern school; emphasis upon synergistic leadership, teacher-administrator relationships, group processes and group dynamics and the assessment of administrative performance.

## ED 6397 ANALYSIS OF TEACHING BEHAVIOR

Fall, Spring, Summer
Methods of gathering, analyzing and interpreting data in leadership conferences with student teachers, interns and professional teachers; the application of technology in the evaluation and supervision of classroom teaching; the development of skills to demonstrate effective behavior.

## ED 6398 INTERNSHIP IN MIDDLE MANAGEMENT

## Fall, Spring, Summer

A field-based course in which students practice competencies and theories acquired as they assume responsibilities associated with the middle management positions in local school districts.

## ED 7300 THESIS <br> Fall, Spring, Summer <br> ED 7301 THESIS <br> Fall, Spring, Summer

## ED 7310 ADMINISTRATION OF SCHOOL FACILITIES

## Fall, Summer

A study of operation, utilization and maintenance of physical plant; determination of facilities needs; planning building programs and school plant development.

## ED 7312 SOCIAL-POLITICAL PROBLEMS AND THE SUPERINTENDENCY

## Fall, Summer

An analysis of the interrelationships of the local districts with other local political subdivisions; a study of the impact of power structures upon local education; a review of the influence of professional and non-professional organizations upon educational decision making; and an analysis of the influence of the power structures upon educational decisions.

## ED 7313 INTERNSHIP FOR THE SUPERINTENDENT

## Fall, Spring, Summer

Designed to give prospective school superintendents on-the-job experiences under the guidance of an experienced, practicing public school administrator and under the supervision of a member of the university staff.

## ED 7314 THE SUPERINTENDENCY

Spring, Summer
A study of the unique role of the school superintendent. Attention will be given to policy development, staff/superintendent/board relations, school transportation, accreditation, human relations, and collective negotiations.

## ED 7315 TEXAS SCHOOL FINANCE

## Spring, Summer

A study of Texas public school finance as mandated by the several sub-segments of the Texas. Education Agency. Financial aspects of all segments of TEA will be reviewed; selected emphasis will be stressed on several major programs under the agency.

# Department of School Services and Counseling 

Dr. Ana Maria Rodriguez, Chair

## Full-time Faculty

*Alvarado, Victor (Ed.D., Western Michigan University, 1976; assoc. prof.) Educational Leadership; Guidance and Counseling
*Burns, Jo Ann (Ph.D., University of Oklahoma, 1979; assist. prof.), Special Education and Educational Psychology
*Carlson, Ralph (Ph.D., University of Houston, 1974; assoc. prof.) Special Educational and Psychology (Quantitative Methods)
*Harris, Jack (Ph.D., University of Houston, 1968; assoc. prof.) Special Education
*Linskey, Arthur Owen (Ph:D., University of North Carolina, 1957; assoc. prof.) Guidance and Counseling and Educational Psychology
*Reeve, Robert (Ph.D., Florida State, 1965; prof.) Science Education, Biology, Educational Research
*Rodriguez, Ana Maria (Ed.D., University of Houston, 1976; assist. prof.) Guidance and Counseling
*Smith, George W. (Ed.D., Texas Tech., 1969; assoc. prof.) Guidance and Counseling
The Department of School Services and Counseling offers an undergraduate area of specialization (minor) in elementary and secondary Generic Special Education. It also offers the Master of Education degree with specialization in elementary and secondary (all-level) Educational Diagnostician, and Guidance and Counseling. Endorsements in Mental Retardation, Learning Disabilities, Emotionally Disturbed, and Early Childhood for Exceptional Children are also offered by the Department.

A second very important focus for the Department is the coordination of all studies which are generic or core to all undergraduate and graduate degree programs. These includes studies in Measurement, Statistics, Research, Educational Psychology, History and Philosophy of Education, Multicultural Education, Child Growth and. Development, Adolescent Educational Psychology, Human Growth and Development, and Educational Technology.

## UC/GE Requirements for Teacher Education Majors

Students pursuing a Bachelor of Science degree in Elementary or Secondary Education and teacher certification are required to take the following courses in the UC/GE requirements as specified by the State Board of Education and the Texas Education Agency:

English 1301, 1302
English - Sophomore Literature'- 6 sem. hrs.
Language Other Than English - 6 sem. hrs.
Communication 1303
Math 1335, 2306, 2307
Science -8 sem. hrs:
Biol. 1405 and 1406 or PSCI. 1411 and 1412
Computer Science 1301
History 2313, 2314
Political Science 2313, 2314
6 semester hours from:
Art 3381
Music 3311
Philosophy 1310, 1320, 2330, 2380
Six semester hours from 2 of the following 4 areas:
Anthropology 1313, 1323, 2323, 2353
Economics 1301, 2353
Psychology 1313, 1323
Sociology 1313, 1323, 2353

[^26]Minor in Generic Special Education for Elementary Education Majors:
Professional Development and Methodology courses for Elementary Education Majors:

| ED | 3302 | Educational Psychology |
| :---: | :---: | :---: |
| ED | 3311 | Child Growth and Development |
| ED | 3323 | Developmental Reading in the Elementary School |
| ED | 3325 | Functional Reading and Study Skills in the Elementary School |
| ED | 3328 | Teaching Arithmetic |
| Six hours from: |  |  |
| ED | 3313 | Children's Literature |
| ED | 3321 | Teaching Language Arts |
| ED | 3326 | Teaching Elementary Science |
| Six hours from: |  |  |
| ED | 3301 | Instructional Technology |
| ED | 3303 | Education: Past and Present |
| ED | 3305 | Foundations of Cross Cultural Education |
| ED | 3312 | Tests and Measurements |
| Three hours from: |  |  |
| ED | 3322 | Teaching the Bilingual Child |
| ED | 3324 | Teaching English as a Second Language |
| ED | 3329 | Correcting Reading Problems |

ED 4311 and ED 4313 Directed Teaching
Generic Special Education Minor:

| ED | 1305 | Introduction to Special Education |
| :--- | :---: | :--- |
| ED | 2304 | Field Experiences in Special Education |
| ED | 4301 | Language Development |
| ED | 4302 | Perceptual Motor Development |
| ED | 4303 | Individualized Instruction |
| ED | 4309 | Practicum in Generic Special Education <br> Teaching |
| ED | 4371 | Informal Assessment for Special Education <br> Teachers |
| ED | 4372 | Exceptional Children |

## Directed Teaching Requirements for Generic Special Education

A student majoring in Elementary or Secondary Education and minoring in Generic Special Education must complete one-half of his/her student teaching semester in an elementary or secondary classroom and one-half in a special education classroom. The following requirements must be met by students entering student teaching:

1. English 1301 and 1302 completed with a minimum of " $C$ " in each course.
2. Have completed at least $3 / 4$ semester hours in major with 2.25 grade point average.
3. Have completed at least $1 / 2$ semester hours required in the minor with a 2.25 grade point average. If the student is to teach in his minor field, he must have completed $3 / 4$ of the semester hours in the minor.
4. The General Education requirements must be completed. (If no more than 6 semester hours are incomplete a department head may choose to conditionally admit a prospect.)
5. At least 90 semester hours of college work completed.
6. Satisfactory completion of: Ed. 1305, 2304, 4301 or 4302, 4303, 4309, 4371 or 4372.

## Endorsement in Special Education:

Teaching the Mentally Retarded:

1. Texas Teaching Certificate
2. Twelve (12) semester hours: Ed. 4371, Ed. 4372, Ed. 4373, Ed. 4374
3. 2.25 GPA in the twelve (12) hours

## Learning Disabilities:

1. Texas Teaching Certificate
2. Fifteen (15) semester hours:
a. Undergraduate

Ed. 4301 or Ed. 4302, Ed. 4303, Ed. 4372, Ed. 4378, Psy. 4318
b. Graduate

Psy. 5318, Ed. 5372, Ed. 6316, Ed. 6317, Ed. 6318
3. 2.25 GPA in the fifteen (15) hours

Teaching the Emotionally Disturbed:

1. Texas Teaching Certificate
2. Fifteen (15) semester hours: Ed. 5372, Ed. 6376, Ed. 6374, and Ed. 6605
3. 2.25 GPA in the fifteen (15) hours

Early Childhood for Exceptional Children:

1. Texas Teaching Certificate
2. Twelve (12) semester hours: Ed. 4390, Ed. 4371, Ed. 4372, Ed. 4391
3. 2.25 GPA in the twelve (12) hours

## Graduate Program

## M.Ed Degree in Guidance and Counseling

The counselor is an integral part of the supportive services in public school education who serves to facilitate the growth and learning of students. The counselor, upon completion of the thirty-nine hour M.Ed in Counseling and Guidance, should have competencies in (1) Planning, Organization, and Evaluation, (2) Individual and Group Counseling, (3) Consultation, and (4) Coordination.
Students need to take the following courses in sequence within the first twelve (12) to eighteen (18) semester hours of the program and prior to taking the oral examination: ED 6300, ED 6302, ED 6360, ED 6363, and ED 6362.
The following is the program for M.Ed Degree with specialization in elementary and secondary Guidance and Counseling:

## Master of Education Degree 39 Hour Thesis Program



| ED | 6367 | Statistical Methods |  |
| :--- | :--- | :--- | :--- |
| ED | 6370 | Supervision of Instruction |  |
| ED | 6386 | Administration of Pupil Personnel Services |  |
| ED | 6393 | Administration of School Staff Personnel |  |
| ED | 6394 | Psychology of Decision Making |  |
| ED | 6397 | Analysis of Teaching Behavior |  |
| PSY | 5313 | Abnormal Psychology |  |
| PSY | 5318 | Learning Theories |  |
| PSY | 5333 | Theories of Personality |  |
| SOC | 5313 | American Minorities |  |
| THESIS |  |  |  |
| ED | 7300, | 7301 Thesis | (6 hours) |
| DEGREE REQUIREMENTS |  |  |  |
| ED | 6312 | Educational Measurement | (6 hours) |
| ED | 6300 | Introduction to Research |  |
|  |  |  |  |

## Master of Education Degree <br> 39 Hours Non-Thesis Program



| Master of Education Degree |  |
| :--- | :--- |
| 39 Hour Thesis Program | Certificate |
| Counselor |  |



| ED | 6341 | Advanced Adolescent Psychology |  |
| :--- | :--- | :--- | :--- |
| ED | 6342 | Problems in Guidance and Counseling |  |
| ED | 6364 | Consulting in Human Relations |  |
| ED | 6366 | Problems in Testing and Counseling |  |
| ED | 6367 | Statistical Methods |  |
| ED | 6370 | Supervision of Instruction |  |
| ED | 6383 | Seminar in School and Community Relations |  |
| ED | 6386 | Administration of Pupil Personnel Services |  |
| ED | 6393 | Administration of School Staff Personnel |  |
| ED | 6394 | Psychology of Decision Making |  |
| ED | 6397 | Analysis of Teaching Behavior |  |
| PSY | 5313 | Abnormal Psychology |  |
| PSY | 5318 | Learning Theories |  |
| PSY | 5333 | Theories of Personality |  |
| SOC | 5313 | American Minorities |  |
| DEGREE REQUIREMENTS |  |  |  |
| ED | 6300 | Introduction to Research |  |
| ED | 5342 | Tests \& Measurements |  |
|  |  |  |  |
|  |  |  |  |

## M.Ed Degree in Educational Diagnostician

The primary purpose of the educational diagnostician is to serve on the appraisal team with responsibility in the appraisal of educational functioning, the appraisal of intelligence factors, the collection and analysis of data pertaining to sociological variables, and may assist in compiling information from various appraisal sources.
The M.Ed Degree in Educational Diagnostician provides an opportunity for the student to develop skills in this area.

The following is the program for M.Ed Degree in elementary and secondary Educational Diagnostician:

## Master of Education Degree

The student is responsible for checking with the Director of Special Education for specific departmental requirements.


[^27]

[^28]
## Course Descriptions Additional courses may be found in other Education Departments

## ED 1302 INTRODUCTION TO EDUCATIONAL PSYCHOLOGY

 On DemandPsychological principles basic to professional education will be stressed. The ability to understand children at all levels of the school along with the personal growth of the prospective teacher will be considered. Does not count toward certification.

## ED 1305 INTRODUCTION TO SPECIAL EDUCATION

Fall, Spring
Overview to special education. Field experience in special education programs required. Emphasis is given to visiting, observing, and recording components and features public and private educational programs for handicapped people.

## ED 2301 INTRODUCTION TO CHILD DEVELOPMENT

Fall, Spring, Summer I
A study of the interrelationship of biological and environmental factors in the growth of the child from conception through pubertal cycle and the application of this knowledge in directing 'wholesome personality development. Students who have taken ED 3311 Child Growth and Development, may not take this course for credit. It is desirable though not mandatory, that students shall already have taken PSY 2313, Introduction toPsychology.

## ED 2304 FIELD EXPERIENCES IN SPECIAL EDUCATION

## Fall, Spring

This course is designed to enhance the teaching perspective of the prospective special education teacher. Each student is expected to serve a minimum of three (3) hours per week as an aide to a special education teacher in a private or public school setting.
Prerequisite: ED 1305.

## ED 3301 INSTRUCTIONAL TECHNOLOGY

Fall, Spring, Summer I, II
This course deals with modern instructional technology as it relates to the teaching-learning process. It includes instructional strategies and the use of instructional media best suited for group or individualized learning situations involving audio, visual, video, and computer systems. This course is designed to have students develop and use instruction media as an alternative to and a supplement to the traditional lecture - textbook learning. Dual listed with ED S 3301.

## ED 3302 EDUCATIONAL PSYCHOLOGY

Fall, Spring, Summer I, II
A detailed approach to the application of modern psychological principles to teaching-learning situations. Satisfies advanced professional requirements for Elementary school majors.

## ED 3303 EDUCATION: PAST AND PRESENT

Fall, Spring, Summer I, II
A study of the history and philosophy of education includes the development of philosophical thought and practice in western education from a historical and current perspective. Additional emphasis is placed on helping students develop and clarify their professional philosophies. Dual listed with ED S 3303.

## ED 3305 FOUNDATHONS OF CROSS-CULTURAL EDUCATION

Fall, Spring, Summer I, II

- An anthropological investigation of historical and philosophical factors in education which have applications across cultures and subcultures. Special consideration will be given to the MexicanAmerican cultural setting.


## ED 3311 CHILD GROWTH AND DEVELOPMENT

Fall, Spring, Summer I, II
This course presents a general view of the physical, emotional, social and mental development of children from prenatal life to the adolescent period. Special emphasis is given to the interrelatedness of these four aspects of development with a view toward helping parents and teachers to understand better and to guide the growth and development of the child through the pre-elementary school years.

## ED 3312 TESTING, MEASUREMENT AND GUIDANCE - ELEMENTARY

Fall, Spring, Summer I, II
This course emphasizes the role of the teacher in the evaluation and guidance of children in the modern elementary school. Construction, administration, interpretation and application of results of evaluation devices will be studied as they apply to directing learning and behavior in classroom situations.

ED 3322 TEACHING THE BILINGUAL CHILD
Fall, Spring, Summer I, II
Designed for teachers in primary and elementary grades. A study of the cultural, socio-economic and psychological factors which influence the bilingual child. Covers the rationale, state plan for bilingual education, the relationship between language familarity and reading, diagnosing of language competence, and planning instruction to demonstrated needs. Development of techniques and materials for bringing pupil language competence to a point where growth in reading and written expression is facilitated.

## ED 4301 PERCEFTION AND LANGUAGE DEVELOPMENT

Fall, Summer I
This course is designed to help the student develop competencies in the knowledge of both visual and auditory perception and how it relates to the development of language. Theories of linguists as well as those of psychologists are compared. The student will be introduced to the psycholinguistic processes which characterize communication in the classroom.
ED 4302 PERCEPTUAL MOTOR DEVELOPMENT
Fall, Summer I
A course designed to provide the student opportunity to study the effects of perceptual-motor aspects of development. Comparative studies of sensori-motor theories will be emphasized and remediation using perceptual-motor activities will be covered. The student will have the opportunity to observe and work with children who have perceptual motor deficits.

## ED 4303 INDIVIDUALIZED TEACHING FOR GENERIC SPECIAL EDUCATION

 Spring, Summer IIA course designed to enable a teacher to interpret all psychological and academic profiles of children and youth for the purpose of individualizing instruction. The course will provide profiles of actual cases for study. Demonstration of competency will be required.
ED 4309 PRACTICUM IN GENERIC SPECIAL EDUCATION TEACHING Fall, Spring
This course is designed to give students minoring in generic special education an opportunity to demonstrate teaching competencies such as: (1) developing and writing, behavioral objectives, (2) selecting appropriate multi-sensory teaching aids and procedures that support objectives, (3) using a teacher aide efficiently, (4) utilizing effective behavior management principles and techniques, and (5) evaluating the effectiveness of instruction in a classroom setting. Prerequisite: ED 1305, ED 2304, and nine (9) hours advanced special education.

## ED 4308 TEACHING THE ORTHOPEDICALLY HANDICAPPED

On Demand
A course designed to familiarize the student with the specialized techniques and materials to be used with the orthopedically handicapped. Curriculum programming for young children through adolescence will be required along with field observation and field trips to facilities for the handicapped.
Prerequisite: ED 4372.

## ED 4313 DIRECTED TEACHING-GENERIC SPECIAL EDUCATION

Fall, Spring
(Students must also be enrolled in ED 4311.) This language learning disabilities course must be taken by all undergraduate student teachers working toward a special education endorsement for teaching the language/learning disabled child. Course requires observation and experiences in a public school L/LD classroom for $1 / 2$ day Monday through Friday, $1 / 2$ a semester. This work is done under the direction of a fully certified teacher of the class to which the student is assigned. Periodic observations and evaluations will be done by the course instructor. Weekly seminars and individual conferences are a required part of the course.
Prerequisite: Approval by the Teacher Education Committee.

## ED 4319 EDUCATIONAL PSYCHOLOGY APPLIED TO THE BILINGUAL CLASSROOM

 On DemandA course designed to develop the basic competencies needed to guide the learning experiences of children whose language, attitudes, and customs are significantly different from those of children in the dominant national culture. Such competencies include (1) understanding of growth and development of children, the teaching-learning process, concept development, first and second language acquisitions and development, and the child's world of feelings; (2) unconditional positive regard for all children; (3) effective skills in evaluating, guiding, and instructing culturally different children. May be taken for post-graduate credit only.

## ED 4321 INTRODUCTION TO CAREER EDUCATION

On Demand
The course includes the definition and rationale for career education as a comprehensive, sequential program beginning in early childhood and continuing through the adult years. Emphasis upon utilizing the content of basic subjects, $\mathrm{K}-12$, to focus attention on career opportunities and requirements in the world of work.

## - <br> ED 4322 DIRECTED TEACHING EMOTIONALLY DISTURBED On Demand

(Students must also be enrolled in ED 4311.) This course must be taken by all undergraduate student teachers working toward a special education endorsement for teaching the emotionally disturbed child. Course requires observation and teaching experiences in a public school ED. classroom for $1 / 2$ day, Monday through Friday, $1 / 2$ a semester. This work is done under the direction of a fully certified teacher of the class to which the student is assigned. Periodic. observations and evaluations will be done by the course instructor. Weekly seminars and individual conferences are a required part of the course.
Prevequisite: Approval by the Teacher Education Committee.
ED 4323 DIRECTED TEACHING - MENTALLY RETARDED
On Demand
(Students must also be enrolled in ED. 4311.) This course must be taken by all undergraduate student teachers working toward a special education endorsement for teaching the mentally retarded child. Course requires observation and teaching experiences in a public school MR classroom for $1 / 2$ day, Monday through Friday, $1 / 2$ a semester. This work is done under the direction of a fully certified teacher of the class to which the student is assigned. Periodic observations and evaluations will be done by the course instructor. Weekly seminars and individual conferences are a required part of the course.
Prerequisite: Approval by the Teacher Education Committee.
ED 4371 INFORMAL ASSESSMENT FOR SPECIAL EDUCATION TEACHERS Spring, Summer II
The goals of this course are: To assess with standardized and informal instruments the learning strengths and weaknesses of young children; to demonstrate proficiency in administration, scoring and interpretation of standardized and informal instruments; and to acquire knowledge of the appraisal procedures under Plan A.

## ED 4372 EXCEPTIONAL CHILDREN

Fall, Summer I
A survey course which includes discussion of the history and the philosophy of special education, diagnostic techniques, equipment and buildings, methods of teaching and therapy and administrative procedures will be discussed. Emphasis is given to the Texas plan of special education along with the study of further needs. Field trips may be required.

## ED 4373 TEACHING MENTALLY RETARDED CHILDREN

Summer
Problems and methods in teaching mentally retarded children. The course is designed for those interested in teaching mentally retarded children. Classroom experiences will be emphasized with some consideration of related problems.

## ED 4374 PSYCHOLOGY OF MENTAL RETARDATION

Summer
This course is desigrred for those who are especially interested in the problems of mental retardation. Emphasis will be placed on psychological problems including diagnostics of the social growth and development of the mentally retarded person.

## ED 4378 TEACHING THE NEUROLOGICALLY HANDICAPPED AND LEARNING DISABLED <br> Summer

This course provides the students with the opportunity to become competent in knowledge concerning the characteristics and needs of children with cerebral disfunction. Methods and techniques in psycholinguistics and perceptual motor activities will be studied. Actual observation and work with L/LD children will be required.
Prerequisite: ED 4301 or ED 4302, ED 4303, ED 4372 or permission of instructor.

## ED 4390 GROWTH AND DEVELOPMENT OF YOUNG CHILDREN

Fall, Summer I
Emphasis on developmental tasks and growth characteristics from birth through the eighth year with emphasis on the 3,4 , and 5 year old. Emphasis on physical, intellectual, social and emotional development, lectures, readings, class participation, observation.

## ED 4393 TEACHING YOUNG CHILDREN OF DIVERSE CULTURES

Spring, On Demand
A study and evaluation of methods and techniques used to further the cognitive and linguistic development of young children from diverse cultures. Lectures, readings, class participation and projects, observation.

## ED 5308 PROBLEMS IN TEACHING THE ORTHOPEDICALLY HANDICAPPED On Demand

A study of the interrelationship of biological, social and environmental factors governing the growth and development of handicapped children. Emphasis will be upon learning strategies and materials to be used with children with the handicapping condition of an orthopedic defect(s). Development of curricula, implementation and ongoing evaluation of the handicapped student will be stressed. Services for the handicapped child outside of the local education agency will be considered. Demonstration of competencies and contact situations with handicapped children will be required.
Prerequisite: ED 4372 or ED 5372.

## ED 5321 CAREER EDUCATION

On Demand
The course includes the definition and rationale for the concept of career education as a comprehensive program wherein the student's attention is focused on careers, beginning in early childhood and continuing throughout the adult years. Describes a sequentially developed education program offering career awareness, career exploration and job preparation for all students. For elementary and secondary, the program includes a structuring of basic subjects, grades K-12, around the theme of career opportunities and requirements in the world of work and emphasized the contribution that subject matter can make to a successful career.

## ED 5342 TESTS AND MEASUREMENTS FOR THE SECONDARY CLASSROOM TEACHER

 Fall, SpringThis course emphasizes the role of the teacher in (1) the selection and administration of standardized achievement and diagnostic tests and (2) the interpretation and use of test results in the classroom as they apply to directing learning in the classroom. Credit will not be given if ED 3342 or ED S 3305 has been taken.

## ED 5372 INDIVIDUAL DIFFERENCES: SURVEY AND TREATMENT

## Spring, Summer

A survey of all categories in exceptionality with special emphasis on school placement according to the Texas plan. Credit will not be granted for this course if ED 4372 has been taken.

## ED 5374 PSYCHOLOGY OF MENTAL RETARDATION SEMINAR

## Spring, Summer

This course is designed primarily for educational diagnosticians and other Plan A support personnel who are interested in an in-depth study of causes, symptoms and implications of mental retardation. A research paper is required regarding some aspect of the problem of mental retardation.

## ED 5390 ADVANCED STUDIES IN THE DEVELOPMENT OF YOUNG CHILDREN On Demand <br> Review of deyelopment of the child from birth to age 8 with foci roots of individuality, origins of behavior and formation of cognitive structures. Survey of early acquisition of language and information skills. Principal course emphasis: physical characteristics, modes of learning, management of emotion, self-identification and responsiveness to the demands of social living by children ages 3, 4 and 5. Course activities include observation and interaction with young children, projects, readings and lectures. Credit not offered for both ED 4390 and ED 5390.

## ED 5393 ADVANCED STUDIES OF CULTURAL DIVERSITY IN EARLY CHILDHOOD CENTERS

Spring, On Demand
Designed to investigate facets of cultural diversity in young children and its relationship to child growth and development, instructional competencies of teachers and home-school relationships.
ED 6100 SEMINAR IN COUNSELING AND GUIDANCE
Fall, Spring, Summer
The development of skills related to the helping profession represented through a series of six steps. Primarily for in-service with counselors and teachers. A student may receive from one (1) to six (6) semester hours credit.
Prerequisite: Permission of instructor.

## ED 6101 SEMINAR IN COUNSELING AND GUIDANCE

Fall, Spring, Summer
The development of skills related to the helping profession represented through a series of six steps. Primarily for in-service with courtselors and teachers. A student may receive from one (1) to six (6) semester hours credit.
Prerequisite: Permission of instructor.

## ED 6102 SEMINAR IN COUNSELING AND GUIDANCE

Fall, Spring, Summer
The development of skills related to the helping profession represented through a series of six steps. Primarily for in-service with counselors and teachers. A student may receive from one (1) to six (6) semester hours credit.
Prerequisite: Permission of Instructor.

## ED 6103 SEMINAR IN COUNSELING AND GUIDANCE

Fall, Spring, Summier
The development of skills related to the helping profession represented through a series of six steps. Primarily for in-service with counselors and teachers, A student may receive from one (1) to six (6) semester hours credit.
Prerequisite: Permission of Instructor.

## ED 6104 SEMINAR IN COUNSELING AND GUIDANCE

Fall, Spring, Summer
The development of skills related to the helping profession represented through a series of six steps. Primarily for in-service with counselors and teachers. A student may receive from one (1) to six (6) semester hours credit.
Prerequisite: Permission of Instructor.

ED 6105 SEMINAR IN COUNSELING AND GUIDANCE
Fall, Spring, Summer
The development of skills related to the helping profession represented through a series of six steps. Primarily for in-service with counselors and teachers. A student may receive from one (1) to six (6) semester hours credit.
Prerequisite: Permission of Instructor.

## ED 6300 - INTRODUCTION TO RESEARCH

Fall, Spring, Summer
A study of research methods in Education including settings which culminate in the successful completion of a research project/paper. Students will also demonstrate skills in the utilization of research facilities and will be introduced to graduate programs in Education.
Must be taken or be in progress when applying for orals.

## ED 6301 INSTRUCTIONAL MEDIA IN TEACHING

On Demand
An advanced course designed to provide students with skills, insight and practice in the selection, utilization, production and management of modern instructional tools. The course will be helpful to teachers and other persons desiring to direct instructional media centers in public schools.
Prerequisite: ED 3301, ED S 3301, or equivalent.
ED 6302 ADVANCED EDUCATIONAL PSYCHOLOGY
Fall, Spring, Summer I, II
A research approach to the areas of teaching and learning. Human learning, conditions for effective learning, interference with learning and behavioral objectives will be emphasized. Prerequisite: ED 3302 or equivalent.

## ED 6303 ADVANCED PHILOSOPHY OF EDUCATION

Fall
The development of American education in relation to political, social and cultural developments. Special attention is given to the influence of movements in the cultural environment upon evolving conceptions of educational theory and practice.

## ED 6311 ADVANCED CHILD PSYCHOLOGY

Spring
This is an advanced study of children from conception to puberty, or from the pre-school through the elementary level, with emphasis on the role played by maturation and learning. The course will include a study of recent research dealing with theories of cognitive unfolding and personality integration.
Prerequisite: ED 3311 or equivalent.

## ED 6312 EDUCATIONAL MEASUREMENT

Fall, Spring, Summer I
This course will cover three major types of measures: (1) norm reference measures; (2) criterion reference measures; and (3) observational procedures. Concepts to be emphasized are: scaling, sampling procedures, indexes of descriptive and inferential distributions, hypothesis testing, indexes of reliability and sources of error variance, indexes of validity, (content, predicative, construct, concurrent).
Prerequisite: ED 3312 or equivalent.

## ED 6313 INDIVIDUAL EDUCATIONAL TESTING

## Fall, Spring, Summer I

A practicum in the use of individual educational tests, such as the ITPA, Detroit Test of Learning Aptitude", The Durrell Sullivan Reading Test, Gates Reading Test, and Gray's Reading Test.

## ED 6314 INDIVIDUAL TESTING

Spring
Practice in administering and scoring the Wechsler Intelligence Scales for both elementary and secondary students. The WPPSI, WISC and the WAIS are included.
Prerequisite: ED 3312 or equivalent; also ED 5312 or ED 6367.

## ED 6316 DEVELOPMENT AND ASSESSMENT OF PSYCHOLINGUISTIC PROCESSES

 Fall, Summer IThe course is designed to acquaint the student with the physiologic mechanisms involved in the acquisition of speech and language and to define those social, psychological and perceptual aspects that contribute to the developmental language tasks appropriate for various chronological and mental age levels. The student will be guided toward an understanding of the relationship between aural and written language and social behavior. Observation of children will be included in the requirement.

## ED 6317 PERCEPTUAL MOTOR DEVELOPMENT IN YOUNG CHILDREN <br> Fall, Summer I

This course is intended to impart a knowledge of the perceptual processes and how they affect the motor development of the child. The tactual-kinesthetic (haptic), auditory and visual sense modalities will be defined and discussed separately and in relation to each other. Implications for classroom behavior and academic performance will be discussed. There will be opportunities for observation of children manifesting any one or combinations of perceptual deficits.

## ED 6318 DIAGNOSTIC AND PRESCRIPTIVE TEACHING

Spring, Summer II
This course is intended to enable the teacher to take all data - psychological, social and educational - and translate these into a course of action for herself and the child, including individualized selections of methods, materials and techniques. Criteria and procedures for ongoing evaluation will be an integral part of the course. Actual cases will be utilized and the student will have the opportunity to prepare diagnosis and develop educational prescriptions. Attention will be given to effective, meaningful reporting to other professionals as well as parents.
Prerequisite: ED 6316, ED 6317.
ED 6322 THE BILINGUAL CHILD
Fall, Spring, Summer II
A course designed to provide understanding of the problems and strenghts of the bilingual child with emphasis on the educational program of the multi-cultural, multi-ethnic elementary school.

## ED 6324 SECOND LANGUAGE TEACHING: THEORY AND METHODOLOGY

## Spring, Summer II

A study of the acquisition of languages by the bilingual learner, focusing on the role of the child, the community and the school through various stages of language development and the relationship of linguistic, cultural and conceptual processes within a bilingual/bicultural environment. The evaluation of language methods and materials as these relate to social context and the principles of communication will be stressed.

## ED 6336 PROBLEMS IN EDUCATION

Fall, Spring, Summer
This course's major emphasis is on current innovations in education. Students will conduct research related to selected problems. Experiences of the student may include conducting action research, working with educational determinants, new education programs, and/or working with classroom teachers and other persons in the community in order to improve the education program. Credit may be applied toward the graduate programs in education when the appropriate problem is chosen by the student. This course may be repeated once for credit.
ED 6341 ADVANCED ADOLESCENT PSYCHOLOGY
Fall, Summer
The history and systems of adolescent psychology applied to education. Modern theories and current research in learning and pupil motivation, especially in relation to new educational media and various aspects of the educative process.
Prerequisite: ED 3341, ED.S. 3302, or equivalent.

## ED 6342 PROBLEMS IN GUIDANCE

Fall, Spring, Summer
A course involving an individual study in program planning in guidance. The student will. present a paper which will be bound and placed in the library and in the office of counselor education.

## ED 6344 INDIVIDUAL MENTAL TESTING: STANFORD-BINET

Fall
Practice in administering and scoring, the Stanford-Binet intelligence test for both elementary and secondary students.
Prerequisite: ED 3313 or equivalent.

## ED 6345 EDUCATIONAL AND OCCUPATIONAL INFORMATION

Fall. Spring, Summer I
A survey and analysis of the processes of assisting the individual to choose an occupation, prepare for it, enter it, and progress in it. The course seeks to train leaders who can help individuals make decisions and choices involved in planning a future and building a career.

## ED 6346 HISTORY AND PRINCIPLES OF VOCATIONAL EDUCATION

 On DemandHistory and principles of current vocational education programs stressing nature, scope, purpose, development and socio-economic values.

## ED 6347 PLANNING AND ORGANIZING PROGRAMS OF VOCATIONAL GUIDANCE

 On DemandDevelopment of competencies related to planning and organizing appropriate vocational guidance programs. The study and implementation of methods and techniques of assessing vocational interests and aptitudes.
ED 6348 VOCATIONAL-STUDENT IDENTIFICATION, PLACEMENT AND FOLLOW-UP
On Demand
Development of competencies in assessing students' vocational aptitudes and interests and in
planning, organizing and coordinating placement and follow-up programs.

The study and implementation of basic techniques of counseling children with behavioral disorders. This course will emphasize the utilization of play media and systematic positive reinforcement to facilitate expression, self-understanding and personal growth. Observation and supervised experience in counseling sessions with children are an integral part of the course. Prerequisites: ED 6360, ED 6362, ED 6363 or permission of instructor.

## ED 6353 TEACHING THE DISADVANTAGED SECONDARY LEARNER

On Demand
The course will emphasize the problems experienced in teaching secondary school students that are educationally and/or culturally disadvantaged. Applicable techniques and materials useful in classroom situations will be studied.

## ED 6360 INTRODUCTION TO GUIDANCE AND COUNSELING

Fall. Spring, Summer I
Philosophy, principles, and current practices of pupil guidance as a function of education. Social, emotional, intellectual and attitudinal dimensions are explored. Group guidance as well as individual counseling techniques, as they apply through public schools, are considered through lectures, discussion and class participation.

## ED 6361 THE LANGUAGE/LEARNING DISABLED CHILD

## Summer

The student will acquire knowledge and theory regarding learning abilities and disabilities and acquire basic terminology in the field of psycho-educational evaluation. Experiences will include observation of children with various learning styles, participation on simulated ARD (Admission, Review and Dismissal) committees (as mandated under Plan A in Texas), and knowledge of procedures from referral techniques through dissemination of findings.

## ED 6362 THEORIES AND TECHNIQUES IN COUNSELING

Fall, Spring, Summer
A survey of the field of psycho-therapy, comparing the contributions of psychoanalysis, nondirective therapy and behavior therapy. Consideration will be given to such specialized approaches as group therapy, play therapy and family therapy. Arrangements will be made to visit local facilities utilizing a variety of these therapeutic techniques.
Prerequisite: ED 6360 and permission of the instructor.
ED 6363 PERSONAL GROWTH
Fall, Spring, Summer
Discussions and practical application of group dynamics within a framework of group therapy. Limited to 20 graduate students accepted in the counseling and guidance program.

## ED 6364 CONSULTING IN HUMAN RELATIONS

## Spring

Emphasis on the development of competencies in consulting with students, teachers, parents, and other personnel both individually and in small groups. Limit 20 students.
Prerequisites: ED $6360, E D 6362, E D 6363$ or consent of instructor.

## ED 6365 COUNSELING PRACTICUM

Fall, Spring, Summer
A competency based practicum. Students will engage in counseling and in guidance planning through practical experiences in laboratory and in public schools. Seminars for discussion and critiquing by the student will be the theme of class sessions. Students will be required to recognize and identify counseling techniques and philosophies used in this practicum.
Admission to course is dependent on admission to counselor education candidacy.
Prerequisites: ED 6360, ED 6362, ED 6363. Course must be taken within last nine (9) hours of program. Limit 12 students.

## ED 6366 PROBLEMS IN TESTING AND COUNSELING

Fall, Spring, Summer
Problems course involving a practicum in testing and counseling. Emphasis will be on diagnosis and therapy. The student will present a case study/studies which will be bound in two coples to be placed in the library and in the office of counselor education.

## ED 6367 STATISTICAL METHODS

## Fall, Spring, Summer I

This course is a study of statistics as applied to problems in education and psychology, to include frequency functions, correlation and regression, and statistical tests of significance.

## ED 6368 GROUP COUNSELING

Fall, Spring, Summer
The purpose of this course is to develop an understanding of group processes, theories and techniques. Demonstrated competency in this knowledge and application of group procedures will be required. Limit 20 students.
Prerequisites: ED 6360, ED 6362, ED 6363.

## ED 6373 TECHNIQUES AND METHODS FOR THE SLOW LEARNER Summer

A course designed to present techniques which can be applied to the curriculum for retarded children. Perceptual as well as intellectual deficits will be considered. The students will be required to participate in some observations and in some work relationship with retarded and slow learning children.

## ED 6374 APPLIED BEHAVIORAL ANALYSIS

## Summer

This course provides the opportunity to study behavioral characteristics of school children. Emphasis will be given to the prevention and remediation of behavioral problems. Special coverage will be given to a discussion of classroom problems.

## ED 6376 THE EMOTIONALLY DISTURBED CHILD

## Fall, Summer

Characteristics of the emotionally disturbed. Basic concepts of personality development will serve as a framework for discussion of those behaviors that are regarded as self-enhancing and those considered debilitating within various social environments. Special emphasis will be focused on the interpretation and amelioration of behavior as it occurs in the classroom setting. Discussion of current research instructional arrangements and community resources will be included. Observation of the emotionally disturbed youth will be required.

## ED 6388 SOCIO-CULTURAL FOUNDATIONS OF EDUCATION

## Fall, Spring

Identification and analysis of cultural forces which ultimately shape the direction of modern American education with emphasis upon the purposes of education in their social and cultural contexts. An emphasis on the multicultural factors in society which affect the public schools and their influence upon learning and the acquisition of skills important to survival and selffulfillment will be made. Particular emphasis will be placed upon understanding the culture of the Mexican-American child.

## ED 6604 PRACTICUM FOR THE EDUCATIONAL DIAGNOSTICIAN

## Summer

Supervised practical experience in diagnosis and therapy. This culminating, activity will provide intensive training in the entire educational process for a child, whereby data is gathered, a diagnosis is developed and implemented, and an ongoing evaluation is designed and monitored to serve as a measure of the child's social and educational growth. Last 6 hours or last semester of work.

## ED 6605 PRACTICUM FOR TEACHING THE EMOTIONALLY DISTURBED

## Summer

The course emphasized, under the supervision of a fully endorsed teacher of the emotionally disturbed, the day to day techniques and instructional procedures for working with emotionally disturbed in a public school setting. Each student must spend a minimum of 45 clock hours in the classroom and maintain a $\log$ of all pertinent experiences.
Prerequisites: ED 5372, ED 6376, ED 6374, and 6 hours of Psychology or its equivalent.

## ED 7300 THESIS

On Demand
ED 7301 THESIS
On Demand

## ED S 1301 CLINICAL INTRODUCTION TO SECONDARY EDUCATION (FIELD EXPERIENCE) <br> Fall, spring

This overview of secondary education emphasizes the role of the teacher as a person. This course includes a comparative study of personal value systems, ethical conduct and their relationship to teaching.

## ED S 2301 INTRODUCTION TO THE TEACHING-LEARNING PROCESS (FIELD EXPERIENCE) <br> Spring, on demand

This course focuses on the individual as a teacher by examining the role of the teacher in the teaching-learning process. This involves analysis of learners and learning environment as well as preparation for and performance of teaching activities within university and public school classrooms.

## ED S 3301 INSTRUCTIONAL TECHNOLOGY

Fall, Spring, Summer I,II
This course deals with modern instructional technology as it relates to the teaching-learning process. It includes instructional strategies and the use of instructional media best suited for group or individualized learning situations involving audio, visual, video, and computer systems. This course is designed to have students develop and use instruction media as an alternative to and a supplement to the traditional lecture - textbook learning. Dual listed with ED S 3301.

ED S 3302 ADOLESCENT BEHAVIOR AND THE LEARNING PROCESS Fall, Spring, Summer
Comparisons and contrasts are made of theories that explain and predict behavior. Emphasis is given to motivation and re-enforcement of student behavior in the classroom. Additional emphasis is given to analyzing and understanding one's own behavior, especially as it relates to the teacher role. Classroom experiences are provided in diagnosing, classifying and changing adolescent behavior. (Required for certification.)

## ED S 3303 EDUCATION: PAST AND PRESENT

Fall, Spring, Summer I, II
A study of the history and philosophy of education includes the development of philosophical thought and practice in western education from a historical and current perspective. Additional emphasis is placed on helping students develop and clarify their professional philosophies. Dual listed with ED 3303.

## ED $\$ 3305$ EVALUATION FOR SECONDARY TEACHERS

Fall, Spring, Summer
A study of statistics enables the students to analyze, interpret and utilize data to improve their teaching. Students construct, administer and interpret results of tests to quantitatively measure and evaluate student progress in secondary classrooms.

## ED S 3307 A CLINICAL AND A SYSTEMATIC APPROACH TO TEACHING AND LEARNING (FIELD EXPERIENCE)

## Fall, spring, summer

Emphasis on the person as a teacher is made in this field-based course. The systematic approach includes analyzing learners, analyzing learning, establishing learning environments, and evaluating outcomes, important teaching techniques and concepts are related to secondary classroom observations and incorporated into field experiences. These include classroom control, communication, cognitive and affective development, classroom planning, classroom organization and classroom evaluation.
Prerequisite: ED S 3301, ED S 3302 (required for certification).

## ED S 4318 PROBLEMS SEMINAR FOR SECONDARY TEACHERS

## Fall, summer

This practicum course focuses attention on effective application of a variety of instructional techniques. Special permission must be given to each participant before enrollment in the course.

## ED S 4351 DEVELOPMENTAL READING IN SECONDARY SCHOOLS

Spring, summer
This course is designed to help students explore the developmental nature of reading at junior and senior high school levels, with particular emphasis on teaching content mastery through reading. (Material and techniques for teaching various content subjects will be developed by class members.) Credit may not be given for both ED 4351 or ED S 4351 and ED 5351.

## ED S 4353 SECONDARY SCHOOL METHODS: TEACHING THE DISADVANTAGED LEARNER <br> On demand <br> A study of the problems experienced in teaching secondary school students that are educationally and/or culturally disadvantaged. Emphasis will be on identification of the problems experienced by the classroom teacher, on study of the applicable techniques and materials useful in such classroom situations, and on development of concepts and skills involved in the use of various techniques and materials.

[^29]
## ED S 4641 DIRECTED TEACHING-SECONDARY

Fall, spring
This course is designed to give secondary students experience in responsible teaching at the, secondary level under the guidance of public school supervising teachers and university supervisors. The course will be required (1) of students working on $P E$ all-level certification in conjunction with ED 4311 and (2) of students working on secondary certification only with a minor in Generic Special Education in conjunction with ED 4313. Students are assigned to the public schools all day, Monday through Friday, for 16 weeks and are required, in addition, (1) to attend a 1 hour weekly seminar with the university supervisor and (2) to have at least one planning conference each week with the public school supervising teacher(s).
Prerequisite: 12 semester hours of upper level professional education courses, including ED S 3307. A student may take no more than 3 sem hours of additional course work during the professional semester in which he takes Directed Teaching. The course work must be taken after 4:00 p.m.

## ED S 4901 CLINICAL TEACHING IN THE JUNIOR OR SENIOR HIGH SCHOOL

On demand
This course is designed to give secondary education students teaching experience at the junior or senior high school level under the guidance of a public school supervising teacher and a university supervisor. Students are assigned to the public schools all day, Monday through Friday, for 16 weeks and are required, in addition, (1) to attend a 1 hour weekly seminar with the university supervisor and (2) to have at least one planning conference each week with the public school supervising teacher(s).
Prerequisite: 12 semester hours of upper level professional education courses, including ED S 3307.
A student may take no more than 3 sem hours of additional course work during the professional semester in which he takes Directed Teaching. The course work must be taken after 4:00 p.m.

## Secondary Education

See Department of Curriculum and Instruction - Elementary and Secondary

## Social Work

See Department of Sociology and Social Work

# Department of Sociology and Social Work ${ }^{1}$ 

Dr. Rumaldo Z. Juarez, Chair

## Sociology

## Full-time Faculty

Alvirez, David* (Ph.D. Texas, 1971; prof.) race and ethnicity, demography. Juarez, Rumaldo Z.* (Ph.D., Pennsylvania State, 1976; assoc. prof. and chair) health and aging, theory
Liebowitz, Stephen W. (Ph.D. Missouri at Columbia, 1979; asst. prof.) social psychology, statistics and methodology.
Lopez, Manuel Mariano* (Ph.D. Michigan State, 1977; assoc. prof.) stratification, demography.
Nelson, Harold A.* (Ph.D. Southern California, 1960; prof.) social movements, community organization and change.

Reed-Sanders, Delores* (Ph.D. Oklahoma State; 1974, assoc. prof.) family deviance.
Richardson, D. Chad* (Ph.D. Texas, 1975; assoc. prof.) race and ethnicity, sociology of education.
The Department of Sociology and Social Work offers both a major and a minor in Sociology. In addition, it offers sociology courses for students seeking a second teaching field for teacher certification in both elementary and secondary education. Students majoring and minoring in Sociology receive excellent preparation for careers in public and private agencies dealing in human relations. The more challenging and specialized fields in sociology usually require further study beyond the Bachelor's degree. Sociology also provides excellent background for those persons considering careers in such fields as education, health, law, law enforcement, business and journalism.

## Degree Requirements:

## Major in Sociology:

30 semester hours of which 18 hours must be advanced; must include SOC 1313, 2301, 3301, 4333 and 4352.

## Minor in Sociology:

(Without Teacher Certification)
18 semester hours in Sociology of which 9 hours must be advanced; must include SOC 1313.

## Minor in Sociology

(With Teacher Certification)
Elementary Plan I: 18 semester hours of Sociology of which 9 hours must be advanced. SOC 1313 and 1323 are required.

Elementary Plan II: 24 semester hours of Sociology of which 12 hours must be advanced. SOC 1313, 1323, 2333, and 4313 are required.

Secondary Plan I: 24 semester hours in Sociology of which 12 hours must be advanced. SOC 1313, 1323 and SOC 3301 or 4333 are required.

## Course Descriptions

## Sociology

## SOC 1313 PRINCIPLES OF SOCIOLOGY

## Fall, Spring, Summer

The social group, culture and personality; social institutions; social interaction; social change. (Formerly 2313, may not be repeated for credit.)

## SOC 1323 CURRENT SOCIAL ISSUES

Fall, Spring
A sociological analysis of selected social issues present in current society. (Formerly SOC 2323, may not be repeated for credit.)

## SOC 2301 STATISTICS FOR THE BEHAVIORAL SCIENCES

## Fall, Spring

A practical study of the procedures used in handling psychological and sociological data including descriptive statistics, central tendency, variation, correlation and inference. May be counted as SOC 2301 or PSY 2301.
Prerequisite: 3 hours of MATH (except MATH 2306) and 6 hours from the following: PSY 1313, 1323, SOC 1313, 1323, (formerly SOC 4301, may not be repeated for credit.)

## SOC 2324 SOCIAL PSYCHOLOGY

Fall, Spring
A study of psychological and sociological principles as they relate to human social behavior. Relevant areas of theory and research in social psychology will be covered. May be counted as SOC 2324 or PSY 2324.

Prerequisite: 6 hours from
SOC 1313, SOC 1323, PSY 1313, PSY 1323.

[^30]
## SOC 2330 COOPERATIVE EDUCATION I <br> On Demand

A planned program of full-time work (minimum of one semester or two continuous five-week summer sessions) related to the major or minor field. Credit will be determined by a satisfactory employer's evaluation, interviews between the student and a supervisory professor; and a supervised written report by the student. The course counts only as elective hours outside of the specified major or minor field. Students enroll on a credit/no credit basis.

## SOC 2332 COMMUNITY

## Spring

A consideration of community organization and problems and strategies for change. Special attention will be given to regional community organization and problems.
Prerequisite: SOC 1313 or consent of instructor.

## SOC 2333 MARRIAGE AND THE FAMILY

## Spring

A study of problems and an analysis of the factors contributing to successful marriages with study of surveys that have been made of this aspect of the social relations of men and women.

## SOC 2373 LATIN AMERICAN INSTITUTIONS <br> Fall

A description and analysis of the major social institutions of Latin American Society including patterns of action and change. Major emphasis will be given to the institution of governments, military, education, economy, religion and family.

## SOC 3301 METHODS OF SOCIAL RESEARCH

Spring .
Use of scientific method in social research; formulation of research designs, hypothesis testing, sampling, interviewing, observation, coding, use of documents, questionnaires; and scales. Emphasis on interpretation of social data.
Prerequisite: 6 semester hours of Sociology or consent of instructor.

## SOC 3313 CRIMINOLOGY

## Fall, Spring

A study of crime, its causes and its social treatment.
Prerequisite: SOC 1313 or consent of instructor.

## SOC 3324 SOCIOLOGY OF HEALTH

Fall
Analysis of basic problems in the maintenance and preservation of health and delivery of health care services by social class. Focus is on environmental causes of disease, social-psychological response to illness; and family cohesion, strain and resources as affected by illness.
Prerequisite; 3 hours of Sociology or consent of instructor.

## SOC 3326 CONTEMPORARY ISSUES IN SOCIAL PSYCHOLOGY

## On Demand

A review and discussion of recent issues and advances in social psychology. This course will focus on contemporary concerns with regard to both theory and research in the laboratory and the community. May be counted as SOC 3326 or PSY 3326.
Prerequisite: Psy 2324 or SOC 2324.

## SOC 3333 URBAN SOCIOLOGY

## Spring, even years

The culture, history and growth patterns of cities; demographic, ecological patterns and trends. Problems of housing and community organization.
Prerequisite: SOC 2301 or 3301 or consent of instructor.
SOC 3334 SOCIOLOGY OF WORK
On Demand
Analysis of selected labor force characteristics including education, occupation, family, housing; and ethnic participation in major industries by job classification; readings on work norms including group participation, alienation and job satisfaction. Emphasis on the southwest region. Prerequisite: 3 hours of Sociology or consent of instructor.

## SOC 3340 COMPLEX ORGANIZATIONS

## Spring, odd years

An analysis of the process of bureaucratization of society and its effect upon functionaries and clients of large and complex organizations. A discussion of the emergence of philosophies of management in this context and the dilemmas and problems of attempts to merge bureaucratic and professional principles in modern organizations. An applied project will be required.
Prerequisite: SOC 1313.

## SOC 3343 SOCIAL CHANGE

Fall
A study of the processes and theories underlying social changes experienced in the Rio Grande Valley, the United States, and other Western societies. Emphasis will be placed on identifying and understanding the indicators of social change, perspectives of social change, patterns of change, and strategies for change.
Prerequisite: SOC 1313 or consent of instructor.

## SOC 3353 JUVENILE DELINQUENCY

## Fall, even years

Delinquency in modern society, basic factors and conditions of juvenile delinquency and the problems of delinquency control.
Prerequisite: SOC 3313 or 1313 or consent of instructor.

## SOC 3393 SOCIOLOGY OF AGING

## Spring

Analysis of the basic problems faced by the aged within a social context. Within an institutional framework, focus is on health, income, work, religion, leisure and interpersonal relationships of the aged.
Prerequisite: 3 hours of Sociology or consent of instructor.

## SOC 4310 SEX ROLES IN CONTEMPORARY AMERICA

## Fall, even years

An exploration of the sociological meaning of gender and gender roles in contemporary society. The focus is on the status of women vis-a-vis that of men in the institutional structure: family, marketplace, school and political-legal arena. The nature and causes of sex role differentiation, of changing sex roles and the future of sexual equality will be discussed. (Formerly SOC 4311 and PSY 4311, may not be repeated for credit.)
Prerequisite: 6 hours of Sociology or the consent of instructor.

## SOC 4313 AMERICAN MINORITIES

Fall, Spring
An analysis of intergroup relations among minority groups and the dominant group with special focus on patterns of conflict, change, adjustment, power and inequality among such groups. Some in-depth description of the problems and characteristics of major American minorities. Prerequisite: 6 hours of Sociology or consent of instructor.

## SOC 4314 SOCIOLOGY OF, DEVIANCE

## Spring, odd years

The nature and extent of deviancy examined through a review of theory and research on deviant behavior. Selective examination of particular types of individual and subcultural deviance (e.g., homosexuality, physical handicaps; prostitution).
Prerequisite: 6 hours of Sociology or consent of instructor.

## SOC 4323 THE MEXICAN AMERICAN PEOPLE

## Fall, Spring, Summer

Presents an examination of the Mexican American's economic status, cultural values, style of life, educational attainment, family status and political participation as affected by current socioeconomic conditions and their historical antecedents.
Prerequisite: 6 hours of Sociology and/or Anthropology or consent of instructor.

## SOC 4324 METHODS OF POPULATION ANALYSIS

Fall, odd years
An overview of the techniques of population analysis and their applications in the planning, evaluation and problem-solving process. Special emphasis on the effects of population on community, regional and state socio-economic structures. Will explore the interaction of population and technology, resource-utilization, public policy, the planning process, and decision-making in business/government service.
Prevequisite: 6 hours of Sociology or instructor's consent.

## SOC 4333 SOCIAL THEORY

Spring
A survey of historical development and the theories of major sociologists.
Prerequisite: 9 hours of Sociology or consent of instructor.

## SOC 4352 SOCIAL INEQUALITY

## Fall, odd years

A discussion of research, concepts, and theory related to inequality in social life, its causes and consequences. The (social) order of relations between the affluent and the poor and how inequality among the social classes is built into the culture and institutions of society (e.g. government, economics, religion, family). Special attention will be given to an examination of poverty in the Lower Rio Grande Valley and among minority populations in the U.S.
Prerequisite: SOC 1313 or consent of instructor.

## SOC 4360 SOCIOLOGY OF EDUCATION

Fall, odd years
Social and institutional organization of education and the profession of teaching. Class, ethnic, and other social factors affecting the educational process and the effect of educational institutions and practices on the community and society.
Prerequisite: SOC 1313.

## SOC 4363 SOCIETY OF MODERN MEXICO

## On demand

Family, community, industralization and urbanization in modern Mexico.
Prerequisite: 3 hours of Sociology or consent of instructor.

## SOC 4373 LATIN AMERICAN SOCIETY

## Fall, even years

The development, culture, structure and functioning of the societies of Latin America.
Prerequisite: 6 hours of Sociology or consent of instructor.
SOC 4380 SOCIAL PROTEST AND SOCIAL MOVEMENTS
Spring, even years
An investigation of the careers of protest and movement organizations. Special attention is directed to the structure of these organizations and the dilemmas and problems they encounter. Case studies are included.
Prerequisite: SOC 1313 or consent of instructor.

## SOC 4383 INDEPENDENT STUDIES

## On demand

Designed to give student experience in research or in-depth theoretical/empirical readings in a substantive area not normally covered within standard courses. Research projects or advanced readings will vary according to student interest and faculty availability. Sequential registration for up to nine hours is permitted as topics vary. Formerly SOC 4387. A maximum of 9 hours from SOC 4383, 4387, 4388, 4389 and ANTH 4387, 4388, 4389 is permitted.
Prerequisite: 9 hours of Sociology and the consent of the instructor.

## SOC 5313 AMERICAN MINORITIES

## Fall; Spring

An analysis of intergroup relations among minority groups and the dominant group with special focus on patterns of conflict, change adjustment, power and inequality among such groups. Some in-depth description of the problems and characteristics of major American minorities. A research project and supporting specialized readings will be emphasized.
Prerequisite: 9 semester hours of Sociology

## SOC 5323 THE MEXICAN AMERICANS

Fall, Spring, Summer
Presents Mexican American and Anglo contacts and relations in the United States from Colonial times to the present, with special emphasis on the Southwestern United States. Social, economic and cultural differences are emphasized. Special attention is given to changes occurring among Mexican Americans in the last few years and how this is affecting Mexican American-Anglo relationships. Students will have to do a research project using primary resources as part of the course requirements.
Prerequisite: 6 hours of Sociology and/or Anthropology or consent of instructor.

## SOC 5360 SOCIOLOGY OF EDUCATION

Fall, odd years
An analysis of the relationship of the educational institution to society and the patterns of order, change and conflict that emerge. Current issues, such as bureaucratization of schools and problems of minorities in the schools are examined with regard to related sociological principles and theory. An applied project and report will be required.
Prerequisite: 9 hours of Sociology, Psychology, and /or Anthropology or consent of instructor.

## SOC 6310 EXPERIENTIAL ASPECTS OF BEING BILINGUAL/BICULTURAL

## Offered on Demand

A study of the experience of being Bilingual/Bicultural focusing on cultural and socio-economic factors, learning and other factors which directly and/or indirectly affect their relationship between the speech pathologist and bilingual/bicultural client. Emphasis is on the juxtaposition of empirical data to expand consciousness about the experience of being bilingual/bicultural. May be counted as Psy 6310 or Soc 6310.
Prerequisite: 9 hours of Psychology or Sociology or consent of instructor.

## Social Work

## Librado R. De Hoyos Jr., Director

## Full-time Faculty

Anzaldua, Hermila (M.S.W. Worden School of Social Work, Our Lady of the Lake 1966, assoc. prof.) interpersonal, community social work.
Chavez, Gene Joseph (M.A. Chicago, 1974; asst. prof.) public policy, social work research.
De Hoyos, Librado R. Jr., (M.S.W. Boston, 1964; asst. prof. and director) Chicano-Latino Studies, community social psychology, social work.
Solis, Raul H. (M.S.W., Worden School of Social Work, Our Lady of the Lake, 1974; asst. prof.) Mexican American experience, generalist social work.

The Bachelor of Social Work (BSW) degree program is a four-year program with a liberal art base, a required foundation content in Behavioral Sciences and content in the professional major. The Social Work Program accredited by the Council on Social Work Education, provides a basic knowledge of the Social Welfare System, the Social Work profession, knowledge and skills necessary for social change in practice, and prepares students to pursue graduate study in Social Work and related professions.
The overall goal of the program is to impart knowledge, values, skills, and attitudes for beginning professional social work practice with special emphasis on the uniqueness of the bilingual-bicultural Mexico-Texas border region of U.S.A.

The generalist practitioner is attuned to the holistic concepts of working with people and through a working professional relationship uses a problem solving process of assessment planning, intervention, and termination/evaluation in working with a range of human needs and human systems.
Any student who is admitted to Pan American University may declare a major in Social Work. A student who wishes to major in Social Work should register for SOCW 1313 - Introduction to Social Work. After successful completion of nine semester hours in the major, a student is required to maintain a grade point average of 2.00 or better throughout course work in the major. The student will nqt be eligible to register for field instruction in Social Work with a G.P.A. below 2.00 overall. Academic advisement is required for all Social Work majors.
Full time students in the Social Work Program are eligible for membership in the Student Association of Social Work majors (The Social Work Club) and membership in the National Association of Social Workers, Texas Chapter, and local NASW Units. Upon graduation a (BSW) student will be eligible for certification as a social worker under the Texas Social Work Certification Act.

## Degree Requirement

Requires 32 hours in Social Work and must include SOCW 1313, 2314, 2324, 3314, $3323,3324,3353,4314,4416,4417$. Required support courses to be taken from the following groups: ( 27 Hrs .)

Group A Statistics (3 hours required)
SOC 2301, PSY 2301
Group B Psychology (9 hours of which 6 must be advanced)
PSY 1313, 1323, 2336, 2337, 3305, 4313, 4333
Group C Sociology ( 6 hours of which 3 must be advanced)
SOC 1313, 1323, 2324, 3324, 3393, 4310, 4323, 4352
Group D (9 hours of which 6 must be advanced)
HIST 2363, 4344, 4353
POLS 3323, 3360
ANTH 2353, 3345, 3375, 4353
COMM 1303, 2302, 3315
CIS 1301
ECO 1301
PHIL 1320, 2330.
CRIJ 1301, 3341
SOCW Electives
Recommended electives in SOCW: 2323, 2350, 3333, 3334, 3345, 3346, 4320, 4321, 4323

## Course Descriptions

## Social Work

## SOCW 1313 INTRODUCTION TO SOCIAL WORK

[^31]
## SOCW 2314 SOCIAL WELFARE LEGISLATION

## Fall, Spring

Introduction to the legislative process in social welfare. Provides examination and analysis of the law, the population for which it is intended, and the relationship between the two. Specific legislation is studied to focus on provisions and exclusions of the law. Indepth understanding of social welfare institutions in the nation and state. (Formerly SOCW 3313, may not be repeated for credit.)

## SOCW 2323 COOPERATIVE EDUCATION IN SOCIAL WORK

On demand
Designed for students seeking social work credit through the Cooperative Education Program provided the following conditions are met: (a) the student's project must be directly related to his major; (b) the student must be under direct academic supervision; (c) the student must complete written assignments to be evaluated by supervising teacher.

## SOCW 2324 HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT

 On demandDesigned to provide the social work major with an understanding of the physical, emotional, intellectual, spiritual, social, and cultural factors that affect an individual's social functioning. Particular emphasis will be placed on understanding the complex relationship between man and the environment that bear upon human growth, development and behavior, and implications of this for social work practice. (Formerly SOCW 4333, may not be repeated for credit.)
Prerequisite: 6 hours in SOC and PSY or consent of instructor.

## SOCW 2342 SUBSTANCE ABUSE AND THE FAMILY

## Fall, even years

Provides an introduction to the basic dynamic nature of the substance abusing family, including structures, relationships, and development in the process of its societal evolution, The function of the family as a socialization agent will be studied. Focus will be given to value transmission, learning patterns of interaction, impact on varieties of relationships and coping styles.

## SOCW 2350 GROUPS IN SOCIAL WORK <br> Spring, odd years

Provides a general orientation to small groups in Social Work practice. Students will examine the values, objectives and principles of social group work practice. Through classroom participation, the various group theories, concepts, dynamics and processes will be experienced. Focus will be on group leadership and development of self-awareness to illustrate the worker's role in facilitating the processes of group and individual development.

## SOCW 3314 SOCIAL WELFARE POLICY AND PROGRAMS Fall, Spring

Examines economic, political, intellectual, sociocultural, leadership, values and ideologies and other such factors which shape social welfare policy, programs, and services. Addresses various frameworks for studying social policy, and examines the roles of policy makers, process of social change and the role of the social worker as a facilitator of change. (Formerly SOCW 4313, may not be repeated for credit.)
Prerequisite: 6 hours of Social Work course; SOCW 2324 recommended.

## SOCW 3323 METHODS IN SOCIAL WORK PRACTICE I

## Fall, Spring

Gives the student beginning knowledge and experience in Social Work interventive modes. Through classroom and community work, the student examines some of the necessary knowledge, attitudes, values and skills upon which problem-solving is based, and understands this approach as basic to all intervention modes in social work.
Prerequisite: 9 hours of Social Work courses.

## SOCW 3324 METHODS IN SOCIAL WORK PRACTICE II <br> Fall, Spring

Designed to provide social work students with an introductory knowledge of various theoretical perspectives used to understand and observe communities, and various models of community social work practice aimed at improving communities through community organization and planning.
Prerequisite: SOCW 3323.

## SOCW 3333 SPECIAL TOPICS IN SOCIAL WORK ISSUES

On demand
An analysis of conceptual framéworks, content, laboratory experiences and research opportunities in current social issues with particular relevance to our community, requiring the social worker's interventive, problem-solving knowledge, values and skills, and preparing him/her and other helping professionals for interdisciplinary collaboration in achieving effective social change, objectives. Sequential registration for up to six hours is permitted as topics vary. Topics will vary according to timeliness of issues, student demand and availability of faculty.

SOCW 3334 SPECIAL TOPICS IN SOCIAL WORK ISSUES
On demand
An analysis of conceptual frameworks, content, laboratory experiences and research opportunities in current social issues with particular relevance to our community, requiring the social worker's interventive, problem-solving knowledge, values and skills, and preparing him/her and other helping professionals for interdisciplinary collaboration in achieving effective social change objectives. Sequential registration for up to six hours is permitted as topics vary. Topics will vary according to timeliness of issues, student demand and availability of faculty.

## SOCW 3345 INDUSTRIAL SOCIAL WORK

Fall, even years
This course design provides an overview of social work practice in labor and industry. It includes a basic orientation to industrial society, the meaning of work, the role of corporations and labor unions, and the emerging role of social work practice in industry. Emphasis will be given to social service delivery models and examination of critical social policy issues for social work intervention in the work place.

## SOCW 3346 JUVENILE DELINQUENCY AND SOCIAL WORK PRACTICE

## Spring, odd years

Introduction to social work practice in the justice system, with emphasis on juvenile delinquency. Behavioral sciences theory and methodology will be utilized to examine criminal activities. The legal and economic bases of the current juvenile justice system will be examined along with Social Work practice approaches with juveniles. Examinations of values, knowledge and skills, as these relate to practice with juvenile offenders will be focused.
SOCW 3353 RESEARCH FOR THE SOCIAL SERVICES
Fall, Spring
Introduces students to simple but basic concepts necessary to understand the different phases and kinds of research involved in social service practice. Students are expected to gain a beginning competency in planning, implementing and evaluating social research in application to social work practice. (Formerly SOCW 4323, may not be repeated for credit.)
Prerequisite: 9 hours of Social Work courses.
SOCW 4314 METHODS IN SOCIAL WORK PRACTICE III Fall, Spring
Students learn how to give direct service to families, individual groups using the problem solving method. Student will selectively utilize concepts and techniques from several interventive modes, e.g., ego psychology, family and small group theory, behavior modification, T.A., etc.

Prerequisites: SOCW 3323, 3324.

## SOCW 4320 CHILD AND FAMILY PRACTICE

Fall, even years
The design of this course includes an introduction to family diversity and addresses a wide range of implications for working with the family unit. Family theories, frameworks, the family as a social institution and implications for bilingual-bicultural approaches to work with families will be emphasized. A laboratory will be an integral part of the course.

## SOCW 4321 DOMESTIC VIOLENCE IN SOCIETY

Spring, odd years
The purpose of this course is to examine the phenomenon of domestic violence. Students will study the family structures in which violence occurs; the range (from verbal abuse to homicide) and its extent in society; and the various attitudes toward it. Understanding of the basic theories of violence; identification of support services and systems for victims of domestic violence; and development of basic communication skills for assisting the victims will be expected of the student.

## SOCW 4323 COMMUNITY MENTAL HEALTH

Fall, even years
Community Mental Health is presented in its historical, ideological and legislative contexts. It is. defined in terms of preventive social work intervention; available social support systems; and the use of consultation. Students will study the achievements of the community mental health structure and proposals for reaching out to vulnerable populations beyond traditional mental health services and concerns.

## SOCW 4352 SUBSTANCE ABUSE COUNSELING IN THE COMMUNITY

## Spring, odd years

Patterns of street substance abuse, community education and agency consultation, resource evaluation of such support systems as AA, half-way houses, networking, divergency programs, therapy with the abuser and family are emphasized as follow-up and outreach social work intervention at the community level. Counseling processes studied will include vocational rehabilitation. Cultural assessment, evaluation of treatment effectiveness and legal-ethical issues will be examined in the context of social service delivery.

## SOCW 4416 FIELD INSTRUCTION IN SOCIAL WORK I

Fall, Spring
A minimum of 240 hours in the field for one semester ( 2 days a week). Work will be completed in established social agencies or informal settings under joint supervision of agency and university. Students will receive educationally directed field instruction with engagement in direct service activities as well as gain knowledge of community resources and agency techniques for meeting today's social problems. Concurrent Seminar 3 hours weekly. (Formerly SOCW 4613, may not be repeated for credit.)
Prerequisite: SOCW 3323.
SOCW 4417 FIELD INSTRUCTION IN SOCIAL WORK II Fall, Spring
Continuation of SOCW 4416.
SOCW 4453 COMMUNITY PRACTICUM IN SUBSTANCE ABUSE COUNSELING
Fall, even years
This structured, supervised practicum provides concurrent application and integration of theory learned in SOCW 4352: Substance Abuse Counseling in the Community. The problem of substance abuse as it relates to social functioning will be the focus. Students will be placed in residential, and non-residential programs in which both the individual and family will be treated and linkages established with community resources. The practicum requires 240 hours of supervised field instruction.

## SOCW 4618 FIELD BLOCK PLACEMENT

On demand
May be taken in lieu of SOCW 4416 and 4417. A minimum of 480 hours (4 days a week for one semester) of in-the-field experiences in established social agencies or informal settings under joint supervision of agency and university and as described in SOCW 4416 and 4417. Approval by Program Director.
Prerequisites: SOCW 3323, 3324 and 4314.

## Spanish

See Department of Foreign Language

## Speech

See Department of Communications

## Statistics

See Department of Mathematics and Computer Science.

## Theatre

See Department of Communications

# The Honors Studies Program 

Dr. Kenneth Ray Bain, Director

## Purpose of Program

The purpose of Honors Studies is to provide the capable and interested students a means of enriching their college education.
This purpose is achieved in two basic ways: (1) by offering special honors classes at the freshman and sophomore level, and (2) by providing an independent study program in the student's major or related field of study at the junior and senior level.

A student may major in any academic discipline and still participate in the Honors Program without having to take additional hours for graduation.

## Honors Classes

Honors classes provide an ideal learning situation for the student. The classes are always small - 20 students or less - and are attended by students with above average academic capabilities. The small class makes rapport between professor and student and between student and student a much easier matter, and both the small class and the homogeneous grouping greatly facilitate the intellectual exchange among class members. Such an atmosphere furnishes the student greater opportunity to function as an individual and the professor greater opportunity to utilize creative and innovative teaching techniques. Enrichment rather than acceleration is the main objective of honors classes. For the good student, honors classes are not necessarily more difficult, simply better: more stimulating, more exciting, more challenging, more interesting than many other offerings.

## Independent Study

Independent study furnishes the honors student an opportunity, while still an undergraduate, to work on a one-to-one basis with a professor.
At the beginning of the junior year honors students begin exploring topics of their own choice in their majors or related areas. This work is done under the supervision of a faculty member who possesses special expertise in the student's chosen area.

## Admission Requirements

There are two ways to win admission to Honors Studies. Each year the program admits the top 40 to 50 beginning freshmen candidates. High school records and recommendations and ACT or SAT scores determine an applicant's ranking. Any student with a strong interest in Honors Studies should apply for admission.

Students who already have college credit may also apply for admission. College grades and recommendations from professors determine a college student's admission to the program.

Any student who has earned 12 semester hours or more of college credit with at least a 3.0 GPA is eligible to take honors classes with the consent of the Honors Studies director. Contact the Honors Studies Office for additional information.

## Scholarships

The Honors Studies Program has a wide range of scholarships available for qualified students. Contact the Honors Studies office for scholarship applications.

## Honors Studies Curriculum

In choosing honors classes at the freshman and sophomore level, the student should refer to the suggested curriculum under his major and select honors classes to substitute for regular classes whenever feasible to do so. For example, if the suggested curriculum for the major lists English 1301, 1302 and History 2313, 2314, the student may take the comparable honors English 1387, 1388 and honors History 2387, 2388. In the case of science, foreign language and mathematics, some majors require specific classes in these areas while other majors do not. If the suggested curriculum guide simply lists foreign language or science or mathematics but does not indicate a specific class, the student may wish to take one of the honors classes in these areas. Since all majors allow at least 12 hours of electives, the student may wish to take an honors class as an elective. Contact the Honors Studies Office for information offering in any given semester. The director can help interested students fit the honors program into any major on campus.
Please note that there are five courses required for graduation in the Honors Studies framework. These five courses constitute the core of the Honors Studies Program. The purpose of requiring Honors 2387 and 2388 is to give students a broad overview of their intellectural heritage, thus better enabling them to assimilate and relate the knowledge gleaned from their other courses and studies.
Independent study required at the junior-senior level allows students to delve into a highly specialized area of knowledge of their own, thus giving them valuable experience as independent scholars.

## Graduating Within the Framework of Honors Studies

While many students may wish to take honors courses as enrichment experiences, there are specific requirements for graduation within the framework of Honors Studies:

1. Completion of the two honors seminars, Honors 2387 and 2388.
2. Completion of an honors project. Students receive credit in Honors 3187, 3387, and 4387 for completion of a project. Partial completion can earn credit for one or two of these courses, but will not qualify a student for graduation with honors.
3. An over all grade point average of at least 3.00 .

During the student's final semester a faculty committee questions the student over his independent project. Upon the findings of this committee, the rating of the independent study advisor, and the student's overall gradepoint average, the Honors Council determines whether the honors student graduates with Honors, High Honors, or Highest Honors. Besides having the total Honors Studies achievement recorded on their transcripts, the honors students receive special recognition at the graduation ceremony.

## Inquiries About Honors Studies

For applications or for further information about the Honors Studies Program, write the Director of Honors Studies, Pan American University, Edinburg, Texas, 78539.

## Special Programs

## Continuing Education

Pan American University offers non-credit continuing education courses in a variety of areas, including real estate, management, accounting, computer information systems, photography, and Spanish. These and other courses are generally arranged by and offered through the related schools and departments of the University. Fees are normally charged for these courses because such programs must be self-supporting. Many of the courses carry continuing education units. Some of the schools, particularly the School of Education, offer in-service training programs on a regular basis.

## English Language Institute

The English Language Institute offers a variety of non-credit English instructional programs to non native speakers in the community and from abroad. Intensive English classes provide twenty-five hours of weekly instruction at various levels of proficiency.
This program is designed to assist students preparing to enter an academic program, professionals desiring to improve their career-oriented English, and others wishing to increase the functional usage of the English language in a serious but friendly atmosphere. Conversational English classes provide evening classes for members of the community and students wishing to diversify their abilities in spoken English. For additional information about the English Language Institute, write: The Director, English Language Institute, Edinburg, Texas 78539.

## High School Equivalency Program

The High School Equivalency Program (H.E.P.) serves the migrant/seasonal farmworker who have not completed high school and are at least 17 years of age. They must meet income guidelines, as set by the Office of Management and Budget, and be legal residents of the United States.

The primary goals of the program are successful achievement on the G.E.D. exam, sustained employment or enrollment in training programs (college, military, etc.). To accomplish H.E.P. goals, students are offered instruction in five subject areas (mathematics, science, social studies, grammar and literature), plus reading and typing classes. The academic program is individualized and helps each student progress at his own learning rate.
After the regular classes, students participate in a variety of after school activities such as intramural competition and other organized sports. While in the program, students attend tutoring sessions for two hours every night, four days a week.
Supportive services provided by H.E.P. enabling students to achieve their potential are: placement services, dormitory counselors and a complete guidance and counseling program which includes individual and group counseling sessions. Other benefits of the program include room and board, medical care, university I.D. and a weekly stipend based on classroom attendance. For more information call 381-2521.

## Upward Bound Program

Upward Bound is a federally-funded project for low-income high school students at the sophomore, junior and senior levels. which provides a Saturday program during the academic year and a summer program during the first summer session. The purpose of this program is to acquaint these students with a university setting and to strengthen their academic preparation and motivation to pursue post-secondary education through a curriculum of reading, writing, math and science enrichment classes and through counseling designed to increase self-awareness, motivation and career exploration.

# Pan American University at Brownsville 

Dr. Homer J. Peña, President

Pan American University at Brownsville is an upper level institution offering junior, senior, and graduate level work leading to bachelor's and master's degrees. In the Fall 1983, enrollment was approximately 1000 students.
The establishment of the Brownsville campus in 1973 makes it possible for area residents to pursue undergraduate and graduate studies without traveling to a more distant University. Also, many teachers, business men and women, housewives, and others in the area have found it convenient to continue their education at the Brownsville campus. Many courses are offered during late afternoon, evening, and weekend in order to accommodate those who work during the day.

## Location

Pan American University at Brownsville is on the campus of Texas Southmost College, a well-established two-year college. The two schools operate as separate institutions, but a cooperative spirit exists between them, assuring students of a smooth transition from lower to ùpper-level college work.
The campus is in Brownsville (Cameron County), Texas and adjacent to the U.S.Mexico International Bridge over the Rio Grande. Cameron County is at the southernmost tip of Texas, bordering the state of Tamaulipas, Mexico. Brownsville, a city of more than 80,000 people, is across the Rio Grande from Matamoros, 25 miles from Padre Island, and 60 miles from Edinburg.

## Programs

## Undergraduate Programs

Bachelor of Arts (B.A.) Degree
English
Government
History
Sociology
Spanish
Bachelor of Business Administration (B.B.A.) Degree Accounting General Business
Management
Marketing
Bachelor of Criminal Justice (B.C.J.) Degree Police Administration
Bachelor of Science (B.S.) Degree Elementary Education
Teaching Certification Art Biology Business Education Elementary Education English Political Science History Mathematics Music Physical Education Psychology

Sociology<br>Spanish<br>Teaching Endorsements<br>Bilingual<br>Early Childhood Teachers of Exceptional Children<br>English as a Second Language<br>Kindergarten<br>Language Leárning Disabilities<br>Mentally Retarded<br>Graduate Programs<br>Master of Business Administration (M.B.A.)<br>Master of Education (M.Ed.)<br>Bilingual<br>Counseling and Guidance<br>Educational Administration<br>Elementary<br>Reading<br>Supervision<br>Interdisciplinary Studies<br>Master of Arts - English, History, Spanish<br>Master of Science - Biology

## Financial Aid

The financial aid office on the Brownsville campus has a complete financial aid program for all eligible students. Types of financial assistance include grants, loans, scholarships, and student employment. Financial Aid and VA counseling services are also available to assist students.
For more information, contact the Office of Student Financial Aid located in the PAUB Admissions Building.

## Registration

Students may enroll concurrently for classes at the Brownsville campus and on the Edinburg campus of Pan American University, and will be subject to only one set of tuition and fees for the combined hours taken. Also, students having certain lowerlevel course deficiencies in their degree programs may take those courses with Texas Southmost College and transfer the credit to Pan American University. Again, a student may enroll concurrently with both of these institutions, but in this case would be required to pay applicable tuition and fees to each institution.

Registration for both semesters and both summer terms takes place in Brownsville and Edinburg.

## Admission

Generally, to be admitted for undergraduate study at the Brownsville campus, a student must have completed sixty (60) semester hours of college work and meet all other requirements for undergraduate admission to Pan American University set forth elsewhere in this publication. To be admitted for graduate study, a student must comply with all graduate admission requirements of Pan American University. Specific information concerning programs and requirements may be obtained by referring to the Pan American University at Brownsyille catalog or by contacting: Office of Admissions
Pan American University at Brownsville
1614 Ridgely Road
Brownsville, TX 78520

## NOTES

NOTES

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[^0]:    
     Physical Education, Music, vocational and related courses will not be considered.

[^1]:    ${ }^{2}$ Pan American University requires that the institution be accredited by the regional accreditation association responsible for the area in which the institution is located.

[^2]:    ${ }^{2}$ Pan American University requires that the institution be accredited by the regional accreditation association responsible for the area in whick the institution is located.

[^3]:    $\ddagger$ At the time of publication of this bulletin the tuition rates and fees were as follows, but are subject to change without notice or obligation, in keeping with the policies and actions of the Board of Regents and in conforming with the laws of the State of Texas.
    Note 1: Students who are residents of a state other than Texas or are citizens of a foreign country are classified as "Non-Resident Students".
    Note 2: Students enrolled in Nursing Education and who have been accepted by the Nursing Education Department and are enrolled in Nursing Education courses are in a special tuition classification shown in the above Fee Table.

[^4]:    ${ }^{1}$ Fees are subject to change. Fees shown are rates for 1982-83. Contact Collections Office for current rates.

[^5]:    "Selection of accounting elective courses should be made by the student in accordance with his interest in either public practice or industry/government practice. All 4000 - level Accounting courses are limited to students who have been admitted to the Accounting Major or to special students who are in conformity with Accounting Major admission standards.

[^6]:    'The University of Texas requires only one semester sophomore English.
    'Biol 3401 is required by the University of Houston.
    ${ }^{3}$ Students planning to transfer to the University of Texas 'should take Biol 2403 and Comm 1303.

[^7]:    "Graduate Faculty

[^8]:    *Requirements for L/LD endorsements

[^9]:    *If the student had Ed 4351 at the undergraduate level, he will substitute an elective approved by advisor 'If student has credit for Eng 3319, substitute Eng 6351.
    ${ }^{1}$ If student has credit for Ed 4351, substitute approved elective.

[^10]:    ${ }^{2}$ If student has credit for Ed 4351, substitute approved elective.

[^11]:    "If the student had ED 3342 or ED S. 3305 at the undergraduate level, he will substitute an elective from the courses listed under professional development with the approval of his advisor.

[^12]:    *Denotes courses which are required by the State of Texas for ESL endorsement (1982-83).

[^13]:    'Physics 1401, 1402 may be substituted
    ${ }^{2}$ Upper level course in immunology may be substituted for BIOL 3403
    ${ }^{3}$ May attend an accredited Hospital-based MT program
    'Second part of Organic (CHEM 3402) may be substituted for CHEM 3403

[^14]:    *Advanced Professional Electives Include all 3000 \& 4000 courses taught in the School of Business Administration.

[^15]:    -CS 2325 prerequisite
    **For Mathematics majors and minors; a grade of " C " or better in course work taken from MATH 3304, 4348, 4351, 4357, 4360 and 4364 is required for graduation.
    *CS 2325 prerequisite.
    ${ }^{* *}$ For mathematics majors and minors; a grade of "C" or better in coursework taken from MATH 3304, 4348, 4351, 4357, 4360 and 4364 is required for graduation.

[^16]:    "The minor in statistics is intended to be a service minor for those majoring in business, education, health fields, the social sciences or the natural sciences. Those wishing to incorporate a statistics minor with a mathematics major should consult Plan II in above section listing requirements for a major in mathematics.
    *"CS 2325 prerequisite.

[^17]:    MATH 6301 STRUCTURE OF MATHEMATICAL SYSTEMS FOR ELEMENTARY TEACHERS On demand
    This course will consider the comparative structures of mathematical systems. Emphasis will be on the system of real numbers and the algebraic operations involved in the arithmetic of real numbers. Geometric concepts will be studied and related to algebra. This course cannot be used toward a mathematics concentration for a Master of Science degree in Interdisciplinary Studies. Prerequisite: Grade of "C" or better in MATH 2306 and 2307 or equivalent.

[^18]:    *Graduate Faculty

[^19]:    *Consult department for course offerings
    **Not required if student has a college level math course or scores $70 \%$ or above on the University Math Placement Test.
    ***This format is a suggested curriculum. Non-nursing courses may be taken at times other than listed.

[^20]:    "Nursing courses must be taken in sequential order
    **Statistics may be taken as Math 2330, Psy 2301, or Soc 2301.
    ***If exempt from Physical Education, 3 hours of Nutrition must be taken. ***6 hours of Foreign Language must be taken in the same language.

[^21]:    N ED 4308 NURSING VII: PROBLEMS SEMINAR
    Fall
    Issues, trends, and problems in the delivery of nursing care will be discussed. Students will identify an issue, trend, or problem and evaluate its impact on the health care system. The use of research findings and theoretical constructs will be stressed. Three hours lecture.
    Prerequisite or corequisite: NED 4607 and /or consent of the department.

[^22]:    *On Graduate Faculty
    'Subject to approval of Coordinating Board, Texas College and University System.

[^23]:    *On Graduate Faculty

[^24]:    "Graduate Faculty

[^25]:    *This course should be taken within the first six hours of the student's program.

[^26]:    *Graduate Faculty

[^27]:    -If student took ED 4372, he may substitute another course from this area.

[^28]:    *If student took ED 4372, he may substitute another course from this area.

[^29]:    ED S 4398 DIRECTED TEACHING-SECONDARY II
    Fall, spring
    This course gives secondary students experience in responsible teaching at the secondary level under the guidance of public school supervising teachers and university supervisors. The course is designed primarily for secondary students working on $P$ Eall-level certification with a minor in generic special education. To complete minimum certification requirements, these students must take EDS 4398 (secondary); ED 4311 (elementary); and ED 4313 (special education). Students are assigned to the public schools all day, Monday through Friday, for 16 weeks and are required, in addition, (1) to attend a 1-hour weekly seminar with the university supervisor and (2) to have at least one planning conference each week with the public school supervising teacher(s). With permission from the department head, the course may also be used by guest student teachers who need additional student teaching.
    Prerequisite: 12 semester hours of upper level professional education courses, including ED S 3307. A student may take no more than 3 sem hours of additional course work during the professional semester in which he takes Directed Teaching. The course work must be taken after 4:00 p.m.

[^30]:    * On Graduate Faculty.
    'Subject to approval of Coordinating Board, Texas College and University System.

[^31]:    Fall, Spring, Summer
    Traces the philosophy and historical development of social welfare as an institutional arrangement, reflecting its European roots and its evolution in America. A general overview of social welfare institutions, structures and functions helps students understand social work concepts, ethics and practice. Descriptions of social work approaches helg identify the facets of the profession. (Formerly SOCW 2313, may not be repeated for credit.)
    Prerequisite: 3 hours PSY or SOC.

