

Undergraduate Bulletin of
TEXAS A&M UNIVERSITY-KINGSVILLE

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No. 1

CATALOG NUMBER
UNDERGRADUATE COURSES
ANNOUNCEMENTS FOR SESSION 2004-2006

Accreditations, Certifications and Approved Programs

Southern Association of Colleges and Schools
Texas A&M University-Kingsville is accredited by the Commission on Colleges of the
Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4501)
to award bachelor's, master's and doctoral degrees

Department of Human Sciences' Didactic Program in Dietetics
by the Commission on Accreditation for Dietetics Education of the American Dietetic Association
(216 W. Jackson Blvd., Chicago, IL 60606-6995, 312/899-5400)

Chemistry Program by the American Chemical Society

Department of Communications and Theatre Arts Program in Communication Sciences and Disorders by the American
Speech-Language-Hearing Association

Department of Music by National Association of Schools of Music

College of Business Administration by Association of Collegiate Business Schools and Programs

Teacher/Educator Certification Accredited by the
Texas State Board of Educator Certification

Programs in Chemical, Civil, Electrical, Mechanical and Natural Gas Engineering
by the Accreditation Board for Engineering and Technology

Program in Industrial Technology
by the National Association of Industrial Technology

Center for Young Children Accredited
by the National Association for the Education of Young Children

Memberships:

AACSB-International Association for the Advancement of Collegiate
Schools of Business, Candidate
American Association of Colleges for Teacher Education
American Association of Family and Consumer Sciences
American Association of State Colleges and Universities
American Association of State Colleges of Agriculture Renewable
Resources
American Association of University Women
American College Personnel Association
American Council on Education
American Educational Research Association
American Library Association
American Society of Engineering Education
American Speech-Language-Hearing Association

Association for Gerontology in Higher Education
Association of Institutional Research
Association of Teacher Educators
Association of Texas Colleges and Universities
Association of Texas Graduate Schools
Conference of Southern Graduate Schools
Hispanic Association of Colleges and Universities
National Association for Bilingual Education
National Collegiate Athletic Association
National Communication Association
National Intramural Recreational Sport Association
National Wellness Association
Teachers of English to Speakers of Other Languages
Texas Library Association
The College Board

Kingsville, Texas 78363-8202
361-593-2111
A Member of The Texas A&M University System

GENERAL INFORMATION

Purpose of the Catalog

This catalog is the official bulletin of Texas A&M University-Kingsville for the years 2004-2006, in which are published the record of the year closing, the announcements for the coming two years and the official regulations which will be in effect during the coming two years. Fees and policies (except standards and requirements for degrees) are, however, subject to change.

The courses of instruction announced herein are those that are available for offering during the sessions of 2004-2006. Courses to be offered during any one semester or summer term are posted in *Web for Students* prior to registration for a particular semester or term. To meet evolving needs, the university does reserve the right to make changes in courses and to offer only those for which a sufficient number of students register.

Student Responsibility

Each student is responsible for knowing the academic regulations in the **Catalog**. Unfamiliarity with these regulations does not constitute a valid reason for failure to fulfill them.

Equal Opportunity Policy

In compliance with Title VI of the Civil Rights Act of 1964 and Executive Order 11246, Texas A&M University-Kingsville is open to all persons regardless of race, color, religion, sex, national origin or qualified handicap who are otherwise eligible for admission as students. A&M-Kingsville does not discriminate on the basis of handicap in admission or access to its programs.

A&M-Kingsville is an Equal Opportunity/Affirmative Action Employer and no applicant or employee will be discriminated against because of race, color, age, religion, sex, national origin or nonjob related physical or mental handicap in any personnel action. This university will not enter knowingly into contractual agreements for services or supplies with any firm failing to follow fair employment practices.

Family Educational Rights and Privacy Act of 1974 and Amendments Thereto

This act is designated to protect the privacy of education records, to establish the right of students to inspect and review their education records and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students have the right to file complaints with the Family Educational Rights and Privacy Act Office (FERPA) concerning alleged failures by the institution to comply with the act.

Texas A&M University-Kingsville accords all rights under the law to all students. No one outside the institution shall have access to nor will the institution disclose any information, other than directory information, from a student's education records without the written consent of the student, except to personnel within the institution, to officials of other institutions in which the student seeks to enroll, to persons or organizations providing student financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with 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.

In compliance with the Family Educational Rights and Privacy Act of 1974, information classified as "Directory Information" may be released to the general public without the consent of the student. The following is designated as directory information:

Student's name, a local and home address, telephone number, major or minor, current class schedule, number of hours enrolled in current semester, classification, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received and all previous educational agencies or institutions attended.

Students reserve the right to suppress any information from being released without his or her consent. Any student wishing to withhold any or all of this information should notify the Office of the Registrar. The university assumes that failure on the part of any student to specifically request the withholding of directory information indicates individual approval for disclosure.

Standards of Campus Conduct

Members of the university community assume full responsibility for compliance with Texas laws and for proper self-conduct. In addition to behaving according to the ordinary conventions of adult society, members of the university community are bound by university rules and regulations conducive to creating a positive campus atmosphere and general academic well-being.

The code for student conduct is set forth in the *Student Handbook*. Specific attention is given there to rules addressing academic misconduct, hazing, sexual harassment and substance abuse, including alcohol abuse and the illicit use of drugs. Grievance procedures and guidelines for sanctions are outlined.

Standards of conduct for university employees are detailed in the Texas A&M University *System Policies*. The Texas A&M University-Kingsville *Faculty Handbook* sets forth rules and regulations governing academic freedom and responsibility, sexual harassment, substance abuse, conflict of interests, research policies and other professional issues. Grievance procedures are set forth there.

In order to create a healthy and pleasant atmosphere, a campus-wide smoking policy designates only certain areas for smoking.

Student Right-to-Know and Campus Security Act, Public Law 101-542 and Amendments Thereto

This act is designed to provide prospective or entering students with information concerning (a) campus security policies and procedures, security services available, campus crime statistics and alcohol and drug use policies; (b) completion or graduation rate of full time certification-seeking or degree-seeking undergraduate students; and (c) graduation rate of student athletes who receive athletic scholarships. This information is contained in an annual report available in the library.

University Assessment

Students enrolled at Texas A&M University-Kingsville are required to participate in university assessment activities for the evaluation and improvement of university programs and curricula.

Supplementary University Publications

Student Handbook (published by the Student Affairs Office)

Faculty Handbook (published by the Academic Affairs Office)

Faculty-Staff Directory (published by the Public Affairs Office)

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ACADEMIC CALENDARS

Summer 2004 and Academic Year 2004-2006

Dates and Times Subject to Change. Official Calendar and Registration information appears each semester with the Class Schedule.

First Summer Session 2004

May 3	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in August with Academic College Dean.
May 3		Tuition emergency loans start.
May 16-17		"Hoggie Days" orientation.
May 21	8 a.m.	ACT Residual Examination. (Registration with Testing Center closes May 20 at 2 p.m.)
May 21	5 p.m.	Payment Deadline. A \$35 Late Payment Fee will be assessed for registering and/or paying after this date.
May 25		Book emergency loans start.
May 31	10 a.m.	Residence hall check in.
June 1	8 a.m.	First class meetings.
June 1-4		Permission needed from adviser, professor and dean to register or change classes.
June 4	5 p.m.	NO REGISTRATION BEYOND THIS POINT. Fourth Class Day. Census Date.
June 4	5 p.m.	Deadline for students applying for graduation to complete the Change of Name Request form with the Office of the Registrar.
June 11	5 p.m.	Last day for students completing graduation requirements in August to file Application for Candidacy forms with the Office of the Provost and Vice President for Academic Affairs and to pay graduation fees.
June 13-14		"Hoggie Days" orientation.
June 14	5 p.m.	Midsemester Point. Last day to drop a course with an automatic grade of Q.
June 20-21		"Hoggie Days" orientation.
June 21		Title IV 60% of semester.
June 28	5 p.m.	Last day to drop a course or withdraw from the university.
June 30		Book and tuition emergency loans due.
June 30		Last class day.
July 1		Final examinations.
July 1	6 p.m.	Residence halls close.
July 6	9 a.m.	All grades due in the Office of the Registrar.

Second Summer Session 2004

June 14		Tuition emergency loan start.
June 25	5 p.m.	Payment Deadline. A \$35 Late Payment Fee will be assessed for registering and/or paying after this date.
June 30	8 a.m.	ACT Residual Examination. (Registration with Testing Center closes June 29 at 2 p.m.)
July 1		Book emergency loans start.
July 5	10 a.m.	Residence hall check in.
July 6	8 a.m.	First class meetings.
July 6-9		Permission needed from adviser, professor and dean to register or change classes.
July 9	5 p.m.	NO REGISTRATION BEYOND THIS POINT. Fourth Class Day. Census Date.
July 11-12		"Hoggie Days" orientation.
July 18-19		"Hoggie Days" orientation.
July 19		Midsemester point. Last day to drop a course with an automatic grade of Q.

July 25-26		"Hoggie Days" orientation
July 26		Title IV 60% of semester.
July 30	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in December with Academic College Dean.
Aug 2	5 p.m.	Book and tuition emergency loans due.
Aug 3	9 a.m.	Last day to drop a course or withdraw from the university.
Aug 4		Graduating students' grades due in the Office of the Registrar.
Aug 5		Last class day.
Aug 5	6 p.m.	Final examinations.
Aug 6		Residence halls close.
Aug 9	9 a.m.	Commencement.
		All grades due in the Office of the Registrar.

Fall Semester 2004

July 30	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in December with Academic College Dean.
Aug 2		Tuition emergency loans start.
Aug 6	8 a.m.	ACT Residual Examination. (Registration with Testing Center closes Aug. 5 at 2 p.m.)
Aug 16		Payment Deadline. A \$35 Late Payment Fee will be assessed for registering and/or paying after this date.
	8 a.m.	ACT Residual Examination. (Registration with Testing Center closes Aug. 15 at 2 p.m.)
Aug 17		Book emergency loans start.
Aug 17-18		General Faculty/Staff Meeting, BES 100.
		Meetings of deans with departmental chairs.
		Departmental meetings.
Aug 19-22		Welcome Week.
Aug 19	10 a.m.	Residence hall check in for new students.
Aug 21	10 a.m.	Residence hall check in for returning students.
Aug 23		First class meetings of all regular students.
Aug 28		First class meetings of all Saturday students.
Aug 30 - Sept. 8		Permission from the adviser, chair, professor and dean to register or change classes.
Sept. 3	5 p.m.	Deadline for students applying for graduation to complete the Change of Name Request form with the Office of the Registrar.
Sept. 6		Labor Day holiday.
Sept. 8	5 p.m.	NO REGISTRATION BEYOND THIS POINT. Twelfth Class Day. Census Date.
Sept. 10	5 p.m.	Last day for students completing graduation requirements in December to file Application for Candidacy forms with the Office of the Provost and Vice President for Academic Affairs and to pay graduation fees.
Sept. 15	2 p.m.	Freshman Convocation
Oct. 1		Students planning May or August graduation to apply for Application for Candidacy forms with deans of their colleges.
Oct. 11		Midsemester Point.
Oct. 20	9 a.m.	All midsemester grades due in the Office of the Registrar.
Oct. 28		Title IV 60% of semester.
Oct. 29		Book and tuition emergency loans due.
Nov. 1	5 p.m.	Last day to drop a course with an automatic grade of Q.
Nov. 8		Registration for spring semester 2005.
Nov. 25-26		Thanksgiving vacation.
Nov. 27-Dec. 2		Dead Week.
Nov. 29	5 p.m.	Last day to drop a course or withdraw from the university.
Dec. 1		Last class day.
Dec. 1	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in May with Academic College Dean.

Dec. 2		Study Day (no classes).
Dec. 3-4 and 6-9		Final examinations for fall semester.
Dec. 7	9 a.m.	Graduating students' grades due in the Office of the Registrar.
Dec. 9	6 p.m.	Residence halls close.
Dec. 10		Commencement.
Dec. 13	9 a.m.	All grades due in the Office of the Registrar.

Spring Semester 2005

Dec. 1	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in May with Academic College Dean.
Dec. 1		Tuition emergency loans start.
Jan. 3		Book emergency loans start.
Jan. 4		Payment Deadline. A \$35 Late Payment Fee will be assessed for registering and/or paying after this date.
Jan. 4		General Faculty/Staff Meeting, BES 100.
Jan. 4-5		Meetings of deans with departmental chairs.
Jan. 7	8 a.m.	Departmental meetings.
Jan. 7		ACT Residual Examination. (Registration with Testing Center closes Jan. 6 at 2 p.m.)
Jan. 8	10 a.m.	Residence hall check in.
Jan. 10	8 a.m.	First class meetings of all regular students.
Jan. 15	9 a.m.	First class meetings of all Saturday students.
Jan. 17		Martin Luther King, Jr. Day holiday.
Jan. 18-26		Permission from the adviser, chair, professor and dean to register or change classes.
Jan. 21	5 p.m.	Deadline for students applying for graduation to complete the Change of Name Request form with the Office of the Registrar.
Jan. 26	5 p.m.	NO REGISTRATION BEYOND THIS POINT. Twelfth class day. Census Date.
Jan. 28	5 p.m.	Last day for students completing graduation requirements in May to file Application for Candidacy forms with the Office of the Provost and Vice President for Academic Affairs and to pay graduation fees.
Feb. 28		Book and tuition emergency loans due.
Feb. 28		Midsemester Point.
Mar. 9		All midsemester grades due in the Office of the Registrar.
Mar. 11	6 p.m.	Residence halls close.
Mar. 14-20		Spring Break.
Mar. 20	10 a.m.	Residence halls open.
Mar. 21	8 a.m.	Classes resume.
Mar. 24		Title IV 60% of semester.
Mar. 25		Easter holiday - Classes not in session.
Mar. 28		Last day to drop a course with an automatic grade of Q.
Apr. 4		Registration for Summer Sessions 2005 and Fall Semester 2005.
Apr. 22-28		Dead Week.
Apr. 25	5 p.m.	Last day to drop a course or withdraw from the university.
Apr. 27		Last class day.
Apr. 28		Study Day (no classes).
Apr. 29-30 and May 2-5		Final examinations for spring semester.
May 2	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in August with Academic College Dean.
May 3	9 a.m.	Graduating students' grades due in the Office of the Registrar.
May 5	6 p.m.	Residence halls close.
May 6		Commencement.
May 9	9 a.m.	All grades due in the Office of the Registrar.

First Summer Session 2005

May 2	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in August with Academic College Dean.
May 2		Tuition emergency loans start.
May 21	8 a.m.	ACT Residual Examination. (Registration with Testing Center closes May 20 at 2 p.m.)
May 23	5 p.m.	Payment Deadline. A \$35 Late Payment Fee will be assessed for registering and/or paying after this date.
May 24		Book emergency loans start.
May 29	10 a.m.	Residence hall check in.
May 31	8 a.m.	First class meetings.
June 1-3		Permission needed from adviser, professor and dean to register or change classes.
June 3	5 p.m.	NO REGISTRATION BEYOND THIS POINT. Fourth Class Day. Census Date.
June 3	5 p.m.	Deadline for students applying for graduation to complete the Change of Name Request form with the Office of the Registrar.
June 10	5 p.m.	Last day for students completing graduation requirements in August to file Application for Candidacy forms with the Office of the Provost and Vice President for Academic Affairs and to pay graduation fees.
June 14	5 p.m.	Midsemester Point. Last day to drop a course with an automatic grade of <i>Q</i> .
June 20		Title IV 60% of semester.
June 24	5 p.m.	Last day to drop a course or withdraw from the university.
June 30		Book and tuition emergency loans due.
June 30		Last class day.
July 1		Final examinations.
July 1	6 p.m.	Residence halls close.
July 4		Independence Day holiday.
July 5	9 a.m.	All grades due in the Office of the Registrar.

Second Summer Session 2005

June 13		Tuition emergency loan start.
June 27	5 p.m.	Payment Deadline. A \$35 Late Payment Fee will be assessed for registering and/or paying after this date.
June 30	8 a.m.	ACT Residual Examination. (Registration with Testing Center closes June 29 at 2 p.m.)
June 27		Book emergency loans start.
July 3	10 a.m.	Residence hall check in.
July 5	8 a.m.	First class meetings.
July 6-8		Permission needed from adviser, professor and dean to register or change classes.
July 8	5 p.m.	NO REGISTRATION BEYOND THIS POINT. Fourth Class Day. Census Date.
July 19		Midsemester point. Last day to drop a course with an automatic grade of <i>Q</i> .
July 25		Title IV 60% of semester.
July 29	5 p.m.	Graduate and Undergraduate Students - Deadline to file Application for Degree Candidacy in December with Academic College Dean.
		Book and tuition emergency loans due.
July 29	5 p.m.	Last day to drop a course or withdraw from the university.
Aug 2	9 a.m.	Graduating students' grades due in the Office of the Registrar.
Aug 4		Last class day.
		Final examinations.
Aug 4	6 p.m.	Residence halls close.
Aug 5		Commencement.
Aug 8	9 a.m.	All grades due in the Office of the Registrar.

TEXAS A&M UNIVERSITY-KINGSVILLE

The Texas A&M University System

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Tom Kale, *Vice Chancellor for Business Services*
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Texas A&M University-Kingsville

University Administration

Rumaldo Z. Juarez, *President*
College Hall 201. MSC 101. Extension 3207.

Kermeta "Kay" Clayton, *Provost and Vice President for Academic Affairs*
College Hall 250. MSC 102. Extension 3108.

Steven Crandall, *Vice President for Finance and Administration*
College Hall 206. MSC 144. Extension 2410.

J. Randy Hughes, *Vice President for Institutional Advancement*
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Thomas Jackson, *Vice President for Student Affairs*
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Dalton L. Bigbee, *Associate Vice President for Academic Affairs*
College Hall 250. MSC 102. Extension 3098.

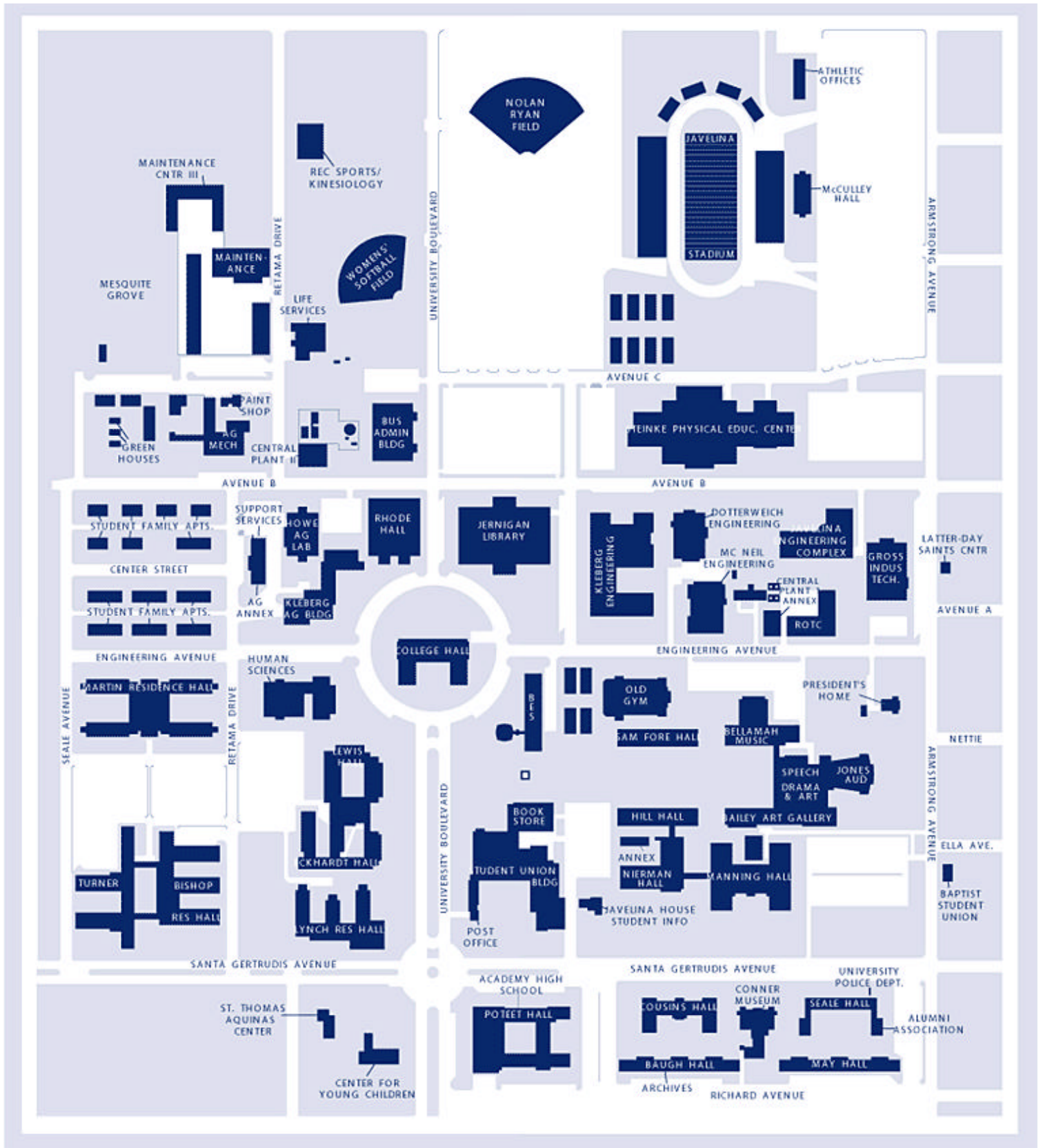
Oscar G. Castillo, *Associate Vice President for Support Services*
Support Services Building 103. MSC 111. Extension 3280.

Maria L. Gonzalez, *Assistant Vice President for Special Programs*
Eckhardt Hall 225. MSC 181. Extension 2431.

Gettie K. Moreno, *Assistant Vice President/Comptroller for Finance and Administration*
College Hall 122A. MSC 104. Extension 3085

Frank B. Ureno, *Associate Vice President for Enrollment Management*
College Hall 221. MSC 227. Extension 4060.

Campus Map



LOCATION

Texas A&M University-Kingsville serves an area comprising the citrus region of the Rio Grande Valley, extensive ranch and farm land, productive oil and gas regions and the expanding industrial area along the Gulf Coast.

Kingsville, the county seat of Kleberg County, is a city of approximately 30,000. It is situated 160 miles southeast of San Antonio, 220 miles south of Austin, 40 miles southwest of Corpus Christi and 120 miles north of Brownsville. The altitude is about 75 feet.

Buildings and Grounds

Texas A&M University-Kingsville lands consist of more than 1,600 acres located at 11 different sites. The main campus consists of approximately 250 acres of land located in the northwest quadrant of the city of Kingsville. On the main campus, there are more than 80 buildings comprising 1.7 million square feet of floor space. The University Farm consists of 545 acres of land located about one-half mile north of the main campus. The university also operates the Citrus Center near Weslaco and a marine sciences/ecology research area on Baffin Bay.

HISTORY

Texas A&M University-Kingsville had its origin as a public institution in the teacher college movement that swept Texas in the early 1900s. Shortly after the institution's inception as South Texas State Teachers College in 1925, its role was expanded to embrace a wider array of programs typically authorized for comprehensive universities, including the graduate program that began in 1935. The historical expansion of the university's role was reflected in the change of its name to Texas College of Arts and Industries in 1929 and to Texas A&I University in 1967. The university became the nucleus of the University System of South Texas in 1972. In 1989 the university, along with other USST institutions, became a member of The Texas A&M University System. The System Board of Regents in 1993 voted to change the name of the university to Texas A&M University-Kingsville, effective September 1, 1993.

Since 1988, the university has based its long range decision making on a comprehensive strategic plan drawn up by a committee representing a cross section of the university community. A copy of this plan is in the President's Office.

Texas A&M University-Kingsville System Center-San Antonio

On January 27, 2000, the Texas Higher Education Coordinating Board approved a proposal for the creation of the Texas A&M University-Kingsville System Center-San Antonio. The State Legislature asked The Texas A&M University System (TAMUS) to create the center. The creation of the System Center-San Antonio is in response to a clear and documented need among South San Antonio residents. The center and its programs are the result of research, surveys and other studies conducted by the TAMUS, Palo Alto College and the Alamo Community College District. It is a partnership among The Texas A&M University System, the Alamo Community College District and Palo Alto College in San Antonio. The partnership brings junior- and senior-level course offerings to the two-year institution and to South San Antonio at a public university price. The center allows students at any community college to earn baccalaureate degrees while remaining on the Palo Alto campus. The first classes were offered in the fall 2000 semester. The Texas A&M-Kingsville System Center initially offered programs in business administration-management, computer information systems, education-interdisciplinary studies, psychology and criminology. The center also offers the Bachelor of Applied Arts and Sciences (BAAS) program.

Irma Rangel School of Pharmacy

Texas A&M University-Kingsville's Irma Rangel School of Pharmacy will open in Fall 2005. Construction on a state-of-the-art building is underway, and the building should be complete by January 2005. The pre-pharmacy curriculum has been updated, and the curriculum for the PharmD is being developed. For more information on the Irma Rangel School of Pharmacy, visit the web page at www.tamuk.edu/pharmacy/.

MISSION OF THE UNIVERSITY

The mission of Texas A&M University-Kingsville is to develop well-rounded leaders and critical thinkers who can solve problems in an increasingly complex, dynamic and global society. Located in South Texas, the university is a teaching, research and service institution that provides access to higher education in an ethnically and culturally diverse region of the nation. Texas A&M-Kingsville offers an extensive array of baccalaureate and master's degree programs and selected doctoral and professional degrees in an academically challenging, learner-centered and caring environment where all employees contribute to student success.

ADMISSION TO THE UNIVERSITY

Magdalena Williams, *Director of Admission*
College Hall 140. MSC 128. Extension 2315.

Texas A&M University-Kingsville adheres to high standards of academic excellence and admits students in accordance with their level of academic preparation. (NOTE: Admission to the university does not guarantee admission to an academic program.) A description and the requirements for each type of admission are outlined below. To be considered for admission, a student needs to complete the steps listed below.

Please be advised that there are pending changes for Undergraduate Admission requirements beginning Fall 2005. These changes will be published in a future addendum.

Admission Steps for Freshman Students

1. Submit a completed application for admission, including the \$15 application fee.
2. Request that an official high school transcript be sent directly to the Office of Admission, Texas A&M University-Kingsville, MSC 128, Kingsville, TX 78363.
3. Notify the testing authority to send official copies of ACT or SAT scores directly to the Texas A&M-Kingsville Office of Admission. (ACT code 4212, SAT code 6822)
4. Students attending colleges or universities while still in high school or prior to enrolling at Texas A&M-Kingsville must request the official college transcripts be sent directly to the Office of Admission.
5. The Texas Academic Skills Program (TASP)/Texas Higher Education Assessment (THEA) is required by Texas law. Although not an admission requirement, students must take the TASP/THEA test prior to enrolling at Texas A&M University-Kingsville and submit their test scores. (TASP Code 722)/(THEA Code 299)

Students can either complete the Texas A&M University-Kingsville application or the State of Texas Common Application. The Common Application is available online at www.applytexas.org or in paper form.

The official high school transcript shows the units completed, the grades earned, rank in class and the date of graduation. Acceptance will be tentatively granted on the basis of a high school transcript showing at least six completed semesters and rank in class.

The Social Security number is used as a permanent student identification number. Anyone who does not have a social security number should obtain one prior to filing an application for admission, or a student I.D. number will be assigned.

Unconditional Admission

Unconditional admission requires a minimum grade point average of 2.0 or better and an ACT score of at least 21 or SAT score of at least 970. Either college entrance test is acceptable. Recommended coursework for unconditional admission includes: four units of English, three units of mathematics (Algebra I or higher), three units of science, four units of social studies and three units of foreign language. Unconditionally admitted students are still required to satisfy the Texas Academic Skills Program (TASP)/Texas Higher Education Assessment (THEA) requirements.

Conditional Admission

Conditional admission is granted when a student does not meet the requirements for unconditional admission and has an ACT score of 17-20 or SAT score of 810-960. Students in this category typically need one or more developmental courses to satisfy the TASP/THEA requirements. The developmental courses are designed to help a student acquire the skills

necessary for success in an academic program. Failure to pass all developmental courses within one academic year will make the student subject to the provisional admission requirements.

Provisional Admission

Provisional admission is granted when a student does not qualify for unconditional or conditional admission. Students who have an ACT score below 17 or SAT score below 810 are considered for provisional admission. A student on provisional admission is subject to specific expectations for performance during the first year of enrollment. A student in this category is, in essence, given one provisional year to demonstrate that he/she can do university level work. A student must sign and return a contract to the Office of Admission to enroll as a provisional student. The contract stipulates the performance requirements and will be included with the admission notification letter.

Student progress will be reviewed at the end of each semester to determine continuation in the program. Failure to satisfy any of the conditions above may result in dismissal from the program. Failure to achieve the mandatory grade point average of 2.0 by the end of the first year will result in enforced withdrawal from the university. (See the *Enforced Withdrawal* section under Academic Standing of the catalog for a complete description.) Suspension from the program, however, can be appealed to the Executive Director of University College under special circumstances.

GED Admission

The GED equivalent certificate may be used in lieu of the high school diploma. The student will be admitted unconditionally, conditionally or provisionally, depending on the ACT or SAT test scores submitted (see above).

Class Rank in the Top Ten Percent

Minimum test scores are not required for students in the top ten percent of their graduation class, but official scores must be submitted.

For advanced credit information, see the section on Academic Regulations.

Recommended High School Course Preparation.

English Language Arts	[English I-IV (substitutions for English IV could come from more advanced courses)]	4 credits
Mathematics	[at least three from the following: Algebra I; Geometry; Algebra II; Precalculus (or Trigonometry and either Elementary Analysis or Analytic Geometry)]	3 credits
Science	[courses to be selected from State Board of Education-approved courses, excluding applied and introductory courses. Appropriate courses include Biology I and II; Chemistry I and II; Physics I and II]	3 credits
Social Studies	[United States History; World History Studies; World Geography Studies; United States Government (½); Economics (½)]	4 credits
Foreign Languages	[level III proficiency in a language as a minimum]	3 credits
Health		½ credit
Physical Education		1½ credits
Computer Science		1 credit
Fine Arts/Speech		1 credit
Electives		3 credits

		TOTAL 24 CREDITS
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Texas Success Initiative (TSI)

The Texas Success Initiative (TSI) requires students to be assessed in reading, writing and mathematical skills before enrolling in a Texas public college or university, and to be advised based on the results of that assessment (Senate Bill 286, Texas Education Code; Section 51.3062). A student is required to complete one of four assessment tests before enrolling at Texas A&M-Kingsville unless he/she meets one or more of the exemptions explained later in this document. The TSI is required by Texas law to ensure that students enrolled in Texas public colleges and universities possess the academic skills needed to perform effectively in higher education course work.

Exemptions

Students are exempt from taking a test for the Texas Success Initiative if a qualifying score has been made on the ACT, the SAT or the TAAS/TAKS providing they possess valid ACT, SAT or TAAS/TAKS. It is the responsibility of the student to provide official ACT, SAT or TAAS/TAKS to Texas A&M-Kingsville to qualify for an exemption before enrollment in any college level courses.

These exemptions are effective for three years from the date a student takes the exit-level TAAS/TAKS and achieves the set score level. It is effective for five years from the date the ACT or the SAT is taken and the set standard is achieved. Scores required for exemption must be attained in one “administration.” Students enrolling for the first time in a Texas public institution of higher education after those periods have elapsed must be treated as though they had not been tested.

ACT, SAT, TAAS/TAKS and Military Exemption standards:

- *ACT Exemption Requirements*
Obtain a composite score of 23 with a minimum of 19 on both the English and the mathematics tests.
- *SAT Exemption Requirements*
For a test taken in April 1995 or later, a combined verbal and mathematics score of 1070 with a minimum of 500 on **both** the verbal and the mathematics tests is required. For a test taken prior to April 1995, a combined verbal and mathematics score of 970, with a minimum 420 on the verbal test and 470 on the mathematics test is necessary for exemption.
- *TAAS/TAKS Exemption Requirements*
A minimum scaled score of 1770 on the writing test, a Texas Learning index (TLI) of 86 the math test and a TLI of 89 on the reading test are required for TSI exemption.
- *Military Exemption*
Students in active military service, active duty in the military-national guard or reserves (must have served for the previous three years, for those in the reserves) and those honorably discharged as of August 1, 1990 are exempt from TSI.

Transfer Admission

The university will allow credit for work done at other institutions that are fully approved by the appropriate regional accrediting agency. Students from other colleges seeking admission must present evidence of honorable dismissal and official transcripts of their entire college history.

1. Complete and submit an Application for Admission. Students can either complete the Texas A&M-Kingsville application or the State of Texas Common Application. The Common Application is available in paper form or online at www.applytexas.org.
2. Pay the \$15 non-refundable application fee. The fee must accompany the application.

3. Current (within the previous 12 months) official transcripts for all undergraduate course work taken at other universities and colleges must be submitted for evaluation. Former course work taken at other universities will be translated into Texas A&M-Kingsville equivalents based on whether it is equal in character and content. Even though general credit may be granted, not all course work will necessarily be used for graduation requirements in degree plans. For a timely evaluation all credentials should be sent directly to the Office of Admission not later than three weeks prior to the opening of the term or semester for which the applicant is seeking admission.
4. The university permits students to transfer lower division (freshman and sophomore) courses from a community college as long as the work fulfills their particular degree requirements. No work taken at a community college can be transferred as an upper-division (junior or senior) level course.
5. Applicants with no more than one semester's work and less than a 2.0 grade point average may be considered for admission on scholastic probation if they can meet admission requirements for freshman unconditional admission. See the Freshman Admission section for admission requirements.
6. An applicant who has more than one semester's work must have an overall average of 2.0/4.0 for admission. This average is calculated on all transferred college work the applicant has undertaken, whether passed or failed. To be accepted into the Frank H. Dotterweich College of Engineering, the overall grade point average from all college work must be 2.5/4.0 or greater.
7. A student who is not entitled to continue work at another institution because of academic failure will not be admitted to this university. When the student becomes academically eligible for readmission to the former institution, the student may apply for admission to this institution.
8. Transfer course work grade point average is brought in as CREDIT ONLY. Transfer grades cannot be used to raise the grade point average at this university. Work brought in after the initial enrollment will not be used to duplicate previously transferred courses.

Resolution of Transfer Disputes for Lower Division Courses

The following procedures shall be followed by Texas A&M-Kingsville in the resolution of credit transfer disputes involving lower division courses:

1. If Texas A&M-Kingsville does not accept course credit earned by a student at another institution of higher education, the university shall give written notice to the student and to the sending institution that transfer of the course credit is denied. Texas A&M-Kingsville shall provide written notice of the reasons for denying credit for a particular course or set of courses at the request of the sending institution.
2. A student who receives notice as specified in number one above may dispute the denial of credit by contacting a designated official at either the sending institution or Texas A&M-Kingsville.
3. Texas A&M-Kingsville, the sending institution and the student shall attempt to resolve the transfer of the course credit in accordance with Coordinating Board rules and guidelines.
4. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, Texas A&M-Kingsville shall notify the Commissioner of its denial and the reasons for the denial.

The Commissioner of Higher Education or the Commissioner's designee shall make the final determination about a dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions.

The Coordinating Board shall collect data on the types of transfer disputes that are reported and the disposition of each case that is considered by the Commissioner or the Commissioner's designee.

If Texas A&M-Kingsville has cause to believe that a course being presented by a student for transfer from another school is not of an acceptable level of quality, it should first contact the sending institution and attempt to resolve the problem. In the event that Texas A&M-Kingsville and the sending institution are unable to come to a satisfactory resolution, Texas A&M-Kingsville may notify the Commissioner of Higher Education, who may investigate the course. If its quality is found to be unacceptable, the Board may discontinue funding for the course.

High School Concurrent/Dual Enrollment Admissions

The Texas A&M University-Kingsville Concurrent/Dual Enrollment Program is designed for the above-average high school student. To be eligible, a student must meet the following criteria:

- a. The student is in high school at a junior or senior level.
- b. The student has a “B” overall high school average.
- c. The high school principal or registrar and senior counselor recommend the student and sign the application.
- d. A partial high school transcript showing rank in class must be submitted along with an application for admission.
- e. An ACT composite score of 21 or better or an SAT combined score of 970 or better is required.
- f. Enrollment will be limited to a maximum of six (6) hours each long term (fall or spring) or three (3) hours each summer session.
- g. Texas Academic Skills Program (TASP)/Texas Higher Education Assessment (THEA) is required by Texas law. Students must take the TASP/THEA test prior to enrolling at Texas A&M-Kingsville.

Eligible high school students should first contact their high school counselor. School officials may receive more information from the Office of Admission.

Nondegree Program Admission (Undergraduate Only)

Students must submit an Application for Admission and provide all necessary documents for freshman or transfer admission. Approval must be received from the appropriate department chair/dean before the student can register for courses.

1. Nondegree seeking students are allowed to take two undergraduate courses in a regular semester and one course per summer session.
2. Should students enrolled in the nondegree program decide at a later date to become degree candidates, they must abide by all the rules and regulations governing the various degrees at Texas A&M-Kingsville as established by the current catalog at the time of official acceptance to a degree program. A maximum of 15 semester hours of courses can be taken as a nondegree student. In order for courses to be counted toward a degree, all prerequisite requirements and other requirements, as set forth by the various colleges, must be met.

Nondegree students are not eligible to receive any type of financial assistance offered through the university or through the Veterans Affairs Office.

Readmission

Former students who have had a break in enrollment at this university must update their records and submit a readmission application to the Office of Admission prior to being given permission to register. Those who have taken college work at another institution and who are in good academic standing at that institution must request that official transcripts be sent to the Office of Admission. Permission to register will be granted if a student is in good standing (a 2.0 overall grade point average) and the readmission application is submitted to the Office of Admission. If work from former institutions is evaluated after readmission and it is determined that the student's transfer grade point average is below 2.0, the student will be deemed ineligible to continue.

Immunization

It is recommended that students entering Texas A&M-Kingsville be vaccinated prior to enrollment and that preventive vaccinations be taken when required. The following vaccinations are recommended:

- Two (2) doses MMR (Measles, Mumps, Rubella) vaccine

- Tetanus-Diphtheria booster within the past 10 years
- Polio (if under the age of 18)
- Tuberculosis (TB) skin test, (within one year prior to enrollment)
- Hepatitis B vaccine
- Menomune (Meningitis vaccine)

Immunization records should be sent to Health Care Services, Texas A&M University-Kingsville, MSC 112, Kingsville, TX 78363. If you have questions regarding these vaccinations, contact Student Health Care Services at 361-593-2904, your family physician, the county health department or the Immunization Division of the Texas Department of Health.

Academic Fresh Start

Pursuant to Senate Bill No. 1321 enacted by the 73rd Texas Legislature, students seeking admission to Texas A&M University-Kingsville who have previous college course work more than 10 years old at the time of application, may elect to have the University disregard that course work when considering the applicant for admission. An applicant who makes this election and is admitted may not receive any course credit for courses undertaken 10 or more years prior to the date of the election. The Academic Fresh Start Option can be exercised only once.

Students electing to use the Academic Fresh Start Option and who are receiving financial aid should contact the Office of Student Financial Aid and the Veteran Affairs Office (if applicable). If three or more semester credit hours have been earned prior to Fall 1989, students will not forfeit any TASP/THEA exemption by electing to participate in the Academic Fresh Start.

Failure to attend the university during the initial semester of the Academic Fresh Start election will negate the agreement and the student will have to reapply for Academic Fresh Start in a future semester.

International Admission

Alberto Salinas, *Director of International Admission and Student Services*
Cousins Hall 220. MSC 167. Extension 4994.

To be fully admitted, the international student must submit the following items before established deadline dates:

1. Complete and submit an Application for International Admission. International students can also apply online at www.applytexas.org using the State of Texas Common Application.
2. Submit official transcripts covering all high school and college work previously completed, whether taken in a foreign country or in the United States. Foreign transcripts must be translated into English and must be certified by the Ministry of Education or comparable agency in the student's respective country.
3. Submit TOEFL scores. University departments will determine their respective minimum scores required for admission. A minimum university score of 500 is required for applicant review. A minimum TOEFL score for undergraduate students seeking admission to the Frank H. Dotterweich College of Engineering is 550. SLEP will not be accepted in the Frank H. Dotterweich College of Engineering.
4. Submit proof of ability to meet personal and academic expenses. A minimum of \$18,162 (U.S.) per year is currently required to meet such expenses. Valid financial support documents (less than one year old from date of enrollment) must indicate the minimum U.S. dollar amount (at least \$18,162) required by the university. The required minimum is subject to change without notice.
5. \$50 non-refundable application fee must accompany the application. Bank money orders must be issued in U.S. dollars by a U.S. bank.
6. A complete file must be submitted prior to June 1 for fall admission, October 1 for spring admission and April 1 for summer admission. Applications received after these dates will be automatically deferred to the next semester or term.

International Student Services

Mildred Slaughter, *Assistant Director*

Cousins Hall 226. MSC 176. Extension 3317

Specialized services for international students include new student orientation, assistance with matters dealing with U.S. Citizenship and Immigration Services, social security, health insurance, employment and academic and personal conferences. The International Student Organization is coordinated through this office and provides an opportunity for social interaction, information and cultural exchange. Multicultural events are also sponsored through this office each semester.

International Student Health Insurance

All international students enrolled in any university in The Texas A&M University System are required to have an approved health (medical) insurance plan at all times. Coverage must be renewed before the premium expires and there should be no lapse in coverage. Students are required to purchase insurance coverage on a semester or annual basis.

International Student Orientation

New and transfer international students are required to participate in a special orientation session prior to registering for their first semester at Texas A&M-Kingsville. The mandatory orientation session is conducted by staff in the International Student Services office.

Immigration status as an approved student will be granted upon submission and review of the stated documents. An I-20 form will be issued from the International Student Services Office. International students applying for admission are reminded that possession of an I-20 form from this university does not relieve them of the responsibility to comply with United States immigration procedures.

RESIDENCE LIFE AND DINING SERVICES

Tarome Alford, *Director of Residence Life*
Lewis Hall. MSC 108. Extension 3419.

REQUIRED ON CAMPUS RESIDENCE POLICY

Texas A&M University-Kingsville has had a required residence policy for many years. Beginning fall 1999, all unmarried students with fewer than 60 hours who are under 21 years of age will automatically be assigned to and billed for, a residence hall room and meal plan. A specific meal plan and residence hall can be requested by completing the housing application/contract forms which can be obtained from Residence Life, MSC 108, Texas A&M University-Kingsville, Kingsville, TX 78363-8202; 361-593-3419. This application (accompanied by a \$150 Room Reservation and Damage Deposit) must be completed by all hall residents prior to being assigned to a specific hall or roommate.

Request to Live Off Campus

In order to be considered for an exception to the required residency policy, the student must contact the Residence Life Office for the necessary forms. Exceptions to the policy may be granted to those students who are (a) living with a parent or legal guardian, (b) who are enrolled on a part-time basis (6 hours or fewer), (c) 21 years of age, (d) veterans, or (e) married.

Requests to be Exempted from the Required Residence Policy

Students under 21 years of age and with fewer than 60 hours who wish to live off campus must seek permission to do so by filing a housing exception request form with the Residence Life Office by August 1 for the fall semester and December 1 for the spring semester. All commuting students (including those who are residents of the Kingsville area) and married students who wish to live off campus must also complete this form. A committee will review the requests. Simply turning in a request does not mean an exemption is given. Applicants should not make other housing arrangements until they are notified in writing as to the status of their request.

Applying for University Housing

In order to be assigned to a university residence hall, a student must (a) submit a housing application, (b) forward the application and a \$150 room reservation and damage deposit to the Residence Life Office and (c) complete a housing contract. The contract will be mailed to the student after the university receives the housing application and the \$150 deposit. Students are encouraged to read the contract carefully before signing and returning it to the university. When the contract is signed and returned, it becomes a binding agreement between the student and the university.

Room Reservation and Damage Deposit

The \$150 room reservation and damage deposit is retained throughout the period of residence of the student as a guarantee against damage and unwarranted depreciation. The deposit will be returned to the student after termination of residence with the amount assessed for damages or any other university debt, if any, deducted from the \$150.

The deposit will be forfeited if the student (a) cancels the room reservation after the stated cancellation deadline for the semester or session for which it was made; (b) moves from the residence hall before the end of the semester; (c) does not check in by the last day of regular registration for the semester or session for which the reservation was made; or (d) does not officially check out of the residence hall upon termination of residency.

Cancellation Dates

A student whose plans change about attending A&M-Kingsville must notify the Residence Life Office in writing by the appropriate deadline. Failure to cancel a reservation deposit by the deadlines listed below will result in forfeiture of the \$150 deposit.

Fall Semester: August 1
Spring Semester: December 1

Summer I: May 1
Summer II: June 1

Written cancellation requests may be received in person, by mail or fax to the Residence Life Office. Notification submitted to other departments other than the Residence Life Office do not comply with this requirement. Cancellation requests will be reviewed under the terms and conditions of the housing contract and provided that the student has complied with the university's required residence policy.

Students who apply for housing **after** the cancellation deadlines stated above and then wish to cancel their housing arrangements, will similarly have their request reviewed. The housing deposit will be forfeited.

Residence Halls

Rooms in each residence hall accommodate two students. Each hall has a laundry room, vending area, small kitchen and common lobby available for student use. Cable television (including HBO) service is available in each student room. Students eat their meals in the residence dining cafeteria located in the Student Union Building. Housing rates are listed at the end of this section. Rules governing residence hall living and dining room conduct are set forth in the *Student Hand-book* and *Campus Housing Guidebook*.

James E. Turner-Carrie Lee Bishop Hall is a three-story, air-conditioned complex accommodating 368 women and 392 men. The complex is located on the west end of the campus. Men live in Turner Hall and women live in Bishop Hall. Each side of the complex has its own study room, lounge, computer lab and television room. Central bathroom facilities are located on each floor. Turner Hall has a courtyard equipped with a barbecue pit, picnic table and basketball half court. Bishop Hall has two courtyards, one of which features a volleyball court. Room furnishings in both halls include pull-out beds, built-in desks and bookshelves. Also provided are two bulletin boards, two chairs, two chest-of-drawers and two closets.

John F. Lynch Hall is a two-story, air-conditioned hall for 200 women. It is located across the street from the Student Union Building. The hall has a large lounge/TV area, computer lab and a study room. Room furnishings include two height adjustable twin beds with lofting capabilities, desks and bookshelves, two chairs, a chest-of-drawers and two closets. Lynch Hall has a sundeck available for its residents.

J. C. Martin Jr. Hall (B Side) is a three-story, air-conditioned residence hall for 208 men. Martin Hall is located across the parking lot from Turner-Bishop Hall on the west side of campus. The hall has a large lounge/TV area, a computer lab and a study room. Room furnishings include two beds and a chest of drawers, a built-in desk and bookcase, two closets and two chairs. Central bathroom facilities are located on each wing. Martin Hall has an outdoor courtyard which includes a basketball half court.

Co-ed Residence Halls

Lewis Hall and Martin Hall (A Side) are co-ed residence halls with an optional meal plan. In order to reside in Martin Hall, a student must have 60 hours of acceptable credit with the university or be 21 years of age. In order to reside in Lewis Hall, a student must have 90 hours of acceptable credit with the university, be a graduate student or be 22 years of age.

Lorine Jones Lewis Hall is a three-story, air-conditioned hall for 90 students living in single rooms. Lewis Hall is designed on a suite plan with two rooms sharing a bathroom. Room furnishings include a desk area, a bed, a chest-of-drawers, a night stand, two chairs and two closets. A student must be 22 years of age or have 90 credit hours to be eligible to live in Lewis Hall. Lewis Hall is a 24 hour quiet hall. *Smoking is not permitted in Lewis Hall.* The hall has a large lounge/TV area and a computer lab.

J.C. Martin Jr. Hall (A Side) is a three-story, air-conditioned hall for 200 students. Room furnishings include two beds and a chest-of-drawers, a built-in desk and bookcase, two closets and two chairs. Central bathroom facilities are located on each wing. The main lobby is shared with Martin Hall (B Side). A student must be 21 years of age or have 60 credit hours to be eligible to live in Martin Hall (A side). Martin Hall (A side) has a computer lab, workout room, study room and an outdoor courtyard which includes a sand volleyball court.

Meal Plans

With the exception of Lewis Hall and Martin Hall (A side), all residence halls require the purchase of a meal plan in addition to housing. Students must sign separate housing and food service contracts. During the fall and spring semesters, the student may select from a variety of meal plans. Any changes to the student's initial meal plan selection must be made within seven days after check-in. (This does not include the block plan which cannot be changed.) Requests for changes to the meal plan are handled at the Campus Housing Office.

Payment must be made for both the room and the cost of food service. No credit will be allowed for nights not spent in the hall or meals missed. Meal plans are not transferrable from one person to another. Students who purchase a meal plan will be issued a card upon presentation of payment. It is the student's responsibility to make arrangements to pay room and board fees promptly to obtain a meal card. Failure to obtain a meal card does not exempt the student from the obligation to pay the full amount for room and board fees due. The student will be charged a replacement fee for the loss of the meal card.

Housing Payment Procedures

Upon being assigned to a residence hall, the housing fees will be added to the student's account (which includes tuition and other student fees). It shall be the student's responsibility to make prompt arrangements for payment.

The student may pay the full amount due or arrange to pay under the university's deferred payment plan. The first payment is equal to half of the charges due plus a \$30 administrative fee and is due on or before the designated payment deadline. The remaining amount is due in two quarter payments. Students selecting the deferred payment plan must arrange for and sign the payment plan at the Business Office. The following policies and procedures will apply:

- a. Students receiving university-sponsored financial aid are expected to pay all financial obligations owed the university at the time they receive the financial aid.
- b. The Business Office will send invoices to the student's billing address. Hall payments must be made on or before the due date, or a \$15 late fee will be assessed.
- c. If a scheduled payment becomes 10 days delinquent, notification will be forwarded to stop meals. **The student will still be responsible for paying for meals which have been stopped because of non-payment.** Students who have their meals stopped for non-payment are encouraged to meet with the business services manager, whose office is located in the Business Office at College Hall, to discuss payment arrangements.
- d. A "hold" will be placed on the student's records for delinquent payments. A student will not receive his/her grades, transcript or be allowed to register for future semesters until such hold is cleared. Non-payment will also result in loss of future housing privileges.
- e. Refund of unused room and board fees due to early check-out will be paid in the following order when applicable:
 - a) Financial Aid refund; b) outstanding university debts; c) remaining portion to the student.

Refunds

Students withdrawing or terminating from the university during a semester or term will receive a refund of housing fees prorated on a calendar basis up to the semester midpoint (and in accordance with financial aid guidelines where applicable). Students withdrawing or terminating from the residence hall after mid semester point will not be eligible to receive a housing and board refund. (Refer to housing contract for further information.)

Miscellaneous Housing Information

- a. The university will make all residence hall and room assignments and reassignments as necessary. The university cannot guarantee assignment to a particular hall or a specific roommate. First preference is given to students who resided in the halls the previous long semester and contracted to return to the halls. New applicants are assigned on a space available basis, according to the date that the housing contract is received and provided that the student has been admitted to the university. Not placing a deposit or submitting incomplete application forms can also delay the assignment process.
- b. All students are initially assigned a roommate at the beginning of the semester. Should a student's roommate not check-in to the hall, that student will be requested to consolidate with another person.
- c. Specific roommate requests are accommodated as possible. Students with roommate preferences must mutually request each other on the housing contract, request the same hall and include their prospective roommate's social

security number. Both contracts must also be received by the July 1 priority deadline (for fall semester assignment). Not being admitted to the university, not placing a deposit or submitting incomplete forms can also delay assignment.

- d. Due to space limitations, private rooms cannot be reserved in advance. Private rooms are assigned from a waiting list after the 12th class day if space is available. There is an additional charge for a private room. The university does reserve the right to place two people in a room that has been assigned as a private room if space is needed. A refund will be made to the person who has paid for a private room (prorated from date the private room is relinquished).
- e. In signing a housing contract, the student agrees to reside in that room for the time specified in the contract. This contract is personal and may not be transferred or assigned to another person. If the student fails to enroll at the university, advance notice of residence hall cancellation must be provided in writing. Under the terms of the housing contract, moving from the residence hall without an authorized release from the contract will not terminate the student's fiscal obligations.
- f. Residence halls and dining halls are closed between the fall and spring semesters and during university holidays. The residence hall calendar and the housing and food service contract show the specific times that the residence halls are open and when meals are served. During periods when classes are not in session, housing may be made available if the university determines there is sufficient demand. In such instances, additional rent may be required of each student desiring accommodations. The amount will be determined by the Residence Life Office, and students will be consolidated into one hall.

Residence Hall Association

Composed of student representatives from each residence hall, the association represents the entire residence hall population. Its purpose is to provide effective lines of communication among the house councils and with the Residence Life Office; to coordinate the programs, activities and government of the individual residence halls; to arbitrate any disputes pertaining to house council operating procedures; and to recommend policies affecting all residence halls. Each residence hall has its own house council.

STUDENT FAMILY APARTMENTS

There are 28 one-bedroom and 12 two-bedroom apartments available to eligible students. Eligible students include married students or single parents with dependent children. Application forms may be obtained from the Campus Housing Office. Each apartment includes a living room, bedroom(s), tile bath, closets, kitchen equipped with a stove and a refrigerator, central air conditioning and a heating unit. Furniture, cooking utensils, dishes, bedding and other furnishings are the responsibility of the occupant. Monthly rental rates are listed at the end of this section. The university provides water, cable, local telephone service and sewer service. The occupant is responsible for arranging and paying for electrical service and long distance phone calls.

To be eligible for a student family apartment at A&M-Kingsville students must be:

- a. Married and/or the parent of minor children of whom they have legal custody. The spouse and/or children must reside with the resident on a full-time basis. In the event of a separation, both parties will be considered as single persons (if there are no children) and will be required to vacate the apartment at the end of the semester or term in which the separation occurs.
- b. Actively pursuing no fewer than **12 semester hours of undergraduate work** or 9 hours of graduate study for the regular sessions and no fewer than 3 semester hours of work during one of the two summer sessions.

Any student qualifying for family housing may request to be placed on the waiting list. A student's position on the list is determined by the date placed there. Once on the list, a student's application works forward as vacancies occur. All students on the list are assured that its integrity will be maintained at all times and that each person on the list will receive equal treatment. Only persons on the list will be offered apartments when apartments become available.

Married couples with no dependents will be offered a one-bedroom apartment only. Persons with dependents will be offered a two-bedroom apartment when available. All persons must either take the apartment offered to them or have their name placed at the bottom of the list again. A student who decides to accept an apartment must pay the required deposit and submit a student family apartment contract and other necessary housing forms.

Four units of the student family apartments are reserved for use by the Athletic Department for assignment to married student athletes. A two-bedroom unit and three one-bedroom units have been set aside. If the Athletic Department is not using all units, the vacant apartment(s) will then be offered to the student next on the campus housing waiting list.

DINING SERVICES

Steven D. Kauf, *Food Service Director*
 Student Union Building 213. MSC 124. Extension 3119.

Sodexo Food Service is the sole provider of food services on campus. The Tejas Room in the Student Union Building is the site of the multiple board plans available, including continuous meal service, and is open daily when school is in session. There are three retail operations including a Pizza Hut franchise and the Javelina Café in the SUB. Most meal plans include specific dollar allocations for retail purchases as well as regular meals. Sodexo also operates a full-service catering operation which can handle everything from coffee service to full service dinner banquets to large wedding receptions and even special events off campus. There are many opportunities for student employment in food services.

SUMMARY OF HOUSING AND BOARD RATES

The university reserves the right to change housing fees on 30 days' notice.

Residence Halls

Fall and Spring Semesters

One Payment Plan

Deferred Payment Plan

1st payment due upon execution of note;

one half of fees plus \$30

2nd payment = one fourth of fees

3rd payment = one fourth of fees

Semi-Private Room and Board Rates (Fall or Spring) with Carte Blanche meal plan and \$75 credit line

Men's Residence Halls

	<i>One Payment Plan</i>	<i>Deferred Payment Plan*</i>		
Martin Hall - B	\$2,107	\$1,083.50	\$526.75	\$526.75
Turner Hall	\$2,107	\$1,083.50	\$526.75	\$526.75

Women's Residence Hall

Bishop Hall	\$2,107	\$1,083.50	\$526.75	\$526.75
Lynch Hall	\$2,161	\$1,110.50	\$540.25	\$540.25

Co-ed Halls

Martin Hall - A	\$2,107	\$1,083.50	\$526.75	\$526.75
Lewis Hall	\$2,161	\$1,110.50	\$540.25	\$540.25

**Semi-Private Room and Board Rates (Fall or Spring)
with 14 Meals per week plan and \$100 credit line**

<i>Men's Residence Halls</i>	<i>One Payment Plan</i>	<i>Deferred Payment Plan*</i>		
Martin Hall - B	\$2,052	\$1,056	\$513	\$513
Turner Hall	\$2,052	\$1,056	\$513	\$513
 <i>Women's Residence Halls</i>				
Bishop Hall	\$2,052	\$1,056	\$513	\$513
Lynch Hall	\$2,106	\$1,083	\$526.50	\$526.50
 <i>Co-ed Halls</i>				
Martin - A	\$2,052	\$1,056	\$513	\$513
Lewis Hall	\$2,106	\$1,083	\$526.50	\$526.50

**Semi-Private Room and Board Rates (Fall or Spring)
with 10 Meals per week plan and \$100 credit line**

<i>Men's Residence Halls</i>	<i>One Payment Plan</i>	<i>Deferred Payment Plan*</i>		
Martin Hall - B	\$1,932	\$996	\$483	\$483
Turner Hall	\$1,932	\$996	\$483	\$483
 <i>Women's Residence Halls</i>				
Bishop Hall	\$1,932	\$996	\$483	\$483
Lynch Hall	\$1,986	\$1,023	\$496.50	\$496.50
 <i>Co-ed Halls</i>				
Martin Hall - A	\$1,932	\$996	\$483	\$483
Lewis Hall	\$1,986	\$1,023	\$496.50	\$496.50

*Includes a one-time processing fee of \$30 per semester per payment plan.

**Semi-Private Room and Board Rates (Fall or Spring)
with 10 Meal per week plan (no credit line)**

<i>Men's Residence Halls</i>	<i>One Payment Plan</i>	<i>Deferred Payment Plan*</i>		
Martin Hall - B	\$1,872	\$966	\$468	\$468
Turner Hall	\$1,872	\$966	\$468	\$468
 <i>Women's Residence Halls</i>				
Bishop Hall	\$1,872	\$966	\$468	\$468
Lynch Hall	\$1,926	\$993	\$481.50	\$481.50
 <i>Co-ed Halls</i>				
Martin Hall - A	\$1,872	\$966	\$468	\$468
Lewis Hall	\$1,926	\$993	\$481.50	\$481.50

Room Only Plan

<i>Co-ed Halls</i>				
Martin Hall - A	\$1,152	\$606	\$288	\$288
Lewis Hall (private room only)	\$1,556	\$808	\$389	\$389

Board Only Plan

	<i>One Payment Plan</i>	<i>Deferred Payment Plan*</i>		
Carte Blanche w/\$75	\$955	\$507.50	\$238.75	\$238.75
14 meals per week w/\$100	\$900	\$480	\$225	\$225
10 meals per week w/\$100	\$780	\$420	\$195	\$195
10 meals per week w/\$100	\$720	\$390	\$180	\$180
45 meal block plan w/\$50	\$260	\$160	\$65	\$65

*Includes a one-time processing fee of \$30 per semester per payment plan

Student Family Housing

Student Family Apartments

One bedroom	\$345 per month
One bedroom (remodeled)	\$370 per month
Two bedroom	\$390 per month

EDUCATIONAL EXPENSES

Armandina G. Lorenzi, *Bursar*
College Hall 102. MSC 104. Extension 3818.

Estimated Nine-Month Budget

The following nine-month budgets are offered as estimates of reasonable expected expenses. These estimates are based on a 13-credit hour course load for a Texas resident and are subject to change.

Texas A&M University-Kingsville Budget for 2003-2004 (Texas Resident) Fall and Spring (award year/semester)

	On campus	Off Campus	Live With Parents	Parents Home With Dependents
Tuition & Fees	\$3,060/\$1,530	\$3,060/\$1,530	\$3,060/\$1,530	\$3,060/\$1,530
Books & Supplies	\$1,000/\$500	\$1,000/\$500	\$1,000/\$500	\$1,000/\$500
Room & Board	\$3,977/\$1,988	\$3,587/\$1,793	\$1,908/\$954	\$3,189/\$1,595
Transportation	\$1,529/\$765	\$1,529/\$765	\$1,904/\$952	\$1,904/\$952
Dependent Care (Per Child)	\$1,146/\$573			
Personal Expenses	\$2,182/\$1,091	\$2,182/\$1,091	\$1,650/\$825	\$1,626/\$813
Loan Fees	Undergraduates: \$202/\$101 Graduates: \$366/\$183			
Total	\$11,748/\$5,874	\$11,358/\$5,679	\$9,522/\$4,761	\$10,779/\$5,390

Married couples and single head of household may add an additional \$1,080 amount to their budgets for each dependent child. Child care allowance is added for each dependent child under age 12.

Financial Obligations

Students are expected to pay all financial obligations to the university when due. Failure to meet such obligations will result in a student's record being placed on a hold status and may result in the student not being able to take final examinations, receive official transcripts or enroll for another semester. Failure to make room and board payments on time may result in the loss of meal privileges and eviction from the university residence hall. Student family apartment residents may also be removed from their apartment if monthly apartment rentals are not paid on time. In all cases, the student will be duly notified and given a reasonable length of time to clear the obligation before the enforcement of disciplinary action.

Students receiving university sponsored financial aid are expected to pay all financial obligations owed the university at the time they receive the financial aid. Students who are working on campus will have the opportunity to cash paychecks to pay financial obligations.

Mandatory Tuition and Fees

Students who do not pay mandatory tuition and fees in full by established deadlines will be dropped from one or more classes, according to the unpaid balance due. Students who establish and make the required initial payment of the deferred payment plan will not be dropped.

Deferred Payment of Tuition and Fees

Students selecting the deferred payment plan may pay tuition and fees in **three** payments. There is a \$30 administrative fee for choosing the deferred payment plan. Students who select a deferred payment plan are subject to the following provisions:

- a. Students receiving university sponsored financial aid equal to or greater than their tuition and fees **must** pay in one payment. All financial aid funds received after selection of deferred payment plan will be applied to account balance until paid in full.
- b. A late payment penalty of \$15 will be assessed for any deferred payment not made on or before the due date.
- c. A student who fails to make full payment of tuition and fees, including any incidental fees, by the due date may be prohibited from registering for classes until full payment is made. A student who fails to pay in full prior to the end of the semester may be denied credit for the work done that semester.

Charge Card Privilege

Students may pay tuition and fees, including room and board, with a Mastercard or Visa. Credit card payments may be made via Javelina Hotline during scheduled dates/or over the web.

Concurrent Enrollment at Another Public Institution of Higher Education

Students must present to the Registrar on the day they register evidence of previous enrollment for the same semester, number of hours enrolled and receipt showing the total tuition and other registration fees paid at another public institution in order to be eligible for provisions of Senate Bill 250 "Tuition Limit in Cases of Concurrent Enrollment."

Returned Item Policy

When a bank returns an unpaid item (i.e., check, credit card, money order) that has been submitted to the university, the following procedure will apply:

1. The Business Office will mail a notification by certified mail within 3 business days to the individual who submitted the returned item to the university. This notice will indicate the amount of the item, the \$15 returned item charge, and the reason the item was returned. The individual is given 10 days from receipt of notification to clear the returned item using cash, cashier's check or money order. Only payment in full will be accepted. The university will not accept a personal check in payment for a returned item. In the event the certified mail is unaccepted and returned to the university, the university will attempt to deliver the notification to the student through one of his/her classes. The university will also attempt to reach the individual by phone. The individual will be given 10 days from this contact to clear the item.
2. A registration and transcript hold will be placed on the individual's record. After an individual has two or more items returned to the university, checks will no longer be cashed for that individual. If an individual stops payment on a check presented to the university, the university reserves the right to refuse acceptance of future checks for payment of university charges.
3. In those instances where a student fails to redeem a returned item and charge within the 10 day period, the university will initiate one or more of the following courses of action:
 - a. If the item was given in payment of tuition and fees or is in excess of \$100, the student may be withdrawn from all classes at the university. The Business Office will notify the Registrar's Office of the requested withdrawal. The Registrar's Office will withdraw the student as of that date and notify the student, all instructors and any other offices that may need to take action (i.e. International, Student Services, Dean of Students). The student will receive a refund only if the withdrawal occurs prior to or during the percentage refund dates for the semester. Any refund resulting from the withdrawal will be held to be applied toward the returned item. If the student is withdrawn after midpoint of the session, the grade entered on his/her transcript will be at the discretion of each instructor.
 - b. Returned items for less than \$100 may be referred to the Student Services Office for disciplinary action.

- c. In those instances where the returned check and charge have not been redeemed after two notification attempts, the university may take the check to the district attorney (or county attorney) and file a complaint with that office. Any further action on the matter will follow the legal process as prescribed by the respective attorney's office.

Resident vs. Nonresident Student Status

All students attending A&M-Kingsville who are nonresidents of Texas will be charged additional tuition in accordance with state law. The responsibility of registering under the proper residence is placed upon the student. If there is any possible question of the right to legal residence in Texas under state law and university rules, the student must raise the question with the Office of Admission and have such question settled prior to registration. There can be no change of residence unless authorized by the Registrar. Students must pay the correct fee at the beginning of each semester or term for which they register. An attempt on the part of a nonresident to evade the nonresident fee may lead to expulsion from the university. Legal resident information forms to assist students in determining their proper legal status are available in the Registrar's Office.

Military Residence

Military persons stationed in Texas who wish to avail themselves or their dependents of military residence provisions of state law must at each registration submit a statement from the commanding officer or the personnel officer of their military unit certifying that (a) they are permanently assigned to a military unit in Texas or their duty station, if different from their unit of assignment, is in Texas and (b) their assignment was in effect at the time of registration.

RESIDENT FEES
2004-2005 Texas Resident Fees
Long Session (Fall or Spring)
Undergraduate

Hour	Tuition	Designated Tuition	Student Service	Athletic Fee	Computer Use Fee	Library Access Fee	Intl. Ed. Fee	Trans. Fee	Hosp. Fee	Student Center	ID Fee	Total
1	120	40	12	12	8	5	3	10	49	30	10	299
2	120	80	24	24	16	10	3	10	49	30	10	376
3	144	120	36	36	24	15	3	10	49	30	10	477
4	192	160	48	48	32	20	3	10	49	30	10	602
5	240	200	60	60	40	25	3	10	49	30	10	727
6	288	240	72	72	48	30	3	10	49	30	10	852
7	336	280	84	84	56	35	3	10	49	30	10	977
8	384	320	96	96	64	40	3	10	49	30	10	1,102
9	432	360	108	108	72	45	3	10	49	30	10	1,227
10	480	400	120	120	80	50	3	10	49	30	10	1,352
11	528	440	132	132	88	55	3	10	49	30	10	1,477
12	576	480	144	144	96	60	30	10	49	30	10	1,602
13	624	520	156	156	104	65	3	10	49	30	10	1,727
14	672	560	168	156	112	70	3	10	49	30	10	1,840
15	720	600	180	156	120	75	3	10	49	30	10	1,953
16	768	640	192	156	128	80	3	10	49	30	10	2,066
17	816	680	204	156	136	85	3	10	49	30	10	2,179
18	864	720	216	156	144	90	3	10	49	30	10	2,292
19	912	760	228	156	152	95	3	10	49	30	10	2,405
20	960	800	240	156	160	100	3	10	49	30	10	2,518

Add \$48 tuition, \$40 designated tuition, \$8 computer use fee and \$5 library access fee for each hour over 20. In addition, if taking 21 hours add \$10 student service fee. All other fees remain the same. **MINIMUM TUITION: \$120**

Non-refundable fees: late payment fee, drop fees and deferred payment plan processing fees

NOTE: A fee of \$35 per credit hour will be charged for distance learning classes.

Students enrolled **only** in distance learning classes will receive a waiver for the hospital fee, the student center fee and student service fees.

Students concurrently enrolled in both distance learning classes and regular campus classes will be required to pay student service fees for the regular campus classes only.

The university reserves the right to change fees upon board approval.

*2004-2005 Texas Resident Fees
Long Session (Fall or Spring)
Graduate*

Hour	Tuition	Designated Tuition	Student Service	Athletic Fee	Computer Use Fee	Library Access Fee	Intl. Ed. Fee	Trans. Fee	Hosp. Fee	Student Center	ID Fee	Total
1	120	40	12	12	8	5	3	10	49	30	10	299
2	120	80	24	24	16	10	3	10	49	30	10	376
3	180	120	36	36	24	15	3	10	49	30	10	513
4	240	160	48	48	32	20	3	10	49	30	10	650
5	300	200	60	60	40	25	3	10	49	30	10	787
6	360	240	72	72	48	30	3	10	49	30	10	924
7	420	280	84	84	56	35	3	10	49	30	10	1,061
8	480	320	96	96	64	40	3	10	49	30	10	1,198
9	540	360	108	108	72	45	3	10	49	30	10	1,335
10	600	400	120	120	80	50	3	10	49	30	10	1,472
11	660	440	132	132	88	55	3	10	49	30	10	1,609
12	720	480	144	144	96	60	30	10	49	30	10	1,746
13	780	520	156	156	104	65	3	10	49	30	10	1,883
14	840	560	168	156	112	70	3	10	49	30	10	2,008
15	900	600	180	156	120	75	3	10	49	30	10	2,133
16	960	640	192	156	128	80	3	10	49	30	10	2,258
17	1,020	680	204	156	136	85	3	10	49	30	10	2,383
18	1,080	720	216	156	144	90	3	10	49	30	10	2,508
19	1,140	760	228	156	152	95	3	10	49	30	10	2,633
20	1,200	800	240	156	160	100	3	10	49	30	10	2,758

Add \$60 tuition, \$40 designated tuition, \$8 computer use fee and \$5 library access fee for each hour over 20. In addition, if taking 21 hours add \$10 student service fee. All other fees remain the same. **MINIMUM TUITION: \$120**

Non-refundable fees: late payment fee, drop fees and deferred payment plan processing fees

NOTE: A fee of \$35 per credit hour will be charged for distance learning classes.

Students enrolled **only** in distance learning classes will receive a waiver for the hospital fee, the student center fee and student service fees.

Students concurrently enrolled in both distance learning classes and regular campus classes will be required to pay student service fees for the regular campus classes only.

The university reserves the right to change fees upon board approval.

NONRESIDENT FEES
2004-2005 Nonresident - U.S. and Foreign Fees
Long Session (Fall or Spring)
Undergraduate

Hour	Tuition	Designated Tuition	Student Service	Athletic Fee	Computer Use Fee	Library Access Fee	Intl. Ed. Fee	Trans. Fee	Hosp. Fee	Student Center	ID Fee	Total
1	282	40	12	12	8	5	3	10	49	30	10	461
2	564	80	24	24	16	10	3	10	49	30	10	820
3	846	120	36	36	24	15	3	10	49	30	10	1,179
4	1,128	160	48	48	32	20	3	10	49	30	10	1,538
5	1,410	200	60	60	40	25	3	10	49	30	10	1,897
6	1,692	240	72	72	48	30	3	10	49	30	10	2,256
7	1,974	280	84	84	56	35	3	10	49	30	10	2,615
8	2,256	320	96	96	64	40	3	10	49	30	10	2,974
9	2,538	360	108	108	72	45	3	10	49	30	10	3,333
10	2,820	400	120	120	80	50	3	10	49	30	10	3,692
11	3,102	440	132	132	88	55	3	10	49	30	10	4,051
12	3,384	480	144	144	96	60	30	10	49	30	10	4,410
13	3,666	520	156	156	104	65	3	10	49	30	10	4,769
14	3,948	560	168	156	112	70	3	10	49	30	10	5,116
15	4,230	600	180	156	120	75	3	10	49	30	10	5,463
16	4,512	640	192	156	128	80	3	10	49	30	10	5,810
17	4,794	680	204	156	136	85	3	10	49	30	10	6,157
18	5,076	720	216	156	144	90	3	10	49	30	10	6,504
19	5,358	760	228	156	152	95	3	10	49	30	10	6,851
20	5,640	800	240	156	160	100	3	10	49	30	10	7,198

Add \$282 tuition, \$40 designated tuition, \$8 computer use fee and \$5 library access fee for each hour over 20. In addition, if taking 21 hours add \$10 student service fee. All other fees remain the same. **MINIMUM TUITION: \$282**

Non-refundable fees: late payment fee, drop fees and deferred payment plan processing fees

NOTE: A fee of \$35 per credit hour will be charged for distance learning classes.

Students enrolled **only** in distance learning classes will receive a waiver for the hospital fee, the student center fee and student service fees.

Students concurrently enrolled in both distance learning classes and regular campus classes will be required to pay student service fees for the regular campus classes only.

The university reserves the right to change fees upon board approval.

*2004-2005 Nonresident - U.S. and Foreign Fees
Long Session (Fall or Spring)
Graduate*

Hour	Tuition	Designated Tuition	Student Service	Athletic Fee	Computer Use Fee	Library Access Fee	Intl. Ed. Fee	Trans. Fee	Hosp. Fee	Student Center	ID Fee	Total
1	294	40	12	12	8	5	3	10	49	30	10	473
2	588	80	24	24	16	10	3	10	49	30	10	844
3	882	120	36	36	24	15	3	10	49	30	10	1,215
4	1,176	160	48	48	32	20	3	10	49	30	10	1,586
5	1,470	200	60	60	40	25	3	10	49	30	10	1,957
6	1,764	240	72	72	48	30	3	10	49	30	10	2,328
7	2,058	280	84	84	56	35	3	10	49	30	10	2,699
8	2,352	320	96	96	64	40	3	10	49	30	10	3,070
9	2,646	360	108	108	72	45	3	10	49	30	10	3,441
10	2,940	400	120	120	80	50	3	10	49	30	10	3,812
11	3,234	440	132	132	88	55	3	10	49	30	10	4,183
12	3,528	480	144	144	96	60	30	10	49	30	10	4,554
13	3,822	520	156	156	104	65	3	10	49	30	10	4,925
14	4,116	560	168	156	112	70	3	10	49	30	10	5,284
15	4,410	600	180	156	120	75	3	10	49	30	10	5,643
16	4,704	640	192	156	128	80	3	10	49	30	10	6,002
17	4,998	680	204	156	136	85	3	10	49	30	10	6,361
18	5,292	720	216	156	144	90	3	10	49	30	10	6,720
19	5,586	760	228	156	152	95	3	10	49	30	10	7,079
20	5,880	800	240	156	160	100	3	10	49	30	10	7,438

Add \$294 tuition, \$40 designated tuition, \$8 computer use fee and \$5 library access fee for each hour over 20. In addition, if taking 21 hours add \$10 student service fee. All other fees remain the same. **MINIMUM TUITION: \$294**

Non-refundable fees: late payment fee, drop fees and deferred payment plan processing fees

NOTE: A fee of \$35 per credit hour will be charged for distance learning classes.

Students enrolled **only** in distance learning classes will receive a waiver for the hospital fee, the student center fee and student service fees.

Students concurrently enrolled in both distance learning classes and regular campus classes will be required to pay student service fees for the regular campus classes only.

The university reserves the right to change fees upon board approval.

MANDATORY FEES *(All fees are payable at registration.)*

Student Service Fee

A service fee of \$12 per credit hour is charged to all students attending the university. This fee is used to support student activities such as the Student Government Association, student musical organizations, *The South Texan*, the New Student Orientation and numerous other student activities.

Athletic Fee

An athletic fee of \$12 per semester credit hour is charged to all students attending the university. Students paying \$156 (13 or more semester hours) are entitled to free admission to all varsity and recreational sports, athletic contests and other special activities.

Computer Use Fee

A fee charged at \$8 per semester credit hour used to purchase computers to maintain student labs on campus and to create new facilities for students.

Library Access Fee

This fee is charged at \$5 per semester credit hour used to fund the electronic network and the maintenance of the library.

International Education Fee

This fee is charged at a flat rate of \$3 per semester. Funds are used to support cultural diversity within the student body and to enhance student knowledge of other countries through international study and scholarships.

Transcript Fee

This fee is also charged at a flat rate of \$10 per semester. Funds are used to pay the cost of printing transcripts upon request for current and former students as well as to enhance our ability to serve our students' needs through the electronic transcript process.

Hospital Fee

A flat fee charged at the rate of \$49 per semester. Funds are used to support the Student Health Center, supplies and all operational needs of that center.

Student Center Fee

A flat fee charged at the rate of \$30 per semester. Funds are used to support special activities for the students. In addition, a portion has been used for the renovation of the Student Union Building.

ID Card Fee

This is a flat fee that is charged at \$10 per semester. Funds will be used to support the new student Ids and the cost of operation.

Distance Learning Fee

This fee is charged at \$35 per semester credit hour. The fee funds the operations, maintenance and upgrade of distance learning equipment as well as faculty development.

MISCELLANEOUS FEES

Laboratory Fee

For each laboratory course a fee of \$2 to \$36 is charged depending upon cost of materials used in the course.

General Property Deposit

Each student must pay a one time charge of \$10 to ensure the institution against losses, damages and breakage in libraries and laboratories. It is refundable upon request after the student graduates or withdraws, less any loss, damage or breakage caused by the student.

Kinesiology Fee

For each kinesiology service course, EDKN 1102 through EDKN 1149, the student will be charged a special fee of \$4 for towel service. In specified courses, an additional fee may be charged.

Applied Music Fees

For personal lessons on keyboard, wind, string or percussion instrument or voice lessons, a fee of \$50 per semester credit hour is charged

Music Fees

Instrument Rental Fee \$3 per semester
Marching Band members for three uniform cleanings \$10 per semester

Visitor's Fee

The fee for visiting a course for a person other than a full-time student is the same as that required for registration for credit. A full-time student pays no additional fee for visiting a course.

Automobile Registration Fee

All persons who operate a vehicle on university property, regularly or occasionally, are required to register those vehicles with the University Police Department and to obtain a parking permit for a designated area or areas. All student vehicles operated on the university campus must be registered within one week after classes begin. No refunds will be issued after one week from the date classes begin. Detailed information on parking and traffic regulations, penalties for failing to register a vehicle and other traffic and parking violations, methods of obtaining refunds, procedures to follow when changing automobiles, location where vehicle may be parked, and a specific breakdown of fees to be paid will be available at the time of registration.

Other Fees

Late Payment Fee \$35
Bachelor's Graduation Fee \$35
Undergraduate (domestic) Application Fee \$15
Graduate (domestic) Application Fee \$35
International Application Fee \$50
Master's Graduation Fee, Plan One \$111
Master's Graduation Fee, Plan Two and Plan Three \$43
Doctor's Graduation Fee \$164
R.O.T.C. Special Service Fee, Per Semester \$5
Thesis-Binding Fee for extra copy \$9

Fines and Breakage Loss

Students must pay all fines before they can receive a transcript of their credits or can register in the university.

Students registered for courses in chemistry will be notified at the end of a semester of breakage or loss of equipment and will be required to pay the amount due at the Business Office.

Students are expected to exercise reasonable care of university property; an assessment will be made for any deliberate misuse.

REFUND OF FEES

The Higher Education Amendments of 1998 (HEA98) represent a major shift in the return of Title IV Federal Financial Aid when a student withdraws from the university. The policy governs all federal grant and loan programs (Pell, SEOG, Stafford Loans, Perkins and PLUS loans), but does not include the Federal Work-Study program.

In general, the law assumes that a student “earns” **approved (verified)** federal financial aid awards in proportion to the number of days in the term prior to the student’s complete withdrawal. If a student completely withdraws from school during a term, the school must calculate, according to a specific formula, the portion of the total scheduled financial assistance that the student has earned and is therefore entitled to retain, until the time that the student withdrew. If a student receives (or the university receives on the student’s behalf) more assistance than he/she earns, the unearned funds must be returned to the Department of Education or to the Federal Stafford or parent’s Federal PLUS loan lenders. If a student’s charges are less than the amount earned, and a refund is due, the student may be able to receive those additional funds. **Students who have not completed the verification process are ineligible to receive any financial aid.**

The portion of the federal grants and loans that the student is entitled to receive is calculated on a percentage basis by comparing the total number of days in the semester to the number of days that the student completed before he/she withdrew. The policy governs the earned and unearned portions of the student’s Federal Title IV Financial Aid only. It determines how much, if any, the student and/or the school may need to return. This policy does not affect the student’s charges. The university’s withdrawal policy will be used to determine the reduction, if any, in the student’s tuition and fee or room and board charges. **The student is responsible for paying any outstanding charges to the university.**

Withdrawal Policy

When a student withdraws from the university during the first twenty (20) days of classes during a long semester, six (6) days during a summer session and two (2) days during an intersession, the university will refund a portion of the tuition and fees charged to a student. The percentages refunded are as follows:

Fall/Spring

- a. prior to the first class day – 100 %
- b. during the 1st, 2nd, 3rd, 4th and 5th class days – 80 %
- c. during the 6th, 7th, 8th, 9th and 10th class days – 70 %
- d. during the 11th, 12th, 13th, 14th and 15th class days – 50 %
- e. during the 16th, 17th, 18th, 19th and 20th class days – 25 %
- f. after the 20th class days – none

Intersession

- a. prior to the first class day – 100 %
- b. during the 1st class day – 80 %
- c. during the 2nd class day – 50 %
- d. after the 2nd class day – none

Summer Session

- a. prior to the first class day – 100 %
- b. during the 1st, 2nd and 3rd class day – 80 %
- c. during the 4th, 5th and 6th class day – 50 %
- d. after the 6th class day – none

The “first class day” is determined by the beginning of a semester, summer session or intersession. The “first class day” is not defined by individual courses. Please refer to the academic calendar for the first class day date.

The refund will be returned to the student only if the student **did not** receive financial aid assistance from either Title IV programs or state programs. In the cases where the student did receive assistance from these programs, the refund will be returned to the programs in the following order: Unsubsidized Loan, Subsidized Loan, Perkins Loan, PLUS Loan, Pell Grant, FSEOG Grant, TPEG Grant, RPEG Grant, NPEG Grant and Texas Grant.

The student's official withdrawal date will be determined by the university as:

- a. the date the student began the university's withdrawal process.
- b. the midpoint of the semester if the student withdraws without notifying the university.
- c. the student's last day of attendance at an academically-related activity as documented by the university.

If it is determined that the university must return to the Title IV programs monies in excess of any tuition and fees or room and board, the student will be responsible for those monies.

Any grant funds that the student is required to return to the federal programs are considered an overpayment. The student must either repay the amount in full to the university within 45 days of notification of the overpayment or make satisfactory payment arrangements with the Department of Education Collections that the student owes an overpayment. At that point, until the student pays the amount in full to the Department of Education or makes repayment arrangements with the Department of Education, **the student will lose his/her eligibility to receive future federal financial aid at any institution.**

Upon Dropping a Course or Courses

A 100% refund difference of applicable tuition and fees collected will be made for courses from which students drop within the first 12 days of a semester or within the first four days of a summer term. There will be no refunds for courses dropped after the first 12 days of a semester or after the first four days of a summer term.

Refund Policies

The following policies are used for refunds:

- a. Refunds are mailed according to published schedules from the Business Office. All refunds will be mailed to the billing address provided by the student.
- b. Any financial obligations owed the university will be deducted from the refund before the balance is mailed to the student.
- c. A student who is required to withdraw because of failure in the work of a previous semester will receive a refund in accordance with the above schedule.
- d. Fees paid for correspondence and/or extension courses will not be refunded after the student receives the lesson outline in correspondence courses or after the first meeting of the extension center course.
- e. No refunds will be made on visitors' fees.

Tuition Rebates for Undergraduates

The purpose of this program is to provide tuition rebates that will provide a financial incentive for students to prepare for university studies while completing their high school work, avail themselves of academic counseling, make early career decisions and complete their baccalaureate studies with as few courses outside the degree plan as possible. Minimizing the number of courses taken by students results in financial savings to students, parents and the state. To be eligible for rebates under this program, students must meet the following conditions: (1) they must have enrolled for the first time in an institution of higher education in the fall 1997 semester or later; (2) they must be requesting a rebate for work related to a first baccalaureate degree received from a Texas public university; (3) they must have been a resident of Texas, must have attempted all coursework at a Texas public institution of higher education, and have been entitled to pay resident tuition at all times while pursuing the degree and (4) they must have attempted no more than three hours in excess of the minimum number of semester credit hours required to complete the degree under the catalog under which they were graduated. Hours attempted include transfer credit, course credit earned exclusively by examination, courses that are dropped after the official census date, for-credit developmental courses, optional internship and cooperative education courses and repeated courses. Courses dropped for reasons that are determined by the institution to be totally beyond the control of the student shall not be counted. For students concurrently earning a baccalaureate degree and a Texas teaching certificate, required teacher education courses shall not be counted to the extent that they are over and above the free electives allowed in the baccalaureate degree program.

The rebate for eligible students is a maximum of \$1,000. Eligibility requirements and application forms are available in the offices of the academic deans.

STUDENT FINANCIAL AID PROGRAMS

Roel Villarreal, *Director of Student Financial Aid Services*
Student Union Building 105. MSC 115. Extension 3911.

The Student Financial Aid Office assists students in obtaining financial assistance through a variety of federal, state and private sources in order to supplement their own contribution to a college education. The financial gap between the cost of an education and monies available from the family can be complemented by grants, loans, scholarships and/or student employment. The office updates the types of aid available annually. Federal regulations require that a student must make satisfactory academic progress to continue receiving Title IV funds.

FINANCIAL AID AND SCHOLARSHIP APPLICATION DEADLINES

Time is a very critical part when applying for financial aid. The following deadlines have been established:

Fall/Spring - April 15
Spring only - October 1
Summer Sessions - March 2

SCHOLARSHIPS

Scholarships are categorized as either need or non-need (honorary) awards. The Office of Student Financial Aid awards scholarships after evaluating academic records, scholastic promise and financial need. The Office of Student Financial Aid awards non-need-based scholarships based on merit and promise without regard to financial need; it carries a nominal stipend. Most departmental scholarships are not automatically renewed, and students must apply each year for continued consideration.

NEED-BASED SCHOLARSHIPS

Applying for Need-Based Scholarships and Financial Aid

Steps in Applying for Need-Based Scholarships

Applicants must complete the academic scholarship application form available on the university website or call the Office of Student Financial Aid at 361-593-3911.

Steps in Applying for Financial Aid

Application Process

1. Complete the Free Application for Federal Student Aid (FAFSA). This form may be picked up at any local high school guidance office, community college or university financial aid office. Students must list Texas A&M-Kingsville as one of the college/university choices in the FAFSA to be considered for financial aid at this university. Our School Code is 003639.
2. Completion of the FAFSA requires the student's and/or parent's income tax return. Those who do not file a tax return must use proper income or benefit sources to complete it. These include child support, social security benefits, veterans' benefits, etc.
3. The FAFSA can be mailed to the address stated on the FAFSA or it can be done on the web at www.fafsa.ed.gov.

4. The Processing Center will return an acknowledgment to the student in about four weeks. This acknowledgment should be kept for personal records.
5. The Office of Student Financial Aid will retrieve an electronic version of the SAR.
6. About 30 percent of all students applying for federal assistance are selected for verification of their FAFSA. This selection is a random selection. If a student is selected, he/she will need to submit a copy of his/her or his/her parents' U.S. Income Tax Return, a verification worksheet and any other documents used to complete the FAFSA. For those students who did not or are not required to file a U.S. Income Tax Return, a notarized statement needs to be submitted in place of the tax return.
7. If a student will be attending the summer sessions, he/she must complete the Texas A&M-Kingsville's Summer On-line Application to complete the application process. This application is completed and submitted electronically at www.tamuk.edu/finaid/. This application is **NOT** required if a student will be attending the fall/spring semesters.

Financial Aid Process

1. Once the application process is completed, the Office of Student Financial Aid Services will prepare a financial aid package to help meet the student's financial need. The amount of the financial aid award depends on whether the student is enrolled for 12 or more hours, 9-11 hours, 6-8 hours or 1-5 hours (only Pell Grant is given for less than 6 hours). The aid award will be disbursed each semester.
2. The school will first use the aid to pay tuition and fee charges and room and board. The remainder will be disbursed to the student either through direct deposit to the student's bank account, if the student has signed up for direct deposit or, if not, a residual check will be mailed to the student.
3. Grants and scholarships will be ready, but loans require an additional application.
4. Work-study assistance is awarded but the individual student must find a position in order to receive the funds. Work-study funds are disbursed as they are earned.
5. It is the responsibility of the student to have other resources available should the financial assistance not cover the total educational expenses.

Documents

1. **General University Application** (only required for summer sessions). This application is completed and submitted electronically at www.tamuk.edu/finaid/.
2. **Stafford Master Promissory Note:** This is required the first time a student accepts a Stafford Student Loan and is valid for 10 years. Once the student has had a loan certified by the institution and the student chooses the same lender, no new promissory note is required. The student will only need to submit a Loan Acceptance via the Stafford Loan Processing On-line Form at www.tamuk.edu/finaid/.
3. **Parent Loan for Undergraduate Dependent Students:** The PLUS loan will also be utilizing a Master Promissory Note completed by the parent for the dependent student and will be valid for up to 10 years for that particular student. If the parent has additional dependent students, a MPN will have to be completed for each dependent student. The PLUS loan is subject to a credit check by the lender to determine if funding can be granted. Texas A&M University-Kingsville uses the Credit Pre-approval process and the PLUS packet for Parent PLUS Loans is available to be downloaded and printed from the www.tamuk.edu/finaid/ website. Once the lender has determined that there is no adverse credit, the Office of Student Financial Aid Services will certify the PLUS loan to the lender and will generate the actual PLUS MPN and forward to the parent for completion.

4. **Transfer Students:** Texas A&M University-Kingsville is required to download and print Financial Aid Transcripts from the NSLDS for each student who has attended other colleges/universities. It is the student's responsibility to notify the Office of Student Financial Aid Services of any other colleges/universities attended.

Please contact the Office of Student Financial Aid Services at 361-593-3911 or 361-593-3031 for questions about the financial assistance process. You may write the Office of Student Financial Aid Services at MSC 115, Kingsville, Texas 78363 or e-mail them at ksfa0xx@tamuk.edu.

General Information

Applicants must be accepted for admission, pre-registered for classes and have all financial aid documents completed and on file before financial aid funds will be disbursed.

Students must reapply each year for financial aid and scholarships. Applicants must maintain satisfactory academic progress and be in good standing to be eligible for financial aid.

SATISFACTORY ACADEMIC PROGRESS REQUIREMENTS FOR FINANCIAL AID

Federal regulations require a student to be making satisfactory progress toward the completion of a degree or certification in order to be eligible to receive Title IV funds. The Office of Student Financial Aid Office at Texas A&M-Kingsville applies this rule to **ALL** students applying for any financial aid.

Satisfactory academic progress is determined after a student has been enrolled for one full academic year. An academic year is considered to be two long semesters, like fall and spring. Summers are not included as part of an academic year. They are considered probationary periods to be used for making up deficiencies resulting from the academic year. The periods run from fall to spring for students enrolling in the fall semester, from January to May for students enrolling in the spring semester but who were not enrolled in the fall semester. Review Student Financial Aid Handbook.

A student who fails to achieve satisfactory academic progress **IS NOT ELIGIBLE** for additional financial aid while making up a grade point average (GPA) deficiency and/or deficient credit hours.

A student placed on enforced withdrawal (**EW**) **IS NOT ELIGIBLE** for additional financial aid.

Undergraduate Students

1. The minimum grade point average requirement of all undergraduates is 2.0.
2. The hours that must be passed in an academic year of enrollment are as follows: A student enrolled for at least 12 semester credit hours in two consecutive long semesters (fall and spring) is considered a full-time student. A full-time student must satisfactorily complete at least 24 credit hours in one academic year. Students enrolling for nine to 11 hours in a long term are considered three-quarter time students and must complete at least 18 hours in one academic year. Students enrolling half-time, from six to eight hours, must complete at least 12 hours after two long-term enrollment periods. When a student has used up an academic year of enrollment and has not satisfactorily completed the number of hours required in an academic year, then the student must attend the summer sessions (probationary periods) to make up any deficiencies. If the deficiencies are not made up, then financial aid is suspended.
3. The time frame for financial aid eligibility is determined by earned academic hours. A student is allowed 168 earned academic hours in which to receive a bachelor's degree

Graduate Students

1. A minimum overall grade point average requirement for a graduate student is at least a 3.0.

2. At least nine hours must be passed by graduate students enrolled for at least a full-time course load of nine hours in a long semester, for a total of 18 hours for two consecutive long terms. Students enrolled half-time must pass at least six hours each term, for a total of 12 hours in two long terms.
3. The time frame for financial aid eligibility is **48** earned academic hours.

Satisfactory Academic Progress Requirements for Student Enrolled in 5305, 5306, 6305, 6397, 6399, 6998 and 6999 Classes

To be considered for financial aid on a full-time basis, students must be enrolled in the following courses as outlined below:

1. Student enrolled in the 5305 classes are required to be enrolled every long semester in the class until they receive a grade in the class. For each semester they are enrolled but do not complete the requirements, the student is given an IP (In Progress). Students will be allowed four IPs (long semester enrollments). If at the end of the 5th enrollment in the class, the student still has not completed the requirements, the student will be placed on FAS (Financial Aid Suspension).
2. Students enrolled in the 5306 proposal stage of the Thesis are required to be enrolled every long semester in the class until they receive a grade in the class. For each semester they are enrolled but do not complete the requirements, the student is given an IP (In Progress). Students will be allowed four IPs (long semester enrollments). If at the end of the 5th enrollment in the class, the student still has not completed the requirements, the student will be placed on FAS (Financial Aid Suspension).
3. Student enrolled in the 5306 and 6305 Thesis stage of the Thesis are required to be enrolled every long semester in the class until they receive a grade in the class. For each semester they are enrolled but do not complete the requirements, the student is given an IP (In Progress). Students will be allowed four IPs (long semester enrollments). If at the end of the 5th enrollment in the class, the student still has not completed the requirements, the student will be placed on FAS (Financial Aid Suspension).
4. Students enrolled in 6305/6397/6398 Dissertation Research Stage are required to be enrolled every long semester in the class until they receive a grade in the class. For each semester they are enrolled but do not complete the requirements, the student is given an IP (In Progress). Students will be allowed eight IPs (long semester enrollments). If at the end of the 9th enrollment in the class, the student still has not completed the requirements, the student will be placed on FAS (Financial Aid Suspension).
5. Students enrolled in the 6305/6399/6999 Dissertation Stage are required to be enrolled every long semester in the class until they receive a grade in the class. For each semester they are enrolled but do not complete the requirements, the student is given an IP (In Progress). Students will be allowed eight IPs (long semester enrollments). If at the end of the 9th enrollment in the class, the student still has not completed the requirements, the student will be placed on FAS (Financial Aid Suspension).

Since summer sessions are considered by the Financial Aid Office to be used for clearing any deficiencies, Ips received during summer sessions will not be counted against the allowable number of IPs for satisfactory academic progress requirements.

Students who are placed on FAS because of the IPs will have to submit a waiver request which will be evaluated by the Satisfactory Academic Progress Committee. If the waiver is denied, the student can submit a Waiver Appeal Request which will be evaluated by a committee comprised of university faculty and staff.

Both Undergraduate and Graduate Student Guidelines

1. Those students that have not made satisfactory progress by the end of the academic year are placed on Financial Aid Suspension (FAS) and cannot receive financial aid until the unsatisfactory condition is corrected.

2. Deficient hours and an unsatisfactory grade point average can be corrected by a student enrolling the following semester(s), at his/her own expense until all deficiencies are made up. No financial aid can be awarded while a student is on financial aid suspension.
3. The Satisfactory Academic Progress Waiver Committee may waive the satisfactory academic progress requirements, but only for extenuating circumstances which may have caused the unsatisfactory progress condition. When properly documented, the committee will consider circumstances such as illnesses, death of an immediate family member, etc.
4. Enrollment in the summer terms can be used to satisfy deficient hours and GPA for those students who enrolled in two long terms, but did not pass the required number of hours, or their GPA was too low.
5. Satisfactory academic progress rules apply for all semesters of enrollment, even when financial aid is not received.
6. When a student withdraws during a long-term semester, the semester is counted.

NON-NEED BASED SCHOLARSHIPS

The Office of Student Financial Aid acts as the clearinghouse for all new student, non-need based scholarships. The office collects the necessary information and duplicates completed files for scholarship committee review and selection. Annually the office creates and updates a generic scholarship application which can be printed from a link on the university website or by contacting the Office of Student Financial Aid.

A scholarship application and its required documents will be copied for distribution to the departments in which students might qualify for scholarships.

Deadlines. The various scholarship committees have deadline dates at different times throughout the spring and summer. Incomplete applications or those received after the deadline dates will not be eligible for consideration.

In-State Privileges for Out-of-State Scholarship Recipients. A nonresident student holding a competitive scholarship from the university scholarship selection pool of at least \$1,000 for the year for which he or she is enrolled is entitled to pay resident tuition.

High School Students must submit an official high school transcript with their class rank posted, ACT or SAT test score results and two letters of recommendation along with the completed scholarship application before February 15. All unconditionally admitted high school students (ACT=21, SAT=970) can be considered for scholarships.

Transfer Students must submit official transcripts from all colleges attended, two letters of recommendation and the completed scholarship application. (12 college-level credit hours required) before June 1.

GRANTS

Various grant programs are funded by the federal and state governments, the university or a combination of these agencies. Grants DO NOT have to be repaid. *General requirements for grant programs stipulate that the student must be in good standing (a 2.0 overall grade point average), must be maintaining academic satisfactory progress, must not be in default on any loan made from a student loan fund at any institution and must not owe a refund on any grant previously received.*

Because they are generally matched with some other type of aid administered by the university, the Federal Supplemental Educational Opportunity Grant (FSEOG), the Texas Public Educational Grant (TPEG) and the Texas Public Educational-State Student Incentive Grant (TPE-SSIG) are not listed on the application. If an applicant for any of the need-based aid programs is eligible for one of these grants and if funds are available, the grant will be approved.

Federal Pell Grant: The Pell Grant is a federal program designed to provide financial assistance to undergraduate students who demonstrate financial need. The amount of the grant is based on the computed expected family contribution, the level of funding and the cost of education. Students enrolled for less than full-time will receive a reduced grant award. Pell Grant eligibility is limited to six full years of undergraduate study. Eligibility must be re-established each year by completing the FAFSA. Applications for this program may be obtained from any high school counselor or from the Office of Student Financial Aid. The application is self-explanatory.

Federal Supplemental Educational Opportunity Grant (FSEOG): FSEOG provides grants to students who demonstrate the greatest financial need. Students must be eligible for the Pell Grant and have an expected family contribution of less than \$100. Eligible students must be citizens or permanent residents of the U.S. who are accepted for admission or are enrolled at least half-time as undergraduate students.

Texas Public Educational Grant (TPEG): The Texas Legislature enacted TPEG as a program for undergraduate and graduate students with demonstrated need.

Texas Public Educational-State Student Incentive Grant (SSIG): This grant furnishes financial assistance to needy students attending public institutions of higher learning in Texas. Students must be citizens or permanent residents of the U.S. and must be enrolled at least half-time.

Aid for Dependent Children (AFDC-TANF) Grant: Exemption program provides an exemption from the payment of tuition and fees for up to one year for eligible college students.

Early High School Graduation Scholarship Program: This program is to increase the efficiency of the foundation and provide tuition assistance to eligible students. A total of \$1000 to cover tuition only is awarded to eligible students. This program does not cover remedial classes.

Certified Educational Aide Exemption Program: This program is to encourage certain educational aides to complete full teacher certification by providing need-based tuition and mandatory fee exemptions at Texas public institutions of higher education. This program does not cover remedial classes.

Texas Excellence Access and Success (TEXAS) Grant Program: This program is to provide need-based grants to eligible persons to enable them to attend an institution of higher education. Students who have completed the recommended or distinguished high school curriculum may be eligible for this program.

LOANS

The Office of Student Financial Aid administers a number of loan programs for students whose needs cannot be fulfilled in any other manner. The loans are administered in adherence with accepted business practices in an effort to provide borrowers with an educational experience in personal finances as well as to ensure the continuance of existing loan funds through prompt repayment. Loan funds administered by the university vary somewhat in qualifications required, amounts that may be borrowed and terms of repayment. Specific details concerning each loan fund, including the rights and responsibilities of a borrower and the repayment schedule, may be obtained from the Office of Student Financial Aid.

The personnel in the Office of Student Financial Aid are available as financial advisors to **all** students whether or not they are qualified to borrow from one of the university's student loan funds. Through interviews and realistic examination of expenses and income, students often discover that borrowing is only one of the possible solutions to financial problems.

*General requirements stipulate that the student must be accepted for enrollment or, if a continuing student, must be maintaining satisfactory academic progress, must not be in default on any loan made from a student loan fund at any institution, must not owe a refund on any grant previously received and **must** attend a Loan Entrance Counseling session before receiving the first disbursement and **must** attend a Loan Exit Counseling session whenever the student's enrollment*

status falls below half-time, the student withdraws or graduates from the university. Loan funds will not be disbursed until a student is registered for at least half-time status; late registration will result in delayed financial aid disbursement.

Long-Term Loans

The university participates in several low-interest, long-term loans sponsored by the federal and state governments. Applicants for all loans must complete the Free Application for Federal Student Aid (FAFSA) as part of the application process. The application may be obtained from high school counselors or the Office of Student Financial Aid. Instructions for completing and submitting the FAFSA are included with the form.

Federal Stafford Student Loan Program (Subsidized/Unsubsidized): The Stafford Loan is designed to assist students who are enrolled at least half-time and are maintaining Satisfactory Academic Progress toward a degree. The student must choose a lender who participates in the Stafford Loan program (The Office of Financial Aid can provide a listing of the major lenders used by the majority of students attending Texas A&M-Kingsville.)

Freshman students (29 or less earned hours) are eligible to borrow \$2,625 per year, sophomore students (59 or less earned hours) are eligible to borrow \$3,500 per year, junior/senior students (60+ earned hours) are eligible to borrow \$5,500 per year and master's/doctoral students are eligible to borrow \$8,500 per year.

These amounts can be subsidized only, unsubsidized only or a combination of subsidized/unsubsidized. The total outstanding loan debt for a dependent undergraduate is \$23,000. Independent students may borrow an additional \$23,000 (unsubsidized only) for a total of \$46,000. The annual limits independent students can borrow in the additional unsubsidized loan program are freshmen/sophomores \$4,000 per year, junior/seniors \$5,000 per year and master's/doctoral \$10,000 per year. Master's/doctoral students may borrow up to \$138,500 of which only \$65,000 can be subsidized (this includes any loans made at the undergraduate level). The amount borrowed cannot exceed financial need. The interest rate on the Stafford loans is a variable and changes each July 1. However, it can never exceed 8.25%. For subsidized loans only, the federal government pays the interest to the lender during the student's enrollment grace period, immediately following separation from school and any authorized period of deferment. For unsubsidized loans, the student is responsible for any interest at all times. The federal government will not pay the interest on unsubsidized loans.

Federal PLUS Program for Parent Borrowers: A Federal PLUS (Parent loan for undergraduate dependent students) is a very low interest rate installment loan for parent borrowers to assist them in paying for a dependent student's education. The amount a parent may borrow will be determined by the Office of Student Financial Aid. The loan may not exceed the student's cost of education minus other financial aid awarded. The parent may choose to have the funds disbursed to the university either through Electronic Funds Transfer (EFT) or via a hard check. Monies disbursed via EFT will be credited to the student's account and a residual check will be made payable to the student. Monies disbursed via hard check will be made co-payable to the university and the parent borrower. Both the parent borrower and the university must endorse the check. The interest rate on a Federal PLUS loan varies annually changing each July 1 but cannot exceed 9%. As with the Unsubsidized Stafford loan, there are no interest benefits paid by the federal government. The parent borrower must begin paying the interest accrued immediately upon the first disbursement of the PLUS loan. Repayment of the principal begins immediately after the loan has been fully disbursed. The minimum monthly loan payment will be at least \$50 and may be higher, depending on the total amount borrowed. A parent borrower may have up to ten years to repay the loan.

Federal Perkins Loan (formerly National Direct Student Loan): To be eligible for the Federal Perkins Loan, a student must be a citizen or permanent resident of the United States, must be enrolled and in good standing (a 2.0 overall grade point average) on at least half-time basis and must have demonstrated exceptional financial need as determined by the Student Aid Report. In addition, the student must not owe a refund on any federal grant and must not be in default on a Stafford, SLS, H&H or a National Direct Student Loan at any institution. Students with the greatest financial need are given priority. Undergraduate students are eligible to borrow \$3000 for each year of undergraduate study; the total debt they can have outstanding is \$15,000. Graduate students are eligible to borrow \$5000 for each year of graduate study; the total debt they can have outstanding is \$30,000, including any Perkins Loans borrowed as an undergraduate. In no case may a student receive a loan in an amount which exceeds the demonstrated financial need. The program provides for cancellation of interest and indebtedness for full-time teachers in designated public or nonprofit elementary or secondary schools, full-time teachers of handicapped children, full-time staff members employed in Head Start programs and members

of the armed services in an area qualifying for special pay, as well as death and/or total and permanent disability. The Perkins Loan carries a simple interest rate of 5% that begins to accrue at the time of repayment. Borrowers are entitled to a six month grace period after ceasing to be at least half-time student before the repayment period begins. A new borrower's grace period is nine months (as of 1987-88). Monthly payments of not less than \$30 begin in the seventh month and the entire indebtedness must be repaid within 10 years. For further information contact the Perkins Loan Clerk: 361-593-3716.

Short-term Loans

The Financial Aid Office also administers short-term loans. There is an administrative fee of \$5. Most of these loans must be repaid in the semester in which they are made. Except in very unusual circumstances, a student will not be approved for an additional loan until all previous short-term loans have been repaid.

Short term loans include Emergency Tuition/Fees Loan for residents and nonresidents, Presciliano M. Rangel Loan, Robert Bartow Cousins Loan and Sembradores de Amistad Club de Kingsville Loan.

STUDENT EMPLOYMENT

For students who want to supplement their educational resources through part-time employment, two types of services are offered. The Federal/State College Work-Study Program is for those students who qualify for financial aid. The Part-Time program is for students who do not qualify or who do not apply for financial aid. Both these programs are administered through the Office of Student Financial Aid.

Federal/State College Work-Study Program

The federal government and the State of Texas will provide funds to the university to enable students who qualify for these programs to secure on-campus employment. Texas A&M-Kingsville recommends that students secure a job which complements and reinforces their educational program and vocational goals. Students who are enrolled for at least half-time status, are citizens or permanent residents of the United States, have demonstrated financial need, are maintaining satisfactory progress, are not in default on any student loan made through or approved by an institution and who do not owe a refund on any grant previously received are eligible. Students must have been awarded and accepted the Work-Study award before being referred for an interview. Acceptance of the Work-Study award is not a promise of a job; it establishes eligibility. When the terms begin and during the school year, jobs are posted on the bulletin board across from the Office of Student Financial Aid. Students who have established eligibility and meet the job requirements (if any) can request to be referred for an interview. Continuation in the job depends on funds available and the student's job performance. Previous employment does not guarantee continued employment.

Part-Time Student Employment

The university offers part-time employment to a number of students in various offices and departments. Student employment on a part-time basis by the university is limited to 19 hours per week.

OTHER UNIVERSITY SUPPORT SYSTEMS

A university consists of more than classrooms. In addition to teaching, faculty are engaged in research, publication, professional growth and development activities, university service and advisement. Students grow through participation in the extracurricular activities the university sponsors. The following sections offer some indication of campus life at Texas A&M University-Kingsville. More detail can be found in the *Student Handbook* and the *Faculty Handbook*.

This survey omits a number of very important components of the university whose work, nevertheless, contributes to campus comfort and the smooth functioning of university operations including such divisions as accounting, bursar, development, facility management, human resources, payroll, physical plant, procurement and general services, among others.

CAMPUS GOVERNING BODIES

The Student Government Association is the highest governing body for students at Texas A&M University-Kingsville. It makes recommendations to the university administration for improving student life. The student government is composed of the executive, legislative and judicial branches. The student body elects the President, Vice-President and the Senators during a general student election held each spring. The Dean of Students oversees the SGA.

The Faculty Senate, established by the Constitution of the General Faculty, is a body of 30 faculty members elected for three-year terms from the six undergraduate colleges and the library. The Faculty Senate is responsible for the overall educational policies of the university as well as noncurriculum matters that it feels the need to address. It is instrumental in creating the *Faculty Handbook*.

In 1990, the Staff Council was created to address the various specific concerns of five groups of personnel: secretarial-clerical, nonfaculty professional, technical, crafts and services. Consisting of 24 members elected for two-year terms, the council provides a means for this important group of campus employees to voice those concerns to the administration.

EXTRACURRICULAR ACTIVITIES

Although the focus of the university is intellectual, it also fosters the broad mental, physical and spiritual well-being of the campus community. To this end, a variety of non-academic programs are offered to enhance student learning and personal development.

Office of the Dean of Students

David Braverman, *Dean of Students*

Student Union Building 306. MSC 122. Extension 3606.

The Dean of Students (DOS) exercises broad responsibility for the student services of the university. The office is responsible for improving the quality of life for students and assisting them in attaining their educational goals; for promoting an environment which aids in the students' emotional, social, cultural and ethical development; and working with all academic colleges and departments as an advocate for students' rights. The Dean of Students assists the Associate Vice President for Student Affairs in creating and implementing programs, services and activities which are consistent with the university's mission. The Dean of Students oversees the Student Union Building, Student Development, Student Activities, New Student Orientation, the Student Government Association, the ID Center, the Post Office, student discipline, custodial services for the Student Union Building, scheduling of events by campus and community organizations and specific retention programs. In addition, the office has a liaison relationship with Sodexo Food Services and Barnes and Noble Bookstore.

Student Union Building

Joseph L. Cusack, *Associate Director of the Student Union Building*
Student Union Building 110. MSC 122. Extension 3104.

The Student Union Building (SUB) is the center of social life on the campus. It includes multiple dining areas, student lounges, a game room (extension 3113), two large ballrooms, meeting areas and student related offices. The Student Union sponsors dances, games and tournaments, welcome and hospitality programs and campus food service. Recognized student organizations may schedule use of the facilities; there is no charge for normal use. Outside organizations must pay a fee. The Office of the Dean of Students is located in the Student Union Building, along with the Office of Student Activities, the Women's Center, Student Financial Aid Office, Barnes and Noble Bookstore, the Post Office, Student Government Association, Sodexo Food Service and *The South Texan* student newspaper.

Student Activities

Monica Rudzik, *Director of Student Activities*
SUB 301. MSC 133. Extension 2760.

The Department of Student Activities serves as the resource hub for all student organizations. Student Activities provides many services to the Texas A&M University-Kingsville student organizations, such as registering organizations, producing directories, providing counseling and advising services and helping student groups with operational assistance. The department provides many cultural, educational, recreational and social programs for the campus community. Some examples are Homecoming, Family Day, Fall Carnival, Spring Fling and the Mr. and Miss Texas A&M University-Kingsville Scholarship Pageants. In addition to serving over 125 student organizations, Student Activities also provides a variety of specialized leadership programs such as the Women's Leadership Institute, Freshman Leadership Academy and the South Texas Leadership Conference. The department provides full-time support to Greek Life, the Hoggie Days Orientation Program, the Javelina Mentor Program and the Campus Activities Board. The department also includes activities related to Recreational Sports and Activities. Believing extra-curricular involvement is essential to student success, the Texas A&M-Kingsville Department of Student Activities completes a student's education.

Hoggie Days Orientation

The "Hoggie Days" orientation program is the first step that a newly admitted student, with fewer than 29 credit hours, takes in becoming a part of Texas A&M University-Kingsville. Hoggie Days is designed to aid in making this transition a smooth and enjoyable experience by addressing the common needs of incoming students.

The South Texan

The South Texan, a weekly newspaper, offers a means to bring student concerns to the academic community, to ascertain and express student opinion, to train future professional journalists, to publish official announcements and policies and to provide the campus with a general interest newspaper from the student perspective. The editor is selected by the Student Publications/Media Committee, and must have taken basic journalism classes and have an overall grade point average of 2.5 or better. A paid staff, chosen by the editor with the advice and consent of the faculty adviser, is chiefly responsible for newspaper production. Volunteer help from throughout the student body is always welcome.

Recreational Sports

Stephen A. Tribble, *Associate Director for Recreational Sports*
Steinke Physical Education Center, Room 8. MSC 198. Extension 2372.

Intramural Sports

A wide variety of individual, dual and team sports are offered each semester. Individuals are provided the opportunity to socialize, learn leadership skills, exercise and obtain the ever-elusive title of INTRAMURAL CHAMPION. Championship T-shirts are awarded in every sport. Teams work hard in every sport to earn points with the hopes of being crowned TEXAS A&M-KINGSVILLE ALL-CAMPUS INTRAMURAL CHAMPION. In a select number of sports, opportunities are available to compete at regional and national levels.

The Fitness Center

The Fitness Center is housed in the Steinke Physical Education Center (SPEC) and is available to all Texas A&M-Kingsville students, faculty and staff and has a wide range of exercise equipment available (treadmills, stair climbers, elliptical trainers, stationary bikes, selectorize weight machines, dumb bells and a smith machine). A full cardio theater is also available to make workout routines more enjoyable. The Fitness Center also provides programs in the areas of wellness, fitness, training, aerobics and nutrition.

Cheerleading

Team spirit is a vital part of any college atmosphere. The Texas A&M-Kingsville cheerleading program offers students the opportunity to get involved, learn leadership, develop athletic skills and promote team work. In support of the athletic department, the cheerleaders perform at all basketball and football games and attempt to cheer at other athletic events when possible.

Informal Recreation

The Steinke Physical Education Center (SPEC) is home to Javelina basketball and volleyball and is also available to all students for recreational use. The SPEC offers the following recreational facilities: a multi-purpose gym (basketball, volleyball, etc.), racquetball courts, a swimming pool and the Fitness Center. Equipment is available for check out from the "cage."

Intercollegiate Athletics

Jill Willson, *Athletic Director*

Javelina Stadium. MSC 202. Extension 2411.

Nationally ranked athletic teams for men and women are a tradition at the university. Athletic teams for women include volleyball, basketball, cross country, track and field and softball. Athletic teams for men include football, basketball, baseball, cross country and track and field. Each enrolled student may attend all scheduled home athletic events free of charge with a validated Student I.D.

UNIVERSITY SERVICES

The university provides a number of services for the university community. These are free or have minimal charges.

Life Services and Wellness

Dianne Brown, *Director*

Life Services and Wellness. MSC 112. Extension 3991.

Life Services and Wellness (LSW) serves the physical, emotional and special academic needs of Texas A&M-Kingsville students. Special emphasis is placed on preventive services and lifestyle management to encourage students in leading healthier and emotionally fulfilling lives. LSW has five units: Health Care Services, Counseling Services, Testing Services, Wellness Program and Services for Students with Disabilities. All services are confidential and no information is released without written permission from the student. Visit our website at www.tamuk.edu/sass/lifeservices or call 361/593-3991 for more specific information.

Health Care Services

Health Care Services provides quality medical care to students enrolled at Texas A&M-Kingsville while classes are in session. All registered students pay a health service fee that includes unlimited visits to see medical providers and to obtain medications at low costs. Additional lab services, minor surgical procedures and immunizations are available at a minimal fee. Students are responsible for any financial obligations stemming from referral to a private physician's office, lab tests, x-ray or hospital. The health service fee is not intended to be construed as health insurance. A student health insurance application is available at the offices of Life Services and Wellness.

Any student in need of health care is encouraged to visit LSW. Students may walk-in or schedule appointments and must present a validated university ID for health care services. The health care staff does not routinely provide class absence excuses. It is the student's responsibility to convey information regarding illness to the professor.

After hours emergency care is available at Christus Spohn-Kleberg Memorial Hospital, 1300 General Cavazos Boulevard. Call 361-595-1661 or emergency services at 361-595-9745. Fees and transportation to these facilities are the student's responsibility. In case of an extreme emergency, call 911.

Personal and Career Counseling

A professional counselor is available to provide individual or group counseling for personal and interpersonal issues, education or academic challenges and career or life-decision concerns. All services, with the exception of selected specialized tests, are free. Also, available to faculty and staff are free counseling assessments and referrals to community resources. Scheduled appointments are preferred; walk-ins are welcome.

Services for Students with Disabilities (SSD)

This office assists in academic adjustment and provides auxiliary aids to students with disabling conditions, as defined under the law, who are otherwise qualified to meet the institution's academic requirements. To qualify for services from SSD, a student must apply and be accepted for admission to Texas A&M University-Kingsville through the regular admissions process, provide current and comprehensive documentation of a temporary or permanent disability that requires accommodation and schedule an initial interview with the SSD Coordinator to discuss needs and to register for services. Faculty are encouraged to call or meet with the SSD Coordinator and learn more about accommodations and accessibility issues.

Testing Services

The Texas A&M-Kingsville testing office provides comprehensive testing services for university students and prospective students. The Testing Office serves as a national testing center for such tests as the American College Test (ACT), College Level Examination Program (CLEP) Computer based exam, Law School Admission Test (LSAT), Miller Analogies Test (MAT), Medical College Admission Test (MCAT), Secondary Level English Proficiency (SLEP), Pharmacy College Admission Test (PCAT), Professional Assessment for Beginning Teachers (PRAXIS Series), Nelson Denny and Texas Higher Education Assessment (THEA). General Education Development (GED) testing is also administered through this office. The ACT Residual exam is administered to accommodate only the students who cannot register for the national test dates. For information on examination dates and other exams such as GRE, GMAT, TOEFL, SAT visit our website at www.tamuk.edu/sass/lifervices or call 361-593-3303.

Wellness Program

The Wellness Program provides a vehicle to increase awareness on education, prevention and intervention services involving alcohol, tobacco and other drug use and abuse while promoting positive decision-making and healthy lifestyles. Two components in the Wellness Program are *Don't Cancel Class* and the *Peer Educator Program* (PEP Talk). The *Don't Cancel Class* program is available to faculty requesting educational presentations on academic enhancement, alcohol and other drug abuse and prevention, health issues, relationships, wellness and sexual health. Staff and students can also request educational presentations. The *Peer Educator Program* (PEP Talk) goal is to share, teach and empower peers to review their lifestyles and make responsible, healthier decisions. PEP Talk coordinates activities throughout the year to increase awareness on health and safety issues. For more information on the Wellness Program contact the coordinator at 361-593-2382.

Center for Young Children

Lisa A. Turcotte, *Director*

Center for Young Children. MSC 138. Extension 2219.

The center is the laboratory in which students observe and gain practical experience in working with young children and their parents. Several of the programs in the Department of Human Sciences require observation and/or participation at the

center. Students from other disciplines, such as early childhood education, psychology, speech communications and kinesiology, are also provided opportunities to observe and interact with young children.

The Center for Young Children was established in 1941 and is located on the corner of University Boulevard and Santa Gertrudis Avenue. Occupying a new state-of-the-art building since June 2002, the Center is seeking reaccreditation from the National Association for the Education of Young Children. It meets the needs of 60 children aged three months through five years. Fenced playgrounds provide a large assortment of play structures and equipment, shade and sun areas and open play space. Developmentally appropriate learning centers are provided in each classroom to stimulate and encourage exploration and discovery. The philosophy that young children learn through creative play is evident in planned activities that enhance the children's emotional, social, physical and cognitive development.

A highly qualified, degreed staff works with the children. The school's close proximity to campus and its high quality program make it especially attractive to university students with children. Parents are encouraged to register their children early since a waiting list quickly forms as the fall semester nears. Parents are welcome to visit at any time.

Veterans Services

M. Ester Salazar, *VA Coordinator*
College Hall 150. MSC 105. Extension 2812.

Courses at A&M-Kingsville are approved for veterans training and benefits. The Veteran Affairs Office, located in the Office of the Registrar, assists veterans with problems relating to their training programs.

Benefits

Programs are approved for those who wish to attend and receive benefits under the Veterans Readjustment Benefits Act of 1966, Post-Vietnam Era Veterans Educational Assistance Program, the Veterans Educational Act of 1984, Chapter 1606 (formerly 106), Reservists Education Bill, Chapter 30, Veterans Administration (VA) Education Bill of 1986 and dependents qualified for VA Educational Benefits.

Students attending with the aid of veterans benefits should inquire about Veterans Affairs through the Office of the Registrar, **prior to registration**, to obtain needed information relative to their enrollment and certification of attendance to the Veterans Administration. All new students must furnish the Veterans Affairs Office a copy of their DD214 or a certified DD214 from the county court clerk of their respective county. The veteran must also furnish certified copies of marriage certificates, divorce certificates and dependents' birth certificates, if applicable.

Students must provide approved, signed degree plans to Veterans Affairs prior to certification of their initial semester. Degree plans are available through the Counseling Office or through departmental advisers. Transfer students should have copies of all previous college transcripts for initial counseling sessions. It is the student's responsibility to inform Veterans Affairs of any changes in enrollment status. The monthly rates of payment to veterans are provided for by Public Law 94-302. Students receiving VA benefits must inform the Office of Student Financial Aid to avoid any financial aid discrepancies.

Veterans should have military credit evaluated at the close of the first semester or upon the successful completion of 12 semester hours and furnish Veterans Affairs with a copy of their updated degree plan. Also, any transfer credit from prior education needs to be evaluated before the close of the first semester and a copy of an updated degree plan must be furnished to Veterans Affairs. All active duty personnel receiving tuition assistance must process their paperwork through the Business Office.

Standards of Progress for Veterans

A student receiving full or part-time veteran's education benefits **must** maintain a cumulative 2.0 grade point average on work taken. Students who wish to receive veteran's benefits and who transfer from another institution without the required 2.0 GPA must visit the VA coordinator in the Office of the Registrar before registering for classes to determine whether or not they are eligible for certification. The scholastic status of a student receiving veteran's benefits can be changed by attending summer school and meeting the same standards that apply in the long semester.

Veterans Semester Hour Classification

The Veterans Administration uses the semester hour classification scale below to determine a veteran's payment. The number of semester hours enrolled at this university are those reported to the Veterans Administration. This classification scale is used only for the fall and spring semesters. The summer sessions are calculated differently. To ensure classification contact the VA Coordinator in the Office of the Registrar.

12 hours or more	Full-time
9-11 hours	3/4 time
6-8 hours	½ time
4-5 hours	Less than ½ time; more than 1/4 time
1-3 hours	1/4 time (constitutes tuition and fees only)

Career Services Center

Karen N. Engebrecht, *Director*
Eckhardt Hall 102. MSC 106. Extension 2218.

The mission of the Career Services Center is to provide assistance to students and alumni in planning careers and securing employment, including developing, evaluating and effectively initiating and implementing career, education and employment decisions and plans. The Career Services Center is designed to provide a diverse student population with a variety of information and assistance to achieve their professional goals. It is the aim of Career Services to provide a quality center that meets the needs of the students, alumni, employers, faculty and staff and to provide a superior level of service.

Students should register with Career Services in order to obtain assistance with their employment search. On-campus interviews, job-skills workshops, career fairs and "how-to" information are available through the center. The Cooperative Education/Internship Program provides undergraduate students with an opportunity to gain work experience in their major field of study by alternating paid work periods with semesters of school. Summer internships are also available. The Off-Campus Part-Time Employment Program provides students with job opportunities in the local community while attending school. Students who have not yet chosen a major may contact the center for career guidance and counseling about various occupations. An interactive computer guidance program is available to help students with self-assessment and career exploration. For more information, see the Career Services Center home page at www.tamuk.edu.

Women's Center

Becky Maez, *Director*
Student Union Building 301C. MSC 135. Extension 2166.

The Women's Center was established in 1993 through a presidential initiative. The Women's Center works to improve the lives of all women on campus including students, faculty and staff through academic, research and service programs and activities. The center offers educational and social programming on campus for all students, such as Women's History Month, Sexual Assault Prevention, Family Violence Awareness, Breast Cancer Awareness and the Winterfest Craft Party for children of faculty and staff. The center is open and available for informal advising, crisis intervention and generally serves as a support unit on campus. The center's new conference room is available for scheduling meetings, studying and/or meeting area for students/student organizations.

University Engineering, Facilities Planning and Construction Office

Micheal Foor, *University Engineer and Director of Campus Planning*
Support Services Building 107. MSC 111. Extension 2645.

Engineering design, analysis and project planning for construction-related changes or additions to the university's facilities are the responsibility of the University Engineering, Facilities Planning and Construction Office. This office also houses the blueprint master file, campus maps, construction documents and other records of university facilities. The principal objective goal of the office staff is to manage the renewal, upgrade and modernization of university facilities through construction project work.

Environmental, Health and Safety Office (EHS)

J. Chris Tweddle, *Director, Environmental, Health and Safety*
Support Services Building 105. MSC 111. Extension 2346.

The university strives to provide a safe and healthful working environment for all employees, students and visitors. The EHS Office works with university personnel and student organizations in striving to minimize work place incidences. This office is responsible for ensuring the university's compliance with state and federal safety and environmental regulations.

Priorities of this office are to establish and promote proper attitudes and procedures within all areas of the university community concerning reduction in work place incidences, fire safety, occupational safety, environmental management and emergency action procedures.

University Police

Sandra Jefferson, *Chief*
Seale Hall. MSC 126. Extension 2611.

The University Police Department's primary purpose is to protect the security of the campus. This department controls traffic and parking, maintains a quiet and orderly atmosphere in which students can pursue an education without disturbances and interference, provides information to visitors on the campus and assists in emergencies. The department consists of 15 state certified police officers, including the director, four state certified dispatchers, administrative assistant and a clerk.

All faculty, staff and students, full or part-time, who operate or expect to operate a vehicle on university property, regularly or occasionally, are required to register those vehicles with the University Police Department and obtain a parking permit assigning a designated area or areas for parking. Information regarding vehicle registration, parking zones, permit display, parking penalties or other information with respect to parking and traffic regulations may be found in the separate brochure available at the University Police Department.

Identification Card Service

Chaye Smithwick, *Coordinator for I.D. Center*
Student Union Building. MSC 122. Extension 2243.

The university operates an identification card system in SUB 110. All members of the university community need an I.D. card. An optional I.D. can be issued for spouses and for children between the ages of 4 and 18. I.D. cards provide access to the library, Business Office, Student Health Center, Physical Education Center, Student Union and certain other areas. Further information concerning the student I.D. Card is available in the *Student Handbook*.

Check Cashing

The Business Office in College Hall will cash checks for students (up to \$50), faculty and staff with a valid I.D. card.

Mail Service

Alice A. Huerta, *Postal Supervisor*
MSC 100. Extension 2400.

The federal post office located in the Student Union Building provides complete postal service to all faculty, staff, students and general public. Services include selling stamps, money orders, self-stamped envelopes, aerogrammes, renting post office boxes and mailing packages. Other services include express mail, priority, registered, certified, insured and delivery confirmation. Next to the federal post office is the campus mail room, which is responsible for delivering and processing all departmental mail. Mail service is also provided to the residence halls and the student family apartments. Service window hours are 8:30 a.m. to 4:00 p.m. Monday through Friday. Lobby hours are from 7 a.m. to 7 p.m., seven days a week.

Bookstore

Carolyn Dickson, *Manager*

Student Union Building. MSC 127. Extension 2601.

The university bookstore provides the campus community with new and used textbooks, other required course material, trade and reference books, office supplies, academically priced software, imprinted gift items and academic regalia. "We're more than just books, simple, easy, convenient."

Public Affairs

Jo Ann Castro, *Director*

College Hall 130. MSC 114. Extension 3901.

This office is the university's official link with the news media. It gathers and disseminates news of the university's programs and people to print and broadcast media throughout the state, and also responds to media inquiries. It is also responsible for university publications, including the web page, advertising and internal communications. The office also conducts an extensive marketing and advertising program for student recruitment and assists in special event planning. The Public Affairs Office publishes the faculty-staff electronic newspaper, the Hog E Weekly and the Javelina Alumni Association newsletter, *The Tusk*.

Special Programs

Mary L. Gonzalez, *Assistant Vice President for Special Programs*

Eckhardt Hall 219. MSC 181. Extension 2708

The purpose of the Office of Special Programs is to promote the completion of high school, the pursuit of college and the acquisition of life skills among at-risk, disadvantaged youth. The Office of Special Programs is located in Eckhardt Hall, second floor. The following programs are housed within the area of special programs.

High School Equivalency Program

The High School Equivalency Program recaptures migrant students who have dropped out of school and/or migrant adults who have not completed their high school diploma, and prepares them to master the high school equivalency exam. They are placed in the work force or matriculated to the university.

Student Support Services

The Student Support Services Program is an undergraduate program that provides academic support services, retention and financial aid assistance. The program fosters an institutional climate supportive of the success of low income, first generation or students with disabilities. The Student Support Services helps to increase graduation rates, and as appropriate, facilitate participants' entrance into graduate and professional programs.

College Exploration Summer Program

The College Exploration Summer Program transitions high school graduates to the university by offering an opportunity to earn semester hours of post-secondary credit. In conjunction with a variety of academic support workshops on study skills, career awareness opportunities and cultural exposure, the CEP Program provides a variety of student services geared toward retaining participants in higher education.

Upward Bound Year-round Program

The Upward Bound Year-round Program offers outreach services to high school students from area independent school districts by enhancing students' academic skills and enabling them to continue beyond high school. The Upward Bound Program objective is to develop the participant's full potential and prepare them for post-secondary success.

Ronald E. McNair Scholars Program

The Ronald E. McNair Scholars Program's mission is designed to increase the number of undergraduate low-income students, especially under-represented groups, to enroll in graduate studies and eventually pursue a doctoral degree. The Ronald E. McNair Scholars Program is made possible through a grant from the U.S. Department of Education.

This grant supports undergraduate students' scholarly activities throughout the academic year with an intensive internship research study component. Through this support, Texas A&M-Kingsville is playing a very important role with faculty/student mentorships. Exposure to graduate work and mentorship programs are important contributions for students to realize their full potential. The McNair Program prepares undergraduate juniors and seniors aspiring to study at the graduate level.

College Assistance Migrant Program.

The College Assistance Migrant Program's (CAMP) purpose is to identify, recruit and enroll migrant and seasonal farm worker high school graduates and provide them academic, social and financial support to enable them to complete their first year of college and offer follow-up student support services until completion of their degree plan.

Upward Bound Math and Science Center

The Upward Bound Math and Science Center selects students with math and science strengths from high schools throughout the state and brings them to Texas A&M-Kingsville each summer for research sessions. The center provides the state's high school students appropriate role models by identifying and hiring undergraduates and/or postgraduate students as instructors and tutors in math, science, computer science and technical writing during the summer project. Collaborative learning and team building is developed among participants. The center provides the students an opportunity to enhance their math and science skills and to observe and get involved with ongoing math, science and computer research. Faculty and graduate student mentors assist the research and send Upward Bound projects during the academic follow-up year. The center's goal is to increase student competency in challenging subject matter and to encourage more students to pursue programs that will lead them to careers in mathematics and science.

AUXILIARY ACADEMIC RESOURCES

Much of the learning and the research in a university occur outside organized classes. The following units of Texas A&M University-Kingsville support faculty and student educational and research pursuits.

Computing and Information Services

Stanley J. Yuraitis, *Director*

College Hall 240. MSC 185. Extension 2599.

The Office of Computing and Information Services (CIS) operates several hundred digital microcomputers and their associated peripheral equipment in College Hall, the McNeil Engineering Laboratory, the Business Administration Computer Laboratory and in the Jernigan Library Computer Laboratory. The combined resources of these computer complexes and those located in the Howe Agriculture Laboratory Building, Rhode Hall, Sam Fore Hall and Eckhardt Hall provide the major information resources for the administrative staff, faculty, research and student communities at Texas A&M University-Kingsville. The university's Trans-Texas Videoconference Network (TTVN) classrooms are located in the Jernigan Library and the Human Sciences Building providing distance learning opportunities. A TTVN conference room is located in College Hall.

The campus is supported by a 10/100Mb switched network with a fiber optic Gigabit backbone utilizing Cisco Systems technology and a 4.5Mbps connection to the Internet. Our Student Information Systems consists of an IBM RISC6000, model 7015R50, midrange computer, with 2 billion characters (GIG) of primary memory and 172 GIG of direct access storage serving academic and administrative needs. Additionally, a SUN Enterprise 450 (E450) Server with 1(GIG) of primary memory and 54 GIG of direct access storage serves as the university's gateway to e-mail and Internet. More than 2500 IBM compatible and Macintosh microcomputer systems are installed in various locations throughout the campus not including student dorms. Over 90% of these systems are linked to a local area network, giving the users access to both mainframe and microcomputer resources, as well as a variety of software, data sources, e-mail and the Internet.

Services provided by the computing complexes include administrative applications, some purchased from third parties, some developed in-house and all maintained in-house; language processors for academic instruction, statistical and simulation software for instruction and research and various packages accessed by all users as well as technical assistance to the university's computer users.

Office of Institutional Research

Alan Tipton, *Director*

College Hall 233. MSC 215. Extension 2244.

The Office of Institutional Research supports institutional planning, policy formulation and decision making through the development and dissemination of accurate and timely data, reports and analysis. The office is committed to providing support and expertise for the evaluation and assessment activities throughout the university. The office is also responsible for ensuring the timely submission and accuracy of reports to external agencies including the Texas Higher Education Coordinating Board, Legislative Budget Board and The Texas A&M University System.

Office of International Programs

Director

Cousins Hall 223. MSC 163. Extension 3994.

The Office of International Programs (OIP) is committed to the incorporation of international content materials, activities and understanding into the teaching, research and public service functions of Texas A&M University-Kingsville to enhance its relevance in an interdependent world. OIP recognizes the fundamental and indispensable importance of faculty, students and members of the surrounding community in carrying out the university mission to serve ethnically and culturally diverse populations.

Therefore, OIP pledges to establish and maintain a positive university and community environment which encourages faculty, staff, students and local citizens to participate in appropriate ways in the internationalization process. In view of the increasing interdependency of nations for economic vitality and the resulting need for greater awareness of cultural, ethnic and ideological differences, OIP will promote and encourage the development of mutual understanding among peoples and cultures interacting with our university.

The Office of International Programs is divided into three separate areas: 1) Study Abroad Experiences, 2) Study Abroad Scholarships and 3) Exchange Agreements.

Study Abroad Experiences

Recognizing the importance of a study abroad experience, Texas A&M-Kingsville strongly encourages undergraduate students to spend a minimum of one full semester and preferably one year studying abroad. This will provide students an in-depth experience of international understanding and cultural awareness which is ever more important for today's global citizenry. Contact the staff at OIP for additional information.

Study Abroad Scholarships

Many students are not aware that they can earn Texas A&M-Kingsville college credit for their study abroad experience and continue to use their current financial aid allotments. In addition, competitive scholarships are available to students through the International Exchange Education Fund which is administered by this office. These funds are generated by a \$3 student fee assessed each semester and summer term. Other funding sources are available through governmental agencies and/or private foundations, e.g. U.S. Department of Education (International Studies and Foreign Language Programs and International Education and Graduate Programs), Institute of International Education, Fulbright Scholarships, etc. OIP staff are continually searching for other financial resources to assist students. Contact OIP for the latest information available.

Exchange Agreements

Texas A&M-Kingsville has signed many international exchange agreements with foreign institutions to facilitate the internationalization of the university's student body and faculty. OIP develops and promotes two-way exchange programs for both students and faculty. Two-way exchange programs envision more A&M-Kingsville students and faculty involved

in study programs abroad and more foreign faculty and students coming to the university for educational and cultural benefits. Active international agreements have been established with institutions in Argentina, Chile, France, Guatemala, Mexico, Peru, Spain and Venezuela. In addition, OIP is willing to negotiate new agreements with additional foreign countries as requested by students and/or faculty.

For additional information about any international program area, please call 361-593-3994.

Office of Research and Sponsored Programs

Sandra Rexroat, *Director*

College Hall 230. MSC 201. Extension 3344.

The office helps secure external funding for research at the university. It coordinates campus research activities, acts as a liaison for interdisciplinary research and community outreach programs, and provides various automated services. All proposals for external funds are submitted through the Office of Research and Sponsored Programs.

John E. Conner Museum

Hal Ham, *Director*

Conner Museum. MSC 134. Extension 2849.

The museum, owned by the State of Texas and operated by The Texas A&M University System, specializes in South Texana of the 19th and 20th centuries and in the natural history of the region. Its primary function is educational, with a general exhibit program in regional and in natural history and a gallery for special exhibits and programs.

Major permanent exhibits include Native American artifacts; South Texas history in graphics; weapons; household, farm and ranch items; and natural science exhibits. In 1981, King Ranch gave the museum a natural history collection and a large grant to develop the Caesar Kleberg Hall of Natural History.

ACADEMIC REGULATIONS

Magdalena “Maggie” Williams, *Registrar*
College Hall 150. MSC 105. Extension 2811.

TEXAS SUCCESS INITIATIVE (TSI)

The Texas Success Initiative (TSI) requires students to be assessed in reading, writing and mathematical skills before enrolling in a Texas public college or university, and to be advised based on the results of that assessment (Senate Bill 286, Texas Education Code; Section 51.3062). A student is required to complete one of four assessment tests before enrolling at Texas A&M-Kingsville unless he/she meets one or more of the exemptions explained later in this document. The TSI is required by Texas law to ensure that students enrolled in Texas public colleges and universities possess the academic skills needed to perform effectively in higher education course work.

Exemptions

Students are exempt from taking a test for the Texas Success Initiative if a qualifying score has been made on the ACT, the SAT or the TAAS/TAKS providing they possess valid ACT, SAT or TAAS/TAKS. It is the responsibility of the student to provide official ACT, SAT or TAAS/TAKS to Texas A&M-Kingsville to qualify for an exemption before enrollment in any college level courses.

These exemptions are effective for three years from the date a student takes the exit-level TAAS/TAKS and achieves the set score level. It is effective for five years from the date the ACT or the SAT is taken and the set standard is achieved. Scores required for exemption must be attained in one “administration.” Students enrolling for the first time in a Texas public institution of higher education after those periods have elapsed must be treated as though they had not been tested.

ACT, SAT, TAAS/TAKS and Military Exemption standards:

- *ACT Exemption Requirements*
Obtain a composite score of 23 with a minimum of 19 on both the English and the mathematics tests.
- *SAT Exemption Requirements*
For a test taken in April 1995 or later, a combined verbal and mathematics score of 1070 with a minimum of 500 on **both** the verbal and the mathematics tests is required. For a test taken prior to April 1995, a combined verbal and mathematics score of 970, with a minimum 420 on the verbal test and 470 on the mathematics test is necessary for exemption.
- *TAAS/TAKS Exemption Requirements*
A minimum scaled score of 1770 on the writing test, a Texas Learning index (TLI) of 86 on the math test and a TLI of 89 on the reading test are required for TSI exemption.
- *Military Exemption*
Students in active military service, active duty in the military-national guard or reserves (must have served for the previous three years, for those in the reserves), and those honorably discharged as of August 1, 1990 are exempt from TSI.

ACADEMIC ADVISEMENT

Texas A&M University-Kingsville places very strong emphasis on developing a one-to-one individual academic advisory relationship between each student and a faculty adviser. This relationship is essential when a student participates in the registration process.

Academic colleges and their departments have specific academic advising procedures, requirements and schedules for students’ degree plans and for procedures to register for classes. A student’s adviser is normally in the department offering

the field in which the student is majoring. The Office of the Registrar will assist a student who needs help in locating an appropriate academic adviser.

A student who remains unsure of a major would profit by discussing this with an academic adviser or by going to the university counseling center or the Career Services Center to receive career counseling and testing or other appropriate referral. Some vocational aptitude tests and tests designed to help a student select a major are available.

Degree Plan

A student's course of study is drawn up in consultation with the appropriate adviser and must be approved by the chair of the department and the dean of the college involved. Final degree plans must be approved by the dean of the college in which the major is taken. All undergraduate degrees must conform to "General Requirements for Graduation" set forth in the next section of the catalog.

Course Listings

The term "course" means a definite unit of work in a subject. Courses are offered on a semester basis. University course offerings are listed in this catalog by college and by department or program within that college according to the following method:

Letter Code: A four letter code at the beginning identifies the department or program that offers the course. A list of these letter codes is provided just after the index to the catalog.

Number Code: The four digit code distinguishes each course in that department or program and identifies the level at which it is offered. The first and second digits in the course number hold specific meanings. The first digit indicates the course level (1000 freshman; 2000 sophomore; 3000 junior; 4000 senior; 5000 graduate; 6000 doctoral) and the second digit indicates semester credit hours for the course. Courses numbered at the 1000 and 2000 level are lower division courses that are normally introductory in nature. Upper division courses numbered 3000 and 4000 are advanced undergraduate courses that normally require junior or senior standing and/or the completion of a preceding course or courses. Courses numbered 5000 and 6000 are open only to students with graduate standing. (Some courses in the 4000 series also carry graduate credit; these are listed in the graduate catalog.)

Title: The identification code is followed by the course title. The identification code and a shortened form of the course title are used to list courses in the *Class Schedule* bulletin published each semester for registration purposes and on a student's permanent transcript.

Two-Year College Equivalency: Courses commonly taught at two year colleges in the State of Texas are identified immediately following the title of the equivalent course by a four-letter, four-number code in parentheses. When such an entry appears, the university accepts those courses as the equivalent. No work taken at a two year college can be transferred as an upper division course.

Credit Hours: The final information given on a course listing's entry line indicates the semester credit hours of the course. When the letter *V* appears, the course is offered for variable credit, to be determined at the time of registration. The two digits in parentheses following the semester credit hours are the number of hours of lecture and the number of hours of laboratory required each week respectively.

Course Description and Special Conditions: Below the entry line is a brief description of the course, a notice of any special restrictions for registration in the course and an indication, if any, of a laboratory fee.

REGISTRATION

The university has a computer-assisted registration system. This system allows a student who registers early priority in course selection and class schedule. It is designed to provide individual academic advising between faculty and student. This gives students an opportunity to review their academic programs and select the specific sections of the courses desired for the next semester. For specific dates and information on registration, the student should consult the university website.

Web Registration

The university has a computer-assisted registration system which allows students to register over the web. Web registration is available for eligible students only and requires academic advising prior to registration. Specific registration dates, instructions and information is provided on the university website.

Normal Load

The normal load for a semester is usually one-eighth of the total number of credit hours required for the degree toward which the student is working. That load is normally 16-18 hours per fall and spring semesters. The normal load for a summer session is 6 semester hours. Kinesiology courses are not included in this load calculation.

A regular undergraduate student, defined as one carrying a minimum of 12 semester hours, is expected to register each semester for a normal load of work. A student registered for fewer than 12 semester hours is considered a part-time student.

In a summer term an undergraduate student may take, in addition to the 6 hour load, a EDKN activity course. Students with a *B* average (3.0) for the last semester or term of registration may register for a *maximum* of 8 semester hours of academic work during one summer term *only*.

A freshman may not register for more than the normal load during the first semester. Any succeeding semester or term, a student may register for more than the normal load (an "overload") only on the approval of the respective college dean. If a student is concurrently enrolled at other institutions of higher education in the same semester, the total course load at all institutions is to be considered in applying these policies. It is the responsibility of the student to inform his/her dean of any concurrent enrollments. The maximum load for a student registered for any work for graduate credit is 15 hours a semester.

Prerequisites

No student shall be allowed any credits for a course before credit in its prerequisite is obtained, except on the written approval of the chair of the department offering the course and the dean of the college in which the student is majoring.

All students must have successfully completed ENGL 1301 and ENGL 1302 during their first 75 semester hours of credit. No additional 3000- or 4000-level courses may be taken or transferred in until this requirement is met.

Schedule Changes

Dropping a Course

A course may be dropped only with the permission of the student's major adviser or dean. The student must take the proper authorization to the departmental area immediately for recording and fee assessment. After census date all drops are processed in the Office of the Registrar. A student who, by dropping a course, becomes registered for less than a normal load will be reclassified as a part-time student. Quitting a course without approval may be regarded as sufficient reason for requiring the student to withdraw from the university.

If a student drops the only course for which enrolled, the student must follow the process for withdrawing from the university as stated below.

Adding a Course

A course may be added only with the permission of the student's major adviser or dean. The student must take the proper authorization to the academic department immediately for recording and fee assessment. (See regulation on "Normal Load.") The student may only add classes during the time specified in the official academic calendar.

Withdrawal from the University

If a student finds it necessary to withdraw during the session, the student must notify the Office of the Registrar and process a withdrawal form. If the withdrawal is before the midsemester point, the student will receive an automatic grade of *Q* in each course. If the withdrawal is after the midsemester point, the student will receive a grade of *Q* or *F*, depending on whether the student is passing or failing at the time of the withdrawal. If the student abandons the courses registered for

without officially withdrawing, the student will receive a grade of *F* in each course, regardless of the time the student ceased to attend classes. (See also regulations entitled "Refund of Fees.")

Withdrawal of Students Ordered to Military Active Duty

If a current student is called to active duty, the student has several options for enrolled courses. The student must provide a copy of military orders to receive one of the following: 1) full refund of tuition and fees paid by the student for the semester in which the student withdraws; 2) with instructor approval, incomplete grade(s) for the semester in which the student withdraws; or 3) with instructor approval, assignment of an appropriate final grade(s) or credit(s). Upon the student's request, pre-registered classes will be dropped. If the student returns prior to the beginning of a semester he/she will be reinstated into this institution.

Excess Undergraduate Credit Hours (45 Hour Rule)

Affected Students

(a) The limitation on funding of excess undergraduate credit hours applies only to hours generated by students who initially enroll as undergraduates in an institution of higher education in the 1999 fall semester or in a subsequent term. If a student has been enrolled as an undergraduate student in any public or private institution of higher education during any term prior to the 1999 fall semester, the student's credit hours are exempt.

(b) Semester credit hours generated by non-resident students paying tuition at the rate provided for Texas residents are subject to the same limitations as hours generated by resident students.

Limitation on formula funding

Funding of excess undergraduate semester credit hours is limited as follows:

(a) Institutions may not submit for formula funding semester credit hours attempted by an undergraduate student who has previously attempted 45 or more semester credit hours beyond the minimum number of hours required for completion of the associate or baccalaureate degree program in which the student is enrolled.

(b) An undergraduate student at a four-year institution who is not enrolled in a degree program is considered to be enrolled in a degree program requiring a minimum of 120 semester credit hours.

(c) An undergraduate student at a two-year institution who is not enrolled in a degree or certificate program is considered to be enrolled in an associate degree program requiring a minimum of 60 hours.

(d) Students who enroll on a temporary basis in a Texas public institution of higher education, and are not seeking a degree or Level-Two certificate, and are also enrolled in a private or independent institution of higher education or an out-of-state institution of higher education are considered to be enrolled in a degree program requiring a minimum of 120 semester credit hours.

(e) For the purposes of the undergraduate limit, an undergraduate student who has entered into a master's or professional degree program without first completing an undergraduate degree is considered to no longer be an undergraduate student after having completed the equivalent of a bachelor's degree or all of the course work normally taken during the first four years of undergraduate course work in the student's degree program.

(f) The following types of semester credit hours are exempt and do not count toward the limit:

- (1) semester credit hours earned by the student before receiving a baccalaureate degree that has been previously awarded to the student;
- (2) semester credit hours earned through examination or similar method without registering for a course;
- (3) semester credit hours from remedial and developmental courses, technical courses, workforce education courses or other courses that would not generate academic credit that could be applied to an associate or baccalaureate degree at the institution;
- (4) semester credit hours earned by the student at a private institution or an out-of-state institution; and
- (5) any semester credit hours not eligible for formula funding.

An institution of higher education may charge a higher tuition rate, not to exceed the rate charged to nonresident undergraduate students, to an undergraduate student whose hours can no longer be submitted for formula funding because of the funding limit defined in section (a) above.

Concurrent Enrollment

Credits earned by a student at another institution while also enrolled at A&M-Kingsville will be transferred to A&M-Kingsville only if the student has received prior written approval from the college dean. Prior approval will be granted consistent with the university's normal load regulations.

Visiting a Course

Any person may request permission of the Provost and Vice President for Academic Affairs to visit a course. Individual instruction courses are not open to visitors. Visitors do not have the privilege of submitting papers, taking part in class discussions or participating in laboratory or field work. Visitors pay fees according to the published credit hour fee schedule, except that no additional fee will be required of a full-time student. A visitor's name will not be entered on the class rolls or permanent records. The notice of approval of a request to visit a course, properly received after fees are paid, will serve as a permit to attend a class.

Course Attendance by Senior Citizens

A senior citizen (age 65 or older) may visit courses offered by this university without payment of a fee if space is available. Laboratory courses or individual instruction courses cannot be opened to visitors. Visitors do not have the privilege of submitting papers, taking part in class discussions or participating in laboratories or field work. The names of visitors will not be entered on the class rolls or permanent records. The visiting of courses by senior citizens will be subject to restrictions as may be determined by the chief administrative officer or designated representative on campus.

CLASS POLICIES

A student has the right to expect competent, well-organized instruction for the full number of clock hours allotted for a course; to sufficient written assignments, graded fairly and with reasonable promptness to show the student's academic standing in the course at least before midsemester; to have ample opportunity to confer with the instructor at published office hours and to review graded written work; to freedom from ridicule, discrimination, harassment or accusations in the presence of other students or faculty members; and to an avenue for appealing to higher academic authority in case of alleged unfairness by an instructor.

Cheating and Plagiarism

Students are expected to do their own course work. Simple cases of first offense cheating or plagiarism by an individual student may be handled by the instructor after consultation with the department chair. When the evidence is indisputable, the usual penalty is a grade of *F* on the particular paper or in the course. The student is usually confronted with the evidence in private and advised of the penalty to be assessed. The evidence will be retained for at least one full year.

For more serious cases, such as those involving repeated offenses, conspiracy with other students or the theft and selling of examination questions, a report should be made by the instructor via the department chair and dean of the college to the Provost and Vice President for Academic Affairs for disciplinary action. Expulsion from the university is a normal penalty for such offenses.

Class Attendance

A vital part of every student's education is regular attendance of class meetings. Every faculty member is to keep a current attendance record on all students. Any absences tend to lower the quality of a student's work in a course, and frequent or persistent absences may preclude a passing grade or cause a student to be dropped from one or more courses upon the request of a faculty member to the Provost and Vice President for Academic Affairs.

Absences for Religious Holidays

The university will allow students who are absent from classes for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence if, not later than the fifteenth day after the first day of the semester, that student has notified the instructor of each class to be missed. The instructor may appropriately respond if a student fails to complete the assignment or examination within a reasonable time after the absence.

"Dead Week and Study Day"

To support the learning environment, the university will adhere to a four school day period of student study before the first scheduled final examinations each term. During this time, no required quizzes, tests or examinations (except for make-up

tests and/or final examinations for graduating seniors) shall be administered. The latter does not preclude the introduction of new material in class or the administering of laboratory final examinations, nor does it create any implication that class attendance is not expected during this period. The day before final examinations are scheduled to begin will be designated as a study day. No classes will be held on this day to allow preparation time for students and faculty. Scheduling of other university events or functions that involve students is discouraged and should be limited during this period.

Research on Human Subjects

Research that involves human subjects must be approved by the Institutional Review Board for the Protection of Human Subjects.

GRADES

Grades, with numerical values corresponding to these letters, are recorded as follows:

<i>A</i>	Excellent, 90-100.
<i>B</i>	Good, 80-89.
<i>C</i>	Average, 70-79.
<i>D</i>	Passing, 60-69.
<i>F</i>	Failure, below 60.
<i>I</i>	Incomplete: given to a student who is passing but has not completed a term paper, examination or other required work. The instructor and the student are required to complete the standard university contract form for each course in which the temporary grade of <i>I</i> has been assigned. The grade of <i>I</i> will be used only to allow a student who has encountered some emergency such as illness or an accident an opportunity to complete the requirements for a course. A grade of <i>I</i> reverts to a grade of <i>F</i> one year from the close of semester/term in which the grade was originally recorded if the course requirements have not been satisfied.
<i>Q</i>	Dropped: given when a student has officially dropped or withdrawn from the university before or on the midsemester point as indicated on the official university calendar, regardless of student's standing in class. Also given after the midsemester point to a student who is passing at the time the official drop is processed. (A student who is not passing receives the grade of <i>F</i> under such circumstances.)
<i>IP</i>	In Progress: used for graduate theses and dissertations. (Students must register every subsequent semester until the final grade is given.) In-progress (<i>IP</i>) grades remain indefinitely on a student's transcript and cannot be changed with a change-of-grade card.
<i>S</i>	Satisfactory: used only to report dissertation progress in doctoral programs approved to use this grade.
<i>U</i>	Unsatisfactory: used only to report dissertation progress in doctoral programs approved to use this grade.
<i>CR/NC</i>	Credit/Noncredit: used for courses that do not meet the normal or traditional framework of course scheduling and do not lend themselves to letter grading.
<i>X</i>	No grade posted by instructor: used to indicate that no grade was posted by the instructor teaching the course.

Removing the Grade of *I*

For the undergraduate student, the grade of *I* must be removed within the time specified by the instructor, not exceeding 12 months from the date the *I* was recorded. When the student completes the work in the course, the instructor submits a change of grade card through the chair of the department and the college dean to the Registrar. The grade of *I* may be changed only to *A*, *B*, *C*, *D* or *F*. Should the conditions specified above not be met, the *I* will become an *F*. Extensions of time, when merited, may be granted by the Provost and Vice President for Academic Affairs after consultation with the dean of the college concerned. *I* grades must be completed prior to graduation. *I* grades not completed by the end of the semester in which the student is scheduled to graduate will turn into *F*'s and will be calculated into the cumulative grade point average.

Change of Grade

After being reported to the Registrar, grades other than *I* may not be changed unless an error has been made by the instructor.

Students should review their end of semester final grades closely to ensure their accuracy. If an error or discrepancy should occur, the student should contact the appropriate professor and/or the Office of the Registrar immediately for resolution. It is recommended that those changes occur no later than the beginning of the next semester. Under no circumstances will grades be changed after one calendar year.

Repetition of a Course

If a student repeats a course that may not be taken for additional credit, it is the policy of the university to count as part of a student's cumulative grade point average only the last grade received in the course, whether passing or failing, other than a grade of *Q*. However, for purposes of grade point average calculation on course work for graduation, grades stand as recorded unless the same course is repeated at this university.

Students who have received their first bachelor's degree from this institution cannot repeat courses that were used to earn the first degree for purposes of grade point average calculation.

It is the responsibility of the student, after repeating a course, to file a special request form in the Office of the Registrar, so that the adjustment in the grade point average, when applicable, can be entered on the permanent record.

Repeated Grade Notation

Repeated course(s) and grade(s) are not removed from the official or unofficial transcript. The repeated grade and grade points will be removed from the cumulative grade point average only. The repeated course will be identified with a statement, "Repeated (excluded from GPA)", below the repeated course. Repeating a course after graduation will not change your graduation grade point average.

ACADEMIC STANDING

Classification of Students

Freshman: fewer than 30 semester hours of credit.

Sophomore: at least 30 semester hours of credit, but fewer than 60 semester hours.

Junior: at least 60 semester hours of credit, but fewer than 90 semester hours.

Senior: at least 90 semester hours of credit.

Grade Point Average

The grade point average accumulated on the permanent record of a student at A&M-Kingsville will be based on course and grade points earned by a student on work taken at this university. Transfer courses will be accepted as credit only. Such credit may be used for fulfilling degree requirements and graduation requirements. (For information on specific college admission, certification and graduation requirements, refer to the appropriate section of this catalog.)

A student's grade average on this university's work is expressed in grade points. Each semester hour of *A* counts four points, *B* three points, *C* two points, *D* one point and *F* zero points. The cumulative, or overall, grade point average (GPA) is computed by dividing the total quality points earned by the total number of quality hours. Transferred and credit only hours are not computed in the cumulative A&M-Kingsville grade point average.

Grade Point Summary

All official and unofficial transcripts will have the following abbreviations:

AHRS - Attempted Hours - TAMUK and transfer courses (all grades)

EHRS - Earned Hours - TAMUK and transfer courses (passed/credit)

QHRS - Quality Hours - TAMUK courses only (passed/failed)

QPTS - Quality Points - TAMUK courses only

GPA - Grade Point Average - QPTS/QHRS

Honor Roll, Dean's List and President's List

Full-time undergraduate students of highest academic rank will be honored each semester by the publication of their names on the President's List, Dean's List and the Honor Roll List. The President's List requires a grade point average of 4.00 on all work attempted for a particular semester, with a minimum of 15 semester undergraduate hours completed, exclusive

of credit only (CR) courses. The Dean's List requires a grade point average of 3.65 on all work attempted for a particular semester, with a minimum of 13 semester undergraduate hours completed, exclusive of credit only (CR) courses. The Honor Roll requires a grade point average of 3.5 on all work attempted for a particular semester, with a minimum of 12 semester undergraduate hours, exclusive of credit only (CR) courses.

Minimum Grade Requirements

The minimum grade point requirement for students who are considered to be making satisfactory academic progress is a 2.0 overall grade point average and is the GPA required for graduation. All transfer students must have a cumulative 2.0 GPA to transfer into A&M-Kingsville.

Scholastic Probation

Students will be placed on scholastic probation any time their overall grade point average at A&M-Kingsville falls below 2.0. Such students are required to participate to the fullest in academic support programs and to seek academic advising. Students who have been placed on scholastic probation will be removed from such probation at the conclusion of the semester or summer term at this university when they have achieved a 2.0 grade point average.

Enforced Withdrawal

Students who have been placed on scholastic probation, and who fail to achieve the minimum cumulative grade point average during the next long semester, will be placed on enforced withdrawal. Students who have been placed on enforced withdrawal may return after an absence of one semester; however, students placed on enforced withdrawal for a third time may return only after an absence of one year. These students must obtain an approval letter from the appropriate college dean and submit a readmission application to the Office of Admission. In any case, the required absence period may be shortened or eliminated upon approval of the college dean.

Removal of Enforced Withdrawal Status by Summer Study

Students placed on enforced withdrawal at the end of the spring semester are eligible to attend the subsequent summer session. If the student achieves a cumulative grade point average of 2.0 or higher at the conclusion of the summer terms, the enforced withdrawal status will be removed.

THE STUDENT'S PERMANENT RECORD

Transcripts

Official transcripts of the student's academic record may be requested in writing or in person from the Office of the Registrar at no cost. The student should list the complete name as recorded while attending the university, social security number, date of birth, first and last enrollment, number of transcripts requesting and the address where the transcript(s) are to be mailed. All transcript requests must be signed by the student; failure to sign the request will delay processing. Transcript requests may be faxed but must have all required information and signature.

A student must provide identification at the Office of the Registrar when picking up a copy of a transcript in person. The Family Educational Rights and Privacy Act of 1974, and amendments thereto, states that parents, spouse, legal guardian or others are not authorized to pick up transcripts of students unless written authorization by the student is provided.

Hold

All students, including continuing education students, should clear any holds they have on their records immediately. Failure to clear a hold causes delays and inconvenience when trying to obtain copies of transcripts through the mail or in person. Since a hold on the record may affect printing and mailing of grades at the end of the semester, students should be sure they do not have any holds before final examinations start. Students with a registration hold on their record will not be permitted to register.

Change of Name, Address or Social Security Number

Students who wish to change their name on their transcript must provide legal documentation of the change to the Office of the Registrar. Not advising the Office of the Registrar of a legal name change may cause transcript requests and registration problems. Students who change their address should likewise notify the Office of the Registrar, Financial Aid or Business Office.

Death of a Student

The death of a currently enrolled student should be reported to the Office of the Registrar immediately. After confirming the death, the Office of the Registrar notifies the appropriate faculty and academic dean, closes all student records and codes the student information system to block mailings to the deceased.

ADVANCED CREDIT

Entrance Examination Credit--Entering Freshmen

English Credit

American College Testing (ACT) based on the English section:

25 or 26 - ENGL 1301

27 or above - ENGL 1302

Scholastic Aptitude Test (SAT) based on the SAT V section:

Prior to April 1995 - 595 for ENGL 1301; 600 or above for ENGL 1302

Starting April 1995 - 630 for ENGL 1301; 670 or above for ENGL 1302

Math Credit

The following courses will be awarded for math credit:

1. MATH 1314 - three semester hours will be awarded provided the student has satisfactorily completed three units or three years of high school mathematics including one unit or one year of algebra and one unit or one year of geometry.
2. MATH 1316 - three semester hours will be awarded provided the student has completed the three units or three years of high school mathematics described in #1 (above) plus one-half unit or one-half year of high school trigonometry.
3. MATH 1348 - three semester hours of credit will be awarded provided the student has completed the three units or three years of mathematics described in #1 (above) plus one unit or one year of high school precalculus.

Based on the scores listed below:

American College Testing (ACT) - 28 or above

Scholastic Aptitude Test (SAT):

Prior to April 1995 - 590 or above

Starting April 1995 - 600 or above

Credit by CEEB Advanced Placement Examination

Entering freshmen who have satisfactorily passed one or more of the Advanced Placement Examinations of the College Entrance Examination Board are eligible for university credit in appropriate courses.

The examinations may be taken at approved high school testing centers, usually in May, by arrangement with the College Entrance Examination Board, Box 592, Princeton, NJ 08542. Requests for information and applications for tests should be mailed to this address. The placement examinations are different from the Achievement Test administered by the College

Board. Submission of examination scores and requests for credit in these courses should be directed to the Office of Admission.

Credit in the following courses at this university may be gained through the Advanced Placement Examinations:

A&M-Kingsville Equivalent	Subject Examinations	Minimum Score
ARTS 1316, ARTS 1317 (6 Cr)	Art-Studio	3+
ARTS 1303, ART 1304 (6 Cr)	Art-History of Art	3+
BIOL 1306/BIOL 1106, BIOL 1307/BIOL 1107(8 Cr)	Biology	4
CHEM 1311 (3 Cr)	Chemistry	4
CHEM 1311, CHEM 1312 (6 Cr)	Chemistry	5
CSEN 2326 (3 Cr)	Computer Science A	3+
ECON 2301 (3 Cr)	Economics-Macroeconomics	3+
ECON 2302 (3 Cr)	Economics-Microeconomics	3+
ENGL 1301 (3 Cr)	English-Language & Composition	3+
FREN 1311, FREN 1312, FREN 2311, FREN 2312 (12 Cr)	French-French Language/Literature	3
FREN 1311, FREN 1312, FREN 2311, FREN 2312, FREN 33- (15 Cr)	French-French Language/Literature	4
FREN 1311, FREN 1312, FREN 2311, FREN 2312, FREN 33-, FREN 33- (18 Cr)	French-French Language/Literature	5
HIST 1301, HIST 1302 (6 Cr)	History-U.S. History	3+
MATH 2313 (3 Cr)	Mathematics-Calculus AB	3+
MATH 2313, MATH 2314 (6 Cr)	Mathematics-Calculus BC	3+
MUSI 1316, MUSI 1317, MUSI 1116, MUSI 1117 (8 Cr)	Music-Theory	3+
MUSI 2306 (3 Cr)	Music-Listening & Literature	3+
PHYS 1301/1101, PHYS 1302/1102 (8 Cr)	Physics B	3+
PHYS 2325/2125, PHYS 2326/2126 (8 Cr)	Physics C	3+
POLS 2301 (3 Cr)	Government & Politics-US	3+
PSYC 2301 (3 Cr)	Psychology	3+
SPAN 1313 (3 Cr)	Spanish-Language	3
SPAN 1313, SPAN 1314 (6 Cr)	Spanish-Language	4

A&M-Kingsville Equivalent	Subject Examinations	Minimum Score
SPAN 1313, SPAN 1314, SPAN 2311 (9 Cr)	Spanish-Language	5
STAT 1342 (3 Cr)	Statistics	3+

College Level Examination Program Examination and Course Equivalency Guide (CLEP)

CLEP is a local standardized examination administered on computer. Examinees receive immediate score reports for all exams with some exceptions. Credit by CLEP examinations is available in the courses listed below to any A&M-Kingsville students at any time during their college career. The exception is that students will not be eligible for credit in a course for which they have received credit in a more advanced course unless otherwise designated by the chair of the department in which the subject is offered. Both general and subject examinations are offered through the Life Services and Wellness Testing Office. Information on time, examination fees and location for these tests may be obtained from the Testing Office at 361-593-3303.

A&M-Kingsville Equivalent	Subject Examinations	Minimum Score
ACCT 2301 (3 Cr)	Intro Accounting	50
BIOL 1306/BIOL 1106, BIOL 1307/BIOL 1107 (8 Cr)	General Biology	50
CHEM 1311, CHEM 1312 (6 Cr)	General Chemistry	50
ECON 2301 (3 Cr)	Intro Macroeconomics	50
ECON 2302 (3 Cr)	Intro Microeconomics	50
FREN 1311, FREN 1312 (6 Cr)	College French	60
BLAW 3341 (3 Cr)	Intro Business Law	50
HIST 1301 (3 Cr)	American History I	50
HIST 1302 (3 Cr)	American History II	50
MKTG 3361 (3 Cr)	Principles of Marketing	50
MATH 2313 (3 Cr)	Calculus with Elementary Functions	50
MATH 1314 (3 Cr)	College Algebra	50
MATH 1316 (3 Cr)	Trigonometry	50
MATH 1348 (3 Cr)	Algebra-Trigonometry	50
POLS 2301 (3 Cr)	American Government	50
PSYC 2301 (3 Cr)	General Psychology	50
PSYC 2302 (3 Cr)	Human Growth & Development	50
SOCI 1301 (3 Cr)	Intro Sociology	50

Credit by Local Examination (Departmental)

Local examinations are available to students for organized class courses not designated for credit by the College Level Examination Program (CLEP). The student should contact the department in which the course is offered for information about the examinations. Eligibility will be determined by the department and will be dependent on a student's particular qualifications due to study or work experience. The department will also determine whether or not the student's performance on the local examination merits university credit and whether any further requirements for credit are to be met. Students may not receive credit by local examination in a subject in which they have already received a grade in the same course or in a more advanced course. There is **no** fee charged for these examinations.

JAMES C. JERNIGAN LIBRARY

Gilda Ortego, *Library Director*
Library 101. MSC 197. Extension 3528.

Professors

Ayala-Schueneman, Ortego, Schueneman
Associate Professor

C. Hunter

Assistant Professors

Allner, Beach, Boatright, Clasen, Packard

Instructors

Earp, Marking

Professional Staff

Paul W. Earp, *Network Manager*

Carol J. Tipton, *Head of Media Services*

James C. Jernigan Library is the university's principal facility for research and information resources. Current holdings include 500,000 volumes and some half million microform materials. The library subscribes to about 2,200 periodicals; another 300 are available full text via the Internet. The library has been a partial depository for U.S. documents since 1944 and is a full depository for Texas state documents. The library contains more than 4,000 audio-visual and multimedia materials.

In addition to the main stacks, the library's three floors contain group study rooms, a bibliographic instruction classroom, media classrooms, seminar rooms, typing rooms, teleconference facilities, an interactive video conferencing system and a microcomputer lab.

As a full-service academic library, the following services are provided:

Reference and bibliographic instruction is available from a central desk. Classes in research skills and Internet training are provided.

The Electronic Resource Center (ERC) houses online and CD-ROM databases, including OASIS, the library's online catalog. OASIS offers electronic access to over 300,000 books, media resources and periodicals. The ERC provides access to over 50 databases, including some with full-text capabilities. Many of these online databases are available to users off campus via the Internet.

The Education Materials Center (EMC) houses the Bilingual Collection and the Curriculum Collection. The Bilingual Collection is a specially designed collection of linguistic, bicultural and bilingual materials. The Curriculum Collection includes state-adopted textbooks and juvenile materials.

Media Services offers a media lab, production services, audio-visual equipment loan and computer graphics.

Interlibrary Loan and Document Delivery Services provides access to materials not owned by the library.

Documents, Microforms and Maps provide access to over 200,000 government documents and over 600,000 microforms, including ERIC documents.

Access Services provides for circulation of materials and houses the library's reserve collection.

The Library is a participant in a number of resource-sharing programs including AMIGOS, OCLC, PAISANO, TexShare and Texas A&M University System Electronic Network for Library and Learning Resources.

GENERAL REQUIREMENTS FOR GRADUATION WITH A BACCALAUREATE DEGREE

General Education Requirements for all baccalaureate degrees have been established for the university. A general education results in the acquisition of a common body of essential knowledge and skills which together facilitate the development of students as individuals and as members of communities. That common body of essential knowledge and skills shall include the following eight component areas equaling 45 semester credit hours:

Communication (English rhetoric/composition)

Required: 6 semester credit hours

ENGL 1301-1302

Objective: An ability to comprehend and articulate effectively in written English.

Mathematics (Logic, college-level algebra equivalent or above)

Required: 3 semester credit hours

PHIL 3301

or 3 SCH MATH: any course excluding MATH 1350

Objective: An ability to reason analytically and demonstrate basic mathematical skills and knowledge.

Natural Sciences (*Science*)**

Required: 6 semester credit hours

Any two courses with laboratory in Biology, Chemistry, Geology, Physics or Physical Geography

Objective: An ability to understand the history, nature, methods and limits of science and of the major impacts and influences of science and technology on contemporary society.

Humanities and Visual and Performing Arts divided into two areas as follows:

A. Visual/Performing Arts (*Visual/performing arts*)**

Required: 3 semester credit hours

ARTS 2301, MUSI 2301 or THEA 2301;

or any 3 SCH of lab or studio courses from Art, Music, Theatre Arts;

or ARTS 1303, ARTS 1304, ARTS 3302;

or EDKN 1116, EDKN 1141, EDKN 1146, EDKN 1147;

or MUSI 2306, MUSI 3302;

or THEA 3302, THEA 4308.

B. Literature, Philosophy, Modern or Classical Language/Literature and Cultural Studies

Required: 3 semester credit hours *see Note 1 (Literature/philosophy**)*

ANTH 2302, ANTH 3301, ANTH 4308, ANTH 4309;

or any Modern Language;

or GEOG 1303, GEOG 3310, GEOG 3335;

or any HIST exclusive of Texas and/or U.S. History;

or any Literature exclusive of U.S. literature courses;

or PHIL 3323;

or SWBS 2302.

Objective: An ability to interpret, evaluate and appreciate works of human culture and express aesthetic or creative insights about the human condition.

Social and Behavioral Sciences divided into three areas as follows:

- A. U.S. History (legislatively mandated)
Required: 6 semester credit hours
HIST 1301-1302

- B. Political Science (legislatively mandated)
Required: 6 semester credit hours
POLS 2301-2302

- C. Social/Behavioral Science (*Social/behavioral***)
Required: 3 semester credit hours, *see Note 1*
POLS any course exclusive of POLS 2301 and POLS 2302;
or ECON 2301, ECON 2302;
or HIST 3324, HIST 3336, HIST 3338;
or HSCI 3321;
or PSYC 2301;
or SOCI 1301, SOCI 1306, SOCI 2361, SOCI 4307, SOCI 4324

Objective: An ability to evaluate contemporary societal and ethical issues, problems and values with a sense of balance between self-concern and public responsibility.

Note 1: Due to accreditation limitations, students pursuing a baccalaureate degree in engineering need complete only 3 SCH from the two sections of the chart above that contain the label "See Note 1." Any student who has attended an institution of higher education in a country other than the U.S. for one academic year may be exempt from the three hour requirement for Social/Behavioral Science.

Communication (Composition, speech, modern language/communication skills) (*Communication*)**

Required: 3 semester credit hours of oral communication from:
BCOM 3304;
COMS 1311, COMS 1315, COMS 2335 or COMS 3331;
or Modern Language

Objective: An ability to use oral communications effectively, and to improve the ability to evaluate messages and employ critical thinking.

Computer Literacy (*Computer literacy*)**

Required: 3 semester credit hours from:
CISA: any course
CSEN: any course
IEEN: any course
or EDED 2301

Objective: An ability to use the computer effectively as a tool both in the student's major discipline and throughout their academic and life experiences.

Kinesiology (*Kinesiology*)**

Required: 3 semester credit hours (3 courses)

EDKN activity courses

MUSI 1227 Band*

ROTC Military Science courses*

*May be counted toward kinesiology activity courses.

Objective: An ability to appreciate and practice healthy lifestyles through an understanding of the human body, and the development of lifetime physical fitness and activity skills.

Exceptions to the requirements of three semester credit hours of EDKN activity courses may be made under the following conditions: (a) students with disabilities should contact the Services for Students with Disabilities Office and may be placed in restricted kinesiology activity courses if necessary or under special circumstances will be permitted to substitute 3 academic semester credit hours for activity hours upon the approval of their college dean; (b) students who have passed their 23rd birthday before graduation may substitute academic hours for kinesiology activity hours; (c) students who have served in the military may receive credit subject to approval by their college dean (students should take DD-214 form to the Admissions Office for record credit, and students on active duty should consult with their college dean).

**as stated in curriculum guides following course descriptions in later sections of this Catalog.

OTHER DEGREE REQUIREMENTS

Major and Minor

A major when specified as a degree requirement shall consist of a minimum of 24 semester hours in one subject, 6 of which must be taken at this university. In English, the required freshman courses may not count as part of this amount.

A minor shall consist of a minimum of 18 semester hours in a subject closely related to the major. In English, the required freshman courses may not count as part of this amount.

At least 50% of the work offered in the major field must be advanced, and at least 6 semester hours of advanced work must be offered in the minor field.

Advanced Work

Candidates for all bachelor's degrees must have a minimum of 45 semester hours of advanced course work. Requirements for the B.A.A.S. degree can be found in the *Bachelor of Applied Arts and Sciences* section of this catalog.

Grade Average

An overall average of *C* (2.0) or above on all work attempted at A&M-Kingsville must be maintained. The grade average in the major and minor field where required must be *C* or above. For purposes of grade point average calculation on A&M-Kingsville course work for graduation, grades stand as recorded unless the same course is repeated at this university.

Academic Residence Requirement

Candidates for all bachelor's degrees must have a minimum of 25 percent of total semester hours required for the degree completed in residence at this university. Twenty-four of these hours must be advanced and in the last 30 hours taken at this university.

RESTRICTIONS

Number of Physical Activity Courses

No more than four semesters of kinesiology activity courses may be counted toward a degree, except for the kinesiology majors.

Maximum Number of Hours in Religion

No more than 12 semester hours in religion may be counted toward any degree.

Correspondence Work

No credit earned by correspondence on a course previously failed in residence may be counted toward a degree at this university.

Graduation Under a Particular Catalog

A student has the privilege of being graduated according to the curricular requirements as stated in the catalog of the year in which the student first registered for work in residence at the university, or the student may be graduated under any later catalog of a year in which the student was registered for residence work provided that requirements are met within five years of the date of the catalog chosen and provided further that the institution offers courses listed as requirements in previous catalogs.

Application for Graduation

A student who plans to receive a degree from Texas A&M University-Kingsville must apply for graduation. This process begins in the office of the appropriate dean or director. Graduation fees must be paid in the Business Office and an "Application for Candidacy" form and "Diploma Card" submitted to the Provost and Vice President for Academic Affairs by the deadline date designated in the University Calendar. The University Calendar at the front of this catalog should be consulted for specific deadline dates. The degree will not be conferred unless the candidate has completed the application process on or before the designated deadline.

Use of Official Name on Diploma

Students applying for graduation must use their official name as listed on their permanent record in the Office of the Registrar. No nicknames or any other informal name will be allowed. All printed information, including diplomas, will list a student's official name. Students requesting a name other than their official name on their diploma must change their name on their permanent record.

Graduation in Absentia

Graduation in absentia will be permitted only under special conditions stated in writing and approved by the Provost and Vice President for Academic Affairs.

A Second Bachelor's Degree

Two degrees of the same type (B.B.A., B.A., B.S., etc.) will not be awarded concurrently from the same college (at the same graduation). A single degree with a double major will be awarded.

A student who has already been awarded a bachelor's degree from Texas A&M University-Kingsville or another institution cannot be awarded a second bachelor's degree until the candidate has accumulated at least 24 additional hours at this university. The applicant for a second bachelor's degree must complete all the specific course requirements of the second degree and meet the required grade point average.

GRADUATION WITH HONORS (For undergraduate degrees only)

Students completing undergraduate degrees with superior overall academic records will be graduated with honors. A grade point average of 3.65 is the minimum for graduation Summa Cum Laude (with highest honors); a grade point average of 3.5 or higher but less than 3.65 will merit Magna Cum Laude (with high honors); an average of 3.25 or higher but less than 3.5 will merit graduation Cum Laude (with honors). *Grade point averages are not rounded up to achieve these figures.*

Students who have transferred work from other colleges or universities are eligible for graduation with honors provided they have completed at least 60 semester hours of work toward their degrees at this university. Only the record at this university will be used to determine eligibility for graduation with honors.

UNDERGRADUATE DEGREES AND MAJORS OFFERED

<i>Degree</i>	<i>Major</i>
Bachelor of Applied Arts and Sciences	
Bachelor of Arts	Art, Biology, Chemistry, Communications, English, Geography, Geology, History, Mathematics, Physics, Political Science, Psychology, Sociology, Spanish, Theatre Arts
Bachelor of Business Administration	Accounting, Computer Information Systems, Finance, General Business Administration, International Business Management, Management, Marketing
Bachelor of Fine Arts	Art
Bachelor of Music	Music, Performance
Bachelor of Science	Biology, Chemistry, Communication Sciences and Disorders, Criminology, Geology, School Health, Interdisciplinary Studies, Kinesiology, Mathematics, Physics
Bachelor of Science in Agriculture	Agribusiness, Agriculture Science, Animal Science, Plant and Soil Science, Range and Wildlife Management
Bachelor of Science in Chemical Engineering	Chemical Engineering
Bachelor of Science in Civil Engineering	Civil Engineering
Bachelor of Science in Computer Science	Computer Science
Bachelor of Science in Electrical Engineering	Electrical Engineering
Bachelor of Science in Human Sciences	Family and Consumer Sciences Education, Fashion and Interiors Merchandising, Food and Nutrition Science, Human Development and Family Studies
Bachelor of Science in Industrial Engineering	Industrial Engineering
Bachelor of Science in Industrial Technology	Industrial Technology
Bachelor of Science in Mechanical Engineering	Mechanical Engineering
Bachelor of Science in Natural Gas Engineering	Natural Gas Engineering
Bachelor of Social Work	Social Work

UNIVERSITY COLLEGE

UNIVERSITY COLLEGE

Gladys Hines, *Executive Director*
Eckhardt Hall 137. MSC 206. Extension 3290.

Lecturers

Black, Challoo, Guerra, Jimenez, Lawrence, Martinez, Ramirez, Torres, Torrez, Trotter

Professional Staff

James Boyle, *University Director of Academic Advising*
Brenda Handley, *Activity I Director/LLC Coordinator*
Mona Jackson, *Advising Program Coordinator*
Tom Mettey, *Academic Counselor*
Juan (Tony) Ramirez, *Texas Success Initiative (TSI)*
LaRue Stephens, *Title V Director/Instructional Technologist*
Anna Trevino, *Academic Counselor*

University College helps prepare students for academic success. It provides an academic base for freshman and transfer students with fewer than 20 semester credit hours and is designed to create a positive climate for learning, as well as deliver effective advisement, mentoring and learning.

CURRICULUM

The developmental studies program provides precollege instruction in reading, writing and mathematics. This program is designed to prepare students for successful entry into their regular academic classes. The courses are graded and the grade is calculated in the grade point average. **However, these courses do not count as part of a degree program.** Fulfillment of all three parts of a Texas Success Initiative assessment are required (score of 270 for math) **or** completion of WRIT 0300, READ 0300 and ALGE 0301 with a grade of C or better is **prerequisite** for BIOL 1108, BIOL 1111, BIOL 1113, BIOL 1308, BIOL 1311, BIOL 1313 and BIOL 1409; fulfillment of the TSI requirement for college-level math (score of 270) **or** completion of ALGE 0301 with a grade of C or better is **prerequisite** for CHEM 1405-CHEM 1407 and CHEM 1481; fulfillment of the TSI reading and writing requirement **or** completion of WRIT 0300 and/or READ 0300 with a grade of C or better is **prerequisite** for ENGL 1301; HIST 1301, HIST 1302, HIST 2321 and HIST 2322; and POLS 2301, POLS 2302 and POLS 2304.

Algebra (ALGE)

0300. Developmental Algebra I.

3(3-2)

Designed to provide students with an introduction to algebra. Topics include operations using real numbers, solving linear equations, problem solving techniques, introduction to graphing linear equations, simplifying exponential expressions and polynomials and an introduction to factoring. Placement is based on analysis of student ACT/SAT, TSI assessment and/or placement test scores. Students must be concurrently enrolled in a mathematics laboratory.

0301. Developmental Algebra II.

3(3-2)

Designed to provide students with more advanced algebraic skills necessary for success in college-level mathematics. Topics include a review of linear equations and problem solving techniques, rational expressions, graphing nonlinear equations and roots and radicals. Placement is based on analysis of student ACT/SAT, TSI and/or placement test scores. Students must be concurrently enrolled in a mathematics laboratory.

Reading (READ)

0300. Developmental Reading.

3(3-2)

Improvement of reading skills through individualized development of flexible speed, comprehension, vocabulary and study skills. Required of all students deficient in reading skills. Students must be concurrently enrolled in a reading laboratory.

Writing (WRIT)

0300. Developmental Writing.

3(3-2)

Intensive review of basic grammar and usage, study of various sentence and paragraph patterns leading to theme composition, development of vocabulary and reading skills. Recommended for all students deficient in basic English skills. Students must be concurrently enrolled in a writing laboratory.

Academic Programs

Academic advisement for developmental coursework, as well as undecided (LBAR) majors, occurs in University College.

University College programs are designed to assist students to develop their academic, personal and leadership skills. The Supplemental Instruction program is available to help students in selected academic courses.

- **Academic Advisement:** In University College, there are well-trained staff that appraise the academic abilities and background of incoming freshmen. These advisers work with students to define and develop realistic goals. Through this process, they help students recognize their abilities and interests, identify any special needs and/or match students to available resources that may be required to aid in their journey to be successful. All students are encouraged to meet with their advisers on a regular basis to monitor their progress toward their educational and career goals. This process provides a linkage between academic preparation and the world of work. This advisement process will provide the foundation for students to pursue all of their educational and career goals.
- **Developmental Studies:** Provide pre-college instruction in reading, writing, math and algebra. The developmental studies program is designed to prepare students for successful entry into regular academic courses in a comprehensive program providing computer-assisted instruction, Supplemental Instruction, tutoring and mentoring. Assistance is provided with particular emphasis placed on the TSI assessment competency areas of reading, writing, math and algebra.
- **TSI Management:** Administers the tracking, evaluating and reporting requirements of the TSI Program. In addition, TSI management evaluates and validates student scores and program results relevant to retention and academic achievement.
- **Living Learning Community (LLC):** Promotes student retention through increased involvement with peers, faculty and staff. The LLC provides a place where peers support peers through their respective and successful transitions into university life and the new demands of academic excellence. LLC members live together in designated residence halls. They also take clusters of thematic courses together that help fulfill their major and core graduation requirements and form the building blocks of knowledge in specific areas. Involvement in an LLC provides students with enhanced opportunity for informal out-of-class interaction with other first-year students and encourages participation in curricular and co-curricular educational programs that intentionally foster intellectual, cultural and civil development
- **Student Program Coordinators (SPC):** Are a highly selective group of successful student leaders who serve the educational and learning needs of Living Learning Community students. Through interactions in class, as well as out of class, the SPC leaders increase students' motivation for learning by engaging them in a variety of meaningful academic, cultural and campus activities. Whether in class, in the SPC office or designated places on campus, the SPC leaders meet regularly with groups of students and privately with individuals. The SPC leaders intentionally use these various forms of involvement in order to provide as many opportunities as possible for all Living Learning Community students to realize their greatest potential as learners and future leaders in University College curriculum.

**COLLEGE OF AGRICULTURE
AND HUMAN SCIENCES**

COLLEGE OF AGRICULTURE AND HUMAN SCIENCES

Ronald R. Rosati, *Dean*

Allen Rasmussen, *Assistant Dean*

Belinda Hughes, *Assistant to the Dean*

Eva DeLeon, *Administrative Assistant*

Support Services Building, Suite 110. MSC 156. Extension 3712.

The College of Agriculture and Human Sciences is composed of the following units:

Department of Agronomy and Resource Sciences

Department of Animal and Wildlife Sciences

Department of Human Sciences

Texas A&M University-Kingsville Citrus Center

Caesar Kleberg Wildlife Research Institute

Jack R. and Loris J. Welhausen Experimental Station

King Ranch Institute for Ranch Management

The college offers the degrees of Bachelor of Science in Agriculture and Bachelor of Science in Human Sciences.

The agricultural programs at Texas A&M-Kingsville strive to serve the unique and diverse agricultural needs of South Texas with widely applicable programs in teaching, research and public service. Its program in the agricultural sciences is augmented by courses in the natural sciences, the arts and other supporting fields. A major in one of the five disciplines--Agribusiness, Agriculture Science, Animal Science, Plant and Soil Science and Range and Wildlife Management--leads to a degree.

Human Sciences seeks to improve the quality of life for individuals and families through wise management of resources in varied environments. Human Sciences integrates theory and research from the physical and social sciences and the arts to prepare professionals who seek solutions to the challenges faced by contemporary families and individuals. Several majors--Human Development and Family Studies, Fashion and Interiors Merchandising, Food and Nutrition Science and Family and Consumer Sciences Education leading to vocational teacher certification option--lead to a bachelor's degree. Transfer agreements are in place with Del Mar College for Human Development and Family Studies and Fashion and Interiors Merchandising. Human Development and Family Studies also has a transfer agreement with Coastal Bend College.

Transfer agreements have been developed with St. Philip's College in San Antonio, Texas State Technical College (TSTC) in Harlingen, and agreements with other community colleges are pending. The college operates several substantial teaching laboratories and research centers, including the University Farm and the Center for Young Children, adjacent to the main campus. Other facilities are described later.

Communication Skills

The College of Agriculture and Human Sciences requires that students demonstrate proficiency in communication skills by their junior year. A grade of *B* or better in ENGL 2314 is considered evidence of proficiency. Students (except Human Sciences and Animal Science majors) not making at least a *B* in ENGL 2314 must take an exam administered once by their department each long term. Human Sciences and Animal Science students must repeat the course until they earn a *B* or better. For Agribusiness students a grade of *B* or better in BCOM 3304 demonstrates communication proficiency. Students who fail the department exam will be sent to the Department of Language and Literature for placement in an English course which they must complete satisfactorily. All deficiencies should be removed well in advance of the semester the student plans to graduate.

Degree Plans

The degrees that each department offers are found after the department course listings. Courses need not always be taken in order, although prerequisites must always be satisfied before a course is taken. *Students are responsible for seeing that their degree program meets the "General Requirements for Graduation" set forth in an earlier section of the catalog.*

DEPARTMENT OF AGRONOMY AND RESOURCE SCIENCES

Duane T. Gardiner, *Chair*

Kleberg Agriculture Building 117. MSC 156. Extension 3719.

Professors

daGraca, French, Gardiner, Nixon, Rosati, Skaria, Williams

Associate Professors

Louzada, Patil

Assistant Professors

Dunn, Nelson

Visiting Instructors

Martinez, Tymrak

Faculty Emeriti

Hegwood, Neher

The Department of Agronomy and Resource Sciences prepares students from both rural and urban backgrounds for employment in agribusiness, agricultural education, agricultural or environmental technology, horticulture, government service and production agriculture. The Department offers B.S. degrees in three majors: Agribusiness (AGBU), Agriculture Science (AGSC) and Plant and Soil Science (PLSS). Agriculture Science majors specialize in one of three options: Production Agriculture with teacher certification, General Agriculture or Ornamental Horticulture with teacher certification. Likewise Plant and Soil Science majors specialize in one of three options: Agronomy, Horticulture or Environmental Soil Science.

We provide students opportunities to study in classrooms, laboratories, greenhouses and on the university farm. In addition, we encourage students to gain career-related experience through research projects and off-campus internships. We sponsor student organizations in which students can enjoy associating with other students while learning and serving. We strive to develop abilities and values, and to create a nurturing environment for students.

AGRIBUSINESS (AGBU)

2301. Principles of Agribusiness Management.

3(3-0)

An introduction to agribusiness management focused around the four functions of management: planning, organizing, controlling and directing. Applications of budgeting and elementary economic analysis.

2317. Introduction to Agricultural Economics. (AGRI 2317)

3(3-0)

An introduction to agricultural economics including consumer and producer theory, marginal analysis, the definition of supply and demand, their movements and role in price determination and market characteristics.

3310. Food and Agricultural Product Retailing.

3(3-0)

Industrial organization and historical development of the grocery business. Examination of the food chain, perishable product storage and distribution and centralized purchasing functions. Management of the retail profit function with consideration of customer psychology and behavior. Retail food safety with Hazard Assessment and Critical Control Points (HACCP).

3350. Marketing of Farm Products.

3(3-0)

Estimating prospective demands for farm products in relation to supplies, improving the accuracy of the system that reflects consumers' demands to producers and reducing costs and increasing efficiency of marketing. Prerequisite: AGBU 2317.

3355. International Agribusiness Marketing.

3(3-0)

Description of major markets and competition. Effects of U.S. agricultural trade policies and exchange rates on agriculture and firm rationalization. Topics include strategic alliance formation, market entry strategy, business ethics and corruption, pricing and terms of sale, payment methods, trade finance, cultural analysis, Foreign Trade Zones and Foreign Sales Corporations.

3360. Agricultural Law.

3(3-0)

Laws affecting the organization and decision of agricultural enterprises.

3371. Farm Management. 3(3-0)
Types of farming, size of farms, capital requirements, methods of renting, farm equipment, cropping and marketing system, credit system and farm accounts. Prerequisite: AGBU 2317.

3380. Environmental Economics. 3(3-0)
The human-environment relationship studied relative to economic issues of property rights, externalities and resource scarcity as they relate to markets, economics and sustainable development. Prerequisite: AGBU 2317.

3390. Special Topics in Agribusiness. 3(3-0)
Selected topics not currently available in existing courses. May be repeated once under different topic. Prerequisite: junior standing.

3995. Internship. V:1-9
Supervised and planned work experience under college guidelines in approached agriculture enterprises or agency setting with practical application of knowledge and skills of major subject area without classroom consultation, but with formal evaluation. Maximum of nine semester hours toward the degree. Prerequisite: written consent of adviser and dean.

4325. Rangeland Resource Economics. 3(3-0)
Economics, management and planning of the ranching industry, range livestock and natural resources. Prerequisite: 3 semester hours of agribusiness.

4350. Agricultural Finance. 3(3-0)
Monetary affairs of farming and ranching emphasizing the Farm Credit Administration, credit policies, facilities, procurement, statement analysis, cost of capital, firm growth and management of financial resources.

4360. Agricultural Price Analysis. 3(3-0)
Investigation of market operations which determine prices in the agricultural industry. Types of markets that affect price, cycles and trends; relative government policy and techniques of price analysis. Prerequisite: AGBU 3350.

4370. Food Logistics Management. 3(3-0)
The planning, implementation and control of cost-effective inventory and flow of raw agricultural commodities and finished food products. Management of in-process inventories as goods move from point of origin to point of consumption to meet customer expectations and earn a profit. Prerequisite: BUAD 3355.

4395. Problems in Agribusiness. V:1-3
Literature review, laboratory or field problem. May be repeated for a total of six semester hours. Prerequisite: approval of supervising professor.

AGRICULTURE SCIENCE (AGSC)

1130. Rodeo Participation and Management. 1(0-4)
Introduces the student to the culture, practice and business of rodeo. Students acquire knowledge about rodeo organizations, rough stock and timed events and professional rules and policies. Includes extensive student participation in rodeo practice and competition events. May be repeated one time for credit. Prerequisite: instructor's approval.

1231. Supervised Farm and Ranch Practices. 2(0-6)
Introduces the student to common farm techniques and management practices. Students acquire hands-on experience with the management and husbandry of common agricultural livestock species, agricultural equipment operation and maintenance and crop production.

1352. Welding. (AGRI 2304) 3(1-4)
Techniques of oxy-acetylene processes in fusion welding of mild steel, bronze welding, hard facing and oxy-acetylene cutting; skills of arc welding in level, horizontal, vertical and overhead position. Laboratory fee, \$5.

1451. Introduction to Agricultural Systems. 4(3-2)
A study and application of basic agricultural system processes. Includes design graphics, use of basic tools and machines, instrumentation and basic construction. Laboratory fee, \$20.

3352. Agricultural Power and Machinery. 3(2-2)
Study of internal combustion engines; principles of operation, construction, ignition, carbureting, cooling systems, lubrication, transmission and diesel engines. Agricultural machinery design, construction and use. Prerequisite: AGSC 1451. Laboratory fee, \$5.

3363. Program Planning for Agricultural Science and Technology. 3(3-0)
Planning, delivering and evaluating programs for agricultural service agencies such as the cooperative extension service, Natural Resources Conservation Service and any other public or private agency which is responsible for the dissemination of information. Time management, public relations, identification of program goals and industry needs, community needs.

3367. Introduction to Agricultural Science and Technology. 3(3-0)
Philosophy, aims and objectives of agriculture science and technology; historical background of agricultural service agencies and organizations programs; career opportunities and qualifications of personnel as related to agricultural service agencies. Prerequisite: junior standing.

3390. Special Topics in Agricultural Science. 3(2-2)
Selected topics not currently available in existing courses. May be repeated once under a different topic. Prerequisite: junior standing.

3995. Internship. V:1-9
Supervised and planned work experience under college guidelines in approached agriculture enterprises or agency setting with practical application of knowledge and skills of major subject areas without classroom consultation, but with formal evaluation. Maximum of nine semester hours toward the degree. Prerequisite: written consent of adviser and dean.

4353. Agricultural Building Requirements. 3(2-2)
Construction materials, costs, environment, arrangements and types of structures. Plans and drawings will be made for farmsteads, service buildings and dwellings. Prerequisite: AGSC 1451. Laboratory fee, \$5.

4361. Methods, Materials, Techniques and Classroom Management. 3(2-2)
Methods, materials and techniques in teaching agricultural science; essential elements; daily and annual teaching plans; curriculum organization, planning and evaluation; instructional methods and strategies, adult and young farmer education; students with special needs; and basic principles and procedures of classroom management. Prerequisite: AGSC 3367.

4395. Problems in Agricultural Sciences. V:1-3
Literature review, laboratory or field problem. May be repeated for a total of six semester hours. Prerequisite: approval of supervising professor.

4666. Student Teaching in Agricultural Science and Technology. 6
Student teaching in agricultural science classes in selected secondary schools. Requires daily (Monday through Friday) laboratory experience of performing the duties of an agricultural science teacher for at least nine weeks. Prerequisites: overall grade point average of 2.5 or better; junior or senior standing; AGSC 3367, AGSC 4361.

GENERAL AGRICULTURE (AGRI)

1201. Agriculture and Human Sciences as Professions. 2(2-0)
Designed to help the student define the role of Agriculture and Human Sciences in society. The students will increase their abilities in critical thinking, analysis and communication.

3350. Collective Leadership in Agriculture and Human Sciences. 3(3-0)
Through the issue of case studies, reflective analysis, scenario learning and service learning, students will develop leadership skills in a systems thinking approach to issues in agriculture and human sciences, by application of knowledge in real world contexts. Students will acquire an understanding of the inextricable relationship between agriculture, human sciences and society. Prerequisite: junior standing.

3995. Internship. V:1-9
Supervised and planned work experience under college guidelines in approached agricultural enterprises or agency setting with practical application of knowledge and skills of major subject areas without classroom consultation, but with formal evaluation. Maximum of nine semester hours toward the degree. Prerequisite: written consent of advisor and dean.

4171. Seminar. 1(1-0)
A review of current literature on agricultural subjects. Assigned reading on selected topics with weekly conferences.

PLANT AND SOIL SCIENCE (PLSS)

1407. General Plant Science. (AGRI 1407) 4(3-2)
Fundamental principles underlying the selection, growth, development, maintenance, improvement, utilization and harvesting of cultivated plants. Laboratory fee, \$5.

2315. Introductory Horticulture. (AGRI 1315) 3(3-0)
Fundamental basis of horticulture. Emphasis on home gardening, the uses of horticultural plants and their importance to human civilization. Open to all university students.

3319. Landscape Design. 3(2-2)
Fundamentals of landscape design including historical survey of garden designs, site analysis, development and evaluation of exterior and interior environments of residential, school, commercial and public park areas. Open to all university students. Prerequisite: BIOL 1311 plus BIOL 1111, or PLSS 1407 or PLSS 2315 or an equivalent course. Laboratory fee, \$5.

3320. Soil Morphology and Classification. 3(2-2)
The genesis and evolution of soil profiles as influenced by soil forming agencies, classification schemes, soil survey techniques and utilization of soil maps in management of the soil. Prerequisite: PLSS 3410. Laboratory fee, \$5.

3321. Soil and Water Conservation and Management. 3(3-0)
Methods of reclamation, conservation and management of soils based on the kinds of soils and adapted crops. Prerequisite: PLSS 3410 or its equivalent.

3325. Field and Forage Crop Production 3(3-0)
Production practices, produce quality, environmental considerations in the production of field crops and forage crops. Prerequisite: PLSS 1407.

3331. Ornamental Plant Materials. 3(3-0)
Characteristics, description, identification and landscape uses of ornamental trees, shrubs, vines, flowers, ground-covers and grasses adapted to tropic and subtropical zones of the world. Prerequisite: PLSS 1407 or PLSS 2315 or equivalent course.

3332. Plant Propagation. 3(2-2)
A study of principles and practices of asexual and sexual propagation of horticultural crops. Prerequisite: PLSS 1407 or PLSS 2315 or an equivalent course. Laboratory fee, \$5.

3334. Weed Control. 3(2-2)
Growth, dissemination, economic importance, distribution and control methods of weeds. Chemistry and application of herbicides. Prerequisite: 3 semester hours of chemistry; PLSS 1407.

- 3344. Fruit and Vegetable Production.** 3(2-2)
A study of principles and practices used in commercial production, harvesting, storage and processing of fruit and vegetable crops. Prerequisite: PLSS 1407 or PLSS 2315 or an equivalent course. Laboratory fee, \$5.
- 3381. Crop Physiology.** 3(3-0)
Physiological concepts underlying the practices utilized in crop production systems as related to growth processes and their mechanisms. Prerequisite: PLSS 1407.
- 3995. Internship.** V:1-9
Supervised and planned work experience under college guidelines in approached agricultural enterprises or agency setting with practical application of knowledge and skills of major subject areas without classroom consultation, but with formal evaluation. Maximum of nine semester hours toward the degree. Prerequisite: written consent of advisor and dean.
- 3410. Principles of Soil Science.** 4(3-2)
Fundamental principles underlying the formation, characteristics and management of soil. Prerequisites: 3 semester hours of Chemistry. Laboratory fee, \$5.
- 4313. Landscape Maintenance and Construction.** 3(2-2)
Grading, drainage and construction of landscaped areas to include cost and bid estimation, soil preparation, transplanting operations, arboriculture, turf management, pest and disease control and general maintenance of landscaped areas. Prerequisite: PLSS 3319 or approval of instructor. Laboratory fee, \$5.
- 4325. Plant Breeding and Genetics.** 3(3-0)
Methods of plant breeding applied to agronomic and horticultural crops to ultimate development of superior varieties. Practical application of Mendelian genetics in the breeding and improvement of crop plants. Prerequisites: BIOL 3302; 6 semester hours of 3000 and/or 4000 level plant science or botany courses.
- 4326. Tropical and Subtropical Crops.** 3(3-0)
Tropical and subtropical climates and physiography related to production and management of tropical and subtropical crops including fruits and vegetables, root and tuber crops, beverage crops, oil and industrial crops, legumes, spices, herbs and medicinal plants. Recent significant development in production technology will be presented. Prerequisite: junior or senior standing or permission of the instructor.
- 4327. Plant Soil Water Relations.** 3(3-0)
The water-related properties of plants and soil, the properties of water and the natural processes that affect the behavior of water in plants. Prerequisite: PLSS 3410.
- 4328. Plant Disease and Pest Control.** 3(3-0)
Comprehensive study of diseases and arthropod pests of cultivated crop plants with emphasis on symptoms identification, economic importance and control measures. The concept of integrated pest management is discussed. Prerequisite: senior standing.
- 4329. Soil Fertility and Plant Nutrition.** 3(2-2)
The principles of soil fertility, mechanisms of plant nutrient uptake and plant nutrient requirements. Includes a study of soil fertility management. Laboratory exercises involve soil testing and data interpretation. Prerequisite: PLSS 3410. Laboratory fee, \$5.
- 4331. Greenhouse Crop Production.** 3(2-2)
Commercial production and management of floricultural crops in greenhouses, modern nurseries and other forcing structures. Prerequisite: PLSS 1407 or PLSS 2315 or approval of instructor. Laboratory fee, \$5.
- 4390. Studies in Plant and Soil Science.** 3(3-0)
Material offered to be determined by the needs of the students. Laboratory and lecture will vary according to the subject needs with each course having three hour credit. May be repeated for credit when the topic changes. May be taken for graduate credit within the limits of the graduate degree program. Prerequisite: senior standing.

4395. Problems in Plant and Soil Science.

V:1-3

Literature review, laboratory field problem. May be repeated for a total of six semester hours. Prerequisite: approval of supervising professor.

Degree Requirements
Bachelor of Science in Agriculture
Agribusiness

Freshman Year				Junior Year			
AGRI 1201	2	BIOL	4	Adv. Ag. Elective	3	AGBU 3350	3
ANSC 1419	4	CHEM 1405	4	Adv. Elective	3	AGBU 3360	3
ENGL 1301	3	ECON 2301	3	Ag. Elective	3	AGBU 3371	3
MATH 1324	3	ENGL 1302	3	AGBU 3380	3	AGBU 3355	3
PLSS 1407	4	[^] Kinesiology	1	BCOM 3304	3	POLS 2302	3
	<u>16</u>	MATH 1325	<u>3</u>	POLS 2301	<u>3</u>		<u>15</u>
					18		
Sophomore Year		18		Senior Year			
ACCT 2301	3			AGBU 3310	3	AGBU or	
AGBU 2301	3	ACCT 2302	3	AGBU 4370	3	Bus. Adv. Elect.	3
[^] Computer literacy	3	AGBU 2317	3	FINC 3337	3	Adv. STAT	3
ECON 2302	3	CISA 1302	3	[^] Literature/philosophy	3	AGBU 4350	3
HIST 1301	3	COMS 1315	3	MGMT 3311	<u>3</u>	AGBU 4360	3
[^] Kinesiology	1	HIST 1302	3		15	AGRI 4171	1
	<u>16</u>	[^] Kinesiology	<u>1</u>			[^] Visual/ performing	
			16			arts	<u>3</u>
							16

Total Hours Required: 130

Degree Requirements
Bachelor of Science in Agriculture
Agriculture Science-Production Agriculture

Freshman Year				Junior Year			
AGRI 1201	2	ANSC 1419	4	AGSC 1451	4	AGBU 3350	3
*BIOL/CHEM	4	ENGL 1302	3	AGSC 3367	3	AGBU 3371	3
Elective	3	HIST 1302	3	*BIOL/CHEM	4	AGRI 4171	1
ENGL 1301	3	[^] Kinesiology	1	PLSS 1407	4	AGSC 3352	3
HIST 1301	3	MATH 1314	3	SOCI 2361 (TEA REQ)	<u>3</u>	ANSC 3305 or	
[^] Kinesiology	1	[^] Visual/performing			18	ANSC 3309	3
	<u>16</u>	arts	<u>3</u>			PLSS 3410	<u>4</u>
			17				17
Sophomore Year				Senior Year			
AGBU 2317 or 2301	3	ANSC 2307	3	AGSC 3363	3	(Student Teaching)	
AGSC 1352	3	ANSC 3302 or		AGSC 4353	3	AGSC 4361	3
*BIOL/CHEM	4	ANSC 3304	3	EDED 3302	3	AGSC 4666	6
ENGL 2342 or 2362	3	[^] Computer literacy	3	EDED 3304	3	EDRG 4314	<u>3</u>
[^] Kinesiology	1	COMS 1311 or		EDED 3332	3		12
POLS 2301	<u>3</u>	COMS 1315	3	PLSS 3321 or			
	17	ENGL 2314	3	RWSC 3328	<u>3</u>		
		POLS 2302	<u>3</u>		18		
			18				

Total Hours Required: 133

**Minimum of 4 hours in both Biology and Chemistry (TEA Requirement).*
[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Agriculture
Agriculture Science-Ornamental Horticulture

Freshman Year				Junior Year			
AGBU 2317	3	CHEM 1111	1	AGSC 3363	3	AGBU 3371	3
AGRI 1201	2	CHEM 1311	3	AGSC 3367	3	AGSC 4353	3
BIOL 1108	1	<i>^Computer literacy</i>	3	BIOL 1111	1	PLSS 3331	3
BIOL 1308	3	ENGL 1302	3	BIOL 1311	3	PLSS 3332	3
ENGL 1301	3	HIST 1302	3	PLSS 3319	3	PLSS 4328	3
HIST 1301	3	MATH 1314	<u>3</u>	PLSS 3410	<u>4</u>	PLSS 4329	<u>3</u>
<i>^Kinesiology</i>	<u>1</u>		16		17		18
	16						
Sophomore Year				Senior Year			
CHEM 1112	1	AGSC 1451	4	AGRI 4171	1	(Student Teaching)	
CHEM 1312	3	COMS 1311 or		EDED 3302	3	AGSC 4361	3
<i>^Kinesiology</i>	1	COMS 1315	3	EDED 3304	3	AGSC 4666	6
<i>^Literature/philosophy</i>	3	ENGL 2314	3	EDED 3332	3	EDRG 4314	<u>3</u>
PLSS 2315	3	<i>^Kinesiology</i>	1	PLSS 3344	3		12
POLS 2301	3	PLSS 3381	3	PLSS 4331	3		
SOCI 2361 (TEA REQ)	<u>3</u>	POLS 2302	<u>3</u>	<i>^Visual/performing arts</i>	<u>3</u>	Total Hours Required:	132
	17		17		19		

Degree Requirements
Bachelor of Science in Agriculture
Agriculture Science-General Agriculture

Freshman Year				Junior Year			
AGRI 1201	2	AGSC 1451	4	AGSC 3995	6	AGSC 3352	3
CISA 1301	3	ENGL 1302	3	BIOL/CHEM (w/lab)	3-4	AGSC 3363	3
ENGL 1301	3	HIST 1302	3	<i>^Literature/philosophy</i>	3	AGSC 3367	3
HIST 1301	3	<i>^Kinesiology</i>	1	PLSS 3410	<u>4</u>	ANSC 3302 or	
<i>^Kinesiology</i>	<u>1</u>	MATH 1314	<u>3</u>		16-17	ANSC 3304	3
	12		14			PLSS/RWSC Adv.	
						Elective	3
						<i>^Visual/performing arts</i>	<u>3</u>
							18
Sophomore Year				Senior Year			
ANSC 1419	4	AGBU 2317	3	Adv. Elective	3	AGBU Adv. Elective	3
BIOL/CHEM (w/lab)	3-4	AGSC 1352	3	ANSC 3305 or		AGBU 3371	3
<i>^Kinesiology</i>	1	COMS 1311 or		ANSC 3309	3	AGRI 4171	1
POLS 2301	3	COMS 1315	3	ENGL 2314	3	AGSC 4353	3
RWSC 2330	3	PLSS 1407	4	PLSS Elective	3	ANSC Adv. Elective	3
<i>^Social/behavioral</i>	<u>3</u>	POLS 2302	<u>3</u>	PLSS/RWSC Adv.		RWSC 3328	<u>3</u>
	18		16	Elective	<u>3</u>		16
					15		
						Total Hours Reqd:	124-126

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Agriculture
Plant and Soil Science
Option: Agronomy

Freshman Year				Junior Year			
AGRI 1201	2	ANSC 1419	4	Adv. Ag. or Sci. Elect.	3	Adv. Ag. or Sci. Elect.	3
BIOL 1108	1	BIOL 1111	1	BIOL 3402	4	PLSS Elective	3
BIOL 1308	3	BIOL 1311	3	PLSS 4325	3	PLSS 3321	3
ENGL 1301	3	CHEM 1111	1	PLSS 4329	3	PLSS 3334	3
[^] Kinesiology	1	CHEM 1311	3	RWSC 3328	<u>3</u>	POLS 2302	3
MATH 1314	3	ENGL 1302	3		16	[^] Social/behavioral	<u>3</u>
PLSS 1407	<u>4</u>	HIST 1301	<u>3</u>				18
	17		18				

Sophomore Year				Senior Year			
AGBU 2301	3	CHEM 2421	4	Adv. Ag. Elective	3	Adv. Ag. or Sci. Elect.	3
CHEM 1112	1	[^] Communication	3	Adv. Ag. Elective	3	Adv. Ag. or Sci. Elect.	3
CHEM 1312	3	[^] Computer literacy	3	[^] Literature/philosophy	3	AGRI 4171	1
ENGL 2314	3	[^] Kinesiology	1	PLSS Elective	3	PLSS 3325	3
HIST 1302	3	PLSS 3410	4	PLSS 3381	<u>3</u>	PLSS 4328	3
[^] Kinesiology	<u>1</u>	POLS 2301	<u>3</u>		15	[^] Visual/performing	<u>3</u>
	14		18			arts	16

Total Hours Required: 132

Degree Requirements
Bachelor of Science in Agriculture
Plant and Soil Science
Option: Environmental Soil Science

Freshman Year				Junior Year			
AGRI 1201	2	BIOL 1111	1	CHEM 2401 or 2421	4	GEOG 3305	3
BIOL 1108	1	BIOL 1311	3	GEOL 1303	3	PLSS 3320	3
BIOL 1308	3	CHEM 1111	1	[^] Kinesiology	1	PLSS 3321	3
ENGL 1301	3	CHEM 1311	3	[^] Literature/philosophy	3	RWSC Adv. Elective	3
[^] Kinesiology	1	ENGL 1302	3	POLS 2302	<u>3</u>	[^] Visual/performing	<u>3</u>
MATH 1314	3	HIST 1301	3		14	arts	15
PLSS 1407	<u>4</u>	MATH 1316	<u>3</u>				
	17		17				

Sophomore Year				Senior Year			
AGBU 2301	3	Ag. Elective	3	Adv. Ag. or Sci. Elect.	3	Adv. Ag. or Sci. Elect.	3
CHEM 1112	1	CISA 1301	3	Adv. GEOL/GEOG	3	Adv. Ag. or Sci. Elect.	3
CHEM 1312	3	ENGL 2314	3	CHEM 3451	4	AGRI 4171 Seminar	1
[^] Communication	3	[^] Kinesiology	1	PLSS 3381	3	PLSS Adv. Elective	3
HIST 1302	3	POLS 2301	3	PLSS 4329	<u>3</u>	PLSS Elective	3
PLSS 3410	<u>4</u>	[^] Social/behavioral	<u>3</u>		16	PLSS 4327	<u>3</u>
	17		16				16

Total Hours Required: 128

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Agriculture
Plant and Soil Science
Option: Horticulture

Freshman Year				Junior Year			
AGRI 1201	2	BIOL 1111	1	<i>^Communication</i>	3	Adv. Elective	3
BIOL 1108	1	BIOL 1311	3	Elective**	3/4	Adv. Elective	3
BIOL 1308	3	ENGL 1302	3	PLSS 3319	3	CHEM 2421	4
ENGL 1301	3	ENGL 2314	3	PLSS 3331	3	PLSS 3332	3
HIST 1301	3	HIST 1302	3	PLSS 3410	4	PLSS 3344	3
<i>^Kinesiology</i>	1	<i>^Kinesiology</i>	1		16/17		16
MATH 1314	3	PLSS 2315/1407					
	<u>16</u>	<u>3/4</u>					
			17/18				
Sophomore Year				Senior Year			
AGBU 2301	3			Adv. Elective	3	Adv. Elective	3
CHEM 1111	1	CHEM 1112	1	Adv. Elective	3	Adv. Elective	3
CHEM 1311	3	CHEM 1312	3	PLSS 3381	3	AGRI 4171	1
Elective*	4	CISA 1301/CSEN 2304	3	PLSS 4313	3	PLSS 4325	3
POLS 2301	3	<i>^Kinesiology</i>	1	PLSS 4327 or		PLSS 4328	3
<i>^Visual/performing arts</i>	3	<i>^Literature/philosophy</i>	3	PLSS 4329	3	PLSS 4331	3
	<u>17</u>	POLS 2302	3	PLSS 4395	3		16
		<i>^Social/behavioral</i>	3		18		
			17				
						Total Hours Reqd:	133/135

*Students may choose one course with laboratory in Physics, Physical Geography, Geology or Earth Science.

**Students may choose one of the following courses with laboratory in Biology, e.g. BIOL 2421, BIOL 3402, BIOL 3403, BIOL 3407, BIOL 4406, BIOL 4408, BIOL 4426, BIOL 4430 or in Chemistry, e.g. CHEM 2401, CHEM 3451, CHEM 4401 or CHEM 4341.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF ANIMAL AND WILDLIFE SCIENCES

Jamie Laurenz, *Chair*

Kleberg Agriculture Building 133. MSC 228. Extension 2188.

Regents Professor

Fulbright

Professors

Brennan, Bryant, Henke, Kinkel, Lukefahr, Tewes

Associate Professors

Hewitt, Kuvlesky, Laurenz, Rasmussen, Stanko

Assistant Professors

Ballard, Fedynich, Garcia, Hernandez, Ortega-Santos

Faculty Emeritus

DeYoung

Department curriculum is designed to provide students with foundation knowledge in basic and applied Animal Science (ANSC) and Range and Wildlife Management (RWSC). The department emphasizes development of creative thinking and communication skills that are crucial for success.

The curriculum balances presentation of theory in the classroom with hands-on experience in the field. The Texas A&M-Kingsville Farm provides Animal Science majors experience in swine, beef and goat management. Wildlife majors have the opportunity to work and study on the Bomer Wildlife Research Area, a facility dedicated to wildlife management and research near Concepcion, Texas. The faculty are involved in research that keeps them abreast of current thinking in the animal and wildlife sciences to provide students with up-to-date information.

The department assesses its program by administering comprehensive examinations to undergraduates when they enter the program and during their last semester before graduation. Also, the department chair interviews graduating seniors to determine their impressions on strengths, weaknesses and needs of the program. Results from these activities are used to continually update and improve undergraduate education.

Graduates from the department find employment with state and federal agencies or with ranches, farms and other private businesses. The undergraduate curriculum also prepares students for continued education at the master of science level.

ANIMAL SCIENCE (ANSC)

1419. Introduction to Animal Science. (AGRI 1419) 4(3-2)

Basic scientific fundamentals of livestock production, including feeding and nutrition, reproductive physiology, selective breeding, health, management and marketing of major and minor species. Laboratory fee, \$5.

2108. Applied Feeds and Feeding. 1(0-2)

Laboratory exercises and demonstrations involving feedstuff analysis; requirements of various species of domestic livestock; mechanics of ration formulation and feeds selection based on nutrient content and market values. Prerequisite or concurrent registration: ANSC 2307.

2307. Principles of Feeds and Feeding. 3(3-0)

Chemical composition of feeds, utilization of nutrients, characteristics of feedstuffs and feed usage. Prerequisites: ANSC 1419, MATH 1314, CHEM 1311 plus CHEM 1111.

2310. Livestock Management Techniques. 3(1-4)

Application of animal handling and management techniques for major and minor livestock species. Prerequisites: ANSC 1419 and sophomore standing. Laboratory fee, \$5.

3302. Swine Management. 3(3-0)

Systems of swine management including breeding, feeding and various management problems with their solutions. Prerequisites: ANSC 2307 and ANSC 2310.

- 3304. Beef Management.** 3(3-0)
Systems of beef management including breeding, feeding and various management problems with their solutions. Prerequisites: ANSC 2307 and ANSC 2310.
- 3305. Market Classes and Grades of Livestock.** 3(2-2)
Classifications and judging of livestock; factors affecting classification, grading and valuing and procedures of marketing livestock. Prerequisites: 9 semester hours of Agriculture including ANSC 1419.
- 3308. Sheep and Goat Management.** 3(3-0)
Systems of sheep and goat management for meat, fiber and milk including breeding, feeding and various management problems and their solutions. Prerequisite: 9 semester hours of animal science including ANSC 1419.
- 3309. Meat Preparation and Evaluation.** 3(2-3)
Market class determination, live animal evaluation; slaughter, cutting, curing, carcass evaluation and grading. Prerequisites: ANSC 1419 and junior standing. Laboratory fee, \$5.
- 3313. Reproductive Physiology of Domestic Animals.** 3(2-2)
Comparative anatomy and physiology of the male and female reproductive systems, endocrinology, gestation, parturition and lactation, management techniques, performance traits and diseases. Prerequisites: ANSC 1419, BIOL 1308 and 1108, CHEM 1311 plus CHEM 1111. Laboratory fee, \$5.
- 3333. Domestic Animal Behavior.** 3(3-0)
Principles of animal behavior with concentration on livestock animals emphasizing how behavior influences animal production and efficiency. Prerequisites: ANSC 1419 and junior standing.
- 3335. Genetics of Livestock Improvement.** 3(3-0)
Introduction to genetic concepts and principles of livestock improvement involving gene function, molecular genetics, gametogenesis, Mendelian inheritance, selection and breeding systems. Prerequisites: ANSC 1419, BIOL 1308 and 1108.
- 3336. Artificial Breeding of Livestock.** 3(2-3)
Study of artificial insemination techniques and reproductive technologies. Application of artificial insemination and pregnancy diagnosis techniques in cattle, goats and swine. Prerequisites: ANSC 1419, ANSC 3313. Laboratory fee, \$5.
- 3390. Special Topics in Animal Science.** 3(3-0)
Selected topics not currently available in existing courses. May be repeated once under different topic. Prerequisite: junior standing.
- 3995. Internship.** V:1-9
Supervised and planned work experience under college guidelines in approached agricultural enterprises or agency setting with practical application of knowledge and skills of major subject areas without classroom consultation, but with formal evaluation. Maximum of nine semester hours toward the degree. Prerequisite: written consent of advisor and dean.
- 4301. Growth Physiology of Livestock Species.** 3(3-0)
Study of the principles of growth and its measurement from the cell to the tissue to the entire animal. Prerequisite: junior standing.
- 4303. Anatomy and Physiology of Domestic Animals.** 3(3-0)
Introduction to the study of functional anatomy and fundamental physiological processes of domestic animals. Prerequisites: ANSC 1419, CHEM 2421.
- 4305. International Animal Agriculture.** 3(3-0)
Global contributions of animal agriculture involving traditional and nontraditional species on the welfare of human development. Includes a review of selected literature papers and a study of alternative livestock production systems especially appropriate for developing countries. Prerequisite: junior or senior standing.

4307. Animal Nutrition. 3(3-0)
Chemical composition of the animal, functions of nutrients, digestion, metabolism, physiological effects of feed additives. Prerequisites: ANSC 1419, CHEM 2421.

4385. Experimental Techniques in Animal and Wildlife Sciences. 3(1-4)
Laboratory exercises and demonstrations of current biotechniques used in animal research and their application to management of animal and wildlife species. Prerequisite: 9 semester hours of agriculture or approval of instructor.

4395. Problems in Animal Science. V:1-3
Literature review, laboratory or field problem. May be repeated for a total of 6 semester hours. Prerequisite: open only to agriculture majors upon approval of supervising professor.

RANGE AND WILDLIFE MANAGEMENT (RWSC)

1301. Range and Wildlife Ecology. 3(3-0)
Provides a general overview of basic range and wildlife ecological concepts with an emphasis on conservation and management practices. The concept of integrated rangeland and wildlife management is discussed.

2323. Principles of Range Management. 3(3-0)
History of the range industry, importance of livestock, applications of plant physiology and ecology to rangeland management. Economics of range use, obtaining maximum forage and livestock yield. Plant-soil-animal relationships are stressed.

2330. Principles of Wildlife Management. (AGRI 2330) 3(3-0)
Wildlife ecology and wildlife habitat management. Habitat requirements, population dynamics and life histories of the major game species of North America. Prerequisite: BIOL 1313 and BIOL 1113.

3310. Wildlife Management Techniques. 3(2-2)
Field and laboratory techniques used in wildlife management and research: aging, sexing, marking, capture, monitoring, disease surveys, food habits and nutrition analyses, habitat assessment and population estimation. Prerequisite: RWSC 2330 or instructor consent. Laboratory fee, \$3.

3328. Rangeland Plants. 3(2-2)
Range grasses, forbs and shrubs; their identification, areas of adaptation, utilization and economic importance. Emphasis on the range plants of Texas. Prerequisite: BIOL 1313 and 1113 or PLSS 1407. Laboratory fee, \$10.

3380. Rangeland Improvements. 3(3-0)
Range improvement techniques, practices and expected results in various situations. Desirability, including economics, of selected range improvements. Prerequisite: BIOL 1313 and 1113 or PLSS 1407.

3385. Wildlife Policy, Law and Public Relations. 3(3-0)
Legislation, administration, public relations and biopolitics as they relate to range and wildlife management. Prerequisite: RWSC 2330.

3390. Special Topics in Range and Natural Resources Management. 3(3-0)
Selected topics not currently available in existing courses. May be repeated once under different topic. Prerequisite: junior standing.

3995. Internship. V:1-9
Supervised and planned work experience under college guidelines in approached agricultural enterprises or agency setting with practical application of knowledge and skills of major subject areas without classroom consultation, but with formal evaluation. Maximum of nine semester hours toward the degree. Prerequisite: written consent of advisor and dean.

4319. Methods in Rangeland Ecology. 3(2-2)
Methods of vegetation sampling and community analysis, range condition and trend analysis, estimating stocking rates, wildlife habitat evaluation, use of expert systems. Prerequisite: RWSC 3328, STAT 1342. Laboratory fee, \$35.

4380. Wetland Ecology and Management. 3(3-0)

Focus on the ecology and management of North American wetlands. Topics that will be covered include unique characteristics of wetlands, wetland classification, biological adaptations to wetlands, wetland management and restoration, the functional roles of wetlands and their importance to wildlife. Prerequisite: 3 semester hours of Range and Wildlife Management.

4382. Big Game Management. 3(3-0)

Principles of managing big game populations in their native habitat. Methods and techniques of evaluating the habitat and requirements of major North American big game animals. Weekend field trips. Prerequisite: RWSC 2330 or BIOL 3407.

4383. Ecology of Arid and Semiarid Lands. 3(3-0)

Ecological principles of arid and semiarid land ecosystems are introduced. These principles are used to illustrate consequences of deliberate and unintentional human actions on arid and semiarid environments. Prerequisite: 3 hours of range and wildlife management.

4395. Problems in Range and Wildlife Management. V:1-3

Literature review, laboratory or field problem or internship. May be repeated for a total of 6 semester hours. Prerequisite: prior approval of a supervising professor.

Degree Requirements
Bachelor of Science in Agriculture
Animal Science

Freshman Year

AGRI 1201	2
ANSC 1419	4
BIOL 1108	1
BIOL 1308	3
ENGL 1301	3
MATH 1314	<u>3</u>
	16

AGSC 1451	4
CHEM 1111	1
CHEM 1311	3
ENGL 1302	3
HIST 1301	3
PLSS 1407 or	
BIOL 1311	
and BIOL 1111	<u>4</u>
	18

Junior Year

ANSC Elective	
(ANSC 3305, ANSC	
3309 or ANSC 4301)	3
ANSC Mgmt. Elective	
(ANSC3302,ANSC3304,	
ANSC3308, or	
ANSC 4305	3
BIOL Elective	3-4
[^] Kinesiology	1
PLSS 3410	4
[^] Social/behavioral	<u>3</u>
	17-18

Adv. Ag. Elective	3
ANSC Elective	
(ANSC 3305, ANSC	
3309 or ANSC 4301)	3
ANSC 3313	3
ANSC 3335	3
ANSC 3995	3
[^] Kinesiology	<u>1</u>
	16

Sophomore Year

AGBU 2301	3
CHEM 1112	1
CHEM 1312	3
[^] Communication	3
ENGL 2314	3
HIST 1302	<u>3</u>
	16

ANSC 2108	1
ANSC 2307	3
ANSC 2310	3
CHEM 2421	4
[^] Computer literacy	3
POLS 2301	<u>3</u>
	17

Senior Year

Adv. ANSC Elective	3
ANSC 4303	3
[^] Kinesiology	1
POLS 2302	3
STAT 4301	3
[^] Visual/performing arts	<u>3</u>
	16

Adv. Ag. Elective	3
Adv. Ag. Elective	3
Adv. ANSC/RWSC	
Elective	3
AGRI 4171	1
ANSC 4307	3
[^] Literature/philosophy	<u>3</u>
	16

Total Hours Req'd: 132-133

Degree Requirements
Bachelor of Science in Agriculture
Animal Science
(Pre-Vet Option)

Freshman Year

AGRI 1201	2
ANSC 1419	4
BIOL 1108	1
BIOL 1308	3
ENGL 1301	3
MATH 1314	<u>3</u>
	16

BIOL 1113	1
BIOL 1313	3
CHEM 1111	1
CHEM 1311	3
ENGL 1302	3
HIST 1301	3
[^] Social/behavioral	<u>3</u>
	17

Junior Year

ANSC 4303	3
[^] Communication	3
[^] Kinesiology	1
[^] Literature/philosophy	3
MATH 1316	3
POLS 2302	<u>3</u>
	16

Adv. ANSC Elective	3
ANSC 3313	3
ANSC 4301	3
BIOL 3402	4
[^] Kinesiology	1
PHYS 1401	<u>4</u>
	18

Sophomore Year

ANSC 2108	1
ANSC 2307	3
CHEM 1112	1
CHEM 1312	3
ENGL 2314	3
HIST 1302	3
[^] Visual/performing	
arts	<u>3</u>
	17

ANSC 2310	3
BIOL 2421	4
CHEM 2421	4
[^] Computer literacy	3
[^] Kinesiology	1
POLS 2301	<u>3</u>
	18

Senior Year

Adv. Ag. Elective	3
ANSC Mgmt	
(ANSC 3302, ANSC	
3304, ANSC 3308 or	
ANSC 4305)	3
CHEM 4341	3
PHYS 1402	4
STAT 4301 or	
MATH 2313	<u>3</u>
	16

Adv. Ag. Elective	3
Adv. ANSC Elective	3
AGRI 4171	1
ANSC Mgmt	3
ANSC 3995	4
ANSC 4307	<u>3</u>
	17

Total Hours Required:135

Admission to the College of Veterinary Medicine at Texas A&M University requires additional courses. Details are available through the department office.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Agriculture
Range and Wildlife Management with Range Emphasis

Freshman Year				Junior Year			
AGRI 1201	2	BIOL 1111	1	Adv. AG Elective	3	Adv. Elective or	
BIOL 1308 and BIOL 1108 or BIOL 1313 and BIOL 1113	4	BIOL 1311	3	Adv. AG Elective	3	BIOL 3402 or	
ENGL 1301	3	CHEM 1111	1	PLSS 3410	4	ANSC 3335	4/3
HIST 1301	3	CHEM 1311	3	RWSC 3328	3	BIOL 3403	3
MATH 1314	3	ENGL 1302	3	<i>^Visual/performing arts</i>	<u>3</u>	PLSS 3320	3
RWSC 2323	<u>3</u>	MATH 1325	3		16	RWSC 3380	3
	18	RWSC 1301	<u>3</u>			<i>^Social/behavioral</i>	<u>3</u>
			17				17/16
Sophomore Year				Senior Year			
CHEM 1112	1	CHEM 2421	4	Adv. AG Elective	3	AGBU 4325	3
CHEM 1312	3	<i>^Communication</i>	3	Adv. AG Elective	3	AGRI 4171	1
Elective Statistics	3	<i>^Computer literacy</i>	3	Adv. AG Elective	3	PLSS 3381 or	
ENGL 2314	3	<i>^Kinesiology</i>	1	<i>^Kinesiology</i>	1	BIOL 4411	3/4
HIST 1302	3	<i>^Literature/philosophy</i>	3	RWSC 4319	<u>3</u>		
<i>^Kinesiology</i>	1	POLS 2301	<u>3</u>		13	POLS 2302	3
RWSC 2330	<u>3</u>		17			RWSC 4383	<u>3</u>
	17						13/14

Total Hours Reqd: 130-132

Degree Requirements
Bachelor of Science in Agriculture
Range and Wildlife Management
with Wildlife Management Emphasis

Freshman Year				Junior Year			
AGRI 1201	2	BIOL 1113	1	ANSC 3335 or		BIOL 3403	4
BIOL 1111	1	BIOL 1313	3	BIOL 3402	3/4	BIOL 4425	4
BIOL 1311	3	CHEM 1111	1	CHEM 2421	4	Elective	3
ENGL 1301	3	CHEM 1311	3	<i>^Kinesiology</i>	1	RWSC 4319	3
HIST 1301	3	ENGL 1302	3	RWSC Adv Elec or		<i>^Visual/performing arts</i>	<u>3</u>
<i>^Kinesiology</i>	1	MATH 1325	3	RWSC 4395	3		17
MATH 1314	<u>3</u>	RWSC 1301	<u>3</u>	RWSC 3328	<u>3</u>		
	16		17		14/15		
Sophomore Year				Senior Year			
CHEM 1112	1	ENGL 2314	3	ANSC 4307	3	AGBU 4325	3
CHEM 1312	3	<i>^Kinesiology</i>	1	<i>^Computer literacy</i>	3	AGRI 4171	1
<i>^Communication</i>	3	POLS 2302	3	<i>^Kinesiology</i>	1	BIOL 4429	4
HIST 1302	3	RWSC 3310	3	<i>^Literature/philosophy</i>	3	PLSS 3410	4
POLS 2301	3	<i>^Social/behavioral</i>	3	RWSC 3385	3	RWSC 4383 or	
RWSC 2330	<u>3</u>	STAT 1342	<u>3</u>	RWSC 4382	<u>3</u>	RWSC 4380	<u>3</u>
	16		16		16		15

Total Hours Reqd: 127/128

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF HUMAN SCIENCES (HSCI)

Jan Van Buren, *Chair*

Human Sciences Building 101. MSC 168. Extension 2211.

Professors

Clayton, McArthur, Van Buren

Associate Professor

Deyhim

Visiting Assistant Professors

Birdwell, Fernandez-VanZante

The mission of the profession is to improve the quality of life for individuals, families and communities. The department prepares students for careers in business, Cooperative Extension Service, dietetics and foodservice management, fashion and interiors merchandising, education, child care, elder care and family services. The major in human sciences has a strong liberal arts/general education foundation. The common body of knowledge that comprises human sciences is drawn from the conceptual areas of nutrition, clothing, shelter, human development, relationships and resource management. Emphasis is placed upon the development of leadership, critical thinking and problem solving skills and research. The department is a member of the Undergraduate Research Community for the Human Sciences as well as an accredited Didactic Program in Dietetics.

Internships/Practica

Several of the programs in the department require the completion of an internship or practicum in a setting that enhances and expands the knowledge and skills gained through course work. Students who plan to take the exam to become a registered dietitian should apply for an internship in an American Dietetic Association approved site following the completion of their degree. The department offers a fully accredited dietetic internship.

Majors Offered for the Bachelor of Science in Human Sciences

Human Development and Family Studies. The need for quality child care and a growing elderly population have created an increasing need for professionals educated in human development and family studies. The curriculum is flexible enough to plan a program that will prepare the student to work in a child care or elder care facility as a caregiver or administrator, in a child and family services agency as a counselor, or in a hospital setting as a child life specialist. The major takes a developmental approach to understanding human growth from prenatal development to old age. Study of the family as a system and as the basic unit of society undergirds the curriculum. Concepts covered include marital adjustment, sexual relationships, prenatal development and birth of children, parenting, child care and development, aging and life cycle of the family. A practicum is required. The Center for Young Children provides opportunities for students to gain experience in working with preschool age children and their parents in a closely supervised setting. The department offers cooperative programs with Del Mar College, Coastal Bend College and San Antonio College.

Fashion and Interiors Merchandising. The curriculum prepares students for positions in retailing or manufacturing as they relate to fashion, apparel and home furnishings/interior design. Examples of the concepts covered include promotions and visual merchandising, color and design, textiles, historic costume, global issues, software applications, history of architecture and interiors, the fashion industry, home furnishings and equipment and residential design. Two options are available. Option 1 in fashion merchandising includes a minor in business administration. Students choosing Option 2 in interiors merchandising take industrial technology and art courses instead of the business minor. An art minor has been developed for students in this option. A practicum is required. The department offers a cooperative program with the Department of Business Administration at Del Mar College. After students receive their Associate in Arts-Business Administration, they complete 72 hours of specified courses at Texas A&M University-Kingsville.

Food and Nutrition Science. This major prepares students for careers in dietetics, food systems administration, and nutrition. Students may find jobs in hospitals, community nutrition programs, private practice, wellness programs, school lunch programs, restaurants, hotels, catering establishments and a variety of management positions in the hospitality industry. Concepts studied include food principles, nutrition, nutrition and disease, experimental foods, community nutrition, quality

food preparation, organization and management of food service and institutional equipment. A practicum is required. The curriculum is an accredited Didactic Program in Dietetics that prepares students to enter a dietetic internship also accredited by the American Dietetics Association (ADA). A dietetic internship is available at Texas A&M-Kingsville. (See description of internship program in the Texas A&M University-Kingsville Graduate Catalog. Completion of either an ADA-approved internship or an AP4 program is required in order to be eligible to take the examination to become a registered dietitian.

Family and Consumer Sciences Education. The curriculum prepares students to meet the requirements for certification as family and consumer teachers as well as for employment with the Cooperative Extension Service and other education agencies. Demand for graduates in this major is very high. Graduates may also be employed in business settings such as appliance manufacturers, retail establishments, newspapers and magazines. Additional prescribed course work may lead to an endorsement in early childhood education. The program requires knowledge of nutrition and foods; clothing, textiles and merchandising; human development and family studies; consumer economics; family resource management; housing; special needs students; curriculum; occupational programs; and classroom management. Those students not seeking certification are required to complete a practicum. The Human Sciences Department is a member of the Family and Consumer Sciences Distance Education Alliance of Texas. The Alliance courses provide an opportunity for those who live a distance from campus to complete the human sciences courses required for certification via the Internet. Students must first enroll at Texas A&M-Kingsville and declare a major in family and consumer sciences.

Grade Policy

Students majoring or minoring in human sciences must make at least a *C* in every human sciences course taken toward their degree. Majors must earn at least a *B* in ENGL 2314, Technical Writing.

Center for Young Children

Lisa A. Turcotte, *Director*

Center for Young Children. MSC 138. Extension 2219.

The center is the laboratory in which students observe and gain practical experience working with young children and their parents. Several of the programs in the Department of Human Sciences require observation and/or participation at the Center. Students from other disciplines, such as early childhood education, psychology, speech communications and kinesiology are also provided opportunities to observe and interact with young children.

The Center for Young Children was established in 1941 and is housed on the corner of University Boulevard and Santa Gertrudis Avenue. It meets the needs of 60 children aged six weeks through five years. Fenced playgrounds provide a large assortment of play structures and equipment, shade and sun areas and open play space. Learning centers are provided in each room to stimulate and encourage exploration and discovery. The philosophy that young children learn through creative play is evident in planned activities that enhance the children's emotional, social, physical and cognitive development.

A highly qualified staff works with the children. The school's close proximity to campus and its high quality program make it especially attractive to university students with children. Parents are encouraged to register their children early since a waiting list quickly forms as the fall semester nears. Parents are welcome to visit at any time. Evening child care is available for those taking or teaching classes Monday through Thursday after 5:30 p.m.

CURRICULUM

1300. Introduction to Human Sciences.

V:1-3

Overview of the human sciences profession and its interrelationships with the natural and social sciences and the arts, study of the mission and philosophical bases of the profession, emphasis on professional opportunities in the field. Open to all students; required of all human sciences majors.

4300. Problems in Human Sciences.

V:1-3

Guided independent study in one of the program areas in human sciences. Prerequisites: junior or senior standing in human sciences, consent of the department chair. May be repeated for a maximum of 6 semester hours of credit.

4302. Honors Tutorial.

V:1-3

Guided independent study and research in the student's selected major in human sciences. Prerequisites: junior and senior standing, 3.25 GPA, completion of at least 15 semester hours in human sciences and consent of instructor. May be repeated for a maximum of 6 semester hours of credit.

4601. Practicum in Human Sciences.

V:3-6

Supervised work experience in a setting appropriate to the student's specialization within human sciences. Prerequisites: senior standing and at least 24 semester hours in human sciences. May be repeated for a maximum of 6 semester hours of credit.

HUMAN DEVELOPMENT AND FAMILY STUDIES

2320. Foundations of Child Development.

3(3-2)

Overview of the theories and enhancement of development of infants, toddlers, young children and adolescents in physical, mental, social and emotional areas within a family context; includes methods and techniques used in observing children. Observation and participation required. Laboratory fee, \$5.

2321. Prenatal, Infant and Toddler Development.

3(2-2)

In-depth study of the theories of child growth and development from conception through the first two years. Includes interactions with caregivers, peers and the environment. Observation and participation required. Laboratory fee, \$5.

2322. Family and Community Health.

3(3-0)

Personal, family and community health problems; community and governmental health agencies; principles of first aid and home care of the sick with special reference to the care of children and the aged.

3320. Development of the Preschool Child.

3(2-2)

In-depth study of the theories of child growth and development as they relate to children from toddlerhood to preschool age. Observation and participation required. Prerequisites: HSCI 2320, HSCI 2321. Laboratory fee, \$5.

3321. Marriage and Family Relationships.

3(3-0)

Analysis of the family unit as a group of interacting members at each stage of the life cycle, cultural and social influences upon the marriage unit and individuals in the family, alternate life styles in modern society and how to deal with them in the community. Prerequisites: completion of ENGL 1301 and ENGL 1302.

3322. Parenthood.

3(3-0)

Basic principles and skills for parent effectiveness, diverse parenting situations, parent-child interaction and communication. Methods, materials and techniques for teaching parenting. Prerequisite: HSCI 2320 or HSCI 3321 or 3 semester hours of psychology or sociology.

4320. The Family in Later Life.

3(3-0)

Family-oriented problem solving and its relation to major gerontological issues such as intergenerational struggles, independence, loneliness, alternative living arrangements; an examination of family kinship patterns in later life; relationships with spouse, adult children and siblings. Prerequisites: junior or senior standing, HSCI 3321 or 3 semester hours of sociology or psychology.

4321. Family Resource Management.

3(3-0)

Selected areas of interest in home management, consumer economics, housing and household equipment. Students are given the opportunity to solve special problems with families having economic, management, housing or household equipment problems. Prerequisite: HSCI 4322 or 3 semester hours of economics.

4322. Family and Consumer Economics.

3(3-0)

Personal and family problems at various stages of the family life cycle in the use of time, money and energy. Factors affecting the family as an economic unit. Decision making applied to financial problems encountered throughout the family life cycle. Prerequisite: HSCI 3321 or 3 semester hours of sociology, psychology or economics.

4323. Administration of Programs for Dependent Care. 3(2-2)
Principles and practices of administration and supervision in dependent care settings. Patterns of organization and environment planning, program development, staff relationships and development, personnel and business practices. Observation and participation required. Prerequisite: 6 semester hours of human development and family studies courses. Laboratory fee, \$5.

FASHION AND INTERIORS MERCHANDISING

1330. Fundamentals of Fashion. 3(3-0)
An introduction to fashion merchandising with emphasis on the process by which fashion apparel is developed and distributed.

1340. Color and Design. 3(2-2)
A foundation course of color theories and the principles of design as applied to daily living. Art in the immediate environment. Emphasis on awareness of design. Laboratory fee, \$2.

2331. Textiles. 3(2-2)
Overview of chemical and physical properties of fibers, yarns and fabrics as they influence the selection and performance of textile products; study of textile developments and trends and implications for end uses of these products. Corequisite: CHEM 1405. Laboratory fee, \$5.

2332. Merchandising Field Experience. 3(0-5)
Introductory course in which students work and study off-campus in an approved position to better understand the challenges and potential of various careers in fashion apparel and interiors industries.

2333. Software Applications in Fashion and Interiors. 3(3-0)
Overview of computers in design and merchandising, microcomputer applications, analysis of appropriate databases and utilization and evaluation of software specific to fashion and interiors design and merchandising. Prerequisite: CISA 1301.

2340. Introduction to Housing. 3(3-0)
Analysis of family housing needs, social and economic conditions affecting housing, production processes, the roles of government in housing.

3330. Historic Costume. 3(3-0)
Survey of historic modes of dress as they reflect the social, economic and cultural life of a people. Application of design principles to modern dress.

3331. Evaluation of Apparel Construction. 3(2-2)
Application of intermediate clothing construction techniques with emphasis on the evaluation of construction and fit in ready-to-wear. Prerequisites: HSCI 2331.

3332. Quantitative Buying Methods. 3(3-0)
Principles and application of basic mathematical calculations performed by buyers of fashion merchandise and other analytical skills related to the fashion and similar industries. Prerequisites: MATH 1324 and junior standing.

3340. Residential Design. 3(2-2)
The analysis, development and evaluation of residential interior environments; including the analysis of activities, major elements and materials. Prerequisite: HSCI 1340. Laboratory fee, \$5.

4330. Promotions and Visual Merchandising. 3(3-0)
Overview of promotional activities as they support the retailing function; emphasis is on planning, creating and evaluating displays. Prerequisites: HSCI 1340 and junior standing.

4331. Clothing in Society. 3(3-0)
An exploration of the sociological, economic, psychological and cultural aspects of wearing apparel. Prerequisite: HSCI 3321 or 3 semester hours of sociology, psychology or economics.

4332. Qualitative Buying Methods. 3(3-0)

An exploration of the buying function and differences in buyers' responsibilities in various types of merchandising organizations. Topics include buying-selling cycles, stocking merchandise, assortment planning, merchandise resources, vendor relations, negotiating, pricing and development of import marketing programs. Prerequisite: HSCI 3332.

4333. The Fashion Industry. 3(3-0)

Production, distribution and consumption of apparel. Factors that influence acceptance or rejection of apparel. Issues and trends affecting organization, structure and operation of the textile and apparel industry. Prerequisite: junior or senior standing or HSCI 4332.

4334. Global Issues in Textiles and Apparel. 3(3-0)

Study of the economic importance of the textile and apparel industry from a global perspective.

4340. History of Architecture and Interiors. 3(3-0)

Survey of period design in architecture, interiors and furnishings from antiquity through the present. Prerequisites: HSCI 1340 or HSCI 2340; senior standing.

4341. Trends in Interiors Merchandising. 3(3-0)

Examination of trends in housing and interiors, with emphasis on electrical layouts, lighting and electronic technology. Prerequisite: HSCI 2340 or junior standing.

FOOD AND NUTRITION SCIENCE

1350. Food Preparation and Meal Management. 3(2-2)

Management of resources in selection, purchasing, preparation and serving of foods. Basic principles and fundamental knowledge of standard food preparation are included. Meals and special occasion menus which meet the dietary needs of family members are planned, prepared and served. Laboratory fee, \$5.

2150. Introductory Nutrition Laboratory. 1(0-2)

A laboratory experience that focuses on assessment of nutritional status of individuals. Nutrient composition of food, computerized dietary analysis and survey of the dietetic practice. Corequisite: HSCI 2350.

2350. Introductory Nutrition. 3(3-0)

Basic principles of human nutrition with emphasis on the nutrients and factors which affect their utilization in the human body. Prerequisite: 4 semester hours of Biology or Chemistry. Laboratory fee, \$5.

3350. Nutrition through the Life Cycle. 3(3-0)

An in-depth study of the normal growth, development and nutrition associated with pregnancy, infancy, childhood, adolescence, adulthood and aging. Review of appropriate nutritional assessment methods. Prerequisite: HSCI 2350/2150 or junior standing.

3352. Experimental Food Science. 3(2-3)

Food preparation designed to consolidate previous food studies and to develop experimental attitudes and techniques. Emphasis is placed on basic scientific principles. Includes fundamentals of quality assurance and the various subjective and objective methods of evaluation. Prerequisites: CHEM 2421, HSCI 1350. Laboratory fee, \$5.

3353. Medical Nutrition Therapy I. 3(3-0)

Fundamentals of nutritional assessment techniques and management of diseases of infancy and childhood, diabetes, diseases of the heart, diseases of the upper and lower GI tract. Emphasis on physiology as related to disease and practical application of nutritional support. Includes case studies, practice problems, counseling methods and documentation. Prerequisite: HSCI 2350/2150.

3363. Medical Nutrition Therapy II. 3(3-0)

Advanced study of medical nutrition therapy. Course includes fundamentals of enteral and parenteral support and study of physiology as related to acute and chronic kidney disease, surgery, liver disease and acid/base balance. Prerequisites: HSCI 2350/2150, HSCI 3353.

4351. Cultural and Community Aspects of Foods and Nutrition I. 3(3-0)
Study of the influence of socioeconomic, cultural and psychological trends, issues and other impacts on food and nutrition behaviors of individuals and communities.

4352. Cultural and Community Aspects of Foods and Nutrition II. 3(3-0)
Global overview of agencies from community to international levels with emphasis on planning, marketing, implementing and evaluating nutrition programs. Prerequisite: HSCI 2150, HSCI 2350.

4360. Quantity Food Preparation and Management. 3(1-4)
Meal planning, food purchasing and preparation of food in large quantities. Introduction to systems management and employer-employee relations. Prerequisites: HSCI 1350. Laboratory fee, \$5.

4366. Advanced Institutional Foodservice Management. 3(3-0)
Advanced studies in institutional foodservice administration including computer applications in foodservice management. Prerequisites: HSCI 4360.

4367. Advanced Nutrition I. 3(3-0)
Study of nutrients and their relation to the chemistry and physiology of the human body, including metabolism of energy and macronutrients in chronic diseases. Analysis and interpretation of current nutrition research. Prerequisites: HSCI 2150, HSCI 2350, CHEM 1312, CHEM 1112 or permission of instructor.

4368. Advanced Nutrition II. 3(3-0)
Study of nutrients and their relation to the chemistry and physiology of the human body, including regulatory nutrients and micronutrients and homeostatic maintenance in chronic diseases. Analysis and interpretation of current nutrition research. Prerequisites: HSCI 4367 or permission of instructor.

FAMILY AND CONSUMER SCIENCES EDUCATION

3301. Professional Practices in Human Sciences. 3(3-0)
Study of the professional responsibilities of home economists with various specializations in the field. Emphasis on organization and development of programs to meet societal needs. Prerequisite: junior standing in human sciences.

4310. Occupational Family and Consumer Sciences. 3(3-0)
Analysis of occupational programs which are designed to meet needs of special populations; projects are designed for specialized laboratory settings and the workplace environment. Observations of occupational programs are included. Prerequisites: junior standing and completion of 9 semester hours of human sciences course work.

4311. Professional Applications in Occupational Family and Consumer Sciences. 3(3-0)
Classroom study and application of skills through field experiences in the occupational areas of home economics; institutional maintenance; hospitality services; food, production management and services; services for the elderly; child care and guidance management; fashion design; apparel and textiles production and management; housing, home furnishings and equipment management; production and services. Prerequisites: junior standing; HSCI 3301 and/or HSCI 4310.

4312. Methods and Teaching Strategies in Family and Consumer Sciences. 3(3-0)
Principles of teaching the various subject matter areas in family and consumer sciences, including food science and nutrition, to secondary students, out-of-school youth and adults. Emphasis is on program planning, development and evaluation; curricula and other teaching materials; department management, recordkeeping and reporting. Prerequisites: HSCI 3301 (for students whose major is Family and Consumer Sciences Education); HSCI 1350 (for students whose major is Food and Nutrition Science); overall GPA of 2.5; senior standing.

4370. Human Sciences Seminar: A Capstone Experience. V:1-3
Seminar focusing on the integration of the Human Sciences specializations to meet the needs of individuals and families. Leadership; ethics; public policy at local, state, national and international levels; contemporary social issues that affect individuals and families; a capstone course where students work in teams representing various specializations to integrate concepts of problem solving. Prerequisite: senior standing.

4610. Directed Teaching in Family and Consumer Sciences.

6(6-0)

Supervised student teaching in vocational home economics programs in selected high schools. Full-day, Monday through Friday, laboratory experience for at least 10 weeks; scheduled seminars on university campus. Prerequisites: HSCI 3301; overall GPA of 2.5; senior standing. Must be taken concurrently with HSCI 4312. Students are expected to furnish their own transportation for student teaching.

Degree Requirements
Bachelor of Science in Human Sciences
Human Development and Family Studies

Freshman Year				Junior Year			
^Communication	3	ENGL 1302	3	ACCT 2301	3	*Adv. Minor Electives	6
^Computer literacy	3	HSCI 2322	3	HSCI 3320	3	HSCI 3322	3
ENGL 1301	3	^Kinesiology	1	HSCI 3321	3	PSYC 2308	
HSCI 1300	3	^Literature/philosophy	3	*Minor Electives	6	or SOCI 4341	3
HSCI 2320	3	PSYC 2301	3		15	PSYC 3314	
MATH 1314	3	SOCI 1301	3			or SOCI 3322	3
	<u>18</u>		<u>16</u>				<u>15</u>
						Summer Session I	
						HSCI 4601	3
							<u>3</u>
Sophomore Year				Senior Year			
HIST 1301	3	ENGL 2314	3	*Adv. Minor Elec	3	HSCI 4312	3
HSCI 2350	3	HIST 1302	3	HSCI Adv. Elective	3	HSCI 4322	3
^Kinesiology	1	HSCI 2321	3	HSCI 4320	3	HSCI 4323	3
**Lab Science	4	^Kinesiology	1	HSCI 4321	3	HSCI 4370	3
POLS 2301	3	**Lab Science	4	*Minor Elective	3		12
^Visual/performing arts	3	POLS 2302	3		15		
	<u>17</u>		<u>17</u>			Total Hours Required:	128

*Minor Electives are to be selected with the approval of the student's adviser from psychology, sociology, business or other appropriate fields. The courses selected must meet the requirements for a minor in the department granting the minor.**To be selected with the consent of the adviser. Must meet Core Curriculum Component for Natural Sciences.

Degree Requirements
Bachelor of Science in Human Sciences
Fashion and Interiors Merchandising

Freshman Year				Junior Year			
CHEM 1405	4	ARTS 1311	3	ARTS 2313 or		*ECON 2302 or	
ENGL 1301	3	CHEM 1407	4	ARTS 2316	3	ARTS 1304	3
HSCI 1300	3	^Computer literacy	3	^Communication	3	HSCI 2332	3
HSCI 1330	3	ENGL 1302	3	*ECON 2301 or		HSCI 3332	3
^Kinesiology	1		13	ARTS 1303	3	HSCI 4331	3
MATH 1324	3			HSCI 3331	3	*MGMT 4327 or	
	<u>17</u>			^Kinesiology	1	MKTG 3325	3
				POLS 2302	3		15
					<u>16</u>		
						Summer School	
						**HSCI 4601	3
							<u>3</u>
Sophomore Year				Senior Year			
HIST 1301	3	*ACCT 2302 or		HSCI 3340	3	HSCI 3330	3
*ACCT 2301 or		ITEN 2321	3	HSCI 4332	3	HSCI 4312	3
ITEN 1311	3	ENGL 2314	3	HSCI 4340	3	HSCI 4330	3
HSCI 2331	3	HIST 1302	3	*FINC 3337 or		HSCI 4333	3
HSCI 2340	3	HSCI 2333	3	ARTS 1316/		HSCI 4334	3
^Kinesiology	1	POLS 2301	3	ARTS 2346	3	HSCI 4370	3
^Literature/philosophy	3	PSYC 2301 or		*MKTG 3361	3		18
	<u>16</u>	SOCI 1301	3		15		
			<u>18</u>			Total Hours Required:	131

*NOTE: Two options are built into the major in Fashion and Interiors Merchandising. Option 1 includes a business minor. Students wishing this option should take the first course identified. Students choosing Option 2 can elect to take the second course identified.

**Must be taken in summer school before the senior year.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Human Sciences
Food and Nutrition Science

Freshman Year				Junior or Senior Year			
BIOL 1108	1	CHEM 1111	1	BIOL 2402	4	BIOL 2421	4
BIOL 1308	3	CHEM 1311	3	CHEM 4381	3	HIST 1302	3
ENGL 1301	3	<i>^Communication</i>	3	HIST 1301	3	HSCI 3352	3
HSCI 1300	3	<i>^Computer literacy</i>	3	HSCI 3350	3	HSCI 3363	3
HSCI 1350	3	ENGL 1302	3	HSCI 3353	<u>3</u>	STAT 1342	<u>3</u>
MATH 1314	<u>3</u>	<i>^Visual/performing arts</i>	<u>3</u>		16		16
	16		16			Summer School	
						*HSCI 4601	<u>3</u>
							3
Sophomore Year				Junior or Senior Year			
CHEM 1112	1	BIOL 2401	4	HSCI 4322	3	HSCI 4312	3
CHEM 1312	3	CHEM 2421 or	4	HSCI 4351	3	HSCI 4352	3
ENGL 2314	3	CHEM 3323/		HSCI 4360	3	HSCI 4366	3
HSCI 2150	1	CHEM 3123		HSCI 4367	3	HSCI 4368	3
HSCI 2350	3	<i>^Kinesiology</i>	1	<i>^Kinesiology</i>	1	HSCI 4370	<u>3</u>
<i>^Kinesiology</i>	1	<i>^Literature/philosophy</i>	3	MGMT 4327	<u>3</u>		15
POLS 2301	<u>3</u>	POLS 2302	<u>3</u>		16		
	15		15			Total Hours Required:	128

Degree Requirements
Bachelor of Science in Human Sciences
Family and Consumer Sciences Education leading to Vocational Teacher Certification

Freshman Year				Junior Year			
CHEM 1405	4	ARTS 1311	3	EDED 2301	3	EDED 3302	3
ENGL 1301	3	CHEM 1407	4	HIST 1302	3	EDED 3332	3
HSCI 1300	3	EDHL 1254	2	HSCI 3321	3	EDED 3333	3
HSCI 1350	3	ENGL 1302	3	HSCI 3340	3	HSCI 4312	3
MATH 1314	<u>3</u>	HIST 1301	<u>3</u>	HSCI 4360	<u>3</u>	HSCI 4320	3
	16		15		15	SOCI 2361	<u>3</u>
							18
Sophomore Year				Senior Year			
HSCI 2322	3	<i>^Communication</i>	3	EDRG 4314	3	EDSE 4391	3
HSCI 2331	3	ENGL 2314	3	HSCI 4310	3	HSCI 4311	3
HSCI 2340	3	HSCI 2320	3	HSCI 4321	3	HSCI 4370	3
HSCI 2350	3	<i>^Literature/philosophy</i>	3	HSCI 4322	3	HSCI 4610	<u>6</u>
<i>^Kinesiology</i>	1	MATH or STAT	3	HSCI 4331	<u>3</u>		15
POLS 2301	<u>3</u>	POLS 2302	<u>3</u>		15		
	16		18			Total Hours Required:	127

NOTE: For students not wishing to seek vocational certification, appropriate course substitutions are made with the approval of the student's adviser. Students can earn an additional certification in early childhood education by completing specified course work.

*Must be taken in summer school before the senior year.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

TEXAS A&M UNIVERSITY-KINGSVILLE CITRUS CENTER

Jose Amador, *Center Director*

John V. daGraca, *Associate Professor and Deputy Center Director*

Teresa C. Gonzales, *Assistant to Director*

312 N. International Boulevard, Weslaco, Texas 78596 Phone (956) 968-2132

Professors

daGraca, French, Skaria

Associate Professors

Louzada, Patil

Assistant Professor

Nelson

Faculty Emeritus

Hensz

The Texas A&M University-Kingsville Citrus Center, a research and teaching center, is located northeast of Weslaco in the subtropical Lower Rio Grande Valley. The Citrus Center's 60-acre main campus and farm is situated on FM 1015 Road also known as International Boulevard, just north of Expressway 83. Its 200-acre South Research Farm lies two miles south of the center's main campus. The farmland and orchards are used for citrus research and demonstration. A variety collection includes more than 400 citrus varieties, species and types. All of the research planting is irrigated with water from the Rio Grande with additional water available from a deep irrigation well during periods of water shortage. Facilities are grouped around a central administration building containing classrooms, laboratories, offices, a library and an auditorium. Shops, greenhouses, an insectory, laboratory annexes and residences for the farm manager and deputy director complete the center.

The faculty and staff researches various practices involving citrus production and in a minor scale, other fruit trees. Dissemination of their findings takes place through publications, classroom instruction, grower consultation, the news media, short courses and symposia. Classes for undergraduate and graduate students are taught by campus and local staff at the Center and the Texas A&M University Research and Extension Center. Visiting professors from the Kingsville and College Station campuses teach courses in agriculture and other disciplines, either in person or through interactive television.

During the past five decades research and education at the center has benefitted the Texas citrus industry, helping it to grow, prosper and become a stable part of the Rio Grande Valley economy. The Center also cooperates with scientists from the College Station campus on research dealing with other fruit trees, such as peaches and pecans. The Center's research involves pest management, disease control, irrigation and fertility practices, variety improvement, tree population, cultural practices, freeze protection, tree and fruit physiology, agricultural economics and packinghouse procedures. Work of the scientists at the Citrus Center has attained national and international recognition. An example is the development of the Star Ruby and Rio Red grapefruit, which are not only grown in Texas but are popular in many other citrus producing countries of the world. The development of the latter is recognized as one of the reasons why the industry has survived after two devastating freezes.

CAESAR KLEBERG WILDLIFE RESEARCH INSTITUTE

Fred C. Bryant, *Director*

Rebecca W. Trant, *Administrative Officer*

Yolanda Ballard, *Administrative Assistant*

Howe Agricultural Lab Building 169. MSC 218. Extension 3922.

Endowed Chairs

Brennan, DeYoung

Regents Professor and Professorship

Fulbright

Professors

Brennan, Bingham, Bryant, DeYoung, Fulbright, Henke, Tewes

Associate Professors

Hewitt, Kuvlesky

Assistant Professors

Ballard, Fedynich, Hernandez, Ortega-Santos

Research Scientist

Redeker

Research Associates

Crider, Farek, Maywald

The Caesar Kleberg Wildlife Research Institute was established in 1981 by a grant from the Caesar Kleberg Foundation for Wildlife Conservation to enhance our understanding of wildlife conservation and management in South Texas.

The Institute has embarked on many programs to help accomplish its goal. Focus is on developing four broad areas of research: (1) management of sensitive species and ecosystems; (2) understanding wildlife biology and ecology; (3) management strategies for enhancing wildlife habitat; and (4) wildlife diseases, parasitology and toxicology.

In the study and testing of plants for future use by wildlife and livestock, the USDA/NRCS Kika de la Garza Plant Materials Center was established in 1981. The Center is closely linked to the Institute. Other centers that are under the umbrella of the Caesar Kleberg Wildlife Research Institute include the Richard M. Kleberg, Jr. Center for Quail Research, the Meadows Center in Semi-arid Land Ecology and the Feline Research Center.

JACK R. AND LORIS J. WELHAUSEN EXPERIMENTAL STATION

Timothy E. Fulbright, *Director*

Kleberg Agriculture Building 132. MSC 156. Extension 3714.

The center's primary purpose is to develop leaders who can identify and address water resource problems. Other purposes are to set priorities and network research units and scientists to address these priorities; to identify potential funding agencies and coordinate the development of research proposals; to develop new areas of water research and strengthen existing ones; and to facilitate collaboration among scientists, professionals and sponsoring agencies and corporations at regional and global levels in developing and managing sustainable water resources through research, public education and policy. The Center is also responsible for developing and managing the Welhausen Ranch in Webb County as a support entity for water resource priorities.

KING RANCH INSTITUTE FOR RANCH MANAGEMENT

Barry H. Dunn, *Executive Director and Endowed Chair*

Administrative Officer

Kleberg Agriculture Building 124 + 125, MSC 156

The King Ranch Institute for Ranch Management (the Institute) was inaugurated in October 2003 as a nationally and internationally recognized Institute within the College of Agriculture and Human Sciences at Texas A&M University-Kingsville.

Knowledge of livestock management, business management and economics, the oil and gas industry, wildlife management and water policy are collectively important in today's ranching industry. As a result, the Institute offers a Master of Science degree to train potential ranch managers in the multidisciplinary aspects of ranch management. The hallmark of the King Ranch Institute is the provision of a realistic, broad-based "systems" approach to ranch and land management, producing graduates capable of optimizing returns on ranch operations while simultaneously providing quality management of natural and human resources.

The Institute is a collaborative effort between the King Ranch, the College of Agriculture and Human Sciences and the College of Business Administration. Students are carefully selected and admission is limited to ensure provision of the best ranch management graduate education available. This intensive program of study is contributing an important blend of knowledge and enabling leaders to advance the frontiers of the ranching world.

COLLEGE OF ARTS AND SCIENCES

COLLEGE OF ARTS AND SCIENCES

Ronald John Hy, *Dean*
Trudy A. Anderson, *Interim Assistant Dean*
James R. Pierce, *Assistant Dean*
Janis Bryant, *Assistant to the Dean*
Fore Hall 212. MSC 117. Extension 2761.

The College of Arts and Sciences is unique in offering students a broad-based, liberal arts education transmitting a core of knowledge and cultural values. The college provides the service courses required by all university academic degree programs and specialized courses that may lead to employment or post baccalaureate studies.

The college is committed to providing a humanistic and analytical education through a student-focused educational environment. Its faculty excel in teaching, scholarship and service. The curriculum and its orientation are responsive to the cultural diversity of the students and to the entire South Texas region. In this way, the college helps to expand the academic, social and cultural horizons and expectations of the people it serves.

Through teaching, scholarship and service, the college provides students with a core of cultural knowledge and understanding necessary to function as global citizens and with the life skills and judgment essential to contribute fully to society. The college provides oral and written communication skills and computer literacy required for all disciplines and helps students attain general professional competency in the area of their major. Fulfilling its mission, the college fosters lifelong learning.

The college is composed of the following departments (with the nonteaching degrees each offers):

- Art (B.A.; B.F.A.)
- Biology (B.A.; B.S.)
- Chemistry (B.A.; B.S.)
- Communications and Theatre Arts (B.A., Communications, Theatre Arts; B.S., Communication Sciences and Disorders)
- History (B.A.)
- Language and Literature (B.A., English, Spanish)
- Mathematics (B.A.; B.S.)
- Music (B.M., Music, Performance)
- Physics and Geosciences (B.A., Geography, Geology, Physics; B.S. Geology, Physics)
- Political Science (B.A.)
- Psychology and Sociology (B.A., Psychology, Sociology; B.S., Criminology; B.S.W., Social Work)

The college also houses programs in Military Science and Religion.

Teaching Certification

Students seeking a certificate to teach in the secondary schools of Texas must earn a bachelor's degree in a recognized major. The State Board for Educator Certification approved new teaching fields and grade levels for certification in fall 2002. Majors in the College of Arts and Sciences that may lead to all-level certification include the following:

- Art
- Music

Majors in the College of Arts and Sciences that may lead to secondary certification (grades 8-12) including the following:

- Biology (Life Science)
- Communications (Speech, Journalism)
- English (see Language and Literature)
- Geography (see Physics and Geosciences)
- Geology (Earth Science emphasis, see Physics and Geosciences)
- History
- History (Social Studies emphasis)
- Mathematics
- Physics (Physical Science)
- Spanish (See Language and Literature)

For specific degree requirements, contact the chair of the department of the academic discipline involved. For additional information, refer to the College of Education section regarding the Standard Certificate in this catalog.

Pre-Law

Students who desire to enter the law profession should consult the Pre-Law Adviser in the Department of Political Science upon enrollment regarding a degree plan and selection of courses.

Pre-Health Professions

Students who desire to pursue any pre-health profession (medicine, dentistry, physical therapy, pharmacy, nursing, etc.) should consult the Pre-Health Professions Adviser in the Department of Biology. General information regarding programs offered by Texas A&M-Kingsville are listed separately in this catalog.

Requirements for the Degree

All students obtaining a bachelor's degree must satisfy the "General Requirements for Graduation" as set forth in an earlier section of this catalog. This includes, among others, the communication skills requirement, residence requirements, correspondence courses limitations and grade average rules.

Each program sets the minimum number of hours required for its major and for graduation which can be no less than **124 hours** and may be more where required. A minimum of 45 of the total number of hours must be on the advanced level. Individual degree programs are outlined below.

A minimum grade point average of 2.0 is required on (1) all course work specified for the degree, (2) all course work attempted at this university, (3) all courses in the major and the minor where required on work taken at this university and (4) all courses transferred for the minor when no courses in the minor field are taken at this university.

College 1201 Courses

ARTS 1201, BIOL 1201 and SOCI 1201 are designed to satisfy a college-wide requirement using broadly interdisciplinary content. They do not count as hours in any specific major or minor.

Communication Skills

Under the University's General Education Requirements, all students earning baccalaureate degrees must be able to express themselves clearly and effectively in written and oral English and to use the computer as a tool in the discipline of choice. In terms of courses, this means six semester hours of written English (ENGL 1301-1302), three semester hours of oral communications and three semester hours of computer literacy.

Beyond these general university requirements in communication skills, each department also must certify that its majors are writing at the level of proficiency required for that field/discipline. In order to determine this, each department typically requires of its majors a sample, course-related written paper. Students must consult the department of their chosen major to determine what is required in additional proficiencies.

Foreign Language

All Bachelor of Arts degrees must include two years (12 SCH) of foreign language study.

Major

A major shall consist of a minimum of 24 semester hours in one subject, 6 of which must be taken at this university. At least 50% of the work offered in the major field must be advanced. Electives in the major field are limited to 6 hours above the number of hours required for the degree. Double majors must complete the specific requirements for both fields.

Any hours taken in the major and the minor beyond the maximum limits set here will correspondingly increase the total number of hours required for the degree by the same amount. The total number of hours required for Option II Secondary Teaching Certification degree plans may not exceed 139 hours.

Minors

Students receiving a Bachelor of Arts or a Bachelor of Science degree (except for double majors, the B.A. in Geography - Environmental Studies emphasis, the B.S. in Geology-Ground Water and Option I Secondary Education programs) must have a recognized minor. Unless otherwise indicated, a minor consists of a minimum of 18 hours. Certain minors require more; see "Recognized Minors" below. Six hours in the minor field must be on the advanced level. Electives in any minor are limited to 6 hours above the minimum number of hours required in that field. See "Majors" above.

Recognized Minors

The following minors are available to Arts and Sciences majors: Agribusiness, Agriculture Science, Animal Science, Anthropology, Art, Biology, Business Administration, Chemistry, Computer Science, Criminology, English, Environmental Science, French, Generic Special Education, Geography, Geology, Health, History, Human Sciences, Industrial Technology, Journalism, Kinesiology, Mathematics, Mexican American Studies, Military Science, Music, Philosophy, Physics, Plant Science, Political Science, Psychology, Range and Wildlife Management, Sociology, Southwest Borderlands Studies, Spanish, Speech, Theatre Arts, Urban Studies and Women's Studies.

Special conditions apply to the following:

Agriculture minors: The academic coordinator in Agriculture must be consulted for required courses.

Biology: The minimum number required will be 24 semester hours or an amount corresponding to six 3 or 4 credit hour courses.

Business Administration: The following courses are required: ACCT 2301, ACCT 2302, ECON 2301, ECON 2302, CISA 1301 and any three 3000- or 4000- level courses from at least two disciplines in Business Administration.

Chemistry: The minimum number shall be 24 semester hours or an amount corresponding to six 3 or 4 credit hour courses (excluding CHEM 1405, CHEM 1407, CHEM 1481); CHEM 2421 and CHEM 3323/3123 may not **both** be counted for the minimum amount.

English: The minimum number shall be 18 semester hours beyond ENGL 1301-ENGL 1302, 12 of which must be advanced.

Environmental Science: A multidisciplinary minor is offered. Requirements may be obtained from the Chair, Department of Chemistry.

Health: The following courses are required: EDHL 1304, EDHL 2327, EDHL 3331, EDHL 3333, EDHL 3381, EDHL 4331, 4337; BIOL 2401, BIOL 2402; and CHEM 1405.

History: The minimum requirement shall be 21 semester hours, consisting of HIST 1301-1302, HIST 2321-2322, HIST 3301 and 6 hours of advanced electives.

Industrial Technology: The minimum requirement shall be 18 semester hours, consisting of ITEN 1311 or ITEN 2321; ITEN 1315 or ITEN 3300; ITEN 2301 or ITEN 3324; and at least three approved advanced ITEN courses in a specified concentration.

Kinesiology: The following courses are required: EDKN 1103, EDKN 1102, EDKN 1308, EDKN 2128, EDKN 3342, EDKN 4311, EDKN 4325, EDKN 4326 and one other kinesiology activity (in addition to the three otherwise required); BIOL 2401, BIOL 2402; and CHEM 1405.

Mexican American Studies: A multidisciplinary minor is offered. Requirements are listed in the Southwest Borderlands Research Center section of the catalog.

Military Science: An interdisciplinary minor consists of 22 semester hours.

Music: Consult the Department of Music section of the catalog for requirements.

Southwest Borderlands Research Center: A multidisciplinary minor is offered. Requirements are listed in the Southwest Borderlands Research Center section of the catalog.

Urban Studies: An interdisciplinary minor of at least 18 hours of selected courses in POLS, HIST, GEOG, SOCI, ECON, ACCT and BUAD. For details see the Geography section of the catalog.

Women's Studies: Students seeking an understanding of women's issues and influence may pursue a minor in women's studies. This minor requires 18 semester hours, including SOCI 2363/WMST 2363 and SOCI 4364/WMST 4300, the core courses. The remaining 12 semester hours may be selected from the following six courses: PSYC 3313/WMST 3313, PSYC 2305/WMST 2305, ARTS 3302/MUSI 3302/THEA 3302/WMST 3302, HIST 4360/WMST 4360, POLS 4364/WMST 4364 and ENGL 4370/MST 4370 (only when taught from a women's studies perspective). For more information, contact Dr. Berlie Maez, Director, The Women's Center, Student Union Building, Room 203, MSC 135, (361) 593-2166.

DEPARTMENT OF ART (ARTS)

Santa C. Barraza, *Chair*

Bailey Art Building 190. MSC 157. Extension 2619.

Professors

Renfrow, Scherpereel

Associate Professor

Barraza

Assistant Professors

Lucas, Wissinger

Lecturers

Forehand, Wilks

Teaching Retiree

Schmidt

In the Art Department students learn the fundamentals of artistic expression in order that their developed individuality may lead to one of the many directions found in the field of art. A wonderful gallery allows the department to carry out an ambitious exhibition program that is part of the university commitment to contribute to the cultural environment of nearby communities. In addition, participation by students and faculty in exhibitions provides a significant expressive and educational experience.

The professional B.F.A. degree is offered with possibilities to seek depth through drawing, painting, sculpture, printmaking or ceramics; begin efforts for a career in advertising art, graphic design or art history; or become certified as an all-level art teacher. Art courses are offered for students seeking certification in a second teaching field or as a specialization in an elementary teaching degree. The B.A. with a major in art is designed for students who wish to obtain a liberal arts degree. Most courses are open to interested students as electives.

1201. Introduction to the Arts and the Sciences. 2(2-0)

Designed to serve a dual function: primarily as an introduction to a specific disciplinary area (i.e., arts and humanities: art, history, communications/theatre arts, language and literature, music) and secondarily as general university-level instruction in the methods and practice of critical thinking, analysis and communication. The 30 clock hour course assigns 20 hours to an academic core that is discipline-specific and 10 hours to instruction in and application of academic habits and skills. The course is required of all entering freshmen and transfer students with fewer than 20 hours.

1303. Art History I. (ARTS 1303) 3(3-0)

A lecture course in the history of painting, sculpture, architecture and other art forms from prehistoric times to the 14th century.

1304. Art History II. (ARTS 1304) 3(3-0)

A lecture course in the history of painting, sculpture, architecture and other art forms from the 14th century to the present.

1311. Design I. (ARTS 1311) 3(2-4)

An art studio course in the theory and practice of design. Focus is on the development and application of critical thinking skills to visual problems through the fundamental principles and elements of design. Includes possible applications in secondary education and/or art related professions. Studio fee, \$5.

1312. Design II. (ARTS 1312) 3(2-4)

An art studio course in the formal elements of design in three dimensions. Critical thinking skills are furthered through explorations of volume and form. Includes possible applications in secondary education and/or art related professions. Studio fee, \$5.

1316. Drawing I. (ARTS 1316) 3(2-4)

A basic course organized to promote confidence in working with the techniques, media and aesthetics of drawing. Studio fee, \$10.

- 1317. Drawing II.** (ARTS 1317) 3(2-4)
Studio problems of modelling forms in space, perspective, composition and combining these into visual expression. Studio fee, \$10.
- 1325. Principles of Art.** 3(2-4)
Studio activities with art materials in conjunction with a survey of the history and philosophy of art. Includes the study of art's essential elements. Studio fee, \$5.
- 2301. Structure of the Arts.** 3(2-4)
Art, Music and Theatre Arts are combined in selected problems dealing with arts structure. Creative production is the result of studio activity and critique. Studio fee, \$5.
- 2313. Graphic Design.** (ARTS 2313) 3(2-4)
Studio emphasis on theory and practice of advertising (commercial) art, planning advertising layout, developing advertising messages, selecting advertising media and executing advertising art. Studio fee, \$10.
- 2316. Painting.** (ARTS 2316) 3(2-4)
Studio instruction in the theory of color and the use of paint to suggest form and space, convey ideas and emotions and explore the dynamics of visual expression. Studio fee, \$10.
- 2326. Sculpture.** (ARTS 2326) 3(2-4)
An art studio course which explores three-dimensional concepts of form in a variety of sculptural media. Studio fee, \$10.
- 2333. Printmaking.** (ARTS 2333) 3(2-4)
An art studio course which explores various printmaking techniques, including planographic, intaglio, stencil and relief with emphasis on their expressive power. Studio fee, \$10.
- 2346. Ceramics.** (ARTS 2346) 3(2-4)
An art studio course in the use of clay for handbuilding and wheel throwing. Design and decoration are studied from historical and aesthetic perspectives. Studio fee, \$10.
- 3302. Women and the Arts.** 3(3-0)
Issues surrounding the participation of women in the arts. Selected women who have contributed to the visual and performing arts throughout history are studied in relation to the culture of their time and the principles related to the arts. No previous experience in theatre, art or music required. Prerequisite: completion of visual/performing arts component requirement. (Credit may be obtained in only one of ARTS 3302, MUSI 3302, THEA 3302 or WMST 3302.)
- 3377. Materials and Their Use in Art.** 3(2-4)
Study and studio use of the tools, materials, techniques and methods used in the many art processes not covered by drawing, painting, sculpture, printmaking or ceramics. Studio fee, \$10.
- 3388. Elements of Art.** 3(2-4)
The essential elements of visual design as they relate to the studio production of works of art. Studio fee, \$10.
- 4300. Advanced Drawing.** 3(2-4)
Studio drawing with emphasis on greater mastery of technical skills towards development of a personal vision. May be repeated as needed. Prerequisite: 6 semester hours of Art. Studio fee, \$20.
- 4311. Advanced Painting.** 3(2-4)
Studio painting with emphasis on greater mastery of technical skills towards development of a personal vision. May be repeated as needed. Prerequisite: 6 semester hours of Art. Studio fee, \$20.
- 4322. Advanced Sculpture.** 3(2-4)
Studio sculpture with emphasis on greater mastery of technical skills towards development of a personal vision. May be repeated as needed. Prerequisite: 6 semester hours of Art. Studio fee, \$20.

4333. Advanced Printmaking. 3(2-4)
Studio printmaking with emphasis on greater mastery of technical skills towards development of a personal vision. May be repeated as needed. Prerequisite: 6 semester hours of Art. Studio fee, \$20.

4344. Advanced Ceramics. 3(2-4)
Studio ceramics with emphasis on greater mastery of technical skills towards development of a personal vision. May be repeated as needed. Prerequisite: 6 semester hours of Art. Studio fee, \$20.

4355. Advanced Graphic Design. 3(2-4)
Studio emphasis on greater mastery of technical skills chosen from the many directions associated with graphic design, such as typography, layout, visualization, conceptual problem solving, the ad campaign, illustration or computer aided design. Students prepare portfolios for entry into undergraduate, graduate or work-related programs. May be repeated as needed. Prerequisites: ARTS 2313 and 6 semester hours of Art. Studio fee, \$20.

4399. Senior Exhibition. 3(3-0)
The execution of a successful professional gallery exhibition by a B.F.A. candidate. Admission only at the completion of all other requirements for the B.F.A.

**Degree Requirements
Bachelor of Arts
Art**

Freshman Year				Junior Year			
ARTS 1201	2	ARTS 1304	3	Advanced Elective	6	Advanced Elective	6
ARTS 1303	3	ARTS 1317	3	ARTS, Advanced	6	ARTS, Advanced	6
ARTS 1316	3	ENGL 1302	3	*CHEM/PHYS	4	*CHEM/ PHYS same	4
ENGL 1301	3	^Kinesiology	1	POLS 2301	3	POLS 2302	3
Modern Language	3	Modern Language	3		19		19
^Visual/performing arts	3	^Social/behavioral	3				
	<u>17</u>		16				
Sophomore Year				Senior Year			
ENGL 2342	3	CISA 1301	3	Advanced Elective	3	Advanced Minor	6
HIST 1301	3	ENGL 2362	3	Advanced Minor	6	ARTS, Advanced	3
^Kinesiology	1	HIST 1302	3	ARTS, Advanced	6	*BIOL/GEOG/	
MATH 1314	3	^Kinesiology	1	*BIOL/GEOG/GEOL	4	GEOL -same	4
Minor	3	Minor	3		19	COMS 1311	3
Modern Language	3	Modern Language	3				16
	<u>16</u>		16				

Total Hours Required: 138

*Must include laboratory

**Degree Requirements
Bachelor of Fine Arts**

Freshman Year				Junior Year			
ARTS 1201	2	ARTS 1304	3	ARTS, Advanced	6	ARTS, Advanced	9
ARTS 1303	3	ARTS 1312	3	^Literature/philosophy	3	POLS 2302	3
ARTS 1311	3	ARTS 1317	3	POLS 2301	3	*Science	4
ARTS 1316	3	ENGL 1302	3	*Science	4		16
ENGL 1301	3	^Kinesiology	1		16		
^Visual/performing arts	3	^Social/behavioral	3				
	<u>17</u>		16				
Sophomore Year				Senior Year			
ARTS 2316	3	ARTS, Advanced	3	Advanced Electives	9	Advanced Electives	9
ARTS 2326	3	ARTS 2333	3	ARTS, Advanced	6	ARTS, Advanced	3
COMS 1311	3	ARTS 2346	3		15	ARTS 4399	3
HIST 1301	3	^Computer literacy	3				15
^Kinesiology	1	HIST 1302	3				
MATH 1314	3	^Kinesiology	1				
	<u>16</u>		16				

Total Hours Required: 127

*Must include laboratory

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Arts
Secondary Teaching Field in Art

Freshman Year				Junior Year			
ARTS 1201	2	ARTS 1312	3	ARTS 4300	3	ARTS 4322	3
ARTS 1303	3	EDED 2301	3	ARTS 4311	3	EDED 3302	3
ENGL 1301	3	ENGL 1302	3	COMS 1311	3	EDED 3333	3
HIST 1301	3	HIST 1302	3	Modern Language	3	Modern Language	3
MATH 1314	3	^ <i>Kinesiology</i>	1	POLS 2301	3	POLS 2302	3
Second Teaching Field	<u>3</u>	Second Teaching Field	<u>3</u>	Second Teaching Field	<u>3</u>	Second Teaching Field	<u>3</u>
	17		16		18		18
Sophomore Year				Senior Year			
ARTS 1311 or 1316	3	ARTS 1312 or 1317	3	ARTS 4333	3	ARTS, Advanced	3
ENGL 2342	3	EDHL 1254	2	ARTS 4344	3	EDED 4623	6
^ <i>Kinesiology</i>	1	ENGL 2362	3	EDED 3332	3	EDRG 4314	3
Modern Language	3	Modern Language	3	EDED 3362	3	EDSE 4391	<u>3</u>
*Science	4	*Science same	4	Second Teaching Field	3		15
Second Teaching Field	<u>3</u>	Second Teaching Field	<u>3</u>	SOCI 2361	<u>3</u>		
	17		18		18	Total Hours Required:	137

Total hours may vary depending on second teaching field.

**Must include laboratory*

Degree Requirements
Bachelor of Fine Arts
All-Level Art with Teaching Certification

Freshman Year				Junior Year			
ARTS 1201	2	ARTS 1304	3	ARTS 4300	3	ARTS 4333	3
ARTS 1303	3	ARTS 1312	3	ARTS 4311	3	ARTS 4344	3
ARTS 1311	3	ARTS 1317	3	ARTS 4322	3	EDED 3302	3
ARTS 1316	3	ENGL 1302	3	HIST 1302	3	EDED 3333	3
ARTS 2301	3	^ <i>Kinesiology</i>	1	POLS 2301	3	POLS 2302	3
ENGL 1301	<u>3</u>	MATH 1314	<u>3</u>	*Science	<u>4</u>	*Science same	<u>4</u>
	17		16		19		19
Sophomore Year				Senior Year			
ARTS 2316	3	ARTS 2333	3	ARTS, Advanced	6	ARTS 3388	3
ARTS 2326	3	ARTS 2346	3	ARTS 3377	3	EDED 4623	6
COMS 1311	3	EDED 2301	3	EDED 3332	3	EDRG 4314	3
ENGL 2342	3	EDHL 1254	2	EDED 3362	3	EDSE 4391	<u>3</u>
HIST 1301	3	ENGL 2362	3	SOCI 2361	<u>3</u>		15
^ <i>Kinesiology</i>	<u>1</u>	HIST 1302	<u>3</u>		18		
	16		17			Total Hours Required:	137

**Must include laboratory*

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF BIOLOGY (BIOL)

Glenn H. Perrigo, *Chair*

Biology-Earth Science Building 108. MSC 158. Extension 3803.

Regents Professor

Perez

Professors

Baskin, Galloway, Pierce

Associate Professors

Hempel, Massa, Perrigo

Assistant Professors

Perez-Ballesterro, Soto

Lecturers

Ratcliff, Valadez

Faculty Emeriti

Chaney, Peacock, Wood

The mission of the Department of Biology at Texas A&M University-Kingsville is to provide excellence in teaching, research and service in a unique biotic and cultural region of Texas. The strong research base of our faculty allows us to teach the cutting edge in organismal and biomedical science. Also, our commitment to the success of our students ensures that you will achieve your maximum potential.

1106. General Biology Laboratory I.

1(0-3)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes an understanding of the cell structure, energy transformation, reproduction and genetic variability. Pre- or corequisite: BIOL 1306. Laboratory fee, \$6.

1107. General Biology Laboratory II.

1(0-3)

Experimental and observational techniques used to study plant and animal life at the organismal, population and community levels including morphology, physiology, reproduction and ecology. Pre- or corequisite: BIOL 1307. Laboratory fee, \$6.

1108. Introductory Cellular and Molecular Biology Laboratory. (BIOL 1108)

1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes an understanding of the cell structure, energy transformation, reproduction and genetic variability. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301. Corequisite: BIOL 1308. Laboratory fee, \$6.

1111. Introductory Botany Laboratory. (BIOL 1111)

1(0-2)

A laboratory experience that reinforces an understanding of plant form, function and identification. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301. Pre or corequisite: BIOL 1311. Laboratory fee, \$5.

1113. Introductory Zoology Laboratory. (BIOL 1113)

1(0-2)

A laboratory experience that reinforces an understanding of animal form, function and identification. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301. Pre or corequisite: BIOL 1313. Laboratory fee, \$5.

1201. Introduction to the Arts and the Sciences.

2(2-0)

Designed to serve a dual function: primarily as an introduction to the specific disciplinary area (i.e., sciences and mathematics: biology, chemistry, geosciences, physics, mathematics) and secondarily as general university-level instruction in the methods and practice of critical thinking, analysis and communication. The 30 clock hour course assigns 20 hours to an academic core that is discipline-specific and 10 hours instruction in and application of academic habits and skills. The course is required of all entering freshmen and transfer students with fewer than 20 hours.

- 1306. General Biology I.** 3(4-0)
 Survey of contemporary biology that covers the chemical basis of life, structure, function and physiology of the cell, molecular biology and microevolution. Three lecture hours and one discussion hour a week for one semester. Concurrent enrollment in BIOL 1106 recommended. Prerequisites: exemption from or completion of WRIT 0300, READ 0300 and ALGE 0301 with a grade of C or better.
- 1307. General Biology II.** 3(4-0)
 Continuation of a two-semester course in biological concepts; will emphasize organismal diversity and comparative anatomy, reproduction, physiology, ecology, behavior and evolution. Three lecture hours and one discussion hour a week for one semester. Concurrent enrollment in BIOL 1107 recommended. Prerequisite: BIOL 1306.
- 1308. Introductory Cellular and Molecular Biology.** (BIOL 1308) 3(3-0)
 Introduction to the cellular and molecular basis of biology. Key molecular concepts such as cell theory and structure, energy transformations, reproduction and genetic variability are covered. Concurrent enrollment in BIOL 1108 is recommended. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301.
- 1311. Introductory Botany.** (BIOL 1311) 3(3-0)
 Survey of the plant kingdom with emphasis on the evolution and diversity of form, function followed by a survey of plant diversity and ecology. Concurrent enrollment in BIOL 1111 is recommended. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301.
- 1313. Introductory Zoology.** (BIOL 1313) 3(3-0)
 Survey of the animal kingdom with emphasis on the evolution, structure and function followed by a survey of animal diversity and ecology. Concurrent enrollment in BIOL 1113 is recommended. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301.
- 2375. Life Science.** 3(3-2)
 Emphasizes cell structure, energy transformation, plant and animal structures and functions, diversity and classification. Prerequisite: CHEM 1376. Laboratory fee, \$5.
- 2401. Human Anatomy and Physiology I.** (BIOL 2401) 4(3-3)
 Gross and microscopic anatomy and physiology of the cells and tissues, integument, skeletal, muscular and nervous systems. Six hours of chemistry recommended. Prerequisites: exemption from or credit in WRIT 0300, READ 0300 and ALGE 0301. Laboratory fee, \$6.
- 2402. Human Anatomy and Physiology II.** (BIOL 2402) 4(3-3)
 Gross and microscopic anatomy and physiology of the circulatory, respiratory, digestive, excretory, endocrine and reproductive systems. Prerequisites: BIOL 2401; 6 hours of chemistry recommended. Laboratory fee, \$6.
- 2421. Elementary Microbiology.** (BIOL 2421) 4(3-3)
 Fundamental principles of the relationship of microorganisms to the life of human beings, including their morphology, growth, nutrition and study. Prerequisites: BIOL 1307/1107, 6 hours of chemistry recommended. Laboratory fee, \$6.
- 3112. Genetics Lab.** 1(0-3)
 Fundamental experiments to demonstrate the concepts of inheritance, including cytogenetics techniques, quantitative Mendelian genetics, biochemistry of genetics, linkage and DNA mapping and protein electrophoresis of population and speciation genetics. Prerequisites: concurrent enrollment or already taken BIOL 3402; 12 semester hours of biology; 6 semester hours of chemistry recommended. Laboratory fee, \$6.
- 3301. Evolutionary Theory.** 3(3-0)
 A study of Darwinism, mechanisms of evolutionary change and a history of life in the context of contemporary biology. Prerequisite: BIOL 3402 or equivalent.

- 3375. Economic Entomology.** 3(3-0)
The characteristics, life history and identification of insects important to man, with particular reference to agriculture. Stress will be on control measures for harmful species. Prerequisite: 12 semester hours of biology.
- 3401. Invertebrate Zoology.** 4(3-3)
Classification, anatomy, life history and evolution of invertebrates exclusive of insects. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.
- 3402. Genetics.** 4(3-3)
Fundamental concepts of heredity, including cell reproduction, transmission genetics, biochemistry of genetics, gene structure and function and genetics of population. Lecture and recitation meetings. Prerequisites: 12 semester hours of biology; 6 semester hours of chemistry recommended.
- 3403. Plant Taxonomy.** 4(3-3)
An introductory course concerned with developing skill in recognition and identification of seed plants at the species and family levels. Emphasis will be placed on collection, use of keys and manuals and herbarium techniques. Prerequisite: 12 semester hours of biology. Laboratory fee, \$6.
- 3404. Biotechniques.** 4(3-3)
Focus on applications of modern molecular techniques that are used in biology. Technical report writing and computer skills will be emphasized. Prerequisite: freshman biology.
- 3405. Vertebrate Zoology.** 4(3-3)
Anatomy, classification and natural history of the vertebrates; methods of collecting, preserving and identifying local vertebrates. Prerequisite: 12 semester hours of biology. Laboratory fee, \$4.
- 3407. Ecology.** 4(3-3)
Ecology of water and land forms of South Texas. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.
- 3408. Animal Physiology.** 4(3-3)
A study of the fundamental process of the animal systems. Prerequisites: 12 semester hours of biology and 6 semester hours of chemistry. Laboratory fee, \$6.
- 3409. Field Biology I.** 4(20-20)
A study of the ecology and conservation of southern Texas flora and fauna. Prerequisite: 6 semester hours of biology. Laboratory fee, \$5.
- 4102. Seminar.** 1(1-0)
Current biological literature with critical class reports. Course may be repeated for credit. Prerequisite: 12 semester hours of biology. Assessment Exam Fee, \$21.
- 4304. Research Projects in Biology.** V:1-3
An independent review of literature and a laboratory or field problem yielding a formal report on the research. Variable credit dependent upon the project. May be repeated not to exceed accumulated total of 3 semester hours applicable to requirements for the major in biology. Prerequisite: advanced standing and prior approval of the problem by the supervising instructor.
- 4355. Topics in Biology.** 3(3-0)
Lectures in selected topics. May be repeated for credit once under a different topic. Prerequisite: 12 semester hours of biology or equivalent.
- 4401. Molecular Biology.** 4(3-3)
The application of modern molecular techniques to manipulate the replication and expression of genes. The laboratory will introduce basic and advanced molecular techniques. Prerequisites: 12 semester hours of biology and BIOL 3402. Laboratory fee, \$6.

- 4402. Vertebrate Embryology.** 4(2-4)
Embryonic development of the frog, chick and pig. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.
- 4406. Bacteriology.** 4(3-3)
Survey of medical, public health, water, sewage and milk bacteriology. Bacteriological technique is emphasized. Prerequisites: 12 semester hours of biology, including BIOL 2421; 6 semester hours of chemistry recommended. Laboratory fee, \$6.
- 4408. Immunology.** 4(3-3)
Experimental studies in the principles of infection and immunity. Prerequisite: 12 semester hours of biology, including BIOL 4406; organic chemistry recommended. Laboratory fee, \$6.
- 4410. Topics in Biology.** 4(3-3)
Lectures, literature investigation and research in selected topics. May be repeated for credit once under different topic. Prerequisite: 12 semester hours of biology or equivalent. Laboratory fee, \$5.
- 4411. Plant Physiology.** 4(3-3)
The study of the physiological functions of vascular plants including water relations, photosynthesis, respiration and hormone synthesis. Prerequisites: 12 hours of biology including BIOL 1307/1107. Laboratory fee, \$6.
- 4413. Non-flowering Plants.** 4(3-3)
The study of structure, physiological function, life cycles and the economical and biological importance of algae, bryophytes, lichens, ferns and gymnosperms. Prerequisites: 12 hours of biology including BIOL 1311/1111.
- 4425. Ornithology.** 4(3-3)
Classification, structures, physiology, natural history and field identification of birds. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.
- 4426. Cellular Physiology.** 4(3-3)
Physiochemical function at the cellular level. Prerequisites: 12 semester hours of biology and CHEM 3323/3123, CHEM 3325/3125; PHYS 1301/1101 and PHYS 1302/1102 recommended. Laboratory fee, \$6.
- 4429. Mammalogy.** 4(3-3)
Classification, distribution, life histories, economic importance, techniques of field study, methods of collection and preservation of mammals. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.
- 4430. Parasitology.** 4(3-3)
Introduction to parasitism with special reference to human and other vertebrate hosts. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.
- 4431. Ichthyology.** 4(3-3)
Classification, anatomy, life history and distribution of fishes, with special emphasis on local fresh water forms. Prerequisite: 12 semester hours of biology. Laboratory fee, \$5.

**Degree Requirements
Bachelor of Arts
Biology***

Freshman Year				Junior Year			
BIOL 1201	2	BIOL 1307/ BIOL 1107	4	BIOL 3408, BIOL 4411, or BIOL 4426	4	BIOL 3301	3
BIOL 1306/ BIOL 1106	4	CHEM 1112	1	CHEM 3323/ CHEM 3123	4	CHEM 3325/ CHEM 3125	4
CHEM 1111	1	CHEM 1312	3	CHEM 3123	4	FREN 2312 or SPAN 2312/ SPAN 2302	3
CHEM 1311	3	ENGL 1302	3	FREN 2311 or SPAN 2311/ SPAN 2301	3	Minor	3
ENGL 1301	3	HIST 1301	3	Minor	4	POLS 2302	3
^Kinesiology	1	^Kinesiology	1	POLS 2301	3		16
MATH 1314	3	MATH 1316	3		18		
	17		18				
Sophomore Year				Senior Year			
BIOL 2421	4	BIOL 3402	4	Advanced BIOL	8	Advanced BIOL	4
FREN 1311 or SPAN 1313/ SPAN 1301	3	BIOL 3407	4	Advanced Minor	3	Advanced Elective	3
HIST 1302	3	^Computer literacy	3	BIOL 4102	1	Advanced Minor	3
^Kinesiology	1	FREN 1312 or SPAN 1314/ SPAN 1302	3	Elective	3	^Communication	3
^Literature/philosophy	3	^Visual/performing arts	3	GEOG/PSYC/SOCI	3		13
^Social/behavioral	3		17		18		
	17					Total Hours Required:	134

*For additional requirements see section entitled "General Requirements for Graduation" in an earlier section of this catalog. Students must earn a letter grade of C or better in ENGL 1302 to demonstrate writing proficiency. Note: Choice of minor will result in some variation in course sequence and total hours on the degree. Consult departmental chair for information on minor programs. A major consists of at least 36 semester hours in Biology. Minor requires 18-24 hours with at least 6 hours in advanced work. At least 50% of the work offered in the major field must be advanced.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

**Degree Requirements
Bachelor of Science
Biology***

Freshman Year				Junior Year			
BIOL 1201	2	BIOL 1307/BIOL 1107	4	Advanced Minor or Any Elective	4	BIOL 3301	3
BIOL 1306/BIOL 1106	4	CHEM 1112	1	BIOL 3408, BIOL 4411, or BIOL 4426	4	BIOL 3407	4
CHEM 1111	1	CHEM 1312	3	CHEM 3323/ CHEM 3123	4	CHEM 3325/ CHEM 3125	4
CHEM 1311	3	ENGL 1302	3	HIST 1302	3	POLS 2302	3
ENGL 1301	3	^Kinesiology	1	POLS 2301	3	^Visual/performing arts	3
^Kinesiology	1	MATH 1316	3		18		17
MATH 1314	3		15				
	17						
Sophomore Year				Senior Year			
BIOL 2421	4	BIOL 2421	4	Advanced BIOL	8	Advanced BIOL	4
CISA 1301 or CSEN 2304	3	^Communication	3	Advanced Minor	4	Advanced Electives	8
^Kinesiology	1	HIST 1301	3	BIOL 4102	1		12
^Literature/philosophy	3	PHYS 1302/PHYS 1102 4	4		13		
PHYS 1301/PHYS 1101	4	STAT 1342, STAT 4303, or STAT4301	3			Total Hours Required:	127
^Social/behavioral	3		17				
	18						

*For additional requirements see section entitled "General Requirements for Graduation" in an earlier section of this catalog. Students must earn a letter grade of C or better in ENGL 1302 to demonstrate writing proficiency. Note: Choice of minor will result in some variation in course sequence and total hours on the degree. Consult departmental chair for information on minor programs. A major consists of at least 36 semesters hours in Biology. Minor requires 18-24 hours with at least 6 hours in advanced work. At least 50% of the work offered in the major field must be advanced.

**Degree Requirements
Bachelor of Science
Biology with Teaching Certification**

Freshman Year			Junior Year			
BIOL 1201	2	BIOL 1308/BIOL 1108,	BIOL 3402	4	Advanced CHEM	4
BIOL 1306/BIOL 1106	4	BIOL 1311/BIOL 1111	BIOL 3403 or		BIOL 3301	3
CHEM 1111	1	or BIOL 1313/	BIOL 3407	4	BIOL 3408	4
CHEM 1311	3	BIOL 1113	CHEM 3323/		BIOL 4102	1
ENGL 1301	3	CHEM 1112	CHEM 3123	4	EDED 3302	3
^Kinesiology	1	CHEM 1312	COMS 1311	3	EDED 3303	<u>3</u>
MATH 1314	<u>3</u>	ENGL 1302	SOCI 2361	<u>3</u>		18
	17	HIST 1301		18		
		^Kinesiology				
		MATH 1316				
		18				
Sophomore Year			Senior Year			
BIOL 1308/BIOL 1108,		ARTS 2301	BIOL 3401 or		EDED 4623	6
BIOL 1311/BIOL 1111		EDHL 1254	BIOL 3405	4	EDRG 4314	3
or BIOL 1313/		ENGL 2342, ENGL 2362	BIOL 4406, BIOL 4408,		EDSE 4391	<u>3</u>
BIOL 1113	4	or ENGL 2314	or BIOL 4426	4		12
EDED 2301	3	PHYS 1302/PHYS 1102	EDED 3332	3		
ENGL 2342, ENGL 2362		or PHYS 1407	EDED 3362	3	Total Hours Required: 136	
or ENGL 2314	3	POLS 2301	POLS 2302	<u>3</u>		
HIST 1302	3	STAT 1342		17		
^Kinesiology	1					
PHYS 1301/PHYS 1101						
or PHYS 1405	<u>4</u>					
	18					

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF CHEMISTRY (CHEM)

John S. Thompson, Jr., *Interim Chair*

Nierman Science Hall 102. MSC 161. Extension 2914.

Regents Professor

Beran

Professors

Castro, Marcotte, Olivares, Thompson

Associate Professors

Beller, Gonzalez-Garcia, Hays

Assistant Professor

Bhattacharya

Lecturer

Martino

Faculty Emeritus

Ruhnke

The aim of the department is to provide certain service courses for other departments whose subject matter is based, in part, on the fundamentals of chemistry; a cultural background for those who are interested in science and desire the B.S. or B.A. degree but do not expect to become professional chemists; and proper education for those who wish to become professional chemists. The B.S. degree is certified by the American Chemical Society. The M.S. degree in Chemistry is also offered.

1111. General Inorganic Chemistry Laboratory I. (CHEM 1111) 1(1-3)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes an understanding of the principles of stoichiometry, gases, liquids, solutions and energy. One hour of recitation. Pre- or corequisite: CHEM 1311. Laboratory fee, \$5.

1112. General Inorganic Chemistry Laboratory II. (CHEM 1112) 1(1-3)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes an understanding of the principles of stoichiometry, gases, liquids, solutions and energy. One hour of recitation. Prerequisite: CHEM 1311 and CHEM 1111; Pre- or corequisite: CHEM 1312. Laboratory fee, \$5.

1311. General Inorganic Chemistry I. (CHEM 1311) 3(3-0)

The first course for students majoring in a field of science, engineering or agriculture. Principles of stoichiometry, thermochemistry, atomic and molecular structures, gases, liquids, solids and solutions and the chemistry of the elements and their compounds. Prerequisite: MATH 1314 and either one year of high school chemistry or CHEM 1481.

1312. General Inorganic Chemistry II. (CHEM 1312) 3(3-0)

The second course for students majoring in a field of science, engineering or agriculture. Principles of chemical kinetics, chemical equilibrium, thermodynamics, electrochemistry and the chemistry of the elements and their compounds. Prerequisites: CHEM 1111 and CHEM 1311.

1376. Elementary Chemistry. 3(3-2)

A survey of fundamental concepts of chemistry. Topics include atomic structure, elements and the periodic table, nuclear chemistry, acids and bases and organic, inorganic and biochemical compounds. Prerequisite: PHYS 1375. Laboratory fee, \$5.

1405. General Introduction to Chemistry. (CHEM 1405) 4(3-2)

Elementary studies in chemistry for those students not majoring in science. Emphasizes body chemistry and physiological action of drugs, foods, nutrients, poisons, cancer-causing agents, etc. Includes environmental, social, political, historical and agricultural aspects of the science. Laboratory fee, \$5 each semester.

1407. General Introduction to Chemistry. (CHEM 1407) 4(3-2)

The second course in elementary studies for those students not majoring in science. Emphasizes body chemistry and physiological action of drugs, foods, nutrients, poisons, cancer-causing agents, etc. Includes environmental, social, political, historical and agricultural aspects of the science. Laboratory fee, \$5 each semester.

- 1481. Elementary Principles of Chemistry.** 4(3-2)
A course for students who must take CHEM 1311, but whose background does not include a satisfactory command of mathematics or chemistry as determined by placement examinations. May not be counted as part of the general science requirements for a major or minor in chemistry. Laboratory fee, \$5.
- 2401. Inorganic Quantitative Analysis.** (CHEM 2401) 4(3-4)
Principles and methods of separation and analysis. Includes standard volumetric and gravimetric methods and an introduction to instrumental methods. Prerequisites: CHEM 1112 and CHEM 1312. Laboratory fee, \$5.
- 2421. Elementary Organic Chemistry.** 4(3-3)
Aliphatic and aromatic compounds with a special emphasis given to aliphatic compounds. Prerequisite: CHEM 1112 and CHEM 1312. Laboratory fee, \$5.
- 3123. Organic Chemistry Laboratory I.** 1(0-4)
Introduction to laboratory practices and procedures in organic chemistry, with emphasis on hydrocarbon chemistry. Pre- or corequisite: CHEM 3323. Laboratory fee, \$5.
- 3125. Organic Chemistry Laboratory II.** 1(0-4)
Introduction to laboratory practices and procedures in organic chemistry, with emphasis on hydrocarbon chemistry. Pre- or corequisite: CHEM 3325. Laboratory fee, \$5.
- 3181. Chemical Literature.** 1(1-0)
Prerequisite: at least 3 semesters of chemistry.
- 3323. Organic Chemistry I.** 3(3-0)
Introduction to the important concepts and principles in the bonding and reactions of organic molecules, with intensive study of the chemistry of non-aromatic hydrocarbons. Prerequisites: CHEM 1312, CHEM 1112. To count for a major or minor in Chemistry, CHEM 3123 must also be taken.
- 3325. Organic Chemistry II.** 3(3-0)
Continuation of CHEM 3323. An intensive study of the reactions and mechanisms of aromatic hydrocarbons and the main non-hydrocarbon functional groups. Prerequisites: CHEM 3323, CHEM 3123. To count for a major or minor in Chemistry, CHEM 3125 must also be taken.
- 3331-3332. Physical Chemistry.** 6(3-0)
A fundamental approach to the study of physical and chemical phenomena, including the study of thermodynamics, chemical kinetics, phase equilibria, electrochemistry, molecular structure and quantum mechanics. Required of all chemistry and chemical engineering majors. Prerequisite: one year each of physics and calculus.
- 3451. Environmental Chemistry.** 4(3-3)
Sources and causes of land, water and air pollution; the methods of measurement and abatement. May not be counted as part of the minimum requirements for a major in chemistry. Prerequisites: CHEM 1112, CHEM 1312 and two additional 3- or 4-credit hour courses in either biology or geology or more advanced chemistry. Laboratory fee, \$5.
- 4141. Biochemistry Laboratory.** 1(1-3)
An introduction to the biochemical techniques (methods used for protein purification, for protein characterization and for analysis of other important biomolecules). Prerequisite: CHEM 4341.
- 4181. Chemical Seminar.** 1(1-0)
Prerequisites: at least 6 semesters of Chemistry and CHEM 3181.
- 4131-4132. Physical Chemical Measurements.** 2(0-4)
A laboratory course on the techniques and apparatus used in the measurement of properties of chemical systems. Attention is also given to the limits of accuracy and the sources of error in a given technique. Required of chemistry majors. Prerequisite: CHEM 2401. Prerequisite or corequisite: CHEM 3331, CHEM 3332. Laboratory fee, \$5.

- 4311. Advanced Inorganic Chemistry.** 3(3-0)
Prerequisite: at least 6 semesters of chemistry including CHEM 2401 and Physical Chemistry.
- 4341. Biochemistry I.** 3(3-0)
Introduction to the important concepts, nomenclature and compounds of biochemistry with special emphasis on the chemical interpretation of the structures and function of biological macromolecules. Prerequisite: CHEM 3325.
- 4342. Biochemistry II.** 3(3-0)
An introduction to the major biochemical cycles and pathways in living organisms, including reaction steps, regulation and mechanisms. Prerequisite: CHEM 4341.
- 4345. Principles of Biochemistry.** 3(3-0)
A one-semester presentation of the major areas of biochemistry, emphasizing the structure and function of biomolecules and major metabolic activities of living organisms, including humans. Prerequisites: CHEM 2421 or CHEM 3325.
- 4381. Selected Topics in Chemistry.** V:1-3
Literature and research in areas of chemistry not otherwise treated in depth in available courses. May be repeated when topic changes for a maximum of 6 semester hours of credit.
- 4385. Senior Research.** V:1-3
Supervised individual journal-quality research involving advanced chemical concepts and a variety of experimental techniques and instruments. May be taken for a maximum of 6 semester hours. Prerequisites: physical chemistry, senior standing and prior approval of the project director.
- 4401. Modern Methods of Instrumental Analysis.** 4(3-4)
Introduction to the theory and practice of optical and electro-analytical methods of analysis. Prerequisites: CHEM 2401 or CHEM 2371 and CHEM 3331 and CHEM 3332. Laboratory fee, \$5.
- 4421. Advanced Chemical Synthesis.** 4(2-6)
Introduction to advanced and sophisticated synthesis of organic, biochemical and inorganic compounds. Laboratory includes multi-step syntheses, stereochemical problems, literature-searching techniques, etc. Prerequisites: CHEM 3323/3123, CHEM 3325/3125. Laboratory fee, \$5.

**Degree Requirements
Bachelor of Arts
Chemistry**

Freshman Year			Junior Year		
BIOL 1201	2	CHEM 1112	1	BIOL/GEOG/ GEOG-PSYC/SOCI	3
CHEM 1111	1	CHEM 1312	3	Minor	3
CHEM 1311	3	ENGL 1302	3	Minor	0-3
ENGL 1301	3	HIST 1302	3	Mod Lang (2nd)	3
HIST 1301	3	[^] Kinesiology	1	POLS 2302	<u>3</u>
[^] Kinesiology	1	MATH 1348	3		12-18
MATH 1314	3	POLS 2301	<u>3</u>		
MATH 1316	<u>3</u>		17	[^] Visual/performing arts	<u>3</u>
	19				16-19
Sophomore Year			Senior Year		
CHEM 2401	4	BIOL/GEOG/GEOG	4	CHEM, Advanced	7
CHEM 3323/ CHEM 3123	4	CHEM 3325/ CHEM 3125	4	CHEM 4131	1
ENGL 2342	3	ENGL 2362	3	[^] Computer literacy	3
MATH 2313	3	[^] Kinesiology	1	Minor (Advanced)	3
PHYS 1301/ PHYS 1101	<u>4</u>	MATH 2314	3	Mod Lang (3rd)	3
	18	PHYS 1302/ PHYS 1102	<u>4</u>	[^] Social/behavioral	<u>3</u>
			19		20
					Total Hours Req'd: 141-150

**Degree Requirements
Bachelor of Science
Chemistry
Certified by the American Chemical Society**

Freshman Year			Junior Year		
BIOL 1201	2	CHEM 1112	1	CHEM 3331	3
CHEM 1111	1	CHEM 1312	3	COMS/BCOM	3
CHEM 1311	3	ENGL 1302	3	CSEN 2304	3
ENGL 1301	3	HIST 1302	3	ENGL 2342 or	
HIST 1301	3	[^] Kinesiology	1	ENGL 2362	3
MATH 1314	3	MATH 1348	3	POLS 2302	3
MATH 1316	<u>3</u>	POLS 2301	<u>3</u>	Restricted Elective*	<u>3</u>
	18		17		18
Sophomore Year			Senior Year		
CHEM 2401	4	CHEM 3181	1	Advanced Minor	3
CHEM 3323/ CHEM 3123	4	CHEM 3325/ CHEM 3125	4	Adv. Elective**	3
[^] Kinesiology	1	ENGL 2314	3	CHEM 4131	1
MATH 2313	3	[^] Kinesiology	1	CHEM 4401	4
PHYS 2325/ PHYS 2125	<u>4</u>	MATH 2314	3	Restricted Elective*	3
	16	PHYS 2326/ PHYS 2126	<u>4</u>	[^] Social/behavioral	<u>3</u>
			16		17
					Total Hours Required: 136

**Restricted Elective: Biology (8 hours minimum); Modern Language (6 hours minimum in a single language); STAT 4303; Geology (8 hours minimum); or other career-related elective approved by chair.*

***Advanced Elective: Approval of chair required.*

This program qualifies a graduate for certification to the American Chemical Society as a chemist meeting the professional standards of that organization. Consult departmental chair for information on minor programs.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF COMMUNICATIONS AND THEATRE ARTS

Edwin N. Rowley, *Chair*

Speech Building 174. MSC 178. Extension 3401.

Professors

Deacon, Fields, Smith, Treon

Associate Professors

Beams, Elkins, Faherty, Rowley

Visiting Assistant Professor

Alnor

Lecturers

Conover, Hernandez-Perez, Ramos, Saltarelli

Faculty Emeritus

Buchanan

The department provides instruction for students studying in the fields of speech, journalism, radio/television, theatre arts and communication sciences and disorders. The department also provides instruction for students in education who have chosen teaching fields in journalism, speech or theatre arts. The department offers specialization on the elementary level for both speech and theatre arts.

Students majoring or minoring in the various areas of the department are expected to take advantage of the experience and training offered to them in the various activities sponsored by the university and the department. The student of journalism is expected to work with the student publication, *The South Texan*. Credit for this work can be received by registering for COMJ 2129. The student of speech is expected to register for COMS 1144 for a minimum of 3 semester hours of elective credit. The student of theatre arts is required to register for theatre practice or rehearsal and performance each semester enrolled, except while student teaching. The student is also required to participate in a theatre activity each semester while at the university. The student whose interests lie in radio/television is expected to participate in studio activities each semester with KTAI FM 91.1 or TAMUK TV-2. Students in communication sciences and disorders have the opportunity to gain practical experience in the Communication Disorders Clinic.

All activities of the department are also open to members of the university who are not majoring or minoring in the department.

Little Theatre and Jones Auditorium: Throughout the year the department presents a series of plays, including a summer musical (in cooperation with the Department of Music). The two theatres also host other presentations of a varied nature.

COMMUNICATION (COMM)

1307. Introduction to the Mass Media. (COMM 1307) 3(3-0)

Mass communication in modern society. Communication processes, legal consideration and social implications.

2309. Editing. (COMM 2309) 3(2-3)

Theory and practice in copyreading, proofreading, headline writing, page layout and design, picture editing and news staff supervision. Extensive practice with electronic copy processing systems. Prerequisite: COMM 2311.

2311. Newswriting. (COMM 2311) 3(2-3)

Theory and practice of newswriting and relationships with sources. Lectures and assignments covering news for print and electronic media. Discussions of journalistic ethics and other problems confronting reporters. Prerequisites: ENGL 1301, ENGL 1302.

3301. Reporting. 3(2-3)

Theory and practice in news gathering and writing; types and techniques of public affairs reporting. Lab assignments include coverage of university departments and activities, municipal and county government, schools and courts for *The South Texan*. Lab requires use of computers as editing terminals and data bases. Prerequisite: COMM 2309.

3308. Radio and Television News and Script Writing. 3(3-0)
Writing correctness, clarity and style in radio and television: includes collecting, writing and editing news, continuity, drama, address and commercial copy.

4306. Selected Topics in Communication. 3(3-0)
Literature and research in areas of communication. Includes such topics as international press, yearbook production, semantics and history of public address. May be repeated once for credit when topic varies. Prerequisite: 6 semester hours of communication, journalism and/or speech.

4317. Mass Media, the Public and the Law. 3(3-0)
Legal and ethical limitation and responsibilities of the mass media, relationship and interaction between broadcaster, governmental regulatory agencies and the public. Prerequisite: 6 semester hours of journalism and/or radio-tv.

4391. Independent Study in Communication. V:1-3
Intensive work in a special area of the student's major or minor. A maximum of 6 semester hours of credit in independent study may be applied toward graduation. Prerequisite: 6 semester hours in communication, speech or journalism.

COMMUNICATION SCIENCES AND DISORDERS (CSDO)

A Master's Degree in communication disorders is required in order to be a licensed speech-language pathologist in the State of Texas. An overall grade point average of 3.0, a grade point average of 3.0 in all CSDO courses, adequate written and oral communication skills (see CSDO 4223) and a passing grade on the CSDO exit exam prior to graduation are required so as to prepare the student for acceptance into a master's program.

2325. Phonetics. 3(3-0)
Training in the use of the International Phonetic Alphabet and practice in the transcription of normal and disordered speech.

3122. Clinical Observation in Speech Pathology and Audiology. 1(0-2)
Observation of clinical practice in speech pathology and audiology. Satisfactory completion required before the student can begin clinical practice. May be repeated for a total of 2 semester hours. Prerequisite: grade of C in, or concurrent registration in, CSDO 3305. Credit/Noncredit.

3305. Introduction to Communication Disorders. 3(3-0)
Cause, diagnosis and therapies of communication defects. Observation (CSDO majors: 25 hours; nonmajors: 15 hours) of speech and language therapy conducted in CSDO clinic each afternoon. Corequisite: CSDO 3122 for CSDO majors.

3313. Introduction to Audiology. 3(3-1.5)
Basic audiological concepts and their applicability to instrumentation and educational procedures utilized in the habilitation and/or rehabilitation of the pre-school and school aged child. Prerequisite: CSDO 3321.

3321. Anatomy of the Auditory and Vocal Mechanisms. 3(3-0)
Designed to acquaint the student with the physiology and functions of the vocal and auditory mechanisms. Prerequisite: CSDO 3305.

3325. Clinical Methodologies. (3-1.5)
Designed to acquaint the student with clinical methods in speech-language pathology before beginning clinical practice. Topics include target behaviors, treatment methods and controlling and maintaining target behaviors. Prerequisites: CSDO 2325, CSDO 3122 and CSDO 3305.

4223. Clinical Practice in Speech/Language Pathology. 2(0-4)
Administration of speech/language therapy and diagnostic evaluation under direct supervision. May be repeated once. Attendance required at weekly clinical conference. Prerequisites: CSDO 3325 (may also be taken concurrently), CSDO 4321 and CSDO 4333; an overall grade point average of 3.0; a grade point average of 3.0 in all CSDO courses; successful completion of the departmental communication skills examination; and senior standing in CSDO. Laboratory fee, \$5.

4321. Articulatory and Phonological Disorders. 3(3-0)

In-depth study of the development of speech sounds, etiologies of articulation and phonological disorders, assessment, procedures and therapeutic approaches for working with individuals with articulation disorders. Demonstration and simulated practice will be provided in class. Prerequisites: CSDO 3305 and CSDO 3122.

4327. Diagnostics in Speech/Language Pathology. 3(3-0)

Course will provide the student with information to demonstrate an understanding of the diagnostic process in the area of Communication Disorders. Knowledge of test protocols and assessment methods in language, articulation, voice and stuttering disorders. Prerequisites: CSDO 3122, CSDO 3305, CSDO 4321 and CSDO 4333.

4329. Voice and Fluency Disorders. 3(3-0)

Lecture will consist of specific knowledge regarding the symptoms and etiologies of voice and fluency disorders. A basic knowledge of diagnostic and therapeutic procedures will also be obtained. Prerequisites: CSDO 3122, CSDO 3305 and CSDO 3321.

4331. Speech and Hearing Science. 3(3-0)

Physical properties of sound, sound measurement, basic auditory function, acoustic and physiological phonetics and the perception of speech. Prerequisite: CSDO 3321.

4333. Normal Language Acquisition. 3(3-0)

Symbolic system used by humans to communicate; role of learning in perception, comprehension and expression of linguistic codes; sequential development of normal language skills. Prerequisite: CSDO 3305 or permission of instructor.

4335. Communication Disorders in Children. 3(3-0)

Interventions (principles and methods) for developmentally delayed or disordered language; specific procedures for planning and implementation of therapy. Prerequisites: CSDO 3305 and CSDO 4333.

4336. Communication Disorders in Adults. 3(3-0)

The study of adult disordered communicative processes. Consideration is given to signs and symptoms, etiology, clinical course and vocational-social impact of these disorders. Principles of assessment and intervention are highlighted. Prerequisites: CSDO 2325, CSDO 3305 and CSDO 3321.

JOURNALISM (COMJ)

2129. Publications Laboratory. (COMM 2129) 1(0-2)

Practical experience in publications. The course may be repeated for a maximum of 6 semester hours of credit. Prerequisite: COMM 2311.

2427. Photojournalism. 4(3-2)

Basic techniques of film, exposure, development, flash, filters and printing and composition as they relate to press photography. Laboratory fee, \$5.

3304. Feature and Special Articles. 3(3-0)

Identifying and developing feature story ideas. Reporting and writing feature articles and arranging for appropriate pictures for publication in newspapers or periodicals. Emphasis on training students in identifying markets for nonfiction writing. Prerequisite: junior standing.

3321. Principles of Advertising. 3(3-0)

Advertising writing, layout, typography and art work. Advertising campaigns, selling, practice exercises and advertising work for publication.

4301. History of Journalism. 3(3-0)

Development of the newspaper in England and the United States with attention to the social, economic and political forces which brought about changes in journalistic techniques and in basic ideas as to newspaper functions. Study of the careers of noted journalists.

4302. Editorial Writing. 3(3-0)
Purpose and style of editorial comment. Editorial page editing. Prerequisite: junior standing.

4322. Public Relations. 3(3-0)
Principles of public relations and their application in business, industry, education, government, social agencies and other institutions; the media of public relations; research methods used in public relations; journalistic implications of the public relations process. Case studies and analysis. Practice in public relations planning and writing.

SPEECH (COMS)

1144. Forensic Lab. (SPCH 1144) 1(0-1)
Participation and training in forensic activities, such as debate, extemporaneous speaking, oral interpretation and oratory. May be repeated for a total of 6 semester hours. Required for those participating in intercollegiate competition.

1311. Introduction to Oral Communication. (SPCH 1311) 3(3-0)
Theory and practice of speech communication in interpersonal, small group and public speaking.

1313. Principles of Speech. 3(3-0)
Theory and practice of choral speaking, oral reading of children's poetry and prose, creative drama, public speaking and small group discussion with children. Recommended for future elementary teachers.

1315. Business and Professional Communication. (SPCH 1321) 3(3-0)
Theories and skills of speech communication as applied to business and professional situations.

1325. Speech Improvement with Phonetics. 3(3-0)
Use of the International Phonetic Alphabet and its application to the sounds in the English language.

1336. Introduction to Television Production. (COMM 1336) 3(2-3)
The techniques of TV program production and procedures involved. Student participation in videotaped productions from the studio and remote locations.

2118. Radio Control Room Operations. 1(1-0)
Practical experience in campus radio broadcasting activities. May be repeated for a total of 6 semester hours. Prerequisite: 3 semester hours of radio or television.

2301. Audio Production. 3(3-0)
Survey of the techniques and equipment of audio production. Topics will include the use of microphones, tape machines and accessories. Both analog and digital processes will be covered.

2331. Radio Announcing and Production. (COMM 2331) 3(2-3)
The principles of speech for radio and an analysis of the background and trends in broadcasting. An application of the principles for practical experience with emphasis on radio production.

2335. Discussion and Debate. (SPCH 2335) 3(3-0)
Small group theories and techniques as they relate to group processes and interaction as well as the basic principles and practice of argumentation and debate. Prerequisite: COMS 1311 or high school experience.

2342. Voice, Phonetics and Diction. (SPCH 1342) 3(3-0)
Voice production, the International Phonetic Alphabet and its application to the production of the sounds of American English. Required for majors.

3304. Advanced Oral Interpretation. 3(3-0)
Analysis and practice of techniques in the oral interpretation of drama, poetry, prose, programmed readings, lecture recital and group interpretations. Prerequisite: 6 semester hours of speech.

3331. Persuasive Communication. 3(3-0)
Theories and techniques of persuasive communication including the psychological, logical and ethical principles involved. Types of speaking and persuasion in the media will be studied. Required for speech concentration. Prerequisite: COMS 1311 or equivalent.

3337. Intermediate Television Production and Direction. 3(2-4)
Expanded operation and theory of television equipment is utilized in the production and direction of programs for the local educational cable television system. Prerequisite: COMS 1336.

4316. Advanced Seminar in Speech Communication. 3(3-0)
Advanced theory and practice in selected types of speech communication, debate and oral interpretation. Contest speaking, tournament management and communication evaluation. Prerequisite: 6 hours of Speech or Communication.

4331. Readings in Speech Communication and Theatre Arts. 3(3-0)
Research in contemporary thought in speech communication and theatre arts. Prerequisites: COMS 1311, COMS 2335, COMS 2342. (Credit may not be obtained in both COMS 4331 and THEA 4331.)

4335. Advanced Studio and Remote Television Production. 3(1-5)
Mastery of television equipment utilization both in the studio and field. Practical experience in electronic news gathering and electronic field production for educational cable television. Prerequisite: COMS 3337.

THEATRE ARTS (THEA)

1120. Theatre Practice I. (DRAM 1120) 1(0-2)
Experience in the participation in and evaluation of rehearsal and performance activities related to departmental productions. Required for Theatre Arts majors and minors. May be repeated once.

1121. Theatre Practice II. (DRAM 1121) 1(0-2)
Experience in the participation in and evaluation of rehearsal and performance activities related to departmental productions. Required for Theatre Arts majors and minors. May be repeated once.

1241. Makeup for the Stage. (DRAM 1241) 2(1-3)
The theory and practice of stage makeup with emphasis on the latter.

1322. Acting I. (DRAM 1351) 3(2-2)
Beginning concepts of the use of the voice and body in the creation of a character for the stage.

1330. Stagecraft. (DRAM 1330) 3(2-3)
Techniques and practices involved in nonprofessional theatre production, e.g., the school and community theatre. Required participation in actual stage work in production.

2301. Structure of the Arts. 3(2-4)
Art, Music and Theatre Arts are combined in selected problems dealing with arts structure. Creative production is the result of studio activity and critique. Laboratory fee, \$5.

2352. Acting II. (DRAM 1352) 3(2-2)
A continuation of the study of acting concepts involved in the creation of a character for the stage. Prerequisite: THEA 1322.

3131. Rehearsal and Performance I. 1(0-2)
Experience in acting and crew work in departmental productions. Required for Theatre Arts majors and minors. May be repeated once. Prerequisite: THEA 2352 or equivalent.

3132. Rehearsal and Performance II. 1(0-2)
Experience in acting and crew work in departmental productions. Required for Theatre Arts majors and minors. May be repeated once. Prerequisite: THEA 2352 or equivalent.

3302. Women and the Arts. 3(3-0)

Issues surrounding the participation of women in the arts. Selected women who have contributed to the visual and performing arts throughout history are studied in relation to the culture of their time and the principles related to the arts. No previous experience in theatre, art or music required. Prerequisite: completion of visual/performing arts component. (Credit may be obtained in only one of ARTS 3302, MUSI 3302, THEA 3302 or WMST 3302.)

3311. Advanced Problems in Scenography and Performance. 3(2-3)

Consideration of topics such as scenery and lighting design, advanced problems of acting, costume history and construction. May be repeated once for credit when topic changes.

4302. Play Direction. 3(3-0)

Problems of selecting and producing the play, practice in directing the one-act play. Prerequisites: THEA 1241, THEA 2352, THEA 1330.

4304. Creative Drama. 3(3-0)

Theory and practice in techniques of various forms of improvised drama and story dramatization. Prerequisite: 6 semester hours of Speech and Theatre Arts.

4308. Selected Topics in Theatre History and Criticism. 3(3-0)

Studies of the major periods of theatre, such as Greek to Elizabethan, Elizabethan to modern and the development of theatrical criticism. May be repeated once as topic varies. Prerequisite: sophomore standing.

4331. Readings in Speech Communication and Theatre Arts. 3(3-0)

Research in contemporary thought in speech communication and theatre arts. Prerequisites: COMS 1311, COMS 2335, COMS 2342. (Credit may not be obtained in both COMS 4331 and THEA 4331.)

4392. Independent Study in Theatre Arts. V:1-3

Intensive work in a special area of the student's major or minor. A maximum of 6 semester hours of credit in individual study may be applied toward graduation.

**Degree Requirements
Bachelor of Arts
Communication (Journalism)**

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301	3	COMM, adv.	3	ARTS 2301, MUSI 2301, or THEA 2301	3
COMM 1307	3	COMM 2311	3	COMM, adv.	3	COMM	3
ENGL 1301	3	ENGL 1302	3	COMS 1311, COMS 1315, COMS 2335	3	COMM	3
HIST 1301	3	HIST 1302	3	Elective, adv.	3	[^] Kinesiology	1
MATH 1314	3	[^] Kinesiology	1	Minor	<u>3</u>	Minor	3
Modern Language	<u>3</u>	Modern Language	<u>3</u>		15	Minor	<u>3</u>
	17		16			Minor	<u>3</u>
							16
Sophomore Year				Senior Year			
COMM 2309	3	COMM 3301	3	COMM, adv.	3	COMM, adv.	3
ENGL 2342 or 2362	3	ENGL 2342 or 2362	3	COMM, adv.	3	Elective, adv.	3
[^] Kinesiology	1	Modern Language	3	Elective, adv.	3	Elective, adv.	3
Modern Language	3	POLS 2302	3	Elective, adv.	3	Minor, adv.	3
POLS 2301	3	*Science, same	<u>4</u>	Minor	3	Minor, adv.	3
*Science	<u>4</u>		16	Minor, adv.	<u>3</u>	[^] Social/behavioral	<u>3</u>
	17				18		18

Total Hours Required: 133

33 hours in Communication or Speech/18 advanced; 21 hours in minor field/6 advanced (art, journalism, theatre arts, a modern language, a social science or other field approved by department chair or 24 hours in English); 21 hours of electives to be approved by adviser.

**Must include laboratory*

**Degree Requirements
Bachelor of Arts
Communication (Speech)**

Freshman Year				Junior Year			
ARTS 1201	2	ARTS 2301, MUSI 2301 or THEA 2301	3	COMM or COMS, adv.	3	CISA 1301	3
COMS 1311	3	COMM or COMS	3	COMS 3331	3	COMM or COMS	3
ENGL 1301	3	ENGL 1302	3	Elective, adv.	3	COMM or COMS	3
HIST 1301	3	HIST 1302	3	Elective, adv.	3	Elective, adv.	3
MATH 1314	3	[^] Kinesiology	1	[^] Kinesiology	1	Minor	<u>3</u>
Modern Language	<u>3</u>	Modern Language	<u>3</u>	Minor	<u>3</u>		15
	17		16		16		
Sophomore Year				Senior Year			
COMS 2342	3	ENGL 2342 or ENGL2362	3	COMM or COMS, ADV.	3	COMM or COMS, ADV.	3
ENGL 2342 or ENGL2362	3	Minor	3	COMM or COMS, ADV.	3	COMM or COMS, ADV.	3
[^] Kinesiology	1	Modern Language	3	Elective, adv.	3	Elective, adv.	3
Modern Language	3	POLS 2302	3	Elective, adv.	3	Elective, adv.	3
POLS 2301	3	*Science, same	<u>4</u>	Elective, adv.	3	Minor, adv.	3
*Science	<u>4</u>		16	Minor	3	Minor, adv.	<u>3</u>
	17			Minor	<u>3</u>		18
					18		

Total Hours Required: 133

33 hours in Communication or Speech/18 advanced; 21 hours in minor field/6 advanced (art, journalism, theatre arts, a modern language, a social science or other field approved by the department chair or 24 hours in English); 21 hours of electives to be approved by adviser.

**Must include laboratory.*

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science
Communication Sciences and Disorders
Minor in Psychology

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301	3	Adv PSYC Elec (Minor)		Adv PSYC Elec (minor)	
CSDO 2325	3	ENGL 1302	3		3		3
ENGL 1301	3	HIST 1302	3	CSDO 3122	1	CSDO 3313	3
HIST 1301	3	[^] Kinesiology	1	CSDO 3321	3	CSDO 3325	3
Math	3	PSYC 2301	3	CSDO 4321	3	CSDO 4335	3
*Science	<u>4</u>	*Science	<u>4</u>	CSDO 4333	3	ENGL 4310	3
	18		17	Elective	<u>3</u>	[^] Kinesiology	<u>1</u>
					16		16
Sophomore Year				Senior Year			
ARTS 2301	3	COMS 1311/		CSDO 4327	3	**Adv. Electives	4
ENGL 2314	3	COMS 1315/		CSDO 4331	3	CSDO 4329	3
[^] Kinesiology	1	COMS 2335	3	CSDO 4336	3	Electives	<u>6</u>
POLS 2301	3	CSDO 3122	1	Elective	3		13
PSYC Elec. (Minor)	<u>6</u>	CSDO 3305	3	PSYC 3381	<u>3</u>		
	16	POLS 2302	3		15	Total Hours Required:	127
		PSYC Elective	3				
		Sophomore English	<u>3</u>				
			16				

*Students will choose one Biology from BIOL 1306/BIOL 1106 or BIOL 2401; and CHEM 1105/CHEM 1305 or PHYS 1375 or PHYS 1471.

**Consider CSDO 4223 as an elective.

Degree Requirements
Bachelor of Arts
Speech with Teaching Certification

Freshman Year				Junior Year			
ARTS 1201	2	*CISA 1301	3	COMS 2335	3	COMS 3304	3
COMS 1311	3	COMS 1313	3	EDED 3302	3	COMS 3331	3
ENGL 1301	3	COMS 2342	3	EDHL 1254	2	EDRG 4314	3
HIST 1301	3	ENGL 1302	3	Language (3rd)	3	Language (4th)	3
MATH 1314	3	HIST 1302	3	2nd Teaching Field	3	2nd Teaching Field	<u>3</u>
SOCI 2361	<u>3</u>	[^] Kinesiology	<u>1</u>	2nd Teaching Field	<u>3</u>		15
	17		16		17		
				Summer Session I and II			
				EDED 3333	3	COMS 4316	3
				2nd Teaching Field	<u>3</u>	2nd Teaching Field	<u>3</u>
					6		6
Sophomore Year				Senior Year			
ARTS 2301/MUSI 2301		COMM 1307	3	COMS 4331	3	EDED 3362	3
or THEA 2301	3	ENGL 2362	3	EDED 3332	3	EDED 4623	6
ENGL 2342	3	Language (2nd)	3	2nd Teaching Field	3	EDSE 4391	<u>3</u>
[^] Kinesiology	1	POLS 2302	3	2nd Teaching Field	3		12
Language	3	**Science (2nd)	<u>4</u>	2nd Teaching Field	<u>3</u>		
POLS 2301	3		16		15	Total Hours Reqd:	130-137
**Science	<u>4</u>						
	17						

Total hours vary depending on second teaching field.

*May take EDED 2301 plus 3 hours MATH/STAT/or PHIL 3301.

**Must be consecutive lab science.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements

Bachelor of Arts

Theatre Arts

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301	3	COMS 1311	3	Elective, adv.	3
ENGL 1301	3	ENGL 1302	3	Elective, adv.	3	Elective, adv.	3
HIST 1301	3	HIST 1302	3	Elective, adv.	3	Minor	3
^Kinesiology	1	^Kinesiology	1	^Kinesiology	1	Minor	3
MATH 1314	3	Modern Language	3	Minor	3	THEA, adv.	3
Modern Language	3	THEA 1121	1	THEA 3131	1	THEA 3132	<u>1</u>
THEA 1120	1	THEA 1322	<u>3</u>	THEA 3311	<u>3</u>		16
THEA 1241	<u>2</u>		17		17		
	18						
Sophomore Year				Senior Year			
ENGL 2342 or		ENGL 2342 or		Elective, adv.	3	Elective, adv.	3
ENGL2362	3	ENGL 2362	3	Minor	3	Minor, adv.	3
Modern Language	3	Modern Language	3	Minor	3	Minor, adv.	3
POLS 2301	3	POLS 2302	3	THEA, adv.	3	^Social/behavioral	3
*Science	4	*Science	4	THEA 3131	1	THEA 3132	1
THEA 1120	1	THEA 1121	1	THEA 4302	<u>3</u>	THEA 4308	<u>3</u>
THEA 2352	<u>3</u>	THEA 1330	<u>3</u>		16		16
	17		17				

Total Hours Required: 134

34 hours in Theatre Arts/19 advanced; 21 hours in minor field (art, communication, music, a modern language, a social science or other field approved by the department chair or 24 hours in English); 21 hours of electives to be approved by the adviser.

**Must be consecutive lab sciences.*

Degree Requirements

Bachelor of Arts

Theatre Arts with Teaching Certification

Freshman Year				Junior Year			
ARTS 1201	2	*CISA 1301	3	EDED 3302	3	Language (4th)	3
COMS 1311	3	ENGL 1302	3	^Kinesiology	1	**Science (same)	4
ENGL 1301	3	HIST 1302	3	Language (3rd)	3	2nd Teaching Field	3
HIST 1301	3	^Kinesiology	1	**Science	4	THEA 3132	1
MATH 1314	3	THEA 2352	3	THEA 3131	1	THEA Adv Elective	3
THEA 2301	<u>3</u>	THEA 1330	<u>3</u>	THEA 4302	<u>3</u>	THEA 4308	<u>3</u>
	17		16		15		17
Sophomore Year				Summer Session I and II			
ENGL 2342	3	EDHL 1254	2	2nd Teaching Field	<u>3</u>	2nd Teaching Field	3
Language (1st)	3	ENGL 2362	3		3	2nd Teaching Field	<u>3</u>
POLS 2301	3	Language (2nd)	3				6
THEA 1120	1	POLS 2302	3				
THEA 1241	2	2nd Teaching Field	3				
THEA 3311	<u>3</u>	THEA 1121	<u>1</u>				
	15		15				
Senior Year				Senior Year			
				EDED 3332	3	EDED 3362	3
				EDED 3333	3	EDED 4623	6
				EDRG 4314	3	EDSE 4391	<u>3</u>
				2nd Teaching Field	3		12
				SOCI 2361	<u>3</u>		
					15		
						Total Hours Reqd: 133-139	
Summer I and II							
2nd Teaching Field	<u>3</u>	2nd Teaching Field	<u>3</u>				
	3		3				

Total hours vary depending on second teaching field.

**May take EDED 2301 plus 3 hours MATH/STAT/or PHIL 3301.*

***Must be consecutive lab sciences.*

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF HISTORY (HIST)

Dean T. Ferguson, *Chair*

Rhode Hall 263. MSC 166. Extension 4106.

Regents Professor

L. Hunter

Professors

Davis, Huebel

Associate Professors

Ferguson, Knight, Melendy

Assistant Professors

Baker, Houf, Tuller

Teaching Retiree

Barragy

Faculty Emeriti

Albro, Chandler, Rayburn

A Bachelor of Arts degree in History prepares students for careers in law, education, government, business and the military and for study culminating in an advanced or professional degree.

A major in History requires completion of 33 semester hours in History, consisting of five required courses and six elective courses.

A minor in History requires completion of 21 semester hours in History, consisting of five required courses and two elective courses.

Students majoring or minoring in History must complete the introductory courses, HIST 1301, HIST 1302 and HIST 2321 and HIST 2322. They must complete HIST 3301 prior to or concurrently with their first upper-level elective course.

Upper-level courses are grouped into four areas of study: United States, Europe, Latin America and Non-western. Majors must take at least one upper-level course in each of three of these four areas of study. Majors must complete at least one 4000-level Crucial Topics course in which they will produce a significant research paper, which will serve as a senior thesis.

1301-1302. American History. (HIST 1301) (HIST 1302) 6(3-0)

A survey of the United States from the era of exploration to the present time. HIST 1301 extends through the period of Reconstruction (1877) and HIST 1302 includes the period following Reconstruction to the present.

2321-2322. The Development of World Civilization. (HIST 2321)(HIST 2322) 6(3-0)

The rise and fall of great world civilizations from pre-literary times to the present. Emphasis is on the political, religious, economic and cultural characteristics of these civilizations and their contributions to the contemporary world.

3301. Methods of Historical Research. 3(3-0)

Procedures and methods of historical research. Introduction to types of historical data, the analysis of sources, the use of computer techniques in historical research and the methods of historical writing. Prerequisite: 6 semester hours of history.

3312. Europe in the Middle Ages. 3(3-0)

Political, economic and cultural developments in Europe from the fall of the Roman Empire to the Renaissance. Prerequisite: 12 semester hours of History and/or Political Science.

3314. Great Britain Since 1603. 3(3-0)

Britain from the union of England and Scotland through the English Civil War, the Glorious Revolution, the rise and decline of the British Empire, to the present. Prerequisite: 12 semester hours of History and/or Political Science.

- 3316. Europe, 1815-1914.** 3(3-0)
Political, social and economic developments in Europe from the Congress of Vienna to the outbreak of World War I with emphasis on the rise of liberalism, nationalism and imperialism. Prerequisite: 12 semester hours of History and/or Political Science.
- 3318. Europe Since 1914.** 3(3-0)
Political, social and economic developments in Europe from World War I to the present. Prerequisite: 12 semester hours of History and/or Political Science.
- 3320. Russia.** 3(3-0)
Russia from the earliest times to the present with emphasis on the Soviet period. Prerequisite: 12 semester hours of History and/or Political Science.
- 3324. History of Technology and Society.** 3(3-0)
A historical study of the development of technology and the shaping of human societies. Prerequisites: 6 semester hours of History and 6 semester hours of Political Science.
- 3332. American Controversy and Conflict, 1816 to 1850.** 3(3-0)
Major questions of the period; sectionalism, national rights versus states' rights, the slavery issue, expansion in the continental United States. Prerequisites: 12 semester hours of History and/or Political Science.
- 3334. The Civil War and Reconstruction.** 3(3-0)
Secession, formation of the Confederacy, military campaigns and Reconstruction. Prerequisite: 12 semester hours of History and/or Political Science.
- 3336. America's Rise to World Power.** 3(3-0)
Progressivism, World War I, the 1920s, the Great Depression and World War II. Prerequisite: 12 semester hours of History and/or Political Science.
- 3338. The United States Since 1945.** 3(3-0)
Post-war abundance, the Cold War, social and cultural changes, the Vietnam era and the post-Nixon years. Prerequisite: 12 semester hours of History and/or Political Science.
- 3340. United States Social and Cultural History.** 3(3-0)
The development of American society and culture with emphasis on religious trends, ethnic groups and the family. Prerequisite: 12 semester hours of History and/or Political Science.
- 3342. United States Foreign Policy.** 3(3-0)
American foreign relations from the Revolution to the present with emphasis on the 20th century. Prerequisite: 12 semester hours of History and/or Political Science.
- 3344. American Frontier.** 3(3-0)
The influence of successive frontiers upon American political, economic and social development from the earliest settlements to 1890. Prerequisite: 12 semester hours of History and/or Political Science.
- 3346. Texas History.** 3(3-0)
Spanish background, Anglo-American settlement, the Revolution and Republic and statehood; economic, cultural and political development. Prerequisite: 12 semester hours of History and/or Political Science.
- 3348. History of the Mexican-American in the Southwest.** 3(3-0)
A survey from the first Spanish settlers to the present. Prerequisite: 12 semester hours of History and/or Political Science.
- 3350. Latin America.** 3(3-0)
Historical background of contemporary Latin America. Prerequisite: 12 semester hours of History and/or Political Science.

3356. Mexico. 3(3-0)
Political, economic and social history of Mexico from pre-Columbian times to the present. Emphasis on the last century.
Prerequisite: 12 semester hours of History and/or Political Science.

3360. Women in History. 3(3-0)
Investigation of the social, economic and political position of women from the Renaissance to contemporary America and a comparison of the ideal expounded by different historical epochs with woman's actual role in each society. (Credit may not be obtained in both HIST 3360 or WMST 4360.) Prerequisite: 12 semester hours of History and/or Political Science.

3362. Economic History. 3(3-0)
Historical development of concepts and practices regarding money, banking, industry and commerce, agribusiness and labor.
Prerequisite: 12 semester hours of History and/or Political Science.

3370. Asian History. 3(3-0)
An introduction to political, social, cultural and economic Asian history from antiquity to the present. Emphasis on the study not only of important Asian leaders, cultures and societies, but also of the various religions and philosophies which originated in Asia.

4370. Crucial Topics in European History. 3(3-0)
Intensive seminar on a specialized topic in European history, culminating in the production of a significant research paper. May be repeated for credit as the topic changes. Prerequisite: HIST 3301 and one other advanced History course.

4380. Crucial Topics in United States History. 3(3-0)
Intensive seminar on a specialized topic in United States history, culminating in the production of a significant research paper. May be repeated for credit as topic changes. Prerequisite: HIST 3301 and one other advanced History course.

4392. Crucial Topics in Latin American History. 3(3-0)
Intensive seminar on a specialized topic in Latin American history, culminating in the production of a significant research paper. May be repeated for credit as the topic changes. Prerequisite: HIST 3301 and one other advanced History course.

4396. Crucial Topics in Non-Western History. 3(3-0)
Intensive seminar on specialized topics in Non-Western history, culminating in the production of a significant research paper. May be repeated for credit as the topic changes. Prerequisites: HIST 3301 and one other advanced History course.

**Degree Requirements
Bachelor of Arts
History**

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301*	3	Elective, adv.	3	Electives, adv.	3
COMS 1311	3	ENGL 1302	3	HIST 3301 or		HIST, adv.	6
ENGL 1301	3	HIST 1302	3	HIST 4368	3	^Kinesiology	1
HIST 1301	3	^Kinesiology	1	HIST, adv.	3	Minor	6
MATH or PHIL 3301	3	Mod Lang (2nd)	3	^Kinesiology	1		16
Mod Lang (1st)	3	^Social/behavioral	3	Minor	3		
	17		16	^Visual/performing	3		
					16		
Sophomore Year				Senior Year			
ENGL 2342	3	ENGL 2362	3	Electives, adv.	6	Electives, adv.	3
HIST 2321	3	HIST 2322	3	HIST, adv.	3	HIST, adv.	6
Lab Science (1st)	4	Lab Science (2nd)	4	Minor, adv.	3	Minor, adv.	6
Mod Lang (3rd)	3	Mod Lang (4th)	3		12		15
POLS 2301	3	POLS 2302	3				
	16		16				
						Total Hours Required:	124

**Degree Requirements
Bachelor of Arts
History with Teaching Certification**

Freshman Year				Junior Year			
ARTS 1201	2	EDED 2301	3	EDED 3302	3	EDED 3304	3
ENGL 1301	3	EDHL 1254	2	HIST 3301	3	**HIST, adv.	6
HIST 1301	3	ENGL 1302	3	HIST 3346	3	^Kinesiology	1
Lab Science (1st)	4	HIST 1302	3	^Kinesiology	1	Second Tch. Field	6-9
MATH 1314	3	Lab Science (2nd)	4	POLS 2301	3		16-19
Mod Lang (1st)	3	Mod Lang (2nd)	3	Second Tch. Field	3-6		
	18		18				
					16-19		
Sophomore Year				Senior Year			
ARTS2301/MUSI 2301 or THEA 2301	3	COMS 1311	3	EDED 3332	3	EDED 3362	3
ENGL 2342	3	ENGL 2362	3	EDRG 4314	3	EDED 4623	6
HIST 2321	3	HIST 2322	3	**HIST, adv.	9		9
Mod Lang (3rd)	3	Mod Lang (4th)	3	Second Tch. Field	3		
Second Tch. Field	3	POLS 2302	3		18	Total Hours Reqd:	132-138
SOCI 2361	3	Second Tch. Field	3				
	18		18				

Total hours vary depending on second teaching field.

Summer Session work may be advisable to reduce term loads.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

*Or other courses meeting the Computer Literacy Requirement described in an earlier section of this Catalog.

**Advanced History must be from approved listing for certification.

Degree Requirements
Bachelor of Arts
History with Teaching Certification
(Composite Social Studies Emphasis)

Freshman Year				Junior Year			
ARTS 1201	2	COMS 1311	3	ECON 2301	3	ECON 2302	3
ARTS 2301/MUSI 2301		EDED 2301	3	EDED 3302	3	EDED 3304	3
or THEA 2301	3	ENGL 1302	3	GEOG 1303	3	EDHL 1254	2
ENGL 1301	3	HIST 1302	3	*HIST, adv.	3	*HIST, adv.	6
HIST 1301	3	^ <i>Kinesiology</i>	1	HIST 3301	3	HIST 3346	3
MATH 1314	3	Mod Lang (2nd)	<u>3</u>	POLS, adv.	<u>3</u>	POLS 2304	<u>3</u>
Mod Lang (1st)	<u>3</u>		16		18		20
	17						
Sophomore Year				Senior Year			
ENGL 2342	3	ENGL 2362	3	EDED 3332	3	EDED 3362	3
GEOG 1301/GEOG 1101		GEOG 1405	4	EDRG 4314	3	EDED 4623	<u>6</u>
or GEOG 1302/ GEOG 1102	4	HIST 2322	3	GEOG 3331	3		9
HIST 2321	3	^ <i>Kinesiology</i>	1	*HIST, adv.	6		
Mod Lang (3rd)	3	Mod Lang (4th)	3	POLS, adv.	<u>3</u>	Total Hours Required: 134	
POLS 2301	3	POLS 2302	<u>3</u>		18		
SOCI 2361	<u>3</u>		17				
	19						

Summer Session work may be advisable to reduce term loads.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

**Advanced History must be from approved listing for certification*

DEPARTMENT OF LANGUAGE AND LITERATURE

Susan L. Roberson, *Chair*

Fore Hall 110. MSC 162. Extension 2516.

Regents Professor

Thomas

Professors

Halford, Mucchetti, Sabrio

Associate Professors

Richard, Roberson

Assistant Professors

Dorado, Downs, Johnson-Vela

Visiting Assistant Professor

Vela Cordova

Lecturers

Acuff, Borse, Cypher, Hailey, Hostetler, Johnson, Ktiri-Idrissi, Morin, Tanner

Faculty Emeriti

Gunn, Herrick, Rhode, Rovira, Smith

The department provides instruction in the fields of English, French and Spanish.

Special Notations for French and Spanish:

1. Students who have successfully completed a 2000- or 3000-level course in the same language with a grade of *C* or better may not take a less advanced course in the same language for credit.
2. Students who completed their secondary education in an institution where a foreign language was the principal language of instruction cannot enroll in elementary or intermediate courses in that language.
3. A maximum of 12 semester hours of college credit in first or second level for previously completed work in foreign languages may be allowed. Credit may be obtained in one of three ways: (1) by achieving an acceptable score in the CEEB Advanced Placement Examination (this examination must be taken prior to first registration at A&M-Kingsville; see "Credit by Advanced Placement Examination [CEEB]" for details); (2) by local examination (see "Credit by Local Examination" for details); or (3) by obtaining an acceptable score in the MLS Cooperative Foreign Language Test.

ENGLISH (ENGL)

1301. Rhetoric and Composition. (ENGL 1301)

3(3-0)

Study of English grammar and usage and the principles of effective expository and argumentative writing; development of reading skills; analysis of short essays as models for writing. Required of all freshmen.

1302. Rhetoric and Composition. (ENGL 1302)

3(3-0)

Continuation of ENGL 1301 with more exacting standards for writing skills and reading comprehension; analysis of short essays with an emphasis on argument, language and ideas. Includes research skills component. Required of all freshmen. Prerequisite: ENGL 1301.

2314. Technical Writing. (ENGL 2314)

3(3-0)

Scientific writing style and technical methods of exposition: definition, description, process, analysis and interpretation. Prerequisites: ENGL 1301, ENGL 1302.

2342. Readings in Poetry and Novel. (ENGL 2322)

3(3-0)

Study of poems and novels by American, British and world authors emphasizing the characteristics of each genre and further refining writing skills. Prerequisites: ENGL 1301, ENGL 1302.

- 2362. Readings in Short Story and Drama.** (ENGL 2323) 3(3-0)
Study of short stories and plays by American, British and world authors emphasizing the characteristics of each genre and further refining writing skills. Prerequisites: ENGL 1301, ENGL 1302.
- 3300. Special Topics in Writing.** 3(3-0)
Practice and refinement of the writing process with emphasis on audience, purpose and form, paying attention to rhetorical invention, arrangement and style appropriate to the particular topic. May be repeated when a different topic is scheduled. Prerequisite: completion of sophomore English requirement.
- 3373. Children's Literature.** 3(3-0)
Books for children from nursery school through middle school. Students participate in writing poetry, choral reading, book reviewing, story telling and responding to books in a variety of ways. Prerequisite: 6 semester hours of sophomore English.
- 3376. Mythology.** 3(3-0)
Greek and Roman mythology; epics of Western Europe, as background for the study of literature in the English language. Prerequisite: 6 semester hours of sophomore English.
- 3399. Special Topics in Literature or Language for Non-English Majors.** 3(3-0)
Readings in special topics such as science fiction, detective novels, Chicano literature, Black literature, women's studies or the dialects of American English. Prerequisite: completion of sophomore requirements in English.
- 4310. Introduction to Linguistics.** 3(3-0)
An introduction to the scientific study of language. Prerequisite: 6 semester hours of sophomore English.
- 4311. English Grammar and Usage.** 3(3-0)
The structure of the present-day English language, with attention to its varieties and history. Prerequisite: 6 semester hours of sophomore English.
- 4322. British Literature of the Middle Ages.** 3(3-0)
Selected readings in translation from Old English to Middle English poetry and prose, with emphasis on *Beowulf*, the Arthurian legends and the *Canterbury Tales*. Prerequisite: 6 semester hours of sophomore English.
- 4325. Literature of the British Renaissance.** 3(3-0)
Selected readings in poetry, prose and non-Shakespearean drama of the 16th and 17th centuries. Prerequisite: 6 semester hours of sophomore English.
- 4327. Restoration and Eighteenth-Century British Literature.** 3(3-0)
The period from 1660 to 1800 with representative works of the major writers in verse, prose and drama. Prerequisite: 6 semester hours of sophomore English.
- 4331. The Major Plays of Shakespeare.** 3(3-0)
A close analysis of representative comedies and histories and the major tragedies. Prerequisite: 6 semester hours of sophomore English.
- 4341. Studies in the British Novel.** 3(3-0)
Study of significant British novels, with emphasis upon such authors as Fielding, Richardson, Eliot, Hardy, Burgess and Joyce. Prerequisite: 6 semester hours of sophomore English.
- 4343. Nineteenth-Century British Literature.** 3(3-0)
Major writers of the Romantic and Victorian periods. Cultural background and representative works, including poetry and nonfiction prose. Prerequisite: 6 semester hours of sophomore English.
- 4346. Twentieth Century British Literature.** 3(3-0)
Chief modern British writers of poetry, prose and drama. Prerequisite: 6 semester hours of sophomore English.

4361. Studies in the American Novel. 3(3-0)
Study of significant American novels. Emphasis may be on historical development, certain periods, special topics treated by American novelists or varieties of American fiction. Prerequisite: 6 semester hours of sophomore English.

4365. Colonial and Nineteenth-Century American Literature. 3(3-0)
Survey of the chief nineteenth-century poets and prose writers, with some attention to their colonial predecessors. Prerequisite: 6 semester hours of sophomore English.

4366. Twentieth-Century American Literature. 3(3-0)
Survey of the chief twentieth-century American poets and prose writers. Prerequisite: 6 semester hours of sophomore English.

4370. Special Topics in Literature or Language. 3(3-0)
Selected topics in British or American literature and/or world literature and language. A topic for intensive investigation will be selected for each offering of the course. May be repeated once for credit. Prerequisite: 6 semester hours of sophomore English. (Credit may not be obtained in both ENGL 4370, when topic is taught from a women's studies perspective and WMST 4370.)

4384. Studies in Drama. 3(3-0)
Selected topics in American, British or Continental drama. Emphasis may be on historical development, certain periods or some other approach to the study of drama. May be repeated once when a different topic is scheduled. Prerequisite: 6 semester hours of sophomore English.

4390. Explorations in English. 3(3-0)
An integrated study of language, language activities, composition, the composing process, literature, relating literature and reading and mass media. Current research will be explored. Prerequisite: 9 advanced hours of English.

FRENCH (FREN)

1311. Elementary French I. (FREN 1311) 3(3-0)
For students without previous knowledge of the language. An introductory course teaching the fundamentals of French in order to develop listening, speaking, reading and writing abilities. Language laboratory required.

1312. Elementary French II. (FREN 1312) 3(3-0)
Continuation of FREN 1311. Language laboratory required. Prerequisite: FREN 1311 or departmental approval.

2311. Intermediate French. (FREN 2311) 3(3-0)
Continuation of FREN 1312. Emphasis on speaking and listening abilities. Language laboratory required. Prerequisite: FREN 1312 or two or more years of high school French with departmental approval.

2312. Intermediate French. (FREN 2312) 3(3-0)
Continuation of FREN 2311. Emphasis on reading and writing abilities. Language laboratory available. Prerequisite: FREN 1312 or two or more years of high school French with departmental approval.

3301. Advanced Grammar and Composition. 3(3-0)
The basic principles and formal study of grammar. Prerequisite: 12 semester hours of French.

3321. French Literature to 1800. 3(3-0)
History of French literature in the Middle Ages, Renaissance and classical period through the 18th century. Conducted in French. Prerequisite: 12 semester hours of French.

3322. French Literature from 1800. 3(3-0)
History of French literature from 1800 through contemporary literature. Conducted in French. Prerequisite: 12 semester hours of French.

4301. Advanced Written and Oral Composition. 3(3-0)
Written and oral presentations: expository, persuasive, narrative and descriptive. Prerequisite: 3 semester hours of advanced French.

4310. Selected Topics in French Civilization and Literature. 3(3-0)
Topics include aspects of French civilization such as art, music and cinema and themes presented through all literary genres such as changing roles in society, education, religion and justice. Conducted in French. May be repeated for credit as topic changes. Prerequisite: 6 semester hours of advanced French.

SPANISH (SPAN)

1301. Elementary Spanish I. 3(3-1)
An introductory course for students who possess a passive or spoken knowledge of Spanish and who wish to develop greater competency in Spanish. Stress on the four basic skills: listening, speaking, reading and writing. Language laboratory required.

1302. Elementary Spanish II. 3(3-1)
Continuation of SPAN 1301. Language laboratory required. Prerequisite: SPAN 1301 or departmental approval.

1313. Elementary Spanish I. (SPAN 1311) 3(3-1)
Open only to students with little or no previous contact with the Spanish language. An introductory course teaching the fundamentals of Spanish in order to develop listening, speaking, reading and writing abilities. Language laboratory required.

1314. Elementary Spanish II. (SPAN 1312) 3(3-1)
Continuation of SPAN 1313. Language laboratory required. Prerequisite: SPAN 1313 or departmental approval.

2301. Intermediate Spanish I. 3(3-0)
A review of Spanish grammar and expansion of basic language skills. Selected readings by Hispanic writers. Conducted in Spanish. Language laboratory available. Prerequisite: SPAN 1302; SPAN 1314 or two or more years of high school Spanish with departmental approval.

2302. Intermediate Spanish II. 3(3-0)
Continuation of SPAN 2301. Language laboratory available. Prerequisite: SPAN 2301 or SPAN 2311.

2311. Intermediate Spanish I. (SPAN 2311) 3(3-1)
A review of Spanish grammar and expansion of basic language skills. Language laboratory required. Prerequisite: SPAN 1314 or three or more years of high school Spanish with departmental approval.

2312. Intermediate Spanish II. (SPAN 2312) 3(3-0)
Continuation of SPAN 2311. Language laboratory required. Prerequisite: SPAN 2311.

3301. Advanced Spanish Grammar. 3(3-0)
A review of the basic principles of Spanish grammar to be followed by a detailed study of the finer points of grammar and syntax. Prerequisite: SPAN 2302 or SPAN 2312.

3302. Spanish Composition. 3(3-0)
Literary and technical writing and composition; instruction and practice in basic writing; analysis of different literary prose pieces as models for writing. Conducted in Spanish. Prerequisite: SPAN 2312 or SPAN 2302.

3321. Survey of Spanish Peninsular Literature. 3(3-0)
The history of Spanish literature from its beginning to the present. Conducted in Spanish. Prerequisite: SPAN 2302 or SPAN 2312.

3361. Survey of Spanish-American Literature. 3(3-0)
The history of Spanish-American literature from its beginning to the present. Conducted in Spanish. Prerequisite: SPAN 2302 or SPAN 2312.

4311. Spanish Linguistics. 3(3-0)
A detailed linguistic study of Spanish and a contrastive comparison with English. Prerequisite: SPAN 2302 or SPAN 2312.

4319. Hispanic Culture. 3(3-0)
Survey of Hispanic culture. Main aspects of culture as found in Spain, Spanish America and the Hispanic communities in the U.S.A. Conducted in Spanish. Prerequisite: SPAN 2302 or SPAN 2312.

4320. Topics in Spanish Literature. 3(3-0)
Topics in Spanish American and Spanish Peninsular literature. Conducted in Spanish. May be repeated as topics change. Prerequisites: SPAN 2302 or SPAN 2312.

Degree Requirements

Bachelor of Arts

English

Freshman Year			Junior Year		
ARTS 1201	2	*ARTS 2301, MUSI 2301		Elective	3
ENGL 1301	3	or THEA 2301	3	ENGL 4322, ENGL 4325,	3
FREN 1311 or		CISA 1301 or		ENGL 4327 or	
SPAN 1303/SPAN	1311	EDED 2301	3	ENGL 4384	3
	3	ENGL 1302	3	ENGL 4331	3
HIST 1301	3	FREN 1312 or		^ <i>Kinesiology</i>	1
MATH 1314	<u>3</u>	SPAN 1302/SPAN	1314	Minor, adv.	3
	14		3	POLS 2301	3
		HIST 1302	<u>3</u>		16
			15		
Sophomore Year			Senior Year		
COMS 1311/		ENGL 2342 or		Elective, adv.	3
COMS 1315/		ENGL 2362	3	ENGL, adv.	3
COMS2335	3	FREN 2311/FREN 2312		ENGL 4361, ENGL 4365,	
ENGL 2342 or		or SPAN 2302/		ENGL 4366 or	
ENGL 2362	3	SPAN 2312	3	ENGL 4370	3
FREN 2311/FREN 2312		Minor or elective	3	Minor, adv.	3
or SPAN 2301/		PSYC 2301 or		Minor or elective, adv.	<u>3</u>
SPAN 2311	3	SOCI 1301/SOCI 1306/			15
^ <i>Kinesiology</i>	1	SOCI 2361	3		
Minor or elective	3	Science w/lab	<u>4</u>		
Science w/lab	<u>4</u>		16		
	17				
Total Hours Required: 124					

*Or any 3 SCH of lab or studio courses from Art, Music, Theatre Arts.

**To be chosen from PHIL 1301/3301/3321/3322 or RELG 1301/3339.

All courses must be approved by the department.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Arts
English with Teaching Certification

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301 or		ENGL 3376/		EDED 3302	3
*ARTS 2301/		EDED 2301	3	ENGL 4331/		EDED 3333	3
MUSI 2301 or		COMS 1311	3	ENGL 4370/		ENGL 4341/	
THEA 2301	3	ENGL 1302	3	ENGL4384	3	ENGL 4343/	
ENGL 1301	3	FREN 1312 or		ENGL 4322/		ENGL 4346/	
FREN 1311 or		SPAN 1302/		ENGL 4325/		ENGL 4384	3
SPAN 1301/SPAN 1313		SPAN 1314	3	ENGL 4327/		ENGL 4361/	
	3	HIST 1302	3	ENGL4384	3	ENGL 4365/	
HIST 1301	3	^ <i>Kinesiology</i>	<u>1</u>	Second Tch. Field	3	ENGL 4366/	
MATH 1314	<u>3</u>		16	Second Tch. Field	3	ENGL 4370	3
	17			Second Tch. Field	3	Second Tch. Field	<u>3</u>
				Second Tch. Field	<u>3</u>		15
					18		
Sophomore Year				Senior Year			
ENGL 2342 or		EDHL 1254	2	EDED 3332	3	EDED 4623	6
ENGL2362	3	ENGL 2342 or		EDED 3362	3	EDRG 4314	3
FREN 2311/FREN 2312		ENGL 2362	3	ENGL 4310 or		EDSE 4391	<u>3</u>
or SPAN 2301/		FREN 2311/FREN 2312		ENGL 4311			12
SPAN 2311	3	SPAN 2302/		(preferred)	3	Total Hours Req'd: 128-139	
^ <i>Kinesiology</i>	1	SPAN 2312	3	ENGL 4361/			
POLS 2301 or		POLS 2301 or		ENGL 4365/			
POLS 2302	3	POLS 2302	3	ENGL 4366/			
Science w/lab	4	Science w/lab	4	ENGL 4370	3		
SOCI 2361	<u>3</u>	Second Tch. Field	<u>3</u>	ENGL 4390	<u>3</u>		
	17		18		15		

Total hours vary depending on second teaching field.

EDED courses should follow sequence suggested here.

English courses must be approved by the department. Second teaching field courses must be approved by pertinent department.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

**Degree Requirements
Bachelor of Arts
Spanish**

Freshman Year			Junior Year		
ARTS 1201	2	*ARTS 2301, MUSI 2301		^Kinesiology	1
CISA 1301 or		or THEA 2301	3	Minor, adv.	3
EDED 2301	3	COMS 1311/		POLS 2301	3
ENGL 1301	3	COMS 1315/		**PSYC/SOCI	3
HIST 1301	3	COMS 2335	3	SPAN 3301	3
MATH 1314	3	ENGL 1302	3	SPAN 3321	<u>3</u>
SPAN 1301 or		HIST 1302	3		16
SPAN 1313	<u>3</u>	^Kinesiology	1		16
	17	SPAN 1302 or			
		SPAN 1314	<u>3</u>		
			16		
Sophomore Year			Senior Year		
Elective	3	Elective	3	Elective, adv.	3
ENGL 2342 or		Elective, adv.	3	Minor, adv.	3
ENGL 2362	3	ENGL 2342 or		Minor or elective	3
Minor or elective	3	ENGL 2362	3	Minor or elective, adv.	3
Science w/lab	4	Science w/lab	4	SPAN, adv.	<u>3</u>
SPAN 2301 or		SPAN 2302 or			12
SPAN 2311	<u>3</u>	SPAN 2312	<u>3</u>		
	16		16		
				Total Hours Required:	124

*Or any 3 SCH of lab or studio courses from Art, Music, Theatre Arts.

**To be chosen from PSYC 2301 or SOCI 1301/1306/2361.

***To be chosen from PHIL 2301, 3321, 3322, RELG 1301 or RELG 3339.

**Degree Requirements
Bachelor of Arts
Spanish with Teaching Certification**

Freshman Year			Junior Year		
ARTS 1201	2	CISA 1301 or		EDED 3302	3
ARTS 2301/THEA 2301/		EDED 2301	3	EDED 3333	3
MUSI 2301	3	COMS 1311	3	Second Tch. Field	3
ENGL 1301	3	ENGL 1302	3	SPAN 3302 or	
HIST 1301	3	HIST 1302	3	SPAN 4311	3
MATH 1314	3	^Kinesiology	1	SPAN 3361	<u>3</u>
SPAN 1301 or		SPAN 1302 or			15
SPAN 1313	<u>3</u>	SPAN 1314	<u>3</u>		
	17		16		
Sophomore Year			Senior Year		
ENGL 2342 or		EDHL 1254	2	EDED 3332	3
ENGL 2362	3	ENGL 2342 or		EDED 3362	3
^Kinesiology	1	ENGL 2362	3	EDRG 4314	3
POLS 2301 or		POLS 2301 or		SPAN 3302 or	
POLS 2302	3	POLS 2302	3	SPAN 4320	3
Science w/lab	4	Science w/lab	4	SPAN 4319	<u>3</u>
SOCI 2361	3	Second Tch. Field	3		15
SPAN 2301 or		SPAN 2302 or			
SPAN 2311	<u>3</u>	SPAN 2312	<u>3</u>		
	17		18		
				Total Hours Reqd:	125-139

Total hours may vary depending on second teaching field.

EDED courses should follow sequence suggested here

All courses must be approved by the department. Second teaching field courses must be approved by pertinent department.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF MATHEMATICS

Margaret F. Land, *Interim Chair*

Rhode Hall 358. MSC 172. Extension 3517.

Professors

Bingham, Bodjanova, Cecil, Goode, Kay, Land, Morey, Wang, Wu

Associate Professors

Carroll, Sedory, Thurston

Lecturers

Campbell, Sabrio

Faculty Emeriti

Kowalik

The department offers several programs designed to give the student an insight into the structure and applications of mathematics necessary for industrial or governmental employment, teaching or pursuit of an advanced degree in mathematics.

Students are allowed to register for freshman mathematics courses appropriate to their high school mathematics preparations and/or entrance examination scores as determined by the department.

MATHEMATICS (MATH)

1314. College Algebra. (MATH 1314) 3(3-0)

College-level topics in algebra including functions, graphs, variation, piecewise defined functions, equations of lines, elementary curve fitting, quadratic equations and functions, systems of linear and nonlinear equations, composition of functions, inverse functions, exponential and logarithmic functions and applications related to these topics. Prerequisite: two years of high school algebra and/or appropriate scores on mathematics placement tests.

1316. Trigonometry. (MATH 1316) 3(3-0)

Fundamental notions and definitions, functions of angles, logarithms, circular measure, solution of triangles. Required of all engineering students. Prerequisite: two years of high school algebra or MATH 1314 (MATH 1314 and MATH 1316 may be taken concurrently.)

1324. Mathematics for Business and Economics I. (MATH 1324) 3(3-0)

A course designed for students in business administration. Selected topics from finite mathematics including: linear inequalities, vectors, matrices, linear programming and probability. Prerequisite: two years of high school algebra and/or appropriate scores on mathematics placement tests. Laboratory fee, \$5.

1325. Mathematics for Business and Economics II. (MATH 1325) 3(3-0)

Applications of the theory of extrema. Area under a curve and its applications. Introduction to statistical measures. Prerequisite: MATH 1314 or MATH 1324.

1334. Contemporary Mathematics. 3(3-0)

An introduction to several contemporary applications of mathematics for the nonmajor. Emphasis is on the variety of problems which can be modeled and solved by analytic and quantitative means. Topics will vary, but may include such as: applications of graph theory to management problems; encoding and encrypting information; problems of social choice-fair division, voting systems, conflict; topics in geometry; and data analysis. Prerequisites: ALGE 0301 and/or appropriate scores on mathematics placement tests.

1348. Analytic Geometry. (MATH 1348) 3(3-0)

Equations and their graphs. Cartesian and polar coordinates, the straight line, circles and conic sections. Operations with vectors, the dot and cross product. Prerequisites: MATH 1314 and MATH 1316.

1350. Fundamentals of Mathematics I. 3(3-0)
Problems from number theory, number systems, systems of operations and proportional reasoning. Requires approaching problems from multiple perspectives, drawing connections among those perspectives and strengthening flexibility and fluency in mathematical thinking and communicating. Not applicable for credit in the physical sciences or engineering. Prerequisite: MATH 1314 or higher.

1351. Fundamentals of Mathematics II. 3(3-0)
Problems from probability, statistics, measurement, geometry and spatial thinking. Requires approaching problems from multiple perspectives, drawing connections among those perspectives and strengthening flexibility and fluency in mathematical thinking and communicating. Not applicable for credit in the physical sciences or engineering. Prerequisite: MATH 1350.

2313. Calculus I. (MATH 2313) 3(3-0)
Limits and continuity. Definition of the derivative of a function and techniques of differentiation. Applications of the derivative to maximizing or minimizing a function, curve sketching and rate of change problems. Introduction to the integral of a function, with an application to areas. Prerequisite: MATH 1348.

2314. Calculus II. (MATH 2314) 3(3-0)
This course is a continuation of MATH 2313. Differentiation and integration of logarithmic, exponential and trigonometric functions. Techniques of integration. Applications of the integral to problems such as volumes of revolution, work, arc length and fluid pressure. Prerequisite: MATH 2313.

3315. Calculus III. 3(3-0)
This course is a continuation of MATH 2314. Topics to be covered include sequences, series, expansion of functions, multiple integrals and partial derivatives. Prerequisite: MATH 2314. Laboratory fee, \$5.

3320. Differential Equations. 3(3-0)
The ordinary differential equations of physics, chemistry and engineering; methods for their solution and the properties of their solution. Introduction to partial differential equations. Prerequisite: MATH 2314. Laboratory fee, \$5.

3325. An Introduction to Mathematical Proofs. 3(3-0)
Principles and techniques of discovering and writing correct mathematical proofs. Independently prove theorems from various areas in mathematics, which may include topics from logic, the structure of the real number system, number theory, geometry and algebra. Prerequisite: MATH 2313.

3340. Linear Algebra with Applications. 3(3-0)
Systems of linear equations. Matrices and determinants. Vector spaces, subspaces, bases and dimension. Linear transformations and their representations by matrices. Orthogonality, eigenvectors and diagonalization. Not applicable for credit in the physical sciences or engineering. Prerequisite: MATH 2313. Laboratory fee, \$5.

3360. Modern Geometry. 3(3-0)
Axiomatic approach, set theory and applications in geometry. Not applicable for credit in the physical sciences or engineering. Prerequisite: MATH 3325.

3370. Discrete Mathematics. 3(3-0)
This course covers many topics in mathematics which are important in computer science. Some of these topics are sets, relations, functions, algorithms, graphs, monoids, lattices, Boolean algebras and graphs. Prerequisite: 3 semester hours of advanced mathematics. Laboratory fee, \$5.

3371. Problem Solving with Computers. 3(3-0)
Brief historical overview of computing and computers; strategies for solving problems by computers; programming in a higher level language. Not applicable for credit in the physical sciences or engineering. Prerequisite: MATH 2313. Laboratory fee, \$5.

3390. Selected Topics in Mathematics. 3(3-0)
Different topics will be covered at varying times. May be repeated for credit with consent of the instructor. Prerequisite: 3 semester hours of advanced mathematics.

4321. Real Variables. 3(3-0)
The real number system, its structure and properties. Properties of real functions and sequences, including uniform continuity and the Cauchy criterion. Introduction to the theory of sets. Theory and application of the derivative. Introductory concepts of function spaces, norms and metrics. Prerequisite: 6 semester hours of advanced mathematics, including MATH 3325.

4340. Modern Algebra. 3(3-0)
Properties of the Integers: divisibility, prime factorization and congruences. Integral domains, rings and fields. Groups, permutations and cosets. A historical development of these topics is included. Not applicable for credit in the physical sciences or engineering. Prerequisite: MATH 3325.

4341. Linear Algebra and Matrix Theory. 3(3-0)
Vector spaces and their linear subspaces. Representation of linear transformations by matrices. Normal forms, eigenvalues, special transformations and applications. Prerequisite: 6 semester hours of advanced mathematics. Laboratory fee, \$5.

4370. Vector Analysis. 3(3-0)
Vector algebra and geometry. Scalar and vector products. Vector functions and motion in polar coordinates. Scalar and vector fields with applications to line and surface integrals. Prerequisites: MATH 3315 and MATH 3320 or equivalent.

4371. The Laplace Transformation and its Applications. 3(3-0)
An introduction to the theory of the Laplace Transformation. Applications to the solution of ordinary and partial differential equations, integral equations, difference equations and integro-differential equations. An introduction to other types of integral transformations. Prerequisites: MATH 3315 and MATH 3320.

4372. Mathematics for Physics and Engineering I. 3(3-0)
Infinite series, matrix methods, vector analysis, applied multivariate calculus and Fourier series. Prerequisites: MATH 3315 and MATH 3320 or their equivalent. Laboratory fee, \$5.

4373. Applications of Matrix Methods. 3(3-0)
Matrices and their inverses, determinants, eigenvalues and eigenvectors, Jordan canonical forms. Applications to simultaneous linear equations, matrix calculus and linear differential equations. Prerequisites: MATH 3315 and MATH 3320. Laboratory fee, \$5.

4374. Numerical Analysis. 3(3-0)
The mathematical formation of the concepts in numerical analysis. These concepts include the theory of errors, roots of equations, interpolation, linear systems of equations, numerical differentiation and integration and solutions of ordinary differential equations. Prerequisites: MATH 3315 and MATH 3320. Laboratory fee, \$5.

STATISTICS (STAT)

1342. Elementary Statistics. (MATH 1342) 3(3-0)
Elementary description of tools of statistics inference, including empirical and theoretical distributions, probability, sampling, treatment of both continuous and discrete data, correlation and applications to practical problems. Prerequisite: MATH 1314 or MATH 1324. Laboratory fee, \$5.

4301. Biometrics. 3(3-0)
Methods of analyzing biological data including testing for goodness of fit, contingency tables, testing one-sample and two-sample and paired-sample hypotheses, linear regression and correlation. Prerequisites: MATH 1314 or its equivalent and 15 semester hours of 3000- or 4000-level agriculture or biology courses. Laboratory fee, \$5.

4303. Statistical Methods.

3(3-0)

This course is designed as a service course for students majoring in agriculture, biology, engineering or a social science. Review of basic statistical concepts. Introduction to methods of analysis such as multiple regression, analysis of variance and the design of experiments. Emphasis will be placed on the efficient use of existing computer programs to obtain meaningful analyses. Prerequisite: MATH 2314 or an introductory statistics course. Laboratory fee, \$5.

4350. Probability.

3(3-0)

Sample spaces, combinatorics, independence, conditional probability and Bayes' rule. Discrete and continuous probability distributions, Chebychev's inequality and limit theorems. Prerequisite: MATH 3315.

**Degree Requirements
Bachelor of Arts
Mathematics**

Freshman Year			Junior Year				
ARTS2301/MUSI		@CHEM or PHYS	4	BIOL/GEOL/GEOG	4	BIOL/GEOL/GEOG	
2301/THEA 2301	3	COMS	3	#MATH, adv.	3	-same	4
BIOL 1201	2	ENGL 1302	3	#MATH 3315	3	#MATH, adv.	3
@CHEM or PHYS	4	HIST 1302	3	Minor	3	#MATH 3320	3
ENGL 1301	3	^Kinesiology	1	Modern Language	3	Minor	3
HIST 1301	3	#MATH 2313	3	POLS 2301	3	Modern Language	3
#MATH 1348	3		17		3	POLS 2302	3
	<u>18</u>				19		<u>19</u>
Sophomore Year			Senior Year				
Elect, adv	3	^Computer literacy	3	#MATH, adv.	3	Elective, adv.*	6-9
+ ENGL 2342/		ENGL 2362	3	#MATH 4321	3	#MATH, adv.	3
^Kinesiology	1	^Kinesiology	1	Minor, adv	6	MATH 4341 or	
^Literature/philosophy	3	#MATH 3325	3	^Social/behavioral	3	MATH 4373	3
#MATH 2314	3	Minor	0-3		15	Minor, adv.	3
Minor	0-3	Modern Language	3				<u>15-18</u>
Modern Language	3		13-16				
	<u>13-16</u>						
						Total Hours Reqd: 129-138	

Minor of 18-24 semester hours in any area except engineering, 6 of which must be advanced. (see "Recognized Minors" and requirements)

@Must include CHEM 1311/CHEM 1111 and CHEM 1312/CHEM 1112; or PHYS 1301/PHYS 1101 and PHYS 1302/PHYS 1102; or PHYS 2325/PHYS 2125; or PHYS 2326/PHYS 2126; or two semesters from PHYS 1311/PHYS 1111, PHYS 1312/PHYS 1112 and PHYS 1471.

**Degree Requirements
Bachelor of Science
Mathematics**

Freshman Year			Junior Year				
BIOL 1201	2	CHEM 1112	1	Freshman BIOL	3-4	Elective, adv.	3
CHEM 1111	1	CHEM 1312	3	^Kinesiology	1	ARTS 2301 /	
CHEM 1311	3	ENGL 1302	3	#MATH, adv.	3	MUSI 2301/	
ENGL 1301	3	HIST 1302	3	#MATH, adv.	3	THEA 2301	3
Freshman BIOL	3-4	#MATH 2313	3	Mod Lang (3rd)	3	#MATH 3320	3
HIST 1301	3	PHYS 2325/		Science for minor	3	Mod Lang (4th)	3
#MATH 1348	3	PHYS 2125	4		16-17	POLS 2301	3
	<u>18-19</u>		17			Science for minor,	
						adv	3
							<u>18</u>
Sophomore Year			Senior Year				
ENGL 2342	3	COMS	3	Advanced electives	6	#Advanced electives	
^Kinesiology	1	CSEN 2304	3	#MATH, adv.	3	(to complete 45 adv.	
#MATH 2314	3	ENGL 2362 or		#MATH 4321	3	hours on degree)	6
Mod Lang (1st)	3	ENGL 2314	3	POLS 2302	3	#MATH, adv	3
PHYS 2326/		^Kinesiology	1	Science, minor adv.	3	#MATH 4341/	
PHYS 2126	4	#MATH 3315	3		18	MATH 4373	3
^Social/behavioral	3	Mod Lang (2nd)	3			Science, minor adv	3
	<u>17</u>	MATH 3325	3				<u>15</u>
			19				
						Total Hours Reqd: 141-144	

Minor of 18-24 semester hours in one physical science or computer science.

**45 semester hours of advanced course work is required.*

#No mathematics course may be counted toward the degree unless the grade is at least a "C."

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

**Degree Requirements
Bachelor of Science
Mathematics
(Emphasizing Computational Mathematics)**

For this program the first two years are the same as the preceding except that STAT 1342 is to replace BIOL 1308/BIOL 1108, BIOL 1411 or BIOL1413 and that 6-8 hours of biology may be substituted in place of CHEM 1311, CHEM 1111, CHEM 1312 and CHEM 1112.

Junior Year			
CSEN 2330	3	CSEN 4363	3
Elective	3	#MATH, adv. elective	3
#MATH , adv.	3	#MATH 4373	3
#MATH 3320	3	Mod Lang (4th)	3
Mod Lang (3rd)	3	POLS 2302	3
POLS 2301	<u>3</u>	STAT 4303	<u>3</u>
	<u>18</u>		<u>18</u>
Senior Year			
ARTS 2301/MUSI 2301/THEA 2301	3	CSEN 4362 or CSEN 4366	3
CSEN 2328	3	Elective	3
CSEN 4361	3	#MATH 4321	3
^ <i>Kinesiology</i>	1	PHIL 3301	<u>3</u>
#MATH, adv. elective	<u>3</u>		<u>12</u>
	<u>13</u>		

**Degree Requirements
Bachelor of Arts
Mathematics with Teaching Certification**

Freshman Year				Junior Year			
BIOL 1201	2	@CHEM or PHYS	4	ARTS 2301, MUSI 2301,		EDED 3333	3
@CHEM or PHYS	4	EDED 2301	3	or THEA 2301	3	ENGL 2342	3
COMS 1311	3	ENGL 1302	3	EDED 3302	3	#MATH 3371	3
ENGL 1301	3	^ <i>Kinesiology</i>	1	#MATH 3315 or		#MATH 4320 or	
#MATH 1348	3	#MATH 2313	3	MATH 3320	3	MATH 4321	3
^ <i>Kinesiology</i>	<u>1</u>	#STAT 1342	<u>3</u>	#MATH 3360	3	Modern Language 4th	3
	<u>16</u>		<u>17</u>	Modern Language 3rd	3	POLS 2302	<u>3</u>
				POLS 2301	<u>3</u>		<u>18</u>
					<u>18</u>		
Sophomore Year				Summer Session I & II			
BIOL, GEOG or GEOL		BIOL, GEOG or GEOL		EDHL 1254	2		
HIST 1301	4	HIST 1302	4	EDED 3362	<u>3</u>		
#MATH , Adv	3	^ <i>Kinesiology</i>	1		<u>5</u>		
MATH 2314	3	#MATH 3325	3	Senior Year			
Modern Language 1st	<u>3</u>	#MATH 3370	3	EDED 3332	3	EDED 4623	6
	<u>16</u>	Modern Language 2nd	<u>3</u>	ENGL 2362	3	EDRG 4314	3
			<u>17</u>	#MATH 3340 or		EDSE 4391	<u>3</u>
				MATH 4341	3		<u>12</u>
				#MATH 4340 or			
				MATH 4342	3	Total Hours Required:	134
				SOCI 2361	<u>3</u>		
					<u>15</u>		

#No mathematics course may be counted toward the degree unless the grade is at least a "C."

**Apply for Admission to Teacher Education after 60 hours.

@Must include CHEM 1312 or PHYS 2326 and their prerequisites.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

MILITARY SCIENCE (ROTC)

U.S. ARMY ROTC

Mark Christopher Sansing, *Professor of Military Science*
ROTC Building, MSC 204. Extension 3201.

Professor

Sansing

Assistant Professors

Troia, Zoeller

Instructors

Baish, Vives

The department's objective is the development of selected men and women with potential to serve as commissioned officers in the active Army, National Guard or Army Reserve. A student who completes the program will have developed leadership and managerial potential; have a basic understanding of military fundamentals and the requirements of national security; have acquired an understanding of the fundamental concepts of military art and science; have developed a strong sense of personal honor, integrity and individual responsibility; and have developed a better understanding of human relationships. The leadership and management experience gained through Army ROTC and service as a commissioned officer will benefit the student in civilian as well as in military science and national defense pursuits.

Minor

A student may pursue an interdisciplinary minor in Military Science. Courses for a total of 22 semester hours should be selected in consultation with the Professor of Military Science.

Army Scholarship Program: Any student who meets prerequisites may compete for nationally awarded US Army scholarships which pay for tuition, books, fees and other purely educational costs and a tax-free monthly subsistence allowance for 10 months of each year the scholarship is in effect.

Army Training-Airborne and Air Assault or Other Training: Selected cadets may be eligible to compete for attendance at Airborne, Air Assault or other training as available. Selection is based upon motivation, physical condition and academic Military Science performance.

Veteran's Assistance: Veterans who enroll in upper level Military Science receive a tax-free monthly subsistence allowance for 10 months each of two years in addition to benefits provided by the Veterans' Administration, Veteran's Education Assistance Program or the GI Bill/Army College Fund.

Leadership Laboratory: Required for Military Science courses. Designed to give the student an opportunity to practice hands-on lessons learned in class. Students are placed in leadership roles executing scenarios that challenge their organizational skills through the use of small-unit tactics. Scenarios may involve survival, water safety, rappelling, map reading and land navigation and patrolling using paint ball equipment.

LOWER DIVISION MILITARY SCIENCE CURRICULUM

Lower division courses provide an opportunity for students to satisfy their curiosity about the U.S. Army by exploring their own interests and aptitudes in courses which carry no obligation for further study and no obligation for military service. All Military Science courses may be used to satisfy kinesiology of general education requirements.

1211. Ranger Challenge Laboratory.

2(1-2)

Practical leadership and teamwork training in rappelling, rope bridges, weapons firing, map reading and land navigation, water safety, patrolling and other ranger skills. Includes a weekend field trip where the techniques learned will be applied to competitive events. May be repeated for credit. Prerequisite: approval of the Professor of Military Science.

1301. Master Student and Basic Military Science. 3(2-2)

Designed as an introductory course for ROTC which develops the individual student's skills required for a successful academic experience. Stresses study skills in note taking, motivation, time management, memory, reading, writing, creativity, relationships and physical fitness. Includes a leadership laboratory and a weekend field trip.

1303. Marksmanship and Basic Military Science. 3(2-2)

Basic techniques of rifle and pistol marksmanship with practical experience on indoor range, plus an orientation in basic military science. Includes a leadership laboratory and a weekend field trip.

1304. Wilderness Survival and Basic Military Science. 3(2-2)

Designed to build individual confidence through development of survival skills and participation in adventure training. Stresses map reading, rappelling, cardio-pulmonary resuscitation (CPR) and fundamental military science skills. Includes a leadership laboratory and a weekend field trip.

2303. Leadership and Intermediate Military Science. 3(2-2)

An application of leadership principles and intermediate military skills, with emphasis on individual and squad level tactics, advanced land navigation and first aid techniques. Stresses physical fitness and provides adventure training. Includes a leadership laboratory. Prerequisites: ROTC 1303 and 1304 or approval of Professor of Military Science.

2304. Leadership and Intermediate Military Science. 3(2-2)

A continuation of the application of leadership principles and intermediate military skills. Management and motivational techniques are studied through placement of students in positions of small unit leadership. Stresses physical fitness and provides adventure training in leadership positions. Includes a leadership laboratory. Prerequisite: ROTC 1303, ROTC 1304 and ROTC 2303 or approval of Professor of Military Science.

UPPER DIVISION MILITARY SCIENCE CURRICULUM

The Advanced Military Science Program at A&M-Kingsville allows qualified students to earn a commission as a Second Lieutenant in the active Army, the Army Reserve or the National Guard. These courses also allow the first opportunity for most college students to make a formal and personal commitment to the preservation of the values embodied in the Constitution of the United States. For enrollment in upper level military science courses the student must meet these prerequisites:

- a. be enrolled as a full-time student (12 semester hours minimum for an undergraduate).
- b. be of good moral character as evidenced in the community and the university.
- c. have approximately two academic years remaining toward a baccalaureate degree or advanced degree (the requirement may be waived) and a minimum GPA of 2.0.
- d. meet medical fitness requirements as prescribed by U.S. Army regulations.
- e. either (1) satisfactorily complete any two of ROTC 1301, ROTC 1303 or ROTC 1304, then, ROTC 2303 and ROTC 2304; (2) possess qualification through any JROTC program (full or partial qualification depending upon participation); (3) satisfactorily complete the six-week summer basic camp at Fort Knox, Kentucky; (4) qualify through enlistment in the National Guard or Army Reserve (after successful completion of basic training); or (5) honorably complete enlisted service with a favorable reenlistment code, or have at least 60 semester hours and agree to attend the six-week summer basic camp at Fort Knox, Kentucky, the summer following enrollment in upper-level military science courses.

Qualified enrollment in upper division military science courses entitles each cadet to a tax-free monthly subsistence allowance for 10 months per year for two years.

3303. Advanced Military Science. 3(3-2)

Methods and techniques of planning, preparing and conducting individual and collective military training and operations. Leadership laboratory may be conducted off campus on weekends.

3304. Advanced Military Science. 3(3-2)

The leader's role in small unit tactics. Offensive and defensive operations, use and deployment of communication equipment, weapons and other tactical equipment. Leadership laboratory may be conducted off campus on weekends.

3405. Internship in Military Science. 4(15-25)
Six weeks of total environment training consisting of practical application of leadership and management skills. Formal instruction in tactics, techniques and skills required for all future officers. Prerequisites: ROTC 3303 and/or ROTC 3304 and full contract status with the U.S. Army.

4105. Advanced Military Science. 1(2-0)
Special problems course. Individual study. May be repeated for credit. Approval of Professor of Military Science required.

4303. Advanced Military Science. 3(3-2)
Problem definition and analysis, decision making, planning and organizing, functions of key staff members, interpersonal skills and oral communication. Leadership laboratory activities may be conducted off campus on weekends. Prerequisites: ROTC 3303 and/or ROTC 3304 or approval of Professor of Military Science.

4304. Advanced Military Science. 3(3-2)
Military implications of world political and economic changes as well as changes within American society. Also covered are unit administration, logistics, command and staff functions and the legal basis of the military justice system. Leadership laboratory activities may be conducted off campus on weekends. Prerequisites: ROTC 3303, ROTC 3304 and ROTC 4303 or approval of Professor of Military Science.

DEPARTMENT OF MUSIC (MUSI/MUSA)

Paul M. Hageman, *Chair*

Bellamah Music Building 112. MSC 174. Extension 2803.

Professors

Hageman, KingSanders, Sanders

Associate Professors

Burt, Cole

Assistant Professors

Anderson, Archambeault, Fluman, Gill, Kwak, Morgan, Sholtis, Stone, Warth

Visiting Assistant Professor

Gregory

Lecturer

Velez

Faculty Emeriti

Pierson, Stupp

The department serves three purposes: to provide training to qualified students for the music profession, to supply an area of artistic enrichment for nonmusic majors and to create a genuine musical influence on the entire university family. Students wishing to follow careers in professional teaching or performance should pursue the appropriate program. Students completing the degree with a major in music with teacher certification will qualify to receive the All-level Provisional Certificate, vocal or instrumental. This latter program will qualify successful candidates as teachers of music for all grades in Texas under certification regulations established by the Texas Education Agency. The department is an institutional member of the National Association of Schools of Music.

Minors and Electives

Qualified nonmusic majors may continue their music studies either as elective courses or as minor concentrations in applied music or general cultural music. Music ensembles are open to all university students with the consent of the instructors.

The following programs, which provide only nonprofessional training, are designed for those desiring the cultural enrichment of a minor in music:

Music Minor (Cultural): MUSI 1317, MUSI 1117, MUSI 2301, MUSI 2316, MUSI 2317, MUSI 2116, MUSI 2217, MUSI 2306, MUSI 4307, MUSI 4308 (24 semester hours).

Music Minor (Performance) -- MUSI 1316, MUSI 1317, MUSI 1116, MUSI 1117, MUSI 2306, four years of applied music on one instrument or voice at one lesson per week (8 hours) and ensemble participation for four years (8 or 12 hours); half recital required (27 semester hours-voice; 31 semester hours-instrumental).

Frank C. Smith Recital Hall and **Jones Auditorium**: The department presents student, faculty and guest recitals throughout the year, including the annual jazz festival, jazz bash, summer musical, Chopin Workshop, Kingsville Young Performers Competition, operettas, choir concerts and band concerts.

Majors

Department Placement Examinations

Entering undergraduate and graduate music majors will be given placement examinations prior to their first registration.

These examinations enable the student with an exceptional background or previous college training to proceed on the basis of this experience.

General Requirements

All full-time (12 semester hours or more) music majors are required to:

- a. All students seeking the Bachelor of Music with Teacher Certification degree must register for and participate in their prescribed major ensemble until they student teach.

- b. Register for applied music until degree requirements are completed. The student should have attained at least a 4000-level of proficiency and have satisfied all jury and recital requirements.
- c. Register for and pass a minimum of 4 semester hours of class piano (MUSI 1181, MUSI 1182, MUSI 2181, MUSI 2182). A student may test out of any semester of this requirement by successful completion of a piano proficiency exam. If the proficiency test is not passed at the completion of 4 semester hours of class piano, a student may continue to work independently for the exam. The student also has the option of retaking MUSI 2181 - MUSI 2182 or taking one credit of piano applied until the proficiency exam is successfully completed. This exam must be passed prior to registration for MUSI 3394, Advanced Music Concepts, (if in music with teacher certification) or prior to graduation (if performance major).
- d. Enroll in MUSI 1000, Recital Seminar. To receive credit for this non-tuition course, the student must attend all student departmental recitals and faculty recitals unless previously excused by applied faculty; and attend a minimum of ten approved concerts, recitals or University Interscholastic League approved music events per semester. Student must accumulate seven semesters of MUSI 1000 in order to graduate.
- e. Perform in at least one public recital per semester (if registered at 1000-level or above).
- f. Fulfill solo recital requirements as follows:

B.M. Performance	<u>Junior Year</u>	<u>Senior Year</u>
B.M. with Teacher Certification	Half Recital	Full Recital
B.A. Performance Minor		Half Recital
		Half Recital

A faculty hearing committee must approve the entire program at least two weeks prior to the recital performance date. The same committee will approve or disapprove the recital itself.

- g. Prior to the junior year or the time a student would normally have completed 60 semester hours, the student is required to file an official transcript in the music office in order that a degree plan may be prepared and meet with a faculty review committee to determine overall and music grade point average, progress in applied music and progress in keyboard proficiency, as well as whether the student has the necessary qualities to become a successful teacher (if in the field of music with teacher certification).
- h. Beginning in Fall 1995, students majoring in music must make at least a grade of C in every music course taken toward the degree. In sequential music courses, a grade of C must be made in order to progress to the next music course in the sequence.
- i. At the conclusion of the fourth semester of music theory (MUSI 2317-2117), students must take and pass the Sophomore Theory Exam in order to proceed to the upper level theory courses.

Music Theory

The sequence for music theory courses is as follows: MUSI 1316-1116, MUSI 1317-1117, MUSI 2316-2116, MUSI 2317-2117, MUSI 4318, MUSI 3312, MUSI 3314, (MUSI 4319 for performance majors only). Students must make a C or better in order to progress to the next course in the sequence.

1116. Introduction to Basic Aural Training. (MUSI 1116) 1(0-2)

Introduction to aural skills fundamentals including emphasis on melodic, harmonic dictation and sight-singing of music of various ethnic origins and historical style periods.

1117. Basic Aural Training. (MUSI 1117) 1(0-2)

Emphasis on dictation and sight-singing of music of various ethnic origins and historical periods. Prerequisite: MUSI 1116 with a grade of C or better, or a satisfactory score on the departmental Placement Exam (Music Theory).

1163. Jazz Theory and Improvisation. (MUSI 1163) 1(2-0)

A detailed look at the theory of jazz with respect to improvisation.

1164. Advanced Jazz Theory and Improvisation. 1(2-0)

A continuation and practical application of elements of Jazz Theory and Improvisation. Prerequisite: MUSI 1163.

1301. Materials of Music. (MUSI 1301) 3(2-2)

Fundamentals of music with emphasis on developing basic music reading skills on simple melody and/or keyboard instruments. May not apply toward music major or minor. Laboratory fee, \$5.

- 1316. Introduction to Basic Musicianship.** 3(3-0)
Introduction to music fundamentals and skills including pitch recognition in various clefs, rhythm competency, basic harmonic construction and recognition, harmonic and melodic usage in various historical style periods.
- 1317. Basic Musicianship.** 3(3-0)
Introduction to the fundamental elements of music (e.g. pitch, intensity, duration and timbre) and their interrelationship as the foundation of tonal harmonic structure. Prerequisite: MUSI 1316 with a grade of C or better or a satisfactory score on the departmental Placement Exam (Music Theory).
- 2116-2117. Intermediate Aural Training.** (MUSI 2116, MUSI 2117) 2(0-2)
Continuation of MUSI 1117.
- 2316-2317. Intermediate Musicianship.** 6(3-0)
Continuation of MUSI 1317.
- 3312. Orchestration.** 3(3-0)
A continuation and practical application of elements of Music Theory and Aural Training. Study of the compass, techniques and color of the instruments of the orchestra and band and their combinations. Projects in scoring in full orchestra, band and small ensembles.
- 3314. Composition.** 3(3-0)
The practical application of creative principles in analysis and original writing of the smaller forms. The course will include 18th Century counterpoint: two, three and four part writing, canon, fugue and double counterpoint. Prerequisites: MUSI 2316, MUSI 2317.
- 4318. Analytical Techniques I.** 3(3-0)
Aural and visual analysis techniques in all musical styles. All elements in music; form, vocal, piano, chamber and full orchestra scores.
- 4319. Analytical Techniques II.** 3(3-0)
A continuation of MUSI 4318. Required of performance music majors. Prerequisite: MUSI 4318.
- History and Literature of Music**
- 1162. Diction.** (MUSI 1162) 1(1-1)
Studies and practice in diction of French, German and Italian languages through use of vocal literature of 17th, 18th, 19th and 20th centuries.
- 2301. Structure of the Arts.** 3(2-4)
Art, music and theatre arts are combined in selected problems dealing with arts structure. Creative production is the result of studio activity and critique. Laboratory fee, \$5.
- 2306. Introduction to Music History and Literature.** 3(3-0)
Designed for music students with some background in music. Techniques of intelligent listening with historical perspective. Emphasis on basic concepts in music and their evolution: texture, form, tonality, etc. Listening techniques to develop aural sensitivity to stylistic features. Outside listening required.
- 2308. History of Jazz.** 3(3-0)
The study of the history and development of jazz music, including the various styles and influences that have shaped the many trends in jazz music. Jazz artists and recordings from both a musical and a historical perspective. Open to both music and non-music majors.
- 2310. History of Rock and Roll.** 3(3-0)
The history of rock music from its roots to its most recent trends, with the emphasis on rock as a musical style. Musical parameters (rhythm, harmony, melody, form, texture) as they apply to rock music. Thorough historical detail and social context for the various rock styles presented. Open to both music and non-music majors.

3302. Women and the Arts. 3(3-0)
Issues surrounding the participation of women in the arts. Selected women who have contributed to the visual and performing arts throughout history are studied in relation to the culture of their time and the principles related to the arts. No previous experience in theatre, art or music required. Prerequisite: completion of visual/performing arts component requirement. (Credit may be obtained in only one of ARTS 3302, MUSI 3302, THEA 3302 or WMST 3302.)

3320. Music of Many Cultures. 3(3-0)
Theories, practices and styles of traditional music of various cultures throughout the world such as Sub-Saharan Africa, India, Israel, Thailand, Bali, China, Japan, South America, Polynesia and Native America.

4307-4308. Music History and Literature. 6(3-0)
Development of musical styles, schools of composition, bibliography and evolution of the art of music. Outside listening required. Prerequisite: MUSI 2306.

Music Education

1190. Marching Band Techniques. 1(0-2)
Fundamentals of and the techniques involved in directing a marching band.

1195. Instruments for Elementary Music. 1(0-3)
Study of instruments used in the elementary music classroom including various recorders, the Orff instrumentarium (xylophone, metallophone, glockenspiel) and frame drum.

3196. Basic Conducting. 1(0-2)
Theory and practice of conducting for both vocal and instrumental groups, with emphasis on dealing with incomplete instrumentation and young performers in vocal and instrumental music. Include conducting techniques, score reading and analysis and rehearsal techniques.

3391. Foundations of Music. 3(3-0)
Develop a foundation for music literacy and skills through vocal expression, instrumental playing and movement. The basic elements of music; i.e., beat, rhythm, melody, form, timbre and harmony, will be covered. Laboratory fee, \$5.

3393. Elementary Music Concepts. 3(3-0)
The study of basic musical concepts for application in the elementary classroom, through performance and participation. Prerequisite: MUSI 1195. Laboratory fee, \$5.

3394. Advanced Music Concepts. 3(3-0)
Philosophy, content organization and discussion of the modern performance concepts of music. Emphasis placed on evaluation of musical concepts with analysis of consequent problems.

3397. Conducting II. 3(2-2)
Theory and practice of conducting and organizing groups at the secondary school level. Includes refining baton skills, score analysis, arranging/scoring techniques, performance practices of choral and instrumental ensembles, programming, rehearsal techniques and laboratory experience. Prerequisites: MUSI 3312 and MUSI 3196.

4330. Introduction to Orff Schulwerk. 3(3-0)
Philosophy and pedagogy of Orff Schulwerk. Emphasis on rhythmic speech, body percussion, singing, playing musical instruments appropriate for use by children, elemental forms, pentatonic folk melodies, soprano recorder and improvisation. Prerequisite: MUSI 3393.

4399. Special Problems. V:1-3
For advanced students in music who wish to pursue further some special field of learning. May be repeated for a maximum of 6 semester hours when problem changes.

Applied Music

The courses in applied music are designed to meet the requirements and desires of the students who wish to major in performance, to major in music with teacher certification or take applied music as an elective or minor, or to begin study in applied music to use as a teaching tool or as an area of enrichment where public performance is not the goal.

Instruction at the undergraduate and graduate levels is offered in the following areas:

Flute	Trumpet	Violin
Oboe	French Horn	Viola
Bassoon	Trombone	Cello
Clarinet	Euphonium	Double Bass
Saxophone	Tuba	Piano
	Percussion	Voice

Catalog Numbers:

The first of the four digits indicates level (i.e., 1-Freshman; 2-Sophomore; 3-Junior; 4-Senior; 5-Graduate); the second digit (1,2,3 or 4) indicates the number of semester hours credit and the minimum hours of daily practice; the third digit indicates the semester and the fourth digit is zero.

Students normally progress to the next higher level each year. Occasionally it may require more than one year of study to accomplish this progress. The progress of a student from one level of applied music to another is dependent on the jury held at the conclusion of each semester.

1000. Recital Seminar. 0(0-2)
Required of all music majors for seven semesters or until the student teaching experience. Attendance at each weekly departmental recital and ten additional recitals or concerts, including all faculty recitals. Credit/Noncredit.

Class Instruction

Classes are designed for the beginner in the various areas of performance. A minimum of two hours individual practice weekly is required.

1166. Woodwinds I. (MUSI 1166) 1(0-2)
Pedagogy and techniques of clarinet and saxophone. Laboratory fee, \$5.

1167. Woodwinds II. (MUSI 1167) 1(0-2)
Pedagogy and techniques of flute and double reed instruments. Laboratory fee, \$5.

1174. High Brass. 1(0-2)
Pedagogy and techniques of trumpet and French horn. Laboratory fee, \$5.

1175. Low Brass. (MUSI 1168) 1(0-2)
Pedagogy and techniques of trombone, euphonium and tuba. Laboratory fee, \$5.

1181. Piano Class. (MUSI 1181) 1(0-2)
Beginning study of piano with emphasis on functional aspects, e.g. basic techniques, scales, chords and simple transpositions. Laboratory fee, \$5.

1182. Piano Class. (MUSI 1182) 1(0-2)
Continuation of MUSI 1181. Laboratory fee, \$5.

1183. Voice Class. (MUSI 1183) 1(0-2)
The rudiments of vocal music, breathing, correct use of body muscle for breath control, diction and the development of tone will be studied. Technical development will include the study of interpretation, tone production, pronunciation and vocal expression.

1188. Percussion Class. (MUSI 1188) Laboratory fee, \$5.	1(0-2)
1189. String Class. (MUSI 1189) Laboratory fee, \$5.	1(0-2)
2181. Piano Class. (MUSI 2181) Functional piano. Continuation of MUSI 1182. Laboratory fee, \$5.	1(0-2)
2182. Piano Class. (MUSI 2182) Continuation of MUSI 2181. Laboratory fee, \$5.	1(0-2)

Ensembles

Ensembles perform on the campus and in various communities throughout Texas. Ensembles may serve as elective courses in any college of the university. A limited number of instruments are available to students who wish to join these groups. Credit in excess of four semesters in a single ensemble will be considered advanced.

1121. University Band. The University Band performs standard windband literature. Non-music majors are not required to audition.	1(0-4)
1122. Concert Band. The Concert Band includes in its repertoire major contemporary works composed for the windband as well as marches and transcriptions. Prerequisite: audition.	1(0-4)
1123. Symphony Orchestra. Highest levels of musicianship demonstrated through performance of respected orchestral literature. Prerequisite: audition.	1(0-3)
1131. Jazz Workshop. Performance, arranging and composition of music for the stage band in the modern jazz idiom.	1(0-3)
1132. Chamber Music. The study, preparation and performance of small-ensemble music in like-instrument groupings, mixed-instrument ensembles and vocal ensembles.	1(0-3)
1133. Mariachi. The study of mariachi music through instrumental and vocal performance.	1(0-3)
1141. Choir. Required of all voice majors. Study and performance of choral literature from the Renaissance to the present.	1(0-4)
1151. Singers. A select small mixed ensemble which performs music especially written for a vocal chamber group. Open by audition to all students.	1(0-3)
1157. Opera Workshop. (MUSI 1157) Study and performance of scenes and acts from operas as well as full operas. Practical experience in opera production including dramatic aspects of staged music-drama. Emphasis on integration of music, acting and staging.	1(0-5)
1159. Musical Theatre. (MUSI 1159) Study and performance of works from the musical theatre repertoire.	1(0-5)
1227. Marching Band. The <i>Pride of South Texas Marching Band</i> performs at the half-time of Texas A&M-Kingsville football games as well as selected other events. Required of all wind and percussion majors.	2(0-6)

3120. Symphonic Band. 1(0-4)
Highest levels of musicianship are demonstrated through performance of respected windband literature. Prerequisite: audition.

3131. Jazz Band I. 1(0-3)
The premiere instrumental jazz performance ensemble, Jazz Band I performs the highest level of jazz literature stressing improvisation and various styles of jazz. Prerequisite: audition.

3132. Advanced Chamber Music. 1(0-3)
The advanced study, preparation and performance of small-ensemble music in like-instrument groupings, mixed-instrument ensembles and vocal ensembles. Prerequisite: junior standing.

3227. Advanced Marching Band. 2(0-8)
The *Pride of South Texas Marching Band* performs at the halftime of Texas A&M-Kingsville football games as well as selected other events. Leadership skills and marching band teaching techniques are stressed. Prerequisite: completion of two semester of MUSI 1227.

Degree Requirements
Bachelor of Music
Music (Instrumental) with Teaching Certification

Freshman Year				Junior Year			
ARTS 1201	2	ENGL 1302	3	EDED 3310	3	EDESE 4391	3
COMS 1311	3	MUSI 1000	0	MUSI 1000	0	MUSI 1000	0
EDED 2301	3	MUSI 1117	1	MUSI 3196	1	MUSI 3120	1
ENGL 1301	3	MUSI 112X	1	MUSA 3210	2	MUSA 3220	2
MUSI 1000	0	MUSI 1182	1	MUSI 3227	2	MUSI 3312	3
MUSA 1110	1	MUSI 1195	1	MUSI 3393	3	MUSI 3394	3
MUSI 1181	1	MUSI 1317	3	MUSI 4307	3	MUSI 3397	3
MUSI 1183	1	MUSA 1120	1	MUSI 4318	3	MUSI 4308	3
MUSI 1227	2	Science	4	Sec. Inst.	1	Sec. Inst.	1
	<u>16</u>		<u>15</u>		<u>18</u>		<u>19</u>
Sophomore Year				Senior Year			
ENGL 2342 or		HIST 1302	3	EDED 3332	3	EDED 4623	6
ENGL 2362	3	MUSI 1000	0	EDED 3333	3	EDRG 4314	3
HIST 1301	3	MUSI 112X	1	MUSI 1000	0	POLS 2302	3
MATH 1314	3	MUSI 2182	1	MUSI 3227	2		<u>12</u>
MUSI 1000	0	MUSI 2117	1	MUSI 3314	3		
MUSI 1227	2	MUSA 2220	2	MUSA 4210	2		
MUSI 2116	1	MUSI 2306	3	POLS 2301	3		
MUSI 2181	1	MUSI 2317	3	Sec. Inst.	1		
MUSA 2210	2	PHYS 1471	4	SOCI 2361	3		
MUSI 2316	3	Sec. Inst.	1		<u>20</u>		
Sec. Inst.	1		<u>19</u>				
	<u>19</u>						
						Total Hours Required: 138	

Degree Requirements
Bachelor of Music
Music (Vocal) with Teaching Certification

Freshman Year				Junior Year			
ARTS 1201	2	ENGL 1302	3	EDED 3310	3	EDESE 4391	3
COMS 1311	3	[^] Kinesiology	1	MUSI 1000	0	MUSI 1000	0
EDED 2301	3	MUSI 1000	0	MUSI 1141	1	MUSI 1141	1
ENGL 1301	3	MUSI 1117	1	MUSI 1157	1	MUSI 3312	3
[^] Kinesiology	1	MUSI 1141	1	MUSI 3196	1	MUSA 3220	2
MUSI 1000	0	MUSI 1162	1	MUSA 3210	2	MUSI 3394	3
MUSA 1110	1	MUSI 1182	1	MUSI 3393	3	MUSI 3397	3
MUSI 1141	1	MUSI 1317	3	MUSI 4307	3	MUSI 4308	3
MUSI 1181	1	MUSA 1120	1	MUSI 4318	3	Sec. Inst.	1
MUSI 1195	1	Science	4	Sec. Inst.	1		<u>19</u>
	<u>16</u>		<u>16</u>		<u>18</u>		
Sophomore Year				Senior Year			
ENGL 2342 or		HIST 1302	3	EDED 3332	3	EDED 4623	6
ENGL 2362	3	MUSI 1000	0	EDED 3333	3	EDRG 4314	3
HIST 1301	3	MUSI 1141	1	MUSI 1000	0	POLS 2302	3
[^] Kinesiology	1	MUSI 2117	1	MUSI 1141	1		<u>12</u>
MATH 1314	3	MUSI 2182	1	MUSI 3314	3		
MUSI 1000	0	MUSA 2220	2	MUSA 4210	2		
MUSI 1141	1	MUSI 2306	3	POLS 2301	3		
MUSI 2116	1	MUSI 2317	3	Sec. Inst.	2		
MUSI 2181	1	PHYS 1471	4	SOCI 2361	3		
MUSA 2210	2		<u>18</u>		<u>20</u>		
MUSI 2316	3						
	<u>18</u>						
						Total Hours Required: 137	

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Music
Performance (Instrumental Major)

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301	3	HIST 1301	3	HIST 1302	3
ENGL 1301	3	ENGL 1302	3	MUSI 1000	0	MUSI 1000	0
MATH 1314	3	MUSI 1000	0	MUSI 3131 or		**MUSI 3120	1
MUSI 1000	0	MUSI 1117	1	MUSI 3132	1	MUSI 3131 or	
MUSI 1131 or		**MUSI 112X	1	MUSI 3196	1	MUSI 3132	1
MUSI 1132	1	MUSI 1131 or		**MUSI 3227	2	MUSI 3312	3
MUSI 1181	1	MUSI 1132	1	MUSA 3410	4	MUSI 3397	3
MUSA 1210	2	MUSI 1182	1	MUSI 4307	3	MUSA 3420	4
**MUSI 1227	2	MUSA 1220	2	MUSI 4318	3	MUSI 4308	3
	<u>14</u>	MUSI 1317	3		<u>17</u>		<u>18</u>
			<u>15</u>				
Sophomore Year				Senior Year			
MUSI 1000	0	MUSI 1000	0	<i>^Communication</i>	3	<i>^Literature/philosophy</i>	3
MUSI 1131 or		**MUSI 112X	1	MUSI 1000	0	MUSI 1000	0
MUSI1132	1	MUSI 1131 or		MUSI 3131 or		**MUSI 3120	1
**MUSI 1227	2	MUSI 1132	1	MUSI 3132	1	MUSI 3131 or	
MUSI 2116	1	MUSI 2117	1	**MUSI 3227	2	MUSI 3132	1
MUSI 2181	1	MUSI 2182	1	MUSI 3314	3	MUSI 4319	3
MUSI 2316	3	MUSI 2306	3	MUSA 4410	4	MUSA 4420	4
MUSA 2410	4	MUSI 2317	3	POLS 2301	3	POLS 2302	3
<i>^Science</i>	<u>4</u>	MUSA 2420	4	<i>^Social/behavioral</i>	3		<u>15</u>
	<u>16</u>	PHYS 1471	4		<u>19</u>		
			<u>18</u>				
						Total Hours Required:	132

***Keyboard majors may substitute MUSI 1141 for MUSI 1227, MUSI 3120, MUSI 1121 or MUSI 1122, but must satisfy Kinesiology requirements.*

Degree Requirements
Bachelor of Music
Performance (Voice)

Freshman Year				Junior Year			
ARTS 1201	2	CISA 1301	3	HIST 1301	3	HIST 1302	3
ENGL 1301	3	ENGL 1302	3	MUSI 1000	0	MUSI 1000	0
<i>^Foreign Language</i>	3	<i>^Kinesiology</i>	1	MUSI 1141	1	MUSI 1141	1
<i>^Kinesiology</i>	1	MUSI 1000	0	MUSI 1151		MUSI 1151 or	
MATH 1314	3	MUSI 1117	1	or MUSI 1157	1	MUSI 1157	1
MUSI 1000	0	MUSI 1141	1	MUSI 3196	1	MUSI 3312	3
MUSI 1141	1	MUSI 1162	1	MUSA 3410	4	MUSI 3397	3
MUSI 1181	1	MUSI 1182	1	MUSI 4307	3	MUSA 3420	4
MUSA 1210	2	MUSA 1220	2	MUSI 4318	3	MUSI 4308	3
	<u>16</u>	MUSI 1317	3		<u>16</u>		<u>18</u>
			<u>16</u>				
Sophomore Year				Senior Year			
<i>^Kinesiology</i>	1	MUSI 1000	0	<i>^Communication</i>	3	MUSI 1000	0
MUSI 1000	0	MUSI 1141	1	MUSI 1000	0	MUSI 1141	1
MUSI 1141	1	MUSI 1151 or		MUSI 1141	1	MUSI 1151 or	
MUSI 1151 or		MUSI 1157	1	MUSI 1151 or		MUSI 1157	1
MUSI 1157	1	MUSI 2117	1	MUSI 1157	1	MUSI 4319	3
MUSI 2116	1	MUSI 2182	1	MUSI 3314	3	MUSA 4420	4
MUSI 2181	1	MUSI 2306	3	MUSA 4410	4	POLS 2302	3
MUSI 2316	3	MUSI 2317	3	POLS 2301	3	Science	4
MUSA 2410	4	MUSA 2420	4	<i>^Social/behavioral</i>	3		<u>16</u>
THEA 1322	3	PHYS 1471	4		<u>18</u>		
	<u>15</u>		<u>18</u>				
						Total Hours Required:	133

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF PHYSICS AND GEOSCIENCES

Daniel J. Suson, *Chair*

Hill Hall 113. MSC 175. Extension 2618.

Regents Professor

Norwine

Professors

Cox, Hewett, McGehee, Suson

Associate Professor

Jordan

Assistant Professor

Leckenby

Lecturer

Buckley

Faculty Emeriti

Kruse

The Department of Physics and Geosciences serves the needs of three types of students: those majoring or minoring in geography, geology or physics; technical or pre-professional students; and students who take physics and geoscience courses out of interest or to satisfy science requirements. The department seeks to prepare students who are majoring or minoring in geography, geology or physics to successfully pursue a graduate degree in that or a related field, compete with graduates from other institutions for industrial and governmental positions or follow a career in science education. For students in technical areas, the department endeavors to provide the background necessary for success in their chosen profession. For non-technical majors, the department strives to enlighten students concerning some of the basic realities of our universe and to instill in them an appreciation of the methods of scientific inquiry and the impact of science on our modern world. Specific information applies to two of the programs in the department.

Geography

The geography major is designed for students pursuing a teaching career in geography or earth science, geographic information sciences (GIS), planning graduate studies in geography or environmental sciences or planning a geography-oriented career in business, industry or government. The program also serves those students who wish to fulfill the science requirement for their degree plan by taking courses in physical geography.

Students who want an understanding of urban issues may pursue a minor in urban studies. This minor relates to various careers such as urban planning, public administration (particularly, city and county management), zoning and subdivision administration, environmental planning and management, accounting, property development and management, location analysis, economic development, geographic information systems, remote sensing, transportation planning, public housing administration and marketing. A minor in urban studies requires a minimum of 18 semester hours. At least six hours must be drawn from each of the major subcategories and the following prescribed courses:

- 1) Political Science: POLS 4314, POLS 4315, POLS 4361, POLS 4370
- 2) Geography, Sociology and History: GEOG 3450, GEOG 4315, GEOG 4425, GEOG 4435, SOCI 3351, HIST 4380
- 3) Economics and Finance, Accounting, Business Administration: ECON 2301, ECON 2302, ACCT 2301, ACCT 4307, FINC 3344

Twelve hours must be from the 3000 to 4000 level.

Geology

The program is intended for students who expect to become professional geologists on graduation or who plan to pursue graduate studies in geology. It also seeks to meet the needs of students preparing for a teaching career in earth science, taking a minor in geology or fulfilling the science requirement for their degree plan by taking courses in geology.

The Bachelor of Science Degree in geology requires a minor of 18 to 24 hours in mathematics or a science or courses to fit one of two more generalized areas. Courses taken to satisfy a minor must be acceptable for a major in the same department.

Students should plan this phase of their course work in consultation with their adviser so that it will best support their career and educational goals. Minors available for the B.S. degree in Geology are as follows:

Biology minor: two courses from BIOL 1308/BIOL 1108, BIOL 1311/BIOL 1111 or BIOL 1313/BIOL 1113 and BIOL 3401 and/or BIOL 3405 and additional work to total 18 hours, including at least 6 advanced.

Chemistry minor: four chemistry courses, including two advanced, beyond CHEM 1311/CHEM 1111, CHEM 1312/CHEM 1112.

Mathematics minor: MATH 2314 and 6 hours advanced mathematics, beyond MATH 1314, MATH 1316, MATH 1348 and MATH 2313, to total at least 18 hours.

Physics minor: PHYS 2325/PHYS 2125, PHYS 2326/PHYS 2126 (in place of PHYS 1301/PHYS 1101, PHYS 1302/PHYS 1102) and additional work to total at least 18 hours, including 6 advanced.

Applied Computational Methods option: mathematics through MATH 2313 and three courses, including 6 advanced hours, from computer science, advanced statistics or advanced quantitative methods. Computer science hours applied toward this option must be in addition to any used in place of modern language.

Nonspecialized option: mathematics through MATH 2314 and two advanced courses in biology, chemistry, physics, mathematics or statistics to total at least 18 hours.

GEOGRAPHY (GEOG)

1101. Physical Geography: Meteorology Laboratory. 1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes greater understanding of concepts of meteorology presented in GEOG 1301. Prerequisite or corequisite: GEOG 1301. Laboratory fee, \$5.

1102. Physical Geography: Climate and Mankind Laboratory. 1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes greater understanding of concepts of climatology and its effect on human civilization, as presented in GEOG 1302. Prerequisite or corequisite: GEOG 1302. Laboratory fee, \$5.

1301. Physical Geography: Meteorology. (GEOG 1301) 3(3-0)

Earth motions and their meanings; system of location and time; composition and structure of the earth's atmosphere. Meteorology and weather prediction, including storms. Air pollution meteorology. Field trips will be arranged.

1302. Physical Geography: Climate and Mankind. (GEOG 1302) 3(3-0)

Climatic classification, types and world regions. Climatic change, fluctuations and their effects on human ecology (e.g., droughts). Agricultural and urban climatology. Microclimates. The distribution of soils and natural vegetation as related to climate. Field trips will be arranged.

1303. World Geography. (GEOG 1303) 3(3-0)

Major geographic regions of the world. Landscapes and peoples of continents; major culture realms and nations, resources, land-use and industries. Contrasts between developed and emerging nations.

1405. Physical Geography: Science and Environment. 4(3-2)

An introduction to the nature, history, philosophy, methods and significance of science generally and environmental science in particular, with particular emphasis on spatial aspects: the role of place. Field trips may be arranged. Laboratory fee, \$5.

- 3302. Introduction to Broadcast Meteorology.** 3(3-0)
Principles and practice of broadcast meteorology, a joint effort of the Department of Physics and Geosciences and Department of Communication and Theatre Arts. Introduction to television weather broadcasting with emphasis on creating accurate forecasts and on the techniques of communicating weather information to the public. Prerequisites: GEOG 1301 with GEOG 1302 recommended.
- 3305. Environmental Geography.** 3(3-0)
The nature, geographic distribution, use and misuse of global resources with emphasis on those of North America. Ecosystems, air, water, soil, mineral and energy resources will be considered. Prerequisites: 3 semester credit hours of Geography or a science course (see General Education Requirements natural sciences component).
- 3310. The World in Change: Crucial Topics in Contemporary Geography.** 3(3-0)
Intensive study of the geography of selected world "crisis" regions. Examples include the Middle East, Sub-Saharan Africa and the former U.S.S.R. and Eastern Europe. May be repeated for credit as the topic changes. Prerequisite: 6 semester hours of geography or 12 semester hours of social sciences.
- 3331. United States and Canada.** 3(3-0)
The regional aspects of landforms, climate, resources and peoples of United States and Canada. Prerequisite: 6 hours of geography or 12 hours of social science.
- 3335. Mexico and Middle America.** 3(3-0)
A regional study of the physical and cultural geography of Mexico, Central America and the Antillean Island, including adjacent waters. Prerequisite: 6 hours of geography.
- 3421. Geomorphology.** 4(3-3)
Description, classification and quantitative analysis of landforms and surface processes in relation to human development. Regional physiography of the United States and topographic map interpretation. May be used as geology credit. Field trip will be arranged. Prerequisite: GEOL 1302/GEOL 1102 or GEOL 1303/GEOL 1103, MATH 1316. Laboratory fee, \$5.
- 3450. Field Mapping, Cartography and Global Positioning.** 4(3-3)
The principles and practice of plane surveying and the global positioning system (GPS) and their interface with geographic information systems (GIS). Basic principles of cartography and use of cartographic tools and software. Management of cartographic data and GPS data. Local field trips will be arranged. Prerequisite: MATH 1314 and MATH 1316 or MATH 1324. Laboratory fee, \$5.
- 4315. Elements of Urban and Regional Planning.** 3(3-0)
Introduction to the historical development and practice of urban and regional planning in the United States. Particular focus on planning applications to housing, regional economics, transportation, environmental and water problems of South Texas and as appropriate, areas of the border areas of Mexico. Prerequisites: GEOG 1303 and any 3 additional hours in geography or HIST 1301 and HIST 1302 or POLS 2301 and POLS 2302 or consent of instructor.
- 4420. Special Topics in Geoscience.** V:1-4
Concepts, developments or discoveries in geography. May be repeated for a maximum of six semester hours credit. Prerequisite: 12 semester hours of geography and/or geology.
- 4425. Geographic Information Systems.** 4(3-3)
The acquisition, management, processing and interpretation of geographic data. Spatial data structures and the display, manipulation and analysis of geographic information. Applications of spatial analysis. May be used as a geology credit. Prerequisite: CISA 1301 or CSEN 2304 or GEOG 3450. Laboratory fee, \$5.
- 4435. Remote Sensing.** 4(3-3)
The technology and interpretation of aerial photography and satellite imagery, including multi-spectral, thermal and radar images. Digital image processing using a raster geographic information system. Applications of remote sensing and guided projects in areas of student interest. May be used as a geology credit. Prerequisite: MATH 1314 and 6 hours of science, engineering or agriculture. Laboratory fee, \$5.

GEOLOGY (GEOL)

1101. Earth Science I Laboratory.

1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes greater understanding of concepts of physical geology, oceanography and meteorology presented in GEOL 1301. Prerequisite or corequisite: GEOL 1301. Laboratory fee, \$5.

1102. Earth Science II Laboratory.

1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes greater understanding of astronomy, earth-surface processes, geomorphology and historical geology as presented in GEOL 1302. Prerequisite or corequisite: GEOL 1302. Laboratory fee, \$5.

1103. Physical Geology Laboratory. (GEOL 1103)

1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes greater understanding of earth materials and the physical processes at work on and in the earth. Prerequisite or corequisite: GEOL 1303. Laboratory fee, \$5.

1104. Historical Geology Laboratory. (GEOL 1104)

1(0-2)

A laboratory experience that focuses on laboratory techniques, data collection and analysis. The experience reinforces and promotes greater understanding of the events and processes that have shaped the earth and influenced the development of life through time. Prerequisite or corequisite: GEOL 1304. Laboratory fee, \$5.

1301. Earth Science I. (GEOL 1301 or GEOL 1401)

3(3-0)

Introduction to principles and methods of earth science. Nature of the earth and its setting in space as revealed by a survey of physical geology, meteorology and oceanography. Designed for students not majoring in science or engineering. Occasional field trips may be arranged.

1302. Earth Science II. (GEOL 1302 or GEOL 1402)

3(3-0)

Survey of astronomy, the effects of physical processes operating on the earth's surface (geomorphology) and of earth history as interpreted from fossils and rocks (historical geology). The significance to society of the earth sciences including environmental problems and natural resource exploration and utilization. Occasional field trips may be arranged. Designed for students not majoring in science or engineering. Prerequisite: GEOL 1301.

1303. Physical Geology. (GEOL 1303)

3(3-0)

General composition and form of the earth's surface and the volcanic, erosional, depositional and deformational processes which operate on it. The properties of the interior of the earth inferred from earthquakes and other external evidence. Occasional field trips may be arranged.

1304. Historical Geology. (GEOL 1304 or GEOL 1404)

3(3-0)

The important change through which the earth has passed since its origin as a planet; especially, the history of the orderly evolution of life and physical features evidenced in the rocks of the earth. Occasional field trips may be arranged. Prerequisite: GEOL 1303. Laboratory fee, \$5.

1305. Environmental Geology.

3(3-0)

Basic concepts of environmental geology, including topics in natural hazards, natural resources, contamination of soils, sediments and water and environmental geology and risk. Case examples from South Texas environmental geologic research are included to provide relevant examples.

2376. Nature of the Earth and Universe.

3(3-2)

Survey of the basic concepts of geosciences. This course begins with an introduction to astronomy and the Earth's position in our solar system. The course includes the interrelationships between the solid portion, hydrosphere, atmosphere and biosphere of the Earth. Prerequisite: BIOL 2375. Laboratory fee, \$5.

- 3407. Field Geology.** 4(3-3)
Geologic mapping on topographic maps and aerial photographs. Interpretation of field relationships. Basic topographic surveying methods and measurements using the Global Positioning System (GPS). Two weekend field trips required, including geologic mapping in the field and written reports. Other problems simulated in the laboratory. Prerequisite: GEOL 1304/GEOL 1104. Laboratory fee, \$5.
- 3409. Mineralogy.** 4(3-3)
Morphological crystallography and symmetry concepts. Methods of identification of minerals by their physical and chemical properties. Origin of economic minerals and ore deposits. Geological significance of common rock-forming minerals. One weekend field trip required. Prerequisites: GEOL 1303/GEOL 1103 and 6 hours of chemistry. Laboratory fee, \$5.
- 3411. Petrology.** (3-3)
Classification and origin of igneous, sedimentary and metamorphic rocks. Laboratory emphasis on identification and interpretation of hand specimens. One weekend field trip required. Prerequisite: GEOL 3409. Laboratory fee, \$5.
- 3431. Stratigraphy and Sedimentology.** 4(3-3)
Study of the composition, environment, sequence and correlation of stratified rocks. Occasional field trips will be arranged. Prerequisites: GEOL 1303/GEOL 1103 and GEOL 1304/GEOL 1104. Laboratory fee, \$5.
- 3445. Oceanography.** 4(3-3)
Methods and principles of oceanography. The physical and chemical properties of the seas, life in the sea and a comprehensive treatment of marine geology. Saturday field trips will be arranged. Prerequisites: GEOG 1301/GEOL 1101 or GEOL 1303/GEOL 1103 or GEOL 1301/GEOL 1101. Laboratory fee, \$5. May be used for geography credit.
- 3481. Structural Geology.** 4(3-3)
The inherent and imposed structures in rocks and their modes of formation. Mechanical principles of rock deformation, petrofabrics, regional structural interpretation, theories of mountain building and geotectonics. Prerequisites: GEOL 1303/GEOL 1103 and GEOL 1304/GEOL 1104. Laboratory fee, \$5.
- 4325. Aqueous Geochemistry.** 3(3-1)
Introduces the processes controlling the chemical composition of surface and groundwater. Prerequisites: GEOL 1303/GEOL 1103, CHEM 1111, CHEM 1112, CHEM 1311 and CHEM 1312.
- 4395. Special Problems.** V:1-3
Supervised individual research of a geological problem that meets the needs and interest of the student. May be repeated for a maximum of 3 semester hours credit. Prerequisite: 18 semester hours of geology prior to registration. Laboratory fee, \$5.
- 4417. Summer Field Course I.** 4(3-V)
A summer term program covering geologic field methods and techniques. Includes the use and maintenance of field equipment, measurement, description and interpretation of stratigraphic sections, identification and interpretation of field relations of sedimentary rocks and preparation of geological field reports. Classwork six days per week. Simultaneous enrollment in GEOL 4418 is mandatory. Prerequisites: GEOL 3411, GEOL 3431, GEOL 3407 and GEOL 3481. Laboratory fee, \$6. Special Field Course Fee required.
- 4418. Summer Field Course II.** 4(3-V)
A summer term program covering geologic field methods and techniques. Includes the identification and interpretation of field relations of igneous and metamorphic rocks; geologic mapping on topographic, aerial-photo and plane-table base; and preparation of geological field reports. Classwork six days per week. Simultaneous enrollment in GEOL 4417 is mandatory. Prerequisites: GEOL 3411, GEOL 3431, GEOL 3407 and GEOL 3481. Laboratory fee, \$6. Special Field Course Fee is required.
- 4420. Special Topics in Geoscience.** 4(3-3)
One or more important concepts, developments or discoveries in geology. May be repeated once for credit. Prerequisite: 12 semester hours of geography and/or geology. Laboratory fee, \$5.

4425. Hydrogeology. 4(3-2)
Principles of fluid, mass and energy transport in geologic formations are emphasized to handle human affair problems such as water supply, contamination and energy resources. Prerequisite: GEOL 1303/GEOL 1103 and GEOL 1304/GEOL 1104.

PHYSICS (PHYS)

1101. College Physics I Laboratory. (PHYS 1101) 1(0-4)
A laboratory course to accompany PHYS 1301. Corequisite: PHYS 1301. Laboratory fee, \$5.

1102. College Physics II Laboratory. (PHYS 1102) 1(0-4)
A laboratory course to accompany PHYS 1302. Corequisite: PHYS 1302. Laboratory fee, \$5.

1105. Elementary Physics I Laboratory. (PHYS 1105) 1(0-2)
A laboratory course to accompany PHYS 1305. Corequisite: PHYS 1305. Laboratory fee, \$5.

1107. Elementary Physics II Laboratory. (PHYS 1107) 1(0-2)
A laboratory course to accompany PHYS 1307. Corequisite: PHYS 1307. Laboratory fee, \$5.

1111. Descriptive Astronomy I Laboratory. (PHYS 1111) 1(0-3)
A laboratory course to accompany PHYS 1311. Corequisite: PHYS 1311. Laboratory fee, \$5.

1112. Descriptive Astronomy II Laboratory. (PHYS 1112) 1(0-3)
A laboratory course to accompany PHYS 1312. Corequisite: PHYS 1312. Laboratory fee, \$5.

1301. College Physics I. (PHYS 1301 or PHYS 1401) 3(3-0)
A trigonometry-based introduction to physics. Topics include kinematics, vector analysis, force dynamics, equilibrium, work, energy, momentum, collisions, fluid dynamics and thermal physics. Prerequisites: MATH 1314, MATH 1316 and one year of high school physics or PHYS 1305 and PHYS 1105. Concurrent enrollment in PHYS 1101 is recommended.

1302. College Physics II. (PHYS 1302 or PHYS 1402) 3(3-0)
A continuation of PHYS 1301. Topics include periodic motion, sound, electric force, electric current, resistance, electric circuits, magnetism, electromagnetic induction, AC circuits, light and optics. Prerequisite: PHYS 1301 and PHYS 1101. Concurrent enrollment in PHYS 1102 is recommended.

1305. Elementary Physics I. (PHYS 1305 or PHYS 1405) 3(3-0)
A qualitative introduction to physics for students with little preparation in the physical sciences. Topics include kinematics, vector analysis, force dynamics, equilibrium, work, energy, momentum, collisions, fluid dynamics and thermal physics. Concurrent enrollment in PHYS 1105 is recommended.

1307. Elementary Physics II. (PHYS 1307 or PHYS 1407) 3(3-0)
A qualitative introduction to physics intended for students with little preparation in the physical sciences. Topics include periodic motion, sound, electric force, electric current, resistance, electric circuits, magnetism, electromagnetic induction, AC circuits, light, optics and modern physics. Concurrent enrollment in PHYS 1107 is recommended.

1311. Descriptive Astronomy I. (PHYS 1311 or PHYS 1411) 3(3-0)
A survey of the astronomy of our solar system. Topics include the history of astronomy, naked-eye phenomena, telescopes, gravity and orbits and the nature and history of the Earth, moon, planets, asteroids and comets. Concurrent enrollment in PHYS 1111 is recommended.

1312. Descriptive Astronomy II. (PHYS 1312 or PHYS 1412) 3(3-0)
A survey of stellar astronomy and cosmology. Topics include the behavior of light; the sun as a star; positions, motions and brightness of the stars; stellar evolution; the Milky Way and other galaxies; and cosmology. Concurrent enrollment in PHYS 1112 is recommended.

- 1375. Physics.** 3(3-2)
A survey of the most basic concepts of physics. Topics include scientific measurements, motion, momentum, energy, gravitation, matter, heat, electricity, magnetism, sound, light, atomic structure and nuclear energy. Prerequisite: MATH 1314. Laboratory fee, \$5.
- 1471. The Acoustical Foundations of Music.** 4(3-2)
A general introduction and survey of the physical and acoustical foundations of music. Topics include the fundamental physics relevant to music, the reception of musical sound, intervals, scales, tuning, temperament, auditorium and room acoustics and the production of sounds by musical instruments including electronic. Laboratory fee, \$5.
- 2125. University Physics I Laboratory.** (PHYS 2125) 1(0-4)
A laboratory course to accompany PHYS 2325. Corequisite: PHYS 2325. Laboratory fee, \$5.
- 2126. University Physics II Laboratory.** (PHYS 2126) 1(0-4)
A laboratory course to accompany PHYS 2326. Corequisite: PHYS 2326. Laboratory fee, \$5.
- 2325. University Physics I.** (PHYS 2325 or PHYS 2425) 3(3-0)
A calculus-based introduction to physics. Topics include: kinematics, vector analysis, force dynamics, equilibrium, work, energy, momentum, collisions, fluid dynamics and thermal physics. Prerequisite: one year of high school physics or PHYS 1305 and PHYS 1105. Corequisite: MATH 2313. Concurrent enrollment in PHYS 2125 is recommended.
- 2326. University Physics II.** (PHYS 2326 or PHYS 2426) 3(3-0)
A continuation of PHYS 2325. Topics include periodic motion, sound, electric force, electric current, resistance, electric circuits, magnetism, electromagnetic induction, light, optics and modern physics. Prerequisite: PHYS 2325 and PHYS 2125 or PHYS 1302 and PHYS 1102. Corequisite: MATH 2314. Concurrent enrollment in PHYS 2126 is recommended.
- 3313. Mechanics.** 3(3-0)
A mathematical treatment of the fundamentals of classical mechanics. Topics include particle dynamics in one, two and three dimensions; conservation laws; dynamics of a system of particles; motion of rigid bodies; central force problems; accelerating coordinate systems; gravitation; Lagrange's equations and Hamilton's equations. Prerequisites: PHYS 1301/1101 or PHYS 2325/2125; MATH 2314.
- 3323. Electromagnetic Field Theory.** 3(3-0)
A mathematical treatment of the fundamentals of classical electromagnetic theory. Topics include electrostatics and electrodynamics, vector calculus, theory of dielectrics, magnetostatic fields, electromagnetic induction, magnetic fields of currents and Maxwell's equations. Prerequisite: PHYS 2326/2126. Corequisite: MATH 3315 or MATH 3320.
- 3333. Thermodynamics.** 3(3-0)
A mathematical treatment of the fundamentals of thermal physics. Topics include the concept of temperature, equations of state, the first and second laws of thermodynamics, entropy, change of phase and thermodynamic functions. Prerequisite: PHYS 2326/2126. Corequisite: MATH 3315.
- 3343. Modern Physics I.** 3(3-0)
A course in special relativity and elementary quantum mechanics. Topics include space-time, relativistic energy and momentum, the uncertainty principle, Schrödinger's equation, observables and operators, bound states, potential barriers and the hydrogen atom. Prerequisite: PHYS 2326/2126. Corequisite: MATH 3315 or MATH 3320.
- 4303. Mathematical Methods of Physics.** 3(3-0)
A course presenting mathematical techniques used in physics and engineering. The course will survey, at a brief introductory level and from a physics-oriented perspective, numerous mathematical techniques from areas such as infinite series, integral transforming, applications of complex variables, matrices and tensors, special functions, partial differential equations, Green's functions, perturbation theory, integral equations, calculus of variations and groups and group representations. Prerequisites: MATH 3315 or MATH 3320; 3 hours of advanced physics.

- 4323. Optics.** 3(3-0)
 A mathematical treatment of the modern theory of optics. Topics include Huygen's principle as applied to geometric optics, interference, diffraction, polarization, crystal optics, electromagnetic theory of light, the interaction of light with matter and quantum optics. Prerequisites: PHYS 3323; MATH 3315 or MATH 3320.
- 4343. Modern Physics II.** 3(3-0)
 A continuation of Modern Physics I. Topics include atomic, molecular, nuclear, statistical, solid state, laser and elementary particle physics. Prerequisites: PHYS 3343; MATH 3315 or MATH 3320.
- 4353. Quantum Theory.** 3(3-0)
 A mathematical treatment of quantized physical phenomena. Topics include the wave theory of matter, the principle of superposition, probability, expectation values, coordinate representation, momentum representation, indeterminacy, Hermitian operators, angular momentum and spin. Quantum solutions for simple barriers, potential wells, the harmonic oscillator and the hydrogen atom are presented. Prerequisites: PHYS 3343, MATH 3315 and MATH 3320.
- 4370. Geophysics.** 3(3-0)
 Fundamentals of the mechanics of geophysics. Study of the instruments and methods used in geophysical exploration. Prerequisite: 6 semester hours of advanced physics and/or engineering.
- 4390. Selected Topics in Modern Physics.** 3(3-0)
 A detailed study of one or more important physical discoveries, developments and/or theories. Course may be repeated for credit. Prerequisite: senior standing.
- 4391. Research Projects in Physics.** V:1-3
 Supervised research involving advanced physics concepts. May be repeated for a maximum of 6 semester hours. Includes, but is not limited to, literature searches, experimental techniques and theoretical tools; enrollment for only a literature-search project is limited to 1 hour credit. Prerequisites: Two advanced Physics courses and approval by the supervising faculty.
- 4460. Nuclear Physics.** 4(3-4)
 A study of natural and artificial radioactivity. Topics include the neutron, the positron, nuclear structure and forces, binding energies, nuclear fission and fusion, particle accelerators and cosmic rays. Prerequisite: PHYS 3343. Laboratory fee, \$5.

**Degree Requirements
Bachelor of Arts
Geography**

Freshman Year				Junior Year			
BIOL 1201	2	ENGL 1302	3	Advanced Minor	3	Advanced Elective	3
ENGL 1301	3	Foreign Language	3	^Communication	3	Advanced Minor	3
Foreign Language	3	GEOG 1102	1	GEOG 3331	3	GEOG 3421 or	
GEOG 1101	1	GEOG 1302	3	^Kinesiology	1	GEOG 3445	4
GEOG 1301	3	HIST 1302	3	POLS 2301	3	POLS 2302	3
HIST 1301	3	^Kinesiology	1	PSYC 3381/		^Social/behavioral	
MATH 1314	<u>3</u>	MATH 1316	<u>3</u>	SOCI 3381	<u>3</u>	(adv)	<u>3</u>
	18		17		16		16
Sophomore Year				Senior Year			
ENGL 2342	3	CISA, CSEN or IEEN	3	Advanced Elective	3	Advanced Elective	3
Foreign Language	3	ENGL 2362	3	Advanced GEOG/		Advanced GEOG/	
GEOG 1301/GEOG 1101		Foreign Language	3	ANTH/SWBS	3	ANTH/SWBS	3
or GEOG 1303/		GEOG 1302/GEOG 1102		Advanced Minor	3	Advanced Minor	3
GEOG 1103	4	or GEOG 1304/		GEOG 3305	3	ARTS 2301, MUSI 2301	
GEOG 1303	3	GEOG 1104	4	GEOG 3450	<u>4</u>	or THEA 2301	<u>3</u>
Minor	<u>3</u>	^Kinesiology	1		16		12
	16	Minor	<u>3</u>				
			17				
						Total Hours Required:	128

Minor: A minor consists of 18 to 24 hours in a discipline approved by the Geosciences Chair. Students with interest in Geographic Information Systems should minor in Computer Science. Students with interest in Cultural Geography should minor in Anthropology, History, Political Science, Sociology, Southwest Borderlands Studies or a foreign language.

**Degree Requirements
Bachelor of Arts
Geography with Teaching Certification***

Freshman Year				Junior Year			
BIOL 1201	2	CISA 1301 or		^Communication	3	EDED 3302	3
ENGL 1301	3	EDED 2301	3	EDHL 1254	2	EDED 3333	3
Foreign Language	3	ENGL 1302	3	GEOG 3445	4	GEOG Adv.	3
GEOG 1303	3	Foreign Language	3	**Second Tch. Field	4	GEOG 3421	4
HIST 1301	3	GEOG 1101	1	**Second Tch. Field	<u>4</u>	**Second Tch. Field	<u>4</u>
MATH 1314	<u>3</u>	GEOG 1301	3		17		17
	17	HIST 1302	3				
		^Kinesiology	<u>1</u>			Summer II	
			17			POLS 2301	3
						POLS 2302	<u>3</u>
							6
Sophomore Year				Senior Year			
ARTS 2301, MUSI 2301		ENGL 2342, 2362		EDED 3332	3	EDED 4623	6
or THEA 2301	3	or 2314	3	EDED 3362	3	EDRG 4314	3
ENGL 2342, ENGL 2362		Foreign Language	3	GEOG Adv.	3	EDSE 4391	<u>3</u>
or ENGL 2314	3	GEOG 1102	1	GEOG 3331	3		12
Foreign Language	3	GEOG 1302	3	**Second Tch. Field	<u>4</u>		
^Kinesiology	1	**Second Tch. Field	4		16	Total Hours Required:	133
**Second Tch. Field	<u>4</u>	SOCI 2361	<u>3</u>				
	14		17				

**Total hours vary depending on second teaching field.*

***Second Teaching field consists of 18 to 24 hours in Biology, Chemistry, Geology, Mathematics, Physics or other area approved by Geosciences Chair.*

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Arts
Geography (Environmental Studies Emphasis)

Freshman Year				Junior Year			
BIOL 1201	2	ENGL 1302	3	CHEM 3451/RWSC		Advanced Elective	3
ENGL 1301	3	Foreign Language	3	2330/Adv. GEOL	3-4	^ <i>Kinesiology</i>	1
Foreign Language	3	GEOG 1102	1	^ <i>Communication</i>	3	PLSS 3410/RWSC	
GEOG 1101	1	GEOG 1302	3	GEOL 3445	4	3328/BIOL 3409	3-4
GEOG 1301	3	HIST 1302	3	^ <i>Kinesiology</i>	1	POLS 2302	3
HIST 1301	3	^ <i>Kinesiology</i>	1	POLS 2301	3	^ <i>Social/behavioral,</i>	
MATH 1314	<u>3</u>	MATH 1316	<u>3</u>	PSYC 3381/SOCI 3381	<u>3</u>	<i>adv</i>	<u>3</u>
	18		17				
Sophomore Year				Senior Year			
CHEM 1311/CHEM 1111		CHEM 1312/CHEM 1112		GEOL 3305	3	Advanced Elective	3
or BIOL 1311/		or BIOL 1313/		GEOG 3450	4	ARTS 2301, MUSI 2301,	
BIOL 1111	4	BIOL 1113	4	GEOG 4425	4	or THEA 2301	3
ENGL 2342	3	CISA 2312 or		POLS 4361	3	GEOG 3421	4
Foreign Language	3	CSEN 2304	3	^ <i>Social/behavioral</i>	<u>3</u>	GEOG 4435	<u>4</u>
GEOL 1301/GEOL 1101		ENGL 2362	3		17		14
or GEOL 1303/		Foreign Language	3				
GEOL 1103	4	GEOL 1302/GEOL 1102					
PHYS 1301/PHYS 1101		or GEOL 1304/					
or PHYS 1305/		GEOL 1104	<u>4</u>				
PHYS 1105	<u>4</u>		17				
	18						

Degree Requirements
Bachelor of Arts
Geology with Earth Science Teaching Certification

Freshman Year				Junior Year			
BIOL 1201	2	ENGL 1302	3	^ <i>Communication</i>	3	EDED 3302	3
ENGL 1301	3	Foreign Language	3	GEOL, Advanced	4	EDED 3333	3
Foreign Language	3	GEOL 1102	1	GEOG 3421	4	GEOL 3407	4
GEOL 1101	1	GEOL 1302	3	POLS 2301	3	GEOL 3445	4
GEOL 1301	3	HIST 1302	3	Supporting Field	<u>3-4</u>	Supporting Field	<u>3-4</u>
HIST 1301	3	^ <i>Kinesiology</i>	1				
MATH 1314	<u>3</u>	MATH 1316	<u>3</u>	17-18		17-18	
	18		17				
Sophomore Year				Senior Year			
EDED 2301	3	ENGL 2342, ENGL 2362		EDHL 1254	2	EDED 4623	6
ENGL 2342, ENGL 2362		or ENGL 2314	3	POLS 2302	3	EDRG 4314	3
or ENGL 2314	3	Foreign Language	3	Supporting Field	3-4	EDSE 4391	<u>3</u>
Foreign Language	3	GEOL 3407	4	Supporting Field	<u>3-4</u>		12
GEOL 3409	4	^ <i>Kinesiology</i>	1				
^ <i>Kinesiology</i>	1	SOCI 2361	3	11-13			
^ <i>Visual/performing arts</i>	<u>3</u>	Supporting Field	<u>3-</u>				
	17		<u>4</u>				
			17-18				

*At least 18 hours for a support field in one of the following: biology, chemistry, mathematics or physics; at least 6 hours of which must be advanced courses.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

**Degree Requirements
Bachelor of Arts
Geology**

Freshman Year				Junior Year			
BIOL 1201	2	CHEM 1112	1	BIOL 1308/BIOL 1108,		BIOL1308/BIOL 1108,	
CHEM 1111	1	CHEM 1312	3	BIOL 1311/BIOL 1111		BIOL 1311/BIOL 1111,	
CHEM 1311	3	ENGL 1302	3	or BIOL 1333/		or BIOL 1313/	
ENGL 1301	3	GEOL 1104	1	BIOL 1113 or PHYS		BIOL 1113 or	
GEOL 1103	1	GEOL 1304	3	1301/PHYS 1101	4	PHYS 1302/PHYS 1102	
GEOL 1303	3	HIST 1301	3	Foreign Language	3	Foreign Language	4
MATH 1314	<u>3</u>	[^] Kinesiology	1	GEOL 3481	4	GEOL 3407	3
	16	MATH 1316	<u>3</u>	HIST 1302	3	GEOL 3431	4
			18	Minor	<u>0-4</u>	Minor	<u>0-4</u>
					14-18		15-19
Sophomore Year				Senior Year			
ENGL 2314	3	Foreign Language	3	Advanced Minor	3-4	Advanced Elective	3
Foreign Language	3	GEOL 3411	4	Advanced Minor	3-4	Advanced Minor	3-4
GEOL 3409	4	[^] Kinesiology	1	CISA, CSEN or IEEN	3	Advanced Minor	3-4
[^] Kinesiology	1	POLS 2302	3	[^] Communication	3	GEOG/PSYC/SOCI	3
MATH 1348	3	[^] Visual/performing arts	<u>3</u>	GEOL, Advanced	4	GEOL, Advanced	<u>4</u>
POLS 2301	<u>3</u>		14	[^] Social/behavioral, adv	<u>3</u>		<u>16-18</u>
	17				19-21		

Total Hours Required: 132

Minor: CHEM, BIOL, MATH, PHYS or a related field selected with approval of the department chair.

**Degree Requirements
Bachelor of Science
Geology**

Freshman Year				Junior Year			
BIOL 1201	2	CHEM 1112	1	GEOL 3481	4	GEOL 3407	4
CHEM 1111	1	CHEM 1312	3	MATH 2314 or Minor	3	GEOL 3431	4
CHEM 1311	3	ENGL 1302	3	PHYS 1101+	1	+PHYS 1102	1
ENGL 1301	3	GEOL 1104	1	PHYS 1301+	3	+PHYS 1302	3
GEOL 1103	1	GEOL 1304	3	POLS 2301	3	POLS 2302	<u>3</u>
GEOL 1303	3	[^] Kinesiology	1	[^] Visual/performing arts	<u>3</u>		15
[^] Kinesiology	<u>1</u>	MATH 1316	<u>3</u>		17		
	14		15	Summer			
				GEOL 4417	4		
				GEOL 4418	<u>4</u>		
					8		
Sophomore Year				Senior Year			
ENGL 2342	3	[^] Communication	3	Advanced Minor	3	Advanced Minor	3
GEOG 3421	4	ENGL 2314 or		GEOL, Advanced	4	CISA, CSEN or IEEN	3
GEOL 3409	4	ENGL 2362	3	++Restricted Elective	6	GEOL Adv. Elective	4
HIST 1301	3	GEOL 3411	4	[^] Social/behavioral	<u>3</u>	Restricted Elective++	<u>6</u>
MATH 1348	<u>3</u>	HIST 1302	3		16		16
	17	[^] Kinesiology	1				
		MATH 2313	<u>3</u>				
			17				

Total Hours Required: 135

+ Physics minors or those wishing to prepare for a career in geophysics should take PHYS 2325/PHYS 2125, PHYS 2326/PHYS 2126 in place of PHYS 1301/PHYS1101 and PHYS 1302/PHYS 1102.

++ Restricted Electives must be chosen from science, mathematics, statistics, engineering, computer science, soil science and foreign language. Freshman-level courses do not count toward this requirement without permission of the department chair. Restricted electives may not count toward a minor or concentration (except biology or physics). Students planning graduate studies in geology are strongly encouraged to take a foreign language.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science
Geology
(Concentration in Groundwater)

Freshman Year			Junior Year				
BIOL 1201	2	CHEM 1112	1	CHEM 3331	3	GEOG 4425 or	
ENGL 1301	3	CHEM 1312	3	GEOG 3421	4	GEOG 4435	4
GEOL 1101	1	ENGL 1302	3	GEOL 3481	4	GEOL 3407	4
GEOL 1303	3	GEOL 1104	1	GEOL 4425	4	GEOL 3431	4
CHEM 1111	1	GEOL 1304	3	MATH 3315 or		<i>^Kinesiology</i>	1
CHEM 1311	3	MATH 2313	3	MATH 3320	<u>3</u>	<i>^Visual/performing arts</i>	<u>3</u>
MATH 1348	<u>3</u>	PHYS 2125	1		18		
	16	PHYS 2325	<u>3</u>				16
			18	Summer II			
				GEOL 4417	4		
				GEOL 4418	<u>4</u>		
					8		
Sophomore Year			Senior Year				
CHEM 2421	4	CHEM 3451	4	<i>^Communication</i>	3	GEOL 4325	4
ENGL 2314	3	CSEN 2304	3	GEOL, Advanced	4	HIST 1302	3
GEOL 3409	4	GEOL 3411	4	MATH 3315 or		<i>^Kinesiology</i>	1
MATH 2314	3	HIST 1301	3	STAT 4303	3	<i>^Literature/philosophy</i>	3
PHYS 2126	1	<i>^Kinesiology</i>	<u>1</u>	POLS 2301	3	POLS 2032	<u>3</u>
PHYS 2326	<u>3</u>		15	<i>^Social/behavioral</i>	<u>3</u>		14
	18				16		

Total Hours Required: 139

Degree Requirements
Bachelor of Arts
Physics

Freshman Year			Junior Year				
ARTS	3	<i>^Computer Literacy</i>	3	Elective	3	Elective, adv	3
BIOL 1201	2	ENGL 1302	3	Foreign Language	3	Foreign Language	3
ENGL 1301	3	HIST 1302	3	MATH 3315	3	MATH 3320	3
HIST 1301	3	<i>^Kinesiology</i>	1	PHYS 3333	3	PHYS elective adv	3
<i>^Kinesiology</i>	1	MATH 1348	3	PHYS 3343	3	<i>^Social/behavioral</i>	<u>3</u>
MATH 1316	<u>3</u>	**PHYS 1112	1		15		15
	15	**PHYS 1312	<u>3</u>				
			17				
Sophomore Year			Senior Year				
ENGL 2314	3	<i>^Communication</i>	3	Elective, adv	3	Elective	3
Foreign Language	3	Foreign Language	3	Elective, adv	3	Elective, adv	3
MATH 2313	3	<i>^Kinesiology</i>	1	Elective, adv	3	Elective, adv	3
PHYS 2125	1	MATH 2314	3	PHYS 3313	3	Elective, adv	3
PHYS 2325	3	PHYS 2126	1	PHYS 3323	<u>3</u>	PHYS, elective, adv	<u>3</u>
POLS 2301	<u>3</u>	PHYS 2326	3		15		15
	16	POLS 2302	<u>3</u>				
			17				

Total Hours Required: 125

Minor: Mathematics

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

*** Or any other Physics course*

**Degree Requirements
Bachelor of Science
Physics**

Freshman Year				Junior Year			
BIOL 1201	2	CHEM 1112	1	^Computer literacy	3	Elective	3
CHEM 1111	1	CHEM 1312	3	Elective	3	MATH 3320	3
CHEM 1311	3	ENGL 1302	3	MATH 3315	3	PHYS, adv	3
ENGL 1301	3	^Kinesiology	1	PHYS 3333	3	+PHYS, adv	3
HIST 1301	3	++MATH 1348	3	PHYS 3343	<u>3</u>	^Social/behavioral	<u>3</u>
^Kinesiology	1	++PHYS 1112	1		15		15
+MATH 1316	<u>3</u>	++PHYS 1312	<u>3</u>				
	16		15				
Sophomore Year				Senior Year			
^Communication	3	ENGL 2314	3	Elective, adv	3	Elective	3
HIST 1302	3	^Kinesiology	1	MATH, adv	3	Elective, adv	3
MATH 2313	3	MATH 1348	3	+MATH, adv	3	+MATH, adv	3
PHYS 2125	1	PHYS 2126	1	PHYS 3323	3	PHYS 4353	3
PHYS 2325	3	PHYS 2326	3	PHYS 3313	<u>3</u>	+Physics, adv	<u>3</u>
POLS 2301	<u>3</u>	POLS 2302	3		15		15
	16	^Visual/performing arts	<u>3</u>				
			17				
						Total Hours Required:	124

**Or any other laboratory based physics course.

+Or any other physics, mathematics, chemistry, engineering or computer science course. Courses in other supporting areas may also be substituted with departmental approval.

++ Or an additional advanced MATH course.

**Degree Requirements
Bachelor of Science
Physics with Teaching Certification**

Freshman Year				Junior Year			
BIOL 1201	2	CHEM 1112	1	EDED 3302	3	EDED 3304	3
CHEM 1111	1	CHEM 1312	3	MATH 3315	3	MATH 3320	3
CHEM 1311	3	ENGL 1302	3	POLS 2302	3	PHYS, adv	3
COMS 1311	3	^Kinesiology	1	PHYS 3333	3	PHYS 4353	3
EDHL 1254	2	MATH 1348	3	PHYS 3343	3	Second Teaching Field	3-6
ENGL 1301	3	PHYS 1112 or		Second Teaching Field	<u>3-6</u>	SOCI 2361	<u>3</u>
HIST 1301	<u>3</u>	PHYS 1111	1		18		18
	17	PHYS 1312 or					
		PHYS 1311	3				
		Second Teaching Field	<u>3</u>				
			18				
Sophomore Year				Senior Year			
EDED 2301	3	ENGL 2362 or		EDED 3332	3	EDED 4623	6
ENGL 2342	3	ENGL 2314	3	EDED 3362	3	EDRG 4314	3
HIST 1302	3	MATH 2314	3	MATH, adv	3	EDSE 4391	<u>3</u>
^Kinesiology	1	MUSI 2301/ARTS 2301/ or THEA 2301	3	PHYS 3313	3		12
MATH 2313	3	PHYS 2126	1	PHYS, 3323	3		
PHYS 2125	1	PHYS 2326	3	Second Teaching Field	<u>3-6</u>	Total Hours Required:	134
PHYS 2325	<u>3</u>	POLS 2301	3		18		
	17	Second Teaching Field	<u>0-3</u>				
			16				

Some choices of Second Teaching Field will require additional hours, as indicated, which will require summer school attendance.

To obtain certification in Physics as a second teaching field, the student must include PHYS 1112, 1312, (or 1111, 1311), PHYS 2125-2126, 2325-2326, PHYS 3313, PHYS 3323, PHYS 3333, PHYS 3343 (24 hours).

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF POLITICAL SCIENCE (POLS)

Nirmal Goswami, *Chair*

Rhode Hall 356. MSC 165. Extension 3501.

Professors

Goswami, Hartwig, Mattingly, Phaup

Associate Professors

Carranza, Price

Lecturers

Ellis, Lipscomb

A Political Science (POLS) major provides a broad, liberal arts education for students with the following career objectives: 1) law school; 2) graduate school; 3) a wide range of local, state and national government jobs; 4) international positions; 5) employment in the private sector (which also deals with public policy, government and politics) and 6) high school teaching. A POLS major requires 30 semester credit hours; a POLS minor requires 18 semester credit hours.

2301. The Government and Politics of the United States. (GOVT 2302) (GOVT 2305) 3(3-0)

A survey of the structures, functions and processes of the political system of the United States. Fulfills 3 semester hours of the legislative degree requirement of 6 hours.

2302. The Government and Politics of Texas. (GOVT 2301) (GOVT 2306) 3(3-0)

A survey of the structures, functions and processes of the Texas political system. Fulfills 3 semester hours of the legislative degree requirements of 6 hours.

2304. Introduction to Political Science. (GOVT 2304) 3(3-0)

Development of political science as an academic discipline; the scientific method; major research approaches to the study of political phenomena with emphasis upon the contributions of behavioralists, policy scientists and traditional political scientists.

2340. World Politics. 3(3-0)

Analysis of the contemporary state system and forces shaping the world in which we live. Students will be given a framework within which to analyze global political issues and international institutions and their impact on American politics and government.

3302. Research and Analysis in Political Science. 3(3-0)

The practice of political science. The construction of research designs; major research tools; methods of political analysis; political science writing. Prerequisite: 6 semester hours of Political Science.

3321. Political Theory: Ancient and Medieval. 3(3-0)

The theories of the major thinkers of the periods and of their development. Prerequisite: 6 semester hours of Political Science.

3322. Political Theory: Early Modern and Modern. 3(3-0)

Theories of the major thinkers and the related intellectual and political movements. Prerequisite: 6 semester hours of Political Science.

3341. International Relations. 3(3-0)

The underlying principles governing political relations among sovereign states and the application of these principles to contemporary international problems. Prerequisite: 6 semester hours of Political Science including POLS 2340, or consent of the instructor.

3351. Comparative Politics. 3(3-0)

The structures, functions and processes of selected political systems. May be repeated once for credit. Prerequisite: 6 semester hours of Political Science.

- 4311. Voting Behavior and Public Opinion.** 3(3-0)
The relation of public opinion and voting behavior to democratic government; techniques employed in analyzing political attitudes and voting behavior. Prerequisite: 6 semester hours of Political Science.
- 4312. Interest Groups and Political Parties.** 3(3-0)
Formation, structure and functions of interest groups and political parties within the political system. Prerequisite: 6 semester hours of Political Science.
- 4313. The President and Congress.** 3(3-0)
Structure, functions and policy roles of the national executive and legislative branches of government. Prerequisite: 6 semester hours of Political Science.
- 4314. State and Local Government and Administration.** 3(3-0)
Structure and functions of governmental institutions; administrative practices of state and local governments. Prerequisite: 6 semester hours of Political Science.
- 4315. Urban Politics.** 3(3-0)
A study of urban political processes and major public problems confronting urban areas. Prerequisite: 6 semester hours of Political Science.
- 4317. Nuclear Proliferation and U.S. Non-Proliferation Policies.** 3(3-0)
Causes of and U.S. responses to, nuclear proliferation in Third World regions, focusing on “problem countries.” Topics include the non-proliferation regime, the “nuclear repentants,” nuclear arms control and the threat of nuclear terrorism. Prerequisite: 6 semester hours of Political Science or consent of instructor.
- 4324. Technology and Society.** 3(3-0)
A study of technology and society from the perspective of social values, ethics, sociology, social environment, politics and economics. Prerequisite: 6 semester hours of Political Science and six semester hours of History.
- 4331. Constitutional Law.** 3(3-0)
A survey of American constitutional law, using leading cases, both historic and contemporary, of the Supreme Court of the United States. Establishment of the federal political system for which the Constitution provided and the judicial allocations of political and economic power within that system. (Credit may not be obtained in both POLS 4331 and CRIM 4331.) Prerequisite: 6 semester hours of Political Science.
- 4332. Constitutional Law.** 3(3-0)
A survey of American constitutional law using leading cases, both historic and contemporary, of the Supreme Court of the United States. Matters of rights and liberties, their recognition and definition, policies of rights developed by the Supreme Court of the United States. (Credit may not be obtained in both POLS 4332 and CRIM 4332.) Prerequisite: 6 semester hours of Political Science.
- 4333. The American Judicial Process.** 3(3-0)
The federal judicial system in terms of structure, function and process with stress on court interaction at both intracourt and intersystem levels. (Credit may not be obtained in both POLS 4333 and CRIM 4333.) Prerequisite: 6 semester hours of Political Science.
- 4342. International Organization.** 3(3-0)
Basic features, functions and problems of international organizations through the League of Nations, the United Nations and its specialized agencies and other important regional organizations in the context of the world situation. Prerequisite: 6 semester hours of Political Science including POLS 2340, or consent of the instructor.
- 4343. International Law.** 3(3-0)
An introduction to the study of international law. This course examines the definition, object and sources of international law as well as its relationship to domestic law and to the study of international relations. Prerequisite: 6 semester hours of Political Science, including POLS 2340, or comparable preparation with consent of the instructor.

- 4353. The Government and Politics of Russia and the Former Soviet States.** 3(3-0)
The study of the political evolution of Russia and the former Soviet Union with respect to national identity, governing institutions, ideology, politics and security concerns, with particular emphasis on post-Soviet developments. Prerequisite: 6 semester hours of Political Science.
- 4354. The Government and Politics of Latin America.** 3(3-0)
The structures, functions and processes of the political systems of the nations of Central America, the Caribbean and South America. Prerequisite: 6 semester hours of Political Science.
- 4355. The Government and Politics of Mexico.** 3(3-0)
The structures, functions and processes of the political system of Mexico. Prerequisite: 6 semester hours of Political Science.
- 4356. European Politics.** 3(3-0)
A study of the major political systems of Europe, including both national governments and supranational institutions. Prerequisite: 6 semester hours of Political Science.
- 4361. Public Administration.** 3(3-0)
The place of public administration in government; the relations of the bureaucracy to other government institutions and the public. Prerequisite: 6 semester hours of Political Science.
- 4363. Policy and Policy-Making in the United States.** 3(3-0)
Public policy and its formation through the interaction of political groups and governmental institutions in selected areas of public policy; relevant comparisons to other national systems. Prerequisite: 6 semester hours of Political Science.
- 4364. Women and Politics.** 3(3-0)
Description, analysis and assessment of women's place in a democracy through a focus on women's capacity to relate to and use political power. (Credit may not be obtained in both POLS 4364 and WMST 4364). Prerequisite: 6 semester hours of Political Science.
- 4370. Special Studies in Political Science.** V:1-3
An intensive examination of special topics of study in political science. Course may be repeated for credit when the topic of study changes. Prerequisite: 6 semester hours of Political Science or consent of the instructor.

Degree Requirements
Bachelor of Arts
Political Science

Freshman Year				Junior Year			
ENGL 1301	3	*CISA 1301	3	Elective, adv.	3	Minor, adv.	3
HIST 1301	3	COMS 1311	3	Minor, adv.	3	Minor, adv.	3
[^] Kinesiology	1	ENGL 1302	3	POLS 2340 or adv	3	POLS, adv.	3
MATH 1314 or 1324	3	HIST 1302	3	POLS 3302	3	POLS, adv. from	
Modern Lang (1st)	3	[^] Kinesiology	1	[^] Visual/Performing Arts	<u>3</u>	social/behavioral	3
POLS 2304	3	Same Mod Lang(2nd)	<u>3</u>		15	SOCI 3381, BUAD 3355	
SOCI 1201	<u>2</u>		16			(with prerequisite)	
	18					or Approved	
						Elective, adv.	<u>3</u>
							15
Sophomore Year				Senior Year			
ENGL 2342 or ENGL 2314	3	ECON 2301	3	Minor, adv.	3	Minor, adv.	3
GEOG 1303 or		ENGL 2362 or ENGL 2314	3	PHIL 3301, ECON 2302		Minor, adv. or Elect.,	
Approved Elective		[^] Kinesiology	1	or Elective	3	adv.	3
from Lit./Cult.	3	Lab science (2nd)	4	POLS, adv.	3	POLS, adv.	3
Lab Science (1st)	4	Same Mod Lang (4th)	3	POLS, adv.	3	POLS, adv. or	
POLS 2301	3	POLS 2302	<u>3</u>	POLS, adv. or		Approved Elective,	
Same Mod Lang. (3rd)	<u>3</u>		17	Approved Elective,		adv.	<u>3</u>
	16			adv.	<u>3</u>		12
					15		
						Total Hours Required:	124

*Or EDED 2301 plus 3 credit hours from MATH, STAT or PHIL 3301.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

PRE-HEALTH PROFESSIONS PROGRAMS

Roel "J.R." Valadez, Jr., *Lecturer, Pre-Health Professions Adviser and JAMP Faculty Director*
Seale Hall Suite 210. MSC 158. Extension 3797

The Texas A&M University-Kingsville Pre-Health Professions Advising Office provides information and assistance to prospective, current and former students of Texas A&M University-Kingsville interested in pursuing health-related careers. Services include one-on-one academic, career and admissions advising, information on professional school selection, seminars on various health professions, access to summer enrichment programs and much more. Interested students should contact the Pre-Health Professions Advising Office as early in their academic careers as possible to take full advantage of the myriad of opportunities available.

Programs and Majors

Although a student may major in any field and if qualified, be accepted into a health professional school, the Bachelor of Science degree in Biology from Texas A&M University-Kingsville provides for the vast majority of prerequisite courses for the following graduate degree programs:

Medicine (M.D.), Doctor of Osteopathic Medicine (D.O.), Dentistry (D.D.S.), Pharmacy (PharmD), Physical Therapy (P.T.), Occupational Therapy (O.T.), Physician Assistant (P.A.) and Optometry (O.D.).

Texas A&M University-Kingsville also offers the prerequisite courses for several undergraduate, pre-health professions degrees available at other Coastal Bend and South Texas institutions such as:

Nursing (B.S.N.), Associate Degree in Nursing (A.D.N.), Clinical Laboratory Sciences, Physical Therapy Assistant (P.T.A.), Occupational Therapy Assistant (O.T.A.), Radiology Technician (C.R.T.), Dental Hygiene, Respiratory Care Therapist and many other allied health fields.

Early Admissions Programs

Dental School Early Admission Programs

Texas A&M University-Kingsville offers 3+4 Early Admissions Programs in dentistry with University of Texas Health Science Center-San Antonio Dental School, Texas A&M University System Health Science Center-Baylor College of Dentistry and the University of Texas Health Science Center at Houston Dental Branch. These programs provide early acceptance to dental school for qualified students during the spring semester of their freshman year and are called 3+4 because students typically spend three years at Texas A&M University-Kingsville meeting the basic degree requirements and then spend the required four years in dental training. Students who complete the program will receive a B.S. from Texas A&M-Kingsville and a D.D.S. from one of the Texas Dental Schools in seven rather than eight years. The requirements for each of these programs are unique to each institution. Interested students should contact the Pre-Health Professions Adviser for specific information.

Partnership for Primary Care (PPD)

<http://medicine.tamu.edu/studentaffairs/pcc01.htm>

The Partnership for Primary Care Program is available for qualified students. Texas A&M University System Health Science Center-College of Medicine will award Texas A&M University-Kingsville students early acceptance into its medical school prior to the start of the undergraduate freshman year or at the end of the undergraduate freshman year provided:

- the student's legal residence is in a federally-recognized, medically underserved region in the State of Texas,
- the student graduates in the top 10% of his/her high school graduating class,
- the student earns a minimum high school grade point average of a 3.5 on a 4.0 scale,
- the student scores a 1200 SAT or 26 ACT,
- the student demonstrates commitment to the medical profession and
- the student maintains a 3.5 or better college grade point average each year of enrollment at Texas A&M University-Kingsville.

In addition, students who meet the minimum admissions requirements for the Partnership for Primary Care program and are accepted to Texas A&M University-Kingsville prior to February 15th of the year they plan on beginning college will automatically qualify for the Presidential Series Scholarship Program. Students will be awarded scholarships depending on their exact qualifications by Texas A&M University-Kingsville.

Joint Admission Medical Program (JAMP)

<http://www.utsystem.edu/jamp/>

Senate Bill 940 of the 77th Texas Legislature created the Joint Admission Medical Program (JAMP) to be administered by the Joint Admission Medical Program Council. JAMP provides services to support and encourage **highly qualified economically disadvantaged students** pursuing a medical education. Students selected from JAMP will receive undergraduate and graduate scholarships and summer stipends; JAMP also guarantees the admission of those students who are qualified to a participating Texas medical school provided they satisfactorily complete all program requirements (See Pre-Health Professions Adviser for specific regulations). Qualified students must meet the following criteria:

- be a Texas resident
- apply for admission to one of the participating universities and enter college as a first-time freshman immediately following graduation from high school,
- take the SAT or ACT and earn a score not less than the mean for the State of Texas and provide the scores to the participating university,
- complete and submit the FASFA and be eligible to receive a Pell Grant in the student's freshman year of college and
- complete 15 hours of undergraduate credit during the fall semester of their freshman year with a 3.25 GPA or higher (no more than 3 hours of AP credit can be counted toward this requirement).

Summer Enrichment Programs

Various summer enrichment programs designed to facilitate and enhance the students' entry into professional school are available to Texas A&M University-Kingsville students. These programs provide stipends, academic enrichment, clinical experience, admissions counseling, rigorous standardized entrance exam preparation and the opportunity for the professional school faculty and staff to become familiar with their particular strengths well in advance of their application. A sample of the available programs typically attended by pre-health professions students include:

- The University of Texas Medical Branch/UT Pan American Academic Enrichment Program
- The University of Texas Medical Branch Medical School Familiarization Program
- Minority Medical Education Program
- Texas A&M University System Health Science Center-College of Medicine Bridge to Medicine MCAT Preparatory Program
- The University of Texas-Houston Health Science Center Medical School Summer Enrichment Program
- Baylor College of Medicine Honors Premedical Academy
- Johns Hopkins University School of Medicine Human Anatomy Course for Undergraduates
- The University of Texas Health Science Center-San Antonio Dental School Summer Dental Research Program
- Texas A&M University System Health Science Center-Baylor College of Dentistry Pre-Dental Summer Enrichment Program
- The University of Texas Dental Branch at Houston Summer Enrichment Program
- Texas Tech University Health Sciences Center Rural Pre-Health Professional Summer Academy

Required Course Prerequisites for Medical and Dental Schools in Texas:

In addition to the General Educational and Specific Degree Requirements as the vast majority of students accepted to medical and dental school earn a baccalaureate degree prior to acceptance, the following courses represent the minimum requirements for acceptance as declared by the medical and dental schools in Texas. However, numerous additional courses and nonacademic activities are just as critical to be a successful pre-medical or pre-dental student. Frequent consultation with the Pre-Health Professions Adviser is very important. The Medical College Admissions Test (MCAT) and Dental Admissions Test (DAT) are also required for medicine and dentistry, respectively.

Academic Area	Course Numbers	Total Semester Hours
Biology	required: BIOL 1201 or equivalent, BIOL 1308/BIOL 1108, BIOL 1311/BIOL 1111 BIOL 1313/BIOL 1113, BIOL 2421, BIOL 3402 strongly recommended: BIOL 3408, BIOL 4401, BIOL 4402, BIOL 4406 BIOL 4408, BIOL 4426	22
Chemistry	required: CHEM 1311/CHEM 1111, CHEM 1312/CHEM 1112, CHEM 3323/CHEM 3123, CHEM 3325/CHEM 3125 strongly recommended: CHEM 4341 and CHEM 4342 CHEM 4341 is required for Dental School	16-19
English	ENGL 1301, ENGL 1302 courses in literature strong recommended	6
Mathematics (not required for Dental School)	MATH 2313 (may require completion of MATH 1314, MATH 1316, MATH 1348 if student has not earned CLEP or AP credit)	3
Physics	PHYS 1301/PHYS 1101 or PHYS 2325/PHYS 2125 PHYS 1302/PHYS 1102 or PHYS 2326/PHYS 2126	8

Pre-Pharmacy Generic Curriculum

The pre-pharmacy curriculum consists of at least two years of college credit; however, the number of students gaining acceptance to pharmacy school that complete at least three years of college or a baccalaureate degree prior to entry is growing rapidly as the general applicant pool becomes more competitive every year. The following courses represent the combined minimum requirements for acceptance as declared by all the pharmacy schools in Texas. Students are encouraged to complete the prerequisites to apply to all pharmacy schools in Texas in order to increase their overall chances of acceptance. However, students should consult with the Pre-Health Professions Adviser for requirements specific to each school. The applicant will be evaluated on the quality of overall academic performance, letters of recommendation and interviews. The Pharmacy College Admission Test (PCAT) is also required.

Note: Students attending institutions other than Texas A&M University-Kingsville for their undergraduate studies that wish to apply for admission to the Texas A&M University-Kingsville School of Pharmacy should consult with the School of Pharmacy staff and the Pre-Health Professions Adviser at their parent institution for the specific courses at that institution that meet the prerequisites specific to the Texas A&M University-Kingsville School of Pharmacy.

Academic Area	Course Numbers	Total Semester Hours
Biology*	required: BIOL 1201 or equivalent; BIOL 1308/BIOL 1108 and BIOL 1311/BIOL 1111 or BIOL 1313/BIOL 1113 (one of these two courses), BIOL 2421, BIOL 3402 recommended: BIOL 2401, BIOL 2402, BIOL 3408, BIOL 4406, BIOL 4408, BIOL 4426	18
Chemistry	required: CHEM 1311/CHEM 1111, CHEM 1312/CHEM 1112, CHEM 3323/CHEM 3123 CHEM 3325/CHEM 3125 recommended: CHEM 4341, CHEM 4342	16
Physics*	PHYS 1301/PHYS 1101 or PHYS 2325/PHYS 2125	4
Mathematics	MATH 2313 (may require completion of MATH 1314, MATH 1316, MATH 1348 if student has not earned CLEP or AP credit)	3
Statistics	STAT 1342	3
English*	ENGL 1301, ENGL 1302, ENGL 2342 or ENGL 2362	9
History	HIST 1301, HIST 1302	6
Political Science	POLS 2301, POLS 2302	6
Social/Behavioral Science*	PSYC 2301 or SOCI 1301 and ECON 2301	6
Advanced Soc/Behav Science*	PSYC 3301/SOCI 3301, PSYC 4325, SOCI 3351 or any advanced course from PSYC or SOCI considered "writing intensive"	3
Visual/Performing Arts	(examples of; not inclusive) ARTS 2301, MUSI 2301 or THEA 2301, ARTS 1303, ARTS 1304 or any 3 hour lab or studio course from ARTS, MUSI or THEA	3
Communications	COMS 1311	3
Computer Literacy	CISA 1301	3

*Hours vary depending on the specific pharmacy college.

Pre-Optometry, Pre-Physical Therapy, Pre-Occupational Therapy, Pre-Physician Assistant, Pre-Clinical Lab Sciences Generic Curriculum:

Students interested in the careers listed above must complete the General Education Requirements in addition to the following courses. However, there are variations in those requirements for each institution offering the respective graduate degrees. The listing below itemizes only the common courses required of all four careers listed in this section. Additional courses and nonacademic activities are just as critical in order to be successful. Therefore, frequent consultation with the Pre-Health Professions Adviser is very important. The Optometry Admissions Test (OAT) is required for optometry school. The Graduate Record Examination (GRE) is required for physical therapy, occupational therapy and physician assistant schools.

Academic Area	Course Numbers	Total Semester Hours
Biology	BIOL 1201 or equivalent, BIOL 1308/BIOL 1108, BIOL 1313/BIOL 1113 BIOL 2401, BIOL 2402, BIOL 2421, BIOL 3408	26
Chemistry	CHEM 1311/CHEM 1111, CHEM 1312/CHEM 1112, CHEM 3323/CHEM 3123 *CHEM 3325/CHEM 3125 and CHEM 4341 are also required for Optometry	12-19
Physics	PHYS 1301/PHYS 1101 or PHYS 2325/PHYS 2125, PHYS 1302/PHYS 1102 or PHYS 2326/PHYS 2126	8
Additional Mathematics (only required for Optometry)	MATH 2313 (may require completion of MATH 1314, MATH 1316, MATH 1348 (if student has not earned CLEP or AP credit)	3
Statistics	STAT 1342	3
Additional English (only required for Physical Therapy)	ENGL 2314	3
Psychology*	PSYC 2301, PSYC 4325, one additional advanced PSYC	3-9
Sociology	SOCI 1301	3

**Hours and specific courses vary depending on the specific program*

A Medical Terminology course may also be required for some graduate schools (usually available as an Internet course from various institutions).

Pre-Nursing Generic Curriculum

The curriculum for a nursing degree depends on whether a student is interested in applying to a two-year nursing program (Associate Degree in Nursing) or a four-year nursing program (Bachelor of Science in Nursing). The following lists most of the courses required for the various two-year and four-year programs at most schools of nursing in Texas. Students interested in pursuing a two-year degree in nursing are not required to take general education courses, though it is recommended. Schools of nursing differ greatly in their entrance requirements. After deciding on a school or schools, the student should write to the Director of Admissions for the latest catalog and follow the program outlined as nearly as possible. Students should consult the Pre-Health Professions Adviser for specific course programs.

A.D.N. Track

Academic Area	Course Numbers	Total Semester Hours
Biology*	BIOL 1201 or equivalent, BIOL 2401, BIOL 2402, BIOL 2421	14
Chemistry*	CHEM 1405, CHEM 1407	4-8
English**	ENGL 1301, ENGL 1302	6
Psychology	PSYC 2301	3
Growth & Development*** (Not currently offered)	PSYC 2314	3

B.S.N. Track**In addition to the above courses, a student must also complete:**

Academic Area	Course Numbers	Total Semester Hours
Mathematics	MATH 1314	3
Statistics	STAT 1342	3
Literature or Foreign Language	ENGL 2342, ENGL 2362, SPAN 1301, SPAN 1313, FREN 1311	3
History	HIST 1301, HIST 1302	6
Political Science	POLS 2301, POLS 2302	6
Nutrition*	HSCI 2350	3
Sociology*	SOCI 1301	3
Social/Behavioral Sci Electives*	(examples of; not inclusive) PSYC 2306/SOCI 2306, PSYC 3301/SOCI 3301, PSYC 3314, SOCI 4307, PSYC 4322, PSYC 4342, SOCI 4341, SOCI 4362	6
Communications	COMS 1311	3
Computer Literacy	CISA 1301	3
Visual/Performing Arts	(examples of; not inclusive) ARTS 2301, MUSI 2301 or THEA 2301 ARTS 1303, ARTS 1304 or any 3 hour lab or studio course in ARTS, MUSI or THEA	3
Kinesiology (students >23 years are exempt)	Any 3 different courses as defined in the Kinesiology Activity Courses section of the catalog.	3

**Hours and specific courses vary depending on the specific program.*

***Additional courses in English may be required at some nursing schools for the B.S.N. track.*

****PSYC 2314 specifically is not currently offered at Texas A&M University-Kingsville. However, Developmental Psychology is offered most spring semesters as a psychology topics course and fulfills this prerequisite.*

DEPARTMENT OF PSYCHOLOGY AND SOCIOLOGY

James M. Puckett, Jr., *Chair*

Manning Hall 120. MSC 177. Extension 2701.

Professors

Dempster, Domino, Green, Pace, Puckett, Torres Raines

Associate Professors

Anderson, Chen, Reitinger, Vowell

Assistant Professors

Coulton, Guerrero, Lin, Lockhart, Rhoades, Rowe, Theriot, Turner

Lecturer

Hill

Faculty Emeritus

Bittinger

The Department of Psychology and Sociology is committed to the goals of a liberal education emphasizing human growth and intellectual development through an understanding of individual behavior, social interaction and cultural awareness at the undergraduate and graduate levels. The various programs in the department are geared specifically to the professional preparation of social scientists and practitioners in the areas of human ecology and demography, gender and minority relations, families and children, Mexican American culture and folklore, U.S.-Mexico borderlands studies, industrial organization, health and physiology, abnormal and deviant behavior, clinical counseling, psychometrics, social welfare programs, gerontology and criminology.

The department promotes critical analyses and creative approaches surrounding the socioeconomic development of South Texas by investigating issues and providing services impacting the regional Hispanic population. It provides a comprehensive level of quality instruction, research and community involvement. By doing so it supports the academic, research and service goals of the College of Arts and Sciences and the mission of the University.

The department offers majors and minors in Criminology, Psychology, Sociology; a major in Social Work and minors in Anthropology and Southwest Borderland Research Center.

ANTHROPOLOGY (ANTH)

2301. Introduction to Archeology. (ANTH 2302)

3(3-0)

General introduction to the field of archeology. Emphasis on methods of data collection, analysis and a world review of major events in the development of past human civilizations.

2302. Introduction to Anthropology. (ANTH 2346)

3(3-0)

Major aspects of culture (social organization, economics, religion, etc.); cultural patterns and sociocultural change; prehistory of humans and the development of their culture.

2303. Introduction to Physical Anthropology. (ANTH 2301)

3(3-0)

An introduction to the origins and evolution of humans as reconstructed from the fossil record and from patterns of anatomical, behavioral and genetic similarity among living primates.

3301. Pre-Columbian American Cultures.

3(3-0)

Development of American Indian cultures of Central and South America to time of Spanish Conquest. Maya, Inca, Aztec and related cultural traditions. Optional field trip when possible. Prerequisite: 3 semester hours of Anthropology or Southwest Borderlands Studies. (Credit may not be obtained in both ANTH 3301 and SWBS 3301.)

3302. Principles of Cultural Anthropology.

3(3-0)

Major approaches in the field of cultural anthropology and the major influences on the discipline; introduction to research methodology used in both primitive and modern societies. Prerequisite: ANTH 2302.

3303. Introduction to Folklore and Folklife. 3(3-0)
Survey of the major forms of folklore and folklife and the methods of collection and study. Examines traditional verbal art forms, customs and material culture. Prerequisite: ANTH 2302.

3304. Fundamentals of Archaeology. 3(3-0)
Methods of data collection, analysis and theory in anthropological archaeology. Case studies of cultural development in selected ancient and historic societies. Prerequisite: 6 semester hours of social science.

4301. Social Theory. 3(3-0)
Development of social theory as represented by Comte, Spencer, Durkheim and Weber, to contemporary schools of thought, including functionalism, conflict, symbolic interactionism, structuralism and world systems theory. Prerequisite: ANTH 2302 or SOCI 1301 and 6 semester hours of advanced Anthropology or Sociology. (Credit may not be obtained in both ANTH 4301 and SOCI 4383.)

4303. Folk Medicine. 3(3-0)
An examination of the folk medical system of Mexican Americans from an anthropological perspective. Includes an exploration of household remedies (including herbal remedies), folk illness syndromes, various folk healers (including *parteras*, or midwives, and *sobadores*, or massagers), *curanderismo* (folk healing) and *brujeria* (witchcraft) in present-day Mexican American culture in South Texas and the Southwest. Prerequisite: 3 semester hours of Anthropology or Southwest Borderlands Studies. (Credit may not be obtained in both ANTH 4303 and SWBS 4304.)

4305. Language and Culture. 3(3-0)
Introduction to the social and cultural aspects of language and provides framework and methodology for studying and analyzing the many elements which make up verbal and nonverbal communication in various speech communities in the United States. Prerequisite: 3 semester hours of Anthropology or Southwest Borderlands Studies. (Credit may not be obtained in both ANTH 4305 and SWBS 4305.)

4306. Mexican-American Folklore. 3(3-0)
Examines the various types of culture from an anthropological perspective and provides an in-depth look at various genres of Mexican-American folklore, including folk narrative, folk belief, folk medicine, folk music, folk speech and folk material culture. Prerequisite: 3 semester hours of Anthropology or Southwest Borderlands Studies. (Credit may not be obtained in both ANTH 4306 and SWBS 4306.)

4308. Latin American Culture. 3(3-0)
Origin and development of contemporary cultural forms in Latin America. Industrialization, socioeconomic and demographic change are examined from several theoretical perspectives. Prerequisite: 6 semester hours of Anthropology or Sociology. (Credit may not be obtain in both ANTH 4308 and SWBS 4308.)

4309. Mexican Border Subcultures. 3(3-0)
Analysis of social processes such as competition, accommodation and cooperation occurring in the American Southwest and in Northern Mexico, with attention to such variables as ethnicity and stratification. Prerequisite: 3 semester hours of Anthropology or Southwest Borderlands Studies. (Credit may not be obtained in both ANTH 4309 and SWBS 4309.)

4350. Selected Topics in Anthropology. 3(3-0)
Literature and research in anthropological areas not otherwise treated in depth in available courses. May be repeated once for credit when topics differ. Prerequisite: ANTH 2302 or SOCI 1301 and 6 semester hours of social science.

4382. Methods of Social Research. 3(3-0)
Introduction to the study of the scientific method as applied to social research, including the logic of science, covering the nature of data, hypotheses, concepts and objectivity. Prerequisites: ANTH 2302 or SOCI 1301 and 3 semester hours of advanced Anthropology or Sociology. (Credit may be obtained in only one of ANTH 4382, CRIM 4382 or SOCI 4382.)

CRIMINOLOGY (CRIM)

3302. Social Deviance.

3(3-0)

Survey of the sociological and psychological aspects of deviant behavior. Nature of deviance, types of deviant behavior, causal theories and social policy implications. (Credit may not be obtained in both CRIM 3302 and SOCI 3302.) Prerequisites: SOCI 1301 and 3 semester hours of Criminology or Sociology.

3320. Psychology of Criminal Behavior.

3(3-0)

Psychological processes related to behaviorism, social learning theory, aggression theory, bio-psychological factors, criminal homicide, sexual offenses, drugs and crime, correctional psychology, the criminal offender and the mentally disordered offender. (Credit may not be obtained in both CRIM 3320 and PSYC 3320.) Prerequisites: PSYC 2301 and SOCI 1301.

3321. Introduction to Criminology.

3(3-0)

Extent, types, causation, patterns and organization, apprehension, punishment treatment, agents and agencies related to crime and criminals, including experiences such as field trips and visits to jail may be included. (Credit may not be obtained in both CRIM 3321 and SOCI 3321.) Prerequisite: SOCI 1301.

3322. Juvenile Delinquency.

3(3-0)

Incidences, types, causation, patterns, processes, treatment agencies and research as related to juvenile delinquency. Selected practical experiences such as field trips to juvenile institutions. (Credit may not be obtained in both CRIM 3322 and SOCI 3322.) Prerequisite: SOCI 1301.

4320. Law and Society.

3(3-0)

An in-depth examination of law and society through the philosophy and evolution of legal systems and legal institutions. The major functions of law as agents of social control, dispute resolution and societal engineering are addressed. (Credit may not be obtained in both CRIM 4320 and SOCI 4320.) Prerequisites: SOCI 1301 and 3 semester hours of Criminology or Sociology.

4321. Criminological Theory.

3(3-0)

An overview of the principle theories of criminality and the application of these theories to contemporary crime issues. Prerequisite: CRIM 3321 or SOCI 3321.

4325. Sociology of Corrections.

3(3-0)

Overview of social psychological, cultural, sociological and political factors related to the correctional enterprise. Includes treatment of the context of corrections, correctional practices, correctional issues, correctional institutions and correctional perspectives. May include field trips to correctional institutions. (Credit may not be obtained in both CRIM 4325 and SOCI 4325.) Prerequisite: CRIM 3321 or SOCI 3321.

4326. Community Resources in Corrections.

3(3-0)

An analysis of correctional processes and facilities available at the community level. Topics include: probation, parole, diversion, halfway houses, community reintegration procedures, community treatment centers and volunteer programs. Emphasis is placed on social structure, functions and problems of community-based programs. May include practical experiences such as field trips. Prerequisites: CRIM 3321 and SOCI 1301.

4331. Constitutional Law.

3(3-0)

A survey of American constitutional law, using leading cases, both historic and contemporary, of the Supreme Court of the United States. Establishment of the federal political system for which the Constitution provided and the judicial allocations of political and economic power within that system. (Credit may not be obtained in both CRIM 4331 and POLS 4331.) Prerequisite: 6 semester hours of Political Science.

4332. Constitutional Law.

3(3-0)

A survey of American constitutional law, using leading cases, both historic and contemporary, of the Supreme Court of the United States. Matters of rights and liberties, their recognition and definition, policies of rights developed by the Supreme Court of the United States. (Credit may not be obtained in both CRIM 4332 and POLS 4332.) Prerequisite: 6 semester hours of Political Science.

4333. The American Judicial Process. 3(3-0)
The federal Judicial System in terms of structure, function and process with stress on court interaction at both intracourt and intersystem levels. (Credit may not be obtained in both CRIM 4333 and POLS 4333.) Prerequisite: 6 semester hours of Political Science.

4340. Topics in Criminology. 3(3-0)
Literature and research in the area of criminology not otherwise treated in depth in available courses. Topics will vary according to needs, interests and capability of the instructor. May be repeated once for credit when topic differs. Prerequisite: 6 semester hours of Criminology.

4341. Organized and White-Collar Crime. 3(3-0)
An in-depth view of the social structural and organization factors leading to the development of organized and white collar criminal activity from a sociological perspective. The nature, extent, types, costs, structure and control of these crimes will be treated. Prerequisite: 6 semester hours of Criminology.

4342. Substance Abuse. 3(3-0)
A general survey of current research on psychological, social, legal and situational factors involved in substance usage and its effect on human behavior and criminal activity. Includes a treatment of therapeutic procedures and facilities. (Credit may not be obtained in both CRIM 4342 and PSYC 4342.) Prerequisite: 6 semester hours of Criminology or Psychology.

4345. Victimology. 3(3-0)
An examination of the historical role of crime victims, nature of victimization in modern society, the victimization process, solutions to victimization and victim's rights. Emphasis given to the social, legal, psychological and societal aspects of victimization. Victim-offender interaction and societal response to victimization will also be treated. Prerequisite: 6 semester hours of social science.

4346. Gangs and Gang Behavior. 3(3-0)
Gangs and gang behavior from a cross-cultural perspective. The historical evolution of gangs in America and Europe. Emphasis on the causes, consequences and social control of gangs in relation to society. Prerequisite: 6 semester hours of Criminology.

4348. Violence. 3(3-0)
Types of violence from a historical and cross-cultural perspective, identifying and delineating patterns of violent behavior. Social structure and culture are linked to violence and examined in the context of individuals, groups and societies. Emphasis is placed on the social control of violence. Prerequisite: 6 semester hours of Criminology.

4382. Methods of Social Research. 3(3-0)
Introduction to the study of the scientific method as applied to social research including the logic of science, covering the nature of data, hypotheses, concepts and objectivity. (Credit may be obtained in only one of CRIM 4382, ANTH 4382 or SOCI 4382.) Prerequisites: SOCI 1301 and 3 semester hours of Sociology.

4384. Directed Research in Criminology. V:1-3
Supervised research experience in criminology. Student will assist with a research project by working under the individual guidance of a faculty member. Requirements may include library research, data collection, data entry, statistical analysis and/or assistance in planning and conducting parts of a research project. A paper on the research experience is required. May be repeated for a maximum of 3 semester hours of credit. Prerequisites: SOCI 3381 or PSYC 3381, CRIM 4382 and 6 other semester hours of Criminology. (Consent of instructor required.) Credit/Non-credit.

PSYCHOLOGY (PSYC)

2301. Introduction to Psychology. (PSYC 2301) 3(3-0)
Scientific method of psychology; psychological phenomena and basic processes necessary to understanding human behavior. Emphasis on heredity-environment; personality development, motivation, emotion, attitudes and intelligence. Prerequisite to all other courses in Psychology.

- 2302. Survey of General Psychology.** (PSYC 2302) 3(3-0)
A continuation of PSYC 2301 with emphasis on learning, perception, physiological factors, the senses, experimental design and method. Prerequisite: PSYC 2301.
- 2305. Women's Issues in Health and Sexuality.** 3(3-0)
Examines health and medical issues for women, legal and political realities that influence women's lives and important aspects of intimacy and sexuality with a focus on both physiological and psychological development. Credit can be received in only one of PSYC 2305, EDHL 2305 or WMST 2305.
- 2306. Human Sexuality.** (PSYC 2306) 3(3-0)
Biophysical and psychological aspects of human sexuality. (Credit may not be obtained in both PSYC 2306 and SOCI 2306.)
- 2308. Child Psychology.** (PSYC 2308) 3(3-0)
A scientific study of the child as a sentient organism. The best methods of child study; native and learned behavior patterns and their development; the nature, amount and significance of individual differences; typical and atypical child behavior; emotions; play; language; work in specific capacity and interest; growing personality. Prerequisite: PSYC 2301 and sophomore standing.
- 3301. Social Psychology.** 3(3-0)
Theory and phenomena of social psychology. The nature and type of social variables and the methods used to study them. The effect of social variables upon the behavior of individuals. (Credit may not be obtained in both PSYC 3301 and SOCI 3301.) Prerequisite: 6 semester hours of Psychology or 12 hours of social science.
- 3303. Psychology of Personal Adjustment.** 3(3-0)
Adjustment problems of normal people. Principles of healthy psychological functioning in relation to family, peers, career, community and culture. Prerequisite: 6 semester hours of Psychology.
- 3304. Introduction to Learning Psychology.** 3(3-0)
General principles of learning and memory and an introduction to learning theory. Emphasis on motivation, conditioning and problem-solving. Prerequisite: 6 semester hours of Psychology.
- 3309. Differential Psychology.** 3(3-0)
The extent, nature, cause and significance of individual differences. Prerequisite: 6 semester hours of Psychology.
- 3313. Psychology of Women.** 3(3-0)
An overview of the broad range of psychological issues and biological events which are of significant relevance to women. Explores the richness of the female experience in terms of changing values, attitudes and expectations. (Credit may not be obtained in both PSYC 3313 and WMST 3313.) Prerequisite: 6 hours of Psychology.
- 3314. Psychology of Adolescence.** 3(3-0)
Treats the definition of adolescence, research and theory concerning the biological, moral, sex-role, personality and emotional development. Prerequisite: 6 semester hours of social science approved by the instructor.
- 3315. Health Psychology.** 3(3-0)
Examines and defines the nature of illness and healing through the integration of biophysiological, psychoneuroimmunological, psychological and environmental factors. Examines stress and stress management techniques. Prerequisites: 9 hours of social science and PSYC 2301.
- 3320. Psychology of Criminal Behavior.** 3(3-0)
Psychological processes related to behaviorism, social learning theory, aggression theory, bio-psychological factors, criminal homicide, sexual offenses, drugs and crime, correctional psychology, the criminal offender and the mentally disordered offender. (Credit may not be obtained in both PSYC 3320 and CRIM 3320.) Prerequisites: PSYC 2301 and SOCI 1301.

- 3381. Statistics for the Behavioral Sciences.** 3(3-0)
 Statistics for students in psychology, sociology and education. Emphasis upon descriptive and inferential techniques. Basic concepts in sampling data organization and statistic selection. (Credit may not be obtained in both PSYC 3381 and SOCI 3381.) Prerequisite: 6 semester hours of social science.
- 3387. Experimental Psychology.** 3(2-2)
 Introduction to experimentation in psychology. Basic experiments will be performed on the discriminial process, motivation and learning. Prerequisites: 6 semester hours of Psychology and PSYC 3381 or equivalent.
- 4302. Personnel and Industrial Psychology.** 3(3-0)
 Basic psychological principles of personnel work and psychological application in industry. Significance and evaluation of individual differences, motivation, morale, psychological testing and employer-employee relations. Prerequisite: 12 semester hours of social science and senior standing.
- 4304. Family Therapy.** 3(3-0)
 An overview of family systems approaches to etiology and treatment. Family dysfunctions that result from drug and alcohol usage and other causes are emphasized. Prerequisite: 12 semester hours of psychology.
- 4305. Advanced Human Sexuality.** 3(3-0)
 Psychosocial factors in human sexuality with emphasis on sexual adjustment, sexual dysfunctions, sexual variations and new approaches in sex therapy. Appropriate field trips may be included. Prerequisite: PSYC 2306 or SOCI 2306. (Credit may not be obtained in both PSYC 4305 and SOCI 4305.)
- 4308. Theory and Principles of Psychological Testing.** 3(3-0)
 An introduction into the rationale of psychological measurement. Test construction, validity, reliability, standardization and statistical treatment of test results. Various accepted tests will be examined as they present measurement of significant individual characteristics. Prerequisite: 9 semester hours of Psychology, including PSYC 3381 or its equivalent.
- 4312. Physiological Psychology.** 3(3-0)
 Introduction to the physiological substrata of behavior; including basic neuroanatomy, research techniques, basic physiology, sensory processes and central nervous system functions. Prerequisite: PSYC 2301 and PSYC 2302.
- 4315. Selected Topics in Psychology.** 3(3-0)
 Literature and research in areas of psychology not otherwise treated in depth in available courses. May be repeated once as topics change. Prerequisite: 12 semester hours of Psychology.
- 4322. Psychology of Personality.** 3(3-0)
 A comparison of personality theories and the implications for personality development and change. Prerequisite: 6 semester hours of Psychology.
- 4323. History and Systems of Psychology.** 3(3-0)
 Important historical antecedents and contemporary psychological systems. An exit course that integrates diverse material encountered in the discipline. Prerequisite: 6 semester hours of advanced Psychology; senior standing.
- 4325. Abnormal Psychology.** 3(3-0)
 Personality development and adjustment, causes of abnormal behavior, neuroses, psychoses, suicide, personality disorders and crime. Prerequisite: 6 semester hours of Psychology.
- 4328. Psychology of Perception.** 3(3-0)
 Analysis of basic perceptual phenomena and theories of perception. Emphasis on sensation, attention, meaning and structural concepts. Prerequisite: 6 semester hours of Psychology.
- 4342. Substance Abuse.** 3(3-0)
 A general survey of current research on psychological, social, legal and situational factors involved in substance usage and its effect on human behavior and criminal activity. Includes a treatment of therapeutic procedures and facilities. (Credit may not be obtained in both PSYC 4342 and CRIM 4342.) Prerequisite: 6 semester hours of Criminology or Psychology.

4351. Directed Research in Psychology.

V:1-3

Individual instruction course for advanced and qualified undergraduates to obtain supervised research experience in psychology. Student will assist with a research project by working under the individual guidance of a psychology faculty member. Requirements may entail library research, data collection, data entry, statistical analysis and or assistance in planning and conducting parts of a research project. A paper on the research experience is required. Consent of instructor required. May be repeated for a maximum of 3 semester credit hours. Prerequisites: PSYC 3381, PSYC 3387 or SOCI 4382 and 6 other semester hours of psychology. Credit/Non-credit.

SOCIAL WORK (SCWK)

The mission of the social work program is to recruit and prepare racially, ethnically and culturally diverse students for competent practice as beginning generalist social workers with particular emphasis on public service, social justice and empowerment for people who are vulnerable, oppressed and living in poverty. Building on an educational foundation in the liberal arts, the curriculum will promote social work knowledge and skills centered on the professional values of service, social justice, cultural diversity, the dignity and worth of the person, the importance of human relationships and professional integrity and competence.

Accreditation

The social work program has been approved for candidacy by the Council for Social Work Education. This is the first step in the accreditation process that assures that graduates of the program will receive the education and training necessary to be recognized as professional social workers. While accreditation cannot be guaranteed, the university and program faculty are committed to this process.

Degree Requirements

The bachelor's degree in social work requires the completion of 124 semester credit hours including 39 hours in social work and 85 semester credit hours in liberal arts and related courses with 45 advanced hours. The major in social work does not require the student to have a minor.

Admission to the Program

Students admitted to the university may declare their interest in becoming social workers and initiate a general academic program preparatory to this objective. Formal admission into the program is required to register for professional social work (3000 or 4000 level) courses. The qualifications for admission to the program are as follows:

1. Completion of 45 semester hours of course work including at least 30 hours of the following courses or their equivalent.
 - ENGL 1301, ENGL 1302, ENGL 2342 and ENGL 2362
 - MATH 1314 or MATH 1334
 - SOCI 1301
 - PSYC 2301
 - POLS 2301, POLS 2302
 - HIST 1301, HIST 2302
 - CISA 1301
 - SCWK 2331, SCWK 2333
2. Completion of 25 hours of community service work approved by the program.
3. Application for admission must be submitted on forms provided by the program and in accordance with the policies and procedures set out in the Bachelor of Social Work Student Handbook which is available in the program office.

Admission to the Field Sequence

The field sequence consists of the two practicum courses and their corequisite seminars and may be taken in consecutive semesters or concurrently in one semester. Social work majors must meet the following qualifications for admission to the field sequence:

1. Minimum overall 2.0 GPA and a 2.25 GPA in all major social work courses.
2. Completion of all other social work courses required for the degree. Majors completing the field sequence over two semesters may be concurrently enrolled in the practice methods course.

Retention to the Program

Students may be advised to consider another major at any point after admission if they lack the emotional or mental stability, adequate communication skills, interpersonal relationship skills or the level of self-awareness necessary to pursue a social work career, as judged by the social work faculty. Criteria used by the faculty to make such judgments include but are not limited to the instructors' evaluation of a student's classroom performance and adherence to the National Association of Social Workers' Code of Ethics.

2331. Introduction to Social Work. 3(3-0)

Survey of the social work profession, including history, philosophy, ethics and relevance to current social issues. Participation with service agencies to assess interest in pursuing social work as a career. Prerequisite: SOCI 1301.

2333. Human Behavior in the Social Environment 1. 3(3-0)

Study of individuals as they develop physically, cognitively, socially, emotionally and spiritually over the life cycle with emphasis on benchmarks for growth. Utilizing the person-in-the-environment perspective, attention is given to social forces that inhabit growth and social functioning. Prerequisite: SCWK 2331 and PSYC 2301.

3335. Human Behavior in the Social Environment 2. 3(3-0)

A systems approach to examining behaviors of individuals, families, groups, organizations and communities. Critical analysis of the systems of inequality associated with class, race and ethnicity, gender, sexual orientation, physical ability and age. Prerequisite: SCWK 2333. Corequisite: SCWK 3337.

3337. Theories and Models of Social Work Practice. 3(3-0)

Overview of social work practice utilizing generalist models. Emphasis on client strengths and empowerment, the change process and issues of human diversity. Prerequisite: SCWK 2333 and admission to the program. Corequisite: SCWK 3335.

4306. Selected Topics in Social Work. 3(3-0)

Literature and research in areas of social work not otherwise treated in depth in available courses. May be repeated once as topics change. Prerequisites: SCWK 2331, SCWK 2333 and admission to the social work program.

4324. Social Work Methods I. 3(3-0)

Social work practice from a generalist perspective with emphasis on the acquisition of knowledge, skills and values necessary for working at the micro practice level. Students will acquire relationship building, interviewing and problem solving skills necessary for affecting change and enhancing the functioning of individuals, families, groups, organizations and communities. Prerequisites: SCWK 2331, SCWK 2333 and admission to the social work program.

4325. Social Work Methods II. 3(3-0)

Social work practice from a generalist perspective with emphasis on practice at the mezzo level. Students will acquire the knowledge and skills for working with individuals in small groups within the planned change process. Emphasis on values, ethics, human diversity and social justice. Prerequisite: admission to social work program and SCWK 4324.

4326. Social Work Methods III. 3(3-0)

Social work practice from a generalist perspective with emphasis on practice at the macro practice level. Students will acquire the knowledge and skills necessary in the problem solving process with large groups, communities and organizations and their individual members. Emphasis on values, ethics, human diversity and social justice. Prerequisites: admission to social work program and SCWK 4324.

4345. Social Welfare: Policy and Advocacy. 3(3-0)

Historical and current survey of the social service delivery system as a response to human need. History, mission and philosophy of the social work profession. Conceptual and practical application in policy analysis, advocacy and practice with disempowered groups. Prerequisite: SCWK 4641. Corequisite: SCWK 4347 and SCWK 4643.

4347. Methods of Social Work Research and Evaluation. 3(3-0)

Principles of social research. Quantitative and qualitative research methodologies, analysis of data including statistical procedures, conclusions of research reports, analysis and evaluation of theoretical bases and systematic evaluation of practice. Prerequisite: SCWK 4641. Corequisites: SCWK 4345 and SCWK 4643.

4641. Social Work Practicum 1. 6(2-16)
First in a sequence of two field practicums. Educationally directed and professionally supervised direct service activities providing practical experience in the application of theory and skills acquired in the foundation courses. Two hundred (200) clock hours of field placement and a weekly seminar of two hours. Prerequisite: SCWK 3337.

4643. Social Work Practicum 2. 6(2-16)
The second in a sequence of two field practicums. Educationally directed and professionally supervised direct service activities providing practical experience in the application of the theory and skills acquired in foundation courses. The application of research and evaluative techniques to the practice experience. Two hundred (200) clock hours of field placement; weekly seminar of two hours. Prerequisite: grade of C or better in SCWK 4641. Corequisite: SCWK 4345 and SCWK 4347.

SOCIOLOGY (SOCI)

1301. Principles of Sociology. (SOCI 1301) 3(3-0)
Study of the nature of human societies, social processes, social interaction, groups, culture, institutions and social change.

1306. Social Problems. (SOCI 1306) 3(3-0)
Survey of contemporary social problems and current trends in the direction of their solution. Prerequisite: SOCI 1301.

2306. Human Sexuality. (SOCI 2306) 3(3-0)
Biophysical and psychological aspects of human sexuality. (Credit may not be obtained in both SOCI 2306 and PSYC 2306.)

2361. Pluralistic Societies. 3(3-0)
Macro-cultural and micro-cultural variables such as ethnicity, religion, age, socioeconomic status, language, gender and exceptionality and their impact upon major institutions such as education, labor markets and government.

2363. Women, Change and Society. 3(3-0)
Interdisciplinary approach utilizing political, historical and sociological factors to analyze the status of American women. Aspects of sex role socialization, institutional interaction, social problems and social movements are analyzed. (Credit may not be obtained in both SOCI 2363 and WMST 2363. Prerequisite: SOCI 1301 or 6 hours of social science.)

3301. Social Psychology. 3(3-0)
Theory and phenomena of social psychology. The nature and type of social variables and the methods used to study them. The effect of social variables upon the behavior of individuals. (Credit may not be obtained in both SOCI 3301 and PSYC 3301.) Prerequisite: 6 semester hours of Psychology or 12 hours of social science.

3302. Social Deviance. 3(3-0)
Survey of the sociological and psychological aspects of deviant behavior. Nature of deviance, types of deviant behavior, causal theories and social policy implications. (Credit may not be obtained in both SOCI 3302 and CRIM 3302.) Prerequisites: SOCI 1301 and 3 semester hours of Sociology or Criminology.

3321. Introduction to Criminology. 3(3-0)
Extent, types, causation, patterns and organization, apprehension, punishment treatment, agents and agencies related to crime and criminals, including experiences such as field trips and visits to jail may be included. (Credit may not be obtained in both SOCI 3321 and CRIM 3321.) Prerequisite: SOCI 1301.

3322. Juvenile Delinquency. 3(3-0)
Incidence, types, causation, patterns, processes, treatment agencies and research as related to juvenile delinquency. Selected practical experiences such as trips to juvenile institutions. (Credit may not be obtained in both SOCI 3322 and CRIM 3322.) Prerequisite: SOCI 1301.

3332. An Introduction to Group Work. 3(3-0)
A study of the dynamics of groups with emphasis on theories and findings concerning groups. Prerequisite: SOCI 1301 or 6 hours of social science.

- 3351. Urban Sociology.** 3(3-0)
The culture, history and growth patterns of cities; demographic, ecological patterns and trends. Problems of housing and community organization. Prerequisite: SOCI 1301.
- 3381. Statistics for the Behavioral Sciences.** 3(3-0)
Statistics for students in psychology, sociology and education. Emphasis upon descriptive and inferential techniques. Basic concepts in sampling data organization and statistic selection. (Credit may not be obtained in both SOCI 3381 and PSYC 3381.) Prerequisite: 6 semester hours of social science.
- 4305. Advanced Human Sexuality.** 3(3-0)
Psychosocial factors in human sexuality with emphasis on sexual adjustment, sexual dysfunctions, sexual variations and new approaches in sex therapy. Appropriate field trips may be included. Prerequisite: SOCI 2306 or PSYC 2306. (Credit may not be obtained in both SOCI 4305 and PSYC 4305.)
- 4307. The Family and Marriage.** 3(3-0)
History and development of the family as an educational and social institution, factors involved in family integrity, role of the individual in family relations, marital adjustments and family conservation in light of the present-day social and economic conditions. Prerequisite: SOCI 1301 or 6 hours of social science.
- 4308. Selected Topics in Sociology.** 3(3-0)
Literature and research in areas of sociology not otherwise treated in depth in available courses. May be repeated once for credit when topics differ. Prerequisite: 12 semester hours of Sociology.
- 4320. Law and Society.** 3(3-0)
An in-depth examination of law and society through the philosophy and evolution of legal systems and legal institutions. The major functions of law as agents of social control, dispute resolution and societal engineering are addressed. (Credit may not be obtained in both SOCI 4320 and CRIM 4320.) Prerequisites: SOCI 1301 and 3 semester hours of Sociology or Criminology.
- 4324. Technology and Society.** 3(3-0)
A study of technology and society from the perspective of social values, ethics, sociology, social environment, politics and economics. Prerequisite: 12 hours of social science.
- 4325. Sociology of Corrections.** 3(3-0)
Overview of social, psychological, cultural, sociological and political factors related to the correctional enterprise. Includes treatment of the context of corrections, correctional practices, correctional issues, correctional institutions and correctional perspectives. May include field trips to correctional institutions. (Credit may not be obtained in both SOCI 4325 and CRIM 4325.) Prerequisite: SOCI 3321 or CRIM 3321.
- 4341. Sociology of Aging.** 3(3-0)
Study of the last stage in the life-cycle of man. The course emphasizes the interdisciplinary approach necessary in the field of gerontology, the biological, psychological and social aspects of the aging process, along with the social impact of growing proportions of aged persons within the social structure of society. Prerequisite: SOCI 1301.
- 4342. Sociology of Death.** 3(3-0)
Sociological perspectives of the dying process and death itself, including the cultural and institutional means of aiding survivors through the grief, mourning and bereavement process. Prerequisite: 12 semester hours of Sociology.
- 4362. Race Relations.** 3(3-0)
Critical analysis of the concept of race, analysis of subordinate peoples in various world societies and in the United States, emphasis on dynamics of problems of subordinate groups. Prerequisite: 6 hours of Sociology.
- 4364. Minority Women in U.S. Society.** 3(3-0)
An integrated study of the impact that socioeconomic and ethnic/racial factors have on minority women within the United States. (Credit may not be obtained in both SOCI 4364 and WMST 4300.) Prerequisite: SOCI 1301 or 6 hours of social science.

4382. Methods of Social Research.

3(3-0)

Introduction to the study of the scientific method as applied to social research including the logic of science, covering the nature of data, hypotheses, concepts and objectivity. Prerequisites: ANTH 2302 or SOCI 1301 and 3 semester hours of advanced Anthropology or Sociology. (Credit may be obtained in only one of SOCI 4382, ANTH 4382 or CRIM 4382.)

4383. Social Theory.

3(3-0)

Development of social theory as represented by Comte, Spencer, Durkheim and Weber, to contemporary schools of thought, including functionalism, conflict, symbolic interactionism, structuralism and world systems theory. Prerequisite: ANTH 2302 or SOCI 1301 and 6 semester hours of advanced Anthropology or Sociology. (Credit may not be obtained in both SOCI 4383 and ANTH 4301.)

4386. Directed Research in Sociology.

V:1-3

Individual instruction course for advanced and qualified undergraduates to obtain supervised research experience in sociology. Student will assist with a research project by working under the individual guidance of a sociology faculty member. Requirements may entail library research, data collection, data entry, statistical analysis and/or assistance in planning and conducting parts of a research project. A paper on the research experience is required. Consent of instructor required. May be repeated for a maximum of 3 semester credit hours. Prerequisites: SOCI 3381, SOCI 4382 or PSYC 3387 and 6 other semester hours of Sociology. Credit/Non-credit.

SOUTHWEST BORDERLANDS RESEARCH CENTER (SWBS)

Manning Hall 120. MSC 177. Extension 2701.

The university is located within the United States-Mexican borderlands region currently undergoing significant sociocultural, economic and demographic change. This complex of changes has had much favorable impact but has also simultaneously produced a multiplicity of social problems along the entire length of the borderlands region. The Southwest Borderlands Research Center is committed to the practical investigation of those problems and to the development of specialized courses of study which focus on the area, its residents and its student body.

The Southwest borderlands region is a unique laboratory for international investigation. The broad objectives of the center's program are to integrate and centralize information on vital borderlands concerns such as agriculture, energy and labor; to investigate thoroughly sociocultural, economic, demographic and mutual welfare problems and issues; to analyze objectively the characteristics of borderlands residents (primarily, the working population); to open lines of communication between scholars, businessmen, professionals and other individuals concerned with the dynamics of borderlands transitional zones; to facilitate the collection and application of scientific data on borderlands phenomena so that such data can be used by a wide spectrum of individuals, including farmers, small businessmen, corporations and governmental agencies; and to educate students capable of assuming professional careers which depend upon a clear understanding of the complex borderlands region.

The center also functions to promote research on ethnic minorities in the Southwest, to document existing course work on ethnic minorities and to coordinate the establishment of new courses having special appeal to interested people with the various departments.

Minors

The center offers minors in both of its component areas, Mexican American Studies and Southwest Borderlands Studies, in conjunction with the Departments of Geosciences, History, Language and Literature, Political Science, Psychology and Sociology and the Colleges of Agriculture and Human Sciences, Business Administration and Engineering.

Minors in Mexican American Studies are required to complete 18 semester hours of courses related to Mexican Americans, including SWBS 2301. Students electing to minor in Southwest Borderlands Studies are required to take SWBS 2302, SWBS 4302 and SWBS 4304 to complete 18 semester hours of courses related to borderlands development. No more than 9 semester hours in any department may apply toward the minor in either area of concentration.

Students may select from the following courses in order to complete a minor in either Mexican American Studies or Southwest Borderlands Studies.

GEOG 3335	Mexico and Middle America
HIST 3356	Mexico
HIST 3346	Texas History
HIST 3348	History of the Mexican American in the Southwest
HIST 3350	Latin America
HIST 4392	Crucial Topics in Latin American History
ANTH 3301	Pre-Columbian American Culture
ANTH 4308	Latin American Culture
ANTH 4309	Mexican Border Subcultures
SPAN 4311	Spanish Linguistics
SPAN 4319	Hispanic Folklore

Additional courses apply at the discretion of the center director.

Certificate Program

A certificate program is aimed primarily at the practical needs of professionals, teachers, business and industrial personnel, governmental agencies and social service workers. The program requires attendance and active participation in seminars, workshops and conferences organized by the center and offered throughout the year that focus on Southwest borderlands regional development. A certificate is awarded to participants completing 18 hours documenting expertise in Southwest Borderlands Research and Studies. Continuing Education Units are also offered for those functions planned in conjunction with the Center for Distance Learning and Continuing Education.

2301. Foundations of Mexican American Studies. 3(3-0)

History, economics, sociology, demography, folklore, education, art and literature of Mexican Americans.

2302. Introduction to Southwest Borderlands Studies. 3(3-0)

A survey of the multidimensional and interdependent nature of United States-Mexico regional interaction and development. A focus on southwest borderlands dynamics which impact upon culture, social institutions, ecological and demographic characteristics.

3300. Mexican American Literature and Thought. 3(3-0)

Selected Mexican American literature and its accompanying thought covering various periods and the following genres: poetry, the short story, the novel, the theater and the essay. Conducted in Spanish and English.

3301. Pre-Columbian American Cultures. 3(3-0)

Development of American Indian cultures of Central and South America to time of Spanish Conquest. Maya, Inca, Aztec and related cultural traditions. Optional field trip when possible. Prerequisite: 3 semester hours of Anthropology or Southwest Borderlands Studies. (Credit may not be obtained in both SWBS 3301 and ANTH 3301.)

4301. Bicultural Groups in U.S. Society. 3(3-0)

A study of bicultural groups with salient ethnic characteristics, i.e., Blacks, Mexican Americans, Puerto Ricans, Japanese, Italians and Native Americans. Prerequisite: 3 semester hours of Southwest Borderlands Studies or 12 semester hours of social science.

4302. Political Economy of the Borderlands. 3(3-0)

A contemporary focus on the political-economic dynamics characterizing Southwest borderlands regional development. An examination of U.S.-Mexican government programs and policies which impact upon borderlands industrialization, urbanization and migration. Prerequisite: 6 semester hours of social science.

4303. Folk Medicine. 3(3-0)

An examination of the folk medical system of Mexican Americans from an anthropological perspective. Includes an exploration of household remedies (including herbal remedies), folk illness syndromes, various folk healers (including *parteras*, or midwives, and *sobadores*, or massagers), *curanderismo* (folk healing) and *brujeria* (witchcraft) in present-day Mexican American culture in South Texas and the Southwest. Prerequisite: 3 semester hours of Southwest Borderlands Studies or Anthropology. (Credit may not be obtain in both SWBS 4303 and ANTH 4303.)

4304. Human and Natural Resources of the Borderlands. 3(3-0)

Study of development of natural and human resources use in the several cultural areas of the borderlands. Analysis of problem areas such as water resources, international migration, disaster management and manpower development. Prerequisite: 6 semester hours of social science.

4305. Language and Culture. 3(3-0)

Introduction to the social and cultural aspects of language and provides framework and methodology for studying and analyzing the many elements which make up verbal and non-verbal communication in various speech communities in the United States. Prerequisite: 3 semester hours of Southwest Borderlands Studies or Anthropology. (Credit may not be obtained in both SWBS 4305 and ANTH 4305.)

4306. Mexican-American Folklore. 3(3-0)

Examines the various types of culture from an anthropological perspective and provides an in-depth look at various genres of Mexican-American folklore, including folk narrative, folk belief, folk medicine, folk music, folk speech and folk material culture. Prerequisite: 3 semester hours of Southwest Borderlands Studies or Anthropology. (Credit may not be obtained in both SWBS 4306 and ANTH 4306.)

4308. Latin American Culture. 3(3-0)

Origin and development of contemporary cultural forms in Latin America. Industrialization, socioeconomic and demographic change are examined from several theoretical perspectives. Prerequisite: 6 semester hours of Anthropology or Sociology. (Credit may not be obtain in both SWBS 4308 and ANTH 4308.)

4309. Mexican Border Subcultures. 3(3-0)

Analysis of social processes such as competition, accommodation and cooperation occurring in the American Southwest and in Northern Mexico, with attention to such variables as ethnicity and stratification. Prerequisite: 3 semester hours of Southwest Borderlands Studies or Anthropology. (Credit may not be obtained in both SWBS 4309 and ANTH 4309.)

**Degree Requirements
Bachelor of Science
Criminology**

Freshman Year			Junior Year		
ENGL 1301	3	*CISA 1301	3	CRIM (Adv)	3
HIST 1301	3	ENGL 1302	3	CRIM (Adv)	3
[^] Kinesiology	1	HIST 1302	3	CRIM 3321	3
MATH 1314 or		[^] Kinesiology	1	Minor	3
MATH 1334	3	POLS 2301	3	PSYC 3381/	
SOCI 1201		[^] Visual/		SOCI 3381	<u>3</u>
2		performing arts	<u>3</u>		15
SOCI 1301	<u>3</u>		16		
	15				
Sophomore Year			Senior Year		
*COMS 1311	3	Elective	3	CRIM (Adv)	3
ENGL 2342 or		Elective	3	CRIM 4321	3
ENGL 2362	3	[^] Kinesiology	1	CRIM 4325	3
Lab Science	4	Lab Science	4	Elective (Adv)	3
Minor	3	Minor	3	Minor (Adv)	<u>3</u>
POLS 2302	<u>3</u>	PSYC 2301	<u>3</u>		15
	16		17		
					Total Hours Required: 124

*Fulfills the University's oral communications and computer literacy requirements

**Any 3 SCH lab or studio ARTS/MUSI/THEA course can be used for Visual/performing arts.

**Degree Requirements
Bachelor of Arts
Psychology**

Freshman Year			Junior Year		
ENGL 1301	3	*CISA 1301	3	Elective, adv.	3
HIST 1301	3	ENGL 1302	3	[^] Kinesiology	1
[^] Kinesiology	1	HIST 1302	3	Minor	3
MATH 1314 or		[^] Kinesiology	1	Modern Language	3
MATH 1334	3	Minor	3	PSYC 4322	3
PSYC 2301	3	PSYC 2302	<u>3</u>	PSYC 4325	<u>3</u>
SOCI 1201	<u>2</u>		16		16
	15				
Sophomore Year			Senior Year		
*COMS 1311	3	**ARTS 2301/		Elective, adv.	3
Elective	3	MUSI 2301/		Elective, adv.	3
ENGL 2342 or		THEA 2301	3	Modern Language	3
ENGL 2362	3	ENGL 2342 or		PSYC, adv.	3
+Lab Science	4	ENGL 2362	3	PSYC 3304, PSYC 4312,	
POLS 2301 or		+Lab Science	4	or PSYC 4328	<u>3</u>
POLS 2302	<u>3</u>	Minor	3		15
	16	POLS 2301 or			
		POLS 2302	<u>3</u>		
			16		
					Total Hours Required: 124

*Fulfills the University's oral communications and computer literacy requirements.

**Any 3 SCH lab or studio ARTS/MUSI/THEA course can be used in place of ARTS/MUSI/THEA 2301.

+BIOL or CHEM recommended

++SOCI 4382 may be substituted with permission of adviser

[^]For courses listed under Core Curriculum Components see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

**Degree Requirements
Bachelor of Arts
Sociology**

Freshman Year				Junior Year			
ENGL 1301	3	ENGL 1302	3	*COMS 1311	3	Elective	3
HIST 1301	3	HIST 1302	3	Elective, adv.	3	Elective, adv.	3
^ <i>Kinesiology</i>	1	+ Lab Science	4	Minor	3	^ <i>Kinesiology</i>	1
Modern Language	3	Modern Language	3	SOCI, adv.	3	Minor	3
SOCI 1201	2	SOCI	<u>3</u>	SOCI 3381	<u>3</u>	SOCI, adv.	3
SOCI 1301	<u>3</u>		16		15	SOCI 4382	<u>3</u>
	15						16
Sophomore Year				Senior Year			
ENGL 2342 or		*CISA 1301	3	Elective	3	Elective, adv.	3
ENGL 2362	3	ENGL 2342 or		Elective, adv.	3	Minor, adv.	3
+ Lab Science	4	ENGL 2362	3	Minor, adv.	3	Minor, adv.	3
MATH 1314 or		^ <i>Kinesiology</i>	1	Minor, adv.	3	SOCI, adv.	3
MATH 1334	3	Modern Language	3	SOCI 4383	<u>3</u>	SOCI, adv.	<u>3</u>
Modern Language	3	++ MUSI 2301/ARTS			15		15
POLS 2301	<u>3</u>	2301/ THEA 2301	3				
	16	POLS 2302	<u>3</u>				
			16				
						Total Hours Required:	124

*Fulfills the University's oral communications and computer literacy requirements.

+ BIOL or CHEM recommended

++ Any 3 SCH lab or studio ARTS/MUSI/THEA course can be used in place of ARTS/MUSI/THEA 2301.

**Degree Requirements
Bachelor of Social Work**

Freshman Year				Junior Year			
ENGL 1301	3	*CISA 1301	3	*COMS 1311	3	Elective	3
HIST 1301	3	ENGL 1302	3	PSYC 3381 or		Elective	3
^ <i>Kinesiology</i>	1	HIST 1302	3	SOCI 3381	3	Elective, adv.	3
MATH 1314 or		^ <i>Kinesiology</i>	1	SCWK 3335	3	PSYC 4325	3
MATH 1334	3	PSYC 2301	3	SCWK 3337	3	SCWK 4324	<u>3</u>
SOCI 1201	2	**MUSI 2301/ARTS		SWBS 2302	<u>3</u>		15
SOCI 1301	<u>3</u>	2301/ THEA 2301	<u>3</u>		15		
	15		16				
Sophomore Year				Senior Year			
Elective	3	ENGL 2362	3	Elective, adv.	3	SCWK 4326	3
ENGL 2342	3	+ Lab Science	4	SCWK 4325	3	SCWK 4345	3
^ <i>Kinesiology</i>	1	POLS 2302	3	SCWK 4641	6	SCWK 4347	3
+ Lab Science	4	PSYC 2308	3	SOCI 4307	<u>3</u>	SCWK 4643	<u>6</u>
POLS 2301	3	SCWK 2333	<u>3</u>		15		15
SCWK 2331	<u>3</u>		16				
	17					Total hours required:	124

*Fulfills University's oral communications and computer literacy requirements

**Any 3 SCH lab or studio ARTS/MUSI/THEA course can be used in place of ARTS/MUSI/THEA 2301.

+ Human biology recommended

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

RELIGION (RELG)

Baptist Student Ministries. MSC 205. Telephone 592-9335.
St. Thomas Aquinas Catholic Center. MSC 205. Telephone 592-5781.

Credit toward university degrees is given for courses offered by three off-campus Bible Chairs, under regulations that maintain their equivalence with other courses given at the university. The instructors are under the control of some permanent religious organization of recognized standing, possess at least the training of instructors in the university, and are approved by the Dean of Arts and Sciences, Provost and Vice President for Academic Affairs and the President. Religious studies courses are subject to the same regulations and supervision as regular courses given in the university.

1111. The Book of Romans. 1(1-0)

A study of the Book of Romans, emphasizing the central religious teachings of the Apostle Paul.

1138. Marriage and Morals. 1(1-0)

The Christian ideal of married life and the practical problems faced before and after marriage and their suggested solutions.

1301. Old Testament Survey. 3(3-0)

Old Testament origin, literature, history and content from the beginning to the Maccabean period.

1303. New Testament Survey. 3(3-0)

New Testament, origin, literature, history and content from the Maccabean period to the close of the Apostolic age.

2303. Life and Teachings of Jesus. 3(3-0)

The life, teaching and significance of Jesus as revealed in the gospels.

2306. Life and Letters of Paul. 3(3-0)

The life of Paul, the work of Paul and an attempt to understand his contributions to the early Church as well as his continuing significance in ethics and doctrines of Christianity.

2311. Christian Ethics. 3(3-0)

An introduction to Christian ethics which sets forth the Biblical foundations for Christian ethical decision and applies these precepts to major ethical problems. These problems will include the self, marriage and the family, race relations, economic life and political life.

3339. Comparative Religions. 3(3-0)

Survey of the religions of the world. Included are studies in the origin, development, literature (scripture) and present status of Hinduism, Buddhism, Jainism, Confucianism, Taoism, Shinto, Judaism, Christianity and Islam.

WOMEN'S STUDIES (WMST)

Becky M. Maez, *Director*

Student Union Building 201. MSC 135. Extension 2166.

Women's Studies is based on the premise that an educated person, regardless of discipline, needs to understand the contemporary world at both personal and societal levels. The minor in Women's Studies provides an integral understanding of forces at work in a multicultural, pluralistic society. This minor relates to various careers such as counseling, business, personnel management, social work, advertising, law, politics and education.

A minor in Women's Studies requires 18 semester hours, including SOCI 2363/WMST 2363 and SOCI 4364/WMST 4300, the core courses. The remaining 12 semester hours may be selected from the following six courses:

PSYC 3313/WMST 3313
PSYC 2305/WMST 2305
ARTS 3302/MUSI 3302/THEA 3302/WMST 3302
HIST 4360/WMST 4360
POLS 4364/WMST 4364
ENGL 4370/WMST 4370 (only when taught from a women's studies perspective)

2305. Women's Issues in Health and Psychology. 3(3-0)

Examines health and psychological issues for women, legal and political realities that influence women's emotional and physical well-being and important aspects of intimacy and sexuality with a focus on both physiological and psychological development. (Credit may be obtained in only one of EDHL 2305, PSYC 2305 or WMST 2305.)

2363. Women, Change and Society. 3(3-0)

A comprehensive survey utilizing political, historical and sociological factors to analyze the status of American women. Aspects of sex role socialization, institutional interaction, social problems and social movements are analyzed. Prerequisite: SOCI 1301 or 6 hours of social science. (Credit may not be obtained in both SOCI 2363 and WMST 2363.)

3302. Women and the Arts. 3(3-0)

Issues surrounding the participation of women in the arts. Selected women who have contributed to the visual and performing arts throughout history are studied in relation to the culture of their time and the principles related to the arts. No previous experience in theatre, art or music required. Prerequisite: completion of visual/performing arts component requirement. (Credit may be obtained in only one of ARTS 3302, MUSI 3302, THEA 3302 or WMST 3302.)

3313. Psychology of Women. 3(3-0)

An overview of the broad range of psychological issues and biological events which are of significant relevance to women. Explores the richness of the female experience in terms of changing values, attitudes and expectations. Prerequisite: 6 hours of Psychology. (Credit may not be obtained in both PSYC 3313 and WMST 3313.)

4300. Minority Women in U.S. Society. 3(3-0)

An integrated study of the impact that socioeconomic and ethnic/racial factors have on minority women within the United States. Prerequisite: SOCI 1301 or 6 hours of social science. (Credit may not be obtained in both SOCI 4364 and WMST 4300.)

4360. Women in History. 3(3-0)

Investigation of the social, economic and political position of women from the Renaissance to contemporary America and a comparison of the ideal expounded by different historical epochs with woman's actual role in each society. Prerequisite: 12 semester hours of History and/or Political Science. (Credit may not be obtained in both HIST 4360 and WMST 4360.)

4364. Women and Politics. 3(3-0)

Description, analysis and assessment of women's place in a democracy through a focus on women's capacity to relate to and use political power. Prerequisite: 6 semester hours of Political Science. (Credit may not be obtained in both POLS 4364 and WMST 4364.)

4370. Nature and Women in the American Novel.

3(3-0)

Nature and women have been problematic for American society and, thus, American literature. Nature has been seen both as an early Hell populated by Indian "devils" and as a second Garden of Eden. Similarly, as a group, women have been regarded both as latter-day Eves and as "angels in the house." This course will address these two topics and show the development of the themes concerning them. Students will understand something of the role of nature and of women (as a class) in shaping and reflecting American thought and values. (Credit may not be obtained in both ENGL 4370, when taught from a women's studies perspective and WMST 4370.)

NATURAL TOXINS RESEARCH CENTER (NTRC)

John C. Perez, *Director and Regents Professor*

Elda E. Sanchez, *Assistant Director*

Pooja Ainani, *Computer Technician*

Lucy Arispe, *Animal Room Technician*

Nora Diaz DeLeon, *Administrative Officer*

Jacob Galan, *Research Associate*

Gonzalo Lopez, *Research Assistant II*

Randy Powell, *Curator of Herpetology*

Alice Robles, *Research Assistant*

Luis Manuel Salguiero, *Biochemist*

<http://ntri.tamuk.edu>

The Natural Toxins Research Center (NTRC) at Texas A&M University-Kingsville was established in 2002. The mission of the NTRC is to provide global research, training and resources that will lead to the discovery of medically important toxins found in snake venoms.

The objectives of the NTRC are to: 1) provide reliable sources of venoms and other products, 2) breed venomous snakes in captivity that are endangered or difficult to acquire, 3) characterize medically important venoms by electrophoretic titration (ET), high performance liquid chromatography (HPLC) and enzyme activities and 4) develop an Internet database that will be useful to investigators. The database will allow the user to view the snakes, venoms and their geographic distribution. The NTRC is recognized for its elaborate serpentarium with 6,300 square feet of space and currently houses over 400 snakes. The facility is computer-controlled and the temperature and photo period of individual rooms and cages can be regulated. The facility was designed with expansion in mind and has the capacity for 660 snakes.

COLLEGE OF BUSINESS ADMINISTRATION

COLLEGE OF BUSINESS ADMINISTRATION

Robert J. Diersing, *Dean*

Business Administration Building 108. MSC 182. Extension 3801.

Texas A&M University-Kingsville, through its College of Business Administration, is nationally accredited by the Association of Collegiate Business Schools and Programs (ACBSP) to offer the Bachelor of Business Administration (B.B.A.) degree at the undergraduate level and the Master of Business Administration (M.B.A.) and Master of Professional Accountancy (M.P.A.) degrees at the graduate level.

The College of Business Administration is composed of the following three departments:

The Department of Accounting and Computer Information Systems

The Department of Economics and Finance

The Department of Management and Marketing

In addition, the college houses the J.R. Manning Center for Professional Ethics, which serves as the location of the philosophy program for the University.

College of Business Administration Mission Statement

The College of Business Administration supports the mission of the University by focusing on the higher education needs of business students in South Texas and the state. With a strong commitment to teaching, faculty intellectual contributions of applied research and instructional development are also emphasized.

The highest priority of the college is to provide its students with a broad-based professional education in preparation for roles of creative and responsible leadership in the world of business and society. Students are provided an educational experience that enables them to develop the expertise needed to function in a business environment and to develop an understanding of the social and economic forces shaping the future dimensions of the nation's economy.

Undergraduate programs offer selected specializations built on a foundation of general education and a broad business core. The graduate programs, MBA, MPA and MS, provide an advanced curriculum with selected concentrations.

The college's next highest priority is to establish and to encourage further development of an environment that supports academic inquiry into business and economic topics. Faculty are encouraged to engage in research activities and to develop expertise that will enhance their preparation for classroom teaching. Research findings are disseminated to other researchers and to society as a whole in an effort to increase the store of human knowledge.

To fulfill its public service responsibilities, the College of Business Administration encourages faculty and students to engage in professional consulting activities, and to assume a positive presence in community affairs. A commitment to business and economic development assumes an explicit and substantial service mission for the College. Efforts on this behalf are encouraged and looked upon as a means of improving the overall economic climate of the South Texas region.

Courses of Instruction

A candidate for a B.B.A. degree must complete a minimum of at least 50 percent of the student's four year curriculum in the general education component. No more than 12 hours of nonbusiness courses (over what is required for a specific major) will be accepted from any one discipline toward the 40 courses (3 hours or more) and the minimum 130 academic hours required for the B.B.A. degree, except with permission of the dean of the college. (A discipline is defined as an individual area such as history, political science, philosophy, sociology, geography.)

ACCT 2301, ACCT 2302, CISA 1301, ECON 2301 and ECON 2302, are prerequisites for all 3000 and 4000 level business administration courses. MGMT 4325 is required and must be taken at A&M-Kingsville during the final semester.

Pre-Law Students

Students who desire to enter the profession of law should consult the Pre-Law Adviser in the College of Business Administration upon enrollment for consultation regarding a degree plan and the selection of courses.

Minor in Business Administration (Available only to nonbusiness majors.)

A minor consists of ACCT 2301, ACCT 2302, CISA 1301, ECON 2301, ECON 2302 and three upper level Business Administration courses from at least two disciplines.

Minor in Computer Information Systems Applications (Available only to nonbusiness majors.)

A minor consists of CISA 1301, CISA 2302, CISA 3354 and three approved advanced CISA courses.

Requirements for the B.B.A. Degree

Communication Skills

The college will evaluate the communication skills of all its majors in BCOM 3304. Students judged deficient in communication skills will be sent to the Department of Language and Literature for assignment to a designated class. Each student must demonstrate minimal communication skills by passing the assigned course with a minimum grade of "C."

Grade Point Average for Graduation

A minimum grade point average of 2.0 is required on (1) all course work attempted for the degree, (2) all course work attempted at A&M-Kingsville, (3) all courses in business administration and (4) all courses in the professional field for each major.

Residency Requirement

Candidates for the B.B.A. degree must earn at least 50 percent of the business credit hours required for the degree in residence at Texas A&M University-Kingsville.

Upper and Lower Divisions within the College of Business Administration

Students in upper-level courses within the College of Business Administration are expected to have a basic level of knowledge in specific disciplines in order to be able to synthesize successfully the information they are acquiring. That basic level of knowledge includes the ability to read and write effectively, to think quantitatively and to have a basic understanding of accounting and our economic system.

As an attempt to ensure the competence of students to complete the Upper Division successfully, students transferring from University College will enter the College of Business Administration in the Lower Division. Within that division, students will take all the courses normally completed during the first two years of any College of Business Administration degree plan. In their final semester in the Lower Division, they will apply for admission to the Upper Division. Upon admission to the Upper Division, they will be free to take any upper-level courses for which they have completed the prerequisites.

To gain admission to the Upper Division, students must earn a grade of at least "C" in the following courses:

CISA 1301	BUAD 1301
ACCT 2301	ECON 2301
ACCT 2302	ECON 2302

Additionally, students must have a 2.0 grade point average for the following group of courses:

ENGL 1301	MATH 1324
ENGL 1302	MATH 1325

Students who complete all of the above courses (with a minimum grade of "C" where required) and have a total of at least 48 semester hours with a 2.0 overall grade point average will be admitted into the Upper Division. Once admitted to the Upper Division, they cannot repeat any of the *business courses* listed above for credit. Prior to being accepted into the Upper Division, they can repeat any of the courses they wish. Transfer students, students pursuing a minor in business administration and students pursuing the business emphasis of the BAAS degree are subject to the same prerequisite and grade point average requirements described above.

A student who is not admissible to the Upper Division will not be allowed to take upper level business courses. But students who are in their last semester of their Lower Division and who are completing their requirements for the Upper Division may

take up to nine hours of upper-level business courses pending acceptance into the Upper Division. Those courses will be chosen from the following:

BLAW 3341
BCOM 3304

MKTG 3361
MGMT 3311

A student who then does not successfully complete the final semester in the Lower Division, *i.e.*, is not admissible to the Upper Division because he or she made less than a "C" in one of the specified courses, or who does not have a 2.0 grade point average in the math and English courses, must complete the requirements before taking any additional upper-level business courses.

APPLIED ARTS AND SCIENCES (BAAS Program)

Julie Reyna, *Adviser*

Business Administration 112. MSC 182. Extension 3902.

The purpose of the Bachelor of Applied Arts and Sciences (BAAS) is to offer students with formal training in a vocational-technical studies area the opportunity to obtain a baccalaureate degree without the significant loss of credits that normally occurs in pursuing a traditional degree. This program is especially appropriate for graduates of an Associate of Applied Science program. The degree is designed to afford both academic and professional depth to individuals who possess recognized competence in an occupational or technical field. It is designed to offer flexibility that will permit tailoring the program to the student's background and educational objectives.

Degree Requirements

The student must complete a baccalaureate degree plan (124 semester hours minimum) consisting of 36 hours in residence and transfer credit which includes the following:

- A. **General Education and Electives** (46 to 62 semester hours): This component is made up of freshman and sophomore-level courses which meet each of the seven criteria identified by the university as important aspects of a general education listed in the General Education Requirements.
- B. **Area of Specialization** (18-48 semester hours): Credits toward the area of specialization may be earned from junior or community colleges, vocational or technical schools, armed forces schools whose work can be equated to vocational/technical schools and work experience (maximum six semester hours).
- C. **Professional Development** (30 semester hours): The courses taken in this area are to be chosen to provide academic depth and breadth to the area of specialization and, in addition, afford substantive developmental knowledge in the student's professional career goals. The component focuses on areas of learning directly related to upward mobility and further extends a student's knowledge, skill and expertise. The professional development sequence of 30 semester hours will be selected from business, human relations or another relevant professional area. The professional sequence will be tailored to each student's needs.

Candidates for the B.A.A.S. degree must complete a minimum of 36 hours in residence.

Students who choose the business emphasis of the BAAS degree must meet the same lower division (field of study) course requirements as students pursuing the BBA degree.

DEPARTMENT OF ACCOUNTING AND COMPUTER INFORMATION SYSTEMS

Richard A. Aukerman, *Chair*

Business Administration Building 240. MSC 184. Extension 3937.

Professors

Alworth, Diersing, Holt, Shorter, VanZante

Associate Professors

Aukerman, Harston, Kromis, Rivera

Assistant Professors

Diál, Elam, Green, Huff, Oh

Lecturers

Brittain, Cribbs, Gallegos, Jackson

ACCOUNTING (ACCT)

2301. Principles of Accounting I. (ACCT 2301) 3(3-0)

Introduction to accounting with emphasis on the accounting cycle and financial accounting. Prerequisite: CISA 1301.

2302. Principles of Accounting II. (ACCT 2302) 3(3-0)

Continuation of principles of financial accounting. Introduction to managerial accounting concepts with emphasis on planning and control. Prerequisite: ACCT 2301.

3305. Fundamentals of Federal Income Taxation. 3(3-0)

Survey of domestic and multinational provisions of federal income tax law. Practical experience including preparation of federal income tax forms. Credit cannot be earned for both ACCT 3305 and ACCT 4308. Prerequisite: ACCT 2302.

3311. Intermediate Accounting I. 3(3-0)

Overview of basic accounting theory and the accounting process; structure of financial statements; accounting principles for cash, short-term investments, receivables, inventories, current liabilities, plant assets and natural resources. Prerequisite: ACCT 2302.

3312. Intermediate Accounting II. 3(3-0)

Accounting principles for long-term liabilities, stockholders' equity, income taxes, pensions, leases and statement of cash flows. Prerequisite: ACCT 3311.

3314. Cost/Managerial Accounting. 3(3-0)

Financial cost accounting -- job order and process cost procedures. Managerial cost accounting: planning, controlling and specific project decisions. Prerequisite: ACCT 2302 and CISA 1302.

3328. Internship in Accounting. V:1-3

An off-campus learning experience allowing the application of accounting skills in an actual work setting. Will count towards the hours required for the CPA exam only if the internship requirements set by the State Board of Public Accountancy are met. Prerequisites: Approval of a faculty coordinator and the department chair.

4307. Accounting for Governmental and Nonprofit Entities. 3(3-0)

Principles and practice of fund accounting applicable to governmental and nonprofit organizations. Prerequisite: ACCT 2302.

4308. Income Tax Accounting. 3(3-0)

Analysis of Federal income tax laws, emphasis being placed on the determination of net taxable income and preparation of income tax returns for individuals. Prerequisite: ACCT 2302.

4311. Auditing I. 3(3-0)
Auditing standards, professional ethics, legal liability, evidence, internal control and audit reports. Prerequisites: ACCT 3312 and ACCT 3314.

4312. Auditing II. 3(3-0)
Audit program planning and special reports; auditing topics. Prerequisite: ACCT 4311.

4313. C.P.A. Problems. 3(3-0)
Accounting principles and procedures developed by recent C.P.A. examinations. Emphasis on review for the practice section of the C.P.A. examinations on the design and preparation of effective working papers for various types of detailed accounting problems. Prerequisites: ACCT 3314 and ACCT 4314.

4314. Business Combinations. 3(3-0)
Accounting principles for business combinations, mergers and consolidations, investments in subsidiaries, consolidated statement preparation; intercompany transactions, indirect and mutual holdings. Prerequisite: ACCT 3312.

4315. Advanced Accounting Problems. 3(3-0)
Accounting principles for partnerships, estates and trusts, debt restructuring, reorganizations and liquidations, interim financial reporting and segmentation, foreign currency transactions and translation, leveraged buyouts. Prerequisite: ACCT 3312.

4316. Accounting Theory. 3(3-0)
Advanced accounting concepts and standards with emphasis on the development of generally accepted accounting principles. Prerequisite: ACCT 4314.

4317. Accounting Systems. 3(3-0)
Principles and procedures of the design and installation of an accounting system with emphasis on producing the information necessary for decision making. Prerequisites: ACCT 4311 and CISA 3356.

4318. Advanced Income Tax Accounting. 3(3-0)
Particular attention given to tax regulations applicable to partnerships and corporations together with preparation of Federal income tax returns for such businesses. Consideration also given to federal gift and estate tax. Prerequisite: ACCT 4308.

4319. Advanced Cost/Managerial Accounting. 3(3-0)
Planning and control of cost elements, analysis of costs and profits and current topics in cost/managerial accounting. Prerequisite: ACCT 3314.

4337. Petroleum Accounting. 3(3-0)
Accounting concepts for oil and gas exploration, production and distribution. Emphasis on terminology, exploration and production procedures and accounting principles applicable to petroleum accounting. Prerequisite: ACCT 3312.

4391. Special Study in Accounting. 3(3-0)
Study or research under supervision of instructor or small business audits. May be repeated once for credit. Prerequisite: consent of instructor.

BUSINESS LAW (BLAW)

3341. Business Law. 3(3-0)
Historical background and role of law in business and society; general principles of the law of contracts, personal property, secured transactions, sales and commercial paper; the Uniform Commercial Code as adopted in Texas and other applicable Texas statutes.

4342. Business Law for Accountants. 3(3-0)
Sales and commercial paper; the Uniform Commercial Code in Texas; the law of agency; business organization formulation and dissolution; accountants' legal responsibility; federal securities regulation; insurance; suretyship; property; wills, estates and trusts. Prerequisite: BLAW 3341.

COMPUTER INFORMATION SYSTEMS (CISA)

1301. Personal Computer Applications I. (COSC 1301, BCIS 1301) 3(3-0)

Introduction to personal computer terminology, operations and applications including word processing, spreadsheets and Internet World Wide Web and e-mail utilization. Open to all majors. Laboratory fee, \$5.

1302. Personal Computer Applications II. 3(3-0)

Continued study of microcomputer applications software with emphasis on advanced word processing and spreadsheet concepts, desktop publishing, presentation graphics, databases and Internet utilization. Prerequisite: CISA 1301 or equivalent experience. Laboratory fee, \$5.

1310. Introduction to Programming Tools. 3(3-0)

Introduction to the concepts of structured programming using Visual BASIC. For students with no programming experience.

2302. Principles of Computer Information Systems. 3(3-0)

Introduction to computer hardware and software systems including the elements of theory, abstraction and design necessary for the successful implementation and maintenance of business computer information systems. Open to all majors. Prerequisite: MATH 1324.

3328. Internship in Computer Information Systems. V:1-3

An off-campus learning experience allowing the acquisition and application of information technology skills in an actual work setting. Prerequisites: approval of a faculty coordinator and the department chair.

3351. Microcomputer Databases. 3(3-0)

Advanced techniques for utilization of microcomputer database systems. Topics include database file design, screen and report formatting, transferring files to other applications and programming. Prerequisites: CISA 1301 and one programming language. Laboratory fee, \$5.

3354. COBOL Programming I. 3(3-0)

Fundamentals and techniques of programming in the COBOL language including program design and structure, flow charting and documentation. Prerequisite: CISA 2302 or equivalent. Laboratory fee, \$5.

3355. COBOL Programming II. 3(3-0)

Refinement and expansion of programming competencies in the COBOL language including structured programming, sorting, merging, file systems and access methods. Prerequisite: CISA 3354. Laboratory fee, \$5.

3356. Design for Computer Information Systems. 3(3-0)

Analysis and design techniques required for implementing medium to large-scale computer information systems. Development of requirements for personnel, software and equipment for typical applications. Prerequisites: 6 semester hours of Computer Information Systems or Computer Science and ACCT 2302.

3364. Microcomputer Programming in BASIC. 3(3-0)

Programming using the BASIC language. Prerequisites: CISA 1301 and one computer language. Laboratory fee, \$5.

3367. Advanced Microcomputer Applications and Systems. 3(3-0)

Study of advanced microcomputer hardware and software technologies having application in business administration. Prerequisite: CISA 2302 or equivalent. Laboratory fee, \$5.

4301. Microcomputer Assembly Language Programming. 3(3-0)

Theory, concepts and terminology required for competency in microcomputer assembly language programming including machine instructions; basic data types; addressing modes; arithmetic, logical and character string operations; interrupts and I/O interfaces. Prerequisites: CISA 2302 or equivalent and one upper-division programming course. Laboratory fee, \$5.

4302. Business Applications Using C. 3(3-0)

Concepts and applications of the C programming language. Prerequisites: CISA 2302 or equivalent and one upper-division programming course. Laboratory fee, \$5.

4303. Client/Server Application Development. 3(3-0)

Client/Server application development practices and tools. Emphasis on developing distributed database applications that support the information processing needs of business. Topics include: object-oriented program design, programming with object-oriented development platforms and the use of embedded Structured Query Language for database transaction processing. Prerequisites: CISA 3351 and CISA 3354.

4304. Database Systems. 3(3-0)

Database concepts including data structures and modeling; characteristics of the hierarchical, network and relational models; normalization; design and programming; database administration. Prerequisite: CISA 3355. Laboratory fee, \$5.

4306. Telecommunications I. 3(3-0)

Applications requiring telecommunications, internal and external influences on telecommunications systems and service providers, data transmission, standards and architectures, management of network design and operation, local area networks and future issues. Prerequisites: CISA 2302 or equivalent and one upper-division programming course.

4308. Telecommunications II. 3(2-2)

Installation, administration, interoperability and security issues associated with the implementation of typical business telecommunication systems. Prerequisite: CISA 4306.

4358. Information Resources Management. 3(3-0)

Planning, organizing and control activities required for effective information systems management. Prerequisite: CISA 3356.

4359. Advanced Problems in Computer Information Systems. 3(3-0)

Research in selected fields of computer information systems. Prerequisite: consent of instructor. May be repeated once for additional credit. Laboratory fee, \$5.

4364. Microcomputer Graphics. 3(3-0)

Plotting commands, drawings, interactive graphics, translation, scaling, windowing, rotations, perspective and applications. Prerequisites: CISA 2302 or equivalent and one upper-division programming course. Laboratory fee, \$5.

**Degree Requirements
Bachelor of Business Administration
Accounting**

Freshman Year				Junior Year			
BUAD 1201	2	CISA 1301	3	*ACCT 3305 or		ACCT 3312	3
BUAD 1301	3	ENGL 1302	3	ACCT 4308	3	ACCT 3314	3
ENGL 1301	3	HIST 1302	3	ACCT 3311	3	FINC 3337	3
HIST 1301	3	[^] Kinesiology	1	BCOM 3304	3	MGMT 3321	3
MATH 1314 or		MATH 1325	3	BUAD 3355	3	MKTG 3361	<u>3</u>
MATH 1324	3	Science	<u>4</u>	CISA 3356	<u>3</u>		15
Science	<u>4</u>		17		15		
	18						
Sophomore Year				Senior Year			
ACCT 2301	3	ACCT 2302	3	ACCT 4307	3	ACCT 4311	3
CISA 1302	3	ECON 2302	3	ACCT 4314	3	Adv. ACCT Elective	3
COMS 1315	3	**ENGL 2342/ ENGL		BLAW 3341	3	BLAW 4342	3
ECON 2301	3	2362 or ENGL 2314	3	MGMT 4327	3	MGMT 4325	3
[^] Kinesiology	1	[^] Kinesiology	1	Nonbusiness Elective	<u>3</u>	Nonbusiness Elective	<u>3</u>
POLS 2301	<u>3</u>	MUSI, ARTS,			15		15
	16	THEA Elective	3				
		POLS 2302	<u>3</u>				
			16				
						Total Hours Required:	127

*ACCT 4308 should be taken by those students who will take additional coursework in taxation and those who will take the C.P.A. exam.

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.

**Degree Requirements
Bachelor of Business Administration/Master of Professional Accountancy
Accounting**

Freshman Year				Junior Year			
BUAD 1201	2	CISA 1301	3	ACCT 3311	3	ACCT 3312	3
BUAD 1301	3	ENGL 1302	3	ACCT 4308	3	ACCT 3314	3
ENGL 1301	3	HIST 1302	3	BCOM 3304	3	FINC 3337	3
HIST 1301	3	[^] Kinesiology	1	BUAD 3355	3	MGMT 3321	3
MATH 1314 or		MATH 1325	3	CISA 3356	<u>3</u>	MKTG 3361	<u>3</u>
MATH 1324	3	Science	<u>4</u>		15		15
Science	<u>4</u>		17				
	18						
Sophomore Year				Senior Year			
ACCT 2301	3	ACCT 2302	3	ACCT 4307	3	ACCT 4311	3
CISA 1302	3	ECON 2302	3	ACCT 4314	3	ACCT 5341	3
COMS 1315	3	*ENGL 2342/ENGL		Adv. Nonbus Elective	3	BLAW 4342	3
ECON 2301	3	2362 or ENGL 2314	3	Adv. Nonbus Elective	3	MGMT 5322	3
[^] Kinesiology	1	[^] Kinesiology	1	BLAW 3341	<u>3</u>	Nonbusiness Elective	<u>3</u>
POLS 2301	<u>3</u>	MUSI, ARTS or			15		15
	16	THEA Elective	3				
		POLS 2302	<u>3</u>				
			16				
				Fifth Year			
				ACCT 5307	3	ACCT 5316	3
				ACCT 5314	3	ACCT 5327	3
				CISA 5309	3	Grad. Business Elect	3
				Grad. Business Elect	<u>3</u>	MGMT 5335	<u>3</u>
					12		12
						Total Hours Required:	151

*Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Business Administration
Computer Information Systems

Freshman Year			Junior Year				
BUAD 1201	2	CISA 1310	3	BCOM 3304	3	Science	4
BUAD 1301	3	ENGL 1302	3	BUAD 3335	3	CISA 3351	3
CISA 1301	3	HIST 1302	3	CISA 3367	3	CISA 4303 or	
ENGL 1301	3	[^] Kinesiology	1	CISA 4306	3	CISA 4308	3
HIST 1301	3	MATH 1325	3	Science	<u>4</u>	MGMT 3321	3
MATH 1314 or		Nonbusiness Elect.	<u>3</u>		16	MKTG 3361	<u>3</u>
MATH 1324	<u>3</u>		16				16
	17						
Sophomore Year			Senior Year				
ACCT 2301	3	ACCT 2302	3	ACCT 3311 or		**Advanced CISA Elect	
CISA 2302	3	ECON 2302	3	ACCT 3314 or			3
COMS 1315	3	[*] ENGL 2342 or		ACCT 4307	3	ARTS/MUSI/THEA	
ECON 2301	3	ENGL 2362 or		CISA 3356	3	Elective	3
[^] Kinesiology	1	ENGL 2314	3	CISA 4302	3	BLAW 3341	3
POLS 2301	<u>3</u>	CISA 3354	3	FINC 3337	3	CISA 4358	3
	16	[^] Kinesiology	1	MGMT 4327	<u>3</u>	MGMT 4325	<u>3</u>
		POLS 2302	<u>3</u>		15		15
			16				

Total Hours Required: 127

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.*

***Must choose from CISA 3355, CISA 4301, CISA 4304 or CISA 4364.*

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF ECONOMICS AND FINANCE

Joseph E. Rossman, Jr., *Chair*

Business Administration Building 221. MSC 186. Extension 2506.

Professors

Bigbee, Nash, Rossman

Assistant Professors

Harun, Tai

ECONOMICS (ECON)

2301. Principles of Economics I. (ECON 2301) 3(3-0)

Economics of modern industrial society. Determinants of national income, economic stability and growth, money and banking; fiscal policy, business organization and international trade.

2302. Principles of Economics II. (ECON 2302) 3(3-0)

Supply and demand concepts, composition and pricing of the national output cost and price concepts, market structures, income distribution and selected economic problems.

3304. Comparative Economic Systems. 3(3-0)

A comparative study of the major economic systems with emphasis upon price systems, market socialism and central planning. Prerequisites: ECON 2301, ECON 2302.

3331. Money and Banking. 3(3-0)

Principles, problems and structure of the United States monetary system. Operations of commercial banks, the regulation and control of the supply of money and credit and the organization of the Federal Reserve System.

FINANCE (FINC)

2331. Personal Finance. 3(3-0)

Personal financial planning. Topics in personal and household financial planning to include budgeting, investments, retirement and tax planning.

3328. Internship in Finance. V:1-3

An off-campus learning experience allowing the acquisition and application of finance skills in an actual work setting. Prerequisites: approval of a faculty coordinator and the department chair.

3333. Bank Administration. 3(3-0)

Problems in the organization and operation of credit-granting institutions. Prerequisite: ECON 3331 and junior standing in Business Administration.

3337. Business Finance. 3(3-0)

Determining and analyzing the forms of business enterprise. Analysis of the techniques, methods and procedures used in the acquisition and proper employment of funds in the business entity. Prerequisite: junior standing in Business Administration. Laboratory fee, \$5.

3344. Principles of Real Estate Practice. 3(3-0)

Real estate surveys, appraisals, valuation, methods of financing, development leasing, property management, taxation, brokerage and agency.

3345. Real Estate Finance. 3(3-0)

Real estate credit and methods of financing real estate transactions. History of real estate finance and instruments and sources of real estate credit. Analysis of taxation, sources of methods of loan processing.

3347. Real Estate Law. 3(3-0)

Real estate brokers; estates and interests in land, acquisition and creation of property rights, methods of conveyance, titles to land, leases. Prerequisite: FINC 3344.

- 3351. Property and Casualty Insurance.** 3(3-0)
Principles and practices of property and casualty insurance. Fire insurance, consequential loss, transportation insurance, automobile insurance, crime insurance and fidelity bonding.
- 4331. Investments.** 3(3-0)
Principles governing the proper investment of personal and institutional funds; the characteristics of a sound investment and the analysis of the different securities offered to investor. Prerequisite: FINC 3337.
- 4332. Security Analysis.** 3(3-0)
Evaluation of investment securities and portfolio performance for private business firms. Consideration of individual security valuation and portfolio construction. Prerequisite: FINC 4331.
- 4336. Financial Management.** 3(3-0)
Finance function and its integration into the administration of the firm. Selected case studies and problems illustrate techniques used in financial decision making and optimum capital utilization. Prerequisite: FINC 3337.
- 4337. Real Estate Investment.** 3(3-0)
Real estate valuation and appraisal of income-producing real property. Prerequisite: FINC 4338.
- 4338. Real Estate Appraisal.** 3(3-0)
Real estate appraisal theory and topics in residential real estate appraisal practice. Prerequisites: FINC 3337 and FINC 3344.
- 4341. Money and Capital Markets.** 3(3-0)
Determinants of savings and investments, interest rates and flow of funds. Studies of various money and capital market instruments and institutions. Government's impact on the private sector. Prerequisites: ECON 2301 and ECON 2302 or ECON 3331.
- 4342. International Finance.** 3(3-0)
Foreign exchange markets, balance of international payments, short-term borrowing and investment decisions. Changes in exchange rates: pricing, profitability and output decision, international aspects of capital decisions. Prerequisite: FINC 3337.
- 4351. Life and Health Insurance.** 3(3-0)
A comprehensive study of individual life insurance, annuities and health insurance products, with emphasis on policy coverages and the mathematics of life insurance pricing. Prerequisite: FINC 3337.
- 4393. Special Problems in Finance.** 3(3-0)
Special studies in finance. May be repeated once for credit. Prerequisite: consent of the instructor.

Degree Requirements
Bachelor of Business Administration
Finance

Freshman Year				Junior Year			
BUAD 1201	2	COMS 1315	3	ACCT 3305, ACCT 3311, or ACCT 3314	3	BLAW 3341	3
BUAD 1301	3	ENGL 1302	3	BCOM 3304	3	FINC 3351	3
ENGL 1301	3	HIST 1302	3	BUAD 3355	3	MGMT 3321	3
HIST 1301	3	[^] Kinesiology	1	FINC 3337	3	MGMT 4327	3
MATH 1314 or MATH 1324	3	MATH 1325	3	FINC 3344	<u>3</u>	MKTG 3361	<u>3</u>
Science	<u>4</u>	Science	<u>4</u>		<u>15</u>		<u>15</u>
	<u>18</u>		<u>17</u>		<u>15</u>		
Sophomore Year				Senior Year			
ACCT 2301	3	ACCT 2302	3	Adv Business Elective	3	FINC 4332	3
CISA 1301	3	CISA 1302	3	ECON 3331	3	FINC 4336	3
ECON 2301	3	ECON 2302	3	FINC 3333 or FINC 4351	3	FINC 4341	3
*ENGL 2342, ENGL 2362 or ENGL 2314	3	[^] Kinesiology	1	FINC 4331	3	MGMT 4325	3
[^] Kinesiology	1	MUSI, ARTS, THEA Elective	3	Nonbusiness Elective	<u>3</u>	Nonbusiness Elective	<u>3</u>
POLS 2301	<u>3</u>	POLS 2302	<u>3</u>		<u>15</u>		<u>15</u>
	<u>16</u>		<u>16</u>				
						Total Hours Required:	127

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.*

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF MANAGEMENT AND MARKETING

Frank A. Taylor, *Chair*

Business Administration Building 210. MSC 187. Extension 3938.

Professors

Coleman, Hollingshead, Ketcham, Oates, Taylor, Wagman

Associate Professor

Vaidya

Assistant Professors

Bennington, Hurley

Lecturers

Gaugler, Shaw, Sosa-Fey

BUSINESS ADMINISTRATION (BUAD)

1201. Principles in Business Administration. 2(2-0)

An overview of the American business sector with emphasis on social responsibility and ethical behavior. A discussion of the skills and personal characteristics which contribute to the success of individuals pursuing a career in the professional administration of business enterprise.

1301. Introduction to Business Administration. (BUSI 1301) 3(3-0)

Academic orientation and career counseling for the study of Business Administration. The environment and substance of administration in our economic system. Open to freshmen and sophomores only.

2328. Business Internship. V:1-3

An off-campus learning experience allowing the application of business skills in an actual work setting. Prerequisites: approval of a faculty coordinator and the department chair, completion of at least 30 semester hours with an overall GPA of 2.5.

3328. Internship in General Business. V:1-3

An off-campus learning experience allowing the acquisition and application of General Business skills in an actual work setting. Prerequisites: approval of a faculty coordinator and the department chair.

3355. Business Statistics. 3(3-0)

Statistical methods as applied to business and economic problem analysis: descriptive statistics, sampling, probability, statistical inference, regression analysis, correlation analysis, time series and index numbers. Prerequisite: MATH 1325. A small electronic calculator (minimum four functions) is strongly recommended.

BUSINESS COMMUNICATION (BCOM)

3304. Business Communication. 3(3-0)

Principles of business communication through letters and reports. Clear, accurate and forceful writing; practical psychology; and business reports with implication for international business. Prerequisite: ENGL 1301 and ENGL 1302.

MANAGEMENT (MGMT)

3311. Principles of Management. 3(3-0)

Introduction to the management of business organizations. The functions of management and role of the manager. Managerial decision-making, communication, social responsibility and business ethics. How organizational power and politics affect the manager.

3321. Principles of Operations/Production Management. 3(3-0)

Detailed analysis of the planning, systems design, control and use of physical resources in the production of goods and services. Introduction to quantitative tools of operations management. Prerequisite: BUAD 3355.

3325. Human Resources Management and Procedures. 3(3-0)

Human resources planning, employment, appraisal, training and pecuniary compensation; applicable federal and state legislation.

3328. Internship in Management.

V:1-3

An off-campus learning experience allowing the acquisition and application of Management skills in an actual work setting. Prerequisites: approval of a faculty coordinator and the department chair.

4324. Total Quality Management (TQM).

3(3-0)

Tools, techniques and philosophy of production and quality control functions. Emphasis on the role of operations research in production and quality control. Prerequisites: MGMT 3321 and CISA 1301.

4325. Management Decision-Making and Business Policy.

3(3-0)

To provide a capstone course for the graduating senior majoring in business that will allow him or her to practically apply the concepts and theories learned in the undergraduate program. The student will do this through integrating those principles with the ones that serve as the theoretical framework for the field of strategic management. The end result of this process will be a student who is able to analyze complex business problems and to effectively make decisions that affect the entire organization. Prerequisite: senior standing in business administration.

4327. Organization Theory and Human Behavior.

3(3-0)

Various organizational structure models and supporting theory, organizations as complex systems, organizational behavior, individual and group dynamics in the business environment, organization development and change. Prerequisite: senior standing.

4328. Collective Bargaining.

3(3-0)

Legal and social framework for and the process of negotiating a labor contract and handling typical grievance issues. Prerequisite: senior standing.

4329. Materials Management.

3(3-0)

Analysis of the policies, procedures, tools and techniques of materials management. Emphasis is placed on procurement, inventory control and logistics. Prerequisite: MGMT 3321.

4331. International Management.

3(3-0)

Management of the internationally competitive firm; topics considered include leadership, organizational structure, cultural differences and similarities and competitive analysis. Prerequisite: senior standing in Business Administration.

4341. Management Information Systems.

3(3-0)

Recognition of informational needs, identification of relevant data and conversion of data into information. Digital computers and related systems are used as tools in this process. Prerequisite: senior standing in Business Administration.

4392. Special Problems in Management.

3(3-0)

Special studies in management. May be repeated once for credit. Prerequisite: consent of the instructor.

MARKETING (MKTG)

3314. Principles of Business Logistics.

3(3-0)

A total systems approach to managing the logistical activities of the firm. Analysis of total cost balanced against customer service. Warehousing, transportation, inventory control, packaging, handling and order processing activities are surveyed. Prerequisite: MKTG 3361.

3325. Personal Salesmanship.

3(3-0)

Training in the development of a good sales personality and in the fundamentals of selling. Relationship of the salesperson to our economy, to the company and to the customer: analysis of the sales process. Preparation of a sales demonstration. Prerequisite: junior standing and MKTG 3361.

3328. Internship in Marketing.

V:1-3

An off-campus learning experience allowing the acquisition and application of Marketing skills in an actual work setting. Prerequisites: approval of a faculty coordinator and the department chair.

- 3361. Principles of Marketing.** 3(3-0)
Examination of marketing of goods and services by organizations and individuals in a free-enterprise economy. Topics covered include product, channels, price, promotion, consumer behavior, the legal and other uncontrollable environments and research, international marketing, strategy and control.
- 3362. Retail Marketing Management.** 3(3-0)
Analysis and conceptualization of the relationship among channel of distribution members emphasizing the merchandising function of retail store management. Prerequisite: MKTG 3361.
- 3364. Promotional Strategy.** 3(3-0)
Demand-stimulation processes of all elements of the promotional mix at all levels of the channel of distribution. Analysis of theoretical models and pragmatic applications of promotion in an organization. Prerequisite: MKTG 3361.
- 3367. Sales Management.** 3(3-0)
Analysis of the administration of an effective sales force, including strategy, planning, recruiting, training, motivation and coordination and control of the selling teams at each level of the channel of distribution. Prerequisite: MKTG 3361 and MKTG 3325.
- 3369. Consumer Purchasing and Motivation.** 3(3-0)
Analysis and evaluation of the consumer's position in the marketing structure including patterns of consumer behavior and the psychological, social and cultural forces that underlie such patterns. Prerequisite: MKTG 3361.
- 4361. Marketing Management.** 3(3-0)
Relationship of marketing functions in the firm and marketplace from the viewpoint of the marketing manager; analytical tools used by marketing managers. Prerequisite: MKTG 3361.
- 4362. Marketing Research and Forecasting.** 3(3-0)
Marketing research methods as applied to management problems involving marketing strategy and policy formulation and economic-industry-firm-sales forecasts. Prerequisites: MKTG 3361 and BUAD 3355. Laboratory fee, \$5.
- 4363. International Marketing.** 3(3-0)
An institutional approach to the study of comparative marketing systems. Topics include international trade theory, the economic, social, technological and governmental environments as they affect international marketing; import-export considerations; and the multinational firm. Prerequisite: MKTG 3361.
- 4396. Special Problems in Marketing.** 3(3-0)
Special studies in marketing. May be repeated once for credit. Prerequisite: consent of instructor.

Degree Requirements
Bachelor of Business Administration
General Business Administration

Freshman Year				Junior Year			
BUAD 1201	2	CISA 1301	3	BCOM 3304	3	ACCT 3305 or	
BUAD 1301	3	ENGL 1302	3	BUAD 3355	3	ACCT 3314	3
ENGL 1301	3	HIST 1302	3	ECON 3331	3	BLAW 3341	3
HIST 1301	3	[^] Kinesiology	1	MGMT 3311	3	Busi. Adm. Elective	3
MATH 1314 or		MATH 1325	3	MKTG 3361	<u>3</u>	FINC 3337	3
MATH 1324	3	Science	<u>4</u>		15	MGMT 3321	<u>3</u>
Science	<u>4</u>		17				15
	18						
Sophomore Year				Senior Year			
ACCT 2301	3	ACCT 2302	3	Adv. Business Elective	3	Adv. Business Elective	3
CISA 1302	3	COMS 1315	3	Adv. Business Elective	3	Elective	3
ECON 2301	3	ECON 2302	3	Elective	3	MGMT 4325	3
*ENGL 2342, ENGL		[^] Kinesiology	1	MGMT 4327	3	MKTG 4363	3
2362 or ENGL 2314	3	Nonbusiness Elective	3	MGMT 4331	<u>3</u>	MUSI, ARTS,	
[^] Kinesiology	1	POLS 2302	<u>3</u>		15	THEA Elective	<u>3</u>
POLS 2301	<u>3</u>		16				15
	16						

Total Hours Required: 127

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.*

Degree Requirements
Bachelor of Business Administration
International Business Management

Freshman Year				Junior Year			
BUAD 1201	2	CISA 1301	3	BLAW 3341	3	ACCT 3305 or	
BUAD 1301	3	ENGL 1302	3	BUAD 3355	3	ACCT 3314	3
ENGL 1301	3	HIST 1302	3	FINC 3337	3	BCOM 3304	3
HIST 1301	3	[^] Kinesiology	1	MKTG 3361	3	MGMT 3311	3
MATH 1314 or		MATH 1325	3	MUSI, ARTS,		MGMT 3321	3
MATH 1324	3	Science	<u>4</u>	THEA Elective	<u>3</u>	MKTG 3314	<u>3</u>
Science	<u>4</u>		17		15		15
	18						
Sophomore Year				Senior Year			
ACCT 2301	3	ACCT 2302	3	FINC 4342	3	MGMT 4325	3
CISA 1302	3	COMS 1315	3	MGMT 4329	3	MGMT 4327	3
ECON 2301	3	ECON 2302	3	MGMT 4331	3	MGMT 4328	3
ENGL 2342, ENGL 2362		[^] Kinesiology	1	SPAN 2301	3	MKTG 4363	3
or ENGL 2314	3	POLS 2302	3	SWBS 4302	<u>3</u>	SPAN 2302	<u>3</u>
[^] Kinesiology	1	SWBS 2302	<u>3</u>		15		15
POLS 2301	<u>3</u>		16				
	16						

Total Hours Required: 127

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.*

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Business Administration
Management

Freshman Year			Junior Year				
ENGL 1301	3	ENGL 1302	3	BUAD 3355	3	MGMT 3321	3
MATH 1314 or MATH 1324	3	MATH 1325	3	BLAW 3341	3	BCOM 3304	3
Science	4	Science	4	MGMT 3325	3	MGMT 4331	3
HIST 1301	3	HIST 1302	3	MKTG 3361	3	ACCT 3305 or	
BUAD 1301	3	CISA 1301	3	FINC 3337	<u>3</u>	ACCT 3314	3
BUAD 1201	<u>2</u>	[^] Kinesiology	<u>1</u>		15	MGMT 3311	<u>3</u>
	18		17				15
Sophomore Year			Senior Year				
ACCT 2301	3	ACCT 2302	3	MGMT 4324	3		
*ENGL 2342, ENGL 2362 or ENGL 2314	3	COMS 1315	3	Nonbusiness Elective	3	MGMT 4328	3
CISA 1302	3	Nonbusiness Elective	3	MGMT 4329	3	MGMT 4327	3
ECON 2301	3	ECON 2302	3	Nonbusiness Elective	3	MGMT 4325	3
POLS 2301	3	POLS 2302	3	MUSI, ARTS, THEA Elective	<u>3</u>	Elective	3
[^] Kinesiology	<u>1</u>	[^] Kinesiology	<u>1</u>		15	POLS 4324, HIST 4324, or SOCI 4324	<u>3</u>
	16		16				15

Total Hours Required: 127

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.*

Degree Requirements
Bachelor of Business Administration
Marketing

Freshman Year			Junior Year				
ENGL 1301	3	ENGL 1302	3	MKTG 3361	3	MKTG 3325	3
MATH 1324	3	MATH 1325	3	BLAW 3341	3	BCOM 3304	3
Science	4	Science	4	BUAD 3355	3	MGMT 3321	3
HIST 1301	3	HIST 1302	3	MUSI, ARTS, THEA Elective	3	FINC 3337	3
BUAD 1301	3	CISA 1301	3	MGMT 3311	<u>3</u>	ACCT 3305 or	
BUAD 1201	<u>2</u>	[^] Kinesiology	<u>1</u>		15	ACCT 3314	<u>3</u>
	18		17				15
Sophomore Year			Senior Year				
ACCT 2301	3	ACCT 2302	3	MKTG 3369	3	Elective	3
*ENGL 2342,2362 or 2314	3	COMS 1315	3	MKTG 4361	3	MGMT 4325	3
Nonbusiness Elective	3	CISA 1302	3	Adv. Mktg. Elective	3	MGMT 4327	3
ECON 2301	3	ECON 2302	3	Adv. Mktg. Elective	3	MKTG 4362	3
POLS 2301	3	POLS 2302	3	Nonbusiness Elective	<u>3</u>	MKTG 4363	<u>3</u>
[^] Kinesiology	<u>1</u>	[^] Kinesiology	<u>1</u>		15		15
	16		16				

Total Hours Required: 127

**Students who choose to take ENGL 2314 must fulfill the core curriculum literature component by taking an appropriate course as one of their nonbusiness electives.*

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

THE MANNING CENTER FOR PROFESSIONAL ETHICS

Allen F. Ketcham, *Director*

Business Administration Building 121. MSC 187. Extension 2148.

Professor

Ketcham

The Manning Center for Professional Ethics serves as the location of the philosophy program for the university. The center strives to develop ethical decision-making skills among students in the university's various colleges to enrich the students' professional contributions. An important goal of the center is to support research in professional normative ethics through conferences and the publication of research findings. Also, The Manning Center for Professional Ethics extends the concepts of professional ethics to business, government and professional communities through off-campus workshops.

The activities of the center are guided by a steering committee comprised of Texas A&M-Kingsville academics, external philosophers, representatives from business and industry, government officials and professionals.

PHILOSOPHY (PHIL)

1301. Introduction to Philosophy. (PHIL 1301) 3(3-0)

Inquiries into the nature of the self, the universe and society as they relate to various definitions of reality, truth and value with readings from major works of classical and modern philosophers.

3301. Logic of Critical Thinking. 3(3-0)

Examines inductive and deductive reasoning and the lexicon of scientific explanation. Surveys symbolic logic. Inspects fallacious reasoning in detail.

3311. Foundations of Professional Ethics. 3(3-0)

Overview of traditional and contemporary theories in ethics and the associated application to current ethical problems in representative professional fields.

3315. Philosophy of Religion. 3(3-0)

A philosophical examination of issues basic to religion, including the relation of faith to symbols and language, religious understandings of the nature of man, the traditional proofs for God's existence, the relationship of religion to philosophy, to culture, to science and to morality.

3321. History of Western Philosophy: Ancient and Medieval. 3(3-0)

A study of significant Western philosophers and philosophies from the pre-Socratics through the Medieval period.

3322. History of Western Philosophy: Modern and Contemporary. 3(3-0)

A study of significant Western philosophers and philosophies from the Renaissance through the contemporary philosophers of the late 20th Century.

3323. Non-Western Philosophy. 3(3-0)

Historical and critical study of non-European philosophical traditions with emphasis on South and East Asia

COLLEGE OF EDUCATION

COLLEGE OF EDUCATION

Michael Daniel, *Interim Dean*

Gary Low, *Assistant Dean*

Glenna Cannon, *Certification Officer*

Rhode Hall 162. MSC 195. Extension 2801.

When the Texas Legislature enacted the original law providing for the South Texas Teachers College, which ultimately became Texas A&M University-Kingsville, one of the primary purposes was to prepare an adequate number of students for teaching and administrative positions in South Texas. Since the beginning, the university has functioned in this capacity.

The College of Education is serving the needs of the region by preparing qualified professionals to assume positions of responsibility and leadership in a global society. The college is committed to serving an ethnically diverse population that comprises the university's student base and seeks to work cooperatively with area prekindergarten through grade 12 educators, education service centers, community and business leaders and professional organizations in promoting quality education at all levels. Students are expected to uphold the Texas Educator's Code of Ethics as well as the standards of professional organizations in their fields of study.

The college includes the departments of Bilingual Education, Curriculum and Instruction, Educational Leadership and Counseling and Health and Kinesiology. The programs offered by each department are designed to prepare graduates for specific roles in the public schools. Programs have been approved by the Texas State Board for Educator Certification. The university is a member of the American Association of Colleges of Teacher Education and the Texas Association of Colleges of Teacher Education.

The college offers the Bachelor of Science in Interdisciplinary Studies, the Master of Science, the Master of Arts, the Doctor of Education in Bilingual Education and a joint Doctor of Education with Texas A&M University-Corpus Christi in Educational Leadership. Additional doctoral degrees are offered in cooperation with Texas A&M University in College Station.

Accreditation

Texas A&M University-Kingsville is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. The educator preparation program is fully accredited by the Texas State Board for Educator Certification (SBEC), based on the combined performance of all our candidates on the Examination for the Certification of Educators in Texas (ExCET) or the Texas Examinations of Educator Standards (TE^{ES}). Texas A&M-Kingsville has received **ACCREDITED** status from SBEC for each year that the Texas system has been in effect.

Title II Report Card

Title II of the Higher Education Amendments of 1998 requires an annual reporting from states and universities based upon the pass rates of their students on the tests required for completing programs leading to their initial teaching certificates. The pass rates for the Department of Education can be found on the Texas A&M University-Kingsville Education web site as soon as the information is released by the Texas State Board for Educator Certification (SBEC).

NOTE: The following sections provide general information about programs in the College of Education. Additional regulations for educator certification may take effect during the years of this catalog and may require changes that could not be foreseen at the time of printing. Changes that become effective in response to rulings by the State Board for Educator Certification and the Texas Higher Education Coordinating Board may apply to current and prospective students. All students should maintain close contact with their advisers for up-to-date information regarding certification programs.

The Teacher Education Program

The teacher education program at Texas A&M University-Kingsville is administered by the Center for Professional Development of Teachers (CPDT). The program is field-based and is conducted at least 50% of the time at public or private school sites. Students interested in elementary certification may seek certification in early childhood (EC) through grade four (Generalist and Bilingual Generalist) or certification in grades four through eight in the specialization areas of math/science, English/Language arts/reading/Social Studies, English/language arts/reading or social studies.

The elementary program is divided into four semesters of field-based study starting in the first semester of the junior year (60 semester hours) and upon acceptance into the teacher education program. Application packets for the teacher preparation program are available in the CPDT office along with a listing of assigned advisers. Early Childhood (EC-4) field experiences include assignments for three semesters in K-4 public and private school classrooms. Elementary (4-8) field experiences are in grade 4 to 8 classrooms. Field experience assignments are in pre-arranged collaborating area schools. Student teaching is done the fourth semester and involves working full days for one semester. Student teaching begins the day school begins, spring or fall, rather than when university classes begin.

The secondary (8-12)/all-level certification program usually begins in the second semester of the junior year and is a three semester field-based program. The first semester students are placed in a middle school or high school and the second semester students are placed in a high school. During the first and second semesters, several courses are field-based approximately 60% of the time. The student teaching experience in the third semester is 100% field-based. All EDED and EDSE courses must be successfully completed before the student teaching experience.

Degree Plans

Students declaring EC-4 or 4-8 Interdisciplinary Studies as a major should obtain a blank degree plan from the CPDT office, Room 158, Rhode Hall and schedule an appointment with an adviser to plan and develop a draft degree plan. After appropriate College of Education personnel (adviser, certification officer, CPDT director and dean) sign the degree plan, it then becomes the official plan that students follow to graduation. Changes and course substitutions to the plan must be approved by the student's adviser, certification officer, CPDT director, dean of education and dean of other colleges (when changes involve courses from other colleges). Changes may also occur when the State Board for Education Certification mandates changes in the teacher preparation program or certification areas.

Secondary/all level degree plans may be obtained from the department of the student's major field, and students should also meet with the secondary/all level education coordinator by the sophomore year.

Educator Certification in Texas

Glenna Cannon, *Certification Officer*

Rhode Hall 107. MSC 195. Extension 2722.

The college maintains an Educator Certification Office to assist individuals with certification concerns. The present certification rules in Texas became effective September 1, 1999. The new Standard Certificate is issued by the State Board for Educator Certification and must be renewed every five years to remain valid. The Standard Certificate replaces the lifetime Provisional and Professional certificates for all certificate programs completed after September 1, 1999.

The Initial Standard Certificate

The initial certificate for beginning teachers may be obtained by completion of an appropriate program at the undergraduate level. A student seeking initial certification is required to have a minimum cumulative grade point average of 2.5 plus a minimum 2.5 average in courses constituting the teaching field(s) and delivery system(s) (Bilingual Education, Early Childhood Education, Generic Special Education).

In order to be recommended for initial certification or for additional teaching fields or areas of specialization, or for supplemental certificates, all persons are required to achieve a satisfactory level of performance on the Examination for the Certification of Educators in Texas (ExCET) or the Texas Examinations of Educator Standards (TE^{ES}). All persons seeking certification in Bilingual Education or Secondary Spanish must also take the Texas Oral Proficiency Test (TOPT).

Areas and Levels of Certification

The State Board for Educator Certification (SBEC) has approved subject areas and grade levels for certification to be phased in beginning Fall 2002. Standards describing the knowledge and skills that a beginning teacher must demonstrate prior to certification have been developed for each certificate. For the years covered by this catalog, beginning teachers will be certified under the new certification structure described below.

Standard Elementary Certificates (Early Childhood-Grade 4; Grades 4-8)

An undergraduate student seeking a certificate to teach in the elementary schools of Texas must complete the work for a

Bachelor of Science degree in Interdisciplinary Studies. Requirements include approximately two years of course work in academic foundations courses; a minimum of 12 semester hours of science, 9 semester hours of mathematics and 6 semester hours of reading; 48 semester hours in an interdisciplinary academic major consisting of subjects taught in the elementary grades with 24 semester hours in one or more subject areas or 18 semester hours in a delivery system (Bilingual Education, Spanish, Early Childhood Education, Generic Special Education), 18 semester hours of field-based professional development courses; and 6 semester hours of student teaching.

A&M-Kingsville offers the following specializations and delivery systems:

Early Childhood-Grade 4*

Generalist

Bilingual Generalist

Grades 4-8*

Bilingual Generalist

English Language Arts/Reading

English Language Arts/Reading/Social Studies

Mathematics/Science

Social Studies

NOTE: *The Special Education delivery system is offered as an all-level certificate.

Standard Secondary Certificate (Grades 8-12)

A student seeking a certificate to teach in the secondary schools of Texas must earn a bachelor's degree in a recognized major. Majors that lead to secondary certification can be found in the colleges of Agriculture and Human Sciences, Arts and Sciences and Business Administration. The introduction to the College of Arts and Sciences has a list of majors offered in that college that lead to teaching certification. Special Education may be a second teaching field (delivery system). To earn certification the student must spend approximately two years in academic foundations courses; approximately 48 semester hours in selected teaching fields; 18 semester hours in professional development courses; 3 hours in reading; and 6 semester hours in student teaching. For further information, students should contact the appropriate chairs of departments offering majors that lead to certification.

Standard All-level Certificate

A student seeking a certificate to teach a special subject at all grade levels in Texas schools must complete the work for a Bachelor of Arts or Bachelor of Science degree consisting of approximately two years of course work in academic foundations courses; the required course work in the subject area, including specific courses at both the elementary and secondary levels; and the required professional education courses at the elementary and secondary levels. A&M-Kingsville offers the all-level certificate in Art, Special Education, Kinesiology, Health and Music. For further information students should contact the chair of the appropriate department.

Standard Vocational Certificate

A student seeking a certificate to teach vocational education must earn a Bachelor of Science degree in Agriculture or Human Sciences. A&M-Kingsville offers the vocational certificates for Agriculture Production and Family and Consumer Sciences Education. Students should contact the appropriate adviser in the College of Agriculture and Human Sciences.

Post-Baccalaureate Initial Standard Certificate

Students possessing a bachelor's degree from a regionally accredited institution may be admitted to a special program for initial certification as a teacher. A post-baccalaureate student seeking initial certification is required to have a minimum cumulative grade point average of 2.5 plus a minimum 2.5 average in courses constituting the teaching field(s) and delivery system(s) (Bilingual Education, Early Childhood Education, Generic Special Education). In addition, all requirements for admission to professional education courses (listed below) apply. Students interested in post-baccalaureate certification should make an appointment with the certification officer to have a certification plan developed based on evaluation of the undergraduate transcript.

Supplemental Certificates

Supplemental certificates are added to existing elementary, secondary or all-level certificates or to new Grades EC-4, 4-8 or 8-12 standard certificates and are available in the following areas:

- English as a Second Language
- Gifted and Talented
- Special Education
- Bilingual Education (EC-4 or 4-8)

Additional Standard Certificates Based on Graduate Course Work

An additional standard certificate is obtained by completion of an appropriate program of no fewer than 30 semester hours of graduate work. This certificate may be issued to a student who has earned a Master's degree, holds an initial standard or provisional certificate, has completed a required number of years of successful classroom teaching, has completed the required graduate-level course work or master's degree in an approved program and has been recommended by the certification officer. If course work is properly planned, the graduate student may be able simultaneously to complete requirements for a master's degree and an additional standard certificate.

A student who is interested in working toward a graduate degree and an additional standard certificate should consult the dean of the College of Graduate Studies concerning degree requirements and the faculty adviser in the College of Education concerning certificate requirements.

At A&M-Kingsville, graduate level-standard certificate programs are available in the following areas:

- | | |
|--------------------------|--|
| Counseling and Guidance | Educational Diagnostician |
| Master Reading Teacher | Principal |
| Reading Specialist | School Administration (Superintendent) |
| Instructional Technology | |

In order to be approved for the above certifications, all persons, including those holding a valid out-of-state certificate, are required to achieve a satisfactory level of performance on the ExCET or Te^xES exam.

Alternative Certification

The Department of Curriculum and Instruction offers an alternative certification program that meets certification requirements for teachers in specific teaching content fields. Certification requirements are met through completing a series of well-designed graduate courses. For further information, contact the Teacher Certification Office.

Non-certification Degree: Kinesiology

A Bachelor of Science Degree in Kinesiology is offered for those students desiring a major in kinesiology without teaching certification. An 18 hour supporting area is required for all non-certification majors. For further information students should contact the chair of the Department of Health and Kinesiology.

Admission to Education

Students admitted to the university may declare their interest in becoming teachers and initiate a general academic program preparatory to this objective. In addition to applying and being accepted to the university, after successfully completing 60 or more semester hours of study with a minimum cumulative grade point average of 2.5/4.0 (transfer and A&M-Kingsville course work), the student should request an application to the teacher preparation program (CPDT) room 158, Rhode Hall. Students may not register for 3000 or 4000 level education courses until the application is submitted and approved. To be admitted to the teacher education program a student must:

- a. have completed 60 semester hours including at least 30 semester hours of academic foundations.
- b. have completed ENGL 1301 and ENGL 1302 with a "C" or better, HIST 1301, 1302 and MATH 1314.
- c. have an official degree plan on file in the College of Education or submit a copy of the signed degree plan from another college.
- d. have a minimum of the following test scores: ACT-26; SAT-1180; or the following scores on the THEA: Reading 230, Math 230, Writing 220; or meet A&M-Kingsville requirements for grade exemptions.
- e. have passed the Nelson-Denny Reading Test.

- f. have submitted the results of a criminal record check from the state of Texas (applicants for a Texas teaching certificate will be investigated for a record of felony, misdemeanor or criminal activity. Schools participating in the field-based program require criminal record checks on persons interacting on a daily basis with students).
- g. have completed critical thinking requirements (EDED 1301 or approved substitute).
- h. have submitted the results of a criminal record check from the state of Texas.

Student must maintain a 2.5/4.0 grade point average to remain in the teacher preparation program.

Admission to Student Teaching

Students are expected to plan their programs, if possible, so they are registered for not more than a maximum of 12 semester hours (6 hours are student teaching) when taking student teaching. Any exception must be approved by a student's department chair or the dean of the College of Education. To be eligible to register for student teaching a student must:

- a. have been officially admitted to the teacher education program (CPDT) in the College of Education.
- b. have completed a minimum of 90 semester hours.
- c. have a cumulative grade point average of at least 2.5/4.0 overall plus a 2.5 average or above in the teaching field(s) and/or delivery systems (bilingual, early childhood, special education).
- d. have completed the required professional development education and reading courses.
- e. have completed the application for student teaching (available in the CPDT office, room 158, Rhode Hall).
- f. have submitted the results of a tuberculin test (within 180 days of student teaching).

Communication Skills

Effective September 1, 1992, all freshmen and transfer students entering A&M-Kingsville must demonstrate minimum communication skills. Students in the College of Education must pass ENGL 1302 with a grade of *C* or better to meet the requirement. Students in other colleges should contact their advisers for specific communication requirements.

Support Units and Special Resources

The Education Materials Center

The Education Materials Center located on the second floor of the James C. Jernigan Library houses a Curriculum Collection and a Bilingual Collection of print and nonprint materials and provides guidance for education resources on the World Wide Web. The collections include elementary and secondary state-adopted textbooks, curriculum guides, reference and vertical file materials and juvenile literature with special emphasis on award winning books, multicultural books and thematic units.

Educational Technology Center

The College of Education operates a multimedia center which includes 16 platform computers and 16 iMac computers for class use. This facility is available after scheduled class hours for all A&M-Kingsville students to complete class assignments. The College also houses a video conferencing center for College of Education faculty and student use in distance learning.

Educational Media Laboratory

This laboratory, located on the first floor of Rhode Hall, houses a variety of instructional equipment and materials available to students and faculty for on-campus use. Laboratory staff members provide support for the production and use of instructional media and materials.

Reading Clinic

The clinic, located on the first floor of Rhode Hall, makes possible investigation into the fundamental causes of reading deficiencies and experimentation with methods for overcoming these deficiencies. It provides opportunity for observation and practice in the diagnosis and teaching of reading.

Advising Services

Each Education major is assigned a faculty member as an adviser upon entering the university. Students meet with their adviser on a scheduled basis to plan their program and at any time there is a need to discuss questions of concern. Undergraduate students seeking degrees or certification in Education or Health and Kinesiology should ask for an adviser. Education advisers are located in Rhode Hall on the first floor. The Center for Professional Development of Teachers (CPDT) in Room 158 can direct new students to an adviser and provide preliminary program materials. Health and Kinesiology advisers are located in the Steinke Physical Education Center (SPEC). The CPDT office in Rhode Hall can also

direct these students to an adviser in the SPEC. Undergraduates who are conditionally admitted should first receive advisement through University College, located in Eckhardt Hall.

Exercise Physiology Lab

The Exercise Physiology Lab is located in the Health and Recreation Gymnasium. The lab supports student learning in Health and Kinesiology by allowing the scientific assessment of fitness and performance characteristics in athletes and the exercising public.

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Fred T. Ponder, *Interim Chair*

Rhode Hall 180. MSC 196. Extension 3204.

Professors

Hopkins, Morales, Ponder

Associate Professors

Arnold, K. Bradley, Lassmann, Nekovei

Assistant Professors

Eckard, Ermis, Lawton, Rodman

Visiting Assistant Professors

Hoffman, Hutchison, Jurica, I. Marshall, Martinez

Lecturers

Ball, Diaz, Garcia-Obregon, Goode, Holmes, Leal, Parker

Faculty Emeriti

Bogener, Cokendolpher, Glock, Harvey, Robins

Admission requires successful completion of 60 hours of college/university course work with at least a 2.5 cumulative grade point average on a 4.0 scale.

BILINGUAL EDUCATION (EDBL)

3308. Survey of Bilingual Education.

3(3-0)

A study of the educational, psychological, historical and linguistic foundations of bilingual education.

3320. Tests and Measurements in the Bilingual and ESL Classrooms.

3(3-0)

Assessment instruments and strategies used in local, state and national systems for linguistically diverse students will be emphasized. In addition, this course will focus on the development of successful assessment practices for linguistically diverse students that can be used in Bilingual and ESL classrooms.

3325. Methods of Teaching English to Non-English Children.

3(3-0)

The purposes of this course are to adjust the course of study to the needs of non-English-speaking children, to develop the most efficient methods of teaching based on the laws of learning, to create and develop materials which will build vocabulary and concepts in English, to select and evaluate equipment that will be helpful in presenting the course of study. A portion of the class is given over to simulated teaching.

3347. The Bilingual Student.

3(3-0)

The study of the bilingual child and factors which influence his scholastic progress in school. These factors include: socio-cultural, cognitive, physical and socio-economic financial aspects. In addition, this course will also focus on environmental, community and parental involvement contributions to the child's success in school. Prerequisite: admission to teacher education.

3348. Teaching the Curriculum in Spanish.

3(3-0)

Methods and techniques for teaching language arts, social studies, science, mathematics, music and art in Spanish to the bilingual child.

4307. Advanced Problems in Teaching English as a Second Language.

3(3-0)

Major approaches of second language acquisition. Special materials and methods of instruction for the linguistically different child. Emphasis on organization, curriculum development and usage of learning techniques for teachers of English as a Second Language and of Bilingual Education.

4316. Language Development Processes for Teaching Limited English Proficiency Students

3(3-0)

Language learning and acquisition theories for first and second languages; educational implications of those theories; design of English language curricula consistent with current theories of second language learning and teaching.

4354. Applied Linguistics. 3(3-0)
Linguistic structures and the relationships found in first and second language learning; educational implications in public school classrooms; dialects and cognitive development of language. Prerequisite: ENGL 4310.

EARLY CHILDHOOD EDUCATION (EDEC)

1310. Family and the Community. 3(3-0)
A study of the relationship between the child, the family, the community and early childhood educators, including a study of parent education, family and community lifestyles, child abuse and current issues.

3324. Child Development: Birth to Adolescence. 3(3-4)
Physical, cognitive, language, social and emotional development of children from birth to adolescence. Skills in objective observation and recording of information with emphasis on informal assessment techniques. Field experience is required. Prerequisite: admission to field-based teacher education program.

3328. Foundations of Early Childhood Education. 3(3-0)
Historical, philosophical, sociological, psychological and research bases for programs for young children. Legislation for licensing, certification, handicapped children. Classroom management with emphasis on state public school curriculum for prekindergarten and kindergarten. Corequisite: EDEC 3324.

4317. Cognitive Development in Early Childhood. 3(3-0)
Development of logical thought and reasoning in young children. Theories and research on cognitive and aesthetic development. Methods and materials to facilitate quantitative and qualitative concepts in preschool children. Strategies for developing critical thinking skills in early childhood. Prerequisite: EDEC 3324.

4318. Creative Activities: Art, Music and Drama in Early Childhood. 3(3-0)
Developmental stages of art and creative thinking, relationship of creative activities to problem-solving. Methods and materials for teaching fine arts. Theories and research on learning academic skills through play and creative activities. Prerequisite: EDEC 3324.

4320. Assessment in Early Childhood Education. 3(3-0)
An introductory course in evaluation and assessment strategies; inclusion of formal and informal assessment; advantages and disadvantages of different evaluative instruments; issues regarding bias; assessment of special populations; and appropriate usage of evaluative results. Prerequisites: EDEC 3328, EDEC 4317 and EDEC 4349.

4329. Language Development in Early Childhood. 3(3-0)
Acquisition and development of oral language, early literacy. Integrated approach to language skills for young children. Prerequisite: EDEC 3324.

4337. Physical Development in Early Childhood. 3(3-0)
Strategies and materials for enhancing the physical development of young children. Units of health, nutrition, safety and other related topics. Field experiences. Prerequisite: EDEC 3324.

4349. Social/Emotional Development in Early Childhood. 3(3-0)
Study of factors that influence children's social and emotional development; socialization patterns; classroom strategies for promoting cooperation, acceptance, gender and ethnic identity; environments that are conducive to the development of autonomy in children.

4361. Curriculum and Materials for Early Childhood Education. 3(3-0)
Methods and materials for teaching young children. Scope and sequence of language, mathematics, social and natural sciences, fine arts, health and safety and physical education. Field experiences required. Prerequisites: EDEC 3328, EDEC 4317 and EDEC 4349.

EDUCATION (EDED)

1301. Teaching as a Profession: Schools and Society.

3(3-0)

Study of the foundations of education in the United States, with particular attention to Texas. Introduction to the history, purposes, structure and philosophies of education and to career options in teaching and other education fields. Students will apply critical thinking and communication skills as they structure their own educational philosophies about learning processes and professional responsibility. Students will develop personal and leadership qualities to succeed in the university and the teaching profession.

2301. Computer Literacy.

3(2-2)

History and development of computers. Issues of computer uses in society. Development of understanding of computer hardware, software, programming. Evaluation of software. Use of computer as a tool.

Requirements for admission to teacher education and for admission to student teaching are set forth in the introduction to the College of Education.

3302. Development and Behavior of the Child and Adolescent.

3(2-4)

The child and adolescent in contemporary society: ethnic background, interests, attitudes, values and needs, self-concept, adjustment mechanisms; the learning process; social, emotional and sexual development. Identification and teaching mainstreamed and special populations of students. Methods for working effectively with the elementary and secondary student. Practical application in the classroom emphasized. 50% field-based. Prerequisite: admission to teacher education.

3304. Introduction to the Teaching Profession.

3

Study of the organization, function, history and purpose of schools in the United States and Texas and the importance of instructional media. Requires 8 hours weekly of participation as a teacher assistant in an accredited school. Student must furnish own transportation. Prerequisite: admission to teacher education.

3310. Introduction to Instructional Design for Secondary Schools.

3(3-0)

Lesson plan design for various teaching approaches will be emphasized. In correlation with lesson design, assessment methods and learning styles will be covered in detail with emphasis on how these three aspects of education are interdependent. Prerequisite: admission to teacher education.

3312. Development and Behavior of the Elementary Student.

3(3-4)

A study of the growth and development, behavioral characteristics and teaching learning processes of the elementary age child in a multi-cultural society. Special education and talented and gifted services and how they meet identified needs. Prerequisite: admission to teacher education.

3316. Teaching of Social Studies in the Elementary School.

3(3-4)

Methods and techniques of presenting social studies materials and content, including audio-visual aids, testing and evaluation, historical background, public school curriculum and philosophical implications. Prerequisites: junior standing and admission to teacher education.

3322. Teaching Internship I.

3(1-4)

Internship designed for inservice teachers seeking certification under the postbaccalaureate program. Prerequisite: bachelor's degree from a regionally accredited institution, employment by a school district and criteria for admission to student teaching as set out in this catalog.

3323. Teaching Internship II.

3(1-4)

Internship designed for inservice teachers seeking certification under the postbaccalaureate program. Prerequisite: EDED 3322.

3331. Curriculum Development and Instruction.

3(3-4)

Historical and philosophical aspects of curriculum development with emphasis on philosophy and learning theory impacting on contemporary education in Texas. Attention will be given to various aspects of instructional planning and to legal and ethical aspects of teaching. Field experience is required.

3332. Curriculum and Materials Development and Planning. 3(3-0)
A foundation course in curriculum philosophy and practice. Curriculum organization, planning and evaluation are analyzed. Materials for classroom use are developed and studied. Legal issues are reviewed. Prerequisite: EDED 3302 and EDED 3333.

3333. Classroom Management and Organization in the Middle School. 3(2-4)
Includes a general overview of the middle school, comparison and contrast to high school and uniqueness of the middle school scenario. Middle school students and their problems will be emphasized as well as teaching strategies and techniques with the middle school student in mind. Also included is a study of individual and group behavior change and behavior management with middle school students. Practical application in the classroom is emphasized. 50% field-based. Prerequisite: admission to teacher education.

3341. Group Management in Physical Activities. 3(3-0)
Theory and application of group management skills that are appropriate for physical activities. Effects of litigation, facilities, design, program, equipment, class scheduling and lesson planning on group management. Prerequisite: completion of 90 semester hours. For Kinesiology majors only.

3342. Teaching Elementary and Middle School Mathematics and Science. 3(3-4)
Emphasizing effective integrated math and science teaching focusing on inquiry and other constructivist approaches. Aligned to state curriculum (TEKS) and elementary comprehensive ExCET competencies: field experience required.

3362. Instructional Methods and Strategies, Secondary Schools. 3(2-4)
Emphasis will be given to practical activities in the classroom stressing various methods, strategies and learning styles appropriate for a secondary situation. 50% field-based. Prerequisites: EDED 3302 and EDED 3333.

4310. Methods in Educational Media and Technology. 3(2-4)
Emphasizes techniques to enhance learning, use of media and technology, learning styles of different students and ways to use media and technology to accommodate different learning styles. 50% field-based. Prerequisite: EDED 3332 and EDED 3333.

4328. Topics and Issues in Elementary and Secondary Education. 3(3-0)
In-depth study of current problems and issues facing teaching and public education. Course may be repeated for credit when topics differ.

4613. Elementary School Student Teaching. V:3-6
Students will demonstrate, in a laboratory setting, knowledge of and an ability to effectively apply those skills necessary for successful teaching in the elementary school. Student teaching is a full-time assignment (8 a.m. to 5 p.m.) for 16 weeks in an accredited elementary school. Student is to furnish transportation. Prerequisite: admission to student teaching.

4623. Secondary School Student Teaching. V:3-6
Students will demonstrate in a laboratory setting knowledge of and an ability to effectively apply those skills necessary for successful teaching in the secondary school. Student teaching is a full-time assignment (8 a.m. to 5 p.m.) for 16 weeks in an accredited secondary school. Student is to furnish transportation. Prerequisite: admission to student teaching.

READING (EDRG)

3314. Developmental Reading for the Elementary Teacher. 3(3-4)
Introduction to the reading process. The study of essential reading abilities and foundations of reading with emphasis on the state public school curriculum in reading. Prerequisite: admission to teacher education.

3321. Literature for Public Schools. 3(3-0)
Criteria for selection and evaluation of children's literature in public schools; techniques for using literature in the classroom; integrating children's literature into the content area and reading curriculum. Using literature to meet the needs of children and to complement the reading and content area curriculum in elementary schools. Prerequisite: EDRG 3314 and 12 semester hours of English.

3344. English Language Arts. 3(3-0)
Interrelationships between oral and written language; psycholinguistic and sociolinguistic theory and its application to English language learning; theories of writing development; criteria for evaluating oral and written language development.

4304. Teaching Reading in the Content Area. 3(3-0)
Strategies for teaching reading in the content areas with emphasis on the skills necessary for helping students increase their reading vocabulary and reading comprehension. Prerequisite: EDRG 3314.

4305. Effective Remediation of Reading Problems. 3(3-0)
Methods for remediating the reading of low achieving students, with a focus on using multi-sensory techniques. Prerequisites: EDRG 3314, EDRG 3344, EDRG 4330, EDRG 4389.

4314. Developmental Corrective Reading for Secondary School. 3(3-0)
The nature of the reading process, reading styles, comprehension instruction, vocabulary development, readability and lesson planning in the content areas. Prerequisite: 9 advanced hours of education or the equivalent.

4330. Classroom Assessment and Remediation. 3(3-4)
Includes methods of assessment, both formal and informal, with attention given to special needs of the learning disabled and gifted readers. Lab experience is required. Prerequisites: EDRG 3314, EDRG 3344 and EDRG 4389.

4389. Teaching Reading in the Intermediate Grades and Middle School. 3(3-4)
Learning and instructional theory applied to reading instruction in grades 4-8. Fifty percent of course time will be spent in a public school setting. Prerequisite: EDRG 3314.

SPECIAL EDUCATION (EDSE)

The special education teaching profession offers many options. One may choose a career path that specializes in specific types of disabilities, focus on a specific age group, from infants through adults, and also have the option of working in many different settings in school and in the community. Special education teachers may have their own classrooms or may work as resource teachers and consultants with students who receive their primary instruction from other teachers. Special educators are in great demand in Texas and nationwide and have unlimited opportunities for career advancement through graduate studies in specific areas of special education, administration, counseling and educational diagnostics.

Contact the Coordinator of Special Education for admission requirements to the specialization (delivery system) in Special Education.

4350. Assessment of Exceptional Individuals. 3(3-0)
Formal and informal assessment procedures applicable to identification of and instructional planning for exceptional individuals. The theory and content of instruments used to identify, analyze and evaluate the strengths and learning needs of exceptional individuals are emphasized. A minimum of 15 hours of field experience is included. Prerequisite: EDSE 4391.

4352. Educational Procedures for Exceptional Students. 3(3-0)
Instructional models and strategies applicable to the educational needs of exceptional individuals. This is the last course in the special education sequence and includes a minimum of 30 hours of field-based instruction and practice. Prerequisite: EDSE 4391.

4353. Transitioning Strategies in Special Education. 3(3-0)
Methods and strategies applicable to the educational needs of secondary students with disabilities including post-secondary education, life skills, vocational preparation and transition planning. Prerequisite: EDSE 4391.

4357. Federal and State Regulations Concerning Exceptional Individuals. 3(3-0)
Principles and procedures designed to comply with the various rules and regulations concerning exceptional individuals. Prerequisite: EDSE 4391.

4358. Behavior Management for Exceptional Individuals. 3(3-4)

Approaches to individual and group behavior change and behavior management with exceptional individuals. Includes the observation of exceptional individuals in varying settings. Includes a minimum of 15 hours of field experience. Prerequisite: EDSE 4391.

4383. Development of Exceptional Individuals. 3(3-0)

Emphasis is upon the growth and development of exceptional individuals, including comparisons of developmental milestones and the study of causes of behavior and recurring patterns of behavior. A minimum of 15 hours of field experience is included. Prerequisite: EDSE 4391.

4385. Special Education Consultation. 3(3-0)

Consultation skills for effective collaboration with families and among professionals toward the goal of inclusion of students with exceptionalities in least restrictive environments. A minimum of 15 hours of field experience is required. Prerequisite: EDSE 4391.

4391. Survey of Exceptional Individuals. 3(3-4)

A survey of special education with attention devoted to mildly to moderately handicapped individuals in the sociocultural context: family, community, educational and vocational. Includes 15 hours of observation of exceptional children in various settings. This is the first course in the special education sequence.

Degree Requirements
Bachelor of Arts/Bachelor of Science
with Teaching Certification (Standard Secondary Certificate)

Freshman Year			Junior Year		
ARTS 1201/BIOL 1201/		ENGL 1302	3	POLS 2301	3
SOCI/1201/EDED 1201/		HIST 1302	3	Teaching Field	<u>15</u>
AGRI 1201/HSCI 1300	3	^ <i>Kinesiology</i>	1		18
COMS 1311	3	##MATH 1314	3	EDED 3302	3
ENGL 1301	3	#Modern Language	3	EDED 3310	3
HIST 1301	3	**Teaching Field	<u>3</u>	EDED 3333	3
^ <i>Kinesiology</i>	1		16	POLS 2302	3
#Modern Language	3			Teaching Field	<u>6</u>
^ <i>Visual/performing arts</i>	<u>3</u>				18
19				Summer Session	
				#Modern Language	<u>3</u>
					3
Sophomore Year			Senior Year		
EDED 2301	3	^ <i>Kinesiology</i>	1	EDED 3332	3
Humanities	3	*Science	4	EDED 3362	3
*Science	4	SOCI 2361	3	EDSE 4391	3
**Teaching Field	<u>6</u>	Teaching Field	<u>9</u>	#Modern Language	
	16		17	Teaching Field	<u>6</u>
					18
					Total Hours Required: 133
					depending on degree

#Modern Language is required only for Bachelor of Arts.

**Chosen from CHEM 1405-1407, PHYS 1305/1105-1307/1107 or 1311/1111-1312/1112, BIOL 1311/1111-1313/1113, GEOG 1301/1101-1302/1102, GEOL 1303/1103-1304/1104 or 1301/1101-1302/1102 or more advanced.*

***Teaching fields may count hours in the general education requirements.*

##Or more advanced math.

This is a sample degree plan. Each plan will vary according to the teaching field(s) chosen.

Degree Requirements
Bachelor of Science
Interdisciplinary Studies
(Standard Elementary Certificate)

Freshman Year			Junior Year		
ARTS 1325	3	EDHL 2224	2	EDBL 3325	3
EDED 1301	3	ENGL 1302	3	EDEC 3324	3
EDED 2301	3	HIST 1301	3	EDED 3342	3
EDKN 1119	1	PHYS 1375	3	EDRG 3314	3
ENGL 1301	3	SOCI 2361	3	GEOL 2376	3
^ <i>Kinesiology</i>	1	STAT 1342	<u>4</u>	Specialization	<u>3</u>
MATH 1314	<u>3</u>		18		18
	19				
Sophomore Year			Senior Year		
CHEM 1376	3	BIOL 2375	3	EDED 3316	3
COMS 1313	3	ENGL 3373	3	EDED 3331	3
EDHL 1254	2	GEOG 1303	3	EDRG 3344	3
ENGL 2342 or		MUSI 3391	3	EDRG 4330	3
ENGL 2362	3	POLS 2302	3	EDSE 4358	3
HIST 1302	3	Specialization	<u>3</u>	Specialization	<u>3</u>
POLS 2301	<u>3</u>		18		16
	17				
					Total Hours Required: 139

This is only a sample degree plan. Each plan will vary according to the specialization chosen by the student. The above sequence may be accelerated with summer session attendance.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF HEALTH AND KINESIOLOGY

Alberto Ruiz, *Interim Chair*

Steinke Physical Education Center 100. MSC 198. Extension 2301.

Professors

Daniel, Sherman

Associate Professor

Yarbrough

Assistant Professors

Diaz, Doughty, R. Harris, S. Harris, Hughes, Ruiz

Visiting Assistant Professors

Ocker, Smith

Lecturers

Atzenhoffer, Buff, Cundiff, Ericksen, Johnson, Kangas, LaHue, Peterson, Salinas, Schumann, Stockton, Vincent, Willson

Faculty Emeritus

J. Williams

ACTIVITY COURSES (EDKN)

Kinesiology activity courses are among those required to satisfy Criterion VII of the general education requirements. A student may choose activity courses EDKN 1102, EDKN 1103 or activity courses between EDKN 1111-1149. Note that courses EDKN 1107, EDKN 1108, EDKN 1109 and EDKN 1110 are reserved for varsity athletes only. Transfer students not having kinesiology activity courses should schedule these courses at the earliest possible opportunity.

A towel fee of \$4 will be charged each student enrolled in a kinesiology activity class. In certain specified courses additional fees may be charged. Students are expected to furnish their own lock for a locker and their own equipment for some classes. The instructor will provide details.

Kinesiology majors are required to take a variety of activity courses and should check with their academic adviser to ensure all necessary activity requirements are met prior to graduation.

1102. Skill Techniques. 1(0-3)

Instruction and participation in a variety of individual/dual sports, recreational and physical fitness activities. Active participation is expected. Required of all kinesiology majors.

1103. Orientation. 1(0-3)

Instruction and participation in team sports. Introduction to professional involvement in kinesiology. Required of all Kinesiology majors.

1105. Flexibility/Strength Training. 1(0-3)

Introduction to training techniques used for muscular endurance and flexibility training. Recommended for those desiring an individualized approach to light resistance and flexibility training.

1107. Varsity Football. 1(0-3)

Participation in varsity football through regularly scheduled practice sessions and games.

1108. Varsity Basketball. 1(0-3)

Participation in varsity basketball through regularly scheduled practice sessions and games.

1109. Varsity Track and Field, Volleyball, Tennis, Baseball or Softball. 1(0-3)

Varsity participation in either track and field, volleyball, tennis, baseball or softball through regularly scheduled practice sessions, meets and games.

1110. Second Semester Varsity Sports. 1(0-3)

Credit for a second semester's participation in varsity sports.

1111. Social Dance. 1(0-3)

Instruction and practice in social, ballroom, country western and recreational dance. Laboratory fee, \$5.

1112. International Social Dance. 1(0-3)
International social dance instruction and practice in social and ballroom dance, highlighting the salsa, rumba, merengue, samba, cumbia and other regional dance styles.

1114. Tennis. 1(0-3)
Fundamental skills for beginners in tennis. Laboratory fee, \$5.

1116. Intermediate Modern Dance. 1(0-3)
Continuation of the fundamental techniques in modern dance and study of choreography. Prerequisite: EDKN 1246 or equivalent. Laboratory fee, \$5.

1117. Ballet Folklorico. (DANC 1149) 1(0-3)
Fundamental techniques in Ballet Folklorico Dance.

1118. Drill/Dance Team Activities. 1(0-3)
Fundamental techniques for drill and dance teams.

1119. Beginning Rhythmic Activities. 1(0-3)
The development of skills in rhythmic activities suitable for inclusion in a basic rhythms program. Laboratory fee, \$5.

1120. Archery and Badminton. 1(0-3)
Instruction and participation in the basic skills of archery and badminton. Laboratory fee, \$5.

1121. Elementary Swimming. 1(0-3)
Instruction for the beginning swimmer.

1122. Secondary Rhythmic Activities. (DANC 1122) 1(0-3)
Introductory course offering a variety of rhythmic activities, including social, square, fold and country dance and dance as art (performance), appropriate for the secondary school level.

1123. Intermediate Swimming. 1(0-3)
Instruction in intermediate swimming skills. Prerequisite: EDKN 1121 or equivalent.

1124. Advanced Swimming and Water Safety. (PHED 2255) 1(0-3)
Instruction in advanced swimming and water safety. Lifeguarding Certification for those who qualify. Prerequisite: EDKN 1123 or equivalent.

1125. Water Aerobics. 1(0-3)
A variety of water activities designed to strengthen the heart, lungs and vascular system without undue stress of weight-bearing exercise.

1126. Fencing. 1(0-3)
Fundamental learning and practice of elementary skills in fencing. Laboratory fee, \$5.

1127. Skin and SCUBA Diving. (PHED 1151) 1(0-3)
Instruction and participation in most basic to advanced skills in skin and SCUBA diving. Safety and proper use of equipment will be stressed. Prerequisite: EDKN 1124 or equivalent. Laboratory fee, \$20. Activity fee, \$25.

1128. Water Safety Instructor Certification. 1(0-3)
Methods and techniques for teaching all levels of swimming, beginner through advanced lifesaving and water safety. Prerequisite: current Advanced Lifesaving Certificate.

1129. Aerobic Activities. 1(0-3)
A variety of activities including aerobic dancing to strengthen the heart, lungs and vascular system.

1130. Golf.	1(0-3)
Instruction and practice in the basic skills for beginners in golf. Laboratory fee, \$5.	
1134. Tumbling and Gymnastics.	1(0-3)
Fundamental skills in tumbling, stunts and gymnastics.	
1135. Racquetball.	1(0-3)
Instruction and practice in the fundamentals of racquetball. Laboratory fee, \$5.	
1137. Weight Training/Conditioning.	1(0-3)
Individualized conditioning program based upon knowledge of the basic training principles underlying flexibility, muscle strength, muscle endurance and cardiorespiratory endurance exercises.	
1138. Canoeing.	1(0-3)
Instruction and experience in canoeing. Prerequisite: EDKN 1121. Laboratory fee, \$5. Activity fee, \$10.	
1141. Ballet. (DANC 1141)	1(0-3)
Fundamental skills and terminology in beginning classical ballet. Laboratory fee, \$5.	
1142. Bowling.	1(0-3)
Instruction and practice in the basic skills for beginners in bowling. Laboratory fee, \$20.	
1143. Camping and Backpacking.	1(0-3)
Instruction and participation in basic camping and backpacking. Safety and proper equipment selection and use will be stressed. Laboratory fee, \$5. Activity fee, \$75.	
1145. Tennis Doubles.	1(0-3)
Fundamental skills for beginners in tennis. Laboratory fee, \$5.	
1146. Beginning Modern Dance. (DANC 1146)	1(0-3)
Fundamental techniques in modern dance. Laboratory fee, \$5.	
1147. Jazz Dance. (DANC 1147)	1(0-3)
Beginning modern jazz dancing with emphasis on body alignment and technique. Laboratory fee, \$5.	
1148. Sailing.	1(0-3)
Instruction and experience in sailing. Students will spend some time away from the main campus. Prerequisite: EDKN 1123. Laboratory fee, \$5. Activity fee, \$10.	
1149. Jogging and Circuit Training.	1(0-3)
Instruction and participation in distance running and circuit training.	
HEALTH (EDHL)	
1254. Contemporary Wellness.	2(2-1)
Introductory health education for establishing wellness concepts for men and women of all ages. Nutrition, diseases of the circulatory system, sexually transmitted diseases, behavior modification and related concepts for establishing life time commitments to health promotion are taught. May be substituted as one required activity course.	
1304. Foundations of Health. (PHED 1304)	3(3-0)
Study of the profession and practice of health education, health sciences and behavior modification.	
1353. Health Communication Through the Lifespan.	3(3-0)
An overview of health issues and methods of health communication to promote the health of individuals and communities.	
1361. Nutrition, Health and Safety.	3(3-0)
A study of nutrition, health and safety issues related to children ages birth through eight. Required for students majoring in Early Childhood Education.	

- 2224. First Aid.** 2(2-0)
Current standards and techniques for first aid and cardiopulmonary resuscitation.
- 2305. Women's Issues in Health and Sexuality.** 3(3-0)
Examines health and medical issues for women, legal and political realities that influence women's lives and important aspects of intimacy and sexuality with a focus on both physiological and psychological development. (Credit may be obtained in only one of EDHL 2305, PSYC 2305 or WMST 2305.)
- 2325. Health Promotion.** 3(3-0)
Overview of theories, processes, activities and settings for health education/health promotion practice.
- 2327. Environmental Health and Safety.** 3(3-0)
Intensive coverage of the aspects of a human being's health and safety in a changing environment. Considers applicable factors of ecology, including problems related to water, waste, pesticides, foods, radiation, population and other aspects of the total ecosystem, as well as personal and occupational safety within these parameters.
- 3308. Elementary and Secondary School Health.** 3(3-0)
Health content for individuals who plan to present health information to children, preadolescent and adolescent individuals. Texas Education Agency standards are emphasized.
- 3331. Consumer Health.** 3(3-0)
An informed health consumer is one who purchases health products and services that are useful and beneficial. This consumer is also aware of consumer protection, product safety and services available if dissatisfied with a product or service.
- 3333. Human Growth, Development and Sexuality.** 3(3-0)
Human sexuality content for different developmental stages. Designed for individuals who plan to present human sexuality content to various age groups.
- 3335. Drug Education.** 3(3-0)
Study of prescription and non-prescription drugs, their action in the body, their benefits and abuse potentials.
- 3381. Community Health.** 3(3-0)
Acquaints the student with all aspects of community and public health. Designed to prepare students for planning, implementation and evaluation of health education/health promotion programs in community, health care and worksite settings.
- 4331. Health: Field Studies.** 3(3-0)
Studies and investigations relating to health problems in community health, school health and industry. All students will initiate individual study in an area of their interest. Prerequisite: 15 hours of health.
- 4337. Disease Entities and Epidemiology.** 3(3-0)
Cause, epidemiology, prevention and treatment of communicable, chronic and degenerative disease. Prerequisites: BIOL 2401, BIOL 2402 and junior standing.
- 4340. Statistics for the Health Sciences.** 3(3-0)
Study of statistics for the health sciences to enable the student to collect, analyze and interpret health data.
- KINESIOLOGY (EDKN)**
- 1301. Foundations of Kinesiology.** (PHED 1301) 3(3-0)
Biological, sociological, psychological, philosophical and historical foundations of kinesiology. Consideration of objectives and programs in the field.
- 1308. Intramurals and Officiating.** (PHED 1308) 3(3-0)
Develop competency in designing, organizing and promoting intramural programs. Emphasis on officiating techniques and procedures in various activities.
- 1331. Psychomotor Skills for Children.** (PHED 1331) 3(3-0)

Developmental movement experience for children; sports and health-related physical fitness activities, dance, lead-up games, gymnastics, game analysis and evaluative criteria for movement skills.

2101. (Formerly EDKN 3151). Analysis and Movement in Dance. 1(1-1.5)
Fundamentals, skill progressions, theories and practice in various dance forms. Prerequisite: knowledge of modern, jazz or folk dance.

2102. (Formerly EDKN 4112). Analysis and Movement in Volleyball. 1(1-1.5)
Theoretical and practical application of fundamentals in volleyball.

2103. (Formerly EDKN 4113). Analysis and Movement in Tumbling and Gymnastics. 1(1-1.5)
Theoretical and practical application of fundamentals in tumbling and gymnastics.

2104. (Formerly EDKN 4104). Analysis and Movement in Football. 1(1-1.5)
Theoretical and practical application of fundamentals in football.

2105. (Formerly EDKN 4105). Analysis and Movement in Basketball. 1(1-1.5)
Theoretical and practical application of fundamentals in basketball.

2106. (Formerly EDKN 4106). Analysis and Movement in Baseball/Softball. 1(1-1.5)
Theoretical and practical application of fundamentals in baseball/softball.

2107. (Formerly EDKN 4107). Analysis and Movement in Track and Field. 1(1-1.5)
Theoretical and practical application of fundamentals in track and field.

2108. (Formerly EDKN 4114). Analysis and Movement in Tennis. 1(1-1.5)
Theoretical and practical application of fundamentals in tennis.

2128. Skills in Outdoor Living. 1(1-0)
An introductory course concerned with developing skills in a wide variety of outing activities; camping skills, conservation, safety, facilities and programs. Activity fee, \$10.

2321. High Adventure Activities. 3(3-0)
High adventure activities including conservation of natural resources. Students will spend some time in a camp setting away from the main campus. Activity fee, \$125.

2322. Prevention and Care of Athletic Injuries. 3(2-2)
The prevention, care and rehabilitation of athletic injuries and illnesses. Laboratory fee, \$5.

3320. Motor Development/Motor Learning. 3(3-0)
Physical factors that influence growth, maturation and aging; process underlying perceptual-motor performance and the interpretation and applications of motor research to human movement. Prerequisites: junior standing; 2.5 grade point average in kinesiology.

3325. Complex Psychomotor Skills for Children. 3(3-0)
Developmental movement experiences for children; sport and health-related physical fitness activities, dance, lead up games, gymnastics, game analysis and evaluative criteria for movement skills.

3330. Early Childhood Motor Development/Motor Learning. 3(3-0)
Early childhood physical factors that influence development, growth, maturation and aging; process underlying perceptual-motor performance and the interpretation and applications of motor research to human movement; and the assessment of perceptual-motor performance. Required for students majoring in early childhood education.

3342. Motor Skills for Special Populations. 3(3-0)
Practical considerations for conducting kinesiology programs for disabled individuals of all ages. Included are: legal entitlements, integrating the disabled, conducting individualized instruction, physical fitness programs and the use of motor

skills for transitional living. A minimum of 20 hours of field experiences required. Prerequisites: junior standing and 2.5 grade point average.

4311. Measurement and Evaluation in Kinesiology. 3(3-0)

Use and function of the various tests in kinesiology, together with the purpose, scope and techniques of test construction. Sufficient statistical techniques necessary for adequate manipulation and interpretation will be reviewed. Prerequisite: 15 hours of Kinesiology.

4325. Biomechanics. 3(3-0)

The study of the human body in its performance of movement and interrelationships of biomechanics, musculoskeletal anatomy and neuromuscular physiology. Prerequisite: 15 semester hours of Kinesiology.

4326. Basic Physiology of Exercise. 3(3-0)

Physiology as applied to training and conditioning in kinesiology and athletics. Prerequisite: BIOL 2401 or equivalent; 15 semester hours of Kinesiology.

4327. Advanced Athletic Training. 3(3-0)

Practical experience in the prevention, care and rehabilitation of athletic injuries and illnesses. Prerequisite: EDKN 2322 and EDKN 4325.

4328. Internship I. 3(3-0)

The student and the university supervisors will develop a contractual agreement which provides for a minimum of 120 clock hours of specific learning experiences on or off campus. Prerequisites: EDKN 4326, EDKN 4401, senior standing and 2.5 grade point average in kinesiology.

4329. Senior Seminar in Exercise Science. 3(3-0)

The capstone course for nonteaching certification majors, to be taken in the senior year. The course will explore the current status of and current issues in careers in exercise science. Issues will include but not be limited to professional ethics, social impact and career options.

4330. Research Projects in Kinesiology. V:1-3

An independent review of literature and a laboratory or field problem yielding a formal report on the research. Variable credit dependent upon the project. May be repeated for a maximum of 6 semester hours. Prerequisite: advanced standing and prior approval of the problem by the supervising instructor.

4401. Exercise Testing and Prescription. 4(3-1)

Design and implementation of exercise programs for healthy and special populations based upon appropriate screening and evaluation procedures. Laboratory required. Prerequisites: EDKN 4326, senior standing and 2.5 grade point average in kinesiology.

**Degree Requirements
Bachelor of Science
School Health**

Freshman Year

ARTS 2301/ MUSI 2301/THEA	2301
	<u>3</u>
COMS 1311	3
EDED 1301	3
EDHL 1254	2
ENGL 1301	3
HIST 1301	<u>3</u>
	<u>17</u>

EDED 2301	3
EDHL 1304	3
EDHL 2224	2
EDKN Activity	1
ENGL 1302	3
HIST 1302	<u>3</u>
	<u>15</u>

Junior Year

EDHL 3308	3
EDHL 3331	3
EDHL 3335	3
*Teaching Field II	3
*Teaching Field II	<u>3</u>
	<u>15</u>

EDED 3302	3
EDED 3310	3
EDED 3333	3
*Teaching Field II	3
*Teaching Field II	<u>3</u>
	<u>15</u>

Summer Session

EDRG 4314	3
*Teaching Field II	<u>3</u>
	<u>6</u>

Sophomore Year

BIOL 2401	4
EDKN Activity	1
EDKN Activity	1
ENGL 2342 or ENGL 2362	3
MATH 1314	3
POLS 2302	<u>3</u>
	<u>15</u>

BIOL 2402	4
EDHL 1353	3
EDHL 2327	3
POLS 2302	3
SOCI 2361	<u>3</u>
	<u>16</u>

Senior Year

EDED 3341	3
EDED 3362	3
EDHL 4331	3
EDHL 4337	3
*Teaching Field II	<u>3</u>
	<u>15</u>

EDED 4623	<u>6</u>
	<u>6</u>

Summer Session

*Teaching Field II	3
*Teaching Field II	<u>3</u>
	<u>6</u>

*Teaching field areas: art, biology, earth science, English, geography, government, history, kinesiology, mathematics, physics, Spanish, speech, theatre arts.
Number of hours required varies per teaching field.

**Degree Requirements
Bachelor of Science
Health - Nonteaching Certification**

Freshman Year

COMS 1311	3
EDHL 1254	2
EDKN Activity	1
ENGL 1301	3
Fine Arts Elective	3
HIST 1301	<u>3</u>
	<u>15</u>

EDED 2301	3
EDHL 1304	3
EDHL 2224	2
EDKN 1102	1
ENGL 1302	3
HIST 1302	<u>3</u>
	<u>15</u>

Junior Year

CHEM 1405 or PHYS 1305/ PHYS 1105	4
EDHL 2327	3
EDHL 3331	3
Supporting Field	3
Supporting Field	<u>3</u>
	<u>16</u>

*Adv. Course	3
*Adv. Course	3
EDHL 3335	3
Supporting Field	3
Supporting Field	<u>3</u>
	<u>15</u>

Summer Session

MATH 1314	3
POLS 2301	<u>3</u>
	<u>6</u>

Sophomore Year

BIOL 2401	4
EDKN Activity	1
ENGL 2342 or ENGL 2362	3
POLS 2302	3
STAT 1342	3
Supporting Field	<u>3</u>
	<u>17</u>

BIOL 2402	4
EDHL 1353	3
EDHL 2325	3
ENGL (2000)	3
SOCI 2361	<u>3</u>
	<u>16</u>

Senior Year

*Adv. Course	3
*Adv. Course	3
EDHL 4331	3
EDHL 4337	3
Supporting Field	<u>3</u>
	<u>15</u>

*Adv. Course	3
*Adv. Course	3
*Adv. Course	3
Supporting Field	3
Supporting Field	<u>3</u>
	<u>15</u>

Total Hours Required: 130

**Advanced courses towards degree: (Choose any 7 courses)*

EDHL 3308, EDHL 3381, EDHL 3333, EDKN 3320, EDKN 3342, EDKN 4401, HSCI 3350, SOCI 4341, MGMT 3311, MKTG 3361.

**Degree Requirements
Bachelor of Science
Kinesiology**

Freshman Year

COMS 1311	3
EDHL 1254	2
EDKN 1102	1
EDKN 1119	1
EDKN 1301	3
ENGL 1301	3
HIST 1301	<u>3</u>
	16

EDED 1201	2
EDKN 1103	1
EDKN 1134	1
EDKN 1308	3
ENGL 1302	3
HIST 1302	3
MATH 1314	<u>3</u>
	16

Junior Year

EDKN Aquatics	1
EDKN 3325	3
EDKN 3342	3
Supporting Field	3
Upper division elects	<u>6</u>
	16

EDKN 2128	1
EDKN 3320	3
EDKN 4311	3
Supporting Field	3
Upper division elects	<u>6</u>
	16

Sophomore Year

BIOL 2401	4
EDED 2301	3
ENGL 2342/ENGL 2362	3
Fine Arts	3
POLS 2301	<u>3</u>
	16

Analysis/Movement	1
Analysis/Movement	1
Analysis/Movement	1
BIOL 2402	4
EDHL 2224	2
EDKN Lifetime Activity	1
	1
POLS 2302	3
SOCI 2361	<u>3</u>
	16

Senior Year

EDKN Personal fitness	1
EDKN 4325	3
EDKN 4328	3
Supporting Field	3
Supporting Field	3
Upper division elects	<u>3</u>
	16

EDKN 4326	3
Elective	1/3
Supporting Field	3
Supporting Field	3
Supporting Field	3
Upper division elects	<u>3/4</u>
	16-19

Total Hours Required: 128

**Degree Requirements
Bachelor of Science
Kinesiology - Nonteaching Certification**

Freshman Year

COMS 1311	3
EDKN 1102	1
EDKN 1119	1
EDKN 1301	3
EDHL 1254	2
ENGL 1301	3
HIST 1301	<u>3</u>
	16

EDED 1301	3
EDKN 1103	1
EDKN 1134	1
EDKN 1308	3
ENGL 1302	3
HIST 1302	3
MATH 1314	<u>3</u>
	17

Junior Year

EDKN Aquatics	1
EDKN 3325	3
EDKN 3342	3
Support Field	3
Upper division elective	3
Upper division elective	<u>3</u>
	16

EDKN 2128	1
EDKN 3320	3
EDKN 4311	3
Support Field	3
Upper division elective	3
Upper division elective	<u>3</u>
	16

Sophomore Year

BIOL 2401	4
EDED 2301	3
ENGL 2342/ENGL 2362	3
Fine Arts	3
POLS 2301	<u>3</u>
	16

Analysis/Movement	1
Analysis/Movement	1
Analysis/Movement	1
BIOL 2402	4
EDHL 2224	2
EDKN Lifetime Activity	1
	1
POLS 2302	3
SOCI 2361	<u>3</u>
	16

Senior Year

EDKN Personal fitness	1
EDKN 4325	3
EDKN 4328	3
Support	3
Support	3
Upper division elective	<u>3</u>
	16

EDKN 4326	3
Elective	1/3
Support Field	3
Support Field	3
Support Field	3
Upper division electives	<u>3/4</u>
	16-19

Total Hours Required: 128

Degree Requirements
Bachelor of Science
Kinesiology - All Level with Teaching Certification

Freshman Year				Junior Year			
EDHL 1254	2	EDED 1201	2	EDKN Personal fitness	1	*EDED 3302	3
EDKN 1102	1	EDKN 1103	1	EDKN 3325	3	*EDED 3310	3
EDKN 1119	1	EDKN 1134	1	EDKN 3342	3	*EDED 3333	3
EDKN 1301	3	EDKN 1308	3	EDKN 4326	3	EDKN 2128	2
COMS 1311	3	ENGL 1302	3	Supporting Field	3	Supporting Field	3
ENGL 1301	3	HIST 1302	3	Supporting Field	<u>3</u>	Supporting Field	<u>3</u>
HIST 1301	<u>3</u>	MATH 1314	<u>3</u>		16		16
	16		16				
Summer Session							
EDKN Lifetime Activity	1						
ENGL 2342/ENGL 2362	3						
	<u>3</u>						
POLS 2301	<u>3</u>						
	7						
Sophomore Year				Senior Year			
BIOL 2401	4	BIOL 2402	4	*EDED 3341	3	*EDED 4634	6
EDED 2301	3	EDHL 2224	2	*EDED 3362	3	*EDRG 4314	<u>3</u>
Fine Arts	3	EDKN Analysis/Move	1	EDKN 3320	3		9
POLS 2302	<u>3</u>	EDKN Analysis/Move	1	EDKN 4311	3		
	13	EDKN Analysis/Move	1	Elective	<u>1-3</u>	Total Hours Required:	128
		SOCI 2361	3		13-16		
		Supporting Field	<u>3</u>			*Professional Education	
			15			Classes:	24
Summer Session							
EDKN Aquatics	1						
EDKN 4325	3						
Supporting Field	<u>3</u>						
	7						
<i>* Student Teaching</i>							

**FRANK H. DOTTERWEICH
COLLEGE OF ENGINEERING**

FRANK H. DOTTERWEICH COLLEGE OF ENGINEERING

William A. Heenan, *Dean*

Sheryl L. Custer, *Assistant to the Dean*

Mariselda DeLaPaz, *Director of New and Transitioning Students*

Engineering Complex 301. MSC 188. Extension 2001.

Web Site <http://www.engineer.tamuk.edu>

The Frank H. Dotterweich College of Engineering at Texas A&M University-Kingsville is dedicated to recruiting the highest caliber students, retaining them through guidance and direction and graduating degreed engineers and scientists who will compete and be recognized in a global society. To further fulfill this mission, an ongoing, self-evaluation process will include an active recruitment program of faculty and staff who will not only be recognized nationally for their expertise, but also for their ability to impart to students the most needed skills to function in a competitive work environment.

The Frank H. Dotterweich College of Engineering comprises the following academic units:

- Department of Chemical Engineering and Natural Gas Engineering
- Department of Electrical Engineering and Computer Science
- Department of Environmental and Civil Engineering
- Department of Industrial Technology
- Department of Mechanical Engineering and Industrial Engineering
- South Texas Environmental Institute

The college offers basic level programs leading to the Bachelor of Science degrees in chemical engineering, civil engineering, electrical engineering and mechanical engineering. These engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The college also offers programs leading to the Bachelor of Science degrees in computer science and industrial technology.

The basic level engineering programs are designed to give the student an understanding of the fundamental principles underlying engineering science and engineering practice. Each curriculum contains basic courses to develop a solid foundation in mathematics, chemistry and physics and includes a general background in humanities and social sciences. Building on this background, the engineering science courses provide application of basic principles and the analysis of engineering systems. The engineering design component of the curriculum in each area provides the engineering student with methods and techniques for the solution of technological problems of society.

The curriculum in computer science and in industrial technology are similarly structured to provide the students a solid base in their field.

The laboratory facilities are equipped to facilitate learning. Students will become familiar with the instruments, procedures and processes employed in industry. A computation center is available for students' use throughout their course of study.

The college offers programs of study leading to both the Master of Science and the Master of Engineering degrees along with a Ph.D. in Environmental Engineering. Individuals interested in graduate programs should review the requirements listed in the graduate catalog.

Entering Freshmen

Entering freshmen are required to have a minimum composite score of 21 on the ACT or 970 on the SAT. Students whose test scores fall between 18-20 (ACT) or 810-969 (SAT) will be placed in the Pre-Engineering (PPEN) major status in order to complete preparatory course work. The student will be transferred to an engineering program after successfully obtaining an overall cumulative and math/science GPA of 2.0 in the second semester of course work. (Course work in math and science must include MATH 1348 or higher and CHEM 111 I/CHEM 131 I.)

Students who fall below the minimum pre-engineering test score (ACT-18/SAT-810) will not be allowed entry into the college until an overall, cumulative and math/science GPA of 2.5 or better has been attained. Once this criteria has been met, the student may reapply for admission to an engineering program.

Transfer Students

Transfer students will be accepted in the college unconditionally if their overall grade point average from the previous institutions is a 2.5. A&M-Kingsville students desiring to change their major to engineering must also meet this requirement.

Non-engineering majors may take one lower level (1000-2000) engineering course a semester. Upper level engineering courses (3000-4000) may not be taken by non-engineering majors. Exceptions to the above policy must be approved in writing by the dean of the student's college and the dean of engineering. Students who enroll in engineering courses without approval will be dropped from the course.

Students who transfer into the College of Engineering from another college within this institution that have a cumulative GPA of 2.0-2.49 on a 4.0 grading system will be placed into our Pre-Engineering (PPEN) major. After two semesters (Fall/Spring), the student will be re-evaluated by his/her adviser. If the student has maintained satisfactory progress, the student will be transferred out of PPEN and placed into a regular engineering major. A special change of major form will be completed and signed by the adviser, the chair of the department and the dean of the college. Students who do not achieve satisfactory progress will remain in PPEN and will be re-evaluated again after the completion of one (1) academic year.

Students planning to transfer to the Frank H. Dotterweich College of Engineering from another four-year university should apply for admission as early as possible. Once accepted, the student is encouraged to contact the appropriate department chair during the semester prior to enrolling at A&M-Kingsville. Course transferability and course prerequisite requirements can be determined to allow a smooth transition into the program at A&M-Kingsville.

Community college transfer students should complete English, mathematics and science courses as early as possible. The basic engineering courses required for a specific degree should also be completed. If some of these courses are not available at the college the student is attending, early transfer or a summer session at A&M-Kingsville may be advisable to enable the student to stay on schedule.

Specific articulation and joint admission agreements are available for several community colleges. These agreements can be viewed on the college's homepage at <http://www.engineer.tamuk.edu>.

Transfer of Credit

The university has established course equivalencies from the majority of Texas community colleges and universities. The Texas Higher Education Coordinating Board has established guidelines on course transferability from two-year colleges to four-year universities in engineering. In addition to the university policies controlling the granting of credit for course work taken at other institutions where equivalency has not been established, the following policies apply to students entering the Frank H. Dotterweich College of Engineering from such institutions:

- a. All courses taken at another institution are subject to approval by the dean of the Frank H. Dotterweich College of Engineering and the chair of the degree granting department. Courses are approved on a course-by-course basis to ensure their acceptability in fulfilling requirements for a degree. In making this evaluation, the student may be required by the dean and/or department chair to produce catalogs and other supporting material from the institution from which the student is transferring.
- b. All passing grades will be accepted from students transferring under a Joint Articulation Agreement. For all others, degree credit will not normally be granted for any course taken at another institution in which the student's grade in that course was not the equivalent of at least a C and an overall 2.0 on a 4.0 grading system.

A maximum of 72 semester hours may be transferred from institutions that do not have engineering programs accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Advanced (3000- or 4000-level) engineering courses from four-year institutions that do not have ABET accredited programs may be applied toward degree requirements only if approved by the department chair and the dean.

The student is responsible for timely processing of all course substitutions. This action should be completed during the first semester of work at A&M-Kingsville.

Academic Counseling

Students are assigned to an academic adviser in their major department upon entering the Frank H. Dotterweich College of Engineering. Academic counseling and preregistration sessions are scheduled each semester to allow students to review their academic progress and plan their schedule for the next semester. All pre-engineering and engineering students are assigned an adviser. Students are required to see their adviser before they will be permitted to register. Students should also consult their adviser for approval of academic matters such as choice of electives, course substitutions, course overloads and adding or dropping courses. The dropping of key courses in a curriculum may delay the student's progress toward the desired degree.

Requirements for the B.S. Degree in the Frank H. Dotterweich College of Engineering

The basic requirements for the Bachelor of Science degree is 130-142 semester hours of academic work, depending upon the career field chosen. Students coming from high school with adequate preparation will be able to satisfy this requirement in eight semesters. Students requiring preparatory work or choosing to take lighter loads will take longer to complete degree requirements.

Engineering is a rapidly changing profession and the departmental curricula are updated continuously to keep pace with these changes. Students entering under this catalog will be required to comply with such curriculum changes in order to earn their degree. However, the total number of semester hours required for the degree may not be increased and all work completed in accordance with this catalog prior to the curriculum change will be applied toward the student's degree requirements. Courses that are modified or added to a curriculum and incorporated into the curriculum at a level beyond that at which a student is enrolled may become graduation requirements for that student. Courses that are incorporated into the curriculum at a level lower than the one at which the student is enrolled are not required for that student. Former students of the college who have been out of school for two consecutive semesters must meet the curriculum requirements in effect at the time of their readmission.

Graduation Requirements

A candidate for a degree in the Frank H. Dotterweich College of Engineering must satisfy the university's "General Education Requirements" as set forth earlier in the catalog.

For engineering, computer science and industrial technology degree plans, the Criterion I (B) requirement must be satisfied by taking BCOM 3304. The social science or humanities elective must come from any advanced level political science or history course. Students are encouraged to take HIST 3324 to satisfy this requirement. Criterion VI, the fine arts elective, must be chosen from ARTS 1303, ARTS 1304; MUSI 2306 or THEA 4308.

A candidate for a degree from the Frank H. Dotterweich College of Engineering must also meet the following requirements in fulfilling one of the degree plans prescribed on the following pages.

All candidates must satisfy the requirements to maintain a grade point average of 2.0 on (1) all course work attempted and (2) all course work attempted at A&M-Kingsville.

Candidates for engineering or computer science degrees must also maintain a grade point average of 2.0 in (1) all engineering and computer science courses in the major specified for the degree and (2) all mathematics and natural science courses specified for the degree.

Candidates for the industrial technology degree must also maintain a grade point average of 2.5 in (1) all course work specified for their major and (2) 2.0 for all business administration course work specified for the degree.

It is the candidate's responsibility to ensure that all degree requirements are met.

Communication Skills

The college will evaluate the communication skills of all its majors. Each student must demonstrate minimal communication skills by passing BCOM 3304 with a minimum grade of "C."

DEPARTMENT OF CHEMICAL ENGINEERING AND NATURAL GAS ENGINEERING

Ali Pilehvari, *Chair*

Engineering Complex 303. MSC 193. Extension 2002.

Professors

Al-Saadoon, Heenan, Pilehvari, Schruben, Serth

Associate Professor

Chisholm

Assistant Professor

Lee

The Educational Objectives of the Chemical Engineering Program are:

- 1. To prepare students for successful careers in the chemical process industries, related industries and governmental agencies.**
- 2. To prepare students for post-graduate study in chemical engineering or related disciplines.**
- 3. To instill in students a sense of responsibility to their profession and to society in general.**

CHEMICAL ENGINEERING (CHEN)

1301. Introduction to Engineering Design. 3(3-0)

Introduction to engineering design at the freshman level. A systems approach to engineering design is used to solve several engineering open-ended design problems related to the chemical process industries. Principles of teaming are emphasized throughout the course in accord with the design problems. Prerequisite: registration in or credit for CHEM 1311.

2371. Conservation Principles. 3(3-0)

Applications of the conservation laws of mass and energy to the solution of chemical engineering problems. Prerequisites: CHEM 1312 and CHEN 1301 or PHYS 2325/2125.

3310. Heat Transfer Phenomena. 3(3-0)

Fundamentals of energy transport and system applications involving this operation including computer applications to heat exchanger design. Prerequisites: CHEN 3392/NGEN 3392, CHEM 2421 or CHEM 3323/3123 and CHEN 3347 or MEEN 3347.

3315. Chemical Process Design I. 3(3-0)

Basic principles and techniques of economic analysis and cost engineering with applications to problems in chemical process and equipment design. Prerequisites: CHEN 2371 and credit for or registration in CHEN 3310.

3347. Chemical Engineering Thermodynamics I. 3(3-0)

Theory and applications of the first and second laws of thermodynamics to mechanical, chemical, magnetic and electrical interactions for both reversible and irreversible processes. Prerequisite: MATH 2314. Corequisite: PHYS 2326/2126.

3371. Chemical Engineering Thermodynamics II. 3(3-0)

Procedures for deciding when and to what extent chemical reactions and phase changes may be expected to occur according to the basic principles of physical chemistry and the laws of thermodynamics. Application of computers to advanced thermodynamic problems. Prerequisites: CHEM 3331, CHEM 3325/3125 and CHEN 3347.

3392. Fluid Transport Phenomena. 3(3-0)

Fundamentals of momentum transport, including fluid statics, flow of compressible and incompressible fluids, pumps, turbines and compressors, with computer applications. Prerequisite: MATH 3320. Corequisite: MEEN 2355 or MEEN 3355. (Credit may not be obtained in both CHEN 3392 and NGEN 3392.)

4278. Unit Operations. 2(0-6)

Selected laboratory experiments on fluid flow and heat transfer. Prerequisite: CHEN 3310. Laboratory fee, \$5.

4279. Unit Operations Laboratory. 2(0-6)
Selected laboratory experiments on heat and mass transfer. Prerequisites: NGEN 4389. (Credit may not be obtained in both CHEN 4279 and NGEN 4279.) Laboratory fee, \$5.

4311. Biochemical Engineering. 3(3-0)
Principles involved in the processing of biological materials using biological agents such as cells, enzymes or antibodies. Prerequisites: CHEM 3323/3123 or CHEM 2421 and CHEM 3331.

4316. Chemical Process Design II. 3(3-0)
The application of chemical engineering principles to a sequence of design problems utilizing computer software, such as SIMSCI. Prerequisites: CHEN 3315, CHEN 3371 and CHEN 3310.

4317. Chemical Process Design III. 3(3-0)
The application of chemical engineering principles, including economic criteria to a comprehensive design problem. Computer software is utilized as a design aid. Prerequisites: CHEN 4316, CHEN 4373, CHEN 4389 and credit for or registration in CHEN 4392.

4335. Special Problems. V:1-3
Individual solution of selected problems in chemical engineering conducted under direct supervision of a faculty member. May be repeated for up to six hours. Prerequisite: senior standing.

4373. Kinetics and Reactor Design. 3(3-0)
Chemical reaction rates and design of chemical reactors. Applications of computers to chemical kinetics and the design of chemical reactors. Prerequisites: CHEN 3371, CHEN 3310 and CHEM 3332.

4383. Natural Gas Processes. 3(3-0)
The design, operation and economics of systems for the utilization of hydrocarbon gases and liquids, the concentration of their components by absorption and fractionation procedures. Use of computer aided design and economic evaluation of facility designs. Prerequisites: CHEN 4389. (Credit may not be obtained in both CHEN 4383 and NGEN 4383.)

4386. Air Pollution Control. 3(3-0)
A fundamental approach to air pollution testing, control and design of control systems. Introduction to dispersion modeling via computer. Prerequisite: CHEN/NGEN 3392 and senior standing.

4388. Process Heat Transfer. 3(3-0)
Design and analysis of heat transfer equipment used in the chemical and petroleum industries. Heat exchangers, condensers, evaporators, reboilers. Extended surface heat transfer equipment. Computer applications to heat exchanger design. Prerequisite: CHEN 3310.

4389. Mass Transfer Phenomena. 3(3-0)
Fundamentals of mass transport, including gas absorption, extraction, membrane separation, binary and multicomponent distillation, with computer design applications. Prerequisites: CHEN 3331 and credit or registration in CHEN 3310.

4392. Process Dynamics and Control. 3(2-3)
Basic operating theory of control instruments and their application to industrial chemical process. Applications of computers to process control. Prerequisites: CHEN 4373 and CHEN 4389. Laboratory fee, \$5.

NATURAL GAS ENGINEERING (NGEN)

2102. Introduction to Natural Gas Engineering Design II. 1(1-0)
An introduction to the natural gas industry with emphasis on the role and duties of a natural gas engineer. Open ended problems regarding planning, development and operation of natural gas fields will be employed to allow second year students to apply design and decision making. Team development will be stressed.

3322. Fundamentals of Reservoir Engineering. 3(2-3)
Physical properties of petroleum reservoir rocks, lithology, porosity, fluid saturations, permeability and capillary characteristics as they relate to the production of oil and gas. Thermodynamic behavior of naturally occurring hydrocarbon

mixtures. Evaluation and correlation of physical properties of petroleum reservoir fluids. Corequisites: NGEN/CHEN 3392, GEOL 1304/1104 and CHEM 2421. Laboratory fee, \$5.

3392. Fluid Transport Phenomena. 3(3-0)
Fundamentals of momentum transport including fluid statics, flow of compressible and incompressible fluids, pumps, turbines and compressors, with computer applications. Prerequisites: MATH 3320. Corequisite: MEEN 2355 or MEEN 3355. (Credit may not be obtained in both NGEN 3392 and CHEN 3392.)

3493. Natural Gas Drilling Engineering. 4(3-3)
Introduction to drilling equipment and methods, drilling fluids, casing and cementing of wells. Application of computers to the drilling of wells. Prerequisites: NGEN 3322 and NGEN/CHEN 3392. Laboratory fee, \$10.

4279. Unit Operations Laboratory. 2(0-6)
Selected laboratory experiments in heat and mass transfer. Prerequisites: CHEN 4389. (Credit may not be obtained for both NGEN 4279 and CHEN 4279.) Laboratory fee, \$5.

4310. Gas and Oil Property Evaluation. 3(3-0)
The application of natural gas engineering principles in estimating the value of gas and oil properties utilizing computer softwares, such as POGO. Prerequisites: NGEN 4385 and NGEN 4496.

4317. Environmental Engineering Fundamentals. 3(3-0)
An introductory course in environmental engineering: science basis, law and regulations, protection of human health and the environment from air, water, solid/hazardous and product pollution. Structure of the environmental industry. Prerequisite: junior or senior standing in physical science, engineering or agriculture. (Credit may not be obtained in both NGEN 4317 and EVEN 4317.)

4335. Special Problems. V:1-3
Individual solution of selected problems in natural gas engineering conducted under direct supervision of a faculty member. May be repeated for up to 6 semester hours. Prerequisite: senior standing.

4337. Industrial Hygiene and Toxicology. 3(3-0)
Introduction to workplace environmental controls to safeguard the health and comfort of both employees and the public, including the toxic/hazardous effects of chemical, physical and biological agents. Establishing, maintaining and assessing an industrial hygiene and toxicology program. Prerequisite: junior standing in physical science, engineering or agriculture.

4383. Natural Gas Processes. 3(3-0)
The design, operation and economics of systems for the utilization of hydrocarbon gases and liquids, the concentration of their components by absorption and fractionation procedures. Use of computer aided design and economic evaluation of facility designs. Prerequisites: CHEN 4389. (Credit may not be obtained in both NGEN 4383 and CHEN 4383.)

4385. Advanced Reservoir Engineering. 3(3-0)
Phase relations of hydrocarbon systems, material balance methods, flow in reservoirs and displacement of gas. The application of computers to reservoir engineering. Prerequisite: NGEN 3493.

4387. Well-Logging and Correlation. 3(3-0)
Theory and methods of modern well-logging and their applications. Prerequisite: NGEN 3493 or GEOL 3431.

4496. Natural Gas Production and Distribution. 4(3-3)
Theory, design and methods of gas well testing and production. Distribution topics include pipeline and compressor design and flow measurement. The application of computers to production, testing and distribution design and evaluation. Prerequisites: NGEN 3392/CHEN 3392 and NGEN 3322. Laboratory fee, \$5.

Degree Requirements
Bachelor of Science in Chemical Engineering
Accredited by the EAC of the Accreditation Board for Engineering and Technology

Freshman Year				Junior Year			
CHEM 1111	1	CHEM 1112	1	CHEM 3331	3	CHEM 3310	3
CHEM 1311	3	CHEM 1312	3	CHEM 3347	3	CHEM 3315	3
CSEN 2304	3	CHEM 1301	3	CHEM 3392	3	CHEM 3332	3
ENGL 1301	3	ENGL 1302	3	EEEN 3331	3	CHEM 3371	3
HIST 1301	3	MATH 2313	3	MATH 3315	3	^Kinesiology	1
MATH 1348	3	PHYS 2325/		POLS 2301	<u>3</u>	POLS 2302	<u>3</u>
MEEN 1201	<u>2</u>	PHYS 2125	<u>4</u>		18		16
	18		17				
Sophomore Year				Senior Year			
CHEM 3323/		BCOM 3304	3	Adv. Soc Sci or		Adv. CHEM Elective	3
CHEM 3123	4	CHEM 3325/		Hum. Elective	3	CHEM 4279/	
CHEM 2371	3	CHEM 3125	4	CHEM 4278	2	NGEN 4279	2
Fine Arts Elective	3	MATH 3320	3	CHEM 4316	3	CHEM 4317	3
HIST 1302	3	MEEN 2355	3	CHEM 4373	3	CHEM 4392	3
^Kinesiology	1	PHYS 2326/		CHEM 4389	3	Engr Design Elective	3
MATH 2314	<u>3</u>	PHYS 2126	<u>4</u>	MATH Elective	<u>3</u>	^Kinesiology	<u>1</u>
	17		17		17		15

Total Hours Required: 135

Engineering design electives must be selected from CHEM 4386, CHEM 4388 and NGEN 4383.

Mathematics elective: suggested courses include MATH 4370, MATH 4371, MATH 4341, MATH 4321, MATH 4372, MATH 4373, STAT 4303, CSEN 4363.

Other electives may be chosen only with consent of adviser and department chair.

The social science or humanities elective: any advanced-level political science course or any advanced-level history course.

The fine arts elective must be chosen from: ARTS 1303, ARTS 1304, MUSI/THEA 3302, MUSI 2306, THEA 4308.

BCOM 3304, Business Communications, must be taken and passed with a "C" or better to satisfy the communication criteria and the Frank H. Dotterweich College of Engineering's communication skills requirement.

The advanced chemistry elective must be selected from: CHEM 3451, CHEM 4311, CHEM 4401, CHEM 4421, CHEM 4341 or CHEM 4311.

NOTE: This is a suggested plan of study. Courses may not be taken out of order without permission of adviser. In every case prerequisites must be satisfied before a course is taken. The complete program of electives must be approved by the department chair.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Natural Gas Engineering
(with an emphasis in Environmental Engineering)
Accredited by the EAC of the Accreditation Board for Engineering and Technology

Freshman Year			Junior Year				
CHEM 1111	1	BIOL 1308/BIOL 1108	4	CHEM 3331	3	CEEN 3311	3
CHEM 1311	3	CHEM 1112	1	CHEM 3347	3	CHEM 3310	3
CSEN 2304	3	CHEM 1312	3	CHEM 3392/		EEEN 3331	3
ENGL 1301	3	ENGL 1302	3	NGEN 3392	3	NGEN 3493	4
GEOL 1303/ GEOL 1103	4	MATH 2313	3	NGEN 3322	3	NGEN 4496	<u>4</u>
HIST 1301	3	NGEN 1201	<u>2</u>	Soc Sci/Hum Elective	3		17
MEEN 1201	<u>2</u>		16	STAT 4303	<u>3</u>		
	19				18		
Sophomore Year			Senior Year				
CHEM 2421	4	BCOM 3304	3	CHEM 4389	3	[^] Kinesiology	1
[^] Kinesiology	1	HIST 1302	3	EVEN 4317/		MATH Elective	3
MATH 2314	3	MATH 3320	3	NGEN 4317	3	NGEN 4279	2
NGEN 2102	1	MEEN 2355	3	EVEN 4337/		NGEN 4310	3
PHYS 2325/ PHYS 2125	4	PHYS 2326/ PHYS 2126	4	NGEN 4337	3	NGEN 4383	3
POLS 2301	<u>3</u>	POLS 2302	<u>3</u>	Fine Arts Elective	3	NGEN 4387	<u>3</u>
	16		19	[^] Kinesiology	1		15
				NGEN 4385	<u>3</u>		
					16	Total Hours Required: 136	

Mathematics elective: MATH 4320, MATH 4341, MATH 4370, MATH 4371, MATH 4372, MATH 4374, STAT 4303, CSEN 4363. Other electives may be chosen only with consent of adviser and department chair.

The social science or humanities elective: any advanced-level political science course or any advanced-level history course.

The fine arts elective ARTS 1303, ARTS 1304, MUSI 3302/THEA 3302, MUSI 2306, THEA 4308.

BCOM 3304 must be taken and passed with a "C" or better to satisfy the communication criteria and the Frank H. Dotterweich College of Engineering's communication skills requirement.

NOTE: This is a suggested plan of study. Courses may not be taken out of order without permission of adviser. In every case prerequisites must be satisfied before a course is taken. The complete program of electives must be approved by the department chair.

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Sung-won Park, *Chair*

Engineering Complex 303. MSC 192. Extension 2004.

Professors

Challoo, Omar, Park, Schreur

Associate Professors

Boehm, Leung, Li, Nekovei

Assistant Professors

Du, Varvel

Teaching Retiree

Gorakhpurwalla

The Educational Objectives of the Electrical Engineering Program are:

- 1. To prepare graduates for careers as engineering professionals and/or for graduate studies.**
- 2. To enable graduates to pursue state-of-the-art solutions to engineering problems and to evaluate and embrace new technologies.**
- 3. To instill in graduates personal commitment to high ethical standards, sound business decisions and engineering excellence.**

COMPUTER SCIENCE (CSEN)

2303. Introduction to Computing Using Visual Basic and Excel.

3(3-0)

Problem solving methods and algorithm development. Computer programming using Visual Basic. How to use Excel. Designing, coding, debugging and documenting programs using techniques of good programming style. Prerequisites: MATH 1314 and MATH 1316 or equivalent.

2304. Introduction to Computer Science. (ENGR 2304)

3(3-0)

Introduction to computer systems, problem solving methods and algorithm development. Structured programming using a programming language such as C. Designing, coding, debugging and documenting programs using techniques of software development cycle. Prerequisites: MATH 1314 and MATH 1316 or equivalent.

2310. Object-Oriented Software Engineering.

3(3-0)

Introduction to objects, object-oriented analysis and modeling, object-oriented design, implementation using an object-oriented language, such as C++. Prerequisite: CSEN 2328.

2326. Introduction to Structured Programming.

3(2-3)

Development of discipline in programming design, style, expression, debugging and testing. Introduction to algorithmic analysis, string processing, recursion, internal search/sort methods and simple data structures. Use of a block-structured language such as C. Prerequisites: MATH 1314 and MATH 1316 or equivalent. Laboratory fee, \$5.

2328. (Formerly CSEN 3364). Data Structures.

3(3-0)

Algorithm analysis, lists, stacks, queues, trees, hashing, priority queues, sorting, graph algorithms and algorithm design. Prerequisite: CSEN 2304.

2330. (Formerly CSEN 3361). Introduction to Computer Systems I.

3(3-0)

Basic concepts of computer systems and computer architecture. Machine instructions and basic data types. Representation of information. Arithmetic and logical operations. Addressing operands in storage. Assembly language programming. Prerequisite: CSEN 2304. Laboratory fee, \$5.

In addition to the listed prerequisite for the following 4000 series courses, a student must have an overall grade point average of 2.0 or higher.

4201-4202. (Formerly CSEN 4101-CSEN 4102). Senior Project. 4(1-3)
A major project of an original nature carried to completion over a period of two semesters. Normally taken in the final academic year prior to graduation. Prerequisite: senior standing in Computer Science. Laboratory fee, \$5 each semester.

4314. Database Management Systems. 3(3-0)
File and database organization techniques. Network, hierarchical and relational data models. Normalization. Commercially-available DBMS. Query languages. DBMS design and implementation.

4315. Computer Graphics. 3(3-0)
Man-machine communication in graphical form. Graphics hardware and software. Use of a commercial graphics package. Representation and manipulation of two- and three-dimensional data. Use of color. Prerequisites: CSEN 2304 and MATH 1348.

4316. Software Engineering I. 3(3-0)
Introduction to formal software design principles. An engineering approach to software development. Software project management. Software requirements analysis, specification, design, development and validation. Prerequisite: 6 semester hours of Computer Science or Computer Information Systems.

4317. (Formerly CSEN 3365). Software Engineering II. 3(3-0)
Advanced software design principles. An engineering approach to software development emphasizing advanced techniques for validation and verification. Prerequisite: CSEN 4316.

4320. Computer Networks. 3(3-0)
Data communication networks and ISO reference model, the electrical interface, data transmission, data link and its protocols, local area network and its protocols, wide area network and its protocols, internetworking. Prerequisite: 6 hours of upper level Computer Science.

4335. Selected Topics. V:1-3
One or more topics of computer science. May be repeated for a total of 6 semester hours. Prerequisite: consent of instructor.

4336. Special Problems. V:1-3
Individual solution of selected problems in computer science conducted under direct supervision of a faculty member. May be repeated for up to 6 semester hours. Prerequisite: consent of instructor.

4361. System Software. 3(3-0)
The study of system software components such as assemblers, macros and macro processors, compilers, linkers and loaders. The function and development of these components are emphasized. Prerequisite: CSEN 2330 or EEEN 3449.

4362. Operating Systems. 3(3-0)
Study of operating system principles, including process management, memory management, resource allocation and input, output and interrupt processing. Prerequisite: CSEN 2330 or EEEN 3449.

4363. Numerical Methods. 3(3-0)
A computer-oriented introduction to numerical methods. Interpolation, numerical differentiation and quadrature, linear systems of equations, solution of nonlinear equations, solutions of differential equations. Prerequisites: MATH 3320 and either CSEN 2304 or equivalent.

4366. Programming Languages. 3(3-0)
Formal definition of programming languages including specification of syntax and semantics. Precedence, infix, prefix and postfix notation. Global properties of algorithmic languages. List processing, string manipulation, data description and simulation languages. Run-time representation of program and data structures. Prerequisite: CSEN 2328.

ELECTRICAL ENGINEERING (EEEN)

2323. Network Analysis I. 3(3-0)
Introduction to linear network analysis techniques. Phasor analysis and sinusoidal steady-state response. Single-phase and polyphase circuits. Prerequisites: MATH 2314; Corequisites: PHYS 2326/PHYS 2126 and MATH 3320.TH 2314.

- 2340. (Formerly EEEN 3338). Digital Logic Design.** 3(3-0)
Hardware implementation of arithmetic and logical functions, organization and design of digital systems. Prerequisites: EEEN 2304.
- 3112. Electronic Devices and Circuits Laboratory I.** 1(0-3)
Laboratory course to correlate with the basic theory presented in sophomore and first semester junior courses. Prerequisite: credit for or registration in EEEN 3325. Laboratory fee, \$5.
- 3133. Electrical Engineering Laboratory.** 1(0-3)
Introduction to instruments. AC/DC machines, circuits and electronic analog computer applications. Prerequisite: credit for or registration in EEEN 3332. Laboratory fee, \$5.
- 3212. Circuits and Electronics Lab.** 2(1-3)
Laboratory course to correlate with circuits and electronics. Prerequisite: credit for or registration in EEEN 3325. Laboratory fee, \$5.
- 3321. Network Analysis II.** 3(3-0)
Two-port networks, Fourier analysis, time domain response, transient response and Laplace transform techniques. Prerequisites: EEEN 2323, CSEN 2304 and MATH 3320.
- 3324. Electromagnetics.** 3(3-0)
Vector analysis, electrostatics, steady magnetic fields. Maxwell's equations, uniform plane waves, circuit concepts, propagation and radiation. Prerequisites: PHYS 2326/PHYS 2126 and MATH 3320.
- 3325. Electronics I.** 3(3-0)
Solid state fundamentals. Nonlinear devices and networks. Fabrication of integrated circuits. Two-port models. Prerequisites: EEEN 2323 and PHYS 2326/PHYS 2126.
- 3326. Elements of Dynamic Systems.** 3(3-0)
Modeling of mechanical systems, analogy between mechanical and electrical systems, modeling of hydraulic and pneumatic systems, transfer functions and responses of first and second order systems, frequency response, block diagrams and transient response specifications of second order systems, analog computation. Prerequisites: MATH 3320 and EEEN 3321.
- 3331. Circuits and Electromagnetic Devices.** 3(3-0)
General network analysis, steady-state AC/DC circuits. Energy conversion and applications. Prerequisite: PHYS 2326/2126.
- 3332. Electronics and Instrumentation.** 3(3-0)
Principles of electronics, amplifiers and electronic circuits. Feedback and electronic analog computation. Transducers and instrument systems. Prerequisite: EEEN 3331.
- 3333. Linear Systems and Signals.** 3(3-0)
Signal representation, sampling and quantization, Laplace and z-transforms, transfer functions and frequency response, convolution, stability, Fourier series, Fourier transforms and applications. Prerequisite: EEEN 3321.
- 3334. Random Signals.** 3(3-0)
Probability, random variables, white noise and band-limited system, narrowband Gaussian process, pseudorandom signals and random signal response of linear systems. Prerequisite: MATH 2314.
- 3424. Principles and Applications of Engineering Electromagnetics.** 4(3-3)
Vector analysis, electrostatics, steady magnetic fields. Maxwell's equations, uniform plane waves, circuit concepts, propagation and radiation. Prerequisites: PHYS 2326/2126 and MATH 3320. Laboratory fee, \$5.
- 3449. Microprocessor Systems.** 4(3-3)
Basic computer structure, the instruction set, addressing modes, assembly language programming, assembly language subroutines, arithmetic operations, programming in C, implementation of C procedures, elementary data structures, input and output and a survey of microprocessor design. Prerequisites: EEEN 2340. Laboratory fee, \$5.

In addition to the listed prerequisite for the following 4000 series courses, a student must have an overall grade point average of 2 or higher.

4124. Electrical Engineering Projects Laboratory. 1(0-3)
Participation in engineering design activity. Prerequisite: EEEN 4152. Laboratory fee, \$5.

4152. Advanced Electronics Laboratory. 1(0-3)
Analysis and design of electronic circuits and systems. Prerequisite: EEEN 3113. Laboratory fee, \$5.

4224. Electrical and Computer Engineering Projects Laboratory. 2(0-6)
Participation in engineering design activity. Prerequisite: EEEN 4252. Laboratory fee, \$5.

4252. Advanced Laboratory. 2(1-3)
Analysis and design of electrical, electronic and digital systems. Prerequisites: EEEN 3212 and EEEN 3449. Laboratory fee, \$5.

4310. Introduction to VLSI Circuit Design. 3(3-0)
Introduction to design and fabrication of micro-electronic circuits via Very Large Scale Integrated circuitry (VLSI); structured design methods for VLSI systems, use of computer-aided design (CAD) tools and design projects of small to medium scale integrated circuits. Prerequisites: EEEN 3325 and EEEN 2340.

4314. (Formerly EEEN 4421). Electrical Machinery. 3(2-3)
Introduction to the principles of transformers and DC and AC electric machines. Identifying electrical machine principles, parameters and characteristics by tests. Prerequisite: EEEN 2323. Laboratory fee, \$5.

4328. Speech Processing and Communications. 3(3-0)
Fundamentals of digital signal processing, waveform coding, speech spectrum, vocoders, linear predictive coding and introduction to speech recognition.

4329. Communications Engineering. 3(3-0)
Transmission of information. Probability, stochastic process and spectral analysis. Sampling, quantization, decision theory, coding and decoding. Digital communication system and secure communications. Introduction to DSP. Prerequisites: EEEN 3333 and EEEN 3334.

4332. System Analysis and Design. 3(3-0)
Integration of fundamental physical principles and mathematical methods into the engineering environment. Modeling, optimization and solution of selected design problems. Prerequisite: senior standing in electrical engineering.

4334. Real Time Digital Signal Processing. 3(2-3)
Introduces the development tools for real-time signal processing. Covers processor implementation of DSP applications. Features of the microprocessor as well as digital signal processing are introduced. Prerequisites: EEEN 2340 and EEEN 3333. Laboratory fee, \$5.

4335. Special Problems. V:1-3
Individual solution of selected problems in electrical engineering conducted under direct supervision of a faculty member. May be repeated for up to 6 hours. Prerequisite: consent of instructor.

4336. Selected Topics. V:1-3
One or more topics of electrical engineering. May be repeated for up to a total of 6 semester hours. Prerequisite: consent of instructor.

4342. Electronics II. 3(3-0)
Analysis and design of analog electronic circuits; differential, multistage and power amplifiers; frequency response; feedback and stability. Prerequisite: EEEN 3325.

4343. Microprocessor-based Control Systems.

3(3-0)

Design of microprocessor-based real-time control systems. Application of theoretical principles to control of small-scale systems. Controller design; signal conditioning and drive circuits for interfacing with sensors and actuators; programming and programmable logic controllers. Prerequisite: EEEN 3333.

4344. Computer Architecture and Design.

3(3-0)

Basic computer organization, data representation and arithmetic, instruction sets and addressing modes, assembly language, data path and control, memory, input and output and communication. Prerequisites: EEEN 3449 or CSEN 2330, EEEN 2340.

4354. Linear Control Systems.

3(3-0)

Analysis and design techniques for linear feedback control systems. Controller functions and compensation, applications to serve and process control problems. Prerequisite: EEEN 3333.

4355. Digital Systems Engineering.

3(2-3)

Principles in digital system design and testing, digital integrated circuits, digital system design with PLDS and FPGAS, introduction to an HDL, memory, microprocessors and design for testability. Prerequisites: EEEN 3325 and EEEN 2340. Laboratory fee, \$5.

Degree Requirements
Bachelor of Science in Computer Science

Freshman Year			Junior Year				
CSEN 2304	3	CSEN 2328	3	BCOM 3304	3	*Approved Elective	3
ENGL 1301	3	ENGL 1302	3	CSEN 4315	3	CSEN 4314	3
HIST 1301	3	HIST 1302	3	EEEN 3334	3	CSEN 4316	3
MEEN 1201	2	^ <i>Kinesiology</i>	1	****Humanities Elective	3	EEEN 3449	4
MATH 1348	3	MATH 2313	3		3	MATH 3315	<u>3</u>
Science I	<u>4</u>	Science I	<u>4</u>	MATH 3370	3		16
	18		17	***Social Sciences Elective	<u>3</u>		
					18		
Sophomore Year			Senior Year				
EEEN 2340	3	CSEN 2310	3	*Approved Elective	3	*Approved Elective	3
**Fine Arts Elective	3	EEEN 2323	3	CSEN 4201	2	CSEN 4202	2
^ <i>Kinesiology</i>	1	^ <i>Kinesiology</i>	1	CSEN 4317	3	CSEN 4320	3
MATH 2314	3	MATH 3320	3	CSEN 4361	3	CSEN 4362	3
PHYS 2325/PHYS 2125	4	PHYS 2326/PHYS 2126	4	EEEN 4344	<u>3</u>	CSEN 4366	<u>3</u>
POLS 2301	<u>3</u>	POLS 2302	<u>3</u>		14		14
	17		17				

Total Hours Required: 131

*The sciences to be taken in the freshman and sophomore years include a one-year sequence in one science followed by another one-year sequence in physics. The sciences from which a student may choose the freshman sequence are biology, chemistry, geology and astronomy. *The three approved electives must be selected with the consent of the student's adviser and would normally be more advanced courses in computer science, computer information systems, mathematics, statistics or one of the sciences taken in the freshman and sophomore years. However, a meaningful sequence of courses in any discipline, such as engineering or agriculture, may be taken with the consent of the student's adviser, except that all such courses must be taken at the 2000-level or above.*

*** The fine arts elective must be either ARTS 1303, ARTS 1304, MUSI 2306, THEA 3302 or THEA 4308.*

****The social sciences elective must be either PSYC 2301, SOCI 1301, SOCI 1306, SOCI 4307, PHIL 3311, PHIL 3322, HIST 4336, HIST 4338 or any political science course exclusive of POLS 2301, POLS 2302 or POLS 3351.*

*****The humanities elective must be either PHIL 3323, POLS 3351 or any literature course.*

BCOM 3304, Business Communication, A grade of "C" or better is required.

Degree Requirements
Bachelor of Science in Electrical Engineering
Accredited by the EAC of the Accreditation Board for Engineering and Technology

Freshman Year			Junior Year		
CHEM 1111	1	CHEM 1112	1		
CHEM 1311	3	CHEM 1312	3		
CSEN 2304	3	ENGL 1302	3		
ENGL 1301	3	* <i>Fine Arts Elective</i>	3		
HIST 1301	3	HIST 1302	3		
MATH 1348	3	^ <i>Kinesiology</i>	1		
MEEN 1201	<u>2</u>	MATH 2313	<u>3</u>		
	18		17		
Sophomore Year			Senior Year		
EEEN 2340	3	EEEN 2323	3		
^ <i>Kinesiology</i>	1	EEEN 3449	4		
MATH 2314	3	MATH 3320	3		
PHYS 2325/PHYS 2125	4	PHYS 2326/PHYS 2126	4		
POLS 2301	3	POLS 2302	<u>3</u>		
Social Sci. or Humanities Elective	<u>3</u>		17		
	17				

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Junior and Senior Year

Electrical engineering majors may choose either of the options listed for their junior and senior year courses. However, for either choice a student must complete all requirements of one of the listed options.

Computer Science Emphasis

Junior Year			
BCOM 3304	3	CSEN 2328	3
EEEN 3321	3	EEEN 3212	2
EEEN 3325	3	EEEN 3333	3
EEEN 3334	3	EEEN 4355	3
MATH 3315	3	^Kinesiology	1
MEEN 2355	<u>3</u>	MATH 3370	<u>3</u>
	18		15
Senior Year			
****Approved Elective	3	****Approved Elective	3
****Approved Elective	3	CSEN 4362	3
CEEN 3317	3	EEEN 4224	2
EEEN 4252	2	EEEN 4329	3
EEEN 4310	3	EEEN 4343	<u>3</u>
EEEN 4344	<u>3</u>		14
	17		
		Total Hours Required:	133

**A list of acceptable courses to satisfy the required social science humanities (upper level course) is available in the office of the department chair.
 **The fine arts elective must be either ARTS 1303, ARTS 1304, MUSI 2306, THEA 3302 or THEA 4308.
 ***Must be chosen from the following: CHEN 3347, MEEN 3347 or PHYS 3333.
 ****Approved electives must be chosen as a sequence of courses to satisfy a professional objective and must be chosen with the consent of the department chair.*

Electrical Systems Emphasis

Junior Year			
BCOM 3304	3	EEEN 3212	2
EEEN 3321	3	EEEN 3324	3
EEEN 3325	3	EEEN 3333	3
EEEN 3334	3	EEEN 4355	3
MATH 3315	3	^Kinesiology	1
MEEN 2355	<u>3</u>	MATH 4341	<u>3</u>
	18		15
Senior Year			
****Approved Elective	3	****Approved Elective	3
EEEN 4354	3	CEEN 3317	3
EEEN 4252	2	EEEN 4224	2
EEEN 4314	3	EEEN 4329	3
EEEN 4342	3	****Approved Elective	<u>3</u>
***Thermodynamics	<u>3</u>		14
	17		
		Total Hours Required:	133

**A list of acceptable courses to satisfy the required social science humanities (upper level courses) is available in the office of the departmental chair.
 **The fine arts elective must be either ARTS 1303, ARTS 1304, MUSI 2306 or THEA 4308.
 ***Must be chosen from the following: CHEN 3347, MEEN 3347 or PHYS 3333.
 ****Approved electives must be chosen as a sequence of courses to satisfy a professional objective and must be chosen with the consent of the departmental chair.
 ^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.*

DEPARTMENT OF ENVIRONMENTAL ENGINEERING AND CIVIL ENGINEERING

Kuruvilla John, *Chair*

Engineering Complex 376. MSC 213. Extension 3046.

Professors

Chang, Leelani

Associate Professors

Estrada, Faruqi, John, Sai

Assistant Professors

Clapp, Jones, Martinez, Ren, Uddameri

The Educational Objectives of the Civil Engineering Program are:

- 1. To instill in our students a sense of the scholarship and leadership of the civil engineering profession.**
- 2. To educate and prepare students for a lifelong career as practicing professional civil engineers who are ethical and socially responsible.**
- 3. To produce graduates with a strong academic base for advanced studies.**

CIVIL ENGINEERING (CEEN)

2113. Surveying Laboratory.

1(0-3)

Engineering field surveying and practices of taping, leveling, traversing, error adjustments, stadia, earthwork and highway curves. Corequisite: CEEN 2212. Laboratory fee, \$5.

2212. Surveying.

2(2-0)

Engineering principles and practices of plane surveying, taping, leveling, traversing, surveying errors, topographic stadia, earthwork, highway curves and construction surveys. Prerequisite: MEEN 1310. Corequisite: MATH 2313.

2301. Mechanics I. (ENGR 2301)

3(3-0)

Resultants of force systems. Statics of beams, trusses, frames and other engineering structures. Friction. Distributed forces. Centroids and centers of gravity. Moments of inertia of areas and masses, Mohr's circle. Prerequisite: PHYS 2325/2125. Corequisite: MATH 2314.

3143. Geotechnical Engineering Laboratory.

1(0-3)

Principles and practices of geotechnical engineering laboratory with emphasis on the related ASTM and AASHTO testing standards. Corequisite: CEEN 3342. Laboratory fee, \$5.

3144. Construction Materials.

1(1-0)

Engineering properties of materials for design and construction. Related ASTM test specifications of construction materials such as concrete, asphalt, timber, steel, synthetic materials, etc. Prerequisites: CEEN 3143 and either MEEN 3145 or CHEM 3323/3123.

3145. Construction Materials Laboratory.

1(0-3)

Engineering principles and practices for testing construction materials based on ASTM testing standards. Corequisite: CEEN 3144. Laboratory fee, \$5.

3167. Hydraulics and Environmental Engineering Laboratory.

1(0-3)

Open-channel-flow visualization and measurement, hydraulic machinery characteristics and water and wastewater analysis. Corequisite: CEEN 3365. Laboratory fee, \$7.

3303. Structural Analysis.

3(3-0)

Statically determinate structures. Moving loads. Analysis of statically indeterminate structures by consistent deformation, slope-deflection and moment-distribution. Prerequisite: CEEN 3311.

3304. Reinforced Concrete Design. 3(2-3)
Mechanics, behavior and design of reinforced concrete members subject to axial loads, bending, torsion and shear. Prerequisite: CEEN 3303.

3311. Strength of Materials. 3(3-0)
Hooke's Law; stress and strain at a point; Mohr's circle; axial stresses; torsion; shear, moment and deflection in beams; shear center; unsymmetrical bending; columns; theories of failure; introduction to fatigue; and statically indeterminate members. Prerequisites: CEEN 2301 and MATH 2314.

3317. (Formerly CEEN 4303). Engineering Economy. 3(3-0)
Principles of economic analysis applied to engineering; evaluation of engineering alternatives; economic significance of engineering proposals. Cash flow diagrams, equivalence of cash flow patterns, interest, rate of return comparison, inflation, time value of money, income tax and depreciation, benefit/cost comparison, break even analysis, fixed costs, operating costs and other costs. Prerequisite: junior standing in engineering.

3342. Geotechnical Engineering. 3(3-0)
Principles of geotechnical engineering, soil composition, classification, flownet, compaction, consolidation, effective stress, bearing capacity and slope stability. Prerequisites: CEEN 3311 and PHYS 2326/2126.

3365. Environmental Engineering. 3(3-0)
Treatment and distribution of water. Wastewater conveyance and treatment systems. Physical, chemical and biological treatment processes. Solid waste management. Introduction to air pollution control. Prerequisites: CEEN 3392 and CHEM 1311/1111. Corequisite: CEEN 3167.

3392. Hydraulics and Fluid Mechanics. 3(3-0)
Fluid statics, flow of fluids through pipes and open channels, hydraulic machines. Corequisite: MEEN .

In addition to the listed prerequisite for the following 4000 series courses, a student must have an overall grade point average of 2.0 or higher.

4279. Design in Civil Engineering I. 2(1-3)
Engineering concepts integrated from the topics taught in sequences of upper division courses to produce practical, efficient and feasible solutions of civil engineering problems. Computer applications are included. Prerequisites: CEEN 3303 and a minimum GPA of 2.0 in mathematics and science. Corequisite: CEEN 4362.

4289. Design in Civil Engineering II. 2(1-3)
Engineering concepts integrated from the topics taught in sequences of upper division courses to produce practical, efficient and feasible solutions of civil engineering problems. Computer applications are included. Prerequisites: CEEN 3342, CEEN 4316 and a minimum GPA of 2.0 in mathematics and science.

4316. Structural Steel Design. 3(3-0)
AISC specifications for the design of axially loaded members, beams, columns and connections. Introduction to plastic design. Prerequisite: CEEN 3303.

4317. Computer Methods in Civil Engineering. 3(2-3)
Application of computer methods to solution of civil engineering problems, including the use of mathematical modeling, error analysis, optimization, solution of algebraic and differential equations and integration pertaining to infrastructure system analysis. Prerequisite: CEEN 4316.

4326. Construction Engineering. 3(3-0)
Construction methods and management of earthwork with heavy equipment and others. Construction estimating, planning and control. Network theory and critical path methods. Prerequisite: CEEN 3303. Corequisite: CEEN 3317.

4336. Selected Topics. V:1-3
One or more topics of civil engineering. May be repeated when topic changes. Prerequisite: senior standing.

4359. Principles of Transportation Engineering. 3(2-3)

Principles of transportation engineering, profession of transportation engineering, system and organization, system characteristics, traffic engineering studies, traffic flow, intersection control and capacity, highway alignment and capacity. Prerequisite: senior standing in engineering. Laboratory fee, \$5.

4362. Hydrology. 3(3-0)

Hydrologic cycle; transpiration, evaporation, snow melt and planetary circulation. Rainfall-runoff relations, index, unit hydrographs, synthesized hydrographs. Binomial, normal and extreme-value skewed distributions. Prerequisites: CEEN 3392. Corequisite: STAT 4303.

4364. Design of Water and Wastewater Conveyance Systems. 3(3-0)

Water and wastewater flows and measurement, design of water transportation systems, design of gravity-flow sanitary sewers and stormwater drainage systems, pumps and pump systems, design of pumping stations. Prerequisite: CEEN 3392.

4368. Foundation Engineering. 3(3-0)

Soil strength. Bearing capacity of soils and shallow foundation. Immediate and consolidation settlement. Lateral earth pressure theory and retaining walls. Deep foundation and stability analysis of soil slopes. Prerequisite: CEEN 3342.

4489. Design in Civil Engineering II. 4(2-6)

Engineering concepts integrated from the topics taught in sequences of upper division courses to produce practical, efficient and feasible solutions of civil engineering problems. Computer applications are included. Prerequisites: CEEN 3342 and CEEN 4316. Laboratory fee, \$5.

ENVIRONMENTAL ENGINEERING (EVEN)

4317. Environmental Engineering Fundamentals. 3(3-0)

Introductory course in Environmental Engineering: science basis, law and regulations, protection of human health and the environment from air, water, solid/hazardous and product pollution. Structure of the environmental industry. Prerequisite: junior standing in B.S. program in physical science, engineering or agriculture.

4357. Environmental Aspects of Engineering Works and Products. 3(3-0)

Environmental transformations, contaminant transport, ideal reactor models, design and application of exposure assessment models to solve waste load allocation problems. Prerequisite: senior standing in engineering.

Degree Requirements
Bachelor of Science in Civil Engineering
Accredited by the EAC of the Accreditation Board for Engineering and Technology

Freshman Year			Junior Year				
CHEM 1111	1	Comp App Elective	3	CEEN 3143	1	CEEN 3144	1
CHEM 1311	3	ENGL 1302	3	CEEN 3303	3	CEEN 3145	1
ENGL 1301	3	HIST 1301	3	CEEN 3342	3	CEEN 3167	1
^Kinesiology	1	MATH 2314	3	CEEN 3392	3	CEEN 3304	3
MATH 2313	3	PHYS 2125	1	MEEN 3145	1	CEEN 3365	3
MEEN 1201	2	PHYS 2325	3	MEEN 3344	3	^Kinesiology	1
MEEN 1310	3		16	STAT 4303	3	MEEN 3347	3
	<u>16</u>				17	POLS 2301	3
							<u>16</u>

Sophomore Year			Senior Year				
CEEN 2113	1	BCOM 3304	3	CEEN 4279	2	CEEN 3317	3
CEEN 2212	2	CEEN 3311	3	CEEN 4316	3	CEEN 4289	2
CEEN 2301	3	^Kinesiology	1	CEEN 4362	3	CEEN 4359	3
HIST 1302	3	MATH + Science Elect	4	EEEN 3331	3	Engineering Elective	3
MATH + Science Elect	4	MATH 3320	3	Engineering Elective	3	Fine Arts Elective	3
PHYS 2326	3	MEEN 2302	3	POLS 2302	3	Soc. Sci. or	
PHYS 2126	1		17		17	Hum. Elective	3
	<u>17</u>						<u>17</u>

Total Hours Required: 133

Computer applications electives: MEEN 1320 or any course containing computer programming using a scientific language such as FORTRAN or C++.
Engineering electives: CEEN 4317, CEEN 4326, CEEN 4336, CEEN 4364, CEEN 4365, CEEN 4368; MEEN 3350, MEEN 3352, MEEN 4345, MEEN 4346, MEEN 4354.

Mathematics and science electives:

CHEM 1312/CHEM 1112 or any approved upper-level chemistry course

MATH 3315, MATH 4341, MATH 4372, MATH 4374

BIOL 1308/BIOL 1108, BIOL 2421, GEOL 1305, GEOL 3407, GEOL 4425, GEOG 3450, GEOG 4425, GEOG 4435

Social science or humanities electives: POLS 4324 or any advanced-level political science course or any advanced level history course.

Fine arts electives: ARTS 1303, ARTS 1304; MUSI 2306; or THEA 4308.

BCOM 3304 must be taken and passed with a "C" or better to satisfy the communication criteria and the Frank H. Dotterweich College of Engineering's communication skills requirement.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Civil Engineering
Environmental Engineering Option
Accredited by the EAC of the Accreditation Board for Engineering and Technology

Freshman Year				Junior Year			
CHEM 1111	1	Comp App Elective	3	CEEN 3143	1	CEEN 3144	1
CHEM 1311	3	ENGL 1302	3	CEEN 3303	3	CEEN 3145	1
ENGL 1301	3	HIST 1301	3	CEEN 3342	3	CEEN 3167	1
^ <i>Kinesiology</i>	1	MATH 2314	3	CEEN 3392	3	CEEN 3304	3
MATH 2313	3	PHYS 2125	1	MEEN 3145	1	CEEN 3365	3
MEEN 1201	2	PHYS 2325	<u>3</u>	MEEN 3344	3	^ <i>Kinesiology</i>	1
MEEN 1310	<u>3</u>		16	STAT 4303	<u>3</u>	MEEN 3347	3
	16				17	POLS 2301	<u>3</u>
							18
Sophomore Year				Senior Year			
CEEN 2113	1	BCOM 3304	3	CEEN 4279	2	CEEN 3317	3
CEEN 2212	2	CEEN 3311	3	CEEN 4316	3	CEEN 4289	2
CEEN 2301	3	^ <i>Kinesiology</i>	1	CEEN 4362	3	CEEN 4359	3
HIST 1302	3	MATH + Science Elect	4	EEEN 3331	3	Engineering Elective	3
MATH + Science Elect	4	MATH 3320	3	Engineering Elective	3	Fine Arts Elective	3
PHYS 2326	3	MEEN 2302	<u>3</u>	POLS 2302	<u>3</u>	Social Sci or Hum	
PHYS 2126	<u>1</u>		17		17	Elective	<u>3</u>
	17						17

Total Hours Required: 133

Computer applications electives: MEEN 1320 or any course containing computer programming using a specific language such as FORTRAN or C++.

Engineering electives: EVEN 4317, any approved upper-level biology or chemistry course or approved upper-level engineering course.

Mathematics and science electives:

BIOL 1308/BIOL 1108, BIOL 2421, CHEM 1312/CHEM 1112 or any approved upper level chemistry course

MATH 3315, MATH 4341, MATH 4372, MATH 4374 or any other approved upper-level course in mathematics or science

Social science or humanities electives: POLS 4324 or any advanced-level political science course or any advanced level history course.

Fine arts electives: ARTS 1303, ARTS 1304; MUSI 2306 or THEA 4308.

BCOM 3304 must be taken and passed with a "C" or better to satisfy the communication criteria and the Frank H. Dotterweich College of Engineering's communication skills requirement.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

DEPARTMENT OF INDUSTRIAL TECHNOLOGY (ITEN)

Mark R. Miller, *Chair*

Gross Industrial Technology Building 100. MSC 203. Extension 2608.

Associate Professors

Heidari, Marsh, Miller, Mullen

The department prepares students for a wide variety of management-oriented technical professions.

A minor in Industrial Technology requires the following course work: ITEN 1311, ITEN 1315, ITEN 2301 and at least three approved advanced ITEN courses in a specified concentration.

1311. Technical CAD. 3(2-2)

An introduction to a variety of mechanical drafting applications and techniques, including orthographic projection, pictorials, geometric dimensioning and tolerancing in pencil and Computer Assisted Drafting and Design. Laboratory fee, \$5.

1315. Metalworking Processes. 3(2-2)

An introduction to the processes and standards utilized in the manufacture of products from metal. Laboratory experiences include foundry, sheetmetal fabrication, welding and basic machine tool operation. Laboratory fee, \$5.

2301. Industrial Electronics. 3(2-2)

Industrial applications of electricity and electronics, including passive components, power utilization, solid state devices and electronic production techniques. Laboratory fee, \$5.

2320. Industrial Materials. 3(2-2)

An introduction to the sources, properties and testing of a variety of industrial materials. Laboratory experiences include destructive and nondestructive materials testing. Prerequisite: CHEM 1405 or equivalent. Laboratory fee, \$5.

2321. Architectural CAD. 3(2-2)

Planning, design and drafting of residential and commercial buildings. Prerequisite: ITEN 1311 or equivalent. Laboratory fee, \$5.

2323. Cost Estimating and Project Planning. 3(3-0)

A survey of practical methods used in the development of cost estimates and project plans in manufacturing and construction. Emphasis is placed on the application of computer software to these problems.

2330. OSHA for General Industry. 3(2-2)

An introduction to OSHA's general industry standards and an overview of the requirements of the more frequently referenced standards. Standards will be reinforced with laboratory exercises and related problems. Laboratory fee, \$5.

2331. Construction Safety. 3(2-2)

Study of plant layout and safety procedures, including information for employees, accident reporting, first aid practices, emergency procedures, fire prevention and plant environmental conditions. Laboratory fee, \$5.

3300 Manufacturing Technology. 3(2-2)

An introduction to basic manufacturing concepts, processes and tools, with examples in machine tool operations and mass production. Laboratory fee, \$5.

3308. Industrial Plastics. 3(2-2)

A survey of the characteristics and the processes utilized in producing products from industrial plastics. Includes laboratory experiences in fabrication, injection molding, laminating and vacuum-forming. Prerequisites: CHEM 1405 and ITEN 3300 or equivalent. Laboratory fee, \$5.

- 3310. Fluid Power.** 3(3-1)
Systems, instruments and concepts utilized in the area of fluid power. Course emphasizes fundamental theories of operation, system design, component selection, maintenance and safety considerations. Includes an overview of fluid logic and electrical controls. Prerequisite: PHYS 1305/PHYS 1105 or equivalent. Laboratory fee, \$5.
- 3311. Manufacturing Facilities.** 3(3-0)
Study of principles, methods and techniques utilized in planning, operating and maintaining manufacturing and industrial facilities.
- 3313. Energy and Power Technology.** 3(3-1)
An introduction to the basic principles of energy and power transmission for industrial technologists and non-engineers. Prerequisite: PHYS 1305/PHYS 1105 or equivalent. Laboratory fee, \$5.
- 3315. CAD/CAM.** 3(2-2)
Application, economics and programming of Computer Numerical Control (CNC) machine tools. Prerequisite: ITEN 1315 or equivalent. Laboratory fee, \$5.
- 3324. Industrial Controls.** 3(2-2)
Digital electronics and the application of microprocessors to industrial control. Laboratory experiences include problems in programming and control system interfacing. Prerequisite: ITEN 2301 or equivalent. Laboratory fee, \$5.
- 3331. Construction Technology.** 3(2-2)
Systems, materials and equipment utilized in residential and commercial construction. Includes regulatory and economic analysis of construction projects. Laboratory fee, \$5.
- 3343. Advanced Manufacturing Processes.** 3(3-0)
A survey of the latest manufacturing processes that are used in order to produce products that cannot be produced with conventional manufacturing processes. Processes covered will include, non-traditional machining methods, abrasive machining, advanced casting methods, specialized welding methods and other high-end manufacturing processes used in manufacturing industries.
- 3349. Manufacturing Productivity.** 3(3-0)
Planning workstations, developing work methods and establishing time standards for manufacturing operations. Prerequisite: junior standing.
- 3352. Dimensional Metrology.** 3(2-2)
Systems, instruments and concepts utilized in the area of inspection and gaging with emphasis on traditional instruments and overviews into in-process and post-process inspection, contact and noncontact gaging and digital gaging. Laboratory fee, \$5.
- 3399. Industrial Internship.** 3(0-6)
Supervised on-the-job experience in an industrial/technical area. Can be repeated for up to 6 semester credit hours. Prerequisite: junior or senior standing.
- 4303. Selected Topics.** 3(3-0)
Investigations with industrial experts on one or more topics in current technologies. May be repeated up to a total of 6 semester hours. Prerequisite: senior standing.
- 4332. Hazardous Waste and Fire Safety.** 3(3-1)
Study of fire prevention and hazardous substances. Hazard mitigation and containment polities will be reviewed. Laboratory fee, \$5.
- 4334. Automation.** 3(2-2)
Current practice in automated manufacturing and materials handling, including group technology, robotics, CAD/CAM and CIM technology. Prerequisite: ITEN 3315. Laboratory fee, \$5.

4335. Senior Projects. 3(3-0)
Individual solution of selected problems in industrial technology under the direct supervision of a faculty member.
Prerequisite: senior standing in industrial technology.

4336. Industrial Employment Seminar. 3(3-1)
Survey of job opportunities in construction and manufacturing through class discussion, field trips and independent research.
Includes job hunting skills development, resume writing and job interviewing. Prerequisite: junior standing.

4352. Quality Assurance. 3(3-1)
Methods used to ensure quality production through the measurement and maintenance of desired product characteristics in manufacturing processes. Prerequisite: MATH 1324. Laboratory fee, \$5.

4353. Construction Management. 3(3-1)
Study of management techniques to solve the unique problems associated with a construction project. Emphasis on the management of manpower, materials, money and machinery. Prerequisite: ITEN 3331 or equivalent. Laboratory fee, \$5.

4362. Data Analysis and Decision Making. 3(3-1)
Concepts of data analysis, distributions, probability, regression analysis and other statistical analysis techniques with technological and industrial applications, reinforced by laboratory exercises using a spreadsheet application program.
Prerequisite: ITEN 4352. Laboratory fee, \$5.

Degree Requirements
Bachelor of Science in Industrial Technology
with a Minor in Business Administration
Accredited by The National Association of Industrial Technology (NAIT)

Freshman Year				Junior Year			
CISA 1301	3	ENGL 1302	3	ACCT 2301	3	ACCT 2302	3
ENGL 1301	3	HIST 1302	3	[^] Arts Elective	3	ITEN Elective	3
HIST 1301	3	ITEN Elective ¹	3	BCOM 3304 ⁴	3	ITEN Adv. Elective ⁵	3
ITEN 1315	3	ITEN 1311 or		ITEN 2320	3	ITEN 3300	3
[^] Kinesiology	1	ITEN 2321	3	ITEN 3310 or		[^] Lit/phil. Elective	3
MEEN 1201	2	[^] Kinesiology	1	ITEN 3313	3		15
	15	MATH 1314	3	[^] Kinesiology	1		
			16		16		
Sophomore Year				Senior Year			
CHEMISTRY ²	4	ECON 2302	3	Adv. Bus. Elective ⁶	3	Adv. Management	3
ECON 2301	3	Free Elective	3	Adv. ITEN Elective ⁵	3	ITEN Adv. Elective ⁵	3
ITEN 2330 or		ITEN 2301	3	ITEN 3315	3	ITEN Adv. Elective ⁵	3
ITEN 2331	3	PHYSICS ³	4	ITEN 3324	3	ITEN 4336	3
MATH 1316	3	POLS 2302	3	ITEN 3349	3	ITEN 4352	3
POLS 2301	3		16		15		15
	16						

Total Hours Required: 124

[^]For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this catalog.

¹Chosen from ITEN 2321, ITEN 2323 and ITEN 2331 and any upper level ITEN elective course.

²Any chemistry course will meet this requirement.

³Any physics course excluding Astronomy, PHYS 1375 and PHYS 1471.

⁴May be taken sophomore or junior year. A grade of C or better is required to meet the Frank H. Dotterweich College of Engineering English proficiency requirement.

⁵Chosen from ITEN 3308, ITEN 3311, ITEN 3313, ITEN 3331, ITEN 3343, ITEN 3352, ITEN 3399, ITEN 4303, ITEN 4332, ITEN 4334, ITEN 4335, ITEN 4353 and ITEN 4362.

⁶Chosen from any advanced course in: Accounting, Computer Information Systems, Quantitative Methods, Economics, Finance, Management or Marketing.

Minor In Industrial Technology

A minor in Industrial Technology requires the following course work:

ITEN 1311 or ITEN 2321,
 ITEN 1315 or ITEN 3300,
 ITEN 2301 or ITEN 3324, and
 at least three approved advanced ITEN courses in a specific concentration.

Total Hours Required: 18

DEPARTMENT OF MECHANICAL ENGINEERING AND INDUSTRIAL ENGINEERING

Robert A. McLauchlan, *Chair*

Engineering Complex 303. MSC 191. Extension 2003.

Professors

Abdul-Razzak, Elkassabgi, Farahmand, McLauchlan

Associate Professor

Ozcelik

Assistant Professor

Peel

Visiting Assistant Professor

Jin

Lecturers

Agarwala, Cholkar, Wright

Teaching Retiree

Tucker

The Educational Objectives of the Mechanical Engineering Program are:

- 1. To prepare undergraduate students for a lifetime career as practicing professional mechanical engineers.**
- 2. To prepare students to advance their studies and to engage in lifelong learning.**
- 3. To give students an understanding of professional responsibilities with respect to the economic, societal and ethical impacts of their actions.**

INDUSTRIAL ENGINEERING (IEEN)

2301. Introduction to Industrial and Systems Engineering.

3(3-0)

An overview of industrial and system engineering methodologies including manufacturing processes, facility layout, material handling, work measurement, operations planning, quality control, human factors, operations research, simulation and systems management.

2310. Applied Methods in Engineering Statistics I.

3(3-0)

Introduction to probability and statistical problems and the appropriate solving techniques typically encountered by engineers, including data sets, sample space, events, sampling, sample points, probability theory, Bayes' rule, random variables, discrete and continuous probability distributions, sampling distribution, point estimation, curve fitting, tests of hypothesis, confidence intervals and the use of statistical software packages. Corequisite: MATH 2314.

3310. Applied Methods in Engineering Statistics II.

3(3-0)

Review of point estimation, curve fitting, simple linear regression, test of hypothesis and confidence intervals, analysis of variance, control charts, full factorial design, surface fitting analysis and other experimental designs. Applications in engineering design and manufacturing. Prerequisite: IEEN 2310.

3312. Work Methods and Measurements.

3(2-3)

Methods, time study and wage payment; development of motion and time study; graphic tables such as operation process chart; operation analysis; process of manufacturing; set up and tools; working conditions; material handling; plant layout; principles of motion economy; man and machine relationship; motion study; micromotion study; evaluation and installation of the proposed method; job analysis and evaluation; time study requirements; elements of time study; performance rating; allowances such as personal delays; fatigue; standard time; standard data; synthetic basis motion time (MTM); work sampling studies.

3314. Engineering Methods in Quality Assurance.

3(2-3)

Objectives of statistical quality assurance, control charts, X-bar and R charts, mathematics of quality assurance, fundamental concepts in acceptance sampling, AQL system for lot-by-lot acceptance, acceptance inspection for continuous production and life testing and reliability, military standards and International Standards Organization certification and registration. Prerequisite: IEEN 2310.

3315. Computer Based Production and Inventory Control. 3(3-0)

Modeling, design and optimization of systems for production and inventory control, forecasting and market analysis, time series analysis, fixed order size systems, batch type production systems, fixed order interval systems, discrete demand systems, Wagner-Whitin Algorithm, Silver-Meal Algorithm, Part-Period Algorithm, material requirements planning, just-in-time and group technology. Corequisites: IEEN 3321 and MATH 3315.

3321. Operation Research Methods in Engineering I. 3(3-0)

Study and design of systems typically encountered by industrial engineers and the appropriate problem solving techniques including linear programming (problem formulation, simplex method, sensitivity analysis), integer programming, queuing theory and decision analysis; use of operations research software packages. Corequisite: MATH 3315.

3325. Engineering Economic Analysis I. 3(3-0)

Cash flow diagrams, simple and compound interest, interest factors, present worth, future worth, equal payment series, gradient series, depreciation, some tax considerations, the economic evaluation single project, minimum annual revenue requirements, rate of return calculations, benefit/cost evaluations, replacement analysis, inflation and cost estimation, capital budgeting, break-even models, cost comparisons, cost of capital and minimum acceptable return of return. Prerequisite: junior standing.

3331. Fundamentals of Manufacturing Processes. 3(2-3)

Selection criteria for manufacturing processes, processing of castings, bulk deformation process, sheet metal working, polymer and polymer-matrix composite production, machining and welding processes. Robotics and automation.

4163. Senior Design Project I. 1(1-0)

Capstone design course emphasizing quantitative analysis including statistical methods, operations research and simulation as applied to the design process. Integrates knowledge gained from all required industrial engineering courses in a system design project. Prerequisite: senior standing and IEEN 3312.

4316. Facilities Design and Plant Layout. 3(2-3)

Single facility design, multiple facility design, computerized layout planning location analysis with fixed costs, continuous facility location, product development, automation and manufacturing processes, production charts, selection of machines and labor material handling, storage, office layout, computer-aided plant layout, site selection, computer-aided design, computer-aided manufacturing.

4325. Engineering Economics Analysis II. 3(3-0)

Taxes, cost comparisons, capital budgeting, minimum annual revenue requirements, minimum acceptable rate of return and the cost of capital to the firm, risk consideration, probabilistic models, decision trees, simulation, measuring costs in industry, aggregate investment decision making, capital budgeting, decision matrices, Bayesian analysis, project scheduling and project management. Prerequisite: IEEN 3325.

4328. Application of Computer Simulation. 3(2-3)

Basic simulation modeling, discrete event simulation, simulation of queuing systems, simulation of inventory systems, steps in a discrete-event simulation, continuous simulation, combined discrete and continuous simulation, simulation using general purpose languages, system structure, random number generators, special purpose simulation languages, simulation of manufacturing system. Corequisite: IEEN 3310.

4332. Principles of Engineering Management. 3(3-0)

Techniques relating to managing engineering activities, engineer's transition into management, engineering managerial functions, motivation of individual and group behavior, productivity assessment/improvement, managing the quality function and communications.

4335. Special Problems. V:1-3

Individual solution of selected problems in industrial engineering conducted under the direct supervision of a faculty member. May be repeated for up to 6 hours. Prerequisite: senior standing.

4338. Cost Engineering. 3(3-0)

Fundamentals of accounting, fundamentals of cost accounting, business organization, financial management and cost control, analysis and interpretation of financial statements such as the balance sheet and the income statement, production cost system, manual accounting systems, computerized accounting systems, financing, investment principles of auditing, revenue recognition, differed income taxes, interim financial reporting, government and nonprofit accounting.

4341. Human Engineering and Man-Machine Systems. 3(2-3)

Human capability and limitation within a system, ergonomics, design, information processing, illumination and workstation design, vibration, noise, cold and heat, hand tool design, human physical ability and physical testing. Individual or group class project will be required from graduate students taking this class for graduate credit. Prerequisite: IEEN 3312.

4351. Reliability and Advanced Topics in Quality Control. 3(3-0)

Reliability measures, reliability and hazard functions, product life, failure density functions and system failure models, extreme value distribution, important distribution function models, static reliability and unreliability models, probabilistic design, combination of random variables, interference theory and reliability computation, time dependent stress-strength models, reliability estimations, sequential life testing, Bayesian reliability in design and testing quality control management, topics in total quality control such as business quality management, application of total QC in the company. Prerequisite: IEEN 4325.

4352. Engineering Biomechanics. 3(3-0)

Human motion, lever systems within the human body, kinetic elements, kinetic chains, anatomical failure points in man-task systems, anthropometry, industrial seating, the physical dimensions of work place, work tolerance, posture, man-equipment interface, effective kinesiology, hand tools, force optimization, distribution of pressures and stresses, biomechanical consideration of tools design, manual material handling and lifting, dynamometry, myography, analysis of muscle and joint functions.

4353. Environmental Biotechnology. 3(3-0)

Review of physiology, industrial toxicology, standards of quality for the work environment, evaluating the occupational environment, emission spectroscopy, quality control for sampling and laboratory analysis, physics of sound, physiology of hearing, noise measurement and acceptability criteria, vibration, illumination, radiation, physiology of heat stress, air, ground water and noise pollution, thermal standard and measurement techniques, protective device control of noise exposure, controls of exposures to heat and cold, principles of ventilation, exhaust systems, design of ventilation systems.

4354. System Safety Engineering. 3(3-0)

Application of system safety analytical techniques during the design process. Emphasis is on the management of a system safety or product safety program and also its relationship with other disciplines such as reliability, maintainability, human factors and product liability applications relative to the design of systems for government, military and general industry.

4360. Computer Integrated Manufacturing Systems. 3(3-0)

Systems concept of Computer Integrated Manufacturing System, definition of manufacturing and its various levels, planning and control of product movement through the production system, successful use of automation, robotics, just-in-time manufacturing and knowledge-based systems. Prerequisite: IEEN 3331.

4364. Senior Design Project II. 3(3-0)

Capstone design emphasizing analysis and design of manufacturing systems, cellular design, flexible manufacturing systems and manufacturing integration. Integrates knowledge gained from all required industrial engineering courses in a system design project. Prerequisite: IEEN 4163.

MECHANICAL ENGINEERING (MEEN)

1201. (Formerly IEEN 1201). Engineering as a Career. 2(2-0)

Definition and role of the engineer in society. Engineering skills, tools and techniques applied to problem solving and academic and professional survival strategies. The course is designed to promote critical and analytical thinking, contains a writing component and the use of the computers (spreadsheets/charting and graphing). For students planning to pursue a career in engineering.

- 1310. (Formerly IEEN 1301). Computer Based Graphics and Design I.** 3(2-3)
Introduction to computer-aided engineering design and analysis; principles of graphics, solid modeling, integrated applications of software in engineering drafting, design and problem solving.
- 1320. (Formerly IEEN 1302). Computer Based Graphics and Design II.** 3(2-3)
Problem-solving and programming logic, computer generated charts and graphs; computer-aided analysis and design; application of numerical techniques to the solution of engineering problems using high level programming language and numerical computing software.
- 2146. Engineering Measurements.** 1(0-3)
Basic experimental techniques and instrumentation commonly found in industry. Experimental planning and analysis. ASTM methods introduced. Data acquisition means studied. Significance of data and presentation (written and oral). Computer usage and report writing emphasized. Prerequisites: MATH 2314, PHYS 2326/2126, MEEN 1320 or CSEN 2304 and CEEN 2301. Laboratory fee, \$5.
- 2302. Mechanics II (Dynamics).** (ENGR 2302) 3(3-0)
Kinematics of particles and rigid bodies; motion relative to translating and rotating reference frames. Kinetics of particles and rigid bodies: Newton's second law, work-energy and impulse and momentum. Introduction to vibrations. Prerequisites: CEEN 2301, MATH 2314 and MEEN 1320 or CSEN 2304.
- 2355. Statics and Dynamics of Rigid Bodies.** (ENGR 2303) 3(3-0)
Resultants of force systems. Equilibrium of rigid bodies. Friction. Centroids and moments of inertia. Kinematics and kinetics of particles and rigid bodies. This course cannot be taken for credit by CEEN and MEEN majors. Prerequisites: PHYS 2325/2125 and MATH 2314.
- 3145. Material Science Laboratory.** 1(0-3)
Tensile, impact, fatigue, hardness and hardenability, creep, phase and microstructure, corrosion testing and microscopic analysis. Ferrous and non-ferrous materials and polymers are studied. ASTM methods are introduced and applied. Introduction to data acquisition and recording. Reporting in both written and oral format. Prerequisite: CEEN 2301 or MEEN 2355 and MEEN 1310. Corequisite: MEEN 3344. Laboratory fee, \$5.
- 3344. Materials Science.** 3(3-0)
Atomic and crystal structure of materials. Chemical, mechanical, electrical and magnetic properties of engineering materials. Prerequisites: CHEM 1412 and MATH 2313. Corequisite: PHYS 2326/2126.
- 3347. Thermodynamics.** 3(3-0)
Basic laws governing energy transmission. Thermodynamic properties of liquids and vapors, the ideal gas law and the behavior of ideal gases. Concept of reversible process. Prerequisites: MATH 2314, MEEN 1320 or CSEN 2304.
- 3348. Heat Transfer.** 3(3-0)
Fundamental laws relating to heat transfer including steady and transient heat conduction, forced, convection, natural convection and radiation. Introduction to heat exchanger design. Prerequisites: MEEN 3347, CHEN 392 or NGEN 3392 and MATH 3320.
- 3349. Fundamentals of Manufacturing Processes.** 3(2-3)
Selection criteria for manufacturing processes, processing of castings, bulk deformation process, sheet metal working, polymer and polymer-matrix composite production, machining and welding processes. Robotics and automation. Prerequisite: junior standing in Engineering.
- 3350. Design of Machine Elements.** 3(2-3)
Application of principles of mechanics and physical properties of materials to the design of machine elements, such as shafts, springs, power screws, gears. Prerequisites: CEEN 3311, MEEN 2302 and MEEN 3344. Laboratory fee, \$2.
- 3352. Kinematic Analysis of Machines.** 3(2-3)
Linkages, instant centers, velocities, accelerations and synthesis of mechanisms, cams, gears and dynamic analysis of machines. Prerequisites: MATH 2314 and MEEN 2302. Laboratory fee, \$2.
- 3354. Operations Research Methods in Engineering.** 3(3-0)

Development and application of fundamental deterministic methods and models including simplex method, linear programming, network analysis, integer programming, forecasting and networking. Prerequisite: junior standing.

In addition to the listed prerequisites for the following 4000 series courses, a student must have an overall grade point average of 2 or higher.

4131. Mechanical Engineering Laboratory. 1(0-3)

Experimental investigation of mechanical engineering systems: engines, fluid flow, air conditioning, heat transfer devices, pumps and mechanical systems. Prerequisites: MEEN 3146, MEEN 3348. Laboratory fee, \$5.

4263. Mechanical Engineering Design Projects I. 2(1-3)

Capstone design course emphasizing quantitative analytical/computer and experimental methods including optimization and simulation as applied to the design process for a broad range of practical problems in mechanical engineering. Integrates knowledge gained from all required mechanical engineering courses in a major system design project. Prerequisite: MEEN 3350. Laboratory fee, \$5.

4264. Mechanical Engineering Design Projects II. 2(1-3)

Capstone design course emphasizing the application of analytical/computer and experimental methods to the solution of a broad range of practical problems in mechanical engineering. Integrates knowledge gained from all required mechanical engineering courses via the completion of a system design project. Prerequisite: MEEN 4263. Laboratory fee, \$5.

4317. Internal Combustion Engines. 3(3-0)

Thermodynamics of cycles, comparison of characteristics and performance of several forms of internal combustion engines including Otto and Diesel types of piston engines. Fuels, combustion, injection and supercharging. Prerequisite: MEEN 3347.

4335. Special Problems. V:1-3

Individual solution of selected problems in mechanical engineering conducted under direct supervision of a faculty member. May be repeated for up to 6 semester hours. Prerequisite: senior standing.

4336. Selected Topics. V:1-3

One or more topics of mechanical engineering. May be repeated when topic changes. Prerequisite: senior standing.

4341. Application of Thermodynamics. 3(2-3)

Design of power and refrigeration systems, mixing (or separation), multiphase, air conditioning and energy conversion processes. Prerequisite: MEEN 3347 and MATH 3315.

4343. Dynamics of Systems. 3(3-0)

Analysis of dynamic-mechanical, electrical, fluid and thermal system elements; modeling, analysis and design of physical, dynamic systems composed of these elements. Prerequisites: MATH 3320, MEEN 2302 and MEEN 1320.

4344. Control of Systems. 3(3-0)

Analysis and design of controlled, dynamic, linear mechanical, electrical, fluid and/or thermal systems; introduction to concepts of stability, controllability, observability and to discrete time; sampled data control systems; optimal control systems and nonlinear control theory. Prerequisite: senior standing in Engineering.

4345. Engineering Vibrations. 3(3-0)

Free and forced vibrations, degrees of freedom, energy methods, transients, harmonic analysis, damping. Prerequisites: MATH 3320 and MEEN 2302.

4346. Computational Methods in Mechanical Engineering. 3(3-0)

Applications of numerical techniques to the solution of mechanical engineering problems. Prerequisites: MEEN 1320 and credit for or registration in MEEN 3348 or MEEN 3350.

- 4348. Gas Dynamics.** 3(3-0)
Basic concepts and fundamental equations of gas dynamics. Emphasis on the subsonic and supersonic steady flow. Analysis of shock wave phenomena. Prerequisites: MATH 3320 and credit for or registration in MEEN 3348.
- 4349. Air Conditioning.** 3(3-0)
Application of factors of temperature and humidity to the design of air conditioning systems. Design and applications of heating and cooling requirements, total energy systems, etc. Prerequisite: MEEN 3347.
- 4351. Machine Design.** 3(2-3)
Design techniques of brakes, clutches, bevel, worm and helical gears, thick cylinders, fly wheels, impact and elastic bodies, curved beams, flat plates and cams. Prerequisite: MEEN 3350. Laboratory fee, \$2.
- 4352. Design of Turbomachinery.** 3(3-0)
Design and application of centrifugal and axial flow pumps and turbines, consideration of similarity parameters, real machine performance characteristics, materials and methods of construction, selection process for various applications. Prerequisites: MEEN 4341 and CHEN 3392/NGEN 3392.
- 4354. Computational Methods and Finite Element Principles.** 3(2-3)
Principles and applications of computational methods, with emphasis on finite element/difference principles. Topics: solution of algebraic, partial and ordinary differential equations; approximations and curve-fitting; and matrix operations. Finite element/difference concepts, types and uses. Use of modeling/analysis software. Prerequisites: MEEN 1320, MATH 3320, CEEN 3311, CEEN 3392/CHEN 3392.
- 4355. Robotics and Automation.** 3(3-0)
Analysis of methods of design and operation of robots and robotic systems. Kinematics and dynamics of manipulators, trajectory planning and motion control, sensing and vision, discussion of command languages and planning of job assignments. Prerequisite: senior standing.

Degree Requirements
Bachelor of Science in Industrial Engineering

Freshman Year				Junior Year			
CHEM 1111	1	ENGL 1302	3	CHEN 3392	3	*BCOM 3304	3
CHEM 1311	3	^ <i>Kinesiology</i>	1	^ <i>Kinesiology</i>	1	CEEN 4303	3
ENGL 1301	3	MATH 2313	3	MATH 3315	3	EEEN 3331	3
HIST 1301	3	MEEN 1320	3	MEEN 3347	3	MATH Elective	3
MEEN 1201	2	PHYS 2325/PHYS 2125	4	MEEN 3349	3	MEEN 3348	3
MEEN 1310	<u>3</u>		14	MEEN 3352	<u>3</u>	MEEN 3350	<u>3</u>
	15				16		18
Sophomore Year				Senior Year			
CEEN 2301	3	CEEN 3311	3	Engineering Elective	3	Engineering Elective	3
HIST 1302	3	MATH 3320	3	MEEN 4131	1	Engineering Elective	3
^ <i>Kinesiology</i>	1	MEEN 2146	1	MEEN 4263	2	Fine Arts Elective	3
MATH 2314	3	MEEN 2302	3	MEEN 4341	3	MATH/Science Elective	3
PHYS 2326/PHYS 2126	4	MEEN 3145	1	MEEN 4344	3	MEEN 4264	2
POLS 2301	<u>3</u>	MEEN 3344	3	MEEN 4351	3	Soc. Sci or	
	17	POLS 2302	<u>3</u>	MEEN 4354	<u>3</u>	Humanities Elective	<u>3</u>
			17		18		17

Total Hours Required: 132

Engineering electives: MEEN 4317, MEEN 4343, MEEN 4349, MEEN 4352, MEEN 4335, MEEN 4336, CEEN 4316, MEEN 4348, MEEN 4345, MEEN 4355, MEEN 3354, CEEN 3303.

Mathematics electives: MATH 4370, MATH 4371, MATH 4341, MATH 4321, MATH 4372, MATH 4373, STAT 4350, STAT 4303, CSEN 4363.

Science electives: any advanced-level science course.

Social science or humanities: any advanced-level political science course or any advanced-level history course.

Fine arts electives: ARTS 1303, ARTS 1304, MUSI 2306, THEA 3302 or THEA 4308.

**BCOM 3304: This is a required course. Students must pass with a "C" or better to satisfy the Frank H. Dotterweich College of Engineering's communication skills requirement.*

Students 23 or older may substitute three academic course hours for the Kinesiology requirement.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

Degree Requirements
Bachelor of Science in Mechanical Engineering
Accredited by the EAC of the Accreditation Board for Engineering and Technology

Freshman Year				Junior Year			
CHEM 1111	1	ENGL 1302	3	BCOM 3304	3	CEEN 3317	3
CHEM 1311	3	HIST 1302	3	CHEN 3392	3	EEEN 3331	3
ENGL 1301	3	^Kinesiology	1	MATH 3315	3	MATH Elective	3
HIST 1301	3	MATH 2313	3	MEEN 3347	3	MEEN 3348	3
^Kinesiology	1	MEEN 1320	3	MEEN 3349	3	MEEN 3350	3
MEEN 1201	2	PHYS 2325/PHYS 2125	4	MEEN 3352	3	MEEN 4341	3
MEEN 1310	<u>3</u>		17		18		18
	16						
Sophomore Year				Senior Year			
CEEN 2301	3	CEEN 3311	3	Engineering Elective	3	Engineering Elective	3
**Fine Arts Elective	3	MATH 3320	3	MEEN 4131	1	Engineering Elective	3
^Kinesiology	1	MEEN 2146	1	MEEN 4263	2	MATH/Science Elective	3
MATH 2314	3	MEEN 2302	3	MEEN 4344	3	MEEN 4264	2
PHYS 2326/PHYS 2126	4	MEEN 3145	1	MEEN 4351	3	Soc. Sci or	
POLS 2301	<u>3</u>	MEEN 3344	3	MEEN 4354	3	Humanities Elective	<u>3</u>
	17	POLS 2302	<u>3</u>	STAT 4303	<u>3</u>		14
			17		18		
						Total Hours Required:	135

Electives are selected from the following:

Engineering design electives: MEEN 4317, MEEN 4343, MEEN 4345, MEEN 4349, MEEN 4352, MEEN 4335, MEEN 4336, CEEN 4316.

Engineering science electives: MEEN 3354, MEEN 4335, MEEN 4336, MEEN 4348, MEEN 4355, CEEN 3303.

Mathematics electives: MATH 4320, MATH 4370, MATH 4371, MATH 4341, MATH 4321, MATH 4372, MATH 4373, STAT 4350, CSEN 4362.

Social science or humanities: any advanced-level political science course or any advanced-level history course exclusive of Texas and/or United States History.

*BCOM 3304: This is a required course. Students must pass with a "C" or better to satisfy the Frank H. Dotterweich College of Engineering's communication skills requirement.

**Fine arts electives: ARTS 1303, ARTS 1304, MUSI 2306, THEA 3302 or THEA 4308.

Students 23 or older may substitute three academic course hours for the Kinesiology requirement.

^For courses listed under Core Curriculum "Components" see "General Requirements for Graduation with a Baccalaureate Degree" in an earlier section of this Catalog.

SOUTH TEXAS ENVIRONMENTAL INSTITUTE

Director

Engineering Complex 376. MSC 213. Extension 3046

The South Texas Environmental Institute was established in 2001 with the mission to promote regional sustainability by fostering the ideals of environmental protection while encouraging regional economic growth. The Institute promotes applied research, technology development and transfer and environmental education to the South Texas region by 1) promoting the use of innovative sustainable technologies in all aspects of South Texas life, 2) fostering applied research for the development and transfer of technologies that ensure an equitable balance between ecological, environmental and occupational health and continued economic growth of the region, 3) providing individuals, institutions and communities access to resources that ensure a knowledgeable populace equipped with an understanding of environmental issues for making informed decisions and 4) promoting and providing for coordination and consolidation environmental activities on a regional scale. Trans-boundary environmental issues with Mexico and the Gulf of Mexico along its coast are a key focus area in the Institute's charter. Activities such as the South Texas Environmental Conference Series, held annually in both the Coastal Bend and the Rio Grande Valley, in addition to the regional research emphasis, has resulted in partnerships and collaborations with organizations and individuals from throughout the South Texas region.

**CENTER FOR DISTANCE LEARNING AND
CONTINUING EDUCATION**

CENTER FOR DISTANCE LEARNING AND CONTINUING EDUCATION

Tadeo Reyna, *Director*
Cousins Hall 113. MSC 147. Extension 2861.

The Center for Distance Learning and Continuing Education extends the services (academic credit) of the university to those who are unable to avail themselves of university instruction through regular residence study and to business, industry, educational institutions, professional organizations, governmental units and other groups of adults who need noncredit courses, conferences, institutes, workshops, seminars, short courses and special training programs. The center offerings fall into two categories: college credit courses and noncredit enrichment activities.

COLLEGE CREDIT COURSES

The college credit category covers four forms of delivery: (1) residence off-campus credit, (2) distance learning telecommunication credit, (3) extension credit and (4) correspondence credit courses.

All courses are the equivalent of the same courses taught on campus and are awarded equal credit. All credit course work including correspondence is calculated as a part of the overall grade point average. A student should expect the same supplemental reading, written reports and other work necessary to make the course equivalent in scope and type of instruction to a campus course. Residence off-campus, distance learning telecommunication and extension classes require the same number of clock hours of instruction as on campus: a minimum of 20 clock hours for each semester hour credit.

Textbooks for all distance learning and continuing education courses will be available from the university bookstore or the electronic bookstore. Students are responsible for obtaining the textbooks and any needed supplies.

General Restrictions on All Courses

A student who desires university credit for a course must meet the university entrance requirements and the specific prerequisite requirements for the individual course. Students on suspension from any university cannot register for any courses.

Residence Off-Campus Credit Courses

Most courses listed in this catalog may be offered for off-campus credit upon sufficient demand and by prior approval of the Texas Higher Education Coordinating Board. Courses for undergraduate credit must have a minimum of 15 registered students and courses for graduate credit must have a minimum of 10 registered students.

Students may register at off-campus sites, at the Center for Distance Learning and Continuing Education Office, through the Javelina Hotline or during regular on-campus registration. Registration dates and sites for off-campus courses are announced prior to on-campus registration dates.

Off-campus sites include Alice, Beeville, Corpus Christi, Edinburg, Falfurrias, Jourdanton, Laredo, Pleasanton, Robstown and Weslaco. A special field course is often offered during the summer at Welder Wildlife Refuge in Sinton.

Distance Learning Telecommunication Credit Courses

Some courses listed in this catalog may be offered, upon sufficient demand and by prior approval of the Texas Higher Education Coordinating Board, through a variety of telecommunication modes, for example: interactive video, cable television, communication and/or direct broadcast satellite, satellite master antenna system and the Internet.

Distance learning instructional television credit courses are coordinated statewide by the Trans Texas Videoconference Network (TTVN) with central offices located at Texas A&M University in College Station. All Texas A&M System campuses have the ability to collaboratively broadcast and receive hundreds of telecourses. Four TTVN studios at Texas A&M University-Kingsville are located on campus. A&M-Kingsville is also connected to the UT Health Science Center San

Antonio delivering interactive telecourses throughout Texas. The university has a dial-up interactive videoconferencing system (PictureTel) with the ability to connect anywhere in the world with similar equipment. The center also has the capability to broadcast instructional television courses via the local cable companies in the Kingsville, Falfurrias and Corpus Christi areas.

Students may register at off-campus sites, at the Center for Distance Learning and Continuing Education, the university on-line registration, through the Javelina Hotline or during regular on-campus registration. Registration dates and sites for distance learning telecommunication credit courses are announced prior to on-campus registration dates and also published in each class schedule bulletin under the title: Center for Distance Learning and Continuing Education.

Extension Credit Courses

Most courses listed in this catalog may be offered, upon sufficient demand and by approval of the Texas Higher Education Coordinating Board, as extension courses. Extension classes can be organized for out-of-state and out-of-country special purposes; however, the entire expense of the class including salary and travel for the instructor plus administrative cost must be met by the tuition and workshop fees collected. Specific fees will be determined for each course offering. Fees will not be refunded after the first class meeting.

Students may register at the Center for Distance Learning and Continuing Education after registration dates and sites have been announced.

Special Restrictions

No more than 30 semester hours of extension and correspondence study credit may apply toward a bachelor's degree. Extension courses will not count for residence credit (see the "General Requirements for Graduation" section of this catalog).

Correspondence Credit Courses

The following courses are offered by the Correspondence Division of the Center for Distance Learning and Continuing Education:

Accounting 2301	English 2314	History 2322
Accounting 2302	French 1311	Mathematics 1314
Economics 2301	French 1312	Mathematics 1324
Economics 2302	French 2311	Mathematics 1325
English 1301	French 2312	Mathematics 1316
English 1302	History 1301	Mathematics 1348
English 2342	History 1302	Sociology 1301
English 2362	History 2321	

Students may register at the Center for Distance Learning and Continuing Education or request a registration form by mail. To enroll a student should return the form immediately to the director of the center, accompanied by a current transcript and the registration fee.

Tuition cost for each three hour correspondence credit course shall equal the tuition for an equivalent three hour credit course during the fall semester on campus. Fees will not be refunded after a student has received the lesson outline. Students must pay the postage on all papers mailed to the correspondence division. The university bookstore can mail books to a student C.O.D., if notified that the text is needed for a correspondence course.

Special Restrictions

Students may register and begin work anytime on a correspondence course. In order to register for two correspondence courses concurrently special permission from the director of distance learning and continuing education must be secured. Students may not enroll in correspondence courses that they have previously failed in residence.

A student may complete no more than 18 semester hours of work required for a bachelor's degree by correspondence credit. Any correspondence course completed after September 1, 1954, whether taken at this university or transferred from another institution, may count only for non-advanced (freshman or sophomore level) credit toward a degree. A candidate for a degree should also observe the residence requirements listed under the "General Requirements for a Degree" section of this catalog. Students in residence need to secure written approval from their college dean before registering for a correspondence course.

Time Limits

No course may be completed in fewer than 60 days. A student normally has a maximum of one year to complete a course. In a hardship case the director of distance learning and continuing education may grant a one time extension of four months; the student must request such an extension before the course's expiration date and must pay an additional fee of \$10.

Students who need the credit for graduation or certification at the end of a semester must complete all course work at least four weeks prior to the end of that semester.

Completion of Course

In order to secure credit for the course, the student must satisfactorily complete all the lessons outlined for study, do all the required supplementary reading and pass the final written examination given under the supervision of an examiner approved by the center. The course grade will be based 75% on the final and 25% on the lessons.

Students need not wait for the return of lessons before submitting additional lessons. It is the center's policy, however, to accept no more than three lessons per week. Lessons must be legibly written or typed on lightweight uniform paper 8½ by 11 inches, on one side of the paper only. They should be mailed in document-sized envelopes (4 by 9 inches). Students should fold each lesson separately, placing name, address, course and lesson number on the outside of the folded lesson.

Instructors will not be held responsible for grading papers during the period starting one week prior to the end of a semester or term and two weeks after the beginning of another semester.

Final Examination

Students should mail the Request for Final Examination form to the center upon receiving all of the graded lessons. A student may send this form with the last lesson if the date the student wishes to take the final examination is no less than two weeks from the date the last lesson reaches the center. The final examination must be taken within one month after all lessons have been returned to the student.

A student may make arrangements to take the final examination with officials of another institution and notify the center of such arrangements. In this case the student must pay an appropriate fee to the institution that administers the final. No test fee is charged for tests taken on the Kingsville or Weslaco campuses.

ENRICHMENT ACTIVITIES (NONCREDIT)

Enrichment activities are noncredit offerings including meetings, classes, short courses and workshops. A few of the enrichment courses offered periodically through the Center for Distance Learning and Continuing Education include aerobic dance, social dance, conversational Spanish, photography, defensive driving, youth camps and short courses.

No admission requirements are necessary for noncredit course participants. A detailed description of course content and level will be available before enrollment periods. Registration dates and sites for noncredit courses are announced in advance or students may request course information from the center.

The Continuing Education Unit (CEU) will be given for certain noncredit instructional activities. One Continuing Education Unit is defined as ten contact hours of participation in an organized continuing education experience under qualified instruction. (A fraction of a unit may be awarded.) Texas A&M-Kingsville maintains a permanent record of all CEUs awarded to individual participants and an official transcript is available from the center for \$5.

Professional Development Office

The center has established a Professional Development Office (PDO). The Professional Development Office of the Center for Distance Learning and Continuing Education offers customized, cost-effective training for companies on any of the topics listed below; or classes can be created to fit any need. University faculty and professional consultants are used to conduct the seminars and workshops. Any of the seminars can be conducted on-site at the company or at convenient, comfortable facilities on the Texas A&M-Kingsville campus. Continuing Education Units (CEUs) will be awarded for all professional development programs.

1. **Management/Supervision:** Stress Management, Overcoming Professional Burnout, Building Self-Esteem, Motivation, Team Building, Leadership Development/Improving Productivity, Time Management and Customer Service.
2. **Communications:** Effective Listening, Office Communications, Communicating Effectively.
3. **Computers:** Computer Literacy, Windows, Wordprocessing, Spreadsheets and Data Bases.
4. **Welder Wildlife Refuge:** Short courses for Science, History, Math or English teachers for middle and secondary school levels.

The PDO also provides continuing education for professionals requiring education to retain certification. Accountants, lawyers, nurses, counselors, psychologists, day care and elder care workers must attend continuing education classes.

Study Abroad and Out-of-State Programs

The center sponsors training seminars and short courses in various topics, including language training, culture, arts and crafts and history. Various programs have been held in Mexico in many different locations. These courses are offered for Continuing Education Units (CEUs) and in some cases for extension credit.

Elderhostel Programs

Elderhostel is an independent, nonprofit organization offering short-term academic experiences for people over 55. During an Elderhostel program, seniors study liberal arts courses designed especially for senior citizens. They are challenging and thought-provoking, but do not require any prior knowledge or formal training, homework, exams or grades. Besides daily classes, programs often include course-related field trips.

Most Elderhostel programs last five or six nights and start on Sunday. Seniors stay in comfortable commercial facilities and eat at campus cafeterias and dining halls. For additional information call (361) 593-2861.

Flight School

Students are provided the knowledge, skills and aeronautical experience to meet the requirements necessary for obtaining a Private Pilot Certification for an Airplane Category Rating and a Single-Engine Land Class Rating.

Intensive English Program

The Intensive English Program (IEP) curriculum is focused on the needs and goals of each student. The IEP provides intensive English training for non-degree and degree-seeking non-native English speaking students who have not reached the university's minimum TOEFL score requirement. The IEP provides approximately 25 hours of language training per week for 15 weeks each fall and spring semester and approximately 32 hours of language training per week for 10 weeks each summer session. The curriculum features high interest topics and focuses on both accuracy and fluency. The multi-skills course syllabi integrate themes, structures, functions, vocabulary and pronunciation. A computerized language lab with access to the World Wide Web provides an unlimited number of resources in English-as-a-Second-Language. Students who successfully complete the IEP Exit Portfolio are exempted from the university's TOEFL requirement.

FACULTY

- Hayder A. Abdul-Razzak**, *Professor of Mechanical Engineering*; B.S., M.S., Ph.D., Illinois Institute of Technology.
- Jacqueline Acuff**, *Lecturer in Language and Literature*; B.A., University of Illinois; M.A., Texas A&M University-Corpus Christi.
- Ranjeet Agarwala**, *Lecturer in Mechanical and Industrial Engineering*; B.S., Bangalore University (India); M.S., Texas A&M University-Kingsville.
- Irmin Allner**, *Assistant Professor and Head of Reference and Instructional Services*; B.A., M.A., M.Phil., M.L.S., Ph.D., Syracuse University.
- William Alnor**, *Visiting Assistant Professor of Communications and Theatre Arts*; B.A., M.J., Temple University.
- Faleh T. Al-Saadoon, P.E.**, *Professor of Chemical and Natural Gas Engineering*; B.S., M.S., West Virginia University; Ph.D., University of Pittsburgh.
- Charles H. Alworth**, *Professor of Accounting*; B.B.A., M.P.A., The University of Texas at Austin; D.B.A., Mississippi State University; C.P.A.
- Shane Anderson**, *Assistant Professor of Music*; B.M., Eastman School of Music; M.M., D.M.A., The University of Texas at Austin.
- Trudy Ann Anderson**, *Associate Professor of Sociology and Interim Assistant Dean, College of Arts and Sciences*; B.A., Creighton University; M.A., Ph.D., University of Nebraska.
- Noel Archambeault**, *Assistant Professor of Music*; B.M., University of the Incarnate Word; M.M., Westminster Choir College of Rider University.
- Mitylene Arnold**, *Associate Professor of Special Education*; B.S., Baylor University; M.Ed., Ed.D., University of Georgia.
- Jane K. Atzenhoffer**, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., Texas A&I University.
- Richard Aukerman**, *Associate Professor of Computer Information Systems and Chair, Department of Accounting and Computer Information Systems*; B.S., M.S., Ph.D., University of North Dakota.
- Maria de Jesus Ayala-Schueneman**, *Professor and Head, Interlibrary Loan, Document Delivery and Distance Education Services, Library*; B.A., M.A., Texas A&I University; M.L.S., San Jose State University; Ed.D., Texas A&M University-Kingsville.
- Shannon Baker**, *Assistant Professor of History*; B.A., Siena College; M.A., Ph.D., Texas Christian University.
- Bart Ballard**, *Assistant Professor of Animal and Wildlife Sciences and Caesar Kleberg Wildlife Research Institute*; B.S., Iowa State University; M.S., Ph.D., Texas A&M University-Kingsville.
- Orville Ballard**, *Visiting Assistant Professor of Educational Leadership and Counseling*; B.S., M.S., Texas A&I University; Ed.D., Texas A&M University-Kingsville.
- Terrence J. Barragy**, *Professor of History*; B.A., St. Thomas University; M.A., Marquette University; Ph.D., University of Wisconsin-Madison.
- Santa Barraza**, *Associate Professor of Art and Chair, Department of Art*; B.F.A., M.F.A., The University of Texas at Austin.
- Jon Alan Baskin**, *Professor of Biology*; B.A., New York University; M.A., University of Arizona; Ph.D., University of Florida.
- Regina Beach**, *Assistant Professor of Library and Information Science and Head of Technical Services, Library*; B.A., B.S.B.A., Ohio Northern University; M.S.B.A., Mississippi State University; M.L.S., Kent State University.
- Shari Schlehuser Beams**, *Associate Professor of Communications and Theatre Arts*; B.S., M.S., Ph.D., Purdue University.
- Nicholas R. Beller**, *Associate Professor of Chemistry*; B.S., University of Florida; M.S., Ph.D., University of New Mexico.
- Ashley Bennington**, *Assistant Professor of Management and Marketing*; B.A., Metropolitan State College of Denver; M.A., Ph.D., The University of Texas at Austin.
- Jo Allan Beran**, *Professor of Chemistry and Regents Professor*; B.A., Hastings College; Ph.D., University of Kansas.
- Apurba Bhattacharya**, *Assistant Professor of Chemistry*; B.S., Calcutta University (India); M.S., Indian Institute of Technology (India); Ph.D., The University of Texas at Austin.
- Dalton L. Bigbee**, *Professor of Finance and Associate Vice President for Academic Affairs*; B.A., Howard Payne College; M.B.A., Texas A&I University; Ph.D., Texas Tech University.
- Ralph Lee Bingham**, *Professor of Mathematics and Caesar Kleberg Wildlife Research Institute*; B.A., M.A., University of Montana; Ph.D., The University of Texas at Austin.

Gail Birdwell, *Visiting Assistant Professor of Human Sciences*; B.F.A., M.S., M.S., Texas A&M University-Kingsville.

Betty Jean Black, *Lecturer in University College*; B.S., M.Ed., Texas A&I University.

Robert K. Blomstedt, *Professor of Educational Leadership and Counseling*; B.S., Texas Lutheran University; M.Ed., Ph.D., The University of Texas at Austin.

George S. Boatright, *Assistant Professor and Head, Access Services, Library*; B.A., M.L.S., University of Oklahoma.

Slavka Bodjanova, *Professor of Mathematics*; B.S., M.S., Ph.D., Comenius University (Czechoslovakia).

Telva Joe Boehm, P.E., *Associate Professor of Electrical Engineering and Computer Science*; B.S.E.E., The University of Texas at Austin; M.S., Ph.D., Oklahoma State University.

Diana Borse, *Lecturer in English*; B.A., M.A., Texas A&M University-Kingsville.

Jack A. Bradley, *Associate Professor of Educational Leadership and Counseling*; B.A., Michigan State University; M.Ed., University of West Florida; Ed.D., Texas A&M University.

K. Sue Bradley, *Associate Professor of Curriculum and Instruction*; B.A., M.A., Michigan State University; Ed.D., Texas A&M University.

Leonard A. Brennan, *Professor of Animal and Wildlife Sciences and Endowed Chair in Quail Research, Caesar Kleberg Wildlife Research Institute*; B.S., The Evergreen State College; M.S., Humboldt State University; Ph.D., University of California, Berkeley.

G. Martin Brittain, *Lecturer in Accounting and Computer Information Systems*; B.B.A., Baylor University; M.B.A., Texas A&I University.

Fred C. Bryant, *Professor of Animal and Wildlife Sciences and Endowed Directorship of Caesar Kleberg Wildlife Research Institute*; B.S., Texas Tech University; M.S., Utah State University; Ph.D., Texas A&M University.

John Buckley, *Lecturer in Physics and Geosciences*; B.A., M.A., Ph.D., The University of Texas at Austin.

Haskel G. Buff, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., Southern Utah University; M.S., University of Nevada-Las Vegas.

Jack W. Burt, *Associate Professor of Music*; B.M., Baldwin-Wallace College Conservatory of Music; M.M., University of South Carolina; D.M.A., The University of Texas at Austin.

Cromwell (Scott) Campbell, *Lecturer in Mathematics and Physics and Geosciences*; B.S., Purdue University; M.S., Texas A&M University-Kingsville.

Glenna Sue Cannon, *Associate Professor of Curriculum and Instruction and Certification Officer*; B.A., Southern Methodist University; M.Ed., Ph.D., The University of Texas at Austin.

Mario E. Carranza, *Associate Professor of Political Science*; B.A., Licenciado en Sociologia, University of Buenos Aires; Ph.D., The University of Chicago.

Catherine R. A. Carroll, *Associate Professor of Mathematics*; B.A., University of Illinois; Ph.D., University of California.

Mauro E. Castro, *Professor of Chemistry and Associate Dean, School of Pharmacy*; B.S., M.S., Texas A&I University; Ph.D., Texas A&M University.

David R. Cecil, *Professor of Mathematics*; B.A., University of Tulsa; M.S., Ph.D., Oklahoma State University.

Hermelinda Chaloo, *Lecturer in University College and Educational Leadership and Counseling*; B.S., M.S., Ed.D., Texas A&M University-Kingsville.

Rajab Chaloo, P.E., *Professor of Electrical Engineering and Computer Science and Director, Honors Program*; B.S., M.S., Ph.D., Wichita State University.

Ni-Bin Chang, *Professor of Environmental Engineering*; B.S., National Chiao-Tung University (Taiwan); M.S., Ph.D., Cornell University.

Jieming Chen, *Associate Professor of Sociology*; B.E., Jiaotong University (China); M.A., Zhongshan University (China); Ph.D., University of Michigan.

John L. Chisholm, *Associate Professor of Chemical and Natural Gas Engineering*; B.S., B.S., M.S., Ph.D., University of Oklahoma.

Amit Cholkar, *Lecturer in Mechanical and Industrial Engineering*; B.S., Maharaja Sayajirao University of Baroda (India); M.S., Texas A&M University-Kingsville.

Lee Clapp, *Assistant Professor of Environmental Engineering*; B.S., University of Maine; M.S., Ph.D., University of Wisconsin-Madison.

Milton G. Clasen, *Assistant Professor and Cataloger, Library*; B.A., Concordia Senior College; M.Div., Concordia Seminary; M.S., Louisiana State University.

Kermeta Clayton, *Professor of Human Sciences and Provost and Vice President for Academic Affairs*; B.S., Sam Houston State University; M.Ed., Our Lady of the Lake University; Ph.D., Texas Woman's University; CFCS.

Judith W. Cole, *Associate Professor of Music*; B.M., Murray State University; M.A., Louisiana State University.

Carla Conover, *Lecturer in Communications and Theatre Arts*; B.S., B.A., M.A., University of Central Florida.

Paul H. Cox, *Professor of Physics*; B.S., M.S., University of Illinois at Urbana-Champaign; M.A., Ph.D., Harvard University.

Judy Cribbs, *Lecturer in Accounting and Computer Information Systems, Management and Marketing and University College*; B.S., M.S., University of Houston at Clear Lake.

Carlos Cruz, *Associate Professor of Educational Leadership and Counseling*; B.S., M.A., Texas A&I University; Ed.D., Texas A&M University-Kingsville.

Richard Cundiff, *Lecturer in Health and Kinesiology and Head Coach, Athletics*; B.S., Lincoln Memorial University; M.A., Grambling State University.

Patricia Cypher, *Lecturer in Language and Literature*; B.S., M.A., Texas A&I University.

John daGraca, *Professor of Agronomy and Resource Sciences and Deputy Center Director, Texas A&M University-Kingsville Citrus Center*; B.S., M.S., Ph.D., University of Natal (South Africa).

Michael L. Daniel, *Professor of Health and Kinesiology and Interim Dean, College of Education*; B.S.E., Southern State College; M.A., University of Missouri; Ed.D., University of Arkansas.

Sonny B. Davis, Jr., *Professor of History*; B.A., M.B.S., Southeastern Oklahoma State University; Ph.D., University of New Mexico.

David T. Deacon, *Professor of Communications and Theatre Arts*; B.A., Earlham College; M.F.A., Boston University; Ph.D., Ohio University.

Lloyd V. Dempster, *Professor of Psychology and Sociology*; B.A., Point Park College; M.Ed., Ph.D., University of Pittsburgh.

Farzad Deyhim, *Associate Professor of Human Sciences*; B.S., M.S., California State University; Ph.D., Colorado State University; Ph.D., Oklahoma State University.

Miqueas L. Diál, *Assistant Professor of Computer Information Systems*; B.A., Ed.D., University of Houston; M.S., University of Maryland.

Grace Diaz, *Lecturer in Curriculum and Instruction*; B.S., M.S., Texas A&I University.

Livia Elia Diaz, *Assistant Professor of Health and Kinesiology*; B.S., The University of Texas at Austin; M.A., University of New Mexico.

Robert J. Diersing, *Professor of Computer Information Systems and Dean, College of Business Administration*; B.B.A., M.S., Texas A&I University; M.B.A., Corpus Christi State University; Ph.D., Texas A&M University.

Joseph V. Domino, *Professor of Sociology*; B.S., University of Southern Mississippi; M.A., Stephen F. Austin State University; Ph.D., University of Georgia.

Liliana Dorado, *Assistant Professor of Language and Literature*; Profesor de Literatura, Instituto de Filosofia (Uruguay); M.A., Ph.D., University of Florida.

Pamela Doughty, *Assistant Professor of Health and Kinesiology and Educational Leadership and Counseling*; B.A., Mesa State College; M.S., Baylor University; Ph.D., Texas Woman's University.

M. Catherine Downs, *Assistant Professor of English*; B.A., The University of Texas at Austin; M.A., Ph.D., University of North Carolina.

Qian Du, *Assistant Professor of Electrical Engineering and Computer Science*; B.S., M.S., Beijing Institute of Technology (China); M.S., Ph.D., University of Maryland.

Barry H. Dunn, *Assistant Professor of Agronomy and Resource Sciences, Executive Director and Endowed Chair of the King Ranch Institute for Ranch Management*; B.S., M.S., Ph.D., South Dakota State University.

Vanessa Earp, *Instructor and Reference Librarian*; B.A., The University of Akron; M.L.S., Indiana University-Bloomington.

P. Jane Eckard, *Assistant Professor of Curriculum and Instruction*; B.A., Oklahoma Baptist University; M.A., Ed.D., Ball State University.

Yousri Elkassabgi, *Professor of Mechanical and Industrial Engineering*; B.S., Alexandria University (Egypt); M.S., University of Waterloo (Canada); Ph.D., University of Houston.

Michael R. Elkins, *Associate Professor of Communications and Theatre Arts*; B.S., M.A., The University of Tennessee; Ph.D., Southern Illinois University at Carbondale.

Albert Ellis, III, *Lecturer in Political Science*; B.A., M.P.H., University of North Carolina; M.A., Ph.D., Rice University.

Brent H. Ericksen, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.A., California State University; M.S., California Polytechnic State University-San Luis Obispo.

Shirley Ann Ermis, *Assistant Professor of Curriculum and Instruction*; B.S., M.S., Texas A&I University; Ed.D., Texas A&M University-Kingsville.

Hector Estrada, *Associate Professor of Civil Engineering*; B.S., M.S., Ph.D., University of Illinois at Urbana-Champaign.

Patrick W. Faherty, *Associate Professor of Speech*; B.A., Marquette University; M.A., State University of New York at Albany; Ph.D., Bowling Green State University.

Kambiz Farahmand, *Professor of Industrial Engineering*; B.S., University of Oklahoma; Ph.D., The University of Texas at Arlington.

Mohammed A. Faruqi, *Associate Professor of Civil Engineering*; B.S.C.E., M.S.C.E., Texas A&I University; M.Eng., Pennsylvania State University; Ph.D., University of Arkansas.

Alan Fedynich, *Assistant Professor of Animal and Wildlife Sciences and Caesar Kleberg Wildlife Research Institute*; B.S., Kansas State University; M.S., Ph.D., Texas Tech University.

Dean T. Ferguson, *Associate Professor of History and Chair, Department of History*; B.A., Spring Arbor College; M.A., Central Michigan University; Ph.D., Purdue University.

Thomas A. Fields, *Professor of Communications and Theatre Arts*; B.A., M.A., Texas Tech University; M.A., New Mexico State University; Ph.D., The University of Texas at Austin.

John R. Fluman, *Assistant Professor of Music*; B.M.E., University of Oklahoma; M.M., Texas Tech University.

Darin Forehand, *Lecturer in Art*; B.S., Florida State University; M.F.A., Ohio State University.

J. Victor French, *Professor of Entomology, Texas A&M University-Kingsville Citrus Center*; B.S., M.S., Colorado State University; Ph.D., Michigan State University.

Timothy Edward Fulbright, *Professor of Range and Wildlife Management, Caesar Kleberg Wildlife Research Institute, Meadows Professorship in Semi-arid Land Ecology, Director of the Jack R. and Loris J. Welhausen Water Study Experimental Station and Regents Professor*; B.S., M.S., Abilene Christian University; Ph.D., Colorado State University.

Karen L. Furgerson, *Assistant Professor of Educational Leadership and Counseling*; B.S.Ed., M.S., Jacksonville State University; Ph.D., University of Alabama, Tuscaloosa.

Herman Gallegos, *Lecturer in Accounting and Computer Information Systems and Management and Marketing*; B.B.A., Texas A&I University; M.B.A., Texas A&M University-Corpus Christi.

Cynthia M. Galloway, *Professor of Biology*; B.S., M.S., California State Polytechnic University-Pomona; Ph.D., University of California, Riverside.

Michelle Garcia, *Assistant Professor of Animal and Wildlife Sciences*; B.S., M.S., University of Missouri-Columbia; Ph.D., Texas A&M University.

Zonia Garcia-Obregon, *Lecturer in Curriculum and Instruction*; B.B.A., M.S., Texas A&I University.

Duane T. Gardiner, *Professor of Soil Science and Chair, Department of Agronomy and Resource Sciences*; B.S., M.S., Utah State University; Ph.D., Oregon State University.

Emma Garza, *Visiting Assistant Professor of Bilingual Education*; B.S., M.S., Texas A&I University; Ed.D., Texas A&M University-Kingsville.

James M. Gaugler, *Lecturer in Management and Marketing*; B.S., Virginia Polytechnic Institute; M.B.A., Texas A&M University-Corpus Christi.

Sarah Marie Gill, *Assistant Professor of Music*; B.M., Millikin University; M.M., M.M., University of North Texas; D.M., Florida State University.

Gustavo Gonzalez, *Professor of Bilingual Education and Chair, Department of Bilingual Education*; B.A., M.A., Ph.D., The University of Texas at Austin.

Maribel Gonzalez-Garcia, *Associate Professor of Chemistry*; B.S., Universidad de Alcala de Henares (Spain); Ph.D., Universidad Autonoma de Madrid (Spain).

Arlin D. Goode, *Professor of Mathematics*; B.S., M.S., West Texas State University; Ph.D., Texas A&M University.

Millie Goode, *Lecturer in Curriculum and Instruction*; B.S., West Texas State University; M.Ed., Texas A&M University.

Homi D. Gorakhpurwalla, *Professor of Electrical Engineering and Computer Science*; B.S., Bombay University (India); B.S.E.E., M.S.E.E., Purdue University.

Nirmal Goswami, *Professor of Political Science and Chair, Department of Political Science*; B.A., University of Gauhati (India); M.A., University of Delhi (India); M.A., University of Akron; Ph.D., The University of Texas at Arlington.

Bennie Green, *Professor of Sociology*; B.A., Southwest Missouri State College; M.A., Harding College Graduate School of Religion; M.S., East Texas State University; Ph.D., Union Graduate School.

Arikka E. Gregory, *Visiting Assistant Professor of Music*; B.A., University of Florida; M.M., Florida State University; D.M.A., The University of Texas at Austin.

Jose Guerra, *Lecturer in University College*; B.A., M.S., Texas A&M University-Kingsville.

Dolores Guerrero, *Assistant Professor of Social Work*; B.S.W., The University of Texas at Austin; M.S.S.W., The University of Texas at Arlington.

Paul Martin Hageman, *Professor of Music and Chair, Department of Music*; B.A., Louisiana Tech University; M.M., D.A., University of Northern Colorado.

Ermine Hailey, *Lecturer in Language and Literature*; B.A., The University of Texas at Austin; M.A., Texas A&M University-Kingsville.

Donna L. Halford, *Professor of English*; B.A., M.A., Ph.D., Texas Woman's University.

Raymond Tad Harris, *Assistant Professor of Health and Kinesiology*; B.S., M.S., Texas A&I University.

Sheila G. Harris, *Assistant Professor of Health and Kinesiology*; B.S., M.S., Texas A&I University.

Mary Harston, *Associate Professor of Accounting and Computer Information Systems*; B.B.A., University of Miami; M.P.A., The University of Texas at San Antonio; Ph.D., University of North Texas.

Richard E. Hartwig, *Professor of Political Science*; B.A., Southern Illinois University at Carbondale; M.A., Ph.D., University of Wisconsin-Madison.

Syed Harun, *Assistant Professor of Economics and Finance*; B.S., University of Dhaka (Bangladesh); M.A., Ph.D., University of New Orleans.

Thomas Robert Hays, *Associate Professor of Chemistry*; B.S., B.S., Oregon State University; Ph.D., Arizona State University.

William Andrew Heenan, P.E., *Professor of Chemical and Natural Gas Engineering and Dean, Frank H. Dotterweich College of Engineering*; B.Ch.E., M.S., D.Eng., University of Detroit.

Farzin Heidari, *Associate Professor of Industrial Technology*; B.S., M.S., St. Cloud State University; Ph.D., University of Idaho.

Alice L. Hempel, *Associate Professor of Biology*; B.S., Ph.D., The University of Texas at Austin.

Scott E. Henke, *Professor of Wildlife Management and Caesar Kleberg Wildlife Research Institute*; B.S., Purdue University; M.S., Ph.D., Texas Tech University.

Fidel Hernandez, *Assistant Professor of Animal and Wildlife Sciences and Caesar Kleberg Wildlife Research Institute*; B.S., M.S., Angelo State University; Ph.D., Texas A&M University.

Lydia Hernandez-Perez, *Lecturer in Communications and Theatre Arts*; B.S., Texas A&I University; M.S., Texas A&M University-Kingsville.

Earl Myron Herrick, *Professor of English*; B.A., University of Chicago; M.A., Hartford Seminary Foundation; Ph.D., Michigan State University.

Lionel Donnell Hewett, *Professor of Physics*; B.S., Texas A&I University; Ph.D., University of Missouri at Rolla.

David G. Hewitt, *Associate Professor of Animal and Wildlife Sciences and Caesar Kleberg Wildlife Research Institute*; B.S., Colorado State University; M.S., Washington State University; Ph.D., Virginia Polytechnic Institute and State University.

Pamela V. Hill, *Lecturer in Psychology and Sociology*; B.S., M.S., Texas A&I University.

Gladys Hines, *Executive Director, University College*; B.A., M.A., Texas A&I University.

Beverly Hoffman, *Visiting Assistant Professor of Curriculum and Instruction*; B.S.Ed., M.S.Ed., University of Akron.

Craig A. Hollingshead, *Professor of Marketing*; B.A., Michigan State University; M.B.A., The University of Texas at Austin; D.B.A., The University of Tennessee.

Paul E. Holt, *Professor of Accounting*; B.A., University of Kansas; M.B.A., Oklahoma City University; Ph.D., Oklahoma State University; C.P.A.

Grace A. Hopkins, *Professor of Curriculum and Instruction*; B.A., DePaul University; M.Ed., Ph.D., University of Illinois.

Erin Hostetler, *Lecturer in English*; B.A., Schreiner College; M.A., Texas A&M University-Kingsville.

Michael Houf, *Assistant Professor of History*; B.A., Winthrop University; M.A., Ph.D., Florida State University.

Harry R. Huebel, *Professor of History*; B.S., Southeast Missouri State College; Ph.D., Washington State University.

Kendra Huff, *Assistant Professor of Accounting*; B.B.A., M.P.A., Texas A&I University; Ph.D., The University of Texas-Pan American; C.P.A.

J. Randy Hughes, *Assistant Professor of Health and Kinesiology and Vice President for Institutional Advancement*; B.S., M.S., Texas A&I University.

Cecilia Aros Hunter, *Associate Professor and University Archivist, Library*; B.A., M.L.S., University of Arizona; M.S., Texas A&I University.

Leslie G. Hunter, *Professor of History and Regents Professor*; B.A., M.A., Ph.D., University of Arizona.

Ronald Hy, *Professor of Political Science and Dean, College of Arts and Sciences*; B.S., M.A., Central Michigan University; Ph.D., Miami University.

Dan H. Jackson, *Lecturer in Computer Information Systems*; B.S., West Texas State College; M.S., Texas Christian University.

Linda Jimenez, *Lecturer in University College*; B.A., McNeese State University.

Kai Jin, *Assistant Professor of Mechanical and Industrial Engineering*; B.S., Nankai University (China); Ph.D., Texas Tech University.

Kuruvilla John, *Associate Professor of Environmental Engineering and Chair, Department of Environmental and Civil Engineering*; B.Tech., Anna University (India); M.S., Ph.D., University of Iowa.

Fred Anthony (Tony) Johnson, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.A., Mid-America Nazarene University; M.L.A., Texas Christian University.

Iris N. Johnson, *Lecturer in Language and Literature*; B.A., M.A., Texas A&M University-Kingsville.

Michelle Johnson-Vela, *Assistant Professor of Language and Literature*; B.A., University of Virginia; M.A., Rice University; Ph.D., Indiana University.

Kim D. Jones, *Assistant Professor of Environmental Engineering*; B.S., United States Military Academy, West Point; M.S., The University of Texas at Austin; M.S., Ph.D., Georgia Institute of Technology.

Michael A. Jordan, *Associate Professor of Geosciences*; B.S., University of Kansas; M.A., Ph.D., The University of Texas at Austin.

Dina Leann Kangas, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.A.S., University of Minnesota, Duluth; M.A., North Dakota State University.

John A. (Jack) Kaufhold, *Associate Professor of Educational Leadership and Counseling*; B.S., West Chester University; M.Ed., Ed.D., University of Virginia.

Alvin John Kay, *Professor of Mathematics*; B.S., M.A., Southwest Texas State University; Ph.D., University of Houston.

Allen Francis Ketcham, *Professor of Management and Marketing*; B.S., Indiana University; M.B.A., Corpus Christi State University; M.S., Texas A&I University; M.Ed., Ph.D., University of Arizona.

Nancy KingSanders, *Professor of Music*; B.M., Southwest Texas State University; M.M., University of North Texas; D.M.A., University of Illinois at Urbana-Champaign.

Doreen H. D. Kinkel, *Professor of Animal Nutrition*; B.S., University of Illinois; M.S., Ph.D., University of Florida.

Larry Knight, *Associate Professor of History*; B.S., M.A., Southwest Texas State University; Ph.D., Texas A&M University.

LuAnne Ktiri-Idrissi, *Lecturer in Language and Literature*; B.A., California State University-Northridge; M.A., University of Southern California.

William P. Kuvlesky, Jr., *Associate Professor of Animal and Wildlife Sciences and Caesar Kleberg Wildlife Research Institute*; B.S., Texas A&M University; M.S., University of Wisconsin-Madison; Ph.D., Texas A&M University.

Jason Kwak, *Assistant Professor of Music*; B.M., Eastman School of Music; M.M., The University of Texas at Austin.

Neal LaHue, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., M.S., Texas A&M University-Kingsville.

Margaret Foster Land, *Professor of Mathematics and Interim Chair, Department of Mathematics*; B.S., M.S., Northwestern State University of Louisiana; Ph.D., Oklahoma State University.

Marie E. Lassmann, *Associate Professor of Curriculum and Instruction*; B.S., M.S., Texas A&I University; Ph.D., The University of Texas at Austin.

Jamie C. Laurenz, *Associate Professor of Animal and Wildlife Sciences and Chair, Department of Animal and Wildlife Sciences*; B.S., South Dakota State University; M.S., Ph.D., Texas A&M University.

Amy Lawrence, *Lecturer in University College*; A.B., Pfeiffer College; M.S., Texas A&I University.

Valdemar Leal, *Lecturer in Curriculum and Instruction*; B.S., M.S., Texas A&I University.

Henry J. Leckenby, *Assistant Professor of Physics*; B.S., Villanova University; M.S., Florida Institute of Technology; Ph.D., Michigan Technological University.

Sangyong Lee, *Assistant Professor of Chemical and Natural Gas Engineering*; B.S., M.S., Sogang University (Korea); Ph.D. University of Pittsburgh.

Pat Tkul Leelani, P.E., *Professor of Civil Engineering*; B.S.C.E., Chulalongkorn University (Thailand); M.S.C.E., Ph.D., University of Akron.

Chung S. Leung, *Associate Professor of Electrical Engineering and Computer Science*; B.S., M.S., Florida Institute of Technology; Ph.D., Florida Atlantic University.

Shuhui Li, *Associate Professor of Electrical Engineering and Computer Science*; B.S., M.S., Southwest Jiaotong University (China); Ph.D., Texas Tech University.

Gary E. Lipscomb, *Lecturer in Political Science*; B.A., University of Arizona; M.P.A., University of New Mexico.

Lisa Lockhart, *Assistant Professor of Psychology*; B.S., John Carroll University; M.A., Ph.D., Kent State University.

Brigido Lopez, Jr., *Associate Professor of Educational Leadership and Counseling*; B.A., Texas A&I University; M.Ed., The University of Texas-Pan American; Ed.D., Texas A&M University.

Eliezer S. Louzada, *Associate Professor of Citrus Horticulture and Breeding, Texas A&M University-Kingsville Citrus Center*; B.S., M.S., Ph.D., Universidade Federal Rural Do Rio De Janeiro (Brazil).

Gary R. Low, *Professor of Educational Leadership and Counseling and Assistant Dean, College of Education*, B.S., University of Corpus Christi; M.S., Ph.D., East Texas State University.

Todd Allen Lucas, *Assistant Professor of Art*; B.A., B.A., California State University, Chico; M.A., M.F.A., Stephen F. Austin State University.

Steven Douglas Lukefahr, *Professor of Animal Science*; B.S., Texas A&I University; M.S., Ph.D., Oregon State University.

Lento F. Maez, *Professor of Bilingual Education*; B.A., University of Utah; Ph.D., University of California, Santa Barbara.

Ronald E. Marcotte, *Professor of Chemistry*; B.S., Ph.D., University of Florida.

Raissa Marking, *Instructor and Reference Librarian*; B.A., Texas A&M University-Corpus Christi; M.L.S., University of North Texas.

Bruce Marsh, *Associate Professor of Industrial Technology*; B.S., University of Southwestern Louisiana; M.I.T., Bowling Green State University; D.I.T., University of Northern Iowa.

Irma Marshall, *Visiting Assistant Professor of Curriculum and Instruction*; B.S., Stephen F. Austin State University; M.S., East Texas State University; Ed.D., Texas A&M University-Kingsville.

Robert Marshall, *Associate Professor of Educational Leadership and Counseling and Interim Chair, Department of Educational Leadership and Counseling*; B.S., M.S., East Texas State University; Ed.D., Texas A&M University.

Alvaro Martinez, *Assistant Professor of Environmental Engineering*; B.S., Industrial University of Santander (Colombia); M.S., University of Akron; Ph.D., University of Central Florida.

Cynthia Martinez, *Visiting Instructor in Agronomy and Resource Sciences*; B.S., M.S., Texas A&M University-Kingsville.

Elizabeth Martinez, *Lecturer in University College*; B.S., B.S., M.S., Texas A&I University.

Rochelle Martino, *Lecturer in Chemistry*; B.S., M.S., Texas A&M University-Kingsville.

Enrique Massa, *Associate Professor of Biology*; B.S., Pan American University; M.S., Ph.D., University of Michigan.

Mary R. Mattingly, *Professor of Political Science and Special Assistant to the Provost and Accreditation Liaison Officer*; B.A., University of Dayton; M.A., St. Louis University; Ph.D., Michigan State University.

Anna P. McArthur, *Professor of Human Sciences*; B.S., Texas Tech University; M.Ed., West Texas State University; Ph.D., Texas Tech University.

Thomas Lee McGehee, *Professor of Geosciences*; B.S., Ph.D., The University of Texas at Dallas.

Ronald F. McKenzie, *Professor of Educational Leadership and Counseling*; B.S., Howard Payne College; M.Ed., Ph.D., The University of Texas at Austin.

Robert A. McLauchlan, P.E., *Professor of Mechanical and Industrial Engineering and Chair, Department of Mechanical and Industrial Engineering*; B.S., Ph.D., The University of Texas at Austin.

Brenda Melendy, *Associate Professor of History*; B.A., Stanford University; M.A., San Jose State University; M.A., Ph.D., University of California, Santa Cruz.

Mark Richard Miller, *Associate Professor of Industrial Technology and Chair, Department of Industrial Technology*; B.S., State University College of Buffalo; M.A., Ball State University; Ph.D., Texas A&M University.

Maria E. Morales, *Professor of Curriculum and Instruction*; B.S., Texas Woman's University; M.S., Texas A&I University; Ph.D., The University of Texas at Austin.

Philip Stockton Morey, Jr., *Professor of Mathematics*; B.A., M.A., Ph.D., The University of Texas at Austin.

Richard S. Morgan, *Assistant Professor of Music*; B.M.Ed., Abilene Christian University; M.A., North Texas State University.

Javier Morin, *Lecturer in Language and Literature*; B.A., M.A., Texas A&M University-Kingsville.

Emil A. Mucchetti, *Professor of English*; B.A., Villanova University; M.A., The University of Texas at El Paso; Ph.D., Louisiana State University.

Frank M. Mullen, *Associate Professor of Industrial Technology*; B.A., The University of Texas at Austin; M.S., Texas A&I University; Ed.D., East Texas State University.

Robert Nash, *Professor of Economics and Finance*; B.S., Austin Peay State University; Ph.D., Texas A&M University.

A. Reza Nekovei, *Associate Professor of Electrical Engineering*; B.S., M.S., University of Maine; Ph.D., University of Rhode Island.

Deanna Nekovei, *Associate Professor of Curriculum and Instruction*; B.S., University of Rhode Island; Ed.D., University of Massachusetts-Amherst.

Darwin Nelson, *Professor of Educational Leadership and Counseling*; B.S., University of Corpus Christi; M.S., Ph.D., East Texas State University.

Shad Nelson, *Assistant Professor of Agronomy and Texas A&M University-Kingsville Citrus Center*; B.S., M.S., Brigham Young University; Ph.D., University of California, Riverside.

Donald M. Nixon, *Professor of Agricultural Economics*; B.S., M.S., Ph.D., Colorado State University.

James Randolph Norwine, *Professor of Geosciences and Regents Professor*; B.S., Southeast Missouri State College; M.S., Ph.D., Indiana State University.

Barbara R. Oates, *Professor of Management and Marketing*; B.S., M.B.A., Southwest Missouri State University; Ph.D., University of North Texas.

Liette Bellerive Ocker, *Visiting Assistant Professor of Health and Kinesiology and Curriculum and Instruction*; B.A., M.Ed., Wichita State University; Ph.D., University of Houston.

Joon-Yeoul Oh, *Assistant Professor of Accounting and Computer Information Systems*; B.S., M.S., Chong-Ju University (Korea); M.S., Ph.D., New Mexico State University.

Alberto M. Olivares, *Professor of Chemistry and Dean, College of Graduate Studies*; B.S., Ph.D., Texas A&M University.

Syed Iqbal Omar, *Professor of Electrical Engineering and Computer Science*; B.S., Allahabad University (India); B.S., Aligarh University (India); M.E., Indian Institute of Science (India); Ph.D., Carleton University (Canada).

J. Alfonso Ortega-Santos, *Assistant Professor of Rangeland Ecology and Caesar Kleberg Wildlife Research Institute*; B.S., Universidad Autonoma de Tamaulipas (Mexico); M.S., Universidad Autonoma Agraria (Mexico); Ph.D., University of Florida.

Gilda Ortego, *Professor and Director of Library*; B.A., Ph.D., Texas Woman's University; M.L.S., The University of Texas at Austin.

Selahattin Ozcelik, *Associate Professor of Mechanical and Industrial Engineering*; B.S., Technical University of Istanbul (Turkey); M.S., Texas A&I University; Ph.D., Rensselaer Polytechnic Institute.

Dorothy Jane Pace, *Professor of Psychology and Sociology*; B.A., Texas A&I University; M.S., Ph.D., Oklahoma State University.

Victoria Lynn Packard, *Assistant Professor and Reference/Government Documents Librarian*; B.A., University of Northern Colorado; M.L.I.S., The University of Tennessee.

Sung-won Park, P.E., *Professor of Electrical Engineering and Computer Science and Chair, Department of Electrical Engineering and Computer Science*; B.E., M.E., Hanyang University (Korea); M.S.E.E., Ph.D., University of New Mexico.

Harriet Parker, *Lecturer in Curriculum and Instruction*; B.S., M.S., Texas A&I University.

Bhimanagouda S. Patil, *Associate Professor of Plant Physiology, Texas A&M University-Kingsville Citrus Center*; B.S., University of Agricultural Sciences, Bangalore (India); M.S., University of Agricultural Sciences, Dharwad (India); Ph.D., Texas A&M University.

Larry D. Peel, *Assistant Professor of Mechanical and Industrial Engineering*; B.S., Utah State University; M.S., Virginia Polytechnic Institute and State University; Ph.D., Brigham Young University.

John Carlos Perez, *Professor of Biology and Regents Professor*; B.S., University of Utah; M.A., Mankato State College; Ph.D., Utah State University.

Rafael Perez-Ballesterro, *Assistant Professor of Biology*; B.S., University Autonoma of Madrid (Spain); M.S., Ph.D., University of Michigan.

Glenn H. Perrigo, *Associate Professor of Biology and Chair, Department of Biology*; B.S., State University College, Brockport; Ph.D., The University of Texas at Austin.

Rick Peterson, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., Southwestern College; M.A., University of the Incarnate Word.

Jimmie D. Phaup, *Professor of Political Science*; B.A., University of New Mexico; M.A., Ph.D., University of Arizona.

James R. Pierce, *Professor of Biology and Assistant Dean, College of Arts and Sciences*; B.A., Ph.D., The University of Texas at Austin.

Ali Pilehvari, *Professor of Chemical and Natural Gas Engineering and Chair, Department of Chemical and Natural Gas Engineering*; B.S., Tehran Polytechnique (Iran); M.E., Ph.D., University of Tulsa.

Fred T. Ponder, *Professor of Curriculum and Instruction and Educational Leadership and Counseling and Interim Chair, Department of Curriculum and Instruction*; B.A., M.A., University of Alabama, Tuscaloosa; Ph.D., University of North Texas.

Matthew C. Price, *Associate Professor of Political Science*; B.S., University of Utah; M.A., University of Southern California; Ph.D., Johns Hopkins University.

James M. Puckett, Jr., *Professor of Psychology and Sociology and Chair, Department of Psychology and Sociology*; B.S., The University of Texas at Arlington; M.A., California State University-Fullerton; Ph.D., University of Missouri-Columbia.

Elva Ramirez, *Lecturer in University College*; B.S., M.P.A., Texas A&M University-Kingsville.

Eric Ramos, *Lecturer in Communications and Theatre Arts*; B.A., M.A., Texas A&I University.

G. Allen Rasmussen, *Associate Professor of Agronomy and Resource Sciences and Assistant Dean, College of Agriculture and Human Sciences*; B.S., M.S., Texas A&M University; Ph.D., Texas Tech University.

Rachel E. Ratcliff, *Lecturer in Biology*; B.S., M.S., Texas A&M University-Kingsville.

Indra K. Reddy, *Professor of Pharmacy and Dean, School of Pharmacy*; B.S., Kakatiya University (India); M.S., Sagar University (India); Ph.D., University of Florida.

Eric L. Reittinger, *Associate Professor of Psychology*; B.S., Utah State University; Ph.D., University of Minnesota.

Jianhong Ren, *Assistant Professor of Environmental Engineering*; B.S., Beijing Polytechnic University (China); M.S., Drexel University; Ph.D., Northwestern University.

William E. Renfrow, *Professor of Art*; B.F.A., M.F.A., The Kansas City Art Institute.

Cecilia Rhoades, *Assistant Professor of Psychology and Sociology*; B.A., M.A., The University of Texas at El Paso; Ph.D., The University of Texas at Austin.

Blakeney J. Richard, *Associate Professor of English*; B.A., McNeese State College; M.A., The University of Mississippi; Ph.D., Louisiana State University.

Gonzalo Rivera, Jr., *Associate Professor of Accounting*; B.B.A., Texas A&I University; J.D., Baylor University; C.P.A.

Susan Roberson, *Associate Professor of Language and Literature and Chair, Department of Language and Literature*; B.A., Baylor University; M.A., Ph.D., Texas A&M University.

Ronald Rosati, *Professor of Agriculture Science and Dean, College of Agriculture and Human Sciences*; B.S., M.A., Cornell University; Ph.D., Iowa State University.

Joseph E. Rossman, Jr., *Professor of Economics and Finance and Chair, Department of Economics and Finance*; B.S., Northwestern University; Ph.D., Iowa State University.

Jack Rowe, *Assistant Professor of Psychology*; B.S., Louisiana State University; M.B.A., University of California; Ph.D., University of Missouri.

Edwin N. Rowley, *Associate Professor of Speech Communication and Chair, Department of Communications and Theatre Arts*; B.A., St. John's University; M.A., Emerson College; Ph.D., Indiana University.

Alberto Ruiz, *Assistant Professor of Health and Kinesiology and Interim Chair, Department of Health and Kinesiology*; B.S., M.S., Texas A&M University-Kingsville; Ed.D., University of Houston.

David Henry Sabrio, *Professor of English*; B.A., Louisiana State University in New Orleans; M.A., Ph.D., University of South Carolina.

Sue Sabrio, *Lecturer in Mathematics*; B.A., University of New Orleans; M.Ed., University of South Carolina; M.S., Texas A&I University.

Joseph O. Sai, *Associate Professor of Civil Engineering*; B.S.C., University of Ghana (South Africa); M.S., University of California; Ph.D., Texas A&M University.

Manuel Salinas, Jr., *Professor of Educational Leadership and Counseling*; B.A., M.S., Texas A&I University; Ph.D., University of Nebraska.

Michael Salinas, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., Texas A&M University-Kingsville.

Carl A. Saltarelli, *Lecturer in Communications and Theatre Arts*; B.A., Trinity University; M.S., North Texas State University.

Gregory L. Sanders, *Professor of Music*; B.M., Arkansas State University; M.M., North Texas State University; D.M.A., University of North Texas.

Richard Charles Scherpereel, *Professor of Art*; B.F.A., M.F.A., University of Notre Dame; M.Ed., McMurry College; Ed.D., Peabody College.

Maurice Schmidt, *Professor of Art*; B.F.A., The University of Texas at Austin; M.F.A., Cranbrook Academy of Art.

Barbara Schreur, *Professor of Electrical Engineering and Computer Science*; B.A., Manhattanville College; M.A., University of Arizona; Ph.D., Florida State University.

Dale L. Schruben, *Professor of Chemical and Natural Gas Engineering*; B.S., B.S., Kansas State University; M.S., University of Minnesota; Ph.D., Carnegie-Mellon University.

Bruce Robert Schueneman, *Professor and Head, Systems, Library*; B.A., University of California, Berkeley; M.L.S., San Jose State University; M.S., Texas A&I University.

Jake E. Schumann, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.A., Saint Xavier University.

Stephen Andrew Sedory, *Associate Professor of Mathematics*; B.A., Luther College; M.S., M.S., Ph.D., Oklahoma State University.

Robert William Serth, *P.E., Professor of Chemical and Natural Gas Engineering*; B.S., University of Rochester; M.A., University of Arizona; M.S., Ph.D., State University of New York at Buffalo.

Nestor W. Sherman, *Professor of Health and Kinesiology*; B.S.E., State University of New York at Cortland; M.Ed., Ed.D., University of Houston.

Jennifer Sholtis, *Assistant Professor of Music*; B.M., B.A., University of Arkansas; M.F.A., University of Iowa.

Jack D. Shorter, *Professor of Computer Information Systems*; B.S., M.S., Ed.D., Oklahoma State University.

Mani Skaria, *Professor of Plant Pathology, Texas A&M University-Kingsville Citrus Center*; B.S., M.S., University of Kerala (India); Ph.D., Purdue University.

John D. Smith, *Visiting Assistant Professor of Health and Kinesiology*; B.S., The University of Texas at San Antonio; M.S., Texas A&M University-Kingsville.

V. A. Smith, *Professor of Communications and Theatre Arts*; B.A., M.A., Midwestern University; Ph.D., Louisiana State University.

M. Andres Soto, *Assistant Professor of Biology*; B.S., M.S., Texas A&M University-Kingsville; Ph.D., University of Southern Mississippi.

Michelle Stallone, *Instructor in Educational Leadership and Counseling*; B.S., Pennsylvania State University; M.A., Baylor University.

Randy L. Stanko, *Associate Professor of Animal Science*; B.S., Colorado State University; M.S., Texas A&M University; Ph.D., North Carolina State University.

Russell Stockton, *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., M.Ed., University of Houston.

Jeffrey G. Stone, *Assistant Professor of Music*; B.M.Ed., M.Ed., Southwest Texas State University.

Daniel J. Suson, *Professor of Physics and Chair, Department of Physics and Geosciences*; B.A., University of Colorado; M.S., Ph.D., The University of Texas at Dallas.

Chu-Sheng Tai, *Assistant Professor of Economics and Finance*; B.S., National Cheng Kung University (Taiwan); M.S., Golden Gate University; M.A., M.A.S., Ph.D., Ohio State University.

Virginia Tanner, *Lecturer in Language and Literature*; B.A., Corpus Christi State University; M.S., Texas A&M University-Kingsville.

Frank A. Taylor, III, *Professor of Management and Chair, Department of Management and Marketing*; B.Ch.E., Georgia Institute of Technology; M.B.A., The University of Texas at Austin; Ph.D., University of Houston.

Michael E. Tewes, *Professor of Animal and Wildlife Sciences and Caesar Kleberg Wildlife Research Institute*; B.S., M.S., Texas A&M University; Ph.D., University of Idaho.

Nicole Ann Theriot, *Assistant Professor of Psychology and Sociology*; B.A., Tulane University; M.S.W., University of Georgia.

Jacqueline Thomas, *Professor of French, Director, Teaching Effectiveness Center and Regents Professor*; B.A., The University of Hull (England); M.Ed., Texas A&M University; M.A., Ed.D., Texas A&I University.

Guadalupe O. Thompson, *Professor of Bilingual Education*; B.A., East Texas State University; M.A., Ph.D., University of Oklahoma, Norman.

John S. Thompson, Jr., *Professor of Chemistry and Interim Chair, Department of Chemistry*; B.S., Ph.D., The University of Texas at Austin.

Louis H. Thurston, *Associate Professor of Mathematics*; B.A., Oregon State University; M.S., Ph.D., Carnegie-Mellon University.

Ramiro Torres, *Lecturer in University College*; B.A., M.S., Texas A&M University-Kingsville.

Roberto L. Torres, *Assistant Professor of Bilingual Education*; B.A., Instituto Tecnológico de Estudios Superiores de Occidente (Mexico); M.A., Northern Arizona University; Ph.D., University of Colorado.

Sandra Torrez, *Lecturer in University College*; B.A., M.A., Texas A&M University-Kingsville.

Martin Treon, *Professor of Communication Sciences and Disorders*; B.S., University of Minnesota, Minneapolis; M.A., Stanford University; Ph.D., University of California, Los Angeles.

Lanette Trotter, *Lecturer in University College*; B.S., M.E.T., The University of Texas at Arlington.

Robert F. Tucker, *Professor of Mechanical and Industrial Engineering*; B.S., Texas A&M University; M.S., Ph.D., Louisiana Tech University.

Roger H. Tuller, *Assistant Professor of History*; B.S., University of Wisconsin-Whitewater; M.A., Ph.D., Texas Christian University.

Susan Turner, *Assistant Professor of Social Work*; B.S.E., East Texas Baptist University; M.S.W., The University of Southern Mississippi.

Jerome Tymrak, *Visiting Instructor in Agriculture Science*; B.S., M.S., Texas A&I University.

Venkatesh Uddameri, *Assistant Professor of Environmental Engineering*; B.E., Osmania University (India); M.S., Ph.D., University of Maine.

Sameer Vaidya, *Associate Professor of Management and Marketing*; B.A., University of Poona (India); M.B.A., Ph.D., The University of Texas-Pan American.

Roel Valadez, Jr., *Lecturer in Biology*; B.A., Baylor University; M.S., Texas A&M University-Kingsville.

Janis B. Van Buren, *Professor of Human Sciences and Chair, Department of Human Sciences*; B.S., M.S., Ph.D., Iowa State University; CFCS.

Gloria VanZante, *Visiting Instructor in Human Sciences*; B.S., Texas A&M University-Kingsville; M.S., Texas Woman's University.

Neal R. VanZante, *Professor of Accounting*; B.S., University of Central Oklahoma; M.S., Ph.D., Oklahoma State University; C.P.A., C.M.A.

Donald Varvel, *Assistant Professor of Electrical Engineering and Computer Science*; B.S., B.S., University of North Dakota; M.S., North Dakota State University; Ph.D., The University of Texas at Austin.

Roberto Vela Cordova, *Visiting Assistant Professor of Language and Literature*; B.A., Universidad del Sagrado Corazon (Puerto Rico); M.A., Indiana University.

Alfredo Velez, III, *Lecturer in Music*; B.M.Ed., M.M.Ed., Angelo State University.

Daryl Vincent, Sr., *Lecturer in Health and Kinesiology and Coach, Athletics*; B.S., California Polytechnic University, Pomona.

Paul Randall Vowell, *Associate Professor of Sociology*; B.A., M.S., Ph.D., Mississippi State University.

George Richard Wagman, *Professor of Management*; B.B.A., M.B.A., Pan American University; Ph.D., Texas A&M University.

Mark Michael Walsh, *Professor of Educational Leadership and Counseling*; B.A., Loras College; B.D., Aquinas Institute; M.S., Creighton University; Ph.D., Texas A&M University.

Rongdong Wang, *Professor of Mathematics*; B.S., Peking Polytechnic University (China); M.S., Hebei Teacher's University (China); M.S., M.S., Ph.D., Northern Illinois University.

James R. Warth, *Assistant Professor of Music*; B.S., University of South Carolina; M.M., The University of Texas at Austin.

Peggy Marie Wilks, *Lecturer in Art*; B.F.A., M.S., Texas A&I University.

Randall H. Williams, *Professor of Agriculture Sciences*; B.S., M.Ed., Texas Tech University; Ed.D., Oklahoma State University.

Jill O. Willson, *Lecturer in Health and Kinesiology and Director, Athletics*; B.S., West Texas State University; M.Ed., Wayland Baptist University.

Charles Wissinger, *Assistant Professor of Art*; B.S., Indiana University of Pennsylvania; M.F.A., Ohio State University.

Daniel S. Wright, *Lecturer in Mechanical and Industrial Engineering*; B.S., B.S., Texas A&I University; M.S.E., The University of Texas at Austin.

Hueytzen J. Wu, *Professor of Mathematics*; B.S., National Taiwan Normal University; M.S., Ohio State University; Ph.D., University of Arkansas.

Melody Yarbrough, *Associate Professor of Health and Kinesiology*; B.S., Southwest Baptist College; M.Ed., Texas Tech University; Ph.D., Texas A&M University.

TEXAS A&M UNIVERSITY-KINGSVILLE SYSTEM CENTER - SAN ANTONIO

Ward Albro, III, *Professor of History*; B.S., M.A., University of Houston; Ph.D., University of Arizona.

Ruth Ball, *Lecturer in Curriculum and Instruction*; B.A., The University of Texas at Austin; M.A., The University of Texas at San Antonio.

Richard Wayne Coleman, *Professor of Management and Marketing*; B.S., University of Southern Mississippi; M.I.M., American Graduate School of International Management; D.B.A., Louisiana Tech University.

Gary F. Coulton, *Assistant Professor of Psychology*; B.A., University of New Mexico; M.A., Trinity University; Ph.D., Auburn University.

Dennis Elam, *Assistant Professor of Accounting and Computer Information Systems*; B.B.A., M.B.A., The University of Texas at Austin.

Carolyn Green, *Assistant Professor of Computer Information Systems*; B.A. Ph.D., University of Houston.

Patricia Holmes, *Lecturer in Health and Kinesiology and Curriculum and Instruction*; B.S., Missouri Southern State College; M.S., Pittsburg State University; Ph.D., Texas Woman's University.

Tracy A. Hurley, *Assistant Professor of Management and Marketing*; B.B.A., M.B.A., Ph.D., University of Houston.

Karen Hutchison, *Visiting Assistant Professor of Curriculum and Instruction*; B.A., M.A., The University of Texas at San Antonio.

James Jurica, *Visiting Assistant Professor of Curriculum and Instruction and Educational Leadership and Counseling (Kingsville)*; B.B.A., Ph.D., The University of Texas at Austin; M.Ed., University of Houston.

Stephen Kromis, *Associate Professor of Accounting and Computer Information Systems and Economics and Finance*; B.S., M.B.A., D.B.A., Louisiana Tech University.

LaJoyce Lawton, *Assistant Professor of Curriculum and Instruction*; B.S., Lincoln University; M.A., Michigan State University; Ed.D., University of Oklahoma.

Cheng-hsien Lin, *Assistant Professor of Psychology and Sociology*; B.A., Fu Jen Catholic University (Taiwan); M.A., San Diego State University; Ph.D., Texas A&M University.

JoAnn Martinez, *Visiting Assistant Professor of Curriculum and Instruction*; B.A., The University of Texas at San Antonio; M.S., Texas A&M International University.

Gloria Jean Rodman, *Assistant Professor of Curriculum and Instruction*; B.A., Baylor University; M.Ed., The University of Texas at Austin; Ph.D., Texas A&M University.

Peter B. Shaw, *Lecturer in General Business and Management*; B.A., University of Richmond; M.A., Pepperdine University; M.H.A., Baylor University.

Josephine Sosa-Fey, *Lecturer in Management and Marketing*; B.A., M.B.A., Our Lady of the Lake University; D.B.A., Nova Southeastern University.

Rosario Torres Raines, *Professor of Sociology*; B.S., M.A., Ph.D., Texas Woman's University.

Faculty Emeriti

Ward Sloan Albro, III, *Professor of History*; B.S., M.A., University of Houston; Ph.D., University of Arizona. (1997)

B. Stanley Bittinger, *Professor of Psychology and Sociology*; B.A., Manchester College; M.A., University of Notre Dame; Ph.D., The University of Texas at Austin. (2001)

Jerry D. Bogener, *Professor of Education*; B.S., M.A., Missouri State Teachers College; Ed.D., University of Kansas. (1996)

Randall J. Buchanan, *Professor of Communications and Theatre Arts*; B.A., M.A., Brigham Young University; Ph.D., Louisiana State University. (1996)

Billy J. Chandler, *Professor of History*; B.S., Austin Peay State University; M.A., Texas A&I University; Ph.D., University of Florida. (1995)

Allan H. Chaney, *Professor of Biology*; B.S., M.S., Ph.D., Tulane University. (1991)

Floyd W. Cokendolpher, *Professor of Education*; B.S., M.S., North Texas State College; Ed.D., The University of Texas at Austin. (1995)

Charles DeYoung, *Professor of Wildlife Management and Endowed Chair of the Stuart W. Stedman White-tailed Deer Research, Caesar Kleberg Wildlife Research Institute*; B.S., Texas A&M University; M.S., Texas A&I University; Ph.D., Colorado State University. (2002)

John W. Glock, *Professor of Education*; B.A., Wayne State Teachers College; M.A., Ed.D., University of Nebraska. (1986)

Homi D. Gorakhpurwalla, *Professor of Electrical Engineering and Computer Science*; B.S., Bombay University (India); B.S.E.E., M.S.E.E., Purdue University. (2002)

Drew Wayne Gunn, *Professor of English*; B.A., Wake Forest College; M.A., Ph.D., University of North Carolina. (2002)

Frederick G. Harvey, *Professor of Education*; B.A., Kearney State College; M.Ed., Ed.D., University of Nebraska. (1997)

Donald A. Hegwood, *Professor of Agriculture*; B.S., M.S., Mississippi State University; Ph.D., Louisiana State University. (2003)

Richard A. Hensz, *Professor of Agriculture*; B.S., M.S., Texas A&M University; Ph.D., University of Florida. (1994)

Earl Myron Herrick, *Professor of English*; B.A., University of Chicago; M.A., Hartford Seminary Foundation; Ph.D., Michigan State University. (2003)

Virgil C. Kowalik, *Professor of Mathematics*; B.S., St. Mary's University; M.A., Ph.D., The University of Texas at Austin. (1996)

Olan E. Kruse, *Professor of Physics*; B.S., Texas A&I University; M.A., Ph.D., The University of Texas at Austin. (1994)
David D. Neher, *Professor of Agriculture*; B.S., M.S., Kansas State College; Ph.D., Utah State University. (1991)
J. Talmer Peacock, *Professor of Biology*; B.S., Maryville College; M.S., University of Alabama; Ph.D., The University of Texas at Austin. (1993)
Thomas C. Pierson, *Professor of Music*; B.M., University of Nebraska; M.M., Northwestern University; Ph.D., Eastman School of Music. (1996)
John C. Rayburn, *Professor of History*; B.A., Texas Tech University; M.A., Ph.D., University of Chicago. (1984)
Robert David Rhode, *Professor of English*; B.A., M.A., Ph.D., The University of Texas at Austin. (1982)
Gerald B. Robins, *Professor of Education*; B.S.Ed., M.S., University of Arkansas; Ed.D., University of Georgia. (1994)
Rosalina R. Rovira, *Professor of Language and Literature*; B.A., Institute of Havana (Cuba); D.L., University of Havana (Cuba); M.A., Ph.D., University of Iowa. (1993)
Edward V. Ruhnke, *Professor of Chemistry*; B.S., St. Mary's University; M.A., The University of Texas at Austin; Ph.D., Texas A&M University. (1997)
Julia A. Smith, *Professor of English*; B.A., Our Lady of the Lake College; M.A., Ph.D., The University of Texas at Austin. (2000)
Mark Stupp, *Associate Professor of Music*; B.M., M.M., Cosmopolitan School of Music. (1988)
Janice C. Williams, *Associate Professor of Health and Kinesiology*; B.S., Southwestern Louisiana Institute; M.Ed., University of Southwestern Louisiana; Ph.D., Texas Woman's University. (2001)
Carl E. Wood, *Professor of Biology*; B.S., M.S., Ph.D., Texas A&M University. (2000)

Staff in Special Departments

Caesar Kleberg Wildlife Research Institute

Eric Redeker, *Research Scientist*; B.S., M.S., Texas A&M University.

Military Science

Charles Baish, Sergeant First Class, *Instructor in Military Science*; B.S., Texas A&I University.

Kenneth Fregia, First Lieutenant, *Assistant Professor of Military Science*; B.S., Sam Houston State University.

Jose Lezama, Sergeant, *Instructor in Military Science*.

Mark C. Sansing, Lieutenant Colonel, *Professor of Military Science*; B.S., Mississippi State University; M.A., Webster University.

James Troia, Major, *Assistant Professor of Military Science*; B.S., University of Nebraska.

Ricardo Vives, First Sergeant (Retired), *Instructor in Military Science*.

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LIST OF COURSE PREFIXES

The following are the keys to the prefixes used with the course numbers in this catalog:

ACCT	Accounting	FINC	Finance
ADED	Adult Education	FREN	French
AGBU	Agribusiness		
AGRI	General Agriculture	GEOG	Geography
AGSC	Agriculture Science	GEOL	Geology
ALGE	Algebra	GERO	Gerontology
ANSC	Animal Science		
ANTH	Anthropology	HIST	History
ARTS	Art	HSCI	Human Sciences
BIOL	Biology	IEEN	Industrial Engineering
BCOM	Business Communications	ITEN	Industrial Technology
BLAW	Business Law		
BUAD	Business Administration	MATH	Mathematics
		MEEN	Mechanical Engineering
CEEN	Civil Engineering	MGMT	Management
CHEM	Chemistry	MKTG	Marketing
CHEN	Chemical Engineering	MUSA	Music (Applied)
CISA	Computer Information Systems	MUSI	Music
COMJ	Journalism		
COMM	Communications	NGEN	Natural Gas Engineering
COMS	Speech		
CRIM	Criminology	PHIL	Philosophy
CSDO	Communication Sciences and Disorders	PHYS	Physics
CSEN	Computer Science	PLSS	Plant and Soil Science
		POLS	Political Science
		PSYC	Psychology
ECON	Economics	READ	Reading (University College)
EDAD	Educational Administration	RELG	Religion
EDBL	Bilingual Education	ROTC	Military Science
EDCG	Counseling and Guidance	RWSC	Range and Wildlife Science
EDEC	Early Childhood		
EDED	Education		
EDHL	Health	SCWK	Social Work
EDKN	Kinesiology	SOCI	Sociology
EDLD	Educational Leadership	SPAN	Spanish
EDRG	Reading (Education)	STAT	Statistics
EDSE	Special Education	SWBS	Southwest Borderlands Studies
EDSL	English as a Second Language		
EEEN	Electrical Engineering	THEA	Theatre Arts
ENGL	English		
EVEN	Environmental Engineering	WMST	Women's Studies
		WRIT	Writing
		WSCI	Wildlife Science

