## LAMAR UNIVERSITY • BEAUMONT



1990-1991 GENERAL CATALOG


## LAMAR UNIVERSITY BEAUMONT <br> 1990-91 Bulletin • Volume 39 Number 1

Thirty-ninth annual catalog issue with announcements for 1990-91.
Founded in 1923, and established as a four-year coeducational state-supported college on September 1, 1951.
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Lamar University is an equal opportunity/affirmative action educational institution and employer. Students, faculty and staff members are selected without regard to their race, color, creed, sex, age or national origin, consistent with the Assurance of Compliance with Title VI of the Civil Rights Act of 1964; Executive Order 11246 as issued and amended; Title IX of the Education Amendments of 1972, as amended; Section 504 of the Rehabilitation Act of 1973. Inquiries concerning application of these regulations may be referred to the Assistant Vice President for Personnel and Staff Develoment.

Bulletin of Lamar University (USPS 074-420).
Third class postage paid at Beaumont, Texas 77710. Published monthly except in June, July and August.


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## 1990-91 Calendar

Fall Semester - 1990

| 22 | Residence halls open at 1:00 p.m. <br> Dining halls open at 4:30 p.m. |
| :--- | :--- |
| 23 | Registration begins |
| 24 | Registration |
| 27 | Classes begin |
|  | Schedule revisions - late registration |
| 28 | Last day for schedule revisions and/or late <br> registration |
| 31 | Applications for December 1990 graduation begin |

## September

3 Labor Day- no classes
12 Twelfth Class Day

## October

1 Last day to apply for December graduation (Graduate Students only)
5 . Last day to drop or withdraw without academic penalty
Last day to petition for no grade

## November

2 Last day to apply for December graduation (Undergraduate Students only)
Last day to pay for diploma; cap and gown
16 Last day to drop or withdraw
21 Thanksgiving recess begins at 10:00 p.m.
Dining halls close at 6:00 p.m.
Residence halls close at 10:00 p.m.
25 Residence halls open at 1:00 p.m. Dining halls open at $4: 30$ p.m.
26 Classes resume at 8:00 a.m.
26-30 Early registration for Spring semester

## December

11 Finals preparation day-no classes prior to 5:00 p.m.
11-18 Final examinations
20 Dining halls close at 10:00 a.m. Residence halls close at 12:00 noon
20 Grades for graduating seniors due 8:30 a.m. All grades due 4:00 p.m.
22 Commencement

August
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## Spring Semester - 1991

## January 1991

6 Residence halls open at 1:00 p.m.
Dining halls open at $4: 30$ p.m.
7 Orientation Day
8 Registration begins
9 Registration
10 Classes begin
Schedule revisions - late registration
11 Last day for schedule revisions and/or late registration
15 Applications for May 1991 graduation begin
25 Twelfth Class Day

## February

20 Last day to drop or withdraw without academic penalty
Last day to petition for no grade

## March

4 Last day to apply for graduation
(Graduate Students only)
8 Spring recess begins at 5:00 p.m.
Dining halls and dormitories close at 6:00 p.m.
17 Residence halls open at 1:00 p.m.
Dining halls open at 4:30 p.m.
18 Classes resume at 8:00 a.m.
29 Good Friday - no classes

## April

4 Last day to apply for May graduation
(Undergraduate students only)
Last day to pay for diploma; cap and gown
9 Last day to drop or withdraw
15-19 Early registration for Fall semester
30 Finals preparation day-no classes prior to 5:00 p.m.

Finals begin, 5:00 p.m.

## May

1-7 Final examinations
9 Dining halls close at 10:00 a.m. Residence halls close at 12:00 noon
$9 \quad$ Grades for graduating students due 8:30 a.m. All grades due 4:00 p.m.
11 Commencement

## January

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## March

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| May |  |  |  |  |  |  |  |
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## Summer Session - 1991 <br> First Term

July
Last day to drop or withdraw Independence Day - no classes
Last class day
All grades due by 4:00 p.m.
Last day to apply for August graduation
(Undergraduate Students only)
Last day to pay for diploma; cap and gown
Last day to apply for graduation
(Graduate students only)
Last day to drop or withdraw without academic penalty
Last day to petition for no grade

## June

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## Summer Session-1991 <br> Second Term

## July

Registration
Classes begin - schedule revisions and/or late registration
Last day for schedule revisions and/or late registration
Fourth Class Day
Last day to drop or withdraw without academic
penalty
Last day to petition for no grade

## August

Last day to drop or withdraw
Last class day
Dining halls and Residence halls close at 6:00 p.m.
Senior grades due by 8:30 a.m. All other grades due by noon.
Commencement

## August

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Lamar University seks to advance knowledgeritensify specilizaton, develop research skilland promote independent
thought.


Lamar students develop critical thinking ability, effective communication skills and an understanding of the pertinent issues of the times while fostering active, informed citizens.

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[^0]Associate Vice President for Academic and Student Affairs: Dr. Ralph A. Wooster Editor: J. Earl Brickhouse
Cover Photography by Rohn Wenner (Image Specialist) .


Lamar's students benefit from the tremendous research capabilities offered by the outstanding Mary \& John Gray Library.

## General Information

## Location

The central campus of Lamar University, a state-supported institution, is located in Beaumont, Texas, one of the world's largest petrochemical centers. Beaumont is a progressive city in the Sunbelt, offering private and public schools, churches, museums, shopping districts and a wide range of leisure-time activities to serve a metropolis of 130,000 . A civic center, convention center and coliseum draw professional entertainers and a wide variety of business, social and professional groups to the city. Beaumont is convenient to major recreational facilities of Southeast Texas, including the Gulf of Mexico, large lakes and the Big Thicket National Preserve.

Other campuses of the Lamar University System are located in Orange and Port Arthur, Texas.

## History

Lamar University originated on March 8, 1923, when the South Park School District in Beaumont authorized its superintendent to proceed with plans to open "a Junior College of the first class." On September 17, South Park Junior College opened with 125 students and a faculty of 14. Located on the third floor of the South Park High School building, the college shared the library and athletic facilities with the high school. In 1932, separate facilities were provided and the name of the institution was changed to Lamar College, to honor Mirabeau G. Lamar, second president of the Republic of Texas and the "Father of Education" in Texas.

On June 8, 1942, as a result of a public campaign, a new campus was purchased and classes were held for the first time on the present day campus in Beaumont. After World War II, the College grew to $\mathbf{1 , 0 7 9}$, and a bill to make Lamar University a statesupported senior college ws introduced in the House of Representatives. The legislature approved the Lamar bill (House Bill-52) on June 4, 1949, creating Lamar State College of Technology effective September 1, 1951. Lamar was the first junior college in Texas to become a four-year state-supported college. Uniquely, Lamar retained much of its traditional community college mission, particularly in vocational programs, while continuing to grow with strong programs in engineering, sciences, business and education.

In 1962, a graduate school was established offering Master's degrees in several fields. The Doctorate in Engineering was established in 1971. In the same year, House Bill590 became law changing the institution's status to university. Lamar State College of Technology, with an enrollment of 10,874 , officially became Lamar University on August 23, 1971.

In 1969, an extension center was opened in Orange, and, in 1975, the long-standing private Port Arthur College became Lamar University at Port Arthur. The Lamar University System, of which Lamar University-Beaumont is the primary component, was established by the 68th Session of the Texas Legislature with the passage of SB-620, which took effect in August 1983.

Since Lamar University-Beaumont first opened in 1923, it has achieved a unique position in the community of higher education with its traditional academic degree programs, including graduate and baccalaureate curricula, offered alongside one- and two-year degree programs and certification programs in vocational-technical fields. Diplomas and certificate programs are offered in 15 areas of training. Degrees are offered in more than 130 fields of study.

## Government

A board of nine regents, appointed by the Governor and approved by the State Senate for terms of six years, governs the University. The Board of Regents delegates the direction of university affairs to the chancellor, presidents, campus administrative officers and faculty.

## Mission Statement

Lamar University-Beaumont is a multipurpose university commissioned by the Texas Legislature to provide an environment for learning for the people of the state. The University is an educational, scientific, technical and cultural resource center committed to the three-fold mission of teaching, research and service. The University seeks partnerships with business, governmental, industrial and other educational organizations to more efficiently accomplish its goals.

## Teaching Mission

Lamar University-Beaumont emphasizes general education, student access to faculty and careful student counseling. The University creates a liberating educational experience for each student which expands knowledge, awakens new intellectual interests, examines values, develops talents, provides new skills and prepares each student to assume an effective role as a citizen in a democracy.

The University's mission in graduate education is broadbased at the master's level, and includes the doctorate in engineering. Other doctoral level educational opportunities for the region are enhanced through cooperative arrangements between Lamar University-Beaumont and other institutions of higher education. The University's mission in graduate education is characterized by an emphasis on professional fields of study. The main thrust of the University continues in engineering, business, sciences, health sciences and education.

Dating from its origins as a junior college, the mission of Lamar University-Beaumont also still accommodates post-secondary vocational-technical education, with particular emphasis on programs designed to meet the special needs of industrially oriented Southeast Texas.

Although basically traditional in its goals, Lamar University-Beaumont is strongly committed to the continual enhancement of the teaching/learning methodologies used in delivering its programs, and systematic assessment of new methodologies for application in other educational settings.

## Research Mission

As a multipurpose university with extensive educational programs in professional fields, the University's research efforts are predominantly directed to "applied research" and deliberately concentrated in areas of unique strength.

Lamar University-Beaumont accepts as a fundamental obligation the maintenance of a faculty that is professionally creative and productive in its respective disciplines. The University encourages faculty members to assume responsibility for professional growth through research, the pursuit of professional interest and the production of creative materials.

## Service Mission

The University's educational mission extends to all residents of the Southeast Texas area, and, in special cases, beyond the region. In recognition of that mission, the University provides continuing education programs for professional up-dating in scientific, technical, and administrative skills for practitioners; broad, cultural enrichment; and personal growth.

The University contributes to the cultural life of the region through cultural and artistic presentations and events utilizing the talents of faculty, students and visiting artists and performers.

## The Philosophy of Knowledge Core

## Rationale

A program of General Education Requirements for undergraduates is based on the premise that certain common, essential qualities, independent of one's academic discipline, are necessary for an individual's intellectual growth and professional advancement.

These fundamental, "liberating" qualities, which have guided mankind's progress through history, enable one to communicate effectively, think critically, and examine values and principles. They provide a working acquaintance with the scientific method, an appreciation of cultural achievements, and an understanding of the relationships among persons, their culture, and their natural environment. By providing a stronger historical consciousness, they sharpen a citizen's sense of responsibility to family and society.

A general education provides the base on which a student can build a strong specialization while having the flexibility which a changing society demands. Specialized skills are needed in a complex environment, but the rapidity of technological change often requires the acquisition of new specialty. A sound general education provides the skills and knowledge which individuals will always need to develop their potential and meet the challenges and opportunities of the future.

## Objectives

The core curriculum includes those basic competencies which have long been seen by society as the minimal requirement of an educated person. Further by synthesizing the core curriculum into a "Ways of Knowing" or methods of inquiry focus and by emphasizing the application of methods of inquiry in the humanities or the scientific method, this core addresses the goals of coherence and distinctiveness.

The core is designed to further develop in students the abilities to think critically, to communicate effectively, and to understand the major social and personal issues of the times. Core courses should include emphases on research, writing, and speaking. Core courses should encourage participation in university and community organizations (activities).

## Components of the Philosophy of Knowledge Core

I. Philosophy 130-three semester hours

A freshman level survey of major knowledge systems.
II. Methods of Inquiry in the Humanities

Freshman English Composition-six semester hours. A score of 36 on the Text for Standard Written English or satisfactory completion of the developmental English course (Developmental Writing 1301) is a prerequisite to admission to English 131.
Literature-six semester hours. Three hours of the literature requirement may be satisfied by a foreign language course or, with the approval of the major department, by the completion of one year of a foreign language in high school.
Speech-three semester hours. Consult the major department for approved courses in public speaking. Departments may substitute extensive oral communications assignments in lieu of the speech requirement.
American History-six semester hours. Texas law requires six hours in American History. This normally shall be satisfied by completing two courses in the History 231-237 sequence cr other appropriate American history courses approved by the chair of the History department. Three semester hours may be satisfied by a course in Texas history or by an advanced standing examination.
Fine Arts-three semester hours in a visual or performing art. Consult the major department for approved courses for the fine arts requirement.
III. Applications of the Scientific Method of Inquiry

Political Science-six semester hours. Texas law requires six hours in political science, which includes consideration of the U.S. Constitution and the Texas Constitution. This shall normally be satisfied by completing Political Science 231 and 232 or other appropriate political science courses approved by the
chair of the Political Science Department. Three semester hours may be satisfied by an advanced standing examination.
Mathematical Science - three semester hours. A mathematics course at or above the level of college algebra.
Methods of Quantitative Data Analysis-three semester hours. Consult the major department for approved courses.
Laboratory Science-eight semester hours (Biology, Geology, Chemistry or Physics).
Social Science-three semester hours. A cross-cultural course in one of the social sciences (Anthropology, Economics, Psychology, or Sociology).

## Accreditation

Lamar is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Associate, Bachelor's, Master's and Doctor's degrees and is approved by the Texas Education Agency.

Several departments and programs have been accredited by professional agencies. In the College of Engineering, the programs in Chemical, Civil, Electrical, Industrial and Mechanical Engineering are accredited by the Accreditation Board for Engineering and Technology. The undergraduate and graduate programs of the College of Business are accredited by the American Assembly for Collegiate Schools of Business.

In the College of Health and Behavioral Sciences, Dental Hygiene is accredited by the American Dental Association; Radiologic Technology, Respiratory Technology and Respiratory Therapy by the American Medical Association; and Nursing by the National League for Nursing.

Other accreditations include the Department of Chemistry by the American Chemical Society; the Department of Geology by the American Institute of Professional Geologists; Department of Music by the National Association of Schools of Music; the College of Education by the National Council for the Accreditation of Teacher Education; the program in Social Work by the Council on Social Work Education; and programs in Speech Pathology by the American Speech-Language-Hearing Association and in Deaf Education by the Council for Education of the Deaf.

The University also is a member of a number of academic councils, societies, associations and other such organizations.

## Teacher Certification

All teacher education programs of the University are approved by the Texas Education Agency. Students seeking teacher certification should consult the Director of Professional Services regarding requirements.

## Degree Offerings

## Associate of Science

Associate of Applied Science
Bachelor of Applied Arts and Sciences
Bachelor of Arts in Chemistry, Dance, Deaf Education/Habilitation, Economics, English, French, Geology, History, Mathematics, Political Science, Psychology, Sociology, Spanish, Speech, Speech Pathology/Audiology, and Theatre
Bachelor of Business Administration in Accounting, Economics, Finance, General Business, Management, Marketing, Office Administration, and Personnel Administration
Bachelor of General Studies in Liberal Arts and in Fine Arts


#### Abstract

Bachelor of Fine Arts in Graphic Design, Studio Art Bachelor of Music Bachelor of Music (with Teacher Certification) Bachelor of Science in Art Education, Biology, Chemistry, Communication, Criminal Justice, Dance, Deaf Education/Habilitation, Education (Elementary, Secondary, and Special), Energy Resources Management, Environmental Science, Geology, Graphic Design, Health Education, Home Economics, Mass Communication, Mathematics, Mathematical Sciences, Medical Technology, Music (with Teacher Certification), Nursing, Oceanographic Technology, Physical Education, Physics, Political Science, Psychology, Sociology, Speech, Speech Pathology/Audiology, Studio Art, and Theatre and the following Engineering Fields: Chemical, Civil, Computer Science, Electrical, Industrial, Mechanical, and Industrial Technology


## Bachelor of Social Work

Master of Arts in English, History and Political Science
Master of Business Administration (undifferentiated)
Master of Education in Elementary Education, Guidance and Counseling, School Administration, Secondary Education, Special Education and Supervision

## Master of Engineering <br> Master of Engineering Management <br> Master of Engineering Science <br> Master of Music <br> Master of Music Education

Master of Science in Audiology, Biology, Chemistry, Computer Science, Deaf Education/Habilitation, Health and Physical Education, Home Economics, Mathematics, Psychology, Public Address Speech, Speech Pathology/Audiology, and Theatre

## Master of Public Administration

Doctor of Engineering

## Organization

Lamar University at Beaumont is organized into eight colleges. These Colleges are Arts and Sciences, Business, Education and Human Development, Engineering, Fine Arts and Communication, Health and Behavioral Sciences, Technical Arts and Graduate Studies.

## Entering Dates

Courses and schedules have been arranged so students may enter Lamar four times each year. The current University Calendar contains information regarding registration periods and exact entering dates.

## Evening Classes

Classes offered after 5 p.m. are considered Evening Classes, sometimes called "Extended Day" Classes. Both day and evening classes, with few exceptions, are taught by the regular faculty, and educational facilities are the same. Persons employed during the day may attend classes in the evening and study to obtain a degree or to expand their knowledge in a special field of interest as an adult non-degree student. Enrollment forms are available through the Office of Evening Services, Room 106 Wimberly Student Services Building.

## ROTC

The Army Reserve Officers Training Corps (ROTC) conducts a permanent program of instruction on campus to provide eligible male and female students an opportunity to qualify for a commission in the United States Army. Students who successfully complete the program will be commissioned as second lieutenants upon graduation.
A. complete listing of course descriptions and requirements can be found in the College of Arts and Sciences under the Department of Military Science.

The Department of Military Science provides financial assistance through four main sources:

1. Scholarships.
2. Payment of $\$ 100$ each month for each long semester of Junior and Senior year ROTC participation.
3. Payment for attendance at advanced camp, between Junior and Senior year of ROTC.
4. Payment for participation in the Simultaneous Membership Program (simultaneous participation as an Advanced Course ROTC Cadet and an Army Reserve or National Guard member).
Specific information concerning ROTC financial assistance may be obtained by writing: Professor of Military Science, Lamar University, Box 10060, Beaumont, Texas 77710. Phone calls may be made collect to: (409) 880-8560.

## Services for Handicapped Students

Services for handicapped students are designed to help the student be as successful as possible on the Lamar campus. Students who have certain disabilities qualify for registration assistance, tutoring, adaptive equipment and other personalized services. For additional information contact the Coordinator of Services for Handicapped Students, 105 Wimberly Student Services Building, P.O. Box 10043, Lamar University Station, Beaumont, Texas 77710, telephone (409) 880-8026.

Students applying for admission and/or re-admission are informed that a special assistance program is provided to physically handicapped students by the Registrar's staff during periods of pre-registration and registration.

Prior to registration in any university program, physically handicapped students are requested to notify the Coordinator for Handicapped Services regarding assistance and/ or accommodation they anticipate will be needed during the course of instruction for which they plan to register. This notification, and preferably a conference appointment, should be completed from one to two months before the actual date of registration.

Department Chairs and Academic Deans are authorized to notify faculty members to assist physically handicapped students with information regarding the university policy for assistance and to urge handicapped students and applicants to take advantage of the earliest possible appointment and conference regarding assistance and/or accommodations anticipated for their course of instruction.

When students require third-party assistance or mechanical assistance in the course of instruction, instructors will be notified by their department head that the particular assistance has been approved. Such assistance will be available to the student during all instructional sessions including examinations and scheduled laboratory sessions. Third-party assistance may also be required on appointment when students request a conference and/or advisement from instructional faculty.

In certain instances the university assumes the obligation to provide signers as thirdparty assistance to students with impaired hearing. When authorized signers are hired by the instructional department as student assistants the rate is $\$ 5$ per class hour. Signers as student assistants are authorized when the handicapped student is not otherwise provided with third-party assistance by the Texas Rehabilitation Commission and when the signer has been certified as qualified by the University Speech and Hearing Clinic.

Instructional departments are reimbursed for signers as student assistant expenditures by the Vice President for Finance in response to procedures detailed in "Registration Assistance Program" dated October 18, 1983.

## Bookstore

The University provides a bookstore for the convenience of faculty and students, where supplies and books, new and used, may be purchased.

Used books which are currently approved may be sold to the bookstore. Books which must be discontinued are not purchased by the Bookstore except at a wholesale price. The Bookstore reserves the right to require the seller to prove ownership of books.

## Campus Post Office

The campus Post Office, a contract facility operated by the University, is officially designated as Lamar University Station 77710. Full postal services are offered.

Each student may make application for a box at the Post Office by completing necessary forms. There is a charge for each box. Three students are allowed to share the same box.

Mail may be picked up at the general delivery window by those students who do not choose to reserve boxes at the Post Office.

## Early Childhood Development Center

Lamar University's Early Childhood Development Center is located at 950 East Florida. The Center provides high quality extended day-care services and certified kindergarten programs for children between the ages of 18 months and six years.

The Center is staffed with degreed techers who create a stimulating environment and provide unlimited opportunities for learning. In addition to providing care for young children, the Center, under the administration of the College of Education and Human Development, provides a site for college students to observe and work with children as part of their course work and training.

The Early Childhood Development Center accepts children on a part-time or fulltime basis with the fees based on the number of hours children are in attendance.

## Computer Center

The University Computer Center is responsible for providing the computing services required by the academic, administrative and research communities of Lamar University.

The Computer Center has a Dual Honeywell DPS8/49 computer with 1536 K words of 36 bit MOS memory and approximately 1.1 billion characters of on-line disk storage. The system supports one card reader, one card punch, two line printers and three tape drives at the main site. More than 90 terminals are available for interactive computer use. Extensive communication equipment can connect up to 53 synchronous and 134 asynchronous terminals to the computer concurrently. A remote job entry station with one card reader and one printer is located in the Beeson Technical Arts Building. This station also has a Honeywell Level 6 computer tied in with the main frame computer.

Academic computing work, particularly students in Computer Science courses, accounts for a large portion of the Computer Center's computer usage. Each student is responsible for preparing his or her own program. Most student programs are usually processed within 30 minutes. Keypunches are available for punching cards. All jobs are automatically scheduled by the computer which considers computing time and storage requirements as well as other factors. The programming languages supported by the Honeywell computer include: BASIC, FORTRAN, COBOL, PASCAL, ALGOL, LISP, SNOBOL, and APL.

The Computer Science Department has a Digital Equipment Corporation VAX-11/ 750 computer. There are 1.5 megabytes of main memory, one tape drive, one disk drive and one printer attached to the VAX-11/750. At present, this system can support 16 asynchronous terminals.

## Library

The eight-story Mary and John Gray Library building dominates the campus from its central location. Built to house a million volumes, the Library now occupies seven floors with open access to 800,000 volumes. Seating accommodates 1,200 students and faculty.

The first floor service areas include circulation, reference and interlibrary loans. The second floor houses reserve reading, current periodicals and government documents. Four floors provide stacks for books and periodicals shelved in Library for Congress classification sequence from class " $A$ " on the third floor through class " $Z$ " on the sixth floor.

The seventh floor houses the library administrative offices, the Media Services Department and Special Collections.

The eighth floor offers expansion space for the future, but is presently shared with other University services. This spacious and elegant floor, furnished by community donors, serves as a University Reception Center for meetings and conferences.

Expanding library collections support continuously evolving academic programs. In addition to a strong collection of books and periodicals, the Library provides access to state and federal government documents and participates in the library networks which extend access to information resources. The Library coordinates multi-media programs on campus and is developing basic collections of equipment and materials for central distribution.

## Montagne Center

The 10,000 -seat Montagne Center, home of the Lamar University basketball team, is a multi-purpose facility that provides opportunities for educational and extra-curricular programs. The center houses the athletic offices, center staff, University ticket office, and continuing education programs.

## Division of Public Services and Continuing Education

The educational services provided by the Division of Public Services and Continuing Education are designed to meet the needs of students both on campus and off campus. The Division is composed of the departments of Non-Credit Programs, Occupational Health and Safety, and Credit Programs. The Non-Credit department serves as an interface between Lamar University and the community to meet educational, cultural and training needs. Occupational Health and Safety seeks to provide current state-of-the-art training programs responsive to the needs of business and industry in the areas of industrial fire training, asbestos abatement, hazardous materials management and other health and safety areas. The Off-Campus Credit Programs department implements credit courses at times and locations that are convenient and accessible for busy adults seeking to balance work and family commitments with earning a college degree. In addition, the Division offers customized contract training for business and industry through all of its departments.

## Office of Research and Programs

The Office of Research and Programs is administered by the Associate Vice President for Research who serves as the chairman of the Faculty Research Council, which awards all state financed research projects. Many services for research and program acquisition are offered by this office. Among these are administration of state research funds to encourage "seed" grants which stimulate the development of hypotheses or generate proposals requiring extramural support; a program of public relations with outside agencies, establishing personal contacts with members of units in government, industry, business and private foundations to enhance funding of research grants and programs;
providing information about the availability of external support for research and programs; assisting faculty to make application for funds, by providing assistance in developing proposals, by making contact with the appropriate funding agency, and by identifying the best possible sources for support. The Office provides editorial help in the preparation of the application and budget and the arrangement and support of travel for meetings with donors or funding agencies.

## Public Affairs and Development

The Public Affairs Office, formerly named University Relations, was established in 1975 and includes areas of public relations, public information, development, publications, graphics, photographic services and the Library Reception Center.

The Development Office works closely with the President and Board of Regents in raising funds for many worthwhile programs for which appropriations are not received from the Legislature.

## Spindletop/Gladys City Boomtown Outdoor Museum

The Spindletop/Gladys City Boomtown Museum, operated by Lamar University, is located at University and Cardinal Drives. It has artifacts and exhibits of the early days of the oil industry in Texas, which began on January 10, 1901, when Lucas Gusher blew in at Spindletop Hill not far from the present Lamar campus. Gladys City is a recreation of a boom town that sprang up at Spindletop after the Lucas discovery.

Gladys City may be visited from 1-5 p.m. Sunday through Friday, and from 9 a.m. to $5 \mathrm{p} . \mathrm{m}$. Saturday (closed Monday). Admission is $\$ 1.00$ for adults, 50 cents for children (age 6 and under are free), and 50 cents for senior citizens. Admission is free to Lamar students with an identification card.

## Texas Energy Museum

The Spindletop collection of artifacts depicting the early days of the Texas oil industry, formerly located on the Lamar campus, is now a part of the Texas Energy Museum created by the joint efforts of Lamar University and the City of Beaumont. This museum, which also contains the energy collection formerly belonging to the Western Company of Fort Worth, is located in downtown Beaumont at Main and Forsythe Streets. There is no admission charge to the Texas Energy Museum.

## Veterans' Affairs Office

A Veterans' Affairs Office is maintained in the Wimberly Student Services Building and aids veterans in obtaining their educational benefits. It also provides academic assistance and counseling. Additional information about veterans' programs may be found in the Fees and Expenses section of this bulletin.

## Alumni Association

The Lamar University Alumni Association, including graduates and ex-students, is active on a year-around basis. The Executive Director of the Association maintains an office in the Alumni House, located on Redbird Lane.

## The Gray Institute

The John Gray Institute, a privately funded, state operated, non-profit center, is dedicated to the mutual advancement of business, labor, industry and education and, thereby, to the general well-being of the economy of the Gulf Coast Crescent. The staff continuously addresses the region's challenges and opportunities while designing new programs, studies and reports focused on labor-management relations, training and productivity, and the potential for a more diverse economy in the area.

In its new facilities on the south side of the Lamar University campus in Beaumont, the Institute will continue to expand its activities toward improving labor-management relations and enhancing economic development.

Institute publications profile, analyze and evaluate challenges facing the area. Obtaining this information and turning it into opportunities for action will continue to be a major focus of the Institute.

In order to provide impartial information and assist positive changes, the Institute uses the following approaches.

- Assessment
- Awareness
- Forward Planning
- Implementation and Training
- Evaluation


## Lamar University-Orange

Beginning in 1969, the University offered courses in Orange, Texas. With the provision of facilities by the Lamar University-Orange Capital Foundation, this program expanded to offer first and second year courses in principal fields of the University in addition to expanded vocational courses. Career-oriented courses are offered during the extended day hours. For additional information, see the Bulletin of Lamar University at Orange.

## Brown Center

The Brown Center, located off Highway 90 near Orange, became a Lamar University facility in 1976. It is used as a center of cultural and educational activities for the benefit of the people of Orange County and Southeast Texas. The 87 acres of grounds comprising the Brown Center include a graceful mansion built in the Southern antebellum tradition, greenhouses, lakes and landscaped grounds.

The estate was a gift to the University from the four sons of the late Edgar W. Brown Jr., Orange industrialist and philanthropist, who served as a charter director of the Lamar University Foundation, Inc.

## Lamar University-Port Arthur

Port Arthur College merged with Lamar University in August 1975, with legislative funding of instructional programs at the first and second year level. Lamar University at Port Arthur courses are offered on the same basis as courses authorized for the University in principal areas of business, liberal arts, as well as in vocational and technical arts programs. For additional information, see the Bulletin of Lamar University at Port Arthur.

## Admissions

Applicants for admission to the University are required to meet the academic requirements outlined in this bulletin or other applicable publications of the University.

Both the College of Graduate Studies and the College of Technical Arts publish separate bulletins. Graduate study requires a special application form.

Information on admission to the undergraduate program at Lamar is covered in this section and applies to Lamar University-Beaumont.

The Office of Admission Services, located in the Wimberly Student Services Building, provides complete admissions counseling for entering students. Professionally trained personnel assist prospective students in assembling all admission credentials so transition into a college environment can be made as smooth and problem-free as possible. All initial inquiries to the University should be made to this office by writing P.O. Box 10007, Lamar University Station, Beaumont, Texas 77710 (409/880-8888).

## Requirements for Students Entering From High Schools

An applicant is required to have graduated from an accredited high school and to have submitted SAT or ACT entrance examination scores. Minimum score requirements are specified in paragraph I.B. below. Applicants who have attended another college or university cannot disregard that enrollment and seek admission only on the basis of their high school record. Equivalency diplomas granted on the basis of GED scores will not fulfill entrance requirements. (Non-high school graduates should see the section on Individual Approval.)

Effective with the Fall, 1987, semester the admissions requirements into four-year Baccalaureate Programs are:
I. Regular (Unconditional) Admission
A. Regular Admission will be granted to students who meet the following prerequisites:

1. Attainment of a high school diploma from an accredited high school AND
2. Successful completion of 14 high school units in college preparatory courses including:
a) 4 units in college preparatory English courses (English I, II, III, and English IV or English IV-academic or higher level English courses).
b) 3 units of college preparatory mathematics courses (Algebra I, II, Geometry, or higher level mathematics courses).
c) 2 units of laboratory science courses (any 2 units from Biology I, II; Chemistry I, II, Physics I, II, or Geology).
d) 2-1/2 units of social science courses (U.S. History, 1 unit, and U.S. Government, $1 / 2$ unit, and World History Studies, 1 unit, or World Geography Studies, 1 unit).
e) 2-1/2 units of approved college preparatory course electives.
B. In addition, all applicants must submit SAT or ACT scores. Students must graduate in the top half of their high school class OR achieve a minimum composite score on the SAT/ACT as follows:
Rank in High
School Class
by Quarter
1st Quarter
2nd Quarter
3rd Quarter
4th Quarter

| 1990 | 1991 |
| :---: | :---: |
| - | - |
| $\overline{850 / 20}$ | $-\overline{200 / 21}$ |
| $950 / 23$ | $1000 / 24$ |

II. Provisional Admission
A. Students who attain a high school diploma from an accredited high school but who fail to meet the requirements for Regular Admission will be permitted to attend Lamar University-Beaumont on a Provisional Admission basis.
B. Students admitted on a Provisional basis will be granted Regular Admission status at the end of the semester in which they complete 24 or more hours if they have earned:

1. A 2.0 grade point average in courses taken at Lamar University-Beaumont (not including required activity courses in physical education, marching band, or ROTC) AND
2. Satisfactory grades in English 131 and Math 1302 (or a higher level math course).
C. Students who do not satisfactorily complete the terms of Provisional Admission will be denied readmission to Lamar University-Beaumont for one full year.
III. Exceptions
A. These general admission standards do not apply to students entering associate of science degrees, vocational, or technical programs. However, students will still be required to meet the internal standards within individual associate, vocational, or technical programs.
B. Any applicant over 25 years of age will be granted admission with proof of high school graduation.
IV. Additional Requirements

In addition to these general admission standards, Lamar University-Beaumont preprofessional and professional programs may require separate, more rigorous standards commensurate with the demands of the various program.

## Admission by Individual Approval

A non-high school graduate who is 19 years of age or older, and whose high school class has been graduated for at least one year, may apply for Provisional Admission as an individual-approval student. Applicants must furnish evidence of preparation substantially equivalent to that required of other applicants. Evidence of preparation may include proof of G.E.D. completion, SAT or ACT scores and/or transcripts of previous academic work. Applicants must demonstrate the aptitude and the seriousness of purpose to pursue a college course of study successfully.

Applicants are required (1) to take the entrance examination, (2) to submit a record of the school work which was completed, and (3) to appear for a personal interview. Educational records and test scores must be on file 30 days in advance of the proposed registration date to be considered. Arrangements for the interview should be made after records and scores are received by the University 30 days in advance of registration.

## Entrance Examination Requirement

Applicants may submit either SAT or ACT scores in fulfillment of the entrance examination requirement. These examinations are required for entrance purposes. Both tests are given several times each year at test centers throughout the United States and in many foreign countries. It is recommended that summer and fall applicants take one of the tests early in the senior year and, if possible, no later than February. Location of test centers, test dates, fees, test application forms, sample question booklets and similar information may be obtained without charge from high school counselors or by writing to the testing agency. SAT inquiries should be directed to the College Entrance Examination Board, Box 1025, Berkeley, California 94702. ACT inquiries should be directed to the American College Testing Program, Box 168, Iowa City, 0828 Iowa 52240.

The Level I Mathematics Test of the College Entrance Examination Board must be taken by all students entering the College of Engineering. It is strongly recommended for students planning to major in any of the physical sciences. Students planning to
continue a language started in high school must take the CEEB reading test in the language for placement purposes. Otherwise, achievement tests are not required, but in many cases are recommended. Students whose high school. records are outstanding should consider taking achievement tests for advanced placement.

Although ACT scores are acceptable for admission purposes, students are required to take the Test for Standard Written English (TSWE), which is a part of the SAT, for placement in English classes. Students not having taken the SAT will be required to take the TSWE before enrolling in English classes.

## How To Apply

1. Submit application for admission on the official form. Inclusion of a Social Security number is required on this form.
2. Take the Scholastic Aptitude Test (October, November or December dates preferred) or the American College Test (October or December dates preferred) and designate this University to receive score reports.
3. Have a complete high school transcript sent to the University Admissions Office immediately after graduation. Seven semester transcripts may be submitted for temporary acceptance, but final certification of graduation is required.

## When To Apply

Application should be made well in advance of the proposed enrollment date two or three months in advance, if possible. Students planning to enter either a Summer session or the Fall semester, should apply by February 1. Applications for the Spring. semester should be on file by October 1.

## Acceptance Notices

Acceptance notices normally are issued shortly after the required admission credentials are received. Registration information and general instructions are included. Lamar University has no student quota. All applicants who meet entrance requirements are generally accepted.

## Change of Address or Name

Students are responsible for all communications addressed to them at the address on file in the Student Affairs Office and in the Office of Records. Any student who moves during a semester must immediately register his change of address in the office of the Dean of Student Development and in the Office of Records. Change of address forms are available in the Office of Records.

Change of name due to marriage or correction of name because of spelling errors, may be made by completing a name change card at the Records Office. All name changes must be accompanied by a copy of the legal document making the name change official. This document will be kept on file in the student's confidential folder. Students are advised that former names will be carried on all official transcripts.

## Graduates of Non-Accredited High Schools

Applicants who have graduated from a non-accredited high school may be admitted if they (1) have graduated in the upper $2 / 3$ of their class, (2) score 700 or above on the Scholastic Aptitude Test, and (3) have the recommended high school preparation credits.

## New Student Orientation and Registration

A series of new student orientation and registration programs are held during the summer months. These small group sessions are designed to acquaint the new student with campus facilities and services and to give the individual student an opportunity to confer with University department advisors about an academic program. Registration for the Fall semester is completed at this time, and tuition and fees are paid. Books may
be purchased or reserved. Advance reservations for the Summer orientation sessions are recommended. Details of the program including the dates, cost, and reservation forms are sent to new students with admission acceptance notices. Reservations should be requested early in order to select a preferable date. Parents are invited to sessions designed especially for them. One-day orientation programs are conducted for new students at the beginning of the Fall and Spring semesters.

## Academic Advising

College advising centers have been established to assist students in designing a program of study meeting the degree plan requirements of the department and guide the student in the proper sequence of courses. Faculty advisors also are assigned. It is the responsibility of the student to schedule regular appointments with the advisor. Appointments and other advising/counseling services may be facilitated through the college advising centers.

Advising sessions assure that a program of study is pursued in that proper sequence and proper academic progress is maintained by the student. College advising centers maintain degree plans for each academic major.

Undeclared majors are advised in the College of Arts and Sciences advising center. Students experiencing difficulties in deciding upon a major field of study or who are uncertain about career fields should make an appointment with the staff in the Counseling and Testing Center in the Wimberly Student Services Building.

## Advanced Placement

The two optional testing programs listed below are offered to enable first-time university students to qualify for advanced standing and/or college credit. These tests must be taken before enrollment. Applicants also may qualify for credit through the College Level Examination Program (CLEP).

1. Advanced Placement Examinations (Optional)

Applicants who wish to receive credit for college-level work completed in high school may do so by submitting scores from the College Entrance Examination Board's Advanced Placement Examinations. Examinations are given each May by high schools. Arrangements are made through high school counselors. Subject matter areas and the basis for granting credits are listed as follows:

Subject Area
Chemistry Computer Science A Test
AB Test
English

Government/POLS
Foreign Language

American History
European History
Biology
Calculus
AB Test
BC Test
Physics B
Physics C (Mechanics)
Physics C (E\&M)
Art
Music

Required Score
Score of 3 or above
Score of 4 or 5
Score of 4 or 5
Score of 4 or 5 Score of 3

Score of 3 or above
Score of 3
Score of 4
Score of 5
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above
Score of 3 or above

## Credit Granted

Chemistry 141
CS 1411
CS 1411 and 1413
Eng 131-132
Eng 131 (Student receiving such credit must complete Eng 136)
POLS 232
131
131, 132
131, 132, 231
History 231-232*
History 131-132
Biology 141-142
Mth 1341 or
Mth 148
Mth 1335, 148, 149
Physics 141-142
Physics 247
Physics 248
Art 131, 133
MLt 121, 122
*State law requires three semester hours of classroom instruction in some phase of American History in addition to credit by examination.
2. Achievement Tests (Optional)

Students who have outstanding high school records participated in accelerated programs are encouraged to take the College Entrance Examination Board's Achievement Tests in the corresponding subject matter areas. Students may enter advanced courses provided test results indicate they are qualified. Minimum scores are set by the University and students who qualify are notified. Upon the completion of the advanced course with a grade of " C " or better, college credit is granted as indicated in the following table.
Achievement Tests are given on all regularly scheduled test dates other than October. Application is made directly to CEEB.
Subject Matter
Area
English
Composition

Foreign Lang
Chemistry

Mathematics

Physics

CEEB Test
Required
English
by completion of Eng 136 with a grade of "C" or better.
Spanish
French
Chemistry

Level I

Physics

## Credit Granted

Eng 131 if validated

0 to 12 semester hours depending on placement and validation.
_-Chem 141 if validated by completion of Chem 142 with a grade of "C'" or better.
Up to 12 semester hours depending on placement and validation.
Physics 141 if validated by completion of Physics 142 or 248 with a grade of "C" or better.

## 3. College Level Examination Program (Optional)

Credit by examination also is available through the College Level Examination Program (CLEP). Details are in the Academic Regulations section.

## Admission Requirements for College Transfers

Students who have attended another college or university will be considered for admission to Lamar University under the requirements listed below. Former students of Lamar who attend another university other than during a summer term will also have to meet the following transfer admission requirements:

1. Submit application for admission.
2. Have an official copy of all college and/or university transcripts on file by application deadline.
3. Must be eligible to re-enter all colleges and/or universities previously attended.
4. Must have a cumulative grade point average of at least 2.0 on a 4.0 scale for all work attempted.
5. Students who transfer less than 18 hours must also submit and meet the entrance credentials and requirements of a first-time-in-college student.

## Transfer Credit Evaluation

Credit earned at other accredited institutions will be considered for credit at Lamar University by the following policies:

1. All courses, whether passed, failed or repeated, are used in calculating the cumulative grade point average.
2. "D" grades are transferable but departments may refuse to count them toward a degree.
3. Transfers from a junior college are limited to 66 semester hours or the number of hours required by the University during the Freshman and Sophomore years
in the chronological order in which the student plans to enroll. No junior college credits will be considered for transfer as upper-level (Junior-Senior) credits.
4. Acceptance to the University does not constitute acceptance to a particular degree program.

## How To Apply for Admission

The following procedure should be followed in making application for admission. All credentials should be sent to the Office of Admissions, Lamar University, Box 10009, Beaumont, Texas 77710.

1. Submit application for admission on the official form. Inclusion of a social security number is required on this form.
2. Submit official transcripts from each college previously attended. This requirement applies regardless of the length of time in attendance and regardless of whether credit was earned or is desired. Students will not be allowed to register until all college transcripts are on file in the Admissions Office.
3. Take the prescribed entrance tests and/or have a record of test scores sent to the Office of Admissions.

## When To Apply

Application should be made well in advance, two or three months of the proposed enrollment date, if possible.

The application form should be submitted before transcripts are sent. Transcripts normally should be sent after all work to be transferred is completed. A temporary admission may be granted if the time interval between the end of a semester elsewhere and the beginning of a subsequent semester at this University is too short for the transcript to be submitted before registration. All credentials must be on file within one week after the first day of class, however, or the student will be withdrawn. Students on temporary admission who are subsequently found to be ineligible for admission will be withdrawn.

In some cases, questions regarding transfer need to be clarified while work is still in progress at another institution. Under these circumstances, the partial transcript should be submitted and a supplementary transcript furnished at the end of the semester. The student must have complete credentials after one week of class is completed or be withdrawn.

## Former Students Returning From Another Institution

Former Lamar students who have not been in attendance for one or more regular semesters must file for readmission by submitting the standard application for admission form.

Students who left on suspension and had accumulated 25 or more grade point deficiencies must receive written clearance from the Dean of that college to be eligible for readmission.

A former student who has attended another college is required to submit a complete record of all work done subsequent to the last date of attendance at Lamar University, and to meet the academic requirements for other transfer students outlined in this bulletin. The regular application for admission must be submitted.

## Summer Transients

Students in attendance at another college during the Spring semester who wish to do summer work only at Lamar University may be admitted as transient students. A student applying for admission under this classification is required to submit only the regular application for admission. No credentials are required unless specifically requested in individual cases. Transient students who later apply for regular long-term
admission must meet all entrance requirements and supply all necessary admission credentials. International students may not be admitted as transients.

## Adult Non-degree Students

A high school graduate who has not attended high school during the past three years and who is at least 21 years of age may enter Lamar University as an adult non-degree student by submitting a high school transcript and application for admission. If the student desires to take an English or Math course, however, the SAT examination is required.

## Educational Records and Student Rights

The following information concerning student records maintained by Lamar University is published in compliance with the Family Education Rights and Privacy Act of 1974 (PL 93-380).

Access to educational records directly related to a student will be granted to him or her unless the type of record is exempt from the provision of the law.

The types, locations and names of custodians of educational records maintained by the University are available from the Dean of Records and Registrar.

Access to records by persons other than the student will be limited to those persons and agencies specified in the statute. Records will be maintained of persons granted such access and the legitimate interest in each case.

The release of information to the public without the consent of the student will be limited to the categories of information which have been designated by the University as directory information and which will be routinely released. The student may request any or all of this information be withheld from the public by making written request to the Records Office. The request must be made by the last official day to register for a given session and applies to that session only. Directory information includes name; current and permanent address; telephone listing; date and place of birth; major and minor; semester hour load; classification; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received, with dates; and the last educational agency or institution attended.

A student has the right to challenge records and information directly related to him or her if it is considered to be inaccurate, misleading, or otherwise inappropriate. Issues may be resolved either through an informal hearing with the official immediately responsible or by requesting a formal hearing. The procedure to be followed in a formal hearing is available in the Office of Records.

The right of parental access to student records may be established by either of two methods: first, by the student filing a written consent statement and, second, by the parent validating the student's dependency as defined by the Internal Revenue Service.

## International Students

International students are entitled to all student services and programs for which they are eligible according to law and University definition. The University reserves the right to establish policies for selected groups of students if the policies are in the student's and the institution's best interest. Applicants will be carefully screened for academic excellence, English proficiency, adequate health and financial self-sufficiency.

Internationals are encouraged and expected to participate in student activities and organizational programs - so as to experience more fully the culture and lifestyles of Southeast Texas. It is the student's responsibility to integrate himself into the campus environment; however, the University provides an atmosphere conducive to acceptance of internationals and affords them every opportunity to succeed.

Since the presence of international students also entails responsibility for the University in meeting certain distinctive needs, it is imperative that adequate provision be
made for doing so. The University recognizes this responsibility by setting entrance and exit standards for its non-native English speakers that take into account the minimum language skills necessary for success in academic work as well as the minimum standards that a diploma from the University represents.

In order for the international students to achieve their educational objectives, certain academic services are essential; the University provides facilities and staff commensurate with those needs.

Moreover, the University recognizes that English language proficiency, and not citizenship or immigration status alone, is a key criterion in determining, and meeting the needs of students for whom English is a second language.

## International Student Admission

Applicants who attended foreign secondary schools, colleges or universities must furnish certified translations of their academic records. These records must show the ability to do above-average work in an academic program. Freshman admission will be based on the completion of 12 years of schooling, a requirement that the student be 18 years of age and eligibility for admission to a recognized university in the student's own country. Marks or grades must be well above average. Advanced standing credit will be granted for post-secondary work completed at a recognized college or university if marks are above average. A complete record of secondary school training and university training must be submitted. Complete and official translations must be furnished along with certified true copies of the original records. Records must show all subjects taken and grades or marks earned in each, both from the school and tests given by the Ministry of Education. The grading system should be clearly shown on each record. UNCERTIFIED PHOTOGRAPHIC COPIES OR OTHER DUPLICATIONS ARE NOT ACCEPTABLE. Translations must be certified true and correct. Applicants applying as freshmen (first-year students) should submit acceptable scores on the Scholastic Aptitude Test (SAT). Scores of 500 or above on the Test of English as a Foreign Language (TOEFL) are required. SAT scores may be waived for students who have completed a post-secondary academic degree with above average grades.

International students who plan to transfer to Lamar University from another college or university in the United States must have completed at least two regular semesters with at least 30 semester hours of transferable work. An average of " C " (2.0) on all work attempted is required. English proficiency must be demonstrated by submitting scores of 500 or better on the TOEFL. Applicants may be required to submit recommendations from teachers or foreign student advisors. The usual transfer standards apply except that tests may be required if unconditional eligibility is not established. Students should be aware that certain departments may require higher academic proficiency for admission to their program.

International students must present proof of sufficient financial resources to meet the cost of attending Lamar University. Internationals also must present proof of adequate health insurance. Internationals who plan to drive an automobile in the State of Texas must have liability insurance.

Information on the SAT and TOEFL may be obtained by writing to the College Entrance Examination Board, Box 595, Princeton, New Jersey 08540, U.S.A. Scores must be received directly from the testing service. Photocopies or student copies of test scores will not be accepted.

## Application forms, test scores, financial statement and complete educational records must be on file by the dates indicated: June 15 for Fall Semester; November 1 for Spring Semester; and March 15 for Summer Sessions.

Special application forms and details on the procedure to follow in making application for admission to Lamar University may be secured by writing to the Office of Admissions.

Applicants accepted by Lamar University are required to attend a special orientation program for internationals new to the Lamar campus. Dates for the program will be indicated upon acceptance and noted on form I-20, "date of arrival." Failure to attend the program will delay registration for one semester. The program is designed to facilitate a smooth adjustment to the Lamar campus. Students whose native language is not English will be tested for English language proficiency. On the basis of these test scores, appropriate courses in English will be required.

## Early Admission Program

Early admission is possible at Lamar University for the academically superior student. For further information, contact the Director of Admissions, Box 10009, Beaumont, Texas 77710.

## Pre-College Honors Program

The Pre-College Honors Program enables seniors-to-be to take university courses during the summer between the Junior and Senior year in high school. Provision also is made for a high school senior to take a university course during the regular school year. Credit earned is held in escrow until after graduation, but then may be applied to university degree programs. Only students of academic ability are selected for the program. Special counseling is provided by the University. Enrollment may be for one or both Summer Sessions.

To be considered for selection for the Beaumont Campus Program, an applicant must (1) have completed the junior year in an accredited high school; (2) have at least a "Bplus" average through the second quarter of the junior year of high school; (3) submit scores of 1000 or equivalent on the PSAT, SAT or ACT; a score of 500 or equivalent on the verbal section of the PSAT, SAT, or ACT is necessary for acceptance to the program; and (4) be recommended by the high school counselor or principal. In order to take a course in mathematics, the student must have scored at least 500 or equivalent on the PSAT, SAT, or ACT Quantitative section, and the student must have the permission of his/her high school counselor and the counselor recommends which mathematics courses will best serve the needs of that particular student. Only a limited number of applicants are taken into the program each year. Selection is made on an individual basis by the University. An eligible Senior who lacks no more than three required academic credits for graduation may enroll during the regular school year with oval of high school officials and the Lamar Director of Admissions.

Detailed information and special application and recommendation forms are available in the Admissions Office.

## Lamar Early Access Program (LEAP)

In addition to the other programs discribed above, the Lamar Early Access Program (LEAP) is a cooperative program between Lamar and participating high schools which allows high school seniors to take university courses in their high schools taught by their high school teachers.

Students enrolled in the program may receive both high school and college credit concurrently upon satisfactory completion of the course. The courses are regular offerings of the University, taught by carefully selected high school teachers designated as adjunct instructors of Lamar University.

Lamar credits earned through LEAP are transferable to other universities throughout the state and nation. For additional information contact the Director of the Lamar Early Access Program, Box 10033, Beaumont, Texas 77710.

## Information About the Texas Academic Skills Program (TASP) Test

The Texas Academic Skills Program (TASP) is required by Texas law to ensure that students enrolled in Texas public colleges possess the academic skills needed to perform effectively in college-level coursework. TASP includes a testing component designed
to identify and provide diagnostic information about the reading, mathematics and writing skills of each student.

Any student who has earned at least three college-level credit hours prior to September of 1989 is not required to take the TASP examination. Otherwise prior to the accumulation of nine or more collegiate-level credit hours, all students in the following categories who enter Texas public institutions of higher education in the Fall of 1989 and thereafter must take the TASP examination for reading, writing, and mathematical skills:
(1) All full-time and part-time Freshmen enrolled in a collegiate-level certificate or degree program.
(2) Any other student, including transfers from private or out of state institutions, enrolled in a collegiate-level certificate or degree program.
A coilegiate-level certificate or degree program is one which requires nine or more credit hours or the equivalent of basic core general education courses as defined by the Southern Association of Colleges and Schools. Students who are required to take TASP examination must do so before accumulating nine or more collegiate-level credit hours. However, to assist with placement decisions only, institutions may elect to administer a "Campus Form" of the TASP along with other appropriate diagnostic instruments designated by the institution. Students who are placed on the basis of this "Campus Form" must then take the "Certification Form" of the TASP prior to the end of the semester in which they accumulate fifteen or more collegiate-level credit hours.

Students who fail to take the "Certification Form" of the TASP during the designated semester are not permitted to re-enroll or to enroll in any other Texas public higher education institution in any courses other than non-credit remedial, developmental, or pre-collegiate courses until they have taken the "Certification Form" of the TASP examination. Pre-collegiate courses, such as remedial reading, writing, and mathematics, are not counted in calculating the credit hours for meeting the testing requirements.

Based on the level of your skills, you should seek advice from the Director of the Counseling, Testing \& Career Center ( 116 Wimberly Building) on the best time for you to take the TASP Test, e.g., before or after you have had an opportunity to review or obtain any necessary remediation in reading, mathematics, and writing.

For information on who must take the TASP Test and to obtain a copy of the TASP Registration Bulletin and the official TASP Study Guide, contact the Director of the Assessment, Advising \& Research Center (116 Wimberly Building), Lamar University.

## Financial Aid and Awards

Financial assistance in the form of scholarships, grants, loans and employment is available to a number of qualified students. Information regarding programs, policies, rules, regulations, consumer information, and eligibility criteria can be obtained from the Student Financial Aid Office, P.O. Box 10042, Lamar Station, Beaumont, Texas 77710.

## When To Apply

Applications for need-based financial assistance should be completed by April 1 for the following academic year. Notification of awards will be mailed in late spring and early summer. The University will continue to award student aid as long as funds are available. The most desirable types of aid, however, are normally expended early. Therefore, students should make every effort to meet the April 1 deadline.

Applications for scholarships should be completed by February 1 for the following year. Completed applications should be forwarded to the Student Financial Aid Office along with a copy of the student's most recent academic transcript.

## How To Apply

Lamar University requires all students applying for aid to file the Lamar University Financial Aid Application. Students wishing to be considered for scholarships only should request the Scholarship Application. Students should be aware that scholarship funds are limited and that recipients normally must have a grade point average in excess of 3.50 to be considered.

Students wishing to apply for grants, loans and/or work-study employment must also file the Financial Aid Form with the College Scholarship Service to determine the degree of need. Since the processing of this form requires between three and four weeks, those students planning to meet the April 1 deadline should file about March 1.

After the application is complete, the Student Financial Aid Office will consider the student's academic record and potential as well as substantiated degree of need. The amount and type of assistance will be determined by the staff of the Student Financial Aid.

## Minimum Qualifications

Scholarship awards to entering Freshmen are determined by the applicant's scores on the Scholastic Aptitude Test (SAT) or American College Testing Program (ACT), leadership and high school class rank. Scholarship awards for upperclassmen are determined by their cumulative grade point average at the college level.

Continuing students must also meet satisfactory academic progress standards as established by federal regulations for continued eligibility.

Those applying for need-based grants, loans or work-study employment have their eligibility established by the Financial Aid Form.

Applicants should arrange to have SAT or ACT test scores on file with the Lamar University Admissions Office and have the Lamar University Financial Aid Application on file in the Student Financial Aid Office. Freshmen may be able to obtain required forms from their high school counselors or directly from the Student Financial Aid Office, P.O. Box 10042, Beaumont, Texas 77710. Students currently enrolled at Lamar may obtain the forms from the Student Financial Aid Office, Wimberly Student Services, Room 216. Students must re-apply each year for consideration for continued assistance.

## Grants

The Pell Grant (BEOG) is the foundation source for all other aid programs. All applicants are required to submit the Student Aid Report for the Pell Grant except those applying for scholarships only. No other need-based assistance (grants, loans, work-
study) can be awarded until the student's eligibility for the Pell Grant is determined. The filing of the Financial Aid Form should cause the Pell Student Aid Report to be sent to the student's address. The student should then send the Student Aid Report to the Student Financial Aid Office for an estimated grant amount to be determined. The final Pell Grant will be determined at the time of enrollment.

Other available grants are the Supplemental Educational Opportunity Grant, the Texas Public Education Grant (TPEG) and the State Student Incentive Grant (SSIG). Students with exceptional need as determined by the Financial Aid Form may be awarded one of these grants.

## Scholarships

Scholarships are funds that cover all or a portion of the student's expenses. Scholarships at Lamar University are of two types: those administered solely by the University, including the selection of recipients, and those administered by the University at the request of donors who select the recipients themselves. Students applying for scholarships administered by the University should apply to the Office of Student Financial Aid by Feb. 1. Half of the scholarship is disbursed for the Fall term and the remaining half for the Spring semester.

## Loans

Lamar University provides both short-term and long-term loans. Short-term loans for 30 to 60 days are designed to cover emergency situations and must be repaid within the semester in which the loan is made. Long-term loans with repayment after graduation may be obtained under such programs as the Stafford Student Loan Program (formerly GSL), the Perkins Loan Program, the Hinson-Hazelwood College Student Loan Act, Supplemental Loans for Students (SLS), and Parent Loans for Undergraduate Students (PLUS). Those interested in one of these loan programs should contact the Student Financial Aid Office for information and application forms.

## Employment

Employment opportunities under the College Work Study Program and other employment programs of the University are available to Lamar students as part of the financial assistance program. The University, local businesses and industries provide a number of part-time jobs that enable students to earn part or all of their expenses while attending the University.

## Valedictorians

Valedictorians from accredited high schools of Texas are entitled to an exemption from payment of tuition and laboratory fees for two regular semesters following graduation. Other fees are not exempt. During registration, valedictorians should report to the Adjustment station for fee adjustments. The names of valedictorians of all Texas high schools are certified by principals to the Texas Education Agency, and the list is supplied to the University for reference.

## Students with Physical Handicaps (Vocational Rehabilitation)

The Texas Rehabilitation Commission offers assistance for tuition and nonrefundable fees to students who have certain disabling conditions, provided their vocational objectives have been approved by a TRC counselor. Examples of such conditions are orthopedic deformities, emotional disorders, diabetes, epilepsy, heart conditions, etc. Other services also are available to assist the handicapped student to become employable. Application for such service should be made at the Texas Rehabilitation Commission, Beaumont District Office, 2209 Calder, Beaumont, Texas 77701 (409/835-2511).

## Financial Aid Transcripts

Financial Aid Transcripts are available by contacting the Office of Student Aid Accounting, P.O. Box 10003, LUUS, Beaumont Texas, 77710.

## Fees and Expenses

## Lamar University reserves the right to change fees in keeping with acts of the

 Texas Legislature and the University's Board of Regents.
## Payment of Fees

A student is not registered until all fees are paid in full or has paid the down payment on the installment plan and signed the agreement. Payment may be made by check, Mastercard/Visa, money order or currency. Checks and money orders, not in excess of total fees, should be made payable to Lamar University and will be accepted subject to final payment. Checks and drafts deposited with Federal Reserve banks cannot be handled through regular bank collection channels if received without the magnetic ink (MICR transit number).

## Installment Payment Agreement

Students who are not using financial aid, such as scholarships and grants, to pay fees may enter into an installment agreement with the University. Tuition and certain other fees can be paid on a 3 payment plan in the Fall and Spring semesters.

Students are required to enter into a legally binding contract that obligates them to pay the full amount of the fees, regardless of whether they complete the semester. The student whose fees are to be paid in installments must sign the installment agreement. Tuition refunds for students using the installment payment plan are calculated as a percentage of the total fees assessed, not as a percentage of any partial payments.

A non-refundable service charge of $\$ 20$ is assessed for the 3 payment plan. A late fee of $\$ 15$ will be assessed beginning the first day after an installment due date for each delinquent installment payment.

Students who are delinquent on installments will be prohibited from registering for class until the installment debt is paid in full. Single delinquent installments result in the entire remaining balance being immediately due and payable. Continued delinquency may result in withdrawal from the University. Also, hold are placed on academic records so that students cannot obtain transcripts until all installments are paid.

All delinquent installment accounts will be released to a collection agency/Credit Bureau. All costs of collecting delinquent installments are payable by the student.

## Summary of Registration Expenses

Each student must plan a budget carefully. It is possible to attend Lamar on a modest sum and yet participate in most phases of the University program. To assist in planning registration expenses, the following estimate is furnished as a guide. (For cost of University housing, see p. 58 of this catalog.)

## Texas residents taking a 15-hour academic work load*:

Tuition ..... $\$ 270$
Student Services Fee ..... 75
General Use Fee ..... 90
Setzer Student Center Fee ..... 30
Student Health Fee ..... 15
Computer Use Fee ..... 30
Parking Fee (if desired) ..... 15
Health Insurance (if desired) (Fall; Spring \& Summer) ..... 99
Books (estimated) ..... 225
Part-time Student (Six semester hours):Tuition 108
Student Services Fee ..... 61
General Use Fee ..... 36
Setzer Student Center Fee ..... 30
Student Health Fee .....  6
Computer Use Fee ..... 18
Parking Fee (if desired) ..... 15
Books (estimated) ..... 90

Tuition and general use fees vary with the semester hours carried so the total may differ from this estimate.
*Tuition rate per semester hour for Texas residents is $\$ 18$ with a minimum of $\$ 100$. A full-time student is one who takes 12 or more semester hours of course work. Non-Texas U.S. rate for tuition is $\$ 122$ hour with no minimum.

## Summary of Fees

Additional fees and charges which are applied on a selective basis are listed following the Summary of Fees.

## Lamar University Fall 1990/Spring 1991

|  | Tuition |  | Stu. Sery. Fee | Gen. <br> Use Fee | Setzer Center Fee | Health Center Fee | Property Deposif | $\begin{aligned} & \text { Computer } \\ & \text { Use } \\ & \text { Fee } \end{aligned}$ | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Texas Resident | Non-Taxas Resident |  |  |  |  |  |  | Texas Resident | Non-Texas Resident |
| 1 | \$100 | \$ 122 | \$26 | \$20 | \$30 | \$ 5 | \$10 | \$ 3 | \$194 | \$ 216 |
| 2 | 100 | 244 | 33 | 20 | 30 | 5 | 10 | 6 | 204 | 348 |
| 3 | 100 | 366 | 40 | 20 | 30 | 5 | 10 | 9 | 214 | 480 |
| 4 | 100 | 488 | 47 | 24 | 30 | 5 | 10 | 12 | 228 | 616 |
| 5 | 100 | 610 | 54 | 30 | 30 | 5 | 10 | 15 | 244 | 754 |
| 6 | 108 | 732 | 61 | 36 | 30 | 6 | 10 | 18 | 269 | 893 |
| 7 | 126 | 854 | 68 | 42 | 30 | 7 | 10 | 21 | 304 | 1032 |
| 8 | 144 | 976 | 75 | 48 | 30 | 8 | 10 | 24 | 339 | 1171 |
| 9 | 162 | 1098 | 75 | 54 | 30 | 9 | 10 | 27 | 367 : | 130 |
| 10 | 180 | 1220 | 75 | 60 | 30 | 10 | 10 | 30 | 395 | 1435 |
| 11 | 198 | 1342 | 75 | 66 | 30 | 11 | 10 | 30 | 420 | 1564 |
| 12 | 216 | 1464 | 75 | 72 | 30 | 12 | 10 | 30 | 445 | 1693 |
| 13 | 234 | 1586 | 75 | 78 | 30 | 13 | 10 | 30 | 470 | 1822 |
| 14 | 252 | 1708 | 75 | 84 | 30 | 14 | 10 | 30 | 495 | 1951 |
| 15 | 270 | 1830 | 75 | 90 | 30 | 15 | 10 | 30 | 520 | 2080 |
| 16 | 288 | 1952 | 75 | 90 | 30 | 15 | 10 | 30 | 538 | 2202 |
| 17 | 306 | 2074 | 75 | 90 | 30 | 15 | 10 | 30 | 556 | 2324 |
| 18 | 324 | 2196 | 75 | 90 | 30 | 15 | 10 | 30 | 574 | 2446 |
| 19 | 342 | 2318 | 75 | 90 | 30 | 15 | 10 | 30 | 592 | 2568 |
| 20 | 360 | 2440 | 75 | 90 | 30 | 15 | 10 | 30 | 610 | 2690 |

## Lamar University SUMMER 1991

| NO. SEM. HOURS | TUITION |  | STU. SERV. | $\begin{aligned} & \text { GEN. } \\ & \text { USE } \\ & \text { FEE } \end{aligned}$ | $\begin{aligned} & \text { SETEER } \\ & \text { CENTER } \\ & \text { FEEE } \end{aligned}$ | health CENTER FEE | Property <br> Deposil | COMPUTERUSEFEE | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { TEXAS } \\ & \text { RESIDENT } \end{aligned}$ | $\begin{aligned} & \text { NON-TEXAS } \\ & \text { RESIDENT } \end{aligned}$ |  |  |  |  |  |  | RESXDENT. | $\begin{aligned} & \text { NONTEXAS } \\ & \text { RESIDENT } \end{aligned}$ |
| 1 | \$100 | \$ 122 | \$26 | \$20 | \$15 | \$ 5 | \$10 | \$ 3 | \$179 | \$ 201 |
| 2 | 100 | 244 | 33 | 20 | 15 | 5 | 10 | 6 | 186 | 330 |
| 3 | 100 | 366 | 37 | 20 | 15 | 5 | 10 | 9 | 196 | 462 |
| 4 | 100 | 488 | 37 | 24 | 15 | 5 | 10 | 12 | 203 | 591 |
| 5 | 100 | 610 | 37 | 30 | 15 | 5 | 10 | 15 | 212 | 722 |
| 6 | 108 | 732 | 37 | 36 | 15 | 6 | 10 | 18 | 230 | 854 |
| 7 | 126 | 854 | 37 | 42 | 15 | 7 | 10 | 21 | 258 | 986 |
| 8 | 144 | 976 | 37 | 48 | 15 | 8 | 10 | 24 | 286 | 1118 |
| 9 | 162 | 1098 | 37 | 54 | 15 | 9 | 10 | 27 | 314 | 1250 |
| 10 | 180 | 1220 | 37 | 60 | 15 | 10 | 10 | 30 | 342 | 1382 |

*Non-Texas Resident tuition will be revised each January for the following academic year (Sept.-Aug.).
**Not included is a one-time property deposit fee which will be refunded upon application by the student upon graduation or formal withdrawal if not used for replacement of property.

## Tuition and Fees

Tuition is based upon the number of hours for which the student registers, and is determined by the student's classification as a Texas resident or a non-Texas resident. Determination of legal residence for tuition purposes is made on the basis of statutes of the State of Texas.

## Laboratory Fees

A laboratory fee of $\$ 2$ is charged each semester for courses with a combined lecture and laboratory credit of from one to three semester hours. The laboratory fee is $\$ 4$ per semester for courses of four or more semester hours credit.

## Applied Music Fees

Applied music course fees are calculated at $\$ 18$ per semester hour credit, i.e:, lab fee for a two semester hour course is $\$ 36$, for a one semester hour course is $\$ 18$.

## Late Registration Fee

A charge of $\$ 5$ is made during the first day of late registration, $\$ 10$ for the second day and $\$ 15$ for the third and following days.

## Parking Fee

Charges for parking on campus are made at registration. Automobile registration fees are as follows: Fall semester, \$15; Spring semester, \$10; Summer Session I, \$6; Summer Session II, \$4. Only one registration is required during an academic year, and a student's parking fee is honored until the end of Summer Session II.

## Property Deposit

Each student will be required to pay a $\$ 10$ property deposit. Any unused portion of the $\$ 10$ will be refunded upon written request after the student graduates or withdraws from the University.

## Health and Accident Insurance

Health and accident insurance coverage is available at registration for students carrying nine or more semester hours. Insurance fees are as follows: Fall semester, \$99; Spring and Summer semesters, $\$ 158$; yearly fee, $\mathbf{\$ 2 5 0}$. This or similar insurance is required of all international students. Additional information may be obtained from the Student Affairs Office.

## Special Fees

Fees will be set by the University for courses in which special plans and/or field trips must be prepared and specialists secured as instructors.

Students who feel they may be exempt from some fees should contact the Finance Office. For example:

Exemption 1: Scholarships to High School Honor Graduates
The highest ranking student in the graduating class of a fully ac̣credited Texas high school will be entitled to a tuition and laboratory fee waiver valued at approximately $\$ 200$. Details may be obtained from the Student Aid Office.
Exemption 2: Veterans (Hazelwood)
Persons who were citizens of Texas at the time of entry into the Armed Forces; and who are no longer eligible for federal educational benefits, are exempt from tuition, laboratory fees, Setzer Student Center fees, general use fee, and computer use fee. This applies to those who served in World War I, World War II, the Korean Conflict or the Vietnam War and were honorable discharged. This exemption also applies to those veterans who entered service after Jan. 1, 1977, and did not contribute under the VEAP program. To obtain this exemption, necessary papers must be presented prior to registration and approval obtained from the Office of Veterans' Affairs. The above exemption also extends to wives, children and dependents of members of the Armed Forces who were killed in action or died while in the service in World War II, the Korean Conflict or Vietnam War.

Students who have been out of the service more than 10 years need to provide a copy of their separation papers (DD214). Students separated for a period of less than ten years must also provide a letter from the Veterans Administration stating that the student has no remaining eligibility.

Students who expect to attend under some veterans' benefit plan should contact the Office of Veterans' Affairs 60 to $\mathbf{9 0}$ days prior to registration: The Office of Veterans' Affairs advises veterans on program and training opportunities, academic assistance and counseling. Veterans interested in information in these areas should visit this office in the Wimberly Student Services Building.

## Policy on Waiving Fees

## Off-Campus Classes

Students taking classes which are held off campus will not be required to pay Setzer Center or Health fees. The tuition, student service fee ańd general use (building) fee are required by either Board of Regents or State statute and cannot be waived.

Students who have classes both on campus and off campus: will have health fees based on the number of hours on the main campus.

Examples of the above where fees ae waived are:
(1) Field-center courses
(2) Summer trips for credit
(3) Nursing courses that conduct all their classes at the hospital.
(4) COOP students, for semester when they are not taking classes on campus., (Only pay tuition because Board of Regents have waived Student Service and General Use fee.)
Examples where fees are not waived:
(1) Student enrolled only for a thesis course during the Fall or Spring (pays only $\$ 50$ for tuition) plus all other normal fees.
(2) Student enrolled only for a special project course.

## Faculty and Staff with Activity Cards

Faculty and staff with Activity Cards will have the student service fee waived to avoid paying twice for the same service.

## Refund of Tuition and/or Fees

Students requesting a refund of tuition and/or fees resulting from dropped courses or from withdrawing from the University should direct questions to the Finance Office. Refunds are calculated as a percentage of total fees assessed, not as a percentage of partial payments on installments.

## Dropped Courses

Students who drop courses during the drop period will receive a refund on tuition and fees, based on the following:

## Fall or Spring Semester

1. Through the twelfth class day, 100 percent.
2. After the twelfth class day, no refund.

## Summer Session

1. Through the fourth class day, 100 percent.
2. After the fourth class day, no refund.

In order to receive a refund for dropped courses, a student must remain enrolled in the University. If a student withdraws, after having previously dropped one or more courses, no refunds will be given for the dropped course(s). Refunds are processed after the end of each semester.

## Withdrawal from the University

Any student officially withdrawing during the first part of the semester will receive a refund on tuition, Setzer Center, student service, laboratory, building and general use and private lesson fees according to the following schedule:

## Fall or Spring Semester

1. Prior to the first class day, 100 percent:
2. During the first five class days, 80 percent.
3. During the second week of the semester, 70 percent.
4. During the third week of the semester, 50 percent.
5. During the fourth week of the semester, 25 percent.
6. After the fourth week of the semester, none.

## Summer Session

1. Prior to the first class day, 100 percent.
2. During the first, second or third class day, 80 percent.
3. During the fourth, fifth or sixth class day, 50 percent.
4. Seventh class day and after, none.

The $\$ 10$ Property Deposit is refundable upon written request by the student to the Finance Office.

Withdrawing from the University does not relieve the student of any financial obligations under the Installment Payment Agreement or for any student loans as these are the student's legal financial commitments.
NOTE: Students withdrawing from the University are required to surrender their Student Identification Card and their Parking Permit. Also, withdrawal from the University precludes the student from receiving a refund for dropped courses.

## Returned Check Fees

Checks written in payment of registration fees and returned to the University due to insufficient funds will result in a $\$ 10$ check charge plus a $\$ 15$ late registration fee.

A student already enrolled in the University is automatically suspended from the University if a check is returned unpaid. The student may re-enter upon redemption of the check plus payment of the returned check fee of $\$ 10$.

## Matriculation Fee

A matriculation fee of $\$ 15$ will be incurred by students who withdraw prior to the first day of class. This $\$ 15$ fee will be deducted from refunds.

## Miscellaneous Fees

Associate Diploma ......................................................................................\$12.00**
Certificate of Completion..............................................................................12.00*
Bachelor's Diploma.......................................................................................12.00*
Master's Diploma ..........................................................................................12.00*
Doctor's Diploma...........................................................................................12.00*
Bachelor's Cap and Gown (disposable) ........................................................15.50*
Master's Cap, Gown and Hood Rental..........................................................25.50*
Doctor's Cap, Gown and Hood Rental.........................................................27.50*
Returned Checks (Bookstore) .......................................................................15.00*
Transcript Fee................................................................................................. 2.00
Advanced Standing Examination (per course)............................................25.00
Photo Identification....................................................................................................... 50
Lost Photo I.D. ....................................................................................................5.00
Swimming Pools (suits and towels) Per Semester......................................15.00
Golf Fee Per Semester...................................................................................20.00
*Subject to Sales Tax

## Fine and Breakage Loss

Library fines, charges for breakage or loss of equipment or other charges must be paid before a transcript of credit or a permit to re-enter the University will be issued.

The University reserves the right to make a special assessment against any student guilty of inexcusable breakage, loss of instructional equipment or other University property.

## Determining Residence Status

Texas law specifies that if there is any question as to the student's right to classification as a resident of Texas, it is the student's responsibility to (1) have his classification officially determined and (2) to register under the proper classification. Classification will follow the guidelines in Title 3, Texas Education Code. Students with question should contact the Director of Admissions, P.O. Box 10009, Beaumont, Texas 77710.

## Academic Policies and Procedures

## Course Numbering

The unit of instruction for credit purposes is the course. Most courses meet three hours each week and have a credit value of three semester hours for one semester, or six hours for two semesters.

Each course has an individual alpha-numeric code (such as Eng 333). The alpha part indicates the subject area. Each number contains three or more figures. The first digit indicates the rank of the course: 1, means it is Freshman level; 2; Sophomore level; 3, Junior level; and 4, Senior level; 5 and 6, Graduate level. The second figure indicates the number of semester hours credit. The third figure (or figures) indicates the order in which the course normally is taken. The letter "A" or " B " following course numbers indicates partial credit in each case; full credit for such numbered courses will be granted only when the series is complete.

Applied music courses are numbered so that the second number indicates both semester hour credit and number of private lessons each week.

In this bulletin, each course title will be followed by three digits separated by colons such as $(3: 3: 1)$. This code provides the following information. The first number is the semester hours of credit for the course. The second number is the class hours of lecture, recitation or seminar meetings per week. The third number is the required laboratory hours per week. The letter "A" indicates that the hours are Arranged, usually with the instructor of the course.

## New Courses

In order to meet changing educational requirements, the University reserves the right to add any needed courses at any time without regard to the listing of such courses in the bulletin. It is expected that a listing of these courses will appear in the next bulletin issued.

The right to change numbers in order to indicate changes in semester hours also is reserved for the reasons above.

## Semester Hour

The unit of measure for credit purposes is the semester hour. One hour of recitation (or equivalent in laboratory work) each week usually is equal to one semester hour. For each classroom hour, two hours of study are expected. Two or more hours of laboratory work are counted as being equivalent to one classroom hour. For laboratory work which requires reports to be written outside of class, two clock hours are úsually counted as one semester hour.

Twelve semester hours is the minimum full-time load (nine for graduate students) in Fall and Spring, four semester hours in Summer terms (three for graduate students).

## Maximum Course Loads

The normal course load in a regular semester is $\mathbf{1 5 - 1 8}$ semester hours; for a six-week summer term, six-to-eight semester hours. Overloads must be approved by the student's academic dean. No student will be allowed to enroll for more than 21 semester hours in a regular term or nine semester hours in a summer term regardless of the number of grade points earned the preceding semester.

## Registration for Classes

Students will be permitted to attend class only when the instructor has received evidence of proper registration. Registration dates and deadlines are listed in the official University calendar. Students may add courses, make section changes or drop courses
only within the period specified in the calendar. A schedule of classes is prepared by the Office of Records and Registration well in advance of a given semester.

## Minimum Class Enrollment

The University reserves the right not to offer any course listed in this bulletin if fewer than 10 students register for the course.

## Course Auditing by Senior Citizens

Senior citizens, 65 years of age or older, may audit courses without the payment of fees on a space-available basis. (For information call 880-8969)

## Class Attendance

Regular class attendance is important to the attainment of the educational objectives of the University. Especially in lower division courses and in large classes at any level, the instructor should keep attendance records and should formulate an attendance policy consistent with departmental policies but suited to the needs of the particular course. The instructor's policy is to be explained in detail to the class at the beginning of the semester.

## Policy on Student Absences on Religious Holy Days

In accordance with the Texas Education Code 51.911, a student who is absent from classes in observance of a religious holy day will be permitted to take an examination or complete an assignment scheduled for that day at a time specified by the instructor if not later than the 15th day after the first day of the semester, the student notifies the instructor of each class the student had scheduled on that date that the student would be absent for a religious holy day.
"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code.

Notifications of planned absences must be in writing and must be delivered by the student either (a) personally to the instructor of each class, with receipt of the notification acknowledged and dated by the instructor, or (b) by certified mail, return receipt requested, addressed to the instructor of each class. A form, Notification of Planned Absence for Religious Holy Days, may be obtained from the office of Records and Registrar, Wimberly Building, for the purpose of notification. The completed form must be delivered by the student to the instructor of each class affected by the absence. Upon review of the Notification form, instructors will sign and date the receipt of the notice, retaining a copy for the instructor and returning one copy to the student.

Instructors may refer any questions regarding the qualification of the absence to the Associate Vice President/Dean of Students. Students may be required to present to the Associate Vice President/Dean of Students a written statement documenting that such absence qualifies under the terms of a religious holy day.

## Postponed Final Examinations

Arrangements for taking postponed final examinations are made with the instructor concerned, but must be approved by the instructor's department head.

## Course Repetition

A course may be repeated for additional credit only as specified by the official course description in the University Bulletin.,

With approval of the student's major department head, students may repeat courses which are not ordinarily repeatable for additional credit only when a grade of "C" or below has been earned. When these conditions are met, the official grade is the last one
made, but the original grade remains on the student's record as a course taken and is included in the grade point average calculation.

## English Requirement

A full-time student (one taking 12 or more semester hours) must register for freshman English until credit for six semester hours has been earned. This policy does not apply during summer terms.

A student's use of English is subject to review before graduation. If found unsatisfactory, additional course work may be prescribed.

## Remedial English Course

All freshmen who are enrolled in a degree program and have no college credit prior to fall, 1989, must take the Pre-Tasp Test (PTT) for determining placement in freshman English. A student who fails the writing portion of the test will be placed in DWRT 1301, the developmental writing course. Upon successful completion of this course, the student may enroll in English 131. However, the student must still take and pass the statewide TASP test in order to enroll for junior- and senior-level courses. Passing DWRT 1301 does not satisfy state test requirements. Students who do not pass DWRT 1301 and have not passed the state TASP test must retake DWRT 1301.

## Physical Activity Course Registration Requirement

All full-time students (those taking 12 or more semester hours) must register for physical activity until they complete two semesters except as follows:

1. Those who are unable to participate in a regular activity course or a modified program of activity because of physical handicaps (must have written exemption from the university physician).
2. Those who choose active participation in the marching band or ROTC for two semesters.
3. Students who are 25 or more years of age may be exempted from this requirement at their option.
4. Veterans who have completed basic training as a part of their military service are exempt from the required courses in physical education.
Students exempted from the physical education requirement must submit elective hours approved by their major department in lieu of the requirement.

## Bible Courses

A student may register for as many as three semester hours of Bible study each semester for a total of two semesters. This total may be raised to four semesters with the approval of the student's advisor if the field of study warrants such elective choice.

## Engineering Cooperative Programs

A cooperative program is offered, to a limited number of qualified students, whereby the student spends alternate terms at work or study.

To remain in the program, students must maintain their grade point averages and perform in a manner satisfactory to both their employer and Lamar. Further information may be obtained from the Director of Engineering Cooperative Education, Box 10057.

## Changing Schedules

All section changes, adds and drops must be approved by the department head of the student's major field. All such changes are initiated by the completion of the proper form available in the department head's office. Usually, a course may not be added after the first two days of the semester:

## Dropping Courses

After consultation with their advisor and/or department head, students may drop a course and receive a grade of " Q " during the first six weeks, (two weeks in the summer session) of the semester. For drops after this penalty-free period, grades are recorded as " $Q$ " or " $F$ " indicating the student was passing or failing at the time of the drop. A grade of " $Q$ " may not be assigned unless an official drop has been processed through the Office of Records. A student may not drop a course within 15 class days of the beginning of final examinations or five class days before the end of the summer term. Students should check the published schedule for specific dates. A written petition to the Dean of the College in which the course is offered is required of students wishing to drop a course after the official drop date.

## Instructor Initiated Drop

When absences, other than approved absences, interfere seriously with the student's performance, the instructor may recommend to the department head that the student be dropped from the course. If this action is taken after the first six weeks of the semester, a grade of " F " may be recorded for the course. The student's major department will be notified that the student was dropped for excessive unexcused absences. The student remains responsible for initiating drop procedures if he finds that he cannot attend class.

## Reinstatement to Class

A student may be reinstated to class upon written approval on the official form by his major department head, instructor of course and the instructor's department head.

## Withdrawals

Students wishing to withdraw during a semester or Summer term should fill out a Withdrawal Petition in triplicate in the office of their department head. Students must clear all financial obligations, and return all uniforms, books, laboratory equipment and other materials to the point of original issue. However, if the student is unable at the time of withdrawal to clear financial obligations to the University and files with the Office of Records an affidavit of inability to pay, the student will be permitted to withdraw with the acknowledgement that transcripts will be withheld and re-entry to Lamar University as a student will not be permitted until all financial obligations are cleared. Copies of the withdrawal form signed by the department head and the Director of Library Services are presented to the Office of Records by the student.

The Finance Office, on application before the end of the semester or Summer session, will return such fees as are returnable according to the schedule shown under the "Fees" section of the bulletin. If a withdrawal is made before the end of the sixth week (second week of a summer term) or if the student is passing at the time of withdrawal after the sixth week, a grade of " $W$ "' is issued for each course affected. A grade of " $F$ " is issued for all courses not being passed at the time of withdrawal after the penalty-free period.

A student may not withdraw within 15 class days of the beginning of final examinations or five class days before the end of a Summer term. A student who leaves without withdrawing officially will receive a grade of " $F$ " in all courses and forfeit all returnable fees. Students should check the published schedule for specific dates. Students wishing to withdraw after the official withdrawal date may review the issue with the Dean of the student's major.

## Enforced Withdrawal Due to IlIness

The director of the Health Center and the Associate Vice President/Dean of Students, on the advice of competent medical personnel, may require withdrawal or deny admission of a student for health reasons (mental or physical).

## Change of Major

Students wishing to change their majors must have the approval of the head of the department of their former major area and approval of the head of the new department. These approvals must be in writing on the form entitled "Change of Major."

## Interchange and Recognition of Credits

Credit earned in the respective colleges of the University, including the College of Technical Arts, may be applied to degree programs of the University when such credit is appropriate to established programs.

## Simultaneous Enrollment

Students who desire to enroll simultaneously on more than one campus or more than one institution must have written approval of their Lamar University academic advisor for all classes to be taken. Such approval can be granted only if all Lamar University academic policies are adhered to by the course work taken as a whole. For example, academic load restrictions due to probation would apply to the total course hours taken at all institutions or campuses. The written approval is to be retained in the student's permanent file.

## Transfer Credit for Correspondence Courses

Lamar does not offer courses by correspondence. However, a maximum of 18 semester hours of correspondence work form an accredited institution may be applied toward a bachelor's degree.

No correspondence course may be carried while a student is in residence without the permission of the student's department head. A permit signed by the department head must be filed in the Office of Records before registration for the course.

A student may not: (1) register for, carry or complete a correspondence course during the last semester of Summer session before graduation, nor (2) receive credit for any Junior or Senior course taken by correspondence, except in the following circumstances: (a) a course required for graduation is not offered by Lamar; (b) the student has a schedule conflict between required courses; (c) a nonresident Senior who is six semester hours or less short of graduation and who has filed a statement of intent to complete work by correspondence.

This statement of intent must be approved by the department head and filed in the Office of Records no later than the last date to apply for graduation.

Seniors must file correspondence transcripts at least 14 days before graduation.
Credit by correspondence for a course failed in residence will not be accepted toward graduation.

## Credit by Examination

Lamar awards undergraduate credit on the basis of nationally recognized examinations and local advanced standing examinations administered by academic departments. These programs are described below. Advanced Placement testing programs are discussed in the Admissions section of this Catalog.

Except for satisfying the course work-in-residence and the state-mandated American History and American Government requirements, credit earned by examination is equivalent to credit earned by taking the course and may be used to satisfy bachelor's and associate's degree requirements as defined in this Catalog under "Degree Requirements."

## Advanced Standing Examinations

Advanced standing examinations are intended only for those students who have had the equivalent, in formal or informal training, of the work being presented in the course in question. Credit may be granted to those who pass departmental advanced standing examinations with a grade of " $B$ " or better. Normally, departmental examinations will be given only if CLEP subject examinations are not available.

To secure permission for such examinations, a student must obtain the written permission of the dean of the college and the department head responsible for the course. A fee of $\$ 25$ must be paid to the Finance Office. Forms are available in the office of the department head. Advanced standing examinations will not be approved for skill courses.

A student having received a grade (passing or failing) in a course may not take an advanced standing examination in that course.

## College Level Examination Program (CLEP)

Lamar University awards credit on the basis of most of the Subject Examinations of the College Level Examination Program (CLEP). A complete list is available from the Records Office. No credit will be awarded for the General Examinations. The essay section of the College Composition Examination is required, but need not be taken in order to qualify for credit on most of the other subject examinations.

The amount of credit awarded to a student who attended college before taking the examination will depend upon which college courses the student had completed before taking the examination. Credit will not be awarded if the student had received prior credit for the same course or its equivalent. Grades will not be assigned and hours will not be used in the computation of grade point averages.

A copy of "Policies Concerning Academic Credit and Placement on the Basis of the CLEP Subject Examinations" may be obtained from the Office of the Dean of Records and Registrar the office of Admissions, or from the Counseling and Testing Center.

## Academic Progress

## Classification of Students

Students are classified as Freshmen, Sophomores, Juniors, Seniors, Post Baccalaureate and Graduate students. For the purpose of determining eligibility to hold certain offices and for other reasons, officially enrolled students are classified as follows:

Freshman: has met all entrance requirements but has completed fewer than 30 semester hours.

Sophomore: has completed a minimum of 30 semester hours with 60 grade points.
Junior: has completed a minimum of 60 semester hours with 120 grade points.
Senior: has completed a minimum of 90 semester hours with 180 grade points.
Post baccalaureate: holds a bachelor's degree, but is not pursuing a degree program.
Graduate: has been accepted for and is pursuing a graduate degree (see graduate studies catalogue).

Full-Time Student: an undergraduate student taking 12 or more semester hours in Fall/Spring (four or more in a summer term) is classified as a full-time student. A fulltime graduate student is one who takes nine or more semester hours in Fall/Spring (three or more in a Summer term). Some sources of student financing reduce payments to students dropping below full-time status.

## Grading System

A
B

- Excellent
C - Gaod


## W - Withdrawn from University <br> Q - Course was dropped <br> S - Credit <br> U - Unsatisfactory, no credit NG - No grade

The grade of " $W$ " or " $Q$ " is given if the withdrawal or drop is made before the penalty date (see Dropping Course) or if the student is passing at the time of withdrawal or drop.

The grade of "I" may be given when any requirement of the course, including the final examination, is not completed. Arrangements to complete deficiencies in a course should be made with the instructor.

Incomplete work must be finished during the next long semester, or the Office of Records must change the "I" grade to the grade of " $F$ ". The course must then be repeated if credit is desired.

An "I" grade also automatically becomes an " $F$ "' if the student reregisters for the course before removing the deficiencies and receiving a grade change.

The instructor may record the grade of " F " for a student who is absent from the final examinations and is not passing the course.

Semester grades are filed with the Office of Records. A grade may not be recorded for a student not officially enrolled in a course during the semester covered. A grade may not be corrected or changed without the written authorization of the instructor giving the grade. The written instruction for a grade change should be accompanied by a statement explaining the reason for the change.

A student desiring to register for a course to receive a grade of NG must have the written approval on official form of the major department head, instructor and instructor's department head and Records Office verification. Student semester hours attempted will be reduced by appropriate number of hours.

Students are responsible for completing and filing the appropriate petition form with the Records Office. The deadline each semester for filing the petition for "No Grade" with the Records Office is the same as the deadline for dropping or withdrawing from a course without penalty.

This deadline does not apply for thesis, dissertation or other courses specifically approved in advance for using No Grade "NG" to indicate that continued academic progress is being made by the student.

## Grade Point Average Computation

The grade point average is a measure of the student's overall academic performance and is used in the determination of academic standing, rank in class, eligibility for graduation, etc. Grade point averages are computed separately for technical arts and academic records, except for honors and certain special degree requirements.

In order to compute grade averages, grade points are assigned to letter grades as follows: to the grade "A," 4 points; to "B," 3 points; to "C," 2 points; to "D," 1 point, and to "F," "I,"' 'S," 'U," "NG," "W,"' 0 points. The number of grade points earned in a course is obtained by multiplying the number of semester hours credit by the number of points assigned to the grade made in the course.

The grade point average is calculated by dividing the total number of grade points earned by the total number of semester hours attempted in courses for which the grades
"A," "B," "C," "D," "F," and '‘'" are assigned. Thus, for grades, "S," "U," "'NG,". "W,"' and " $Q$," neither semester hours nor grade points are used in the computation of the grade point average. Hours attempted include all work taken whether passed, failed or repeated. Courses in which a grade of " S " or " $U$ " is assigned are used in calculating a student's semester hour load.

This method of calculating grade point averages will apply to all students in baccalaureate programs of study effective July 5,1978 . The University's former repeat policy will not apply to students in four-year programs after this date; thus, the grade of a course repeated after July 5, 1978, may not be substituted for a prior grade.

Grade point averages for students in certificate, diploma and associate degree programs are calculated in the manner prescribed for baccalaureate programs, with one exception. A student in one of these programs who passes a course at the same institution where the student previously received a failing grade " $F$ "' or " $U$," will have only the passing grade and its associated grade points applied toward any certificate, diploma or associate degree. After the course is repeated, the student must file a request for a grade point adjustment with the Records Office. Any adjustment to a grade point average made during the time a student enrolled in an applicable course of study is disregarded once the student enters a four-year program.

## Academic Records and Transcripts

Academic records are in the permanent custody of the Records Office. Transcripts of academic records may be secured by an individual personally, or will be released on the student's written authorization. College transcripts on file from other colleges will not be duplicated by Lamar's Records Office.

Students who owe debts to the University'or who have not met entrance requirements may have their official transcripts withheld until the debt is paid or credentials are furnished.

Chapter 675, Acts of the 61st Legislature, 1969 Regular Session, provides that "no person may buy, sell, create, duplicate, alter, give or obtain a diploma, certificate, academic record, certificate of enrollment or other instrument which purports to signify merit, or achievement conferred by an institution of education in this state with the intent to use fraudulently such document or to allow the fraudulent use of such document."
"A person who violates this Act or who aids another in violating this Act is guilty of a misdemeanor and upon conviction, is punishable by a fine of not more than $\$ 1,000$ and/or confinement in the county jail for a period not to exceed one year."

## Final Grade Report

Reports on grades are mailed at the end of each semester or summer term. These reports include the semester grades and the grade point average for the semester, and for all work attempted at the University. Students should report any errors or discrepancies to the Office of Records.

## Deans' List

At the end of each semester, the Office of Records prepares for each undergraduate college a list of all full-time (those who complete 12 or more semester hours) Freshman and Sophomore students who have earned for that semester a grade point average of 3.40 or above and Junior and Senior students who have earned for that semester a grade point average of 3.60 or above. This list is the Deans' List and is announced by the academic dean of each college.

## Scholastic Probation and Suspension

Students are expected to maintain a " $C$ " or 2.0 grade point average. Grade point deficiencies result when the total grade points accumulated are less than twice the number of semester hours attempted. Students with a grade point deficiency shall be placed on scholastic probation and continued on probation as long as a deficiency exists. Students with a grade point deficiency of 25 or more grade points at the end of the Fall, Spring, or Summer shall be suspended.

Academic suspension designates the loss of "good academic standing" and disruption of "satisfactory progress" toward degree completion.

Students suspended from Fall, Spring or Summer semesters by this action may attend the Summer session on probation. Students with a grade point deficiency less than 25 at the close of the Summer session will automatically be reinstated and may register for the following Fall semester. Students with a grade point deficiency of 25 or more at the end of the Fall, Spring, or Summer session must obtain approval for probationary re-enrollment from the dean of their respective college.

Students wishing to return to Lamar University after an absence and who are 25 or more grade points deficient must obtain written permission from the dean of their respective college prior to being accepted for re-admission for either a Fall or Spring Semester.

A college, with the approval of the Executive vice President for Academic and Student Affairs, may prescribe academic requirements for its majors in addition to the basic University grade point standard. Students suspended under this provision may register in another college at Lamar, provided they meet the prescribed standards and are accepted through the normal change-of-major procedure. Students may not register for a 300 - or 400 -level course offered by the suspending college unless the course is required by their new curriculum.

## Academic Appeals Procedures

After an enrollment lapse of seven or more years from Lamar University and after completing successfully ( 2.2 average) 30 semester hours of work at Lamar, a student may petition to disregard a maximum of two entire successive semesters of work taken previously at Lamar University. The petition shall be filed with the department chair and shall follow regular channels to the Executive Vice President for Academic and Student Affairs for a final decision. Endorsements and/or recommendations shall be required at each academic level. When approved by the Executive Vice President for Academic and Student Affairs, disregarded work shall not count in determining the student's grade point average for academic progress or for graduation; however, it shall remain on the transcript with an appropriate notation, and it shall be used in determining honors.

## Degree Requirements

## General Education Requirements - Bachelor Degrees

1. Satisfy all admission conditions.
2. Complete the Philosophy of Knowledge Core (see page 12 of this catalog).
3. Meet the following minimum requirements:
A. A grade point average of at least 2.0 on all courses in the major field and on all courses attempted (some departments may require a higher grade point average).
B. Complete successfully 120 semester hours not including required two semesters of physical education, marching band, and/or ROTC and HLTH 137. In addition, the following requirements must be met:
(1) 30 semester hours in residence at Lamar University with at least 24 semester hours earned after attending Senior classification, except for special degree programs in biology and medical technology.
(2) 30 semester hours on the Junior and Senior level, of which 18 hours must be completed at Lamar University.
(3) 24 semester hours in a major field with at least 12 in upper division courses.
(4) No more than 18 semester hours of correspondence work and no more than 30 semester hours of correspondence and extension work and/or credit by examination combined may be applied to the bachelor's degree.
4. Complete successfully Health 137 and two semesters of physical activity, marching band, and/or ROTC (for exceptions, see p. 42 of this catalog).
5. Complete the program of study for the major listed in the bulletin.
6. Make application for the Bachelor's degree and pay all the designed fees.
7. Attend the official graduation exercise.

## Second Bachelor Degree

When another bachelor's degree is taken simultaneously, or has been taken previously at Lamar, the second bachelor's degree may be granted upon the completion of all required work for the second degree. A minimum of 30 addition hours, as specified by the department granting the second degree, must be completed at Lamar University.

## Bachelor of Arts Degree

1. Meet the University's general education requirements for a Bachelor's degree.
2. Complete the course numbered 232 in a foreign language.
3. Complete six semester hours of literature.
4. Complete the minor of 18 semester hours, six of which must be in advanced courses.
5. Meet the specific requirements of the selected program of study as listed in the department concerned.

## Bachelor of Applied Arts and Sciences Degree* Bachelor of Business Administration Degree* <br> Bachelor of Fine Arts Degree* <br> Bachelor of General Studies Degree* <br> Bachelor of Music Degree* <br> Bachelor of Music (with Teacher Certification) Degree* <br> Bachelor of Science Degree* <br> Bachelor of Social Work Degree*

1. Meet the University's general education requirements for a Bachelor's degree.

* 2. Meet the specific requirements of the selected program of study as listed in the department or program concerned.


## Special Degree Programs

Biology. A student may receive the degree of Bachelor of Science, biology major, after completion of one year in an approved college of dentistry or medicine.

The following minimums are required:

1. Complete 106 semester hours of the basic requirements for the Bachelor of Science degree. This includes all the required minimums except the total of 140 semester hours.
2. Complete the biology core.
3. Furnish proof of at least 30 semester hours in an approved domestic college of dentistry or medicine.
4. Formally apply for the degree before August graduation deadline.

## Associate of Science Degree (A.S.)

1. Satisfy all admission conditions.
2. Meet the following minimum requirements:
a. Thirty semester hours in residence at Lamar University. Twelve semester hours of this minimum must be earned after May 1972, and after reaching Sophomore classification.
b. A grade point average of at least 2.0 on all work attempted.
c. Sixty semester hours not including required activity courses in health and physical education, marching band and/or ROTC.
d. Six semester hours in political science.
e. Six semester hours in American history.
f. Nine semester hours in English (not to include Developmental Writing 1301), including six semester hours of Freshman composition and three semester hours of literature.
g. One course in laboratory science and one course in mathematics.
h. Two semesters of physical education activity and/or marching band and/ or ROTC.
3. Complete an Associate of Science program of study as outlined in the bulletin.
4. No more than a total of 15 semester hours of correspondence and extension credit and/or credit by examination combined may be applied toward the degree.
5. Make application for the Associate of Science degree and pay all designated fees.

## Associate of Applied Science Degree (A.A.S.)

1. Satisfy all admission requirements.
2. Meet the following minimum requirements:
a. Three semester hours of business of English; or three semester hours of speech or other humanities.
b. Three semester hours of mathematics (not to include TM 131 and Mth 1314).
c. Three semester hours of social or behavioral sciences.
d. Six semester hours from humanities, fine arts, communications, computer sciences, mathematics, natural sciences or behavioral/social sciences.
3. Complete an approved degree plan.
4. Have at least a 2.0 grade point average on all work submitted on the degree plan and a 2.0 on all courses in the major field submitted on the degree plan.
5. Complete 24 semester hours of major work at Lamar with 12 hours in 200-level courses.
6. No more than 15 semester hours of correspondence and/or extension credit may be applied toward the degree.
7. Make final application for graduation and pay all fees by the deadline date as stated in the current bulletin.

## Second Associate Degree

When another Associate degree is taken simultaneously, or has been taken previously, the second Associate degree may be granted upon the completion of all required work for the second degree.. A minimum of 15 additional hours, as specified by the department granting the second degree, must be completed at Lamar University.

## Graduation

## Application for Graduation

The graduation process consists of the following steps which must be completed, previous to graduation, by the student:

1. Requests the sponsoring department to send an approved degree plan to the Records Office by the due date listed in the current catalogue.
2. Submits all transcripts of college coursework form non-Lamar University-Beaumont institutions to the Records Office.
3. Achieves a grade point average of. 2.0 on a 4.0 scale on both all college work taken and. on all college coursework in the student's major. A course is counted each time taken, whether failed or passed.
4. Completes application for graduation in the Records Office and pays necessary fees for cap, gown and diploma by the deadline listed in the current catalogue.
5. Clears all financial and property matters by the deadline.

The student is responsible, with the concurrence of the major department, for securing official advisement about study plans for the last two semesters, for making application to graduate, and for checking compliance with all degree requirements.

## Graduation Under a Particular Bulletin

A student normally is entitled to graduate under the degree provisions of the bulletin in effect at the time of the student's first completed semester of enrollment with these exceptions:

A bulletin more than seven years old shall not be used.
The program of the student who interrupts enrollment (for reasons other than involuntary military service) for more than one calendar year shall be governed by the bulletin in effect at the time of the student's re-entrance to the University. The student who interrupts enrollment for involuntary military service must re-enroll within one year from the date of separation from military service in order for this provision to apply. For these purposes, enrollment shall be defined as registration for and successful completion of at least one course during an academic term. A student forced to withdraw for adequate cause before completion of a course may petition for a waiver of this provision at the time of withdrawal.

The program of the student who changes major from one department to another within the University shall be governed by the degree requirements in effect at the time the change of major becomes effective.

At the discretion of the dean, the student will be required to comply with all changes in the curriculum made subsequent to the year in which the student is enrolled. Dele-
tions and additions of courses will be of approximately equal credit so no student will have an overall appreciable increase of total credits required for graduation.

Any first-time college student who entered a junior college on or after September 1, 1968, can qualify, upon transfer to Lamar University, to graduate under the Lamar University bulletin in effect when the student entered the junior college if the core curriculum provisions of the Coordinating Board are followed. Students are subject to the requirement if they interrupt their studies for more than one calendar year at the junior college or before transfer to Lamar University, they must qualify for graduation under the bulletin in effect when they return to the junior college or enroll at Lamar University. This policy became effective for the year 1974-75.

## Graduation Honors

To be designated as honor graduates, members of the graduating class must (1) have completed at least 60 semester hours at Lamar University for a four-year degree and 30 semester hours for a two-year degree, (2) have a grade point average of at least 3.5 for all course work attempted at Lamar as well as a 3.5 on the combination of work at Lamar and all attempted work at other institutions attended. A grade point average of 3.5 to 3.64 qualifies for "cum laude" (honors), 3.65 to 3.79 for "magna cum laude" (high honors), and 3.80 to 4.00 for "summa cum laude" (highest honors).

Grades made the semester of graduation are included in the calculation of grade point averages for honors. Recognition of honor graduates at the commencement exercises, however, will of necessity be limited to those who have the qualifying grade point average at the end of the semester or term preceding graduation. Both diplomas and permanent records indicate graduation honors.

## Student Affairs

The Division of Student Affairs is administered by the Associate Vice President/ Dean of Students who, as the chief student affairs administrator of the University, reports to the Executive Vice President for Academic and Student Affairs. The primary responsibilities of the Division are to provide services and programs that enhance the general education and development of students, enrich the quality of student life, and support the teaching, service and research missions of the University.

The Division consists of the Department of Student Development, the Setzer Student Center, the Special Services Program, the Health Center, Recreational Sports, Student Publications, the Assessment, Advising, and Research Center, and the Career Development and Placement Center.

## Office of the Associate Vice President/Dean of Students

The Associate Vice President/Dean of Students provides primary leadership in the formulation and administration of policies and procedures related to student life and to the rights and responsibilities that accompany student citizenship in the University community. The "Student Conduct Code" as well as other important information pertaining to student life is included in the Student Handbook. It is the student's responsibility to be knowledgeable of established University policies and procedures that are contained in the Student Handbook and to comply with them. Copies of the Student Handbook are available upon request in Office 109 of the Wimberly Student Services Building.

## Student Development

The Office of Student Development, located in Room 107 of the Wimberly Student Services Building, provides numerous services that are available to students when assistance is most important.

In the event of an emergency between the hours of 8 a.m. and 4:30 p.m., members of the office staff will attempt to locate a student on campus for the purpose of relaying a message.

Students may also request the office to notify a faculty member(s) prior to or during an extended absence due to personal injury, illness, or hospitalization. The notification does not constitute an excused absence from class(es); however, it does advise the faculty member(s) as to the reason for the absence and of the anticipated date of return to class.

The Dean of Student Development, the Director of Student Development Programs/ Orientation and the Director of Leadership Lamar Institute are available in this office for assistance and advisement of individuals or student groups. The primary roles and responsibilities of the professional staff are to provide leadership and interpersonal skill- development training and to plan and coordinate the new student orientation programs. Information about Leadership Lamar Institute and the orientation program is available upon request.

## Assessment, Advising and Research Center

A full range of counseling, advising, and testing services are provided in the Center, 116 Wimberly Student Services Building. Professional staff assist students with concerns, questions, problem solving, adjustment, decision making, goal planning, testing, and skill development. Staff will refer students to other offices and personnel in accord with the needs and interests of the individual.

Educational, personal, academic, and crisis intervention counseling is available. In order to best serve as many students as possible, problems of a long-term, therapeutic nature cannot be addressed; however, initial consultation is available and, when feasible, referral to community resources and services is made. There is no charge to students
for counseling sessions. Counseling contacts are maintained as confidential, and no entries are made in the educational records of the student.

The Center coordinates testing required by the University; provides individual interest, aptitude, and personality assessment; and, as a National Test Center, administers the following: Graduate Record Examination (GRE), Law School Admissions Test (LSAT), Graduate Management Admission Test (GMAT), Scholastic Aptitude Test (SAT), American College Testing Program (ACT), College Level Examination Program (CLEP), Miller Analogies Test, and the Texas Academic Skills Program (TASP). The majority of these tests are administered on scheduled testing dates and require application and fee payment in advance of the testing day. Information and application forms may be obtained from the Center.

## Learning Skills Program

The Learning Skills Program is designed to aid students in the development of skills necessary for successful performance in their academic course work and completion of their degree or certificate program. The program office is in Room 102 of the Galloway Business Building.

Carefully selected and trained student counselors conduct a systematic instructional program under the direct supervision of the Director of Learning Skills. Individual computer-assisted instruction is also available. The program is designed to serve all students, both the very capable learner and the student with potential academic problems. More information is available upon request.

## Career Development and Placement Center

Career information and exploration activities offered by the Center are excellent, and the facilities are comfortably designed for student use of the up-to-date career library and computer resources. The computer-assisted career information systems, SIGI and DISCOVER, are popular with students who are deciding on an academic major or career as well as with those who are seeking reinforcement of choices they have made. After brief instruction, the student may utilize the computers for individual, self-paced exploration.

Placement is a centralized operation responsible for placement activity for all colleges of the university.

The placement service is available to students, faculty, staff, and former students. The center keeps updated information on career fields and job areas, employers, and the kind of employees being sought.

Interviews are scheduled regularly with companies, government agencies, schools, and other employers.

The center also offers student seminars pertaining to job search techniques, interviews, resume writing, and job availability.

The Career Development and Placement Center is located in 102 Galloway Business Building.

## Setzer Student Center and Student Activities

The Richard W. Setzer Student Center and the student activities program are administered by the Director of the Setzer Student Center. The Director is assisted by the Director of Student Activities, Assistant Director for Programs and Interfraternity Council Advisor, Assistant Director for Operations, Assistant to the Director for Student Organization Services and the Panhellenic Advisor.

The Setzer Student Center provides facilities for leisure-time recreation and it is the campus center for many extracurricular activities and programs. Facilities and services include an information center, two games areas, TV rooms, a check cashing and ticket sales outlet, locker rentals, a music listening room, graphics operations, the reservations
office, a video lounge, a ballroom, a reading room, various meeting rooms and lounges, The Redbird Perch, a pizza parlor and delicatessen operation and The Cardinal Nest, a fast food operation. Commercial businesses housed in the Center include the Lamar University Bookstore, the Roost Ice Cream Shop, and a copying service.

Housed in the Center are the offices of the Setzer Student Center Council, Student Government Association, Student Organizations, Student Publications and the professional staff members who serve as advisors to these organizations and to many others. The office of the Director serves as the advising and coordinating center for sororities and fraternities.

## Student Organizations

More than 175 student organizations are currently active at Lamar and offer student membership opportunities in one or more of the following groups: professional, religious, academic class, mutual interest, honor, sorority, fraternity, spirit and sports or activity groups. Participation in student organization activity enhances the education of students, who are strongly encouraged to affiliate with the organization(s) of their choice and participate in the programs.

## Setzer Student Center Council

The Setzer Student Center Council (SSCC) is the student organization responsible for providing the campus with a variety of programs and extracurricular activities, using the Setzer Student Center for a majority of its functions.

The Council is composed of 11 committees: concert, performing arts, forum, contemporary film, coffeehouse, recreation, social, travel, video tape, campus radio station and homecoming. Membership on the committees is open to all students who meet the University's extracurricular activity policy standards. The President is elected in the general student election.

## Student Government Association

The Student Government Association serves as the representative voice of students; as a major facilitator of new and improved student services and programs; and in an important role relative to student judicial proceedings. All regularly enrolled Lamar University students are members of the Student Government Association, which affords each student an opportunity to promote, support, and participate in a well-rounded student life program.

The President and members of the Student Senate elected each Spring in a general student election. The Vice President and Secretary-Treasurer are elected annually by the Student Senate, which meets weekly. Student opinions may be expressed at the open meetings of the Senate, or ideas, suggestions, and/or concerns may be submitted through SGA suggestion boxes at various campus locations.

The Student Government Association office is located in Room 212 of the Setzer Student Center.

## Residence Hall Association

The Lamar Residence Hall Association is the umbrella organization for individual residence hall councils and provides a voice for campus residents. The RHA is also a component of the programming body for the residence halls. Social, educational and service programs are designed to enhance the quality of life in the residence halls. Every resident student is an automatic member of the RHA and is encouraged to participate in its programs and activities.

## Student Support Services

The Student Support Services Program, located in Room 249 of the Education Building, is designed to provide support services for students who need academic counseling or other assistance to successfully complete their college education. The goal of the
program is to increase the retention and graduation rate of students who, by traditional academic measures, would have difficulty succeeding in college. The program is administered by the Director of Student Support Services who is assisted by an Academic Counselor and a Writing Specialist.

Students enrolled at Lamar University who are recognized as first generation college students, economically disadvantaged, veterans or physically handicapped are eligible to receive tutoring and to participate in the activities of the program.

The program operates in close cooperation with the Counseling Center.

## Health Center

The University maintains a Health Center for use by Lamar students. Outpatient service is available for illness or injury that does not require constant supervision.

While it is not possible for the University to provide unlimited medical service, some routine laboratory tests are available at the clinic at a reasonable cost. More extensive laboratory tests and X-rays are available from private physicians if requested by the Health Center Director.

All drugs, splints, and special bandages, as well as serums, vaccines, and gamma globlulin, which may be prescribed by the Health Center, are dispensed at prices equal to the cost assessed the University. Pre-admission vaccinations are not given. Emergency Room or other outside medical care is not the responsibility of the University and is not offered by the Health Center. Any student who has a chronic illness or disability requiring continuing medical attention should make arrangements with a local private physician.

Student Health Center services are available during regular hours when the University is in session.

## Recreational Sports

All faculty, staff, and currently enrolled students with a valid Lamar ID card have access to the recreational facilities and may participate in the wide variety of activities that are offered. The Recreational Sports Office is responsible for organizing the activities, which are arranged into three different levels of involvement and competition.

The Recreation Program offers the use of the University's facilities for free-time recreation. Published schedules and reservations allow the student, faculty or staff member to exercise and enjoy competition with friends at a leisurely pace. Sports equipment is available to be checked out for overnight and weekend excursions or club activities.

The Intramural Program provides an opportunity to participate in supervised, competitive sports between groups within the University community. Persons not involved in varsity athletics are given further opportunity to develop skills learned at the high school level. Organizations may place teams in the all-Sports Division, which consists of competition in 22 different sports or choose the Independent Division, in which specialization in one or more sports may be chosen. The stated purpose of the Intramural Program is to promote human understanding, fair play and behavioral control through the interrelationships occurring in athletic competition.

Sports Clubs are made up of individuals interested in a special sport and who seek competition beyond the boundaries of the University. Further information on any facet of the Recreational Sports Program may be obtained from the Recreational Sports Office, Room 114 of McDonald Gym.

## Student Publications

University Student Publications include the University Press, a campus student newspaper published twice a week during the long semesters. The University Press, with offices at 200 Setzer Student Center, serves as a training opportunity for students interested in journalism.

The Student Telephone Directory-containing a listing of the names, addresses, and telephone numbers of students, faculty, and administrators-is published each Fall under the auspices of the Setzer Student Center and the University Press. It is distributed by the Setzer Student Center. Students should contact the Registrar to complete a form if they wish not to be listed in the Student Telephone Directory.

Pulse, a literary magazine, showcases student prose, poetry, and art.

## Student Life

## Religious Centers

Several denominations provide a full-time ministry to the campus and have established student centers adjacent to the campus.

In addition to credit Bible courses, the centers offer opportunities for worship, noncredit study, and counseling to aid in developing a meaningful context for the student's university years.

## Eligibility for Extracurricular Activities

An extracurricular activity is understood to be any activity representing the student body, any student organization, any department or division organization or any general activity representing the University.

Any full-time student not on disciplinary or scholastic probation, who is regularly registered, is eligible to become a candidate and/or to hold student office or to represent the University in any extracurricular activity provided such student has a grade point average of at least 2.0 for both the total of college work completed at Lamar and that of the preceding semester.

For the purpose of establishing eligibility, two six-week summer terms may count as one semester.

Transfer students have the same eligibility as Freshman students until completion of one semester.

## Conduct and Discipline

## Student Conduct

In order to meet its educational objectives, an institution of higher learning must expect rational, mature behavior from its constituency. to accept anything less is to invite the destruction of not only academic freedom but the system of higher education itself.

Student discipline at Lamar is based on an educational philosophy of helping students grow and mature into responsible citizens. When a student behaves in a manner which might require disciplinary action, a careful investigation of all facts is made and the student afforded every opportunity to assist in arriving at just and equitable decisions. Counseling, conferences with parents and/or instructors, conferences with peer groups and other techniques as may seem appropriate, may be employed in making discipline an educational experience.

## Hazing

Hazing is prohibited in state educational institutions by the Texas Education Code. Students of Lamar University are forbidden to engage in, encourage, aid or assist any person(s) participating in what is commonly known and recognized as hazing. Any student who does so will be subject to University disciplinary action and might also expect to be dealt with by civil authority. Refer to the Student Handbook for more specific definitions and information relative to the legal implications of hazing.

## Penalty

A student who provides false information or makes false statements to any University official or office or on an official form submitted to the University is subject to immediate dismissal.

## Summons

An official summons takes precedence over other University activities of the student and should be answered promptly on the day and hour designated. Failure to heed an official summons may subject the student to serious disciplinary action.

## Debts

The University is not responsible for debts contracted by individual students or student organizations and will not act as a collection agency for organizations, firms or individuals to whom students may owe bills.

Students and student organizations are expected to honor contractual obligations promptly, but in case of flagrant disregard of such obligations, the chief student affairs officer or his designated representative will take appropriate action.

Failure to pay all University fees by the specified date will result in suspension through the 12th week in the long semester and the fourth week of each Summer term. After the 12th week in the long semester and the fourth week of each Summer term failure to pay all fees by the specified date will result in suspension at the end of the current semester and may include: a) denial of readmission; b) withholding of grades and transcripts; c) withholding of degree.

## Disciplinary Action

A student is subject to disciplinary action for unacceptable behavior, as outlined in the Student Handbook. The chief student affairs officer may classify behavior as unacceptable and may refer the case to the proper judicial body for investigation and decision. The student has the privilege of appealing the decision to the University Discipline Committee. This appeal is made through the Associate Vice President/Dean of Students.

## Parking

Each student who pays the necessary fee is issued a vehicle card that permits parking on the campus. This card is numbered and is to be displayed as instructed in official parking and traffic regulations, which are issued when vehicles are registered. Strict observance of traffic and parking regulations is necessary for the safe, orderly flow of vehicles in the campus area.

## Auxiliary Services

## Intercollegiate Athletics

Lamar University became a founding member of the American South Athletic Conference (ASAC) in 1987 after 23 years of affiliation with the Southland Conference, which Lamar also helped establish. As a member of ASAC, Lamar fields National Collegiate Athletic Association Division 1-A teams for conference competition in 12 sports. The University sponsors three sports, including 1AA football, on an independent level.

Programs and policies for intercollegiate athletics are administered under the advice of the University Athletic Committee and the Athletic Director.

Lamar has a heritage of excellence in a well-balanced program of athletics for both men and women. It is a campus tradition that athletic achievement, the spirit of good sportsmanship and trained discipline contribute to the educational environment of campus life.

## Eligibility

A high school graduate entering directly from high school who meets the eligibiity requirements of the American South Athletic Conference and the National Collegiate Athletic Association Division I who is registered for a minimim of 12 semester hours is immediately eligible for intercollegiate athletics at Lamar.

Regulations for the American South Athletic Conference and the National Collegiate Athletic Association, each of which Lamar University is a member, require the following for eligibility in years subsequent to the first academic year in residence: (1) satisfactory completion of a minimum 24 semester hours of the academic credit required for a Baccalaureate degree in a designed program of studies since the beginning of the student athlete's last season of completion (hours earned in summer school may be utilized to satisfy

## Housing

The student housing program is designed to supplement the academic program by providing opportunities for social and intellectual development and recreation in an educational environment. A variety of living styles include semiprivate rooms, modern furniture, carpet, central heating and air conditioning. Residence hall staff assist with programs and serve as advisors and counselors to the resident.

It is recommended that freshmen who do not live with parents or other relatives reside on the campus since the adjustment to college frequently is difficult for the firstyear student. In a residence hall, students have easy access to the library, to contacts with upperclassmen in their major fields, and to professional counseling.

## Applications

To apply for a room in a University residence hall, contact the Housing Office. A check or money order of $\$ 100.00$ must accompany the application. Contracts will be sent to applicants as rooms become available. The contract must be signed and returned.

## Termination of Contract

Subject to the conditions set out below, the Student may terminate this contract if written notice is timely received by the Housing Office.
A. Contract Termination Prior to Occupancy

Refund (Fall-Spring Semester) if written notice of termination is received:

> Refund
(Fall) Prior to July 31............................................................... 100\% \$100.00
After July 31 but prior to August 15 ................................ 75\% \$ 75.00
After August 15 but prior to halls opening...................... 50\% \$ 50.00
After halls open ........................................................................ No refund
(Spring) Prior to December 15...................................................... 100\% \$100.00
After December 15 but prior to December 31.................. 75\% \$ 75.00
After December 31 but prior to halls opening................. 50\% \$ 50.00
After halls open ........................................................................ No refund
B. Other Reasons Your Deposit Will Be Forfeited:
(1) Failure to claim room by 6:00 p.m. on the first day of registration. (Late arrivals, notify Housing Office)
(2) Moving out during the contractual period of one academic semester.
(3) Failure to complete the proper withdrawal forms at the end of each semester.
(4) Damages.

## Assignments

Room assignments cannot be made until the student reports for check-in. The University reserves the right to assign students to specific residence halls and rooms. The University also reserves the right to consolidate residents in order to achieve maximum
utilization of facilities. Students may request certain residence halls and rooms, and consideration will be given each request. However, all assignments are made based on the date of deposit.

## Dining Halls

Dining halls are located on Redbird Lane, and in Brooks-Shivers Hall. Snack bars, located in the Setzer Student Center and Beeson Technical Arts Building, provide sandwiches, soft drinks and light lunches. Commuter students may also use the dining halls. A schedule of serving hours may be obtained from the Housing Office.

All resident students are required to be on a University Board Plan.

## Fees

The cost of University housing varies, depending upon the meal plan chosen and the type of housing selected. In the 1989-90 academic year this ranged from \$1,226.00 to $\$ 1,349.00$ per long semester. The University reserves the right to change fees as approved by the Board of Regents.

Room and board fees may be paid in one, two or three installments as outlined on the schedule furnished by the Housing Office. Statements will not be mailed to students or parents and a $\$ 10$ late fine plus $\$ 1$ per day will be charged for failure to comply with the established schedule. Failure to pay all University fees by the specified date will result in suspension through the 12th week in the long semester and the fourth week of each Summer term. After the 12th week in the long semester and the fourth week of each Summer term, failure to pay all fees by the specified date will result in suspension at the end of the current semester and may include: a) denial of readmission; b) withholding of grades and transcripts; c) withholding of degree.

For additional information and application forms, write: University Housing Office, Lamar University Station, P.O. Box 10041, Beaumont, Texas 77710.

## DEVELOPMENTAL EDUCATION

To assist students in meeting the requirements of the Texas Academic Skills Program (described on page 29) Lamar University has created several courses in developmental education. These courses are listed below.

For further information contact Dorothy Faye Thames, Director of Developmental Education (880-8954).

## DRdg 1301 - Developmental Reading

Development of basic reading skills as required by the Texas Academic Skills Program (TASP). The course is required for all students who have not passed the state mandated TASP test and must be repeated until the reading portion of the TASP test is passed. Course does not satisfy the general degree requirements for any major. Prerequisite: None
DMth 1301-Computational Skills \& Beginning Algebra
Development of basic mathematical skills as required by the Texas Academic Skills Program (TASP). The course is a prerequisite for DMth 1302 and required for all students who have not passed the mathematics portion of the state's mandated TASP test. this course does not satisfy the general degree requirement for mathematics. Prerequisite: None

## DMth 1302 - Intermediate Algebra

Development of intermediate algebra skills as required by the Texas Academic Skills Program (TASP). The course is a prerequisite for Mth 134 or Mth 1334. For those students who have no previous college credits, passing the course is dependent on passing the mathematics portion of the TASP test. This course does not satisfy the general degree requirements for mathematics.
Prerequisite: DMth 1301 or high school Algebra I.

## DWr 1301 - Developmental Writing

Development of basic composition and writing skills as required by the Texas Academic Skills Program (TASP). The course is a prerequisite to English 131 for all students who have not passed the state-mandated TASP writing test; students who do not pass the state test must engage in some type of mandatory remediation until the test is passed. This course neither satisfies general degree requirements for Freshman English nor counts toward graduation hours.


The practiced eye of the professor inspires excellence in students as they concentrate on their project in a biology lab.

## College of Arts and Sciences

Departments: Biology; Chemistry; English and Foreign Languages; Geology; History; Military Science; Physics; Political Science; Sociology, Social Work and Criminal Justice.

John P. Idoux, Ph.D. Dean<br>101 Chemistry Building, Phone 880-8508<br>Boyd L. Lanier, Director Advising Center 111 ROTC Building, Phone 880-8907<br>Jeanne Beard, Adjunct Advisor, Advising Center<br>Devra Simpson, Adjunct Advisor, Advising Center<br>John W. Storey, Director, University Honors Program<br>93 Maes Building, Phone 880-8511/8514<br>Boyd L. Lanier, Director, Bachelor Applied Arts and Sciences Program<br>77 Maes Building, Phone 880-8534

## Organization and Function

The College of Arts and Sciences, the largest academic unit in the University, enrolls approximately 25 percent of the University's undergraduate students, provides most of the general education foundation courses for all of the University's majors and, in the finest tradition of the Liberal Arts and Sciences, serves a vital academic leadership role within the University.

In keeping with the aims and goals of Lamar University, the College of Arts and Sciences is responsible for programs in the Humanities (English, history, modern languages, philosophy), the Natural Sciences (biology, chemistry, geology, physics) and the Social Sciences (anthropology, criminal justice, political science, sociology and social work). Through its Departments of Biology, Chemistry, English and Foreign Languages, Geology, History, Military Science, Physics, Political Science, and Sociology, Social Work and Criminal Justice, the College offers more than 40 Baccalaureate and Graduate programs in these areas. In addition, through an approved program of study, a provisional secondary teaching certificate may be obtained in a particular Arts and Sciences discipline. The College also offers a Bachelor of General Studies-Liberal Arts degree, a Bachelor of Applied Arts and Sciences degree, provides pre-professional programs in pre-law and in those primary health care delivery areas which lead to further study in schools of dentistry, medicine, optometry, pharmacy, physical or occupational therapy, podiatry and veterinary medicine, and is responsible for the organization and supervision of the University's Honors Program.

In addition to providing strong academic degree programs in the areas described above, the College of Arts and Sciences offers a wide selection of courses designed to complement the programs of the other colleges of the University. Those offerings include most of the courses necessary to satisfy the University's general education requirements for all undergraduate students, the Honors courses and a variety of religious education courses.

## The Liberal Arts and Sciences

Like other areas of study, the disciplines represented by the Arts and Sciences prepare a student for advanced study and research, for a career in business, industry, government service or teaching or for study in a professional field. In addition, however, the very nature of the Arts and Sciences disciplines not only trains the mind and sharpens the intellect but also provides an experience designed to encourage life-long learning. It is a "liberating" experience which enables one to acquire the skills and knowledge to think critically, examine values and principles, broaden perspectives and to understand the individual and the relationship among the individual, our natural
environment and our society. Thus, specialization in one or more of the Arts and Sciences disciplines provides the opportunity for this experience and the prelude to a career.

## Degree Offerings

## Bachelor of Applied Arts and Sciences

Bachelor of Arts with majors in the following fields:

| Chemistry | Political Science |
| :--- | :--- |
| English | Sociology |
| French | Spanish |

French
Spanish
History

## Bachelor of General Studies-Liberal Arts

Bachelor of Science with majors in the following fields:

Biology
Chemistry
Criminal Justice
Earth Science
Energy Resources Management
Environmental Science

Geology
Medical Technology
Oceanographic Technology
Physics
Political Science
Sociology.

## Bachelor of Social Work <br> Associate of Science in Law Enforcement

Graduate programs are offered in biology, chemistry, English, history, political science and public administration. The Department of Geology, the Department of Physics and the Sociology Program offer graduate courses in support of other advanced degree programs. Further information may be obtained from the Graduate Catalog or by contacting the appropriate academic department.

## Minimum Standards for Undergraduate Majors in the College of Arts and Sciences

A student enrolled as a major in the College of Arts and Sciences (including undecided majors) must fulfill all University degree requirements, including those for general education, as well as the particular requirements set forth by the department for an area of specialization. In addition, majors in the College must:

1. Complete the Freshman English composition requirement with no less than a grade of "C".
2. Complete all department courses required in their major with at least a grade of "C".
Students are expected to make acceptable progress toward their degree objectives and are expected to work closely and carefully with their academic advisor. Students who initially enter the College as an undecided major will generally be required to select a major before the beginning of their third semester in the College.

Students majoring in one of the programs in the College of Arts and Sciences (including undecided majors) who accumulate a grade point deficiency of 25 or more grade points by the beginning of a Fall or Spring semester will be suspended for that semester. Students returning from an academic suspension must reduce their grade point deficiency every semester of enrollment until the deficiency is eliminated. Failure to reduce the deficiency in any one semester will result in a second suspension of two long semesters. A third suspension will result in exclusion as a major in the College of Arts and Sciences.

Students suspended from Fall and/or Spring semesters may attend a Summer session. If the grade point deficiency is less than 25 at the close of the Summer session, the student may enroll for the following Fall semester but will be charged with a suspension.

Upon recommendation of the Department Chair and approval of the Dean of the College, exceptions to the above policy will be considered for:

1. A student whose unsatisfactory work includes an "I'" grade and whose grade point deficiency is less than 25 grade points if calculated without the "I."
2. A student who compiles exactly a 2.0 GPA after returning from a suspension.
3. A student in good standing ( 2.0 or greater GPA) who accumulates a grade point deficiency of 25 or more grade points in one semester.
4. A student in college for the first time at the end of the first semester of attendance.

## University Honors Program

Director: John W. Storey
93 Maes Building, Phone 880-8511/8514
The Lamar University Honors Program is an enriched program offering a variety of courses designed specifically for qualified and highly motivated students. Honors courses are more challenging and creative than regular courses. The classes are always small, and the instructor has ample opportunity to present course material to a select group of good students in a very interpretive and analytical fashion. Honors courses make learning a genuine pleasure. Although the program is administered through the Dean's office of the College of Arts and Sciences, qualified students working toward an approved baccalaureate degree in any of the colleges may participate. Normally, some scholarships are available to qualified students who enroll in the program. In order to be admitted to the Honors Program, entering Freshmen must have a score of at least 1000 on the SAT. College students participating in the program must maintain a 3.1 overall grade point average. The benefits of participating in the Honors Program are several: the prestige of having been selected for an accelerated academic program; the possibility of winning a commencement award given to the graduating senior with the highest grade point average who participated in the Honors Program; and, most importantly, the additional learning opportunities afforded those enrolled in Honors courses.

The Honors Program currently includes Honors sections of Freshman composition (Eng 136), literature (Eng 2318 and Eng 2319), political science (POLS 231H and POLS 232 H ), American history (His 231H and His 232H), general biology (Bio 141H and Bio 142 H ), general chemistry (Chm 142H), sociology (Soc 131H), psychology (Psy 131H), economics (Eco 131H and 132H), speech (Spc 131H), and two advanced interdisciplinary courses especially designed for the program (Hon 331 and Hon 431). Plans are to expand the program to include Honors course offerings in several additional areas.

## Honors Courses (Hon)

An interdisciplinary course designed for Honors Program. The content depends upon the combination of disciplines involved.
May be repeated for credit when topic varies.
431 Honors Seminar
An interdisciplinary course designed for the Honors Program. The content depends upon the combination of disciplines involved.
May be repeated for credit when topic varies.

## Bachelor of Applied Arts and Sciences

Director: Boyd Lanier

77 Maes Building, Phone 880-8534
The Bachelor of Applied Arts and Sciences degree exists to facilitate the completion of a college degree by those individuals already possessing training in a vocational field. Students wishing to improve their vocational and professional competency or to meet educational requirements of the contemporary workplace will fine this program useful.

The Bachelor of Applied Arts and Sciences will be granted upon the completion of the General Degree Requirements of the University, including up to 24 hours of experiential credit granted, upon petition by the student and approval by the program director, for learning outside the traditional college setting. Taken together with prior acceptable college work, these hours are added to additional work prescribed to satisfy all the University and the College requirements for graduation. Course selection is subject of the approval of the program director. As experiential credit is usually very specific and vocationally oriented, it will often constitute the major field of a Bachelor of Applied Arts and Sciences program. Since this is completed early in a student's career, the Bachelor of Applied Arts and Sciences is considered an "inverted degree," completing a student's curriculum with courses ordinarily elected at the start of college study. Thirty hours of course work must have been completed at Lamar University with 24 having been earned after obtaining Senior status.

## Bachelor of General Studies - Liberal Arts

Advisor: Boyd L. Lanier
77 Maes Building, Phone 880-8534
The Bachelor of General Studies-Liberal Arts degree is designed for those students who have already established careers and who wish to earn credit toward a degree while learning for the pleasure of learning.

The Bachelor of General Studies-Liberal Arts will be granted upon the completion of the General Degree Requirements of the University plus a major in liberal arts of 36 semester hours, including 18 advanced, over and above the liberal arts courses specified in the General Degree Requirements. For purposes of establishing what courses may be applied toward the LIberal Arts major, Liberal Arts courses shall be defined as those offered by the programs in anthropology, economics, English, history, modern languages, philosophy, political science, psychology and sociology. Course selection is subject to the approval of the program advisor, with at least two of the above disciplines being represented in upper-level Liberal Arts courses. Normally at least nine hours of these upper-level courses will be 400 level.

At least 30 semester hours of the work applied toward this degree must be completed after June 1, 1976.

## Undecided Majors Program

Advisor: Boyd L. Lanier
111 ROTC Building, Phone 880-8907
The Undecided Majors Program assists students who have not yet focused on a college major and who seek counseling in course selection for completion of general degree requirements as they choose a specific field of study. Undecided majors are restricted to 100 - and 200-level courses; they may take no engineering courses, but are free to enroll in other lower-level electives while taking general education subjects. Normally a student should choose a major by the third semester of enrollment. Undecided majors must abide by the College's probation and suspension policy.

## Pre-Professional Programs

The College of Arts and Sciences offers pre-professional programs for students planning careers in law or in one of the primary health care delivery areas - dentistry, medicine, optometry, pharmacy, physical or occupational therapy, physician's assistant, podiatry and veterinary medicine. Other programs associated with the health-related professions (i.e., the allied health sciences) are administered through the College of Health and Behavioral Sciences.

## Pre-Law

Advisor: Boyd L. Lanier
56 Maes Building, Phone 880-8526
For admission to law school a student needs a baccalaureate degree, a high grade point average, and a good score on the Law School Aptitude Test (LSAT). According to the Association of American Law Schools, skills appropriate to the legal profession which can be acquired in undergraduate education are these: comprehension and expression in words, critical understanding of human institutions and values with which the law deals, and creative power of thinking. Therefore, a broad education obtainable in a liberal arts program is excellent preparation for admission to law schools.

The pre-law programs are administered by pre-law advisors within the student's major department. Pre-law students should work closely with the appropriate advisor in planning an undergraduate curriculum and in eventually making application to law schools. One aspect of the application process is the Law School Aptitude Test (LSAT) which law schools require to be taken prior to consideration for admission.

## Pre-Clinical Programs in Physical Therapy, Occupational Therapy and Physician's Assistant

## Advisor: Michael E. Warren <br> 101 Hayes Building, Phone 880-8262

The pre-clinical programs in physical therapy, occupational therapy and physician's assistant are administered by the Department of Biology. The specific programs of study are listed in that department. Further information may be obtained by contacting the advisor.

## Pre-Dental and Pre-Medical Programs

## Advisor: Hugh A. Akers

## 217 Chemistry Building, Phone 880-8267

The Pre-Professional Advisory Committee for the Health Professions, chaired by the Head of the Chemistry Department, was created as a service to all students preparing for and seeking admission to professional schools of dentistry, medicine, optometry, podiatry and veterinary medicine. The services provided include basic advising and counseling in preprofessional matters, academic advising, information on professional school application procedures and providing composite evaluative information on the student to professional schools. It is extremely important that preprofessional students work closely with the program advisor from the time they initiate their studies at the University.

Admission to health professional schools is highly competitive and, in general, the most competitive applicants will have credentials which significantly exceed the stated admissions requirements. For example, while many dental and medical schools may have stated requirements of only two to three years of college preparation, greater than 90 percent of the students actually accepted will have had four years of college. Thus, since "pre-dent" or "pre-med" studies do not lead to a degree, such students should pursue a degree-granting program. The student is then not only a more competitive professional school applicant but has also prepared for an alternate career should admission to a professional school not be possible. Any degree granting program at the University may be chosen as a major; however, programs within the sciences are generally the most appropriate as their required curricula contain many of the courses also required for professional school admission. In addition, careful use of elective hours in the curricula will allow for the selection of other appropriate preprofessional courses.

Various standardized examinations are required as a part of the admissions process to professional schools (dentistry-DAT; medicine and podiatry-MCAT; optometryOAT; veterinary medicine--MCAT). Students should consult with the program advisor concerning preparation for a particular examination and the appropriate time at which the examination should be taken.

# Pre-Medical and Pre-Dental <br> Recommended Program of Study 


#### Abstract

First Year Eng 131, 132 composition......................................... 6 Bio 141, 142 General................................................ 8 Chm 141, 142 General................................................ 8 *Mth 1335 Precalculus.............................................. 3 *Mth 148 or 236 Calculus I.................................. 3-4 PE/ROTC/MLb....................................................... 2-4

Second Year Bio ..........................................................................8** Chm 341-342 Organic............................................... 8 Phy 141, 142 General ............................................... 8 His 231, 232 American.............................................. 6 PE/ROTC/MLb .....................................................................2-4

31-33

\section*{Third and Fourth Years}

Pre-Medical students should choose a major and take the appropriate courses to satisfy the requirements for a Bachelor degree in that major. They should begin application procedures at the end of the third year (See the pre-medical advisor).

Pre-Dental students should begin the application procedure at the end of the second year. (See pre-dental advisor).


*Dental schools have no specific mathematic requirements.
**Advanced Biology, suggested courses: Bio 245, 342, 344, 347, and/or 441.

## Pre-Veterinary Medicine

Recommended Program of Study

*Not offered at Lamar. See the Pre-veterinary advisor.

## Pre-Pharmacy

Advisor: Anne Harmon
217 Chemistry Building, Phone 880-8267
Professional training in pharmacy is offered at three institutions in Texas-Texas Southern University, University of Houston, and University of Texas. General requirements for admission to the professional schools are listed below. Following that are modifications for individual programs.

General Requirements:
Bio 141-142
Bio 245
Chm 141-142
Chm 341-342
Phy 141-142
Eco 233
Mth
Modifications:

## Texas Southern University

Eng: Three hours of literature
Bio: Bio 245 IS NOT required Bio 240 IS required
PEGA: Two hours
Mth: Six hours including 1334 and 1333
Psy: Three hours
Spc: 131
Pharmacy College Admissions Test is required. Fall admission only

## University of Houston

Eng: Six hours of literature
Mth: Six hours including 1341 or 236
PEGA: Two hours
Electives: Social and Behavioral Sciences, six hours (Eco 233 may be used as three hours) Cultural Heritage, six hours
Fall admission only

## University of Texas

Phy: Phy 141-142 ARE NOT required
Eco: Eco IS NOT required
Bio: 347 required
Mth: 1335 and 234
Electives: Fine Arts and Humanities, three hours Social and Behavioral Sciences, three hours Electives of the student's choice, six hours
(University has a language requirement)

## Professional Programs

The Arts and Science departments offer approved programs which enable students to secure the bachelors degree in one of the Arts and Sciences and at the same time certify for a provisional certificate secondary with teaching field in that Arts and Sciences discipline.

An Army officer commission is available through the Reserve Officers' Training Corps (ROTC) program. A complete description of the program may be found under the Department of Military Science.

The Department of Sociology, Social Work, and Criminal Justice offers approved programs to prepare the student for public service in the areas of criminal justice and social work. The student may earn a Bachelor of Science in Criminal Justice, a Bachelor of Social Work, or an Associate of Science in Law Enforcement.

## Career Counseling - Liberal Arts

The Departments of English and Foreign Languages, History, Political Science, and Sociology, Social Work and Criminal Justice each have two or more faculty members who specialize in career counseling. One counselor specializes in counseling students who will attend professional graduate schools. Other counselors specialize in counseling for careers in business, industry and social services.

The Career Counselors have developed lists of career support courses, based on current information aboùt the job market. They can suggest patterns of courses, both electives and minors, that are likely to provide advantages for the Liberal Arts graduate in various types of career pursuits. Numerous materials are available to help student prepare themselves for choosing possible career goals and for entering the job market.

## Cooperative Education Program

A cooperative (Co-op) Education Program in which the student spends alternate terms at work and at study is offered to qualified students in the Departments of Chemistry and Physics. This program is coordinated by the Director of Cooperative Education, and students may contact that office or the individual departments for further information.

## Courses in Bible and Religious Education

## Instructors: Fleming, Mouser, Priest

These courses are provided by church related sources. If credit is desired, the fees are payable to the University. A maximum of 12 semester hours is allowed with the approval of the student's academic dean.

## Bible Courses (Bib)

## 131 Survey of the Old Testament

3:3:0
A critical study of the Old Testament and its relevance to Western culture.
131 Survey of the New Testament
3:3:0
A critical study of the New Testament, its historical context and the beginnings of the Christian Church.
133 New Testament: Gospels
A critical study of the Gospels, the person and work of Jesus of Nazareth.
134 New Testament: Paul
3:3:0
A study of the life and ministry of St. Paul and the major portion of the Pauline letters.
135 Introduction to Christian Thought
3:3:0
A course designed to acquaint the student with the major concepts of the Christian faith: to explore their Biblical basis and their relevance for the present day.
212 Current Issues in Religion ... 1:1:0
An interpretation of religious events through the reading of current religious and secular periodicals.
231 Church History
The history of the Christian Church, including the General Councils, the missionary movements, the Reformation and the transition to the modern scene.
232 Christian Ethics 3:3:0
The relation of the Christian Faith to daily living, with particular emphasis on vocation, courtship and marriage, the person and society.
233 Old Testament: Prophets . . . . . . . 0
A study of the major and minor prophets and the role they played in the development of the religion of Israel.
314 Thematic Approach to Religion . . . 1:1:0
A critical study of significant ideas or writings in religion.
324 Thematic Approach to Religion $\quad$ 2:2:0
A critical study of significant ideas or writings in religion.
331 Philosophy of Religion
3:3:0
Planned to describe the points of view in religious philosophy which are of vigorous contemporary influence and to analyze the basic issues between them, including a study of religion as such, its historical development and some emphasis on major contemporary religions.
332 Major Themes of the Bible 3:3:0
Planned to present Biblical concepts of God, man, history, covenant, prophecy, vocation and related ideas.
333 Comparative Religion 3:3:0
A comparative study of the world's major religions, e.g. Judaism, Christianity, Islam, Hinduism, Buddaism.
334 Thematic Approach to Religion
3:3:0
A critical study of significant ideas or writings in religion.

# Department of Biology 

## Department Chair: Michael E. Warren

101 Hayes Building, Phone 880-8262
Professors: Harrel, McGraw, Ramsey, Turco, Warren
Associate Professors: Bechler, Carley, Haiduk, Hunt, Malnassy, Runnels, Sullivan
Assistant Professors: Bryan
A student majoring in one of the three Baccalaureate degrees offered by the department of Biology (Biology, Medical Technology, Oceanographic Technology) quickly understands that the biological sciences have foundations in the supporting sciences of chemistry, physics and mathematics.

The Biology program is committed to the laboratory approach to science. Students completing the Biology core will have been exposed to all major areas of Biology and are allowed the freedom to concentrate on an area of special interest within the major. There are also sufficient hours of free electives so that a Biology major could obtain secondary teaching certification simultaneously. The faculty is housed in the Hayes Biology building and in the Science Auditorium. Field based study is also available at the Dujay Sanctuary in the Big Thicket and at the Marine Station at Pleasure Island, near Port Arthur.

The areas of expertise and research interests of the faculty include Behavior, Plant and General Physiology, Cell Biology, Ecology, Limnology, Cytogenetics, Microbiology, Epidemiology, Ornithology, Oceanography, Parasitology, Entomology, Epidemiology, Invertebrate Biology of Fish, Reptiles, and Mammals.

## Bachelor of Science - Biology Major

As the study of life, Biology requires a thorough understanding of the underlying chemical and physical principles governing all life processes. Lamar students attracted to this field are well equipped to enter the professions of medicine, dentistry, etc., or one of the other areas listed below in this section. Students are equally prepared for environmentally related careers in various governmental agencies or private companies. A career file is maintained in Room 101 of the Hayes Biology building to acquaint students with the far ranging career possibilities. Students interested in further education leading to an advanced degree in biology are also well prepared. Those interested in teaching should consult that section below.

The degree of Bachelor of Science in Biology will be awarded upon the completion of the following requirements:
A. General Requirements:

English Composition - six semester hours
Sophomore English Literature - six semester hours
Mathematics - two courses to include calculus
Sophomore American History - six semester hours
Political Science-American Government - six semester hours
Physical Activity, Marching Band, or ROTC - two semesters
Laboratory Science-Biology 141-142 - eight semester hours
Speech 131 - three semester hours
Fine Arts - three semester hours
Social Science - three semester hours
Philosophy of Knowledge - three semester hours
Health \& Wellness - three semester hours
B. Major:
Core courses, see list below - 20 semester hours Biology electives - 12 semester hours Biology 416, 417 Literature - two semester hours
C. Supporting Sciences:General Chemistry - eight semester hoursOrganic Chemistry - eight semester hoursGeneral Physics - eight semester hoursBiochemistry or Cell Physiology - three or four semester hoursStatistics - four semester hours
D. Electives:Sufficient electives to complete a total of 140 semester hours.
Recommended Program of Study
First Year
Eng 131 ..... 3
Eng Composition ..... 3
Bio 141, 142 General ..... 8
Chm 141, 142 General ..... 8
Mth 1335 Precalculus or 236 ..... 3
Mth 236 Calculus or 237 ..... 3
Phil 130 ..... 3
PE/MLb 124***/ROTC 2 sem. ..... 2
Third Year
POLS 231, 232 American Government I, II ..... 6
Electives ..... 4
Psy 241 Statistics .....  4
**Bio selected from core ..... 8
Bio Elective .....  8
Chm 441 or Bio 4302 ..... 3-4
Spc 13136-373

## Second Year

Soph Eng Literature ..... 6
Chm 341, 342 Organic ..... 8
Phy 141, 142 General ..... 8
**Bio selected from core ..... 12
Health \& Wellness ..... 3

$\qquad$37
Fourth Year
Bio 416, 417 Bio Lit ..... 2
Bio Electives ..... 4
Electives ..... 16
Soph Am His ..... 6
Fine Arts ..... 3
Social Science. ..... 3
**The following courses must be included in the Biology Core: Bio 243 or 245, Microbiology; Bio 346, Invertbrate Zoology; Bio 345, Botany; Bio 240 or 444, Comparative Anatomy or Vertbrate Natural History; Bio 347, Genetics.
***Offered Fall Semester only. If MLb 124 option is desired it should be added to second, as two semesters are required.

## Teacher Certification - Biology

Students wishing to obtain the Bachelor of Science degree in Biology and simultaneously certify in Biology for a provisional certificate-Secondary, must obtain 24 semester hours in an additional teaching field.

For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.

# *Bachelor of Science in Psychology <br> *Bachelor of Science in Biology 

First YearBio 141, 142 General................................................ 8
Chm 141, 142 General8Eng Composition6
Mth 1335 Precalculus ..... 3
Psy 131 Intro to Psy ..... 3
Psy 241 Intro to Stat ..... 4
PE Activity ..... 2
Phil 130 ..... 3

## Second Year

Chm 341, 342 Organic ..... 8
Bio 240 Comparative Anatomy or 444 Vert Na Hist ..... 4
Bio 245 Microbiology ..... 4
Psy 342 Methods .....  .4
Eng Soph Literature ..... 6
Mth 236 Calculus I. ..... 3
Computer Sci ..... 3
***Psy Advanced .....  335
Summer
POLS 231, 232 American Government I, II ..... 6
Fine Arts .....  3
Health \& Wellness .....  312
Third Year
Soph Am His .....  6
Phy 141, 142 General ..... 8
Bio 347 Genetics ..... 4
Bio 345 Botany ..... 4
Psy 443 Experimental Psy .....  4
***Psy Advanced ..... 9
35
Fourth Year
Bio 346 Invert Zool .....
Bio 416-417 Bio Literature .....  2
**Bio Electives ..... 12
***Psy Advanced .....  .6
Electives ..... 13
*Both degrees must be awarded simultaneously.
**Biology Electives chosen from Bio 342, 344, 446, 447.
** *Advanced Psychology Electives: Group I (Choose any three): Psy 331, 332, 333, 334, 432; Group II (choose any three): Psy 336, 431, 436, 438.

# $\dagger$ Bachelor of Science in Biology <br> $\dagger$ Bachelor of Science in Chemistry 

First Year
Bio 141-142 General .....  8
Chm 141-142 General ..... 8
Eng Composition ..... 6
Mth 1335 Precalculus .....  3
Mth 236 Calculus ..... 3
PE/MLb 124**/ROTC .....  2
Electives ..... 6
Phil 130 .....  .3
Summer
Phy 335 Modern .....  3
***Bio Elective from Core .....  .4
Chm 241 Quantitative .....  .4
Social Science .....  314
Third Year
Bio selected from core*** ..... 16
Soph Am His .....  .6
Chm 413, 414 Physical Lab ..... 2
Chm 333 Inorganic .....  3
Chm 431, 432 Physical. .....  .6
Fine Arts .....  3
36

## Second Year

Chm 341-342 Organic .....  .8
Mth 237 Calculus .....  .3
Eng Literature .....  .6
Phy 141-142 General .....  8
Bio Elective .....  4
POLS 231, 232 American Government I, II .....  .6
Health \& Wellness ..... 338

## Fourth Year

Bio 416 and 417 Bio Lit. ..... 2
Bio Electives ..... 8
Chm 441 Biochem ..... 4
Chm Electives* min ..... 8
Electives ..... 4
Social Science .....  329
tBoth degrees must be awarded simultaneously.
Biology electives to be chosen from Bio 244, 341, 342, 344, 447
*Chemistry electives to be selected from Chm 430, 436, 442, 444, 446.
**Offered Fall Semester only. If MLb 124 option is desired it should be added to second year as two semesters are required.
***The following courses must be included in the Biology Core: Bio 245, Microbiology; Bio 346, Invertebrate Zoology; Bio 345;
Botany; Bio 240 or 444. Comparative Anatomy or Vertebrate Natural History; Bio 347, Genetics.

## Bachelor of Science - Medical Technology <br> Major Advisors: M.D. Hunt J.T. Sullivan <br> 205-12 Hayes Building, Phone 880-8254 205-5 Hayes Building, Phone 880-8257

The medical technologist performs the laboratory tests required by physicians in order to properly diagnose and treat patients; most technologists find employment in hospitals, clinics, or blood banks. Medical product manufacturers and medical technical sales account for an increasing percent of career opportunities for Medical Technologists.
A. General Requirements:English Composition - six semester hoursEnglish Literature - three semester hoursEnglish - Sci report writingMathematics - Mth 1335Statistics - Psy 241
Computer Science - CS 1311
Sophomore American History - six semester hours
Sophomore Political Science-American Government - six semester hoursPhysical Activity, Marching Band, or ROTC - two semestersLaboratory Science-Biology 141-142 - eight semester hours
Health \& Wellness - three semester hours
Social Science - three semester hours
Philosophy of Knowledge - three semester hours
Spc 131 - three semester hours
B. Multidisciplinary Major:
Biology: 141-142 General, 245 Microbiology, 246 Medical Microbiology, ..... 344Advanced Physiology, 441 Parasitology, 4405 ImmunologyChemistry: 141-142 General, 341-342 Organic Chm, 441 Biochemistry or Bio4302 Cell PhysiologyPhysics: 141-142 General
C. Electives:8 semester hours to total 104-106 semester hours (Psy 334 recommended), plusone year internship. See below:
Recommended Program of Study

| First Year | Second Year |
| :---: | :---: |
| Eng 131............................................................. 3 | Eng 331 Sci Report Writing................................ 3 |
| Eng Composition ................................................ 3 | Eng Literature ................................................... 3 |
| Bio 141, 142 General......................................... 8 | Bio 245-246 Microbiology; |
| Chm 141, 142 General......................................... 8 | Med Micriobiology........................................... 8 |
| CS 1311 ........................................................... 3 | Chm 341-342 Organic......................................... 8 |
| Mth 1335 Precalculus.......................................... 3 | Phy 141-142 General ........................................... 8 |
| HS 121.............................................................. 2 | Health \& Wellness ............................................. 3 |
| PE/MLb 124*/ROTC 2 sem................................... 2 | Social Science................................................... 3 |
| Phil 130........................................................... 3 |  |
| 35 | 36 |

Eng 331 Sci Report Writing ..... 3
Eng Literature ..... 3
Med Micriobiology ..... 8
Chm 341-342 Organic .....  8
Health \& Wellness. ..... 33

Third Year
Bio 344 Adv Physiology............................................ 4
Bio 4405 Immunology .............................................. 4
Chm 441 or BIO 4302............................................ 3-4
Soph Am His ............................................................ 6
Bio 441 Parasitology................................................. 4
Psy 241 Statistics...............:...................................... 4
POLS 231, 232 American Government I, II ............. 6
Fine Arts .................................................................. 3
34-35464

Spc 131..................................................................... 3Fine Arts3
3Eng Composition
Bio 141, 142 Generar ..... 8
CS 1311 ..... 3
HS 121
2
124*/ROTC 2 sem 3
*Offered Fall semester only. If MLb 124 option is desired it should be added to third and fourth year, as two semesters are required.

## Fourth Year Clinical Training

All the above requirements for the degree must be met before a student may be admitted to clinical training, 12 consecutive months at a hospital laboratory accredited for teaching by the Committee on Allied Health Education and Accreditation of the American Medical Association (AMA). A list of clinical affiliate hospital schools is provided below. After satisfactorily completing this training, the student is awarded the degree of Bachelor of Science Medical Technology.

# Directors of Medical Technology Programs: 

Program Director:
Sharon Martin, MEd. MT
Medical Director:
Abdus Saleem, M.D.
Methodist Hospital*
Fannin-Mail Station 205
Houston, Texas 77030
(713) 790-6353

Medical Director:
Jochewed Werch, M.D.
Ben Taub Hospital/Harris County
Hosp. District*
1502 Taub Loop
Houston, Texas 77030
(713) 791-7156

Program Director:
Kathleen Becan-McBride, Ed.D., MT
Medical Director:
Jose Trujillo, M.D.
University of Texas Health
Sciences Center
P.O. Box 20708

Houston, Texas 77225
(713) 792-4721

Program Director:
Shelia Stevens, MT
Medical Director:
Edward P. Jenevein, M.D.
St. Paul Medical Center
509 Harry Hines Blvd.
Dallas, Texas 75235
(214) 689-2000

Program Director:
Deborah Zink, M.B.A., MT
Medical Director:
Kenneth Sisco, M.D.
St. Elizabeth Hospital*
P.O. Box 5405

Beaumont, Texas 77706
(409) 899-7150

Program Director:
Theresa Stokeld, MT
Medical Director:
Lehrue Stevens, M.D.
St. Patrick Hospital*
524 S. Ryan St.
Lake Charles, Louisiana 70601
(318) 491-7708

Program Director:
Shirley Richmond, Ed.S. MT
Medical Director:
Peachy Gilmor, M.D.
School of Allied Health Sciences
University of Texas Medical Branch
Galveston, Texas 77550
(409) 761-3055

## Physical Therapy $\dagger$

Major Advisor: M.E. Warren
101 Hayes Building, Phone 880-8262
Physical therapists aid in testing and evaluation of patients, then lead the patient through activities to restore health to various impaired bodily functions of the nervous, muscular, bone and joint systems, restore the range of muscle strength, endurance and improve joint motion. Physical therapists are employed by hospitals, physicians and clinics, or may be self-employed.

## First Year

Eng 131...................................................................... 3
Eng Composition ...................................................... 3
Bio 141-142 General................................................. 8
Chm 141-142 General............................................... 8
Mth 1335 Precalc (or Mth 1333-Trig)....................... 3
Psy 131 Introduction................................................ 3
Elective*.................................................................... 3
Psy 234 Child.

## Second Year

Physics 141-142 ..... 8
Soc 131 .....  3
Speech ..... 3
Bio 344 Adv Physiology .....  .4
Psy 241 Statistics. ..... 4
His 231-232 .....  .6
POLS 231, 232 American Government I, II .....  6
Third Year
Bio 240 Comparative Anatomy ..... 4
Eng Literature .....  3
Psy Elective .....  3
Psy 432 Abnormal .....  3
Electives minimum* ..... 13
*Electives should be chosen from Sociology, Psychology, Economics, etc.
The first two years of the program above will satisfy the minimum requirements for the University of Texas Medical Branch at Gaiveston. Their program calls for an additional two years of clinical work for the BS degree. The three years of preparatory work will meet the requirement of the University of Texas Health Science Center at Dallas. Their program requires 18 months of clinical work for the BS degree. PE, etc., does not count toward the semester hour requirement. Acceptance to the clinical program is on a competitive basis. Clinical experience is required for the Galveston program.

## Occupational Therapy $\dagger$

## Major Advisor: M.E. Warren

## 101 Hayes Building, Phone 880-8262

Occupational therapists aid their patients who are physically injured through accident, illness, or through psychological disability. The aim of the therapy is to rehabilitate the patient through application of splints, prostheses or directed occupational pursuits to maximize and extend the patient's fine motor abilities. Occupational therapists are employed by hospitals, schools and retirement homes.


## Second Year

Eng Lit........................................................................... 3
Speech....................................................................... 3
His 231-232 United States ........................................... 6
POLS 231, 232 American Government 1, II .............. 6
Soc 131 ......................................................................... 3
Sociology or Psychology* ........................................... 3
Bio 143 and 144 Anatomy \& Physiology ................. 8

Plus two years clinical affiliation
*Social Psychology recommended.

# Physician's Assistant $\dagger$ 

Major Advisor: M.E. Warren
101 Hayes Building, Phone 880-8262
The physician's assistant is under the supervision and responsibility of a physician, performing duties which extend the ability of the physician to provide adequate health care. Such duties include taking a medical history, routine physical exams and other such duties which the physician may assign.

[^1]
## Bachelor of Science - Oceanographic Technology

## Major Advisor: W.C. Runnels <br> 205-8 Hayes Building, Phone 880-8256

The Ocean Sciences hold great promise for the future. The oceans are highly complex systems; their study requires a multidisciplinary approach to fully explore and utilize the ocean's untapped potential. This will be necessary in the decades ahead; to fail in this area will affect out security, economy and limit our ever increasing demand for food and raw materials. Students interested in this field may declare an area of special interest by choosing one of the options listed below.
A. General Requirements:

English Composition - six semester hours
Sophomore English Literature - six semester hours
Mathematics: see particular emphasis below
Sophomore American History - six semester hours
Political Science-American Government - six semester hours
Physical Activity - two semesters: swimming and life saving;
Fine Arts - three semester hours
Philosophy of Knowledge-three semester hours
Speech 131 - three semester hours
Health \& Wellness - three semester hours
Social Science - three semester hours
B. Multidisciplinary Sciences:

General Chemistry - eight semester hours
Geology-Meteorology - three semester hours
Biology-General Oceanography - four semester hours
Bio-Field Oceanography - six semester hours
Bio-Ocean Seminar - one semester hour
C. Electives:

Sufficient to achieve totals given
D. Options:

BIOLOGY EMPHASIS:
Biology 141-142, 245, 346, 443, 444, 445, 446, 417
Geology 141-142
Chemistry 341-342
Mathematics 1335, 234, 236, 237
Physics 141-142
GEOLOGY EMPHASIS:
Geology 141-142, 241, 243, 341, 342, 345, 346 (ог CE 339), 433, 419
Engineering 114, 1121, 1221
Biology 141-142, 443, 445
Mathematics 1335, 236, 237
Physics 141-142, 430
ENGINEERING EMPHASIS:
Engineering 114, 1121, 1221, 223, 230, 231, 233, 234
Chemical Engineering 3311
Civil Engineering 213, 220, 232, 331, 339, 413
Electrical Engineering 3305, 333, 438
Mathematics 148, 149, 241
Geology 220, 342, 433
Physics 247, 248

## Marine Biology Option

First Year ..... 8
Bio 141-142 General
Chm 141-142 General ..... 8
Mth 1335 Pre-Calculus ..... 3
Mth 236 Calculus I ..... 3
Eng Composition ..... 6
Philo 130 ..... 3
Health \& Wellness ..... 334
Third Year
Bio 349 General Ocean .....  .4
Bio 346 Invert Zool .....  .4
Bio 444 Vert Nat His .....  .4
Bio 445 Marine Bio .....  .4
Chm 341-342 Organic ..... 8
His Soph Am His ..... 6
SpC 131 .....  .3
34
Third or Fourth Summer
Bio 361 Field Course ..... 6
Total 138 Semester Hours
Bachelor of Science - Oceanographic Technology
Marine Geology Option
First Year
Geo 141-142 Phys, Hist .....  .8
Chm 141-142 General ..... 8
Mth 1335 Pre-Calculus. ..... 3
Mth 236 Calculus 1 .....  3
Eng Composition .....  6
Phil 130 .....  3
Third year
Geo 345 Petrology. ..... 4
Geo 4370 Meteorology .....  .3
Geo 341 Stat. Data Proc .....  4
Geo 342 Structural Geo ..... 4
Bio 349 General Ocean. .....  .4
Geo 419 Seminar ..... 1
Phy 141-142 General .....  .8
CE 339 Soils Sci .....
Or
Geo 346 Sed Stat ..... 3-4
Bio 443 Limnology .....  4
35-36

## Second Year

Geo 141-142 Phys, His ..... 8
Phy 141-142 General .....  8
Mth 237 Calc II ..... 3
Bio 245 Microbiology .....  4
Statistics. ..... 3
Soph Eng Literature. .....  6
PE Swim, Life .....  2 ..... 33
Fourth Year
Geo 4370 Meteorology .....  3
Bio 418 Ocean Seminar .....  .1
Bio 417 Bio Lit .....  1
Bio 446 Ecology .....  4
Bio 443 Limnology .....  .4
POLS 231, 232 American Government I, II .....  6
Free Electives. .....  .6
Fine Arts .....  .3
Social Science .....  331
Health \& Wellness
.3
.3

## Second Year

Geo 241-242 Min, Opt Min. .....  8
Bio 141-142 General .....  8
Mth 237 Calculus If ..... 3
Egr 1121 Intro Computer I .....  1
Egr 1221 Intro Computer II .....  .2
Egr 114 Graphics .....  1
Eng Literature .....  .6
PE Swim, Life .....  2
Spc 131 .....  3
34
Geo. 433 Geophysics ..... 3
Bio 418 Ocean Seminar. ..... 1
Bio 445 Marine Bio .....  4
POLS 231, 232 American Government I, II ..... 6
His Soph Am His. .....  .6
Free Electives ..... 3
Social Science .....  3
Fine Arts .....  3

## Third or Fourth Summer

Bio 361 Field Course................................................... 6
Minimum Total 138
Bachelor of Science - Oceanographic TechnologyOcean Engineering Option
First Year
Geo 220 Geo for Eng .....  2
Chm 141-142 General ..... 8
Mth 148-149 Anal I \& II ..... 8
CE 220 ..... 2
Eng Composition .....  6
Egr 114 Graphics I ..... 2
Health \& Wellness .....  3
Philo 130. .....  3
34
Third Year
CE 331 Environ Sci
CE 339 Soils Sci. .....  3
Egr 223 ..... 2
Bio 349 General Ocean .....  .4
CE 232 Mech of Solids. ..... 3
Egr 233 Circuits ..... 3
Egr 234 Thermodynamics .....  3
EE 333 Electronics I ..... 3
EE 3305 Switch System .....  3
His Soph Am His. .....  6
33
Second Year
Phy 247, 248 ..... 8
Mth 241 Analysis III. ..... 4
Egr 1121 Intro Computers I. .....  .1
Egr 1221 intro Computers II ..... 2
Egr 230 Statics ..... 3
Spc 131 .....  3
Egr 231 Dynamics .....  3
Eng Literature .....  .6
PE Swim, Life ..... 2
Fourth Year
Geo 4370 Meteorology .....  .3
Bio 418 Ocean Seminar ..... 1
Geo 433 Geophysics .....  3
EE 438 Instrumentation .....  .3
CE, 413 Photogrammetry ..... 1
CE 213 Exp Stress Anal .....  .1
ChE 3311 Momentum Trans ..... 3
CS 439 Comp Appl ..... 3
POLS 231, 232 American Government I, II .....  6
Elective .....  3
Social Science .....  3
Fine Arts ..... $\ldots 3$ ..... 36

## Third or Fourth Summer

Bio 361 Field Course .. 6
Minimum Total 139
Biology Course (Bio)
130 Environmental Science ..... 3:3:0Fundamental concepts of environmental systems as related to air, water and soil pollution. Control methodsrelated to a modern technological society are considered.
1400 Introductory Biology ..... 4:3:2
A human centered non-chemically based course for non-science majors, includes function and problems of thehuman circulation, respiration, digestion, reproductive, and sensory systems.
1401 Introductory Biology ..... 4:3:2A companion course to Biology 1400, which is not prerequisite. Includes human heredity and a considerationof the diversity and impact of the plant kingdom on human life and history as food and medicine as well as theiraesthetic value.
141 General Biology ..... 4:3:2
A survey of organisms, molecules, cells, tissues, photosynthesis and genetics.
142 General Biology ..... 4:3:2
Vertebrate structure and function, development, reproduction ecology and evolution.
143 Human Anatomy and Physiology4:3:2
Structure and function of cells, tissues, muscle, skeletal and nervous system.
144 Human Anatomy and Physiology ..... 4:3:2
Structure and function of the circulatory, digestive, excretory and reproductive systemsPrerequisite: Bio 143.
4:2:6
240 Comparative Anatomy of the VertebratesComparative anatomy presented from systemic viewpoint. Two three-hour labs per week. (Offered Fall semester)Prerequisite: Bio 141-142.
245 Introductory Micrubiology4:3:2
Micro-organisms with emphasis on those of medical significance and problems of personal and community healthPrerequisite: Credit for Bio 141-142 or Bio 143-144.
246 Medical Microbiology ..... 4:3:3
A study of the pathogenesis, epidemiology, prevention and therapy of major infectious diseases. Laboratoryincludes diagnostic procedures used in identification.

Prerequisite: Bio 245

Study of normal tissues of vertebrates including human tissue. (Offered Spring semester)
Prerequisite: Bio 141-142 and 240 or 243-244.
342 Embryology $\quad$ Comparative study of meiosis, fertilization, cleavage and early embryology as it relates to human development of vertebrates. (Offered Spring semester)
Prerequisite: Bio 141-142, 240.
344 Advanced Physiology 4:3:3
General physiology, muscle-nerve relations, digestive, circulatory, respiratory, excretory, nervous and endocrine systems.
Prerequisite: Bio 141-142 and Chin 141-142. (Recommended: Chm 341-342.)
345 General Botany $\quad$ Introduction to plant structure and function with emphasis on the seed plants.
Introduction to plant struc
Prerequisite: Bio 141-142.
346 Invertebrate Zoology 4:3:3
Classification, natural history, phylogenetic relationships and economic importance of the invertebrate phyla.
(Offered Fall semester)
Prerequisite: Bio 142.
347 Genelics 4:3:3
General principles of heredity, including human inheritance.
Prerequisite: Bio 141-142. (Statistics recommended)
348 Epidemiology 4:3:3
A study of the distribution and determinants of diseases and injuries in human populations. Laboratory utilizes
a case history approach.
Prerequisite: Microbiology, (statistics recommended.)
349 General Oceanography 3:3:3
Principles of oceanography. Geological, chemical, physical and biological environments of the ocean. (Offered Fall semester)
Prerequisite: Geo 141, Chm 141.
361 Field Course in Estuarine and Coastal Oceanography
6:5:40
Near shore processes. The application of sampling devices. Laboratory analysis of samples. Small boat handling.
Duration: six weeks. Field trip required and special fee assessed. (Offered Summer semester)
Prerequisite: Bio 349, PE 228.
4101, 4201, 4301, 4401 Special Topics in Biology
1-4:A:0
Physiological, anatomical, taxonomic and ecological biology. Laboratory and/or library work and conferences with a faculty member. May be repeated for credit when the area of study differs.
416 Classical Biological Literature $\quad$ 1:1:0
A survey of major written works in biology.
Prerequisite: Senior standing in biology.
417 Current Biological Literature $\quad$ 1:1:0
A survey of modern biological works published in recent journals.
Prerequisite: Senior standing in biology.
418 Oceanograpbic Tecbnology Seminar 1:1:0
Reports on current literature in oceanography for Oceanographic Technology majors.
Prerequisite: Bio 349.
430 Undergraduate Problems 3:0:6
Individual investigation of a research problem in biology. Formal report to be approved by faculty members.
Prerequisite: Prior approval of faculty member, upperclass standing in biology.
4302 Cellular Physiology
Basic processes in physiology, metabolism, transport, energetics, molecular and cellular mechanics. (Offered Spring semester)
Prerequisite: Junior standing, credit for organic chemistry.
440 Ornithology
Natural history, taxonomy and ecology of birds.
4402 Taxonomy of Vascular Plants 4:3:3
The classification of vascular plants; family characteristics, specific identification of the local flora and dominant plants of floristically different areas of Texas.
4404 Estuarine Ecology
Physical, chemical and biological aspects of the zone interfacing fresh water and marine environments. Laboratory includes field trips for collecting data and specimens.

Organs, tissues, cells, and molecules of the immune response and their interactions.
Prerequisite: Bio 243
4406 Epidemiology 4:3:3
A study of the distribution and determinants of diseases and injuries in human populations. Laboratory utilizes a case history approach.
Prerequisite: microbiology; statistics recommended.
4407 Systematic \& Evolutionary Biology $4: 3: 3$
A survey of evolutionary mechanisms from molecular to population levels. Consideration of speciation, adaptation and historical geology. Laboratory includes selective/adaptive change exercises and techniques such as electrophoresis and cladistic analysis.
441 Parasitology 4:3:3
A study of the morphology, life history and host-parasite relationships of parasites of man and other animals. Prerequisite: Bio 141-142.
442 Entomology 4:3:3
Physiology, morphology, life history, collection, classification and control of insects.
Prerequisite; Bio 141-142.
443 Limnology 4:3:3
Fauna, flora, ecology and productivity of fresh water.
Prerequisite: Bio 141-142.
444 Vertebrate Natural History $4: 3: 3$
Collection, identification and natural history of area fish, amphibians, reptiles, birds and mammals. (Offered Spring semester)
Prerequisite: Bio 141-142.
445 Marine Biology $\quad$ 4:3:3
Habitats and community relationships of marine plants and animals.
Prerequisite: Bio 141-142.
446 Ecology 4:3:3
Quantitative approach to both field and experimental studies. Interrelationships of organisms and their environment.
Prerequisite: Bio 141-142.
447 Cellular Biology
4:3:3
Structure and function of the cell and its organelles.
Prerequisite: Bio 141-142.

## Department of Chemistry

Department Chair: Keith C. Hansen 217 Chemistry Building, Phone 880-8267<br>Professors: Akers, Cameron, Cocke, Hansen, Idoux, Ortego, Whittle, Yerick<br>Associate Professors: Dorris, Harmon, Mejia<br>Assistant Professors: Shukla

## Adjunct Research Professors: Aminabhavi, Nguyen

Chemistry is a fundamental science and is required in all science and engineering degree programs. The Chemistry Department offers programs leading to B.S. and B.A. degrees in Chemistry and to a B.S. degree in Environmental Science. In addition the department offers preprofessional programs to prepare students for entrance into various professional programs such as medicine, denistry, veterinary medicine, and pharmacy. The Chemistry Department has active research programs in several areas including organic synthesis, organic reaction mechanisms, electrochemistry, environmental chemistry, transition metal coordination chemistry, iron metabolism, and molecular spectroscopy. Undergraduates students are strongly encouraged to take advantage of the opportunity to participate in one or more of these programs. The Department has been approved by the Committee on Professional Training of the American Chemical Society to award ACS approved degrees.

## Bachelor of Science - Chemistry Major*

The degree of Bachelor of Science in Chemistry will be awarded upon completion of the following requirements.
A. General Requirements:

Meet the University's requirements for a B.S. degree which are described earlier in this bulletin under degree requirements.
B. Science and Mathematics:

Bio 141, 142 or Geo 141, 142
Phy 247, 248, 335
Mth 148, 149, 241
CS 1311, 132 or Phy 133, 134
C. Chemistry Core:

Chm 141, 142 General
Chm 333, 436 Inorganic
Chm 341, 342, 444 Organic
Chm 241, 446 Analytical
Chm 431, 432, 413, 414 Physical
Chm 411 Chemical Literature
Chm 412 Senior Seminar
D. Electives:

Six to eight semester hours Advanced Chemistry electives 15 semester hours general electives
*American Chemical Society approved degree plan. A grade of "C" or better is required in core chemistry courses (Chm 141, 142, 241, 333, 341, 342, 431, 432)

## Recommended Programs of Study



## Second Year

Chm 241 Quantitative ............................................... 4
Chm 333 Inorganic .................................................... 3
Phy 247, 248 General ................................................ 8
Eng Literature**** ................................................... 6
Electives ................................................................... 6
Mth 241 Calc An Geo III........................................... 4
HPE/MLb**/ROTC ................................................ 2-4

## Fourth Year

Chm 444 Organic Qual.............................................. 4
Chm 446 Instrumental.............................................. 4
Chm 411 Chemical Lit ............................................... 1
chm 412 Senior Seminar........................................... 1
Chm 436 Inorganic ............................................................... 3
Chm Electives*** ..................................................6-8
POLS 231, 232 American Government I, II............ 6
Electives (outside of major) ...................................... 9
34-36

Minimum 126 semester hours + HPE/MLb/ROTC

[^2]
## Bachelor of Science - Chemistry (Biochemistry Option)*

The degree of Bachelor of Science in Chemistry will be awarded after the completion of the following requirements:
A. General Requirements:

Meet the University's requirements for a B.S. degree which are described earlier in this Bulletin under-degree requirements.
B. Science and Mathematics:

Bio 141, 142, 245, 246, 341 or 347
Phy 141, 142, 335
Mth 236, 237
C. Chemistry Core:

Chm 141, 142 General
Chm 241, 446 Analytical
Chm 333, 436 Inorganic
Chm 341, 342 Organic
Chm 441, 442 Biochemistry
Chm 431, 432, 413, 414 Physical
Chm 411 Chemical Literature
Chm 412 Seminar
D. Electives:

10-12 semester hours advanced chemistry or biology electives Six semester hours general electives
"American Chemical Society approved degree plan. A grade of " $C$ " or better is required in core chemistry courses (Chm 141, 142, 241, 333, 342, 431, 432)

## Recommended Program of Study

## First Year

$\qquad$
Chm 141, 142 General............................................. 8
Bio 141, 142 General ................................................. 8
Mth 236, 237 Calculus I, II ...................................... 6
Eng Composition ...................................................... 6
HPE/MLb**/ROTC .................................................. 2-4

30-32

## Third Year

Chm 341, 342 Organic.............................................. 8
Chm 431, 432 Physical.............................................. 6
Chm 413, 414 Physical Lab ...................................... 2
Bio 341 Histology
or
Bio 347 Genetics........................................................ 4
Phy 335 ...................................................................... 3
His 231, 232 Amer. His............................................ 6
Chm/Bio Electives***............................................................ 3-4

## Second year

Chm 241 Quantitative .............................................. 4
Chm 333 Inorganic .................................................... 3
Bio 245, 246 Microbio............................................... 8
POLS 231, 232 American Government I, II ............. 6
Phy 141, 142
or
Phy 247, 248 .............................................................. 8
Eng Literature ........................................................... 3
HPE/MLb**/ROTC ..................................................2-4
2-4

## Fourth Year

Chm 441, 442 Biochem........................................... 8
Chm 446 Instrumental................................................... 4
Chm 436 Inorganic ................................................... 3
Chm 411 Chm Literature........................................... 1
Chm 412 Sr. Seminar ................................................ 1
Eng Literature or
Eng 4335 Report Writing.......................................... 3
Bio/Chm Electives***............................................ 7-8
Electives ..................................................................... 6
33-34
Minimum 125 hours + HPE/MLb ROTC

[^3]
## Bachelor of Arts - Chemistry Major

The degree of Bachelor of Arts in Chemistry will be awarded after the completion of the following requirements.
A. General Requirements:

Meet the University's requirements for a B.A. degree which are described earlier in this bulletin under degree requirements.
B. Science and Mathematics:

Bio 141, 142 or Geo 141, 142
Phy 141, 142, 335
Mth 236, 237
CS 1311, 132 or Phy 133, 134
C. Chemistry

Chm 141-142 General
Chm 241 Analytical
Chm 333 Inorganic
Chm 341, 342 Organic
Chm 431, 432, 413, 414 Physical
Chm 411 Chemical Literature
Chm 412 Seminar
D. Electives and Minor

23 semester hours of electives. Complete degree must include a minor of at least 18 semester hours of which six semester hours must be in advanced courses.
Recommended Program of Study

## First Year

Chm 141, 142 General............................................... 8
Bio/Geo 141, 142 General...................................... 8
Mth 236, 237 Calculus I, II.................................... 6
Eng Composition ................................................... 6
HPE/MLb*/ROTC.............................................. 2-4
30-32
Third year
Chm 341, 342 Organic............................................... 8
Phy 335 ................................................................. 3
Fre 231, 232 Reading........................................... 6
POLS 231, 232 American Government I, II:............. 6
CS 1311, 132 or Phy 133, 134 ................................... 6
Minor/Electives ............................................................... 3
32
32

## Second Year

Chm 241 Quantitative............................................... 4
Chm 333 Inorganic ................................................... 3
Phy 141, 142 General ................................................ 8
Fre 131, 132 Elementary .......................................... 6
His 231 Am Hist ........................................................ 6
Eng Literature ............................................................ 6
HNPE/MLb*/ROTC ................................................2-4
35-37

## Fourth Year

Chm 431, 432 Physical............................................. 6
Chm 413, 414 Physical lab .......................................... 2
Chm 411 Literature................................................... 1
Chm 412 Seminar......................................................................... 1
Minor/Electives ....................................................... 20

Minimum $123+$ PE/MLb/ROTC
*Offered Fall Semester only. If MLb option is desired, it should be added to third and fourth year, as four semesters are required.

## Bachelor of Science in Biology

## Bachelor of Science in Chemistry

The degrees of Bachelor of Science in Biology and Bachelor of Science in Chemistry will be awarded upon completion of the following requirements. Both degrees must be awarded simultaneously.
A. General Requirements:

Meet the University's requirements for two B.S. degrees which are described earlier in this bulletin under degree requirements.
B. Science and Mathematics

Mth 1335, 236, 237
Phy 141, 142, 335
C. Biology:

Bio 141, 142, 240, 245, 246, 341, 342, 344, 416, 347, 447
D. Chemistry:

Chm 141, 142, 241, 333, 431, 432, 413, 414, 441
Eight additional semester hours of advanced chemistry
E. Electives

23 semester hours general electives

## Recommended Program of Study

## First Year

Bio 141-142 General.................................................. 8
Chin 141-142 General.................................................. 8
Eng Composition ....................................................... 6
Mth 1335 Precalculus................................................... 3
Mth 236 Calculus ........................................................ 3
PE/MLb 124**/ROTC................................................ 2-4
Electives ................................................................... 6
36-38
Summer
Phy 335 Modern ........................................................... 3
Bio 245 ........................................................................ 4
Chm 241......................................................................... 4
Electives ........................................................................ 3

Third Year
***Bio from core .......................................................... 16
His 231, 232 Am His.................................................. 6
Chm 413, 414 Physical Lab ......................................... 2
Chm 333 Inorganic ....................................................... 3
Chm 431, 432 Physical................................................ 6
Electives ......................................................................... 3

## Second Year

Chm 341-342 Organic................................................. 8
Mth 237 Calculus ......................................................... 3
Eng Literature ............................................................ 6
Phy 141-142 General .................................................... 8
Bio Elective.................................................................. 4
POLS 231, 232 American Government I, II ............. 6
PE/MLb 124**/ROTC...............................................2-4
37-39

Fourth Year
Bio 416 and 417 Bio Lit. ................................................... 2
Bioelectives.................................................................... 8
Chm 441 Biochem ....................................................... 4
Chm Electives* min ..................................................... 8
Electives ....................................................................... 10

## ${ }^{*}$ Chm electives to be selected from Chm 430, 442, 444, 446.

**Offered Fall Semester only: If MLb 124 option is desired it should be added to third and fourth year as four semesters are required.
***See Biology department listing.

## Bachelor of Science - Environmental Science

Environmental Science is an interdisciplinary program concerned with protecting, monitoring, and improving the environment. The degree program combines study in Biology, Chemistry, and Engineering in preparing the student for a career in either industry or government. This degree program combines fundamental training in the basic sciences as well as a broad training across several of the traditional disciplines to prepare a student to be able to both monitor and protect water and air quality, as well as other aspects of the environment.
Program Director: Shyam S. Shukla
The degree of Bachelor of Science in Environmental Science will be awarded upon completion of the following requirements:
A. General Requirements: Meet the University's requirements for a B.S. degree. (see Degree Requirements)
B. Biology:

Bio 141, 142, 245, 443, 446
Six-to-eight hours of Biology electives**
C. Chemistry:
Chm 141, 142, 241, 341, 342, 411, 412, 446, ..... 448
Six-to-eight hours of Chemistry electives**
D. Science and Mathematics:
Phy 141, 142
CS 1311, 132 or Phy 133, 134Mth 236, 237CE 331
E. Health Education
HED 434, 437

## First Year

Bio 141, 142 General .....  8
Chm 141, 142 General .....  8
Eng 131, 132 Composition .....  6
Mth 236, 237 Calculus ..... 6
Elective ..... 3
HPE/MLb*/ROTC ..... 2-4
33-35
Third Year
Bio 446 Ecology .....  4
Chm 446 Instrumental Analysis .....  4
Chm Elective** ..... 3-4
CE 331 Envir Sci. .....  .3
His 231, 232 Am His .....  6
CS 1311, 132 or Phy 133, 134 .....  6
HED 437 Health/Human Ecology. .....  3
HED 437 or Bio 348 Epidemiology ..... 3-4

## Second Year

245 Microbiology .....  4
Second Year
Chm 241 Quantitative Analysis .....  4
Chm 341, 342 Organic. .....  8
Eng Literature .....  3
Phy 141, 142 General ..... 8
Bio Elective** ..... 3-4
HPE/MLb*/ROTC ..... 2-4
32-35
Fourth Year
Bio 443 Limnology ..... 4
Chm 448 Environmental Analysis. .....  4
Chm 411 Literature. .....  1
Chm Seminar .....  1
Chm Elective** ..... 3-4
POLS 231, 232 American Government I, II .....  6
Eng 4335 Technical Report Writing .....  3
Electives .....  6
Bio Elective** ..... 3-431-33
*Offered Fall Semester only. If MLb option is desired, it should be added to the third and fourth year as four semesters are required.
**Must be approved by Program Director

## Chemistry Courses (Chm)

135 Chemical Principles ..... 3:3:0
An introduction to the fundamentals of chemical structure, reactions, periodicity and the mathematical manip-ulations used in chemistry. May not be substituted for required chemistry courses in any degree program.NOTE: It is strongly recommended that students enrolling have mathematics competency at or above the levelof Mth 1334
141 General ..... 4:3:3
General practice, problems, fundamental laws and theories.
Prerequisite: Chm 135 with a grade of " $C$ " or better or satisfactory performance on diagnostic test.
142 General ..... 4:3:3
A continuation of Chm 141. Properties of the elements. Elementary qualitative analysis and theories of solutionsand equilibrium.
Prerequisite: Chm 141.
143 Introductory ..... 4:3:2
For nonscience majors. A survey course in elementary inorganic chemistry.
144 Introductory ..... 4:3:2
For nonscience majors. Continuation of Chm 143. Nuclear science, elementary organic and physiologicat chemistry.
Prerequisite: Chm 143 or 141.
241 Quantitative Analysis ..... 4:3:5
Theory and practice of analytical chemistry utilizing gravimetric and titrimetric techniques.
Prerequisite: Chm 142 with a grade of " $C$ " or better.
333 Inorganic ..... 3:3:0Generalization involving atomic and nuclear theory; properties of the elements with emphasis on periodicity;non-aqueous solvents, acids. bases. oxidation-reduction, etc.Prerequisite: Chm 142 with grade of " $C$ " or better.

Current theories and chemical principles as they relate to the field of structure and reaction of the various types of organic compounds.
Prerequisite: Chm 142.
$342 \quad$ Organic $\quad$ A continuation of Chm 341.
Prerequisite: Chm 341.
411 Chemical Literature
1:1:0
Lecture and assigned reading in the chemical literature. Chemical literature search on an advanced level.
Prerequisite: 20 semester hours of chemistry.
412 Senior Seminar 1:1:0
Reports and assigned reading.
Prerequisite: Senior standing in chemistry.
413 Physical Laboratory 1:0:4
Laboratory applications of modern theory in physical chemistry.
Prerequisite: Chm 241, 431 or parallel.
414 Physical Laboratory $\quad$ 1:0:4
Continuation of Chm 413.
Prerequisite: Chm 413, Chm 432 or parallel.
430 Organic Polymers 3:3:0
Chemistry of industrial polymerization of compounds, petro-chemistry or organic monomer preparation and chemical characteristics of organic polymers. Industrial field trip(s).
Prerequisite: Chm 342, Chm 431 or CHE 441 or parallel.
431 Physical $\begin{aligned} & \text { 3:3:0 }\end{aligned}$
Modern chemical theory as applied to gases, liquids, solids and solutions.
Prerequisite: Chm 142, Phy 142 or 248, Mth 241 or 237 or parallel.
432 Physical
3:3:0
A continuation of Chm 431.
Prerequisite: Chm 431 or equivalent.
436 Inorganic
3:3:0
Study of the quantized atom, valency and the chemical bond, and coordination chemistry with applications to biological systems.
Prerequisite: Chm 431.
441 Biochemistry I
Structures chemistry and functions of biological compounds. A survey of the detailed structures, chemistry and functions of the various classes of biologically important compounds.
Prerequisite: Chm 342.
442 Biocbemistry II $4: 3: 4$
A detailed survey of metabolic pathways and processes.
Prerequisite: Chm 441.
444 Qualitative Organic Analysis
A study of systematic methods for the identification of organic compounds and mixtures of organic compounds. Prerequisite: Chm 241 and 342.

Instrumental techniques of chemistry. Theory and practice in optical, electrometric and chomatographic methods. Prerequisite: Chm 241, 342, 431.
448 Environmental Analysis 4:3:4
The course will focus attention on the causes of environmental pollution, how environmental samples are collected and analyzed, and on current governmental regulations concerning pollutants.
427, 437, 447 Introduction to Research
Problems are on the undergraduate level and emphasizes research techniques. With approval of the department
head, these courses may be repeated for credit.
Prerequisite: Minimum of eight semester hours of chemistry above the freshman level and permission of instructor.
4101, 4201, 4301, 4401 Special Topics in Chemistry
1-4:A:0
Topics in under-graduate analytical inorganic, organic and physical chemistry or biochemistry. Library and/or laboratory work and conferences with a staff member. With permission of the department head, student may repeat the course for credit when the area of study is different.
Prerequisite: Approval of instructor and department head.

# Department of English and Foreign Languages 

Department Chair: Charles Timothy Summerlin

4 Maes Building, Phone 880-8558
Director of Freshman English: Christopher P. Baker 3 Maes Building, Phone 880-8555
Director of English as a Second Language: R. Victoria Price
1 Maes Building, Phone 880-8586
Professors: Ellis, Georgas, Jones, Price, Summerlin, Wall
Associate Professors: Baker, Daigrepont, Gwynn, Platt, Sheppeard
Assistant Professors: Clark, Dublinski, Duncań, Heumann, Priest, Rivers, Sanderson, Saur, Yearwood
Lecturers: Adell Bruner, Francis, Jeh, Leach, Martin, Popp, Preslar, Smalley, Spreckels
The Department of English and Foreign Languages offers opportunities to study a variety of languages and literatures. The Bachelor's and Master's degrees are available in English. Scholarly interests of members of the department include old and middle English, the Renaissance, Shakespeare, 18th century studies, English and American romanticism, the Victorian age, and contemporary English and American literature. In addition to the study of English and American literature through courses organized by genre, period, and individual author, the student may explore the history and structure of language and the crafts of both creative and technical writing. The Bachelor's degree is available in both French and Spanish, enabling the student to acquire competence in conversation and composition in these languages as well as familiarity with their literature and culture.

## Bachelor of Arts - English

The degree of Bachelor of Arts in English combines general requirements, including the Core Curriculum, with its emphasis on ways of knowing, and the more specialized study within the major:
(NOTE: Because changes in the core curriculum were being determined near press time, the requirements below may be slightly altered. New students in 1990 should consult with the department for clarification.)
A. General Requirements:

Foreign language through the course numbered 232.
English composition: six semester hours
Sophomore literature: six semester hours
Philosophy 130
History 131 and 132 (not required for persons who earn a teacher's certificate) Sophomore American history: six semester hours
Sophomore American political science: six semester hours
Social sciences: three semester hours from anthropology, economics, psychology, or sociology
Fine arts: three semester hours from art, humanities, music, or theater Speech: three semester hours
Mathematics: three semester hours at or above the level of college algebra and three more in mathematics or quantitative data analysis Laboratory science: eight semester hours in the same science Physical education: two semesters of activity courses and three semester hours of health and wellness
B. Major:

Two options are available, one emphasizing literature, the other emphasizing writing.
Advanced American literature: six semester hours.
Advanced British and world literature: twelve semester hours.
English 430 or 4312
English elective: three semester hours.
One may substitute nine hours of advanced writing courses (drawn from English $331,335,4326,4345$, and 4355) for nine of the 18 required advanced literature hours.
C. Minor:

An approved minor of 18 semester hours, including at least six semester hours in advanced courses. A student electing the literature option for the English major may also select a writing minor and vice-versa. Marketable minors are encouraged.
D. Sufficient approved electives to complete a total of 126 semester hours (except as indicated under Teacher Certification below).

## Technical Writing Program

Students from any academic discipline who wish to better prepare themselves for employment in business, the professions, or government service may be interested in the technical writing program offered by the department. This program emphasizes mastery of written communication skills, particularly those required in the authoring and editing of reports, proposals, manuals, news releases and other documents. Handson experience producing such documents on microcomputer is offered. Course work in this technical writing program should complement virtually any major. See the Chair of the Department of English and Foreign Languages.

## Teacher Certification - English

Students wishing to certify for a provisional certificate-secondary with English as the primary teaching field should major in the Department of English Foreign Languages and receive a Bachelor of Arts degree in English with certification. They may choose one of three options: Option 1 requires 30 hours of English and twelve-hour supporting field but no second teaching field; Option 2 requires 24 hours of English and an approved 24 -hour second teaching field; Option 4 requires 42 hours of English, communications, and reading and no second teaching field (English Language Arts). NOTE: All semester hours totals above do not include freshman and sophomore English, which are included in general education hours.

Those receiving the Bachelor of Arts in English with a provisional certificate-secondary take the same program as that outlined above with the following exceptions:
A. General Requirements

Computing and Technology: CS 130, 1311 or equivalent
Reading: C\&I 3326
History: His 131 and 132 are not required
B. Major

Eng 3321
Eng 4326
The remaining advanced English hours vary according to option selected.
For further details concerning requirements for teacher certification, including elementary certification with English specialization, and information on professional education courses, consult the College of Education section in this bulletin.

## Recommended Program of Study - English

First Year
Eng Composition ....................................................... 6
His 131-132 World Civilization................................ 6
Foreign Language 131-132 ........................................ 6
Math ......................................................................... 6
Philosophy 130.......................................................... 3
Fine Arts ................................................................... 3
PE Activity............................................................... 2
32
Third Year
Advanced English................................................... 12
Laboratory Science ................................................... 8
Minor........................................................................ 9
Elective...................................................................... 3
32

Second Year
Sophomore Lit.......................................................... 6
Sophomore American Hist....................................... 6
Political Science 231, 232......................................... 6
Foreign Language 231, 232 ....................................... 6
Speech ....................................................................... 3
Social Science elective............................................. 3

Minor......................................................................... 9
Electives .................................................................... 9

Health and Wellness ................................................ 3 ..... 3

Fourth Year

Advanced English.................................................... 12inor.9
帾30

## Bachelor of Arts - French or Spanish

The degree of Bachelor of Arts in French and Bachelor of Arts in Spanish combines general requirements, including the Core Curriculum with its emphasis on ways of knowing, and the more specialized study within the major:
(NOTE: Because changes in the core curriculum were being determined near press time, the requirements below may be slightly altered. New students in 1990 should consult with the department for clarification.)
A. General Requirements:

English composition: six semester hours
Sophomore literature: six semester hours
Philosophy 130
Sophomore American history: six semester hours
Sophomore American political science: six semester hours
Social sciences: three semester hours from anthropology, economics, psychology, or sociology
Fine arts: three semester hours from art, humanities, music, or theater Speech: three semester hours
Mathematics: three semester hours at or above the level of college algebra and three more in mathematics or quantitative data analysis
Laboratory science: eight semester hours in the same science
Physical education: two semesters of activity courses and three semester hours
of health and wellness
B. Major:

French
French 131-132: Elementary French
French 231-232: Reading, Composition, Conversation
French 330: French Conversation
French 337: Advanced Grammar and Composition
French 338: French Phonetics
Advanced French: nine semester hours of literature and civilization
Spanish
Spanish 131-132:Elementary Spanish
Spanish 231-232: Reading Composition, Conversation
Spanish 330: Spanish Conversation
Spanish 335: Advanced Grammar and Composition
Advanced Spanish: twelve semester hours of literature and civilization
C. Minor in French or Spanish:

An approved minor of 18 semester hours, including at least six advanced semester hours
D. Electives:

Sufficient approved electives to complete a total of 126 semester hours.

## Teacher Certification - French, Spanish

Students wishing to certify for a provisional certificate-secondary with French or Spanish as the primary teaching field should major in the Department of English and Foreign Languages and receive a Bachelor of Arts degree in French or Spanish. Requirements in the major are the same as for non-certifying French or Spanish majors. For changes in general requirements, see Teacher Certification-English.

For further details concerning requirements for teacher certification, including elementary certification with French or Spanish specialization, and information on professional education courses consult the College of Education section in this bulletin.

## Recommended Program of Study - French or Spanish

| First Year |  |
| :---: | :---: |
| *Major Lang 131-132........................................... 6 |  |
| Eng Composition ................. | ....... 6 |
| Math | ......... 6 |
| Philosophy 130 | ....... 3 |
| Fine Arts .......... | ......... 3 |
| Sophomore American History .. | ... 6 |
| PE Activity | ......... 2 |
|  | 32 |

## Third Year

Major Lang: Fre 330, 337 and another advanced.... 9 or
Major Lang: Spa 330, 335 and another advanced ... 9
Laboratory Science
.. 8
Electives including minor..........................................................................
3

## Second Year

Maj Lang 231, 232 .................................................... 6
Sophomore Eng Literature ....................................... 6
Political Science 231, 232........................................ 6
Speech ....................................................................... 3
Social Science elective............................................. 3
Health and Wellness ................................................. 3
Elective...................................................................... 3
30

## Fourth Year

Major Lang Advanced ............................................... 9
Electives including minor....................................... 2323
*Must be included if student has not already had the equivalent.

## Developmental Writing (DWRT)

## 1301 Developmental Writing

Developmental Writing 1301 is a course in the development of basic composition skills as required by the Texas Academic Skills Program (TASP). The course is a prerequisite to English 131 for all students who have not passed the state-mandated TASP writing test; students who do not pass the state test must engage in some type of mandatory remediation until the test is passed. This course neither satisfies general degree requirements for freshman English nor counts toward graduation honors.

## English Courses (Eng)

| 131 | Composition |
| :--- | :--- |
| Intensive study and practice in basic forms of expository writing. Frequent themes. Collateral reading in articles |  |
| and essays of a factual and informative type. This course is prerequisite to English 132,134 and 135. |  |
| $\mathbf{1 3 2}$ Composition |  |
| Further study and practice in the forms of expository and analytical writing. Topics for composition suggested |  |
| from wide reading in at least two of the three genres: prose fiction, poetry, and drama. Research paper required. |  |
| Prerequisite: Eng 131. |  |
| $\mathbf{1 3 4} \quad$ Composition |  |
| Further study and practice in the forms of expository and analytical writing. Topics for composition suggested |  |
| from a wide survey of various communications media: films, tapes, radio, television, periodicals, books, etc. |  |
| Requires attendance at specific instructor-specified events in addition toclass attendance. Research paper required. |  |
| Prerequisite: English 131. |  |

Intensive study and practice in basic forms of expository writing. Frequent themes. Collateral reading in articles and essays of a factual and informative type. This course is prerequisite to English 132,134 and 135.

[^4]
## Composition

 3:3:0Intensive study and practice in the forms of persuasive writing. Topics for composition suggested by the study of rhetoric and collateral readings. Research paper required.
Prerequisite: English 131.
136 Composition and Rhetoric
3:3:0
An accelerated program for those exceptionally well prepared at time of enrollment. Extensive writing; introduction to literary genres. Research paper required.
Prerequisite: Approval of head of the Department of English and Foreign Languages. Admission through AP test or a combination of SAT verbal and English achievement test normally.
Offered Fall semesters. Must be taken the first long semester the student is enrolled. Upon completion of this course with the grade of " $C$ " or better, the student receives credit for both English 131 and 136. This course meets the general degree requirements for Freshman English.
(NOTE: The student can satisfy the general degree requirements for Freshman English by completing successfully English 131 and any other course from English 132, 134 and 135. However, a student is not permitted to receive credit for more than one Freshman English course a semester.)
(NOTE: Satisfactory completion of six hours of Freshman composition is prerequisite to Sophomore literature courses. Unless specified by a particular department, any combination of seven Sophomore courses below will satisfy a Sophomore literature requirement. Ordinarily, completion of freshman and sophomore English requirements is a prerequisite to all courses beyond those levels.)
2311 Masterworks of World Literature 3:3:0 Critical study of six-to-ten major monuments of world literature, from classical antiquity to the present century.
2312 Masterworks of American Literature 3:3:0
Critical study of six-to-ten major works of American literature, including both the 19 the and 20the centuries.
2313 Masterworks of British Literature 3:3:0 Critical study of six-to-ten major works of British literature, including writers from most of the important periods.

Major writers of Africa, including various genres and works translated from languages other than English.

Critical studies of several major works of British and World Literature from classical antiquity to the present century, designed especially for honors students.
2319 Sophomore Literature Honors Course ..... 3:3:0

Critical studies of several major works of British, American and World Literature from classical antiquity to the present century, designed especially for honors students.
331 Technical Report Writing 3:3:0 Supervised preparation of technical and scientific reports according to standard usage recommended by scientific and engineering societies.
Prerequisite: Completion of six hours of Freshman English or permission of the instructor.
334 Mythology
3:3:0
A study of the mythologies of the ancient Greeks, Romans, and Norse peoples and other cultures.
335 Creative Writing
3:3:0
A workshop approach to the writing of poetry, fiction and drama. May be taken for credit more than once when the genre focus varies.
$\mathbf{3 3 6}$ The Short Story 3:3:0
The technique of the short story; its historical development; study and analysis of great short stories.
337 The Drama 3:3:0
The historical development of the drama from Aeschylus to the present. Intensive study of selected plays.
338 Studies in the British Novel
3:3:0
Wide reading and critical study in some particular aspect or period of the British novel.
339 American Novel 3:3:0
A study of the history, growth and technique of the American novel, with emphasis on the novels of the twentieth century.
3316 Poetic Analysis $\quad$ 3:3:0
A study of the forms and techniques and the critical evaluation of poetry.
3321 English Language Arts Concepts and Skills 3:3:0
Concepts and skills in writing, language, reading, speaking, and listening.
3322 The American Literary Renaissance: 1820-1860 3:3:0
An intensive study of the major authors of the period from Poe to Melville.
3324 The Development of American Realism: 1860 to 1900 3:3:0
An intensive study of the major authors of the period from Whitman to Norris.
430 History of the English Language ..... 3:3:0
Theory and nature of language. Studies in the growth of English and American forms.432 Studies in 16th Century Literature3:3:0Critical studies in the poetry, prose and drama of the age. May be taken for credit more than once in the topicvaries.
434 Shakespeare ..... 3:3:0Intensive study of selected major plays. May be taken for credit more than once if the topic varies.
435 Survey of 17th Century Literature3:3:0Critical studies in the poetry, prose and drama of the period 1600-1660. May be taken for credit more than onceif the topic varies.3:3:0Critical studies in the poetry, prose and drama of the period 1660-1800. May be taken for credit more than onceif the topic varies.
439 Studies in Romantic Literature ..... 3:3:0
Critical studies in the poetry, prose and drama of the Romantic period. May be taken for credit more than onceif the topic varies.
4311 Studies in Victorian Literature ..... 3:3:0
Critical studies in the poetry and prose of the Victorian period. May be taken for credit more than once if thetopic varies.3:3:0Special problems in linguistics, such as the history of American English, regional dialects, new grammars. Maybe taken for credit more than once if the topic varies.
4317 Modern Drama ..... 3:3:0
A study of dramatic trends and representative plays from lbsen to the present.
4318 Modern Poetry ..... 3:3:0A study of poetry developments in England and America with emphasis on representative poets from Hardy tothe present.4319 Modern Fiction3:3:0
A study of prose fiction representative of modern ideas and trends, with emphasis on English and Continentalauthors.
4322 Russian Literature ..... 3:3:0Selected works from 19th and 20th century Russian literature in translation. Pushkin to Sholokov.4326 Expository Writing3:3:0The practical application of the techniques of mature exposition; classification, explanation, evaluation. Withpermission of the instructor, this course may be repeated one time for credit.
4327 Bibliography and Methods of Research ..... 3:3:0
An introduction to research methods and sources. Recommended for those planning or beginning graduate study.3:3:03:3:0
A survey of all significant writers from the beginning of Colonial America to 1828.3:3:0A critical survey of major American writers of the 20th century.
4333 Studies in a Particular Author3:3:0
Intensive critical study of a major writer such as Chaucer, Milton, Hawthorne, Faulkner. May be taken for creditmore than once when the topic varies.4334 Critical Studies in Literature3:3:0Intensive critical study of a particular genre or theme in comparative literature or criticism. May be taken morethan once for credit when the topic varies.
4336 Directed Studies in American Literature3:3:0
Study in American literature in an area of mutual interest. May be taken for credit more than once if topic varies.Prerequisite: Junior standing.
4337 Directed Studies in British Literature ..... 3:3:0
Study in British literature in an area of mutual interest. May be taken for credit more than once if the topic varies.
Prerequisite: Junior standing.
4345 Writing Seminar
Intensive study in writing, focusing on specific topics, with either a technical or creative emphasis. May be takenmore than once for credit if the topic varies.Prerequisite: English 335 or permission of the instructor (for any creative writing seminar).
4355 Editing Technical CommunicationsEditing technical communications for clarity, conciseness, and form. Emphasis on affective communicationswithin and between organizations and organizational levels including reports, proposals, manuals, memoranda,and news releases.Prerequisite: Either English 331. 4326, or 4345 (when technically oriented) or permission of the instructor.

## Philosophy Courses (Phl)

Advisor: George D. Wall

18 Maes Building, Phone 880-8592
The overall aim of philosophy is the pursuit of truth. The methods of philosophy are conceptual analysis and sound reasoning. The objective of philosophy courses is to stimulate and train students to think critically, so that they will enthusiastically engage in the pursuit of truth.
130 Philosophy of Knowledge ..... 3:3:0A survey of major knowledge systems with an emphasis on the scientific and humanistic methods of inquiry.
131 Introduction to Philosophy ..... 3:3:0
General characteristics of philosophy as a field of knowledge and as a method of inquiry.3:3:0Nature and methods of correct reasoning; deductive and inductive proof; logical fallacies.
333 History of Philosophy I, Ancient and Medieval Philosophy ..... 3:3:0
The development of Western philosophic thought from the inception in Greece to the end of the Medieval period.
334 History of Philosophy II, Modern Philosophy ..... 3:3:0
The development of philosophic thought from the Renaissance through the 19 th century; emphasis upon phi-losophers of the 17 th and 18th centuries.
430 Topics in Philosophy ..... 3:3:0
Selected topics in philosophy. Course may be repeated for credit when topic changes.
English as a Second Language (ESL)
Advisor: Victoria Price

1 Maes Building, Phone 880-8586

Students for whom English is a second language are required to demonstrate English proficiency by scoring a minimum of 80 on the proficiency/placement test required of entering students. Those students whose scores fall below 80 are placed in a developmental support course until satisfactory scores are achieved.

A student placed in ESL 134 must enroll for the course, and the section in which he is placed, during the semester in which he is tested; the course may not be dropped by the student.
134 Developmental Skills in ESL.
3:3:0
Students for whom English is a second language are placed in the course when English proficiency scores fall below the required minimum. Does not satisfy degree requirements in English. Graded on Unsatisfactory-Satis-factory-No Grade (retain) basis.
After the satisfactory level of proficiency is attained, the student may satisfy degree requirements in English by completing the following courses:

## Freshman Composition:

ESL 135 and ESL 136 are parallel in content to the freshman composition courses taken by native speakers of English. The ESL sections differ only in teaching methods that speak to distinctive needs of a non-native user of English:

ESL 135 is prerequisite to ESL 136, and the courses may not be taken concurrently. These six hours must be taken the first two long semesters in which the student is enrolled.

[^5]
## Literature:

ESL 231, ESL 232 or ESL 233 satisfies the degree requirement in literature for the student for whom English is not a native language. ESL 135 and ESL 136 are prerequisite
to all the literature courses. The literature courses may not be taken concurrently with ESL 134, 135 or 136.
231 Masterpieces in British Literature
Critical study of six-to-ten major works in British literature, including representative works from most of the
major periods. Applies toward the sophomore literature requirement for students for whom English is a second
language.
Prerequisite: ESL 135 and 136 .
World Masterpieces in English Translation
Critical study of six-to-ten major works of world literature in various genres, from classical antiquity to the present
century. Applies toward the sophomore literature requirement for students for whom English is a second language.
Prerequisite: ESL 135 and 136 .
Masterpieces in American Literature
Critical study of six-to-ten major works in American literature, including representative works from most of the
major periods. Applies toward the sophomore literature requirements for students for whom English is a second
language.
Prerequisite: ESL 135 and 136 .

## ESL Endorsement:

Prospective ESL teachers may satisfy the course work requirement for ESL endorsement in the state of Texas by completing 12 hours of prescribed courses: ESL 431, 432, 433, 434.

431 The Teaching of English as a Second Language
3:3:0
The course deals with techniques for teaching basic English skills and literature to non-native speakers. Sociocultural aspects of second language learning.
432 Foundations in Teaching ESL 3:3:0
A general methodology course that focuses on both linguistic and cultural foundations of ESL and examines trends in ESL and strategies for teaching ESL.
433 Psycholinguistics 3:3:0 Examines the current research and theory of first and second language acquisition and development as a base for teaching English to non-native speakers.
434 Introduction to Linguistics 3:3:0
Provides background in the nature of language and linguistic changes as a basis for describing and comparing language systems; focuses on a description of the phonological, morphological, and syntactic features of English in contrast to features of other languages.

## French Courses (Fre)

131 Elementary French 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
132 Elementary French 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
Prerequisite: Fre 131 or equivalent determined by examination.
231 Reading, Composition, Conversation 3:3:0
Prerequisite: Fre 132 or equivalent.
232 Reading, Composition, Conversation 3:3:0
Prerequisite: Fre 231 or equivalent.
330 French Conversation
3:3:0
Required of all majors. (This course may not be substituted for Fre 232 to meet the language requirement for the Bachelor of Arts degree.) May be repeated for credit with approval of department head.
Prerequisite: Fre 231 or equivalent.

## 331 Contemporary French Drama

A study of representative plays of the 20th century with emphasis on the theater of post World War II. Dramatistis studied include Giraudoux, Sartre, Camus, Ionesco, Beckett, Arrabal. Prerequisite: French 232 or equivalent.
337 Advanced Grammar and Composition 3:3:A
A thorough study of French grammar with extensive written composition. Secondary stress on pronunciation.
Prerequisite: Fre 232 or equivalent.
338 French Phonetics3:3:AA study of the French sound system. Laboratory exercises to improve pronunciation.Prerequisite: Fre 232 or equivalent.
339 French Culture and Civilization ..... 3:3:0
A survey of the intellectual, philosophic, political and social development of France. Readings of significantworks in these areas. Lectures, readings, oral and written reports.
Prerequisite: French 232 or equivalent
430, 430G Teaching Spoken French ..... 3:3:0
Prerequisite: Approval of department head.
435 Survey of French Literature through the 18th Century ..... 3:3:0
Readings from significant works. Lectures, readings, oral and written reports. May be repeated for credit whenthe topic varies.
Prerequisite: Fre 232 or equivalent.
436 Survey of French Literature Since the 18th Century ..... 3:3:0
Readings from significant works. Lectures, readings, oral and written reports. May be repeated for credit whenthe topic varies.
Prerequisite: Fre 232 or equivalent.
437, 437G Teaching French Composition ..... 3:3:0
Prerequisite: Approval of department head.
German Courses (Ger)
131 Elementary German ..... 3:3:0Pronunciation, conversation, reading, dictation, grammar. Use of tapes.132 Elementary German3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.Prerequisite: Ger 131 or equivalent determined by examination.
231 Reading, Composition, Conversation ..... 3:3:0
Prerequisite: Ger 132 or equivalent.
232 Reading, Composition, Conversation ..... 3:3:0Prerequisite: Ger 231 or equivalent.
Spanish Courses (Spa)
131 Elementary Spanish ..... 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
132 Elementary Spanish ..... 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.Prerequisite: Spa 131 or equivalent determined by examination.
231 Reading, Composition, Conversation ..... 3:3:0
Prerequisite: Spa 132 or equivalent.
232 Reading, Composition, Conversation ..... 3:3:0
Prerequisite: Spa 231 or equivalent.
330 Spanish Conversation3:3:0
Required of all majors.
Prerequisite: Spa 231 or equivalent.
(NOTE: This course may not be substituted for Spa 232 to meet the language requirements for the Bachelor ofArts degree.)
331 Culture and Civilization of Spain and Spanish America ..... 3:3:0
A study of the geography, history, government, art, economic resources and psychology of Spain, Cuba, SantoDomingo, Mexico and Central America. Lectures, readings, oral and written reports.
Prerequisite: Spa 232 or equivalent.
333 Survey of Spanish-American Literature ..... 3:3:0
A study of outstanding writers and their works up to 19th century modernista movement. Lectures, readings,oral and written reports.
Prerequisite: Spa 232 or equivalent.
3:3:0
335 Advanced Grammar and Composition
Vocabulary building, intensive review of grammar as needed for sentence structure. The development of theparagraph in written composition. Frequent written reports.
Prerequisite: Spa 232 or equivalent.
337 Contemporary Spanish-American Short Story ..... 3:3:0The authors chosen are among the best interpreters of the spiritual and intellectural climate of Spanish America.Lectures, readings, oral and written reports.Prerequisite: Spa 232 or equivalent.
430, 430G Teaching Spoken Spanish ..... 3:3:0
Prerequisite: Approval of department head.
431 Contemporary Spanish Literature ..... 3:3:0Prerequisite: Spa 232 or equivalent.
432 The Spanish Novel ..... 3:3:0A study of the development of the Spanish novel from Cervantes to the 20th century.436 Spanish American Novel3:3:0Prerequisite: Spa 232 or equivalent.
437, 437G Teaching Spanish Composition ..... 3:3:0Prerequisite: Approval of department head.
438 Studies in Spanish and Spanish American Literature ..... 3:3:0Studies in an area of mutual interest to students and instructor. May be taken for credit more than once if topic varies.

## Lamar Overseas. Study Program

Each summer the English and Foreign Languages Department participates in the summer overseas program offered by the University. English courses are offered in London and in Rome and a senior member of the English faculty participates in each program. The undergraduate and graduate student may receive course credit while experiencing the cultural and historical environment of the region under the guidance of experienced faculty.

A four-or five-week program at the University of Strasbourg, France, under the direction of experienced senior foreign language faculty is offered by the department every other year, that is, 1983, 1985, etc., for as long as there is interest in it. Participants study French language and literature on all levels. College students as well as high school students who receive their high school diplomas before the beginning of the program may obtain details from the office of the Department of English and Foreign Languages. The group is limited to 15 students.

Courses listed below may be taken by students who have finished elementary and intermediate language courses through language 232. The French courses listed are accepted toward a major or teaching field in French but may not be substituted for a required advanced course.
4371 French Studies Abroad
A study of the French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. Cultural activities will include visits to famous museums, historic sites and churches and cathedrals. Credit for this course may be applied toward a major in French.

Students may register for this course concurrently with French 4371. A study of the French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. Cultural activities will include visits to famous museums, historic sites and churches and cathedrals. Credit for this course may be applied toward a major in French.

This course is designed for students who have completed French 4371 or 4372. It consists of a more advanced study of French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. An in-depth study will be made by the student of one facet of the foreign culture. Credit for this course may be applied toward a major in French.
Frerequisite: French 4371 or 4372.
4374 French Studies Abroad
Students may register for this course concurrently with French 4373 . The course is designed for students who have completed French 4371 or 4372 . It consists of a more advanced study of French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. An in-depth study will be made by the student of one facet of the foreign culture. Credit for this course may be applied toward a major in French.
Prerequisite: French 4371 or 4372.

## Department of Geology

Department Chair: Donald E. Owen<br>214 Geology Building, Phone 880-8236<br>Professors: Aronow, Owen, Stevens<br>Associate Professors: Cooper, Jordan<br>Assistant Professor: Westgate<br>Energy Resources Management Coordinator: Donald E. Owen<br>Earth Science Coordinator: James W. Westgate<br>214 Geology Building,<br>Phone 880-8236

The Geology Department specializes in undergraduate instruction and offers bachelor's degrees in Geology, Earth Science, and Energy Resources Management. Graduates may be employed in industry (petroleum, mining, engineering, hydrogeology and environmental geology), by government agencies, or elect to take graduate training at another institution. Certification in Earth Science teaching is offered in conjunction with the College of Education.

Geology faculty have a broad range of research and scholarly interests. These include stratigraphy, sedimentology, paleontology, petroleum geology, geomorphology, petrology, and geochemistry as well as soils and pleistocene geology of the Gulf Coast, lunar geology, geology of the Big Bend region, computer applications to geology, and Earth Science education.

A background in high school chemistry and physics, and two units of algebra and a unit a trigonometry are recommended for prospective majors. Students with inadequate chemistry background must take Chemistry 135 to make up the deficiency. Math 1334 may also be required of students with inadequate high school mathematics.

## Bachelor of Science - Geology

The Bachelor of Science in Geology will be awarded upon completion of the following requirements:
A. Required Courses - 71 semester hours:

Philosophy - three semester hours
English Composition - six semester hours
English Literature-three semester hours
English Literature or Foreign Language - three semester hours
Speech or technical report writing - three semester hours
Political Science (state and national government) - six semester hours
Social Science - three semester hours
History - six semester hours
Fine Arts - three semester hours
Physical Education or Band - two semesters
Health and Wellness - three semester hours
Mathematics - 11 semester hours
Chemistry - eight semester hours
Physics - eight semester hours
Introduction to computers - three semester hours
B. Geology Requirements -60 or 61 semester hours. NOTE: A grade of " C " or better is necessary in a required geology course.
Physical and Historical Geology - eight semester hours
Mineralogy - four semester hours
Optical Mineralogy - four semester hours
Statistics and Data Processing - four semester hours
Structural Geology - four semester hours
Petrology - four semester hours
Sedimentology - four semester hours
Summer Field Course - six semester hours
Seminar - one semester hour
Geophysics - three semester hours
Geomorphology - Four semester hours
Principles of Stratigraphy - four semester hours
Stratigraphic Paleontology - four semester hours
Geochemistry or Tectonics of North America - three or four semester hours
Economic Mineral Deposits or Fossil Fuels - three semester hours
C. Minimum Total: 131 semester hours
First Year
Geo 141-142 Phys. Hist............................................. 8
Chm 141-142 General.................................................. 8
Mth 1335 Pre-Calculus................................................. 3
Mth 148 Analyt Calculus I......................................... 4
Eng Composition ......................................................... 6
PE Activity ( 2 courses)................................................ 2
31
Third Year
Geo 341 Stat-Data Proc.................................................... 4
Geo 342 Structural Geo................................................. 4
Geo 345 Petrology......................................................... 4
Geo 346 Sedimentology ............................................... 4
Geo 441 Stratigraphy ..................................................... 4
Phy 141-142 General* ..................................................... 8
English Literature or Foreign Language.................... 3
ANT 233 or 235 ................................................................. 3
Third or Fourth Summer
Geo 360 Field Camp
.6
Minimum Total 131

Geo 243 Optical Min ...................................................... 4
Mth 149 Analyt Calculus II ......................................... 4
Phy 133 Scientific Computing..................................... 3
Eng Literature .............................................................. 3
Spc 331 or Eng 4326 ..................................................... 3
POLS 231, 232 American Government I, II .............. 6
PHIL 130 ........................................................................ 3
Health and Wellness .................................................. 3
33

Fourth Year
Geo 419 Seminar ............................................................ 1
Geo 433 Geophysics ..................................................... 3
Geo 436 or Geo 439 ....................................................... 3
Geo 445 Geomorphology................................................ 4
Geo 437 or Geo 438....................................................... 3
Geo 442 Strat Paleo .......................................................... 4
His Soph Am His......................................................... 6
Fine Arts ....................................................................... 3 .3
*Those planning to specialize in Geophysics should substitute the sequence Phy 247, 248

## Bachelor of Science - Energy Resources Management

Major Advisor: D.E. Owen
214 Geology Building, Phone 880-8236
The Bachelor of Science in Energy Resources Management (ERMA) will be awarded upon completion of the following requirements:
A. Required Courses -69 semester hours:

Philosophy - three semester hours
English Composition - six semester hours
English Literature - three semester hours
English Literature or Foreign Language - three semester hours
Speech or Technical Report Writing - six semester hours
Political Science (state and national government) - six semester hours
Social Science - three semester hours
History - six semester hours
Fine Arts - three semester hours
Physical Education or Band - two semesters
Health and Wellness - three semester hours
Mathematics - seven semester hours
Chemistry - eight semester hours
Introduction to computers - three semester hours
Physics - four semester hours
Chemical Engineering - three semester hours
B. Geology Requirements - 34 semester hours:

Physical and Historical Geology - eight semester hours
Mineralogy - four semester hours
Optical Mineralogy - four semester hours
Structural Geology - four semester hours
Petrology - four semester hours
Sedimentology or Stratigraphy - four semester hours Economic Mineral Deposits - three semester hours Fossil Fuels - three semester hours
C. Business Requirements $\mathbf{- 3 3}$ semester hours:

Principles of Accounting - six semester hours
Business Analysis and Computers - three semester hours
Business Law and Legal Principles - six semester hours
Petroleum Law - three semester hours
Principles of Economics - six semester hours
Economics of International Trade - three semester hours Economics of World Resources - three semester hours Principles of Management - three semester hours
Minimum Total: 132 hours

## Recommended Program of Study

## First Year

Geo 141-142 Phys, Hist........................................... 8
Chm 141-142 General8
Mth 1335 Pre-calculus .....  .3
Mth 148 Analyt calculus I ..... 4
Eng Composition .....  6
PE Activity .....  2
Health and Wellness .....  3
Third Year
Geo 345 Petrology ..... 4
Geo 342 Structural Geo ..... 4
Geo 437 Econ Min. Deposits ..... 3
BAC 331 ..... 3
HIS 231 American His .....  .3
BLW 331 Bus. Law ..... 3
Eco 335 Intern'l Trade .....  .3
Spc 331 ..... 3
English Literature or Foreign Language. .....  3
ANT 233 or 235 .....  3

## Second Year

Geo 241-243 Mineralogy, Optical............................... 8
Phy 141 General .......................................................... 4
Acc 231-232 Principles ................................................ 6
Eco 131-132 Principles................................................ 6
Eng Literature .................................................................. 3
CS 1311 Computers...................................................... 3
POLS 231 American Government I............................ 3
PHIL 130 ........................................................................ 3
33

## Fourth Year

Geo 438 Fossil Fuels ................................................... 3
Geo 346 Sedimentology .............................................. 4
Che 438 Petroleum Egr................................................... 3
Mgt 331 Management .................................................. 3
BLW 434 Adv. Legal Princ .......................................... 3
BLW 438 Petroleum Law ............................................ 3
POLS 232 American Government II........................... 3
His 232 Am Hist............................................................ 3
Eco 438 Economic of World Resources .................... 3
Fine Arts ..................................................................... 3 . 3

Minimum Total 132

## Bachelor of Science - Earth Science

Major Advisor: James W. Westgate
214 Geology Bldg., Phone 880-8236
The Bachelor of Science in Earth Science will be awarded upon completion of the following requirements:
A. Required Courses - 55 semester hours:

Philosophy - three semester hours
English Composition - six semester hours
English literature - six semester hours
Speech or technical report writing - three semester hours
Political science - six semester hours
Social science - three semester hours

History - six semester hours
Fine arts - three semester hours
Physical education - two semesters
Health and Wellness - three semester hours
Mathematics - three semester hours
Chemistry - four semester hours
Astronomy - three semester hours
Introduction to computers - three semester hours
Statistics - four semester hours
B. Geology Requirements - 35 semester hours:

NOTE: A grade of " $C$ " or better is necessary in a required geology course.
Physical and historical geology - eight semester hours
Mineralogy - four semester hours
Environmental geography - three semester hours
Advanced laboratories - two semester hours
Paleontology - four semester hours
Geomorphology - four semester hours
Tectonics - four semester hours
Meteorology - three semester hours
Oceanography - three semester hours
C. Electives- 31 semester hours:

TEACHING CERTIFICATION: Students desiring certification to teach in Texas schools should complete: PED 331, 332, 334 or 338,434 or 438 , and 462 or 463 or 465 and an additional 3 semester hours of mathematics as part of their electives. Also, an additional 9 semester hours of electives should be chosen from 3 of the following categories: Humanities; Social Science; Natural Science; Mathematics; Foreign Languages; Fine Arts. (total: 30 semester hours). Students are advised to consult with the Director of Certification in the College of Education regarding current requirements for teaching certification.
Minimum total: $\mathbf{1 2 0}$ semester hours.

## First Year

GEO 141-142 Phys, Hist. ..... 8
MTH 1334 College Algebra .....  3
CHM 143 Introductory ..... 4
ENG 131, 134 Composition .....  .6
PHIL 130 Knowledge ..... 3
ANT 233 or 235 Anthropology .....  3
PEGA 111, 112 Activity ..... 2
Health and Wellness ..... 3

Third Year
GEO 3101-3102 Adv Labs ..... 2
GEO 4370 Meteorology .....  3
GEO 4380 Oceanography ..... 3
POLS 231 American Govt I, II .....  6
Electives ..... 15
29
Second Year
GEO 241 Mineralogy. ..... 4
GEO 339 Envir. Geography .....  3
PHY 137 or GEO 2301 Astronomy .....  3
CS 1311 or PHY 133 Computing .....  3
PSY 241 Statistical Methods. .....  4
ENG 2311, 2312 Literature .....  6
SPC 131 Public Speaking ..... 3
HIS 231, 232 American .....  6
Fine Arts .....  3
Fourth Year
GEO 442 Invert Paleontology ..... 4
GEO 445 Geomorphology. .....  4
GEO 449 Tectonics N Am .....
Electives ..... 15

Minimum Total 120

## Geology Courses (GEO)

141 Physical Geology ..... 4:3:2Earth materials, structures, land forms, mineral resources, and the processes which formed them.
142 Historical Geology
235 U.S. and Texas Geography ..... 3:3:0
The major landforms, climatic zones, and geographical features and interrelationships among natural resources,industry, agriculture, and geography of the fifty United States, with special emphasis on Texas.
National, regional and continental units considered from the viewpoint of language, race, religion, politicalorganization, economy, and physical landscape.
237 Physical Geography ..... 3:3:0The fundamental concepts of local, regional, and global geography.Prerequisite: Sophomore standing.
238 Cultural Geography ..... 3:3:0
History and distribution of cultural groups, with emphásis upon the interaction between geographic environmentand human cultures.
239 History of Life ..... 3:3:0
Origin of life on the Earth. Fossils and the evolution of organisms during geologic time, including the emergenceof Homo sapiens.
241 Mineralogy ..... 4:3:3
The classification, properties, occurrence, and identification of minerals. Field trip and special fee required.Prerequisite: Geo 141 and Chm 141 or 143.
243 Optical Mineralogy ..... 4:3:3Optical properties of minerals. use of the polarizing microscope in the identification of minerals.
Prerequisite: Geo 241.
336 Geology of Texas ..... 3:3:0
The topography, physiography, structure, geologic history, and mineral deposits of Texas. Field trip and specialfee required.Prerequisite: Geo 141 or GEO 239.
339 Environmental Geography ..... 3:3:0The environmental significance of human development as related to atmospheric, aquatic and mineral resources.Field trips and special fee required.Prerequisite: GEO 141 or 237.
341 Statistics and Data Processing ..... 4:3:3The application of digital computer and statistical techniques to the analysis of earth science data.Prerequisite: Egr 1221, CS 235, Geo 345.
342 Structural Geology ..... 4:3:3Rock deformation and geologic structures. Field trip and special fee required.
Prerequisite: Geo 241, Mth 148.
345 Petrology. ..... 4:3:3The classification, properties, and occurrence of rocks. Macro and micro techniques for the identification of rocks.Field trip and special fee required.Prerequisite: Geo 243.
346 Sedimentology ..... 4:3:3The derivation and deposition of sediments. The environmental interpretation of sedimentary strata. Field tripand special fee required.Prerequisite: Geo 345.6:5:40Description of stratigraphic sections, preparation of geologic maps and field reports. Conducted off-campus atvarious field locations. Special field trip fees required.Prerequisite: Geo 342, 345.
419 Seminar ..... 1:1:0Written and oral reports on current geological literáture. May be repeated for credit.
Prerequisite: 20 semester hours of Geology.
427, 428 Special Project ..... 4:A:0
An individual library, laboratory, or field project. To receive credit, an acceptable typewritten report is required.Prerequisite: Consent of instructor
433 Geophysics3:3:0Application of the principles of physics to geologic problems. Use of geophysical techniques in petroleumexploration.Prerequisite: Geo 342, Phy 142, Mth 149.
436 Geochemistry ..... 3:3:0The application of the science of chemistry to the solution of geological problems.Prerequisite: Chem 142, Geo 243
Economic Mineral Deposits3:3:0

Origin and occurrence of commercially valuable minerals and rocks. Field trip and special fee required.
Prerequisite: Geo 345 or 4350
Fossil Fuels
Origin and occurrence of coal, oil and gas deposits. Field trip and special fee required.
Prerequisite: Geo 345 or 4350.
441 Principles of Stratigraphy
4:3:3
Fundamental principles: nomenclature; correlation; facies; unconformities; transgression/regression; genetic and event stratigraphy; subsurface and seismic stratigraphy. Field trip and special fee required.
Prerequisite: Geo. 142 and consent of instructor.
442 Invertebrate Paleontology
The classification, morphology, and identification of invertebrate fossils. The application of paleontology to stratigraphic correlation. Field trip and special fee required.
Prerequisite: Geo 142 and consent of instructor.
445 Geomorphology ..... 4:3:3

The development and classification of land forms. Field trip and special fee required.
Prerequisite: Geo 342.
449 Tectonics of North America
Principles of plate tectonics and their application to the geologic history of North America. Field trip and special
fee required.
Prerequisite: GEO 142 and permission of instructor.2310 Rocks \& Stars3:3:0

A conceptual introduction to space science with emphasis on planetary exploration. Visual programs and guest speakers from NASA and other space research facilities will be included. The course is intended for both nonscience and science majors. There are no prerequisites.
3101 Advanced Physical Geology Lahoratory • 1:0:3
Advanced laboratory techniques in physical geology.
Prerequisite: GEO 141.
3102 Advanced Historical Geology Laboratory $\quad$ 1:0:3
Advanced laboratory techniques in historical geology.
Prerequisite: GEO 142.
4101, 4201, 4301 Special Topics in Earth Science 1-3:A:0
Topics in the earth sciences. May be repeated for credit when the area of study is different.
Prerequisite: Consent of instructor.
4350 Earth Materials 3:3:0
The study of minerals and rocks. Field trip and special fee required. A student may not receive credit for both Geo 4350 and Geo 241-243, 345.
Prerequisite: Geo 141 or 237.
4370 Meteorology 3:3:0
The composition and processes of the atmosphere. Weather and climate and their effect on human activities.
Prerequisite: Eight hours of science.
4380 Oceanography 3:3:0
The structure, properties, and processes of the hydrosphere. The role of the seas and oceans in the total environment.
Prerequisite: Eight hours of science.

## Department of History

Department Chair: Adrian N. Anderson
57 Maes Building, Phone 880-8511
Professors: Anderson, Carroll, Gwin, Isaac, Mackey, Storey, Sutton, Wooster
Associate Professors: Holt, Woodland
Assistant Professors: Fritze, Stiles
It is the purpose of the Department of History to impart a knowledge and understanding of the past to the students enrolled in the University. This objective is based upon the belief that such knowledge and understanding improves the quality of life of individuals and contributes to the welfare of our society. The Department seeks to accomplish this objective through a program of continued study and research by its members and its students. Research interests of the Department focus on both American and European history.

## Bachelor of Arts - History Major

The degree of bachelor of Arts in History will be awarded upon the completion of the following requirements:
A. General Requirements

Freshman English - six semester hours
Literature - six semester hours
Foreign Language - Completion of the 232 course.
Mathematics - six semester hours. Courses must be selected from a list of approved courses and must be at or above the level of Math 1334. Three hours of methods of quantitative data analysis may be substituted for one course in mathematics with the approval of the department.
Laboratory Science - eight semester hours. Courses must be selected from Bi ology, Chemistry, Geology, or Physics and must consist of eight hours of the same course.
Social Science - three semester hours. Course must be selected from Antopology, Economics, Psychology, or Sociology.
Sophomore Political Science - six semester hours.
Speech 131 - three semester hours.
Philosophy 130 - three semester hours.
Fine Arts - three semester hours.
Health and Wellness - three semester hours.
Physical Activity, Marching Band, or Military Science - two semesters.
B. Major:

History 131-132 - World History - six semester hours.
Sophomore American History - six semester hours.
History 339 - Historical Research - three semester hours.
Advanced United States History - six semester hours.
Advanced World (Non-United States) History - six semester hours.
C. Minor:

An approved minor of eighteen semester hours, including at least six advanced semester hours.
D. Electives:

Sufficient approved electives to complete a total of 126 semester hours. Within the 126 semester hour program there must be a minimum of at least 120 semester hours of courses that may not include physical activity courses, Health and Wellness courses, and intern program courses.

## Teacher Certification - History

Students wishing to secure the Bachelor of Arts degree in history may at the same time complete the curriculum requirements for a provisional certificate-secondary, with a teaching field in history. For information concerning such a program, the student should consult advisors in the Department of History.

## Recommended Program of Study

First Year
His 131-132 World History ........................................ 6
Freshman English ...................................................... 6
Mathematics.............................................................. 6
Social Science........................................................... 3
Philosophy 130......................................................... 3
Electives .................................................................... 6
Phy Activity, Band, ROTC........................................ 2

Second Year
Soph American History ..... 6
Literature .....  6
Elective. .....  3
Foreign Language. .....  3
Science ..... 8
Soph POLS .....  .6

## Third Year


131 History of World Civilization ..... 3:3:0
Survey of world history to 1660 .
132 History of World Civilization ..... 3:3:0
Survey of world history from 1660 to 1965.
134 History of Texas ..... 3:3:0
Survey of Texas history from the beginning to the present time.
231 American History: History of the United States, 1763 to 1877 ..... 3:3:0
Survey of United States history from the revolutionary period through reconstruction.
231H American History: History of the United States, 1763 to 1877 ..... 3:3:0
Survey of United States from the revolutionary period through reconstruction, designed especially for honorsstudents.Prerequisite: Departmental approval.
232 American History: History of the United States, 1877 to the Present ..... 3:3:0
Survey of United States history from the post-reconstruction period to the present.
232H American History: History of the United States, 1877 to the Present ..... 3:3:0
Survey of United States history from the post-reconstruction period to the present, designed especially for honorsstudents.
Prerequisite: Departmental approval.
233 American History: The Development of Society in America ..... 3:3:0
A historical survey of social change in the United States.
234 American History: The Arts in America ..... 3:3:0A historical survey of cultural life in the United States.
237 Military History of the United States ..... 3:3:0
History of American warfare and the development of American military institutions and practices.
NOTE: Various college and departments may counsel their majors into certain of the American history courseslisted above; otherwise the student may satisfy the American history requirement by taking any twocourses selected from History 231, 232, 233, 234 or 237.
339 Historical Research ..... 3:3:0Principles and methods of historical research.
430 Era of the Renaissance and Reformation ..... 3:3:0
Western Europe from 1453 to 1610.
431 The Old Regime ..... 3:3:0
Western Europe from 1610 to 1783.
432 The French Revolution and Napoleon ..... 3:3:0
Western Europe from 1783 to 1815.
435 - 20th Century Europe ..... 3:3:0
Europe since 1914.
436 The American West ..... 3:3:0
The American West from colonial times to the present.
437 The Old South ..... 3:3:0
The American South from colonial times to the Civil War.
438 The New South ..... 3:3:0
The American South from the Civil War to the present.
439 Honors Program ..... 3:A:0
A tutorial program for honors seniors. Admission by invitation only.
4311 Colonial America ..... 3:3:0
4312 The American Revolution ..... 3:3:0
4313 The Age of Jackson ..... 3:3:0
4314 The American Civil War ..... 3:3:0
4315 Reconstruction and Industrialization: The United States from 1865 to 1898 ..... 3:3:0
4316 World Power and Reform: The United States from 1898 to 1920 ..... 3:3:0
4317 New Deal and World Leadership: The United States from 1920 to 1940 ..... 3:3:0
4318 Classical Civilization ..... 3:3:0Greece and Rome from earliest times to the fall of the Roman Empire in the West.4319 Medieval Civilization3:3:0
Western Europe and the Mediterranean area from the late Roman period to 1453.
4325 Tudor and Stuart England ..... 3:3:0
England from 1485 to 1688 .3:3:0
Great Britain from 1815 to 1914.
4328 Contemporary America: The United States Since 1840 ..... 3:3:0
4335 Topics in History ..... 3:3:0Selected special topics in major areas of history: Course may be repeated for a maximum of six semester hourscredit when the topic varies.
4336 Ancient Near East ..... 3:3:0
The civilizations of the Near East from the earliest times to the pre-classical period.3:3:0A military, political and social history of World War II.4342 Nazi Germany3:3:0A military, political, and social history of Nazi Germany.
Department of Military Science
Department Chair:
ROTC Building, Phone 880-8560Assistant Professor: Captain Eddy, Captain JellisonInstructor: SGM Clarence Everett
ROTC Program

Practical leadership and management training applicable to both civilian and military career options is offered through the Lamar University Reserve Officers' Training Corps Program. The ROTC program has as its primary objective the commissioning of junior officers who by their education, training, and inherent qualities are capable of filling positions of leadership in the active or reserve components of the United States Army. The program is open to both male and female students of all academic majors.

The Department of Military Science course offerings consist of the basic course (100200 level) and the advanced course (300-400 level). No military service obligation is incurred for students enrolled in the basic course. Students in all courses are furnished textbooks and instructional material at no cost:

## Requirements for Admission

Basic Course: All courses offered as part of the basic course are treated the same as other electives in the curricula. All physically fit, male and female, Freshman and Sophomore students, may qualify to enroll. Students desiring to participate need only to register for basic military science courses. These courses may be taken in lieu of required Health and Physical Education courses. Due to the physical requirements, no physically impaired students are normally accepted in the Military Science Program. Additionally, developmental students are strongly discouraged from taking Military Science courses until they have completed their remediation. Juniors and Seniors may take Freshman level courses with permission of the Department Head only. Basic course students are required to attend the Leadership Lab.

Advanced Course: The two year advanced course is elective in that any qualified students may apply for admission, and selective in that the application requires the approval of the Professor of Military Science. Students who have at least two years of college remaining, maintain a 2.0 or better quality point average, complete the basic course or who qualify by prior military training, and are physically qualified are eligible for enrollment in the advanced course. The advanced course leads to an officer's com-
mission in the United States Army Reserve or regular Army and is pursued under a written agreement with the Department of the Army. Advanced course contract students are paid approximately $\$ 2,500.00$ for the two-year course which includes attendance at the ROTC summer camp.

Two-Year Program: Students transferring or currently enrolled at Lamar who cannot complete the basic course prior to becoming academic Juniors, or Graduate students with at least two years remaining may qualify to enter the advanced course by successfully completing a 6 week Leadership Seminar course, conducted each summer at Fort Knox, Kentucky. Academic credit and pay are granted to students attending the course. Applications should be submitted to the Department of Military Science by April 15. Students who are unable to attend the course in Fort Knox are still eligible to be considered for enrollment in Junior-year ROTC courses, without prior military or ROTC experience.

Credit for Previous Military Training: Students with previous military training may qualify for placement directly into the advanced course. The Professor of Military Science determines the placement, which is acceptable to the Army, for each student requesting this classification.

Veterans: Students who have prior military service may be eligible for advanced placement provided their active duty was completed within the last five years.

National Guard/Reserves: Students who are currently members of the United States Army Reserves or the National Guard are eligible for advanced placement under the Simultaneous Membership Program.

Junior ROTC: Students who have had at least three years of junior ROTC may qualify for advanced placement. An interview with the Professor of Military Science is required.

Students desiring additional information concerning the Army ROTC program should write to: Professor of Military Science, Lamar University Station, Box 10060, Beaumont, TX 77710. Phone calls may be made collect to: (409) 880-8560, 8569.

## Military Science Courses (MS)

121 Learn What It Takes to Lead
2:2:2
An introduction course designed to emphasize leadership principles and confidence building through activities such as mountaineering, orienteering, and class discussions, as well as basic leadership skills - all of which are inherent in learning what it takes to lead.
122 Woodland Skills/Survival $\quad$ 2:2:2
Instruction includes basic survival and field skills emphasizing leadership principles and ethics. Survival techniques taught include shelter construction, first aid, water procurement, and directional finding techniques. Exercises on group dynamics and corporate survival skills are also included.
221 Small Unit Leadership Skills
2:2:2
Course consists of basic skills necessary for a small unit to perform in a military environment. Subjects covered in the course include: Weapons, tactics, leadership and the enemy threat. Students plan and participate in a small unit operation in a field training exercise during the semester.
Prerequisite: MS 121, 122 or permission of the PMS.
222 Leadership and Management
2:2:2
Human behavior, values, ethics, motivational techniques, and leadership are examined as they relate to accomplishment of objectives. The functions of management, planning, organizing, directing, staffing, and controlling are introduced. Practical exercises, classroom discussions and films are used to illustrate current management philosophies and techniques.
Prerequisite: MS 121, 122 or permission of the PMS.
In-depth instruction in a wide range of leadership skills to include motivation, group dynamics and responsibilities of leaders. Practical experience in leading peer groups will be gained through advanced mountaineering, small unit tactical leadership applications, extensive student led physical fitness programs. and land navigation techniques. Students will participate in field trips to practice leadership skills.
Prerequisite: MS 121, 221 and Permission of Department Head.

## Advanced Courses

Note: Prerequisites for enrollment in the advanced courses are as determined by the Professor of Military Science.
331 Military Roles
Development of the student's ability to express himself clearly and accurately in the process of analysis and
evaluation of military problems and the projection of solutions. Discussion of the military environment in the
field and in garrisons. Introduction to the employment of the infantry platoon through map and practical exercises.
$\mathbf{3 3 2}$ Tactical Concepts
3:3:2
Analysis of the platoon leader's role in directing and coordinating the efforts of individuals, small units, and the
combined arms team in the execution of military operations. Related aspects include communications, tactics,
weaponry, patrolling and map exercises designed for advanced camp preparation.
ROTC Advanced Camp
Practical application of tactics; leadership training and practice; and arms qualification. Six weeks during the
summer at a military reservation designated by the Department of the Army (no fee).
Prerequisite: Military Science $I I I$ courses and/or permission of PMS.
S31 Staff Organizalion and Management

Staff Organizalion and Management 3:3:2
Methods of organization, administrative management, and personnel management are examined through conferences and practical exercises. Staff operation of the cadet corps and practical exercises in leadership are conducted during a leadership laboratory.

## Military Ethics

3:3:2
The organization, capabilities, and mission of military units are examined through lectures and conferences. A block of instruction emphasizes the military law system. World changes and military implications related to the role of the Army are considered. Active duty career planning is studied. Staff operation of the cadet corps and practical exercises are conducted during a leadership laboratory.

## MS-Leadership Laboratory

Practical application of classroom instruction emphasizing physical fitness, drill and ceremonies, and basic military skills. Participating students are provided all uniforms and equipment. Participation is required of all MS students.

## Special Programs

## U.S. Army ROTC Basic Camp

(Maximum of eight credit hours) The ROTC Basic Camp is a six-week summer course conducted at Fort Knox, Kentucky for students who cannot complete the Basic Course (four electives) prior to becoming academic Juniors. In addition to free room, board, and transportation, students are paid approximately $\$ 600.00$. Training includes practical exercises to enhance confidence, physical fitness and leadership qualities.

## Prerequisite: Approval of the PMS.

## Rangers

An adventure oriented organization designed to develop leadership qualities through small unit tactics, self-discipline, self-confidence, and resourcefulness. Members participate in several field training exercises during the semester. Open to all interested and qualified students with at least a 2.0 GPA .

## Adventure Training

Students may apply to attend Northern Operations Training (Alaska), Airborne - Parachutist - Training (Georgia), or Air Assult Training (Kentucky).

## Competition Rifle Team

In-depth analysis of all facets of competitive firing with small bore rifle to include safety, equipment care, aiming, breath and trigger control, positions, and participation in ten competitive matches a year.

## Orienteering Team

In-depth analysis of the sport of orienteering. Involvement in environmental awareness, physical fitness, map reading skills, compass proficiency, mental acuity, and competition with others will be emphasized. Students participate in several orienteering meets during the semester. Open to all interested students.

## Rifle Drill Team

A precision drill team designed primarily to promote the military image through innovative and imaginative routines involving close order drill with weapons. Team performances include, but not limited to, university and local civic events. All uniforms and equipment are provided and participation is open to all interested students.

## ROTC Scholarships

Competitive three- and two-year scholarships which pay for all tuition fees, laboratory fees, textbooks, and other required academic expenses, except room and board, are available. In addition, the scholarship holder receives $\$ 100$ per month for the duration of the scholarship, except for the six-week advanced summer camp, during which the student is paid one-half the basic monthly pay of a second lieutenant plus travel expenses to and from camp.

## Department of Physics

Department Chair: Cruse Melvin
230 Archer Building, Phone 880-8241
Professors: Melvin, Pizzo, Rigney
Associate Professors: Peebles
Assistant Professor: Chelf, Goines
Physics is the fundamental science. A major in physics serves as an excellent basis for almost any career. Accordingly, the program of study in physics at Lamar University is offered with many possible options. The individual student may choose a listed option or plan an alternative with the departmental counselor. Lamar physics majors have successfully pursued careers in medicine, life sciences, teaching, geophysics, environmental science, engineering, and physics research. Many Lamar physics majors have earned doctorates from outstanding graduate institutions.

The emphasis of the Physics program is on quality education at the undergraduate level. Faculty members are involved in innovative research to present physics concepts through creative demonstrations and experiments. Personal faculty support is offered to every physics major, and the physics majors are encouraged to apply for student work in the department.

## Minor in Physics

A minor in physics must complete 20 semester hours of physics; including general physics, modern physics, and six semester hours numbered above 300.

## Bachelor of Science - Physics Major

A total of 128 semester hours are required for this degree. In addition to general University requirements for the bachelor's degree listed in this bulletin under Academic Regulations, the degree requirements in physics are Physics I, Physics II, Modern Physics, Analytical Mechanics (Phy 343), Electricity and Magnetism (Phy 338), Quantum Mechanics (Phy 432) and a minimum of ten additional semester hours above 300 including one laboratory course; 15 semester hours of Mathematics including 331 or 3301; and Chemistry 142.

In addition to these minimum requirements most majors will take Phy 130 as a preparation for Phy 247. Phy $133 \& 134$ are recommended for students with limited computing skills. Students preparing for graduate school in physics are encouraged to take as many of the following courses as possible:

1. Thermal Physics (Phy 339)
2. Electrical Measurements (Phy 346)
3. Introduction to Research (Phy 421, 422)
4. Classical Mechanics (Phy 431)
5. Optics (Phy 448)
6. Partial Differential Equations
7. Vector Analysis
8. Numerical Analysis
9. Advanced Calculus

## Placement

Physics majors must obtain sufficient mathematical skills in Algebra and Trigonometry to be placed in Calculus I (Math 148). See Mathematics Placement Test Section or take pre-calculus mathematics (Math 1335) to make up the deficiency.

## Flexible Program of Study

The flexible program of study allows the student to combine a physics major with study in another academic discipline. Some of the elective hours may be used to meet option requirements. Selected options are listed below.

| First Year |  |
| :---: | :---: |
| Phy. | 3-8 |
| Eng. Composition |  |
| Chem. 141-142. | ....... 8 |
| Mth. 148, 149. | ... 8 |
| Electives. | .... 4 |
| PE/MLB*/ROTC 2 | 2 or 4 |
|  | 31-38 |
| Third Year |  |
| Phy 345, 343 ...................................................... 8 |  |
| Phy elective above 300........................................ 4 |  |
| His Soph American ............................................ 6 |  |
|  |  |
| Mth. Diff. Eq ...................................................... 3 |  |
| Electives .........................................................5-8 |  |
|  | 33-36 |

## Second Year

Phy 247, 248 ............................................................. 8
Eng. Literature .....  6
Mth. 241 .....  4
Electives ..... 12-16
PE/MLB*/ROTC 2 sem. ..... 2 or 4
Fourth Year
Phy 432, 338 ..... 7-8
Phy above 300 .....  6
Electives ..... 17-21

Total: 128 or more.
*Offered Fali Semester only. If MLb 124 option is desired it should be added to third and fourth year as four semesters are required.

## List of Some Options With the Flexible Program

Pre-medical: 16-20 additional semester hours of biology, 8-16 additional semester hours of chemistry, including Chm. 341-342. Suggested electives: Psychology and sociology.

Life-Science: 16 additional semester hours of biology, 8-12 semester hours of geology, 8-12 additional semester hours of chemistry. Electives unrestricted.

Oceanography: 8-12 additional semester hours of biology, eight additional semester hours of chemistry, 16 semester hours of geology. Suggested electives: electronics, fluid mechanics.

Teaching: 18 semester hours of education, completion of 24 semester hours for second teaching field. Suggested electives: psychology and sociology.

Chemistry: 16-24 additional hours of chemistry. 8-12 additional semester hours of biology. Electives unrestricted.

Liberal Arts: 24-26 semester hours from English, history, political science, sociology or philosophy. Electives unrestricted.

Environmental Science: $16-20$ additional semester hours of chemistry, 8-12 additional semester hours of biology, three semester hours of civil engineering. Suggested electives: psychology and sociology.

Engineering: 12 semester hours of engineering (Egr.), and 12-24 semester hours of advanced engineering. Suggested electives: economics and sociology.

Geology: 20 semester hours of geology, three-to-nine semester hours of electronics. Electives unrestricted.

# Recommended Program of Study Preparation for Graduate School in Physics: 

First Year
Phy 130 or 141, 247, 133................................. 10-11
Eng. Composition ...................................................... 6
Chem. 141, 142......................................................... 8
Mth. 148, 149............................................................. 8
PE/MLB*/ROTC 2 sem........................................ 2 or 4

Third Year
Phy 343, 338, select A(1) ................................. 10-11
Mth 331 or 3301 ,
select $\mathrm{B}(1)$......................................................... 8-9
Foreign Language...................................................... 3
POLS 231, 232 .......................................................... 6

Electives ............................................................... 12
Electives ............................................................... 12
Total: 128 or more.

Second Year
Phy 248, 345, 134 ................................................... 11
Eng. Literature .......................................................... 6
Mth. 241 .................................................................... 4
Foreign Language....................................................... 3
His Soph. American ................................................. 6
PE/MLB $/$ /ROTC 2 sem....................................... 2 or 4 32-34

## Fourth Year

Phy 421, 422 ............................................................. 4
Phy 432, select A(2) ............................................9-11
Mth Select B(2)..................................................... 4-6
Electives ................................................................... 15
*Offered Fall Semester only. If MLb 124 option is desired it should be added to third and fourth year as four semesters are required. Select A - choose from Phy 339, 346, $431,448$.
Select B - choose from Mth 335, 338, 4202, 4203.

## Cooperative Education Program

A Cooperative Education Program, in which the student spends alternate terms at study and at work, is available to qualified students in the Department of Physics. Details may be obtained from the department head.

## Physics Courses (Phy)

130 Mathematical Methods in Physics
3:0:3
Graphical analysis, vector operations, trigonometic operations for elementary physics problems; field and potentials.
133 Science and Computing I 3:2:2
General Computer use in scientific work. Data Storage: Data manipulation; and introduction to Pascal programming.
Prerequisite: One year of science.
134 Science and Computing II $\quad$ 3:2:2
Prerequisite: One year of science.
137 Descriptive Astronomy 3:3:0 A survey of facts and an introduction to important astronomical theories. The solar system, stars, nebulae and star systems.
141 General Physics Mechanics and Heat 4:3:2
Designed for majors in the physical or natural sciences. Emphasis is placed upon understanding and application of basic physical laws.
Prerequisite: 1335 or high school trigonometry.
142 General Physics, Sound, Light, Electricity and Magneticsm 4:3:2
A continuation of Phy 141.
Prerequisite: Phy 141.
143 Conceptual Physics
4:3:2
Designed for non-science/non-engineering majors. The basic interactions in nature are studied: How things move and why. The approach is conceptual as opposed to mathematical. A student majoring in Science or the College of Engineering may not receive credit for Phy 143.

Designed for non-science/non-engineering majors. Topics covered are: Heat, Vibrations and Waves, Sound, Light. The approach is conceptual as opposed to mathematical. A student majoring in Science or the College of Engineering may not receive credit. Phy 143 is NOT a pre-requisite for Phy 144.

## 247 Calculus Based Physics I

Mechanics, vibrations, heat.
Prerequisite: Registration in or credit for Mth 149 and permission of department head.
248 Calculus Based Physics II 4:3:3
Electricity, magnetism, sound waves, optics.
Prerequisite: Phy 247
324 Physics Experiments I
2:1:3
Prerequisite: Registration in or credit for Phy 335.
325 Physics Experiments II 2:1:3
Prerequisite: Phy 335
333 Analytical Mechanics 3:3:0
Use of vector notation in formulating and applying Newton's laws and the principles of momentum and energy. Dynamics of particles and rigid bodies emphasized. Statics treated briefly.
Prerequisite: Phy 247 or 141-142 and credit for or registration in Differential Equations.
335 Modern Physics 3:3:0
Conservation laws; special relativity; quantum effects; atomic structure; X-rays, nuclear and solid state physics. Prerequisite: Phy 248 or Phy 141-142 and Mth 241.
338 Electricity and Magnetism $\quad$ 3:3:0
Electrostatic fields; potential; capacitance; dielectrics; electromagnetic waves. Maxwell's equations; conduction in gases; thermoelectricity.
Prerequisite: Phy 248 or 141-142 and credit for or registration in Differential Equations.
339 Thermal Physics
3:3:0
Temperature and thermometry; internal energy, entropy and thermodynamic potentials; introduction to the kinetic theory of gases and the Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac statistics.
Prerequisite: Phy 248 or Phy 141-142 and Mth 241.
343 Analytical Mechanics 4:3:3
Use of vector notation in formulating and applying Newton's laws and the principles of momentum and energy. Dynamics of particles and rigid bodies emphasized. Statics treated briefly.
Prerequisite: Phy 247 or 141-142 and credit for registration in Differential Equations.
346 Electrical Measurements
Theoretical and practical definitions of electrical units; data handling and analysis; precision DC measurement of resistance, potential difference and current; galvanometer characteristics; AC bridge measurement of self and mutual inductance, capacitance and frequency; magnetic measurements.
Prerequisite: Phy 248 or 141-142 and Mth 241.
4101, 4201, 4301 Special Topics in Physics
1-3:A:0
Topics in undergraduate mechanics, electromagnetism, energy conversion or particle physics. Library work and conferences with a staff member. Student may repeat the course for credit when the area of study is different.
414, 415 Experimental Projects
1:0:3
Building or assembly of experimental apparatus, and its use, under the supervision of a faculty member.
Prerequisite: Six hours of physics numbered above 300.
421 Research I
2:0:6
Introduction to Physics Research. Starting a research investigation defining a problem conducting literature search, assembling resources, and initiating a project.
Prerequisite: Phy 345, and (343 or 338).
422 Research II 2:0:6
Introduction to Physics Research. Completing a project started in Phy 421. Completing the project and writing a report in publication form.
Prerequisite: Phy 421.
431(G) Classical Mechanics 3:3:0
Variational principles and Lagrange's equations; the kinematics of rigid body motion; the Hamilton equations of motion; small oscillations.
Prerequisite: Differential Equations and Phy 343.
432(G) Introductory Quantum Mechanics
Basic concepts of quantum mechanics. Schrodinger's equation; wave functions.
Prerequisite: Phy 343 or 431, Phy 335 and Mth 331 or 4301.

Crystal structure; binding forces; mechanical and thermal properties; electrical conductivity; semiconductors; dielectric properties; magnetic properties; surface effects, phosphors and photoconductivity. Prerequisite: Phy 335.
436(G) Applied Nuclear Physics
Nuclear structure, decay processes, nuclear forces, scattering; spectroscopy and health effects.
Prerequisite: Phy 345 or Phy 340 .

448(G) Optics
Physical and Quantum Optics. Propagation of light; interference; diffraction; optics of solids; thermal radiation and light quanta; optical spectra: lasers.
Prerequisite: Phy 335 and Differential Equations.

## Department of Political Science

Department Chair: William M. Pearson

56 Maes Building, Phone 880-8526
Professors: Drury, Pearson, Utter, Stidham
Associate Professors: Lanier, Sanders, Dubose
Assistant Professors: Castle, Laslovic, Vanderleeuw
Political Science is the study of political power, who has it, and how those who have it behave. The Political Science curriculum encourages students to acquire a broad understanding of the political system and the policymaking process in order to become effective participants in it and prepare for careers in law, government service, teaching, journalism, and business.

To accomplish these objectives, the Department offers courses of study which introduce students to the discipline and methods of Political Science and its subfields: American government and politics, political philosophy, international relations, comparative politics, and public administration and policy.

The Political Science faculty members have earned doctorates and a wide range of specialization within the broad areas specified above. The faculty's expertise is complimented by active involvement in scholarly research on the following topics: southern politics; party realignment; congressional elections and casework; administrative accountability in state government; empirical-normative links between voting and political obligation; the trial courts' responses to Supreme Court policy changes; Brazilian public policy; minority politics and social policy analysis; public personnel and budgetary policy; Canadian-U.S. relations; voting behavior in state and local politics; and a comparison of caucus and primary methods for selection of presidential nominees.

The Department of Political Science offers the following undergraduate degrees: Bachelor of Arts in Political Science, Bachelor of Science in Political Science, Bachelor of Arts in Political Science with Teacher Certification, and Bachelor of Science in Political Science with Teacher Certification. Additionally, the Department offers a PreLaw Program leading to Bachelor of Arts or Bachelor of Science degrees with intern credit for working in law firms.

## Political Science - Pre-Law

One of the traditional routes to law school is a four-year undergraduate degree in Political Science. Students may pursue either the Bachelor of Arts degree in Political Science or Bachelor of Science degree in Political Science as candidates for admission to a school of law. Both degrees retain the values of a liberal education (such as history, English, and foreign language) and the enhancement of technical skills (including computer science, accounting and mathematics). With a large number of free electives and 18 hour minors, the Bachelor of Arts or Science in Political Science afford considerable flexibility in meeting each student's unique educational and career needs.

A Pre-Law Counselor in the Political Science Department specializes in advice to Pre-Law students, maximizing their chances for success on the Law School Admission Test and assisting them in the process of application to law school.

## Legal Internships - Pre-Law

Exceptional students may qualify for a cooperative education program available in the legal profession. They earn up to 6 semester hours of elective internship credit in their junior and senior years while working half-days in local law firms. Law office experience is combined with academic assignments to develop skills useful to the potential lawyer. Admission to the program is by permission of the chair of the De partment of Political S.cience.

## Bachelor of Arts - Political Science Major

The Bachelor of Arts degree in Political Science emphasizes a traditional liberal arts or humanities curriculum and includes the following requirements:
A. University Core ( 50 semester hours)

Philosophy 130
English composition - six semester hours
Literature - six semester hours
Speech 131
Sophomore American history - six semester hours
Fine Arts - three semester hours
Political Science 231-232 - Introduction to American Government I and II
Mathematics - six semester hours, including Math 1334
Laboratory science - eight semester hours
Social science elective - three semester hours from Ant, Eco, Psy, Soc
B. Major ( 27 semester hours, 6 in University core)

Political Science 131
Political Science 231-232 (see University core)
Political Science 3319-Statistics for Social Scientists
Three semester hours from each of the following fields:
Ámerican politics (POLS 334, 335, 339,.3301, 4312, 3313, 437)
Political philosophy (POLS 432,433).
International relations (POLS 332, 337, 435)
Comparative politics (POLS 331, $3317,4381,4383$ )
Public administration and policy (POLS $3316,430,434,439$ )
C. Minor ( 18 semester hours)

An approved minor of 18 semester hours, including at least six advanced hours.
D. Additional requirements ( 17 semester hours)

Completion of 232 in a foreign language (normally 12 semester hours)
Two semesters of physical activity, marching band, or military science HLTH 137
E. Electives ( 20 semester hours)
or a number sufficient to total 126 semester hours, with at least 121 exclusive of physical activity and health and wellness courses.

# Recommended Program of Study-Bachelor of Arts in Political Science 

First Year
Political Science 131 ................................................. 3
English composition................................................. 6
Foreign language....................................................... 6
Mathematics, including 1334 ................................. 6
Activity..................................................................... 2
Philosophy 130......................................................... 3
Speech 131............................................................... 3

## Second Year

Literature .....  6
Foreign language. .....  6
HLTH 137 .....  3
American history ..... 6
Political Science 231-232 .....
Political Science 3319 ..... 3
Fine Arts ..... 3


## Fourth Year

Political Science advanced ....................................... 6
Minor......................................................................... 9
Electives .................................................................. 1717

## Bachelor of Science-Political Science Major

The Bachelor of Science degree in Political Science emphasizes quantitative skills in the applied social sciences and includes the following requirements:
A. University Core ( 50 semester hours)

Philosophy 130
English composition - six semester hours
Literature - six semester hours
Speech 131
Sophomore American history - six semester hours
Fine Arts - three semester hours
Political Science 231-232 - Introduction to American Government I and II
Mathematics - six semester hours, including Math 1334
Laboratory science - eight semester hours
Social science elective - three semester hrs. from Ant, Eco, Psy, or Soc
B. Major ( 30 semester hours, 6 in the University core)

Political Science 131
Political Science 231-232 (see University core)
Political Science 3319 - Statistics for Social Scientists
Political Science 4319 - Advanced Research Methods
Three semester hours from each of the following fields:
American politics (POLS 334, 335, 339, 3301, 4312, 3313, 437)
Political philosophy (POLS 432, 433)
International relations (POLS 332, 337, 435)
Comparative politics (POLS 331, 3317, 4381, 4383)
Public administration and policy (POLS 3316, 430, 434, 439)
C. Minor (18 semester hours)

An approved minor of 18 semester hours, including at least six advanced hours.
D. Additional requirements (17 semester hours)

Computer Science 1311
Nine semester hours selected from two of the following areas:
Accounting 231-232
Economics 131, 132, 233, or advanced
Mathematics-advanced
Psychology-advanced
Computer Science-advanced
Two semesters of physical activity, marching band, or military science HLTH 137
E. Electives ( 17 semester hours)
or a number sufficient to total 126 semester hours, with at least 121 exclusive of physical activity and health and wellness courses.

# Recommended Program of Study - Bachelor of Science in Political Science 

First Year
Political Science 131 ..... 3
English composition ..... 6
Elective (Ant, Eco, Psy, or Soc) .....  3
Mathematics, including 1334 ..... 6
Activity .....  2
Philosophy 130 ..... 3
Speech 131 ..... 3
Fine Arts .....  3
29
Third Year
Political Science 4319 ..... 3
Political Science advanced ..... 9
Laboratory science ..... 8
HLTH 137. ..... 3
Minor ..... 9

Second Year
Literature ..... 6
American history .....  .6
Political Science 231-232 .....  6
Political Science 3319 ..... 3
Computer Science 1311 .....  3
Approved electives .....  9

## Bachelor of Arts - Political Science Major with Teacher Certification

Students wishing to earn the Bachelor of Arts in Political Science and at the same time certify for a provisional certificate with Political Science as a teaching field should consult the chair of the Department of Political Science.

## Bachelor of Science - Political Science Major with Teacher Certification

Students wishing to earn the Bachelor of Science in Political Science and at the same time certify for a provisional certificate with Political Science as a teaching field should consult the chair of the Department of Political Science.

## Political Science Courses (POLS)

$\mathbf{2 3 1}$ Introduction to American Government I
A study of the national and Texas constitutions; federalism; political socialization and participation; public
opinion and interest groups; parties, voting and elections.
Prerequisite: Sophomore standing.
$\mathbf{2 3 1 H}$ Introduction to American Government I Honors
A study of the national and Texas constitutions; federalism; political socialization and participation; public
opinion and interest groups; parties, voting and elections. Designed especially for honors students.
Prerequisite: Sophomore standing and departmental approval.
$\mathbf{2 3 2}$ Introduction to American Government II
A study of the legislative, executive and judicial branches and the bureaucracy; policy formulation and imple-
mentation including civil rights and civil liberties, domestic and foreign policies.
Prerequisite: POLS 231.
232 H Introduction to American Government II Honors ..... 3:3:0

A study of the legislative, executive and judicial branches and the bureaucracy; policy formulation and implementation including civil rights and civil liberties; domestic and foreign policies. Designed especially for honors students.
Prerequisite: Sophomore standing and departmental approval. NOTE: POLS 231-232 fulfills the six-hour requirement in Political Science.

An introductory survey of political ideas and institutions and a review of the methods for analyzing the political behavior of individuals, groups and nations. Formal research design required.

Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department chair.
322 Legal Internship II 2:2:0
Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department chair, POLS 321.
323 Legal Internship III
2:2:0
Practical experience in law office procedures and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department chair, POLS 322.
331 The Politics of Developed Nations
3:3:0
An analysis of the political culture, political structure and decision-making process of developed nation-states with major emphasis on Western European systems.
332 Studies in International Politics 3:3:0
A study of the concepts underlying the Western State system; nationalism and imperialism; the techniques and instruments of power politics and the foreign policies of selected states.
334 American Political Parties and Pressure Groups 3:3:0
A study of political parties in terms of their theory, their history and their place in contemporary American politics; analysis of the role of economic and other groups in American politics; group organization and techniques of political influence.
335 The American Presidency $\quad$ 3:3:0
The role of the office in political and diplomatic, social and economic terms, as well as in the policy-making aspects.
337 The Politics of American Foreign Policy ..... 3:3:0

An analytical and historical view of United States foreign policy; its domestic sources; the instruments of American diplomacy; United States involvement in world politics and the limitations and potentials of American foreign policy.
335 Urban Politics ..... 3:3:0

Analysis of the organization and development of urban governments in the United States. Interrelationships among urban problems, political behavior and policy will be examined.

| $\mathbf{3 3 0 1}$ | The Legislative Process |
| :--- | :--- |
| The structure, functioning and political control of legislative bodies. | $\mathbf{3 : 3 : 0}$ |
| $\mathbf{3 3 1 3}$ | The Judicial Process |

The theory and structure of the American court system; its personnel and decision-making processes; the judicial process in the setting of the American criminal justice system.
3316 Introduction to Public Administration 3:3:0
A survey of American public administration, with emphasis upon modern problems and trends.
3317 Politics of Developing Nations 3:3:0
An analysis of the political systems of Latin America, Africa, the Middle East and Asia, focusing on ideologies, interest groups, political parties, elites and problems in political development.
3319 Statistics for Social Scientists

Basic concepts and techniques of statistics employed in social science research including descriptive statistics; measures of central tendency and dispersion; correlation and regression analysis; inductive statistics; fundamentals of probability and test of significance.
430 Organization Theory and Behavior 3:3:0
A study of the structural and management aspects of public administration, theory and practice; policy formation processes and techniques.
432 Political Thought I $\quad$ 3:3:0
Topics in western political thought from the Greeks to the 19 th Century.
433 Political Thought II 3:3:0
Topics in political philosophy from Marx to the present with emphasis on contemporary theorists.
434 Formulation of Public Policy
3:3:0
The demands for public action on policy issues; organization and nature of political support; processes and problems of decision making in the formulation of public policy at the national, state and local levels. The issues studied will vary from semester to semester.
435 International Law and Institutions 3:3:0
An analysis of the political, legal and institutional foundations of the modern international system, including the United Nations. Emphasis include peaceful settlement of international disputes and the developing global system.

## 437 American Constitutional Law and Development <br> 3:3:0

Development of the American Constitution through judicial interpretations. Particular emphasis ou cases dealing with federalism, commerce, the three branches of government, due process, civil rights, aud civil liberties.
439 Special Topics in Public Administration
3:3:0
This course is designed to cover fiscal administration, public personnel administration, comparative development administration, administrative regulation and related areas. Course may be repeated for credit when the topic varies.
4310 Directed Study $\quad$ 3:3:0
Students may study individually with an instructor in an area of mutual interest to the student and the instructor. Prerequisite: Approval of chair of Department of Political Science.

## 4312 American State Politics

3:3:0
A survey of American state political systems from a comparative basis with emphasis on Texas.
4319 Advanced Research Methods
3:3:0
Analysis or study of special problems, topics, cases, models and theories in political science research.
4381 The Politics and Government of the Communist Nations
3:3:0
A study of the origin, development, structures, functions and behavior of the Communist political system with emphasis on the Soviet Union and China.
4383 Government and Politics of Latin America . 3:3:0
An intensive comparative analysis of the political systems of Latin America with special emphasis on political culture, constitutional development, authoritative decision-making agencies, interest identification, leadership selection, political socialization and conflict resolution.

# Department of Sociology, Social Work and Criminal Justice 

Department Chair: Kevin B. Smith

55 Maes Building, Phone 880-8538
Professors: Altemose, Frazier, Ma, Seelbach
Associate Professors: Birdwell-Pheasant, Monroe, Sims, Smith, Stone
Assistant Professors: Love, Saur, Wilson-Wilke, Wright
Sociology, social work, and criminal justice share some common knowledge bases and are similar in many of their approaches to human behavior. The department strongly emphasizes personal academic counseling for all of its majors and encourages career oriented education. Courses in anthropology are also offered through this department.

The degrees offered by the department are: Bachelor of Science in Sociology, Bachelor of Arts in Sociology, Bachelor of Social Work, Bachelor of Science in Criminal Justice, and Associate of Science in Law Enforcement. Each bachelor's degree offered by this department requires 120 semester hours excluding required physical activity and/or marching band and/or ROTC. Students exempted from the physical education requirement must submit elective hours approved by the major department in lieu of this requirement. Thus, the minimal total for a degree is 124 semester hours. The Associate of Science in Law Enforcement degree requires 60 semester hours excluding two required physical activity courses for a minimal total of 62 semester hours. The Social Work Program is fully accredited by the Council on Social Work Education. A major in social work will entitle the graduate to apply for Texas certification as a Social Worker.

## Departmental Academic Policies

1. A grade of "C". or higher for each course in the major field (including transfer courses) and a 2.0 grade point average in the major are required for graduation.
2. English 137 is not an approved elective.
3. Each student's use of English is subject to review up to and including the semester in which he or she is scheduled to graduate. Any faculty member who identifies a departmental major having poor English skills will notify the student and the department chair in writing. The department chair will then review writing samples and consult with the Director of Freshman English. Based on the recommendations of the Director of Freshman English and the department chair, additional diagnostic procedures and course work may be required before the student is recommended for graduation.
4. The departmental academic probation and suspension policy is identical to that of the College of Arts and Sciences and is available from the office of the Dean or department chair.
5. Students who are majoring in this department and who are on academic probation or returning from academic suspension may not enroll in more than 12 semester hours (13-15 hours if a laboratory course and P.E. are taken) in any semester.
6. All departmental majors (full-time and part-time) must have satisfied both the University's and the College of Arts and Sciences' requirements for English composition and mathematics before registering for 300 and 400 level courses offered by the department.

## Pre-Law

Students may pursue the Bachelor of Arts or the Bachelor of Science in Sociology, the Bachelor of Social Work, or the Bachelor of Science in Criminal Justice as prospective candidates for admission to a school of law. The degree plan should include the following courses as electives or a minor:

Criminal Justice 1303 - Fundamentals of Criminal Law
Criminal Justice 1305 - The Courts and Criminal Procedure
Criminal Justice 234 - Legal Aspects of Law Enforcement
Political Science 436 - American Constitutional Law and Development
Political Science 437 - American Constitutional Law and Development
Business Law 331 - Business Law
Business Law 332 - Labor Law
Business Law 434 - Advanced Legal Principles

## Sociology

Program Director: Kevin B. Smith
55 Maes Building, Phone 880-8538
Sociology is the study of social life and the social causes and consequences of human behavior. Sociology's subject matter ranges from the intimate family to the hostile mob, from crime to religion, from the division of race and social class to the shared beliefs of a common culture, from the sociology of sport to the sociology of work. Sociology is a popular major for students planning futures in such professions as law, business, education, architecture, politics, public administration, and even medicine. The research interests of Lamar's sociology faculty include social stratification, criminology, alienation, gender roles, gerontology, sociology of sport, sociology of religion, and family structure and functioning. The Bachelor of Science degree is designed for students whose interests are more quantitative while the Bachelor of Arts offers a traditional liberal arts education.

## Teacher Certification - Sociology

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree in sociology and at the same time certify for a secondary teaching certificate with a teaching field in sociology should consult with the department chair.

For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.
Bachelor of Science - Sociology MajorThe degree of Bachelor of Science in Sociology will be awarded upon completionof the following requirements:
A. General Requirements: Meet the University's core curriculum requirements for a bachelor's degree which are described earlier in this bultetin and satisfy all departmental requirements.
B. Major -34 semester hours to include: Sociology 131 - Introduction to Sociology Sociology 438 - Research Methods Sociology 439 - Social Theory Sociology 4391 - Sociological Analysis Sociology 411 - Promseminar
C. Departmental Requirements - 12 semester hours to include:
Social Work - Three hours
Criminal Justice - Three hours
Anthropology - Three hours Computer Science - Three hours
D. Minor - an approved minor of 18 semester hours, six of which must be advanced.
E. Electives:
Sufficient approved electives to complete a minimum of 124 semester hours.

## Recommended Program of Study

First Year

First Semester
Eng 131 or 136.......................................................... 3
Mth 1334.................................................................. 3
Lab Science ............................................................... 4
Phl 130 ...................................................................... 3
Soc 131 ...................................................................... 3
PE Activity ........................................................... 1-2
17-18
Second Year

First Semester
Eng Literature ............................................................ 3
His Soph Amer ......................................................... 3
Ant............................................................................. 3
CS .............................................................................. 3
Soc ............................................................................. 3
Health and Wellness .................................................. 3

## Second Semester

Eng 132, 134, or 135 .....  3
Math 234 .....  3
Lab Science .....  .4
CJ .....  3
Soc .....  3
PE Activity ..... 1-217-18
Second Semester
Eng Lit or For Lang .....  3
His Soph Amer .....  3
Fine Arts .....  .3
Swk .....  3
Soc. .....  3
Minor/Elective. .....  3
18 ..... 18
Third Year
First Semester ..... 3
Second Semester
Pols 232. .....  .3
Pols 231
Soc (Adv.) .....  .6
Minor/Electives ..... 6
15 15
Soc (Adv.) .....  .6
Minor/Electives .....  .6
Fourth Year
First Semester
Soc 438 .....  .3
Soc 411 ..... 1
Minor/Electives ..... 9-11

Second Semester
Soc 439........................................................................ 3
Soc 4391........................................................................ 3
Minor/Electives ...................................................... 9-11
Bachelor of Arts - Sociology MajorThe degree of Bachelor of Arts in Sociology will be awarded upon completion ofthe following requirements:
A. General Requirements:
Meet the University's core curriculum requirements for a bachelor's degree which are described earlier in this bulletin and satisfy all departmental requirements.
Completion of the 232 course in a foreign language.
Literature - Six semester hours
B. Departmental requirements:
The requirements concerning major, departmental requirements, minor, and electives are the same as for the Bachelor of Science degree listed above.

## Recommended Program of Study

## First Year

First Semester Second Semester
Eng 131 or 136.......................................................... 3
Mth 1334.................................................................. 3
Foreign Lang 131 ...................................................... 3
Phl 130...................................................................... 3
Soc 131 ...................................................................... 3
PE Activity ............................................................ 1-2
16-17
Second Year

First Semester


His Soph Amer ....................................................................... 3
Foreign Lang 231 ...................................................... 3
Lab Science................................................................ 4
Soc............................................................................ 3

16

Second Semester
Eng Literature ............................................................. 3
His Soph Amer ..................................................................................... 3
Foreign Lang 232 ...................................................... 3
Fine Arts .................................................................... 3
Soc............................................................................. 3
Health and Wellness ................................................ 3

Third Year

First Semester
Pols 231.................................................................... 3
Swk........................................................................................ 3
CJ ............................................................................. 3
Soc (Adv) .................................................................. 6
Minor/Elective............................................................ 3 18

Second Semester

Pols 232..................................................................... 3
Ant............................................................................................................ 3
CS ............................................................................. 3
Soc (Adv) .................................................................. 6


Eng 132, 134, or 135................................................. 3
Math 234 .................................................................. 3
Lab Science................................................................ 4
Foreign Lang 132 ...................................................... 3
Soc............................................................................. 3
PE Activity ............................................................1-2
17-18

## Fourth Year

| First Semester | Second Semester |
| :---: | :---: |
| Soc 438............................................................. 3 | Soc 439............................................................. 3 |
| Soc 411............................................................. 1 | Soc 4391........................................................... 3 |
| Minor/Electives ...............................................9-11 | Minor/Electives .............................................. 9-11 |
| 13-15 | 15-17 |

## Social Work

## Program Director: Vernice M. Monroe

## 53 Maes Building, Phone 880-8552

Social Work, an action-oriented profession, helps people improve their social functioning. Problems of personal and social adjustment are brought to the social worker whose work is devoted to helping individuals, families, groups, organizations and communities face difficulties and find solutions to problems. Social work practice is an art
and science. It involves more than a desire to "do good"; it involves the synthesis of knowing, doing, feeling and understanding. Lamar University's Social Work Program is fully accredited by the Council on Social Work Education. A major in social work will entitle the graduate to apply for Texas certification as a Social Worker. The research interests of Lamar's social work faculty are in the areas of family violence, sexual abuse, counseling techniques, social work education, and social policy.

## Bachelor of Social Work

The Bachelor of Social Work, which prepares students for entry-level social work practice, will be awarded upon completion of the following requirements:
A. General Requirements:

Meet the University's core curriculum requirements for a bachelor's degree which are described earlier in this bulletin and satisfy all departmental requirements. The lab science course must be biology.
B. Major - 33 semester hours to include:

Social Work 131, 231, 331, 332, 333, 334, 335, 432, 4321, 4324, plus three hours of electives in Social Work.
C. Departmental Requirements -24 semester hours

Sociology 131, 132, 336, 438
Psychology 131, and 234 or 235
Criminal Justice - Three hours
Anthropology - Three hours
D. Minor: An approved minor of 18 semester hours, six of which must be advanced.
Students normally minor in either psychology or sociology unless they select one of the optional concentrations described below:

1. Concentration in Corrections -18 hours

The Corrections concentration prepares the prospective social worker for practice in community corrections, probation and parole departments, prisons, and jails. For this concentration, the following courses are required: Criminal Justice 1302, 1303 or 1305, 235, 236, 335, and 432.
2. Concentration in Family and Children's Services - 18 hours The Family and Children's Services concentration prepares the prospective social worker for specialized practice involving families and children. For this concentration, the following courses are required: Home Economics $137,233,239,330$ or 435, 334, and 339.
E. Electives - Sufficient approved electives to complete a minimum of 124 semester hours.

## Recommended Program of Study

## First Year

| First Semester |  |
| :---: | :---: |
| Eng 131 or 136. | ..................... 3 |
| Mth | .................................. 3 |
| Bio 1400 | .................................. 4 |
| Phl 130. | ................. 3 |
| Swk 131.. | ... 3 |
| PE Activity. | .............................. 1-2 |
|  | 17-18 |

17-18

## Second Semester

Eng 132,134 or 135 .....  3
Mth 1334 or higher. ..... 3
Bio 1401 ..... 4
Soc 131 .....  3
SWK 231 ..... 3
PE Activity ..... 1-2
Second Year

## First Semester

Eng Literature .....  3
His Soph Amer ..... 3
Soc 131 .....  .3
Psy 131 .....  3
Fine Arts .....  3
Health and Wellness ..... 3

## Second Semester

Eng Lit or Lang ..... 3
His Soph Amer .....  3
CJ. ..... 3
Psy 234 or 235 .....  3
Swk 331 .....  3
Art .....  318
Third Year

| First Semester | Second Semester |
| :---: | :---: |
| POLS 231 American Government I....................... 3 | POLS 232 American Government II...................... 3 |
| Soc 336............................................................. 3 | Soc 438.............................................................. 3 |
| Swk 332, 333 ..................................................... 6 | Swk 334, 335 ..................................................... 6 |
| Minor/Electives.................................................. 6 | Minor/Electives.................................................. 3 |
| 18 | 15 |
| Fourth Year |  |
| First Semester | Second Semester |
| Swk 432, 4321 ................................................... 6 | Swk 4324, Swk .................................................. 6 |
| Minor/Electives ..............................................6-8 | Minor/Electives ...............................................6-8 |
| 12-14 | 12-14 |

## Criminal Justice

## Program Director: James J. Love

58 Maes Building, Phone 880-8538
The Bachelor of Science in Criminal Justice will be awarded upon completion of the following requirements:
A. General Requirements:
Meet the University's core curriculum requirements for a bachelor's degree which are described earlier in this bulletin and satisfy all departmental requirements.
B. Criminal Justice Core -21 semester hours
12 semester hours required: CJ 1301, 1302, 1303, and 1305.
Nine semester hours to be selected from: CJ 231, 232, 234, 235, and 236.
C. Criminal Justice Advanced Electives - 12 semester hours
D. Departmental Requirements - 12-18 semester hours
Sociology 131, 438
Social Work - Three hours
Anthropology - Three hours
Criminal Justice 434 - (C) majors without field experience must complete six hours of CJ 434.)
E. Minor or Approved Electives - an approved minor of 18 semester hours, six of which must be advanced. The minor with a concentration in corrections should consist of: CJ 1302, 1303 or $1305,235,236,335$, and 432 or 434 . Students without field experience must take CJ 434.
F. Electives - Sufficient approved electives to complete a minimum of 124 semester hours.

## Recommended Program of Study

| First Year |  |
| :---: | :---: |
| First Semester | Second Semester |
| Eng 131 or 136................................................. 3 | Eng 132, 134, or 135........................................... 3 |
| Mth 1334 or higher............................................. 3 | Mth 1334 or Lab Science ..................................... 3 |
| Lab Science ....................................................... 4 | Lab Science or Math........................................... 4 |
|  | Swk.................................................................. 3 |
| CJ 1301............................................................. 3 | CJ 1302............................................................ 3 |
| PE Activity .................................................... 1-2 | PE Activity ..................................................... 1-2 |
| 17-18 | 17-18 |
| Second Year |  |
| First Semester | Second Semester |
| Eng Literature .................................................... 3 | Eng Lit or Lang.................................................. 3 |
| His Soph Amer ................................................... 3 | His Soph Amer .................................................. 3 |
| Soc 131........................................................... 3 | CJ Soph Electives............................................... 6 |
| CJ Soph Elective ................................................ 3 | CJ 1305 ............................................................. 3 |
| CJ 1303 ............................................................ 3 | Art.................................................................. 3 |
| Health and Wellness ........................................... 3 |  |
| 18 | 18 |
| Third Year |  |
| First Semester | Second Semester |
| POLS 231 American Government I....................... 3 | POLS 232 American Government II...................... 3 |
| CJ Advanced ...................................................... 3 | CJ Advanced ..................................................... 3 |
| Fine Arts ......................................................... 3 | Minor/Electives .................................................. 9 |
| Minor/Electives ............................................... 6 |  |
| 15 | 15 |

Fourth Year

First Semester
Soc 438
C] Advanced
Minor/Electives................................................................... 6-8
12-14

Second Semester
CJ 434, 434................................................................ 6
Minor Electives..................................................... 3-5
CJ Advanced
.... 3
12-14

## Associate of Science - Law Enforcement Major

The Associate of Science in Law Enforcement will be awarded upon the completion of the following requirements:
A. General Requirements:

Meet the University's core curriculum requirements for the associate of science degree which are described earlier in this bulletin except that all grade point averages for the Associate of Science in Law Enforcement shall be calculated in exactly the same manner as for the Bachelor's Degree. All departmental requirements described herein apply in the same manner as for the Bachelor's Degree.
B. Criminal Justice Core - 21 semester hours

12 semester hours required: CJ 1301, 1302, 1303 and 1305
9 semester hours to be selected from: CJ 231, 232, 234, 235, and 236
C. Electives:

Sufficient approved electives to complete a minimum of 62 semester hours. ( 60 academic hours plus two semesters of P.E.).

# Recommended Program of Study 

## First Year

| First Semester | Second Semester |
| :---: | :---: |
| Eng 131 or 136................................................... 3 | Eng 132, 134, or 135. |
| Mth 1334 or higher or Lab Science.................... 3-4 | Mth 1334 or higher or Lab Science.................... 3-4 |
| His Soph Amer .................................................. 3 | His Soph Amer .................................................. 3 |
| CJ 1301 .............................................................. 3 | CJ 1302 ............................................................. 3 |
| PE Activity.................................................... 1-2 | PE Activity ..................................................... 1-2 |
| 13-15 | 13-15 |
| Second Year |  |
| First Semester | Second Semester |
| Eng Literature ................................................... 3 | POLS 232 American Government II...................... 3 |
| POLS 231 American Government 1....................... 3 | CJ Soph Electives................................................ 6 |
| CJ Soph Elective................................................ 3 | C] 1305 ............................................................. 3 |
|  | Electives ........................................................... 6 |
| Electives ........................................................... 6 |  |
| 18 | 18 |

## Anthropology

## Faculty Advisor: Donna Birdwell-Pheasant

61 Maes Building, Phone 880-8541

Anthropology is the study of mankind at its most inclusive. The Human experience in all parts of the world and throughout the millenia of human existence serves as the subject matter of anthropology. The discipline maintains an appreciation of humans as biological creatures as well as social beings and bearers of culture. Course offerings encourage a fuller appreciation of human diversity while allowing students to compare our way of life with lifeways in other times and places.

Courses in anthropology satisfy the social science requirement of the University Core Curriculum. A minor in anthropology is a useful complement to majors in sociology, social work, criminal justice, history, psychology, and other fields. Students interested in pursuing careers in anthropology should consult with the faculty advisor in anthropology.

## Sociology Courses (Soc)

| 131 | Introduction to Sociology 3:3:0 |
| :---: | :---: |
|  | Sociology as a field of knowledge. Basic terms, concepts, theories of sociology applied to an explanation of human behavior, personality, groups and society. |
| 132 | Social Problems $\begin{aligned} & \text { 3:3:0 }\end{aligned}$ |
|  | Attributes of society and of persons which are subjects to disapproval; the causes, extent and consequences of problems; programs and prospects for their resolution. |
| 132H | Social Problems-Honors 3:3:0 |
|  | Attributes of society and of persons which are subject to disapproval; the causes, extent and consequences of problems; programs and prospects for their resolution. Designed especially for honors students. |
|  | Prerequisite: Departmental approval. |
| 231 | Deviant Behavior 3:3:0 |
|  | The study of the major areas of social maladjustment from the standpoint of the process underlying social and individual disorganizations, such as alcoholism, illegitimacy, suicide, drug addiction and other personal deviations. |
| 232 | American Society $\quad$ 3:3:0 |
|  | Description and analysis of the structural and functional characteristics of American society and culture. |
| 233 | Marriage and the Family 3:3:0 |
|  | Characteristics of and problems within courtship, marriage and family in American society. |
| 234 | Social Gerontology |

A general survey of the social phenomenon of aging in American society, attention given to the interrelationship among biological, individual, group and social variables.
235 Class, Status, and Power ..... 3:3:0Examination of social inequality and differentiation with emphasis on social classes, status groups, and socialmobility.
331 Sociology of Gender ..... 3:3:0
Analysis of the origin and social development of gender roles. Examination of changing roles for males and females and their impact on interpersonal relationships and societal institutions.
332 Social Psychology ..... 3:3:0Social and cultural influences upon individual behavior and personality; interpersonal and intergroup relationsand collective behavior.
333 Urban Sociology ..... 3:3:0
Social and ecological processes in the urbanization movement; characteristics of urban society and culture.3:3:0
Structural and functional characteristics of the family as a basic institution.
336 Race and Ethnic Relations ..... 3:3:0
Racial and ethnic minority groups within the society; causes, distinctions and changes in the relationship betweenminority and dominant groups.
337 Sociology of Sport ..... 0:0:0Examination of the social aspects of sport and how sport is a microcosm of American society. Major issues to bestudied include racial and sexual discrimination; violence, and sport as big business.
338 Criminology ..... 3:3:0
Extent of and explanation for crime in American society; agencies dealing with crime and criminals; programsfor control and prevention of crime and delinquency.
339 Juvenile Delinquency ..... 3:3:0
The nature, incidence and explanations for juvenile delinquency in American society; agencies and programsfor prevention and control of juvenile delinquency.
3311 Medical Sociology ..... 3:3:0A study of medicine as a social institution with emphasis on social organization and interaction patterns.
411 Proseminar in Sociology
Detailed examination of the profession of sociology. Topics include career opportunities, application of theoriesand research, program assessment, and professional ethics.
Prerequisite: Senior standing in sociology •
430 Seminar in Sociology ..... 3:3:0
Basic concepts and general principles of sociology as applied to the study of selected topics. The course may berepeated for credit when the designated topics are varied.
4301 Directed Studies in Sociology ..... 3:A:0
Individual study with an instructor in an area of mutual interest. May be repeated for credit when topic varies.
431 Population Problems ..... 3:3:0
The growth and composition of population with emphasis on social, economic and political problems.
432 Sociology of Education3:3:0
A study of the multicultural influences on the school system and the democratic society. Included will be ananalysis of educational problems in the multicultural society of Texas.
4331 Seminar in Gerontology ..... 3:3:0Pre-professional seminar examining current theories, research, issues and career opportunities in the field ofàging.
434 Social Change and Movements ..... 3:3:0
Analysis of nature, sources, and effects of contemporary social changes with emphasis on social movements ascauses and consequences of change.
435 Sociology of Religion ..... 3:3:0Religion as a social institution in contemporary America; development of religious systems; cultural, social andindividual functions of religion.
438 Research Methods ..... 3:3:0Study of the logic, design, techniques and problems involved in social scientific research.
439 Social Theory3:3:0
A survey of major sociological theorists and theories.3:3:0

Detailed study of the techniques and procedures for the analysis of sociological data. Topics include: management of data files, descriptive and inferential statistics, and modeling of social phenomena.
Prerequisite: Soc 438 or consent of instructor.

## Social Work Courses (Swk)



## Criminal Justice Courses (CJ)

American crime problems in historical perspective; social and public policy factors affecting crime; impact and crime trends; social characteristics of specific crimes; prevention of crime.
1302 Introduction to Criminal Justice 3:3:0
History and philosophy of criminal justice and ethical considerations; crime defined; its nature and impact; overview of criminal justice system; law enforcement; court system; prosecution and defense; trial process; corrections.
1303 Fundamentals of Criminal Law
A study of the nature of criminal law; philosophical and historical development; major definitions and concepts;
classification of crime; elements of crimes and penalties using Texas statutes as illustrations; criminal respon-
sibility.

The judiciary in the criminal justice system; structure of the American court system; prosecution; right to counsel; pre-trial release; grand juries; adjudication process; types and rules of evidence; sentencing.

[^6]The police profession; organization of law enforcement systems; the police role; police discretion; ethics; policecommunity interaction; current and future issues.
232 Criminal Investigation 3:3:0 Investigative theory; collection and perservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.
234 Legal Aspects of Law Enforcement $\quad \mathbf{3 : 3 : 0}$
Police authority; responsibilities; constitutional contraints; laws of arrest, search, and seizure; police liability.
235 Correctional Systems and Practices 3:3:0
Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues.
236 Community Resources in Corrections
3:3:0
An introductory study of the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment.
238 Introduction to Police Management 3:3:0
Basic principles of management and organization applied to police agencies. Practical exercises in budgeting, leadership, discipline and related police problems.
332 Counseling $\quad$ 3:3:0
An exploration of the different approaches to policing young people. Consideration of states' laws and landmark cases influencing policing the young.
336 Narcotics and Vice
3:3:0
Narcotics, alcohol abuse, sex and gambling offenses and offenders; legal, philosophical and sociological aspects of the role of the criminal justice system in controlling these offenses; methods of diversion.
337 Organized Crime
3:3:0
Survey of organized crime in America, past and present; areas and extent of influence; agencies and groups involved in prevention and control.
432 Seminar in Correctional Programs 3:3:0
Overview of programs in institutional and noninstitutional agencies; examination of such programs based upon various correctional theories.
$\begin{array}{ll}433 \text { Police Problems } & \text { 3:3:0 } \\ \text { Advanced treatment of major contemporary police problems from the viewpoint of both the administrative and }\end{array}$ line operations officer; integration of established scientific knowledge with practical police experience.
434 Applications
3:A:0
Application of principles learned in the classroom to a non-classroom setting. Requirements for this course may be satisfied through a special project, internship, or other work experience. May be repeated for credit. Prerequisite: Consent of the instructar.
4310 Ethical Issues in Criminal Justice
3:3:0
An examination of selected ethical issues and problems confronting criminal justice professionals.
4312 Contemporary Issues in Criminal Justice 3:3:0
Current topics in criminal justice. May be repeated for credit when the topic is varied.
4321 Responses to Crime
3:3:0
A study of contemporary thought on crime, criminals, and the criminal justice system using critical analysis of recently written materials as a source for research, discussion, and student seminar.
Prerequisite: Junior standing.
4322 Criminal Justice Planning 3:3:0
Examination of planning including terminology, techniques, and practical exercises. Introduction tọ PERT, MBO, goal setting and master plan design.
Prerequisite: Junior standing.
4332 Criminal Investigation of J.F.K. assassination $\quad$ 3:3:0
The Kennedy assassination is studied in detail. Major assassination theories are examined in view of the physical evidence and findings of the Warren Commission. The House Select Committee on Assassinations, independent researchers and literature review. Students are required to participate in overnight field trip to attend lectures and study the crime scene.

## Anthropology Courses (Ant)

131 Introduction to Anthropology
3:3:0
A general survey of the three main fields of anthropology-physical anthropology, cultural anthropology, and archaeology. Emphasis is on the holistic approach of anthropology to the study of mankind in all times and places.

A survey of world cultures from the perspective of cultural ecology. The course will cover hunter-gatherer bands, horticultural tribes, chiefdoms, primitive states, and peasant societies, drawing examples from all the major culture areas of the world.
231 The Nature of Culture 3:3:0
An exploration of that uniquely human adaptation known as "culture." Subject matter will include evidence for cultural behavior in nonhuman primates, as well as language and communication, mythology and narrative, arts and music, play and humor in human societies around the world.
232 Ethnic Heritage 3:3:0
An examination of the cultural heritage of the major ethnic groups of contemporary American society-AfroAmerican, Hispanic-American, Euro-American, Asian-American or Native American. (Only one group will be covered each time the course is taught; contact department for current offering.)
233 Physical Anthropology
An exploration of the physical nature of human beings using evidence from primate studies, fossils, and contemporary populations. Basic concepts of genetics, evolution and adaptation are introduced.
235 Archaeology
An overview of the science of the human past, introducing the basic methods and theories utilized by modern archaeologists in their reconstruction of human prehistory.

## 334 Political Anthropology

3:3:0
Examines the evolution of political systems and political relations in human societies, drawing upon the knowledge that anthropologists have accumulated through studies of nonhuman primate societies, prehistoric civilizations, and tribal societies of contemporary and recent times.


## College of Business

Departments: Accounting; Administrative Services; Economics and Finance; Management and Marketing
Beheruz N. Sethna, Dean 232 Galloway Business Bldg., Phone 880-8603
Robert A. Swerdlow, Associate Dean . 232 Galloway Business Bldg. Phone 880-8604
Joel I.. Allen, Director of J.D. Landes Center
for Economic Education
Eleanor Stevens, Director of Advising Center

204 Galloway Business Bldg. Phone 880-8657 120 Galloway Business Bldg. Phone 880-8607
The College of Business was established by the University in 1972. Prior to this time, degrees in business and economics were granted by the Division of Business which was established in 1951 and the School of Business established in 1954. All undergraduate and graduate degree programs of the College of Business are accredited by the American Assembly of Collegiate Schools of Business.

Four departments-Accounting; Administrative Services; Economics and Finance; and Management and Marketing-make up the College of Business. The Bachelor of Business Administration degree is granted in all areas. A Bachelor of Science degree is also granted in Economics.

The Master of Business Administration degree program also is offered. Details may be found in the Graduate Bulletin.

## Objectives

As a professional school within a university environment, the College of Business has set objectives which complement and expand the educational objectives of Lamar University. The fundamental objective of the College of Business is to educate men and women who can function effectively and responsibly in managerial and/or professional roles in both private and public organizations. To provide this education, the College maintains a highly qualified faculty committed to teaching excellence and keeping abreast of new developments through research and professional involvement.

## Degrees

The Bachelor of Business Administration curriculum consists of three distinct phases: non-professional general education, professional specialization, and electives:

The general educational requirements are patterened to develop an understanding the business graduate needs of the manner American industries strive to meet their responsibilities in a changing social and industrial order and knowledge of the social, legal, governmental and economic frameworks within which the American industrial organizations exist and operate.

The professional programs offered reflect the belief that application as well as theory should be the proper concern of the undergraduate student. A common body of fundamental business and economics theory, principles and techniques is presented in the core pattern of business subjects. These theories and principles are developed along with certain basic quantitative tools of analysis and communication as preparation for the specialized professional courses. The development of understanding of the interaction of all areas and functions of business operations is the objective of the core courses in business and economics required of all business graduates.

The specialized professional preparation of the student provides opportunities for study in a particular field of interest. This specialized study should enable a graduate to assume a position of responsibility in business, public service, or education.

Finally, the student may choose electives which complement and supplement the specialization area.

The Bachelor of Business Administration degree will be awarded upon completion of the following:
I. Curriculum Requirements:
A. Non-professional education courses:
Eco 131, 132 Principles of Economics
English Composition (six semester hours)
Fine Arts (three semester hours)
Philosophy of Knowledge (three semester hours)
Political Science 231, 232 American Government
Sophomore American History (six semester hours)
Literature (three hours)
Literature or Foreign Language (three hours)
Mth 1341 Elements of Analysis for Business Applications*

Two semester of required physical activity and/or marching band and/or ROTC
Health and Wellness (three semester hours)
Laboratory Science (eight semester hours)
Speech (three semester hours) (see each degree program for specific course)
Approved non-professional education electives (see each degree program for hours)
B. Pre-professional courses:

AS/ECO 130 Business Environment and Public Policy*
CS 1311 Micro-Computers I*
C. Professional core courses:*

Acc 231, 232 Principles of Accounting
BAC 331, 332 Business Analysis I \& II
BLW 331 Business Law
Eco 334 Macro Economics or Eco 339 Economics of the Firm
Fin 331 Principles of Finance
Mgt 331 Management and Organizational Behavior
Mgt 332 Production Management
Mgt 437 Administrative Policy
Mkt 331 Principles of Marketing
OAS 335 Business Communications
OAS 436 Business Decision Support Systems
D. Professional Specialization ( $18-27$ semester hours):

[^7]
## Advertising Communication

Concentration II
Art 237 Graphic Design I
Art 3333 Graphic Design II
Art 3353 Fashion Layout and Illustration
Com 3383 Broadcast Advertising
Com 4383 Print Advertising
Mkt 333 Marketing Promotion

## Industrial Engineering

Concentration III
IE 3301 Survey of Industrial Engineering
IE 333 Engineering Economy
IE 339 Materials Science and Manufacturing Processes
IE 4301 Quality Control Applications
IE 438 Methods Engineering
IE 4316 Industrial and Product Safety
Computer Science
Concentration IV
CS 1413 Principles of Computer Science II
CS 2411 COBOL Programming
CS 3307 Data Base Systems
CS 4311 Information Systems I
CS 4312 Information Systems II
BAC 330 Micro Software for Business
Retail Merchandising
Concentration V
HEc 231 Textiles
HEc 331 Advanced Clothing .
Construction
HEc 432 Family Clothing
HEc 434 Fashion Production and Distribution
HEc 436 Home and Fashion
Merchandising
Mkt 332 Principles of Retailing
Information Systems Management

## Concentration VI

CS 1413 Principles of Computer Science II
Acc 334 Cast Accounting or Mgt 431 Budgetary
Control
BAC 330 Micro Software for Business
BAC 437 Management Database Appl
OAS 331 Records Management
OAS 336 Office Information Systems

## Pre-law Recommended Courses

BLW 332 Employment Law
BLW 434 Advanced Legal Principles
BLW 438 Petroleum Law
OAS 336 Office Information Systems or
OAS 431 Office Management

POLS 437 Am Constitution Law or POLS 3313 Judicial Process
His 339 Historical Research or Eng 4326 Expository Writing
Management Major ( 21 semester hours)
Acc 334 Cost Accounting
Mkt 431 Marketing Management
Mgt 333 Personnel Management
Mgt 431 Budgetary Control
Mgt 432 Organ Behav
Mgt 434 Productivity Management
Mgt 438 Mgt of Computer Sys or Mkt 438 Small Business Enterprise
Marketing Major ( 18 semester hours)
Mkt 332 Principles of Retailing
Mkt 333 Mkt Promotion or Mkt 432 Buyer Behavior
Mkt 431 Marketing Management
Mkt 435 Quant Tech in Mkt or Mkt 433 International Mkt
Mkt 436 Marketing Research
Mkt 437 Adv Marketing Problems
Office Administration Major - Plan I ( 21 semester hours)
OAS 232 Intermediate Shorthand
OAS 233 Advanced Typewriting
OAS 331 Records Management
OAS 336 Office Information Systems
OAS 337 Electronic Word Processing Systems
OAS 338 Secretarial Office Procedures
OAS 431 Office Management

## Office Administration Major - Plan II

(21 semester hours)
BAC 330 Microcomputer Applications
OAS 232 Intermediate Shorthand
OAS 233 Advanced Typewriting
OAS 336 Office Information Systems
OAS 338 Secretarial Office Procedures
OAS 431 Office Management
OAS 438 Business Course Analysis

## Personnel Administration

(Accreditation) ( 21 semester hours)
Mgt 333 Personnel Management
Mgt 432 Organ Behav and Adm
Psy 335 Motivation
Psy 336 Psy Tests and Measure
BLW 332 Employment Law or
Eco 336 Survey of Labor Economics
Mgt 433 Personnel Accred Review
OAS 431 Office Management
E. Approved electives to complete a total of 129 semester hours.
II. A minimum grade point average of 2.00 in all business and economics subjects.
III. A minimum grade point average of 2.00 on all courses attempted.
IV. Application for the degree must be made through the Office of the Dean of Business.
The Bachelor of Science degree in economics will be awarded upon completion of the following requirements:
I. The specific course requirements as set forth in the Department of Economics for the degree (see Department of Economics in this bulletin).
II. A minimum grade point average of 2.00 in all economics courses.
III. A minimum grade point average of 2.00 on all courses attempted.
IV. A minimum of 122 semester hours exclusive of physical education and band.
V. A minimum of 30 semester hours in the field of economics.
VI. A minor of 18 semester hours, six of which must be 300 or 400 level courses.

Requirements for the Master of Business Administration degree are given in detail in the Graduate Bulletin.

## Admission to the College of Business

1. All newly entering Freshmen who meet the University's general entrance requirements will be admitted to the College of Business.
2. All newly entering freshmen will be admitted to a "Pre-Business" classification only. No major will be declared until the following conditions are met:
a. completion of 45 semester hours with a 2.0 or higher grade point average b. included in the 45 hours will be
1) Eco 131
2) Eco 132
3) $\mathrm{AS} / \mathrm{Eco} / \mathrm{Mgt} 130$ (not required of students who plan to pursue a major in Accounting, Economics or in Office Administration, Plan III Teacher Certification)
4) Acc 231
5) English Composition (six hours)
6) Mth 134 or higher
3. Transfer students with a grade point deficiency and/or those with fewer than 45 hours of credit as specified above will be classified as "Pre-Business."
4. After exiting the "Pre-Business" classification and declaring a major leading to a bachelor's degree in business, a student who incurs a grade point deficiency should make up that deficiency within the following semester.
5. Items 2 through 5 above do not apply to students pursuing a one- or two-year certificate program.

## Minor Program in Business

Non-business students may minor in business but without any specialized field of study. Such students should complete AS/ECO 130, ECO 131, 132, Acc 231, 232, MGT 331, MKT 331, and FIN 331. In keeping with the spirit of a Minor, the students must have less than 25 percent of their total curriculum in Business subjects.

Students registering for business courses must meet all course prerequisites, including the implicit prerequisite indicated by the course level. Any exception must be approved by the head of the department offering the course.

## Department of Accounting

Department Chair: R. W. Jones $\mathbf{2 3 5}$ Galloway Business Building, Phone 880-8610 Emeritus Professor: Bennett
Professors: Jones, Veuleman
Associate Professors: Barlow, Davis, Harris, Hudson, McGillịvray
Assistant Professor: Aly
Adjunct Instructor: Fontenot

## Objectives

The principal objective of the accounting department is to develop in the student the knowledge, intellectual abilities, values, attitudes, skills, and leadership qualities needed:

1. To perform effectively in an entry-level position on an accounting track in business, government, education, or other fields and to advance to levels of increasing responsibility.
2. To grow and to develop as an individual both professionally and personally.
3. To become a contributing member of society.

The attainment of this objective requires successful teaching, research and service from the accounting faculty.

## Requirements for Becoming an Accounting Major

1. Present an SAT Score.
2. Completion of curriculum presented for prebusiness program and ACC 232 with a grade point average of 2.5 (a grade of " $B$ " is required in both ACC 231 and ACC 232). Transfer students must meet the equivalent of the above requirements.
3. Completion of the Accounting Program Admission Test (APAT). This test is to be taken after ACC 232 and before enrollment in ACC 331 (in special circumstances, the student may enroll in ACC 331 on condition that he/she take the test at the next available test date).

## Requirements for Graduation

In addition to the College of Business degree requirements, the accounting major must have a GPA of 2.0 for all accounting courses attempted. Students pursuing this degree program must take all professional courses at Lamar University.

# Bachelor of Business Administration-Accounting Major <br> Recommended Program of Study 

## Freshman Year

| First Semester | Second Semester |
| :---: | :---: |
| Philosophy of Knowledge .................................... 3 | CS 1311 Micro Computers I................................. 3 |
| Eng Composition ................................................ 3 | English Composition .......................................... 3 |
| Laboratory Science ............................................. 4 | Laboratory Science ............................................ 4 |
| Math 236 or 1341 ............................................... 3 | Fine Arts ........................................................... 3 |
| Eco 131............................................................. 3 | Eco 132............................................................. 3 |
| PE Activity ........................................................ 2 | PE Activity ........................................................ 2 |
| 18 | 18 |

Sophomore Year

First Semester Senior Year

## Accounting Courses (Acc)

## 231 Principles of Accounting <br> 3:3:0

Concepts and procedures of financial accounting. First, the information gathering, analysis, recording and reporting functions inherent in the complete accounting cycle. Second, the balance sheet areas of asset measurement and liability. Third, accounting for partnerships.

## 232 Principles of Accounting

3:3:0
A continuation of Acc 231 with additional financial accounting and concepts, procedures and uses of managerial accounting. First, accounting for corporate owner's equity and specialized accounting topics. Second, cost and managerial accounting with basic cost systems, budgeting and special analyses for management.
Prerequisite: Acc 231 with a minimum grade of " $C$ ".
331 Intermediate Accounting I $\mathbf{3 : 3 : 0}$
Analysis of theory and its applications in the areas of cash, temporary investments, receivables, inventories, plant and intangible assets, long-term investments and present value concepts.
Prerequisite: Acc 231 with.a minimum grade of " $B$ " and Acc 232 with a minimum grade of ' $B$ ' and completion of the Accounting Program Admission Test (APAT).
332 Intermediate Accounting II , 3:3:0
Continuation of Acc 331 with emphasis on long-term debt, short-term liabilities, leases, pensions, owner's equity, revenue recognition, income tax accounting and earnings per share.
Prerequisite: Acc 331 with a minimum grade of " $C$ ".
333 Intermediate Accounting III 3:3:0
Completion of intermediate accounting and other financial accounting topics. Emphasis on statement of changes in financial position; inflation accounting; accounting for not-for-profit organizations; international accounting topics; and introduction to SEC practices.
Prerequisite: Acc 331 with minimum grade of " $C$ ".
334 Cost Accounting 3:3:0
Cost accounting with a managerial emphasis: Job order and process cost; standard cost and variance analysis; budgetary control; relevant costing for decision making; capital budgeting.
Prerequisite: Acc 232 with minimum grade of " $C$ ".
338 Taxation Accounting
3:3:0
Provisions of the income tax code as applied to individuals: taxable income; gains and losses; capital gains; dividends; expenses; itemized deductions; depreciation; losses; zero bracket amounts; and credits.
Prerequisite: Acc 232 with minimum grade of " $C$ ".
339 Taxation Accounting 3:3:0
Provisions of the income tax code as applied to proprietorships, partnerships, estates, trusts and corporations; reorganizations; filing returns; refunds; social security taxes; estate taxes; gift taxes.
Prerequisite: Acc 338 with minimum grade of " $C$ ".

Principles and procedures applied by public accountants and auditors in the examination of financial statements and accounts; verification of data; audit working papers; reports; types of audits; procedures.
Prerequisites: Acc 332 and Acc 435 with minimum grade of " C ".
431 Advanced Accounting
Analysis of special problems and theories relative to corporate mergers and acquisitions; consolidated financial statements; and partnerships. A major team research project and oral presentation is required.
Prerequisite: Acc 332, Oas 335, and Bac 332 with minimum grade of " $C$ " in each course.

A comprehensive study of the contemporary approaches to the development of accounting theory. Includes a study of historical development as well as recent contributions of present day scholars. Significant oral and written reports are required.
Prerequisite: Acc 332; Senior standing; 3.0 GPA and consent of the instructor.

Analysis of theoretical models illustrating structure, design and installation of specific accounting systems with emphasis on computer applications.
Prerequisites: Acc 332 and OAS 436 with minimum grade of " $C$ " in each course.

Intensive investigation of accounting topics. Research and conferences with supervising faculty member. May be repeated when area of study differs.
Prerequisite: Senior standing; approval of department chairman and instructor.

# Department of Administrative Services 

Department Chair: Nancy S. Darsey

237 Galloway Business Building

Emeritus Professors: Hall, Kirksey
Professors: Darsey, Sethna, Spradley
Associate Professors: Barnes, Cavaliere, Drapeau, Pearson, M. Swerdlow
Assistant Professors: Everett, Mulvaney, Stevens
Lecturer: Smith
The Department of Administrative Services offers degrees in General Business and Office Administration as well as one-year and two-year certificates in Office Adminiistration.

## General Business

The general business curriculum enables a student to receive an education in the fundamentals of business and at the same time diversify into a secondary field of concentration. Four of the six fields of concentration available to a student are outside the College of Business. The six fields of concentration include: Business Concentration, Advertising Communication Concentration, Industrial Engineering Concentration, Information Systems Management Concentration, Computer Science Concentration and Retail Merchandising Concentration.

The general business pre-law program prepares students for admission to and completion of law school, as well as the successful management of a law practice. Advanced coursework in composition, communication, office practice, and the law complements the student's general business education. After completion of the program, students may apply directly to the law schools of their choice.

## Office Administration

For the Bachelor of Business Administration degree in Office Administration, the general and specific requirements of the four-year curricula furnish a broad preparation and a highly specialized proficiency for the professional secretarial field, including word processing.

A major in Office Administration may be combined with courses in education. This plan will qualify a graduate for a teacher's certificate.

The department also offers a two-year program for students in Office Administration. Offered only on the Beaumont campus, the two-year curriculum is designed to develop competence in typewriting, shorthand, computer concepts, accounting, business correspondence, and word processing concepts and techniques. Successful students are prepared to pass civil service examinations and the employment tests given by large business and industrial offices. A Certificate of Completion is awarded. One-year stenographic and clerical options are also offered on the Beaumont campus.

## Minor in Office Administration

Students interested in Office Administration as a minor should take 18 hours of Office Administration courses including OAS 232 and OAS 233. Six of the 18 hours must be upper level ( 300 or 400 ) courses. In keeping with the spirit of a Minor, the students must have less than 25 percent of their total curriculum in Business subjects.

Students should consider the many advantages of Office Administration. This field can be particularly rewarding because of its unlimited promotional opportunities, especially in the area of office management. Many successful persons in positions of leadership began their business careers as secretaries, business education teachers, or assistants to office managers.

## Recommended Programs of Study <br> Bachelor of Business Administration General Business Major-Business Concentration-Plan I

First YearAS/Eco 130 Business Environmentand Public Policy 3
CS 1311 Micro-Computers I ..... 3
Eco 131, 132 Principles .....  6
Eng Composition ..... 6
Mth 1341 Elements of Analysis for Business Applications .....  3
Laboratory Science .....  8
Philosophy of Knowledge ..... 3
PE Activity .....  2
34
Third Year
BAC 331, 332 Business Analysis. .....  6
BLW 331 Business Law .....  3
Fin 331 Principles of Finance .....  3
Mgt 331 Mgt. \& Org. Beh. .....  3
Mgt 332 Production Management .....  3
Mkt 331 Principles of Marketing. .....  3
OAS 335 Business Communications .....  3
Electives (non-business) ..... 3
Electives (College of Business 300 or 400 level) .....  6
33
Acc 231, 232 Principles .....  6
Eng Literature .....  6
POLS 231, 232 American Government I, II .....
His Sophomore American History .....  6
Fine Arts ..... 3
Spc 331 Business
and Professional Speech ..... 3
Health and Wellness .....  3
Fourth Year
Acc 334 Cost Accounting
or Acc 338 Tax Acc. ..... 3
Eco 334 Macro Economics
or Eco 339 Economics of the Firm ..... 3
Fin 333 Insurance
or Fin 332 Financial Analysis .....  3
Mgt 333 Personnel Management ..... 3
Mgt 437 Administrative Policy. .....  3
Mkt 431 Marketing Management .....  3
Mkt 438 Small Business Ent .....  3
OAS 431 Office Management .....  3
OAS 436 Business Decision Support Systems .....  3
Electives (College of Business300 or 400 Level) 3
Advertising Communication Concentration-Plan II
First Year
AS/Eco 130 Business Environment and Public Policy .....  3
CS 1311 Micro-Computers I .....  3
Eco 131, 132 Principles .....  6
Eng Composition ..... 6
Mth 1341 Elements of Analysis
for Business Applications .....  3
Laboratory Science .....  8
Philosophy of Knowledge ..... 3
PE Activity .....  2

## Second Year

Acc 231, 232 Principles .....  6
Eng Literature .....  6
POLS 231, 232 American Government I, II .....  6
His Sophomore American History .....  .6
Fine Arts ..... 3
Spc 331 Business and Professional Speech .....  3
Health and
Wellness .....  3
Third Year
BAC 331, 332 Business Analysis ..... 6
BLW 331 Business Law .....  .3
Art 237 Graphic Design. .....  .3
Fin 331 Principles of Finance .....  .3
Mgt 331 Mgt. \& Org. Beh .....  3
Mgt 332 Production Management .....  3
Mkt 331 Principles of Marketing. .....  3
OAS 335 Business Communications .....  3
Electives (College of Business
300 or 400 Level) .....  6 Communication concentration should take COM 131 and COM 133 to count as outside electives.

## Industrial Engineering Concentration-Plan III

First YearAS/Eco 130 Business Environmentand Public Policy3
CS 1311 Micro-Computers I. .....  3
Eco 131, 132 Principles .....  6
Eng Composition .....  6
Mth 1341 Elements of Analysis
for Business Applications .....  3
Laboratory Science ..... 8
Philosophy of Knowledge .....  3
PE Activity .....  2
34
Third Year
BAC 331, 332 Business Analysis. .....  6
BLW 331 Business Law .....  3
Fin 331 Principles of Finance .....  .3
IE 3301 Survey of Industrial Engineering .....  .3
Mgt 331 Mgt. \& Org. Beh. ..... 3
Mkt 331 Principles of Marketing ..... 3
OAS 335 Business Communications. .....  3
Elective (non-business) .....  3
Electives (College of Business 300 or 400 Level) .....  6

## Fourth Year

Art 3333 Graphic Design II ..... 3
Art 3353 Fashion Layout and Illustration .....  .3
*Com 3383 Broadcast Advertising .....  3
*Com 4383 Print Advertising .....  3
Eco 334 Macro Economics
or Eco 339 Economics of the Firm .....  3
Mgt 437 Administrative Policy .....  3
Mkt 333 Marketing Promotion. ..... 3
OAS 436 Business Decision Support Systems .....  3
Elective (non-business) ..... 3
Electives (College of Business300 or 400 Level) 3

30

*COM 131 is a prerequisite for COM 3383. COM 131 and 133 are prerequisites for COM 4383. Students with the Advertising
33
Second Year
Acc 231, 232 Principles .....  6
Eng Literature .....  6
POLS 231, 232 American Government I, Il .....  6
His Sophomore American History ..... 3
Spc 331 Business and Professional Speech ..... 3
Health and Wellness ..... 3
Fourth Year
Eco 334 Macro Economics or
Eco 339 Economics of the Firm .....  3
IE 333 Engineering Economy ..... 3
IE 339 Materials Science and Manufacturing Process .....  3
IE 4301 Quality Control .....  3
IE 438 Methods Engineering .....  3
IE 4316 Industrial and Product Safety .....  3
Mgt 332 Production Management .....  3
OAS 436 Business Decision Support Systems .....  3
Electives (College of Business300 or 400 Level) 3
Computer Science Concentration-Plan IV
First Year
AS/Eco 130 Business Environment and Public Policy .....  3
CS 1411 Principles of Computer Science I. ..... 4
Eco 131, 132 Principles .....  6
Eng Composition .....  .6
Mth 1345 Discrete Mathematics .....  .3
Laboratory Science .....  8
Philosophy of Knowledge .....  3
PE Activity .....  2

## Second Year

Acc 231, 232 Principles .....  6
CS 1413 Principles of Computer Science II. .....  4
Eng Literature .....  6
POLS 231, 232 American Government I, II .....  6
His Sophomore American History .....  6
Spc 331 Business and Professional Speech ..... 3
Health and Wellness ..... 3
Third Year
BAC 331, Business Analysis .....  .6
BLW 331 Business Law. ..... 3
CS 2411 COBOL Programming .....  4
CS 3307 Data Base Systems .....  3
Fin 331 Principles of Finance .....  3
Mgt 331 Mgt \& Org. Beh. .....  3
Mkt 331 Principles of Marketing. .....  3
OAS 335 Business Communications ..... 3
Fine Arts ..... 3
31
Retail Merchandising Concentration-Plan V
First Year
AS/Eco 130 Business Environment and Public Policy ..... 3
CS 1411 Principles of Computer Science I. ..... 4
Eco 131, 132 Principles ..... 6
Eng Comp .....  6
Mth 1345 Discrete Mathematics .....  3
Laboratory Science ..... 8
Philosophy of Knowledge .....  3
PE Activity .....  2

## Fourth Year

CS 4311 Information Systems I................................. 3
CS 4312 Information Systems II.................................. 3
Eco 334 Macro Economics
or Eco 339 Economics of the Firm ......................... 3
Mgt 332 Production Management .............................. 3
Mgt 437 Administrative Policy.................................... 3
BAC 330 Micro Software for Business...................... 3
OAS 436 Business Decision Support Systems........ 3
Elective (non-business) ................................................ 3
Electives (College of Business
300 or 400 Level) .................................................... 6
First Year
AS/Eco 130 Business Environment and Public Policy .....  .3
CS 1311 Micro-Computers I. ..... 3
Eco 131, 132 Principles ..... 6
Eng Composition .....  6
Mth 1341 Elements of Analysis
for Business Applications ..... 3
Laboratory Science ..... 8
Philosophy of Knowledge .....  .3
PE Activity ..... 34
Third Year
BAC 331, 322 Business Analysis. .....  6
BLW 331 Business Law .....  3
Fin 331 Principles of Finance .....  3
HEc 231 Textiles. .....  .3
HEc 331 Advanced Clothing Construction .....  3
Mgt 331 Mgt. \& Org. Beh. .....  3
Mkt 331 Principles of Marketing. .....  3
OAS 335 Business Communications .....  3
Electives (College of Business 300 or 400 Level) .....  6
33

## Second Year

Acc 231, 232 Principles .....  .6
Eng Literature ..... 6
POLS 231, 232 American Government I, II ..... 6
His Sophomore American History .....  6
Fine Arts ..... 3
Spc 331 Business and Professional Speaking .....  3
Health and Wellness .....  3
32
Fourth Year
Eco 334 Macro Economics
or Eco 339 Economics of the Firm .....  3
HEc 432 Family Clothing. .....  3
HEc 434 Fashion Production and Distribution .....  .3
HEc 436 Home and Fashion Merchandising .....  3
Mgt 332 Production Management ..... 3
Mgt 437 Administrative Policy ..... 3
Mkt 332 Retailing ..... 3
OAS 436 Business Decision.Support Systems ..... 3
Elective (non-business) ..... 3
Electives (College of Business 300 or 400 Level) .....  .3 ..... 30
Information Systems Management Concentration-Plan VI

## Second Year

Acc 231, 232 Principles .....  .6
CS 1413 Principles of Computer Science II. .....  .4
Eng Literature .....  .6
POLS 231, 232 American Government I, II .....  .6
His Sophomore American History ..... 6
Fine Arts ..... 3
Spc 331 Business and Professional Speech ..... 3
Third Year
BAC 330 Micro Software for Business .....  3
BAC 331, 32 Business Analysis. .....  6
BLW 331 Business Law. ..... 3
Fin 331 Principles of Finance .....  3
Mgt 331 Mgt. \& Org. Beh. .....  3
Mkt 331 Principles of Marketing .....  3
OAS 331 Records Management .....  3
OAS 335 Business Communications. .....  3
OAS 336 Office Information Systems ..... 3
Pre-Law
Recommended Courses
First YearAS/Eco 130 Business Environmentand Public Policy 3
CS 1311 Micro-Computers I. .....  .3
Eco 131, 132 Principles. .....  .6
Eng Composition .....  .6
Mth 1341 Elements of Analysis for Business Applications .....  .3
Laboratory Science .....  8
Philosophy of Knowledge ..... 3
PE Activity .....  2
34
Third Year
BAC 331, 332 Business Analysis. .....  .6
BLW 331 Business Law. .....  .3
Fin 331 Principles of Finance .....  3
Mgt 331 Principles of Management ..... 3
Mgt 332 Production Management .....  3
Mkt 331 Mgt. \& Org. Beh. ..... 3
OAS 335 Business Communications .....  3
*Electives (non-business). .....  .6
*Electives (College of Business 300 or 400 Level) .....  3
33

## Fourth Year

Acc 334 Cost Accounting
or Mgt 431 Budgetary Control .....  3
BAC 437 Management Database Appl .....  3
Eco 334 Macro Economics
oe Eco 339 Economics of the Firm .....  3
Mgt 332 Production Management ..... 3
Mgt 437 Administrative Policy. ..... 3
OAS 436 Bus Decision Support Systems. .....  3
Health and Wellness ..... 3
Elective (non-business) .....  4
Electives (College of Business 300 or 400 level) .....  6

## Second Year

Acc 231, 232 Principles .....  6
Eng Literature .....  6
POLS 231, 232 American Government I, II .....  6
His Sophomore American History .....  .6
Fine Arts ..... 3
Spc 331 Business \& Professional Speech .....  3
Health and Wellness ..... 3
Fourth Year
BLW 332 Employment Law .....  3
BLW 434 Advanced Legal Principles .....  3
BLW 438 Property and Mineral Law .....  3
Eco 334 Macro Economics
or Eco 339 Economics of the Firm ..... 3
OAS 336 Office Information Systems or OAS 431 Office Management ..... 3
POLS 437 Am Constitutional Law or POLS 3313 Judicial Process. ..... 3
His 339 Historical Research or Eng 4326 Expository Writing. .....  3
Mgt 437 Administrative Policy. ..... 3
OAS 436 Business Decision Support Systems .....  3
*Electives (College of Business
300 or 400 Level) .....  330
Third Year
BAC 331, 332 Business Analysis ..... 6
BLW 331 Business Law ..... 3
Fin 331 Principles of Finance .....  3
Mgt 331 Mgt. \& Org. Beh. ..... 3
Mgt 332 Production Management .....  3
Mkt 331 Principles of Marketing ..... 3
OAS 232 Intermediate Shorthand .....  .3
OAS 331 Records Management ..... 3
Electives ..... 3
30
Fourth Year
Eco 334 Macro Economics
or Eco 339 Economics of the Firm ..... 3
Mgt 437 Administrative Policy ..... 3
OAS 335 Business Communications ..... 3
OAS 336 Office Information Systems .....  3
OAS 337 Electronic Word Processing Systems ..... 3
OAS 338 Secretarial Office Procedures. .....  .3
OAS 431 Office Management ..... 3
OAS 436 Business Decision Support Systems ..... 3
Fine Arts ..... 3
Electives (College of Business 300 or 400 Level) .....  6

Plan II This program is designed for those who wish to qualify for a provisional teacher's certificate-secondary-with a teaching field in business education.

For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.
First Year
CS 1311 Micro-Computers I .....  3
Eco 131, 132 Principles
Eng Composition ..... 6
Laboratory Science (same science) .....  8
Mth 1341 Elements of Analysis for Bus. Appl. .....  3
OAS 233 Advanced Typewriting .....  3
Philosophy of Knowledge .....  3
PE Activity (2 semesters). ..... 2
34
Third Year
BAC 330 Micro Applications ..... 3
BAC 331 Business Analysis .....  3
BLW 331 Business Law ..... 3
Fin 331 Principles of Finance .....  3
Mgt 331 Mgt. \& Org. Beh .....  3
Mkt 331 Principles of Marketing ..... 3
OAS 232 Intermediate Shorthand .....  3
OAS 338 Secretarial Office Procedures ..... 3
PED 331 Intro American Education ..... 3
PED 332 Human Learning .....  3
PED 338 Sec Curriculum \& Methodology .....  3
Elective (Restricted) ..... 3
Second Year
Acc 231, 232 Principles .....  6
Eng Literature ..... 6
Fine Arts .....  3
Health and Wellness .....  3
His Sophomore American History .....  3
Mth 1341 Elements of Analysis for Business Applications ..... 3
POLS 231, 232 American Government I, II ..... 6
Spc 131 Public Speaking .....  3

## Fourth Year

Mgt 332 Production Management ............................ 3
Mgt 437 Administrative Policy.................................. 3
OAS 335 Business Communication ......................... 3
OAS 336 Office Information Systems ....................... 3
OAS 431 Office Management................................... 3
OAS 436 Business Decision Support Systems 3
OAS 438 Business Course Analysis ..... 3
PED 3326 Reading Strategies ..... 3
PED 438 Sec Methodology \& Class Mgmt. .....  3
PED 462 Student Teaching .....  6

For complete information on teacher certification requirements, please see College of Education and Human Development.
Two-Year Certificate of Completion in Office Administration
First Year
Eco 131, 132, Principles. ..... 6
Eng Composition .....  .6
Mth 1334 College Algebra ..... 3
OAS 131 Business Writing Fundamentals .....  3
OAS 134 Office Machines ..... 3
OAS 135 Filing Systems ..... 3
OAS 233 Advanced Typewriting ..... 3
Spc 131 Public Speaking ..... 3
PE (Activity) ..... 2

## Second Year

Acc 231, 232 Principles ..... 6
BLW 331 Business Law. ..... 3
CS 1311 Micro-Computers I. .....
Eng Literature ..... 3
OAS 336 Office Information Systems .....  3
OAS 337 Electronic Word Processing Systems .....  3
OAS 338 Secretarial Office Procedures. .....
OAS 232 Intermediate Shorthand ..... 3
Elective. .....  633

## One-Year Certificates

Stenographic Option
CS 1311 Micro-Computers I.
Eng Composition .....  6
OAS 131 Business Writing Fundamentals ..... 3
OAS 134 Business Machines .....  3
OAS 135 Filing Systms. .....  3
OAS Shorthand (2 courses) .....  6
OAS Typewriting ( 2 courses) .....  6
PE (Activity). .....  2
Clerical Option
Acc 231 Prin .....  3
CS 1311 Micro-Computers I .....  3
Eco 131 Principles .....  3
Eng Composition .....  6
OAS 131 Business Writing Fundamentals. .....  3
OAS 134 Business Machines .....  3
OAS 135 Filing Systems ..... 3
OAS Typewriting (2 courses) .....  6
PE (Activity) .....  232

## Administrative Services Courses (AS)

130 Business Environment and Public Policy .3:3:0Survey course emphasizing interaction of business with its external and internal environments. Introduction topublic policy process and issues with focus on ethical and moral considerations. Recommended for freshman,especially business majors.431-434 Special Topics in Administrative Services ..... 3:A:0Intensive investigation of topics in business analysis, business computers, law, or office administration. Libraryand/or laboratory and conferences with supervising faculty member. May be repeated when area of study differs.Prerequisite: Approval of department head and instructor.
435 Administrative Internship ..... 3:3:0
Experiential learning in a business or professional setting with career-related assignments and projects under theguidance of a faculty member. (Because of a limited number of placement opportunities, applicants are notguaranteed an assignment; thus, assignments are competitive.)
Preгequisites: 2.5 minimum grade-point average and pre-registration consent of instructor.
Business Analysis and Computers Courses (BAC)
330
Microcomputer Software Applications for Business ..... 3:2:2
An introductory course to microcomputer software packages for business applications. Basic microcomputeroperation; electronic spread sheets; database programs; word processing programs; interface among various soft-ware programs; specific business applications.
Prerequisite: CS 1311 or CS 1411.
331 Business Analysis I ..... 3:3:0Introduction to the quantitative methods of analysis as applied to business problems. Topics of study includecollection of data, statistical description, probability theory, probability distribution, sampling theory, estimation,and introduction to test of hypothesis.
Prerequisite: Six hours of approved mathematics.
332 Business Analysis II ..... 3:3:0Emphasis on use of statistics in business decision making. Topics of study include hypothesis testing, interferencesbetween two populations, analysis of variance, chi-squared and other non-parametric tests, simple-multiple linearregression/correlation analysis, classical time series analysis, and index numbers.
Prerequisite: BAC 331.
437 Management Database Applications for Business ..... 3:3:0The application, logical sequence, and implementation of databases to aid in managerial decision making. Def-inition of data; survey of information needs in business organizations; concepts of management databases; in-tegration of needs of functional departments through database applications for report generation.Prerequisite: OAS 436.
Business Law Courses (BLW)
331 Business law ..... 3:3:0
A survey of the legal environment and its impact upon business. Nature and sources of law, administrative and enforcement agencies, and governmental regulations. Students become aware of the legal framework of common business transactions.
332 Employment Law ..... 3:3:0
Historical interpretations and present provisions of regulations governing labor. Common law; state and federal statutes; Fair Labor Standards Act; worker's compensation; social security; liability; United States Department of Labor; social legislation; fair employment practices.

Detailed study of applicable statutes governing sales, real property, bankruptcy, forms of business enterprise (corporations and partnerships), bulk transfers, documents of title and secured transactions, with particular emphasis given to the effect of the Uniform Commercial Code.
Prerequisite: BLW 331.
438 Property and Mineral Law 3:3:0
Survey of real property and oil and gas law. Topics include types of ownership interests in land and minerals; methods of acquiring title (deeds, probate, gift); usage of courthouse records; rights and duties of landowners and producers; oil and gas leases; pooling and utilization; and problems commonly encountered in conveying rights and ownership.
Prerequisite: BLW 331.

## Office Administration Courses (OAS)

131 Business Writing Fundamentals $\quad$ 3:3:0 $\quad \begin{aligned} & \text { Refinement of writing skills; research basics; introduction to business letters and reports; business vocabulary }\end{aligned}$ development.
132 Intermediate Typewriting 3:2:2
Emphasis on speed and accuracy development and the transfer of typewriting skills to office production problems. Includes business letter styles, manuscript formats, and tabulation applications.
Prerequisite: Beginning typewriting or equivalent.
134 Business Machines 3:3:0
Practical projects emphasizing knowledge and skills necessary to operate calculating machines and transcription machines and to perform word processing applications on microcomputers.
Prerequisite: OAS 230 or comparable typewriting skill.
135 Filing Systems 3:3:0
Methods and procedures in classifying, storing, and retrieving business records. Filing systems; records management; mechanical retrieval ; microrecords and retrieval; equipment; records control.
230 Keyboarding (Beginning Typewriting) 3:2:2
Introduction to touch system of keyboarding. Development of keyboarding techniques as a foundation for skill development and transfer to electronic keyboarding equipment, computer terminals, text editing equipment, ect. Simple letter forms and manuscripts for students' personal use.
231 Beginning Shorthand 3:3:0
Introduction of Gregg Series 90 Shorthand. Reading; writing; theory principles; brief forms; previewed dictation.
232 Intermediate Shorthand
3:3:0
Intensification of shorthand reading and writing skills. Brief form and theory review; speed-building dictation; transcription practice.
Prerequisite: OAS 231 or equivalent.
233 Advanced Typewriting $\quad$ 3:2:2 production problems with professional speed and efficiency. Includes business forms, statistical tables, financial statements, legal documents, reports, and correspondence.
Prerequisite: OAS 132 or equivalent.
331 Records Management 3:3:0
The systematic approach to the management of business records for executive problem-solving and decisionmaking activities. Record cycle from creation to disposition; forms management; correspondence and reports control; auditing record programs; automated systems.
335 Business Communications 3:3:0
Theories, practices and problems involved in communications in business and industry with emphasis on use of practical psychology, good judgment. Letters; reports; memoranda.
Prerequisite: Junior standing preferable; practical knowledge of touch typewriting helpful.
336 Office Information Systems
3:3:0
An examination of office information and decision support systems. Information processing systems; analysis and management of support activities; electronic storage systems; reprographics; communications distribution; person/machine interfaces; appraisal of current and future technological trends.
337 Electronic Word Processing Systems
3:3:0
Basic operation of magnetic media automated typewriters in conjunction with transcription machines. Emphasis on recording, formatting, editing, temporary and permanent revising, merging, proof reading, and logging.
Prerequisite: OAS 132.
338 Secretarial Office Procedures
3:3:0
Capstone office administration course. Analysis of responsibilities and duties of the administrative secretary. Procedures; work simplification; supervision; office etiquette and ethics; sources of information.

Office Management
3:3:0
Administrative management of business offices; social, legal, and ethical consideration in office management; employee recruitment, training, supervision, and motivation; information systems; office location and layout; selection of equipment and supplies; office cost control.
CPS Review
3:3:0
A comprehensive review of the six subject matter areas covered by the Certified Professional Secretary examination. Individual research; group projects; discussion; sample examinations. Recommended for candidates sitting for CPS examination.
434 Women in Business
3:3:0
A reading-discussion course concerned with the issues the businesswoman of today encounters. Students survey the literature and discuss available opportunities for women as well as existing problems of the woman in business.

## 436 Business Decision Support Systems

3:3:0
An analysis of the role of support systems in business organizations. Fundamental concepts of systems; information flows; nature of information support systems; computer applications in decision systems; uses of output: decision support system design and application.
Prerequisites: BAC 331 and MGT 331.
Business Course Analysis
3:3:0
An examination of business courses with emphasis on review of content in such courses. Other topics include planning, resources, ethics, and professional growth.

## Department of Economics and Finance

Department Chair: Charles F. Hawkins 240 Galloway Business Building
Professors: Cherry, Hawkins, Parigi, Sellekaerts, C. Allen Phone 880-8647
Associate Professors: Choi, Montano, Pearson, Price, Brust
Assistant Professors: J. Allen, Moss
Two degrees are offered in Economics:
Bachelor of Business Administration: Recommended to the student who desires a thorough grounding in business courses to augment the Economics knowledge which is necessary for understanding the complexities of modern business, government and nonprofit organizations.

Bachelor of Science: Recommended to the student particularly interested in working abroad, seeking the Doctor of Philosophy degree or desiring a supportive minor in another interest area such as mathematics, sociology, government, education, or computer science.

Representative employment opportunities for both degrees are found in banking, government, industrial relations, management, research and forecasting, communications, international trade and sales.

## Finance

The finance program provides the student with a broad education in financial markets and institutions, in investments, and in the financial management of organizations. Electives can be selected to provide an emphasis in insurance, in real estate, in financial planning, or in financial management. Finance graduates are qualified for careers in banking or other financial institutions, stock brokerage firms, in the growing financial services industry, and in the financial division of major organizations.

## Teacher Certification-Economics

For details concerning requirements for teacher certification and information on professional courses, consult the College of Education section in this bulletin.

## J.D. Landes Center for Economic Education

Director: Joel L. Allen

The Center for Economic Education, established in January 1976, offers programs in economic education for elementary, secondary and college teachers, and business, professional and civic groups. The purpose of the Center is to institute, develop and promote programs which will increase economic understanding in cooperation with teacher education, other university or community programs.

Center services include: community and consultant services for workshops, institutes, conferences; materials and teaching aids development, curriculum design and integration; economics courses for prospective and in-service teachers, university students and other interested adults, area business, professional and civic groups.

The Lamar University Center for Economic Education is a division of the Department of Economics, College of Business and is affiliated with the Joint Council and the Texas Council on Economics Education.

# Recommended Program of Study <br> Bachelor of Business Administration-Economics Major 

First Year
Eco 131, 132 Principles 6
Eng Composition .....  .6
Mth 134 \& 1341 Math for Bus. Analysis \& Applications
Mth 236 \& 237 Calculus I \& II ..... 6
Laboratory Science ..... 8
CS 1311 Micro-Computers ..... 3
Philosophy of Knowledge ..... 3
PE Activity ..... 2
Third Year
OAS 335 Business Communications ..... 3
Fin 331 Principles of Finance ..... 3
Mkt 331 Principles of Marketing. ..... 3
BAC 331, 332 Business Analysis. .....  6
Eco 333 Intermediate Theory ..... 3
Eco 334 Macro Economics .....  3
Eco 339 Economics of the Firm ..... 3
*Electives ..... 9

## Second Year

Acc 231, 232 Principles .....  .6
Eng Literature .....  .6
POLS 231, 232 American Government I, II .....  .6
His Sophomore American History .....  .6
Health \& Wellness ..... 3

Spc 131 Public Speaking

Spc 131 Public Speaking .....  ..... 3 .....  ..... 3
Fine Arts
Fine Arts ..... 3 ..... 3
Fourth Year
Eco 332 Money and Banking. ..... 3
Eco 4315 Government and Business ..... 3
Mgt 331 Mgt. \& Org. Beh. ..... 3
Mgt 332 Production Management .....  3
Mgt 437 Administrative Policy. ..... 3
BLW 331 Business Law .....
OAS 436 Business Decision Support Systems ..... 3
*Electives ..... 9
${ }^{*}$ Electives must include nine semester hours of advanced courses in economics, and six semester hours of approved, advanced electives.
Bachelor of Science-Economics Major
First Year
Eco 131, 132 Principles ..... 6
Eng Composition ..... 6
Mth $134 \& 1341$ Math for Bus Analysis and Applications
Mth 236 \& 237 Calculus I \& II .....  .6
Laboratory Science ..... 8
PE Activity .....  2
Philosophy of Knowledge .....  .3
CS 1311 Micro-Computers I ..... 3

## Second Year

Acc 231, 232 Principles............................................. 6
Eng Literature .....  .6
His Sophomore American History .....  6
POLS 231, 232 American Government I, II ..... 6
Electives .....  3
Health \& Wellness ..... 3
Fine Arts ..... 3

## Third Year

BAC 330 Micro Software for Business. ..... 3
Eco 333 Interm Theory .....  3
Eco 334 Macro Economics ..... 3
BAC 331, 332 Business Analysis ..... 6
Spc 331 Business and Professional Speech ..... 3
Minor Courses. ..... 6
Advanced Electives (300 or 400 Level) .....  7

Fourth Year
Economics Courses (Advanced Level) ................... 18
Minor Courses (Advanced Level). ..... 12

# Bachelor of Business Administration - Finance Major 

First Year

## First Semester

Acc/AS/Eco/Mgt 130 Business Environment
and Public Policy............................................. 3
and Public Policy....................................................................................... 3
Eco 131 Principles.................................................... 3
Mth 134 Mathematics for Business
or Mth 236 Calculus I........................................... 3
Laboratory Science .................................................... 4
Philosophy of Knowledge......................................... 3
PE/MLb/ROTC....................................................... 1-2

## Second Semester

Eng Composition ...................................................... 3
Eco 132 Principles.................................................... 3
CS 1311 Micro-Computers I...................................... 3
Mth 1341 Elements of Analysis for Business
or Mth 237 Calculus II.................................. 3
or Mth 237 Calculus II.................................................................. 4
PE/MLb/ROTC............................................................ 1-2

## Second Year

First Semester
Eng Literature ....................................................................... 3
His Sophomore American History .................................................................. 3
POLS 231 American Government I..................................................... 3
Fine Arts .................................................................. 3
Health \& Wellness ................................................................... 3

Second Semester

Eng Literature ........................................................... 3
His Sophomore American History ........................... 3
Acc 232 Principles .................................................... 3
POLS 232 American Government II......................... 3

18
*Personnel Administration majors should take Spc 334.
**PE Activity not acceptable.
In the last two years, the student majoring in Finance must select one of two tracks: Financial Management or Financial Services. Professional electives selected with the approval of the department head provide preparation in one of the two tracks.

## Third Year

| First Semester | Second Semester |
| :---: | :---: |
| BAC 331 Business Analysis I .............................. 3 | BAC 332 Business Analysis II .............................. 3 |
| BLW 331 Business Law...................................... 3 | Fin 332 Financial Analysis.................................. 3 |
| Fin 331 Principles of Finance ............................. 3 | Fin 431 Investments........................................... 3 |
| Mkt 331 Principles of Marketing.......................... 3 | Mgt 331 Mgt. \& Org. Beh. .................................... 3 |
| OAS 335 Busines Communications ...................... 3 | *Professional track elective .................................. 3 |
| **Elective (non-business) ................................... 3 |  |
| 18 | 15 |
| Fourth Year |  |
| First Semester | Second Semester |
| Eco 334 Macroeconomics.................................... 3 | Fin 433 Commercial Banking .............................. 3 |
| Fin 432 Financial Markets and Institutions ........... 3 | Mgt 437 Administrative Policy............................ 3 |
| Mgt 332 Production Management ......................... 3 | *Professional track elective ................................. 3 |
| *Professional track elective ................................. 3 | ***Elective (College of Business |
| ***Elective (College of Business | 300 or 400 Level) ............................................ 3 |
| 300 ог 400 Level) ............................................ 3 | OAS 436 Business Decision Support Systems ....... 3 |
| 15 | 15 |

[^8]
## Economics Courses (Eco)

131 Principles (Micro) $\begin{aligned} & \text { 3:3:0 }\end{aligned}$
Introduction to economic principles; allocation of resources; determination of output and prices; distribution; and managerial economics.
132 Principles (Macro) 3:3:0
Emphasizes monetary theory; national income analysis; fluctuation and growth; public finance; international trade; and current economic problems.
233 Principles and Policies 3:3:0
Comprehensive introduction to economic principles and problems for non-business students. Resource utilization; price determination; distribution of income; fiscal and monetary problems; economic growth.
331 Economics of Entrepreneurship 3:3:0
Comprehensive analysis and practice exercises in entrepreneurship. Studies include demand analysis; pragmatic economic feasibility studies; identification and use of resources; function and use of profits.
Prerequisite: Six hours of Economics.
332 Money and Banking $3: 3: 0$
Functions and policies of the American monetary and banking system. Commercial banking; Federal Reserve System: monetary theories and policies; economic stabilization and growth.
Prerequisite: Six hours of Economics.
333 Intermedite Theory
3:3:0
Economic analysis and methodology. Distribution theory; price theory; pure and imperfect competition.
Prerequisite: Eco 131.
334 Macro Economics 3:3:0
A descriptive-analytical approach to the dynamic forces that influence the aggregate level of economic activity. Income and employment determinants; levels of income and employment, stabilization theory; investment and income relationship; monetary and fiscal policies.
Prerequisite: Eco 132.
335 International Trade 3:3:0
Theories, practices and problems involved in international commerce between nations. Bases of trade; tariffs; exchange controls; international monetary policies; current problems.
Prerequisite: Six hours of Economics.
336 Survey of Lahor Economics 3:3:0
Past development and present organizational structure of the labor movement in America and its impact on the industrial society. Labor markets; collective bargaining; wages; economic insecurity; labor legislation; governmental policies.
Prerequisite: Three hours of Economics or approval of the instructor.
337 Public Finance
3:3:0
Study of the constitutional, administrative and economic aspects of governmental fiscal activities; government debt; intergovernmental fiscal relations; federal, state and local taxes.
Prerequisite: Six hours of Economics.
339 Economics of the Firm
3:3:0
The application of the techniques of economic analysis to managerial problems of business enterprises utilizing a problem solving or case study approach. Goals of the firm; business forecasting; demand analyses; cost analysis; game theory; pricing policies; governmental relations.
Prerequisite: ECo 131.
4301, 4601 Institute in Economics
3-6:-6:0
Institutes are designed to advance the professional competence of participants. When courses are conducted in sufficiently different areas and with the approval of the department head, a participant may repeat the course for credit.
4311, 4611 Prohlems in Economics
3-6:A:0
Investigation into special areas in economics under the direction of a faculty member. This course may be repeated for credit when topics of investigation differ.
430 Regional and Urhan Economics
3:3:0
Analysis of regional development and industrial location; economic problems of urban areas in financing and supplying goods and services at adequate levels.
Prerequisite: Six hours of Economics.
431 Monetary Theory
An analytical, institutional, historical and empirical analysis of monetary theory, and its interrelations with the generally accepted economic goals.
Prerequisite: Eco 131, 332, or 334 or approval of instructor.

Promotion, regulation and restriction of business enterprises by government. Regulatory agencies; antitrust laws; consumerism; transportation; industrial organization and concentration and the eco-legal environment.

Historical development of economic thought from primitive periods to the present. Classical; historical; socialist; neoclassical; institutional thought.
434 Economic Development 3:3:0
Introduction to the theories and history of economic growth and development applicable to advanced and emerging economies; analysis of processes of growth including cultural, technological and economic factors; identification of problem areas with policy implications.
Prerequisite: Three hours of Economics.
335 Comparative Economic Systems
A critical analysis of the basic theories and institutions of economic systems including a comparison of the American system with other existing systems. Capitalism; socialism; communism.
Prerequisite: Three hours of Economics.
436 Business Cycles 3:3:0
The nature and causes of business cycles. Cyclical theories; business fluctuations; forecasting stabalization; current problems.
Prerequisite: Six hours of Economics.
438 Economics of World Resources
3:3:0
The world's physical and economic resources and their relationship to man's well being. Interrelationships between resources and industries, commerce and investments at the national and international level. Implications of government regulations on resource use and economic development.

## Finance Courses (Fin)

## 331 Principles of Finance

3:3:0
An introductory survey of the principal issues, decision areas, and analytical procedures relevant to the financial management of private business firms including capital budgeting, cost of capital, short and long-term financing, dividend policy and valuation.
Prerequisite: Eco 233 or Eco 131 and 132, Acc 232 and Junior standing.
332 Financial Analysis
3:3:0
Analytical techniques used in financial decision making, including ratio analysis, funds analysis, capital structure, dividend policy, financial forecasting, and valuation models.
Prerequisite: Fin 331.
333 Insurance 3:3:0
Application of fundamental principles to life, property and casualty insurance. Contracts, premiums, legal statutes, risk, programming.
Prerequisite: Junior standing.
336 Personal Finance 3:3:0
Introduction to financial problems of the consumer. Emphasis is placed on problems concerning financial planning, investments in real estate, personal property, insurance, and securities.
Prerequisite: Non-finance majors only.
430 Life and Health Insurance 3:3:0
The nature of life and health insurance, various ways of utilizing the protection it offers. Principal features of insurance and annuity contracts. Group insurance, hospitalization and disability, rating, reserving, and financial statement analysis.
Prerequisite: Fin 333.
431 Investments 3:3:0
An appraisal of investment alternatives in financial markets. Markets, securities, methods of analysis, investment programming.
Prerequisite: Fin 331.
432 Financial Markets and Institutions
3:3:0
A study of the supply and demand for funds in financial markets; analysis of sectoral supply and demand in various submarkets; the role of financial intermediaries; interest rate forecasting.
Prerequisite: Fin 331.
433 Commercial Banking
An overview of the regulation, operation, and management of the commercial bank; asset and liability management policy; loan policy, investment policy, capital adequacy, liquidity management.
Prerequisite: Fin 331.

A survey of real estate principles and practices, including the law of real property, real estate appraisal, marketing and finance.
Prerequisite: Junior standing.
435 Property and Casualty Insurance
3:3:0
The nature of property and casualty insurance, coverages offered by property and casualty insurers with emphasis on the development, basic concepts, and legal basis of the various lines of property and casualty insurance. Prerequisite: Fin 333.
436 Security Analysis and Portfolio Management
3:3:0
Analysis of investment alternatives in a portfolio context, recent theoretical developments in portfolio management, construction of portfolios to achieve specific investment objectives, investment portfolio monitoring and performance evaluation.
Prerequisite: Fin 431.
437 Valuation of Real Property 3:3:0
Economic theory of value with application to real estate. Real estate appraisal methods as applied to both residential and income properties.
Prerequisite: Fin 434.

## Mortgage Lending

3:3:0
Methods of real estate financing, sources of funds from financial institutions and governmental agencies. Financial instruments available to the investor, mortgage, risk analysis, and loan principles.
Prerequisite: Fin 434.

# Department of Management - Marketing 

Acting Department Chair: Alfred F. Steiert
Professors: Sethna, R. Swerdlow, Wooten
Associate Professors: Brunson, Godkin
Assistant Professors: Steiert, Wellan

## Degree Programs

## Management

Management involves the coordination of resources - both human resources (people) and non-human resources (machine, materials, etc.) - so as to achieve organizational objectives efficiently. The curriculum in management; therefore, provides the student with an understanding of the specialized functional areas and with a broad, integrated view of the firm as a whole. Men and women with university degrees in management are equipped to advance more rapidly into positions of increasing responsibility in private business firms, in not-for-profit organizations, and in government.

## Personnel Administration

Personnel administration involves the recruitment, selection, maintenance, and development of human resources by organizations. It includes such diverse functional areas as interviewing, training, compensation and benefits, health and safety, and labor relations. University graduates in personnel administration are found in all types of business firms, larger service organizations, and governmental agencies.

## Marketing

Marketing, as a professional field, is concerned with the whole range of activities that facilitate the movement of goods and services from the producer to the ultimate consumer. The marketing curriculum provides the student with a fundamental understanding of each of the specialties involved in the process as well as with the management of the marketing function generally. Typical kinds of careers open to marketing graduates include advertising, market research, sales and sales management, purchasing, retail merchandising, and retail management.

## Academic Counseling

During the first two years of academic work in the College of Business, a management, personnel administration or marketing major will be advised by a Freshman and Sophomore advisor located in Room 120 of the Galloway Business Building. During the student's Junior and Senior years, he or she should maintain close contact with the faculty advisor and department head in selecting courses to achieve career objectives.

## Non-Professional Core Program

The Non-Professional Core Program consists of the courses in which a business major enrolls during the Freshman and Sophomore years of study. Students should satisfactorily complete all of the Non-Professional Core courses (except non-business electives) befor advancing to Junior ( 300 level) courses. This will insure completion of Junior level course prerequisites.
First Year
First Semester

## Third Semester

PSY 336 Tests \& Measurements ............................... 3
MGT 332 Production................................................. 3
MGT 432 Org. Behavior ........................................... 3
ECO 334 Macro Economis or
ECO 339 Eco of Firm 3

OAS 436 Bus. Decision Support
Systems. .. 3

15

## Fourth Semester

MGT 434 Productivity.............................................. 3
MGT 437 Administrative Pol.................................... 3
MGT 433 Cont. Issues ................................................ 3
OAS. 431 Office Management.................................... 3
Bus. Elective (College of
Business 300 or 400 level..................................... 3

## Bachelor of Business Administration Management Major

## (See Core Program for First and Second Year) Third Year

| First Semester | Second Semester |
| :---: | :---: |
| BAC 331 Bus. Analysis I..................................... 3 | BAC 332 Bus. Analysis II.................................... 3 |
| MGT 331 Mgt \& Org. Beh. ................................... 3 | MGT 333 Personnel............................................ 3 |
| MKT 331 Principles .......................................... 3 | BLW 331 Business Law...................................... 3 |
| OAS 335 Bus. Communication............................. 3 | FIN 331 Prin. of Fin ............................................ 3 |
| ACC 334 Cost Accounting ................................... 3 | ECO 334 Macro or <br> Eco 339 Eco of Firm $\qquad$ |
| 15 | 15 |
| Fourth Year |  |
| First Semester | Second Semester |
| MGT 332 Production.......................................... 3 | MGT 434 Productivity........................................ 3 |
| MGT 431 Budgetary Control................................ 3 | MGT 437 Adm. Policy ........................................ 3 |
| MGT 432 Adv. Org. Behavior.............................. 3 | MKT 438 Small Business.................................... 3 |
| MKT 431 Marketing Mgt..................................... 3 | OAS 436 Bus Dec. Support Sys............................ 3 |
| Elective (Bus. 300/400 level)................................. 3 | Elective (Bus. 300/400 level)................................. 3 |
| 15 | 15 |

*PE Activity not acceptable.

## Bachelor of Business Administration

 Marketing Major
# (See Core Program for First and Second Year) 

Third Year
First Semester
BAC 331 Bus. Analysis I........................................... 3
MKT 331 Principles ................................................. 3
MGT 331 Mgt. \& Org. Beh. ....................................... 3
OAS 335 Bus. Communication................................ 3
FIN 331 Prin. of Fin ...................................................... 3

## Second Semester

BAC 332 Bus. Analysis II. ..... 3
MKT 332 Retailing ..... 3
MKT 333 Promotion .....  3
ECO 334 Macro or ECO 339 Eco of Firm .....  3.
BLW 331 Business Law .....  3

## Fourth Year

## First Semester

MGT 332 Production ..... 3
MKT 431 Marketing Mgt ..... 3
MKT 436 Mkt Research. ..... 3
MKT 433 International Mkt ..... 3
OAS 436 Bus Dec. Support Sys .....  3

## Second Semester

MKT 437 Adv Mkt. Problems .....  3
MKT 432 Buyer Behavior .....  3
MGT 437 Adm. Policy ..... 3
Elective (Bus. 300/400 level) .....  6

## Management Courses (MGT)

130 Business Environment and Public Policy
3:3:0
A survey course emphasizing interaction of business with its external and internal environments. Introduction to public policy processes and issues with focus on ethical and moral considerations.
Recommended for Freshman who have an interest in business.
331 Management and Organizational Behavior 3:3:0
Introduces and emphasizes the application of behavioral disciplines and principles of management to promote fundamental understanding of operating systems. Demonstrates the awareness of what managers should do or be aware of in the pursuit of good organizational performance.
Prerequisite: Eco 233 or Eco 131 and 132, Acc 232 and Junior standing.

## 332 Production Management

3:3:0
A survey of the production function and the analytical tools used to solve problems associated with the development and operation of a production system. Analytical tools include: linear programming, critical path scheduling, waiting line, statistical quality control and forecasting.
Prerequisite: Bac 331 and Mgt 331.
333 Personnel Management 3:3:0
A behavioral approach to the management of the human resource in business enterprise. The fundamentals of human relations and organizational behavior will be used to structure an understanding of the managerial problems of recruitment, selection, training, promotion and termination of personnel. Supervision of the work force will be considered as an examination of theories of motivation, communication and leadership.
Prerequisite: Mgt 331.
431 Budgetary Control 3:3:0
Theories, problems and techniques of internal financial and budgetary controls. Financial planning, budgetary construction, evaluation, performance rating, replanning.
Prerequisite: Mgt 331 and Fin 331.
432 Advanced Organizational Behavior 3:3:0
A survey of organization theory with emphasis on behavioral issues in both the private and public sectors. Prerequisite: Mgt 331 and Senior standing.
433 Contemporary Issues in Personnel Management 3:3:0
An analysis of current issues in the field of personnel and industrial relations, including fair employment and compensation practices, human utilization and motivation, individual rights, collective bargaining, and personnel related laws, decisions, guidelines and executive orders.
Prerequisite: Mgt 333.
434 Productivity Management
3:3:0
A survey course emphasizing the need for improved productivity in profit and non-profit organizations. The course will focus on the historical and current aspects of productivity as well as problems and methods of measuring, planning, and implementing productivity programs.
Prerequisite: Mgt 332
437 Administrative Policy
3:3:0
Fundamental considerations and procedures followed in business policy formulation and administration. Managerial structure; company objectives; coordination of departmental policies; organization of personnel; reappraisals.
Prerequisite: Fin 331, Mgt 331, Mkt 331, and Senior standing.
438 Management of Computer Systems
3:3:0
Concepts of computers, information systems, capabilities and limitation, managerial implications in the introduction and use of computers, feasibility study and evaluation of computer systems. Methods of data storage, display and retrieval. Prerequisite: CS 1311.
439 Special Problems in Business
Investigation into special areas in business under the direction of a faculty member.

## Marketing Courses (MKT)

331 Principles of Marketing
A description and analysis of business activities designed to plan, price, promote and distribute products and services to customers. Topics studied include the marketing environment, consumer buying habits and motives, types of middlemen, marketing institutions and channels, governmental regulations, advertising and current marketing practices.
Prerequisite: Eco 233 or Eco 131 and 132. Acc 231 and Junior standing.

A comprehensive introduction to large scale retailing with emphasis on layout, merchandise management, pricing, inventory control and retail promotion.
Prerequisite: Mkt 331.
333 Marketing Promotion . 3:3:0
An overview of the broad field of advertising. Creation of primary and selective demand, promotional program selection, media selection and determination of advertising effectiveness and coordination of the promotional mix.

Prerequisite: Mkt 331.
334 Professional Salesmanship 3:3:0
A survey of modern salesmanship as applied to selling of tangibles and intangibles. The salesman in relation to his/her firm, goods and customers, sales psychology, classroom sales demonstrations.
431 Marketing Management 3:3:0
The planning and execution of various marketing activities from the managerial viewpoint are presented, viz: determining the basic product or service market analysis, price policies, product promotion, management of the sales force and sales analysis and physical distribution with the logistics system concept.
Prerequisite: Mkt 331.
432 Buyer Behavior 3:3:0
Acquaints the student with consumer behavior models and behavior research techniques.
Prerequisite: Mkt 331.
433 International Marketing
3:3:0
A survey of international marketing, world markets, political restraints in trade and international marketing principles.
Prerequisite: Mkt 331.
434 Industrial Marketing
3:3:0
A comprehensive analysis of problems involved in marketing industrial goods with emphasis on market characteristics, purchasing and distribution systems, promotion mix and marketing strategy.
Prerequisite: Mkt 331.
435 Quantitative Techniques in Marketing 3:3:0
Topics include Bayesian inference, payoff tables, sample design, analysis of variance, and multiple correlation and regression analysis.
Prerequisite: Bac 332:
436 Marketing Research 3:3:0
The importance and use of marketing research in business is stressed. A detailed analysis is made of each marketing research step from the formulation of the problem to the preparation of the research report and follow-up. The basic research methods (survey, observational and experimental) are presented.
Prerequisite: Mkt 331 and Bac 332.
437 Advanced Marketing Problems 3:3:0
Oral and written cases in the area of marketing management and marketing strategy are utilized (organization, product lines, pricing, channels of distribution, selling, etc). Emphasis is placed on simulated problem solving and decision making in the marketing environment.
Prerequisite: Mkt 431.
438 Small Business Institute
3:3:0
Designed to give the student actual experience in the management of a small business. The student is assigned to a local business as a "student-consultant." The student is required to submit a report outlining the problems of the business and recommended solutions.
Prerequisite: Bac 332 and Senior standing in the College of Business.


Experiential learning prepares student teachers for successful careers in education

# The College of Education and Human Development 

Departments: Professional Pedagogy; Health, Physical Education, and Dance; Home Economics; and, Educational Leadership

Charles M. Hodge, Dean

105 Education Building, Phone 880-8661
James E. Lane, Director of Professional Services
103 Education Building,
Phone 880-8902

## E. Lee Self, Director of Field <br> Experiences and Advisement

206 Education Building,
Phone 880-8690
Providing education for prospective teachers is a tradition of the University. Nonteaching specialties in dance, food service management, interior design, fashion merchandising, home economics, health and physical education are more recent offerings representing diversification and growth of the College of Education, and Human Development since its establishment in 1959.

Graduate programs in the College are described in the Graduate Studies Catalog of the University.

Degree and certification programs are described in separate departmental sections of this bulletin.
Lamar University reserves the right to modify degree requirements and teaching certificate requirements in keeping with legislative acts and rules established by the Texas Higher Education Coordinating Board and the State Board of Education.

NOTICE: The degree programs and teacher certification requirements listed in this catalog are appropriate for students completing degrees and teacher certificates BEFORE September 1, 1991. Students seeking teacher certification AFTER September 1, 1991, must complete new requirements presently being formulated.

## Degrees Offered

Bachelor of Science Degree with majors in the following fields:

Elementary Education
Secondary Education Special Education Dance

## Health

Home Economics
Kinesiology

Bachelor of Arts with a major in Dance
Associate of Applied Science-Restaurant and Institutional Food Management
Associate of Science Education Aide Instructional

## Mission and Objectives

The College of Education and Human Development is dedicated to promoting the achievement of the University's mission. In the belief that educational problems are solved best by involving representatives from elementary and secondary education, higher education, state level education agencies, and other appropriate groups in a partnership undertaking, the College is committed to the collaborative approach to addressing educational issues. Emphasis is placed on the preparation of personnel for educational and human service careers through professional programs which are current and relevant in theory and practice. Collaborative participation of the faculty in state, regional, national professional organizations, public schools and human service agencies activities is practiced and encouraged.

The College of Education and Human Development has as its major function the professional preparation of elementary and secondary school personnel and preparation of personnel for specific human services positions and professional careers. The College has a coordinating role for the development of academic competencies of the prospective teacher pursuing a major within the many departments of Lamar University.

The College is composed of four departments: Professional Pedagogy; Educational Leadership; Home Economics; and, Health, Physical Education and Dance. The Division of Professional Services includes early field experiences, student teaching and certification. The Early Childhood Development Center is located adjacent to the University campus and provides a site for the College's students to observe and work with children as part of the professional preparation of teachers and other school personnel.

## Teacher Education - A Shared Responsibility

The preparation of teachers is a responsibility shared by virtually all of the colleges of the University. Policies concerning teacher education programs are coordinated by the Teacher Education Council. This Council is composed of faculty members who represent the various colleges of the University offering teacher education programs. Within the framework of the policies established, the College of Education and Human Development provides oversight for all teacher education programs throughout the institution.

## Teacher Education Programs

Lamar University provides undergraduate teacher education programs which fulfill the curriculum requirements for the following Provisional Certificates in the State of Texas: elementary education, secondary education, generic special education, education of the deaf, driver education, all-levels music, all-levels art, all-levels physical education, kindergarten education, vocational home economics, and English as a second language.

Information concerning graduate teacher education programs and professional certification may be found in the Graduate Studies Bulletin.

All teacher education programs are accredited by the National Council for the Accreditation of Teacher Education.

## Early Childhood Development Center

The Lamar University Early Childhood Development Center is an educationally oriented model program for children between the ages of 18 months and five years. The Center, under the direction of The College of Education and Human Development, is an integral part of professional development for undergraduate and graduate students on the Lamar University Beaumont campus.

The laboratory school is used extensively by the Department of Home Economics, the Department of Pedagogy, the Department of Health, Physical Education and Dance, and the Department of Educational Leadership. The Center provides opportunities for University students to direct learning of young children who exhibit both typical and atypical development as well as investigate effective teaching strategies for promoting optimal development among young children. Students have the opportunity to observe and interact with children which enhances the understanding of child growth and development. In addition the students are able to relate understanding about the family, nutrition, prenatal care and community interaction to child behavior.

In addition, the Center provides interdisciplinary research opportunities for faculty and graduate students. The laboratory school is also used for strengthening leadership skills in the field of child development through seminars, workshops, and other educational events.

## Admission to Teacher Education

Application for admission to the teacher education program is made upon enrollment in PED 331 or 332.
Lamar University reserves the right to modify degree requirements and teaching certificate requirements in keeping with legislative acts and rules established by the Texas Higher Education Coordinating Board and the State Board of Education.

## Admission requirements.

1. An overall grade point average 2.0, " C ".
2. Successful completion of 60 semester hours.
3. Successful completion of the required 100 level courses in English.
4. Successful completion of the required mathematics courses listed in Academic Foundations.
5. *Completion of all sections of the Texas Academic Skills Program Test in accordance with the state policy.
6. Successful completion of PED 2101.

It is the student's responsibility to meet the above listed requirements before requesting admission to the Lamar Teacher education program. Any student who enrolls in PED 300 or 400 level professional development courses without the prerequisites will be dropped from the course(s). The drop may come at a time which will be too late to add other courses.

## Admission Requirements for Students Entering After Sept. 1, 1989

1. Proof of completion of 60 semester hours including:
a. Proof of successful completion of the required 100 level courses in English
b. Proof of successful completion of the required mathematics courses listed in Academic Foundation
2. Proof of an over-all grade point average of 2.5 or higher on a 4.0 scale.
3. Completion of a formal biographical information profile.
4. Recommendations from three faculty members.
5. Proof of successful completion of the state mandated basic skills test.
*Students enrolled in a four-year degree program leading to certification who have met all admissions standards for acceptance into teacher education except the TASP requirements will be allowed to register for up to six hours (PED 331 and PED 332) in the Department of Professional Pedagogy.

## Admission to Student Teaching and the Professional Semester

Student teaching shall be scheduled for the final Spring or Fall semester prior to graduation from Lamar University together with two other PED courses. This 12 semester hour blocking of courses, (six hours for student teaching and two, three semester hour PED courses) constitutes a "professional semester."

The first three weeks of this semester will be devoted to the campus courses. For elementary degree/certification programs, these courses are PED 434 and 3325. For all levels certification programs these courses are PED 434 and 3325 . For secondary certification programs these courses are PED 438 and 3325.

Students are reminded that during this "professional semester" it is possible to schedule only 12 hours of course work.

Students who are eligible and who desire to enroll in the "professional semester" must apply to the Director of Field Experiences by May 1, prior to the acadenic year for which student teaching is planned.

In order to qualify for the professional semester students must meet the following standards:

1. Be admitted to Teacher Education.
2. Be of Senior standing.
3. Possess a grade point average of 2.0 in :
a. All work taken
b. All teaching fields (areas of specialization for elementary).
c. All professional education courses completed.
4. Completed all prerequisite courses in professional education as follows:
a. For elementary PED 3325, 434 and 463 or 465.
b. For elementary major, options IV, all professional education courses except PED 3325, 4300, and 463.
c. For secondary education students except Home Economics majors, all professional education courses except PED 3325, 438 and 462.
d. For Home Economics majors, PED 331, 332, 3326, HEc 338 and 438, PED 3325 will be taken in block fashion during the professional semester.
e. For all-levels students (Art, Hearing Impaired, Music and Physical Education) all professional education courses except PED 3325, 434 and 463.
5. Completed prerequisites in academic content area as follows:
a. For elementary education majors, all courses in academic area of specialization.
b. For the kindergarten and ESL endorsements, nine hours of required courses.
c. For the Driver education endorsement all seven hours.
d. For secondary education Option I all-levels, Hearing Impaired, and alllevels Art and Music students, 42 hours in the composite teaching field.
6. Must have written approval of the Director of Field Experiences.

## Certification Policies

Lamar University reserves the right to modify degree requirements and teaching certificate requirements in keeping with legislative acts and rules established by the Texas Higher Education Coordinating Board and the State Board of Education.

To be recommended for a teaching certificate, the applicant must present:

1. A grade point average of $2.0,(\mathrm{C})$ in all work undertaken at Lamar, 2.0 in elementary school specialization or in each teaching field and 2.0 in the professional education courses relevant to the certificate.
2. A minimum of 12 hours in residence at Lamar University in professional education courses.
3. A minimum of six hours in residence at Lamar University.
a. In each teaching field for secondary education.
b. In the area of specialization for elementary education.
4. Evidence of successfully completing student teaching requirements in the area of certification sought.
5. Successful completion of all sections of the Texas Academic Skills Program test and successful completion of the appropriate EXCET examinations.

## Provisional Certificate and Degree Requirements

Provisional Certificate programs are offered in elementary education, secondary education, special education-generic, vocational home economics, all-levels art, all-levels music, all-levels physical education, and all-levels hearing impaired. Provisional Certificate endorsements are available in driver education, kindergarten education, and English as a second language. Information concerning these programs may be found in the following paragraphs or in departmental sections of this bulletin.

Provisional Certificate requirements and requirements for professional education degrees are identical. Each program is composed of four parts: (1) academic foundations, (2) academic specialization, (3) professional development, and (4) free electives. Programs require the completion of 126 to 132 semester hours.

Current academic foundation requirements for certificate programs are described below. Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for provisional certificate with a teaching field will be required to meet a revised set of teacher education standards. All teacher education programs are subject to these new standards beginning in the Fall of 1985. It will be necessary to consult with your department head or the College of Education and Human Development Advising Center concerning the specifics of these requirements. Other requirements are outlined under the departmental sections of the bulletin.

## Academic Foundations

The academic foundation program outlined below is required of all students working toward Provisional Certificates at this University. Within the general framework shown, some course selections may be governed by the type of certification or degree obtained. Where appropriate, a maximum of six semester hours (eight in science); taken in academic foundations may be included in any one teaching field.

1. Required core courses: English Composition6
Eng Literature ..... 6
Mth (to include at least one
course at or above the level of Mth 1334) ..... 6
Science Laboratory (same science) ..... 8
POLS 231 Am Gov I ..... 3
POLS 232 Am Gov II ..... 3
CS 130 .....  3
Spch 131 ..... 3
His 134 (Elem) ..... 3
His Sophomore American History. ..... 6
PE Activity (two semesters) ..... 2
Hlth 137 .....  348-512. Foundations electives and degree requirements(Must include 3 hrs Fine Arts and 3 hrs Social Science,3 hrs Philosophy)10
PED 2101 and nine hours to be selected from approved courses in the followinggroups with courses included from a minimum of two groups:

Group I: Anthropology, Psychology, Sociology, Child \& Family Development, Health.
Group II: Economics.
Group III: Foreign Language, Manual Communication.
Group IV: Art, Drama, Music, Dance.
Group V: Philosophy, Bible, Humanities.

## Special Certificates and Endorsements

All-levels Art degree and certificate. Described in the "Art" section of this bulletin. Driver education endorsement. Described in the "Division of Movement Science and Health' section of this bulletin.
Kindergarten education endorsement. Described in the "Elementary Education" section of this bulletin.
All-levels Music degree and certificate. Described in the "Music" section of this bulletin.

Education of the hearing impaired. Described in the "Communication" section of this bulletin.

## Vocational Home Economics degree and certificate. Described in the "Home Economics" section of this bulletin.

English as a second language endorsement. Described in the English as a second language section of this bulletin. This endorsement may be added to any provisional teaching certificate.

## Certification for Persons with Bachelor's Degree (or higher) Who Are Not Certified To Teach in Texas

1. Information concerning these certification plans is available in the College of Education Office and Human Development Certification Office.
2. Persons with degrees from Texas colleges and persons with degrees from out-of-state colleges apply in the College of Education and Human Development, Certification Office for certification in Texas.

## Certification for Persons With Texas Teaching Certificates Who Desire Additional Endorsements

Those persons with elementary certificates who desire secondary certification, those with secondary certificates who desire elementary certification, and those with elementary or secondary certificates who desire additional endorsements obtain information from the College Certification Office.

## Professional Certificates

Requirements for Professional Certificates are described in the Graduate Bulletin.

> NOTICE: The information given below is correct as of December 1, 1988. However, the Texas College Coordinating Board and the Texas Education Agency are now in the process of reviewing and revising all state-wide education programs.
> Prospective students are therefore URGED to contact the Director of Admissions and Advisement to obtain the latest information regarding these programs.

# Department of Professional Pedagogy 

Department Chair: Doyle Watts<br>Professors: Briggs, Burke, Hargrove, Hogue, Self

## 202 Education Building

Phone 880-8673
Associate Professor: Cooper, Henry, Karlin, Lane, McCaskill, Rice
Assistant Professor: Goulas, Matheny

## Bachelor of Science Degree in Elementary Education

The Bachelor of Science degree in Elementary Education is designed to meet the requirements for a Provisional Elementary Teaching Certificate in the State of Texas. The persons who major in elementary education also may receive a certificate endorsement to teach kindergarten and driver education by meeting the additional curriculum requirements as described in other sections of this bulletin.

In addition to completing the required academic foundations program (previously described), students must fulfill the requirements in the area of specialization, professional education and elective courses. This plan allows an overlap of six semester hours between academic foundations and the area of specialization, thus allowing 9-to-15 semester hours of free electives. If the area of specialization is in a discipline other than English, mathematics, science or history, the free electives may be reduced.

## Academic Foundations

Described in introductory section for College of Education and Human Development. Academic Specialization (36 Hours)
A. Elementary Options

Option II-18 hours
Art—Art 131 or 132, 133, 135, 4331; six hours from: 3316, 3335, 3355, 3376, 4358, 4368.

Biology-141, 142; Three courses selected from: 245, 345, 347, 446 (nine hours must be advanced).

Earth Science-Geo 141, 142, 336, 419, 4350, 4370, 4380, and Phy 137.
English-Three semester hours of composition and six semester hours of literature are in the general education courses. Eng 4312 or ESL 434, 2 courses from Eng 339, 332, 3324, 4328, 4329, 4336, 333, 338, 3316, 432, 434, 435, 438, 439, or equivalent.

French-Fre 131, 132, 231, 232, 330, 337, 338.
Health-HEd 131, 133, 234, 331, 338, 434.
History-His 131 or 132, 231, 232, one course Advanced U.S. History, Non U.S. History and History.

Math-Mth 1360, 1362, 12 hours (nine advanced) selected from: Mth 1334, 330, 3313, 3315, 3317, 4331.

Music-AM 1143, *AM 1183, 1184, MTY 132, 133, MUS 331, 332, 337.
Kinesiology (required)-KIN 335, 337 or 443, 438, KINA 2201; Dan 127; six hours selected from: KIN 231, 343, 436.

Reading-PED 232, 336, 337, 339, 431, 439.
Spanish-Spa 131, 132, 231, 232, 330, 331, and 335.
Speech-Spc 1302, 232, 235, 331, or Spc 332, 334, 434, or 433.
Option III-24 hours
Life-Earth Science-Bio 141, 142, 345, Geo 237, 235 or 236, 4380, Biology (three hours advanced); Geology 141, 142 required in Academic Foundations, and Phy 137.

Physical Science-Chm 141, 142; Phy 141 or 143, 142, 144, and nine hours upper division Chemistry or Physics courses.

Social Studies-Geo 237, 238; Eco 131, 132; POLS (six hours-three hours advanced); His 131, and advanced, U.S. History.

Special Education-PED 2301, 2302, 3304, 3305, 4307, 4308, 4309, and 4310.

Option IV-24 hours
Early Childhood-PED 333, 336, 4302, 4303, 4304; HEc 334, 339 or 4327; PEPT 337 and a combination of subjects ( 12 or 18 hours).
B. Work in a combination of subjects ( 18 semester hours).

Option II--18 hours
Art 3371, Geo 237, or 238, PED 337, PED 339, MEd 131, PEPT 339.
Option II-18 hours
Reading-Art 3371, Geo 237 or 238, His 134, MEd 131, HPE 339, The 430 or 336.

Option III-12 hours
PED 337, PED 339, MEd 131, PEPT 339 or 335.
Option IV-12 hours
Art 3371, MEd 131, HEc 233, PEPT 339.
Professional Development (30 semester hours)
PED 331 Foundations in Education
PED 332 Educational Psychology
PED 333 Language Arts in the Elementary School
PED 334 Child Development and Evaluation
PED 335 Arithmetic in the Elementary School
PED 3325 Needs of the Special Learner
PED 434 Classroom Management (C\&I 4300 for Opt. IV)
PED 437 Science \& Social Studies in the Elementary School
PED 465 Student Teaching in the Elementary School
Free Electives A minimum of three semester hours are to be chosen by the student as freeelectives.
Bachelor of Science Degree - Elementary Education
Recommended Program of Study - Option II (except reading)
The elementary education degree and certification requirements are shown in outlineform below, comprising a desirable sequence of courses.
First Year
Eng Composition ..... 6
Science Laboratory ..... 8
Mth 1360, 1362 Contemporary Mathematics. ..... 6
MUS 131 Basics of Music ..... 3
His 134 History of Texas ..... 3
PE Activity ..... 2
Academic Foundations Electives ..... 3
Geo 237 Physical Geography, or Geo 235
U.S./Texas Geography, or Geo 236 Physical Geography ..... 3.
Third Year
Art 3371 Elementary Art Education ..... 3
PED 331 Foundations of Education ..... 3
PED 332 Educational Psychology ..... 3
PED 333 Language Arts in the Elementary School ..... 3
PED 334 Child Development and Evaluation ..... 3
PED 335 Arithmetic in the Elementary Schoo ..... 3
PED 339 Reading in the Elementary School ..... 3
PED 337 Materials \& Resources for Teaching Reading .....  3
Area of Specialization ..... 9
Second Year
Eng Literature .....  .6
His Sophomore American History .....  6
POLS 231 American Government I .....  3
POLS 232 American Government II ..... 3
Speech 131/331 ..... 3
PEPT 339 Physical Education in the Elementary School ..... 3
PED 2101 .....  1
PE Activity .....  .2
Area of Specialization .....  3
CS 130 .....  .333
Fourth Year
PED 3325 Need of the Special Learner ..... 3
PED 437 Science and Social Studies ..... 3
PED 434 Classroom Management Elementary ..... 3
PED 465 Student Teaching in the Elementary School ..... 6
Area of Specialization .....  .6
Academic Foundations Electives .....  6
Free Electives ..... 3

# Bachelor of Science Degree - Elementary Education 

## (Reading Specialization)

The elementary education degree with a specialization in Reading is shown in outline form below, comprising a desirable sequence of courses.

| First Year | Second Year |
| :---: | :---: |
| Eng Composition ................................................ 6 | Eng Literature |
| Science Laboratory ............................................. 8 | His Sophomore American History ....................... 6 |
| Mth 1360, 1362 Contemporary Mathematics.......... 6 | POLS 231 American Government I....................... 3 |
| MUS 131 Basics of Music................................... 3 | POLS 232 American Government II...................... 3 |
| His 134 History of Texas.................................... 3 | Speech 131/331................................................. 3 |
| PE Activity ....................................................... 2 | PEPT 339 Physical Education in the Elementary |
| Academic Foundations Electives .......................... 3 | School........................................................... 3 |
| Geo 237 Physical Geography, or Geo 235 | CS 130.............................................................. 3 |
| U.S./Texas Geography, or Geo 236 Physical | PED 2101 Seminar for Teacher Education............. 1 |
| Geography..................................................... 3 | PED 232 Foundations of Reading Instruction ........ 3 |
|  | PED 336 Children's Literature .............................. 3 |
|  | PE Activity ........................................................ 2 |
| 34 | 36 |

Third Year
Art 3371 Elementary Art Education......................... 3
PED 331 Foundations of Education ......................... 3
PED 332 Educational Psychology............................. 3
PED 333 Language Arts in the Elementary
School................................................................. 3
PED 334 Child Development and Evaluation................................................. 3
PED 335 Arithmetic in the Elementary
School............................................................... 3
School ..................................................................................................................... 3
PED 337 Materials and Resources............................... 3
The 430 ................................................................................ 3

Free Electives........................................................... 3
Free Electives........................................................... 3

Fourth Year
PED 434.......................................................................... 3
PED 3325.................................................................... 3
PED 465 Student Teaching in the Elementary
School ................................................................ 6
PED 431 Diagnostic-Prescriptive Techniques.......... 3
PED 439 Reading Practicum ..................................... 3
Academic Foundations Electives ............................. 6
Free Electives............................................................ 6

## Bachelor of Science Degree - Elementary Education

## Option III

The elementary education degree and certification requirements are shown in outline form below, composing a desirable sequence of courses.
First Year
Eng Composition .....  6
Science-Laboratory ..... 8
Mth 1360, 1362 Contemporary Mathematics .....  6
MUS 131 Basics of Music .....  3
His 134 History of Texas. ..... 3
PE Activity (1 per semester) .....  2
Academic Foundations Electives .....  6
34
Third Year
PED 3304 SpEd Needs Excp Ind .....  3
PED 3305 Rdng/L.A. Excp Lrnr .....  3
PED 4307 Prctm Rdng/L.A. Excp. .....  .3
PEPT 335 or 339 Atypical/Elem SchI .....  3
Art 3371 Elementary Art Education .....  3
PED 331 Foundations of Education .....  3
PED 332 Educational Psychology. .....  3
PED 333 Language Arts in the Elementary School .....  3
PED 334 Child Development and Evaluation .....  3
PED 335 Arithmetic in the Elementary School ..... 3
PED 339 Reading in the Elementary School. .....  3
PED 437 Science and Social Studies in the
Elementary School .....  3
Eng Literature .....  6
His Sophomore American History .....  6
POLS 231 American Government I .....  3
POLS 232 American Government II ..... 3
PE Activity ( 1 per semester). .....  2
PED 2301 Foundations of Special Education .....  3
PED 2302 Identification of Exceptional Individual .....  3
CS 130 .....  3
PED 2101 .....  .333
Fourth Year
PED 4308 Apprsl Proc Excp .....  3
PED 4309 Instruction of Exceptional Learner .....  3
PED 4310 Practicum Instructing Exceptional Learner ..... 3
PED 337 Materials and Resources for Teaching Reading. .....  3
PED 3325 Need of the Special Learner .....  3
PED 434 CIassroom Management .....  3
PED 463 Student Teaching-Special .....  6
Academic Foundations Electives .....  3
Free Electives .....  3

# Bachelor of Science Degree Early Childhood Education Option IV 

English Composition .....  6
Science Laboratory .....  8
Mth 1360, 1362 Contemporary Mathematics .....  6
MUS 131 Basics of Music .....  3
His 134 History of Texas. .....  .3
CS ..... 3
PE Activity .....  2
Academic Foundations Electives .....  3
First Year

Third Year
PED 331 Foundation of Education ..... 3
PED 332 Educational Psychology .....  3
PED 333 Language Arts in the Elem Schl .....  3
PED 335 Arithmetic in the Elem. Schl ..... 3
PED 336 Children's Literature ..... 3
PED 337 Materials \& Resources for Teaching Reading. .....  3
PED 339 Reading in the Elem Schl ..... 3
HEc Seminar in Family \& Human Relations or
HEc 4327 Family Life \& Parenting Behavior .....  3
KIN 337 Motor Development ..... 3
HEc 334 Environments \& Programs for
Young Children ..... 3
Academic Foundations Electives ..... 3

## Fourth Year

PED 4303 Instructional Strategies for Early Childhood/Elementary Edu3
PED 4304 Survey of the History of
Early Education ..... 3
PED 437 Science and Social Studies .....  3
PED 3325 Needs of the Special Learner .....  3
PED 4300 Behavioral Management and Classroom Procedures ..... 3
PED 463 Student Teaching in the Elementary School .....  .6
Academic Foundation Electives. .....  3
Free Electives .....

## Kindergarten Certificate Endorsement Requirements

Kindergarten education may be added as an additional endorsement to the Provisional Elementary Certificate and is based on the successful completion of the courses listed below.

PED 4302 Early Childhood Development..................................................................... 3
PED 4303 Instruction in Early Childhood ..................................................................... 3
PED 4304 History and Philosophy of Kindergarten..................................................... 3
PED 463 Student Teaching (three hours of Elementary,
three hours Kindergarten)..................................................................................... 6
Total .............................................................................................................................. 15
Students who do not plan to student teach in kindergarten can certify after taking 12 hours of Kindergarten Education and after teaching one year in an accredited kindergarten.

## Bachelor of Science Degree Secondary - Education

The Bachelor of Science degree in Secondary Education is designed to meet the requirements for the Provisional Secondary Certificate in the State of Texas. Those who complete the requirements for the degree will be eligible for certification in the particular teaching fields selected or single field as explained previously in certification requirements. Persons who certify in secondary education may, through planning the use of electives or taking additional work, receive certificate endorsements. Attention is called to the fact that students may qualify for a certificate to teach in secondary education or by fulfilling certification requirements while obtaining a degree in a specific discipline. Some programs are available through only one of the avenues, as listed below:

Bachelor of Science
Secondary Education
Art-Opt II
Biology-Opt I \& II
Chemistry-Opt II
Communication (Journalism)--Opt II
Computer Information
Systems-Opt II
Earth Science-Opt II
Economics--Opt II
English-Opt II
French-Opt II
General Science-Opt IV
History-Opt II

Life-Earth Science MiddIe School-Opt II
Mathematics-Opt II
Kinesiology-Opt I
Kinesiology (all levels)
Physical Science-Opt II
Physics-Opt II
Political Science-Opt II
Psychology--Opt II
Reading-Opt II
Social Studies-Opt IV
Sociology-Opt II
Spanish-Opt II


In addition to completing the academic foundations program (described previously in the explanation for certification), students must fulfill the requirements in the areas of specialization, professional education and elective courses. These plans allow for an overlap of six semester hours, (eight in case of sciences), taken in academic foundations which may be included in any one teaching field. This allows an increase of free electives to 12 semester hours if there is an overlap in one field ( 14 in the area of science) and to 18 semester hours ( 20 if one field is science) if there is an overlap in each field. Of course, if there is no overlap between the academic foundations and the teaching fields, the free electives are limited to six semester hours. The requirements are explained in the four following areas.

## 1. Academic Foundation

Described in introductory section for College of Education and Human Development
2. Academic Specialization ( 48 semester hours minimum)

All curricula leading to certification in secondary fields require a minimum of 24 semester hours, ( 12 advanced), in each of the two teaching fields or a minimum of 48 semester hours, ( 18 advanced), in a single area of specialization. All programs at this University except office administration, general science, home economics, all-levels art, all-levels music and social studies require two teaching fields.
Students certifying under Plan I, (two teaching fields), are required to select one academic field as being of greatest interest. Details concerning specific requirements in the various specialization areas may be found in the sequence below:
Art-Opt II Specialization: ( 24 semester hours) Art 131, 133, 134, 239, 3316, 3381, 4341 and 3376 (Academic foundation must include Art $235 \& 236$ ).
Art (All Levels) Specialization: (48 semester hours) Art 131, 132, 133, 134, 231, 233, 237, 239 3316, 3355, 3371, 3376, 3381, 4331, 4341, (plus three hours of advanced electives). Academic foundation must include Art 235 and 236.
Biology-Opt I Bio 141, 142, 240, 245, 334, 345, 347, 446, Chm 142 (Chm 141 must be taken as Academic Foundations).
Biology-Opt II Specialization: ( 24 semester hours completion of Biology core which includes Bio 245, 344, 345, 446, 347, 240. Bio 141 and 142 must be included in Foundation Core.
Business Composite-Opt III Office Administration (Plan II Composite Field), Specialization: ( 51 semester hours) Acc 231, 232, BAC 331, BLW 331, Fin 331, MGT 331, 332, 437, MKT 331, OAS 233, 332, 333, 335, 336, 338, 431, 438. (Academic Foundations must include Eco 131, 132, Spc 131, plus three hours from a third group).
Chemistry-Opt II Specialization: (24 semester hours) Chm 141, 142, 241, 333, 341, 342, 412.

Computer Information Systems-Opt II Specialization: (24 semester hours) CS 131, 132, $3301,4305,4321$, plus nine hours to be selected from: CS 3302, 3304, 3305, 4302, 4306, 4308, 4309, 4311, 4312
Dance-Opt II See Division of Movement Science and Health in this bulletin.
Drama (See Theater).
Earth Science-Opt II Specialization: (27 semester hours) Geo 141, 142, 237, 336, 419, 4350, 4370, 4380. Physics 137 Astronomy.
Economics-Opt II Specialization: ( 24 semester hours) Eco 131, 132, 230, 336, 337, 4315, 435, plus three semester hours from Eco 332, 333, 334.
English-Opt I ( 36 semester hours) Six semester hours of composition and six semester hours of literature; English 3321; one course from English 430, 4312, or ESL 434; two courses from English 339, 3322, 3324, 4328, 4329, 4336, or equivalent; four courses from English 336, 338, 3316, 432, 434, 435, 438, 439, 4311, 4317, 4318, 4319, 4322, 4333, 4334, 4337, or equivalent. Must include a foreign language through 232.
English-Opt II ( 27 semester hours) Six semester hours sophomore literature; English 3321; one course from English 430, 4312, of ESL 434; two courses from English 339, 3322, 3324, 4328, 4329, 4336, or equivalent; three courses from English 333, 336, 338, $3316,432,434,435,438,439,4311,4317,4318,4319,4322,4333,4334,4337$, or equivalent. When selected as area of greatest interest, must include a foreign language through 232; as second teaching field, must include a foreign language through 132.
English Language Arts (48 semester hours) English 3321, 4312, 4326; Nine hours of advanced literature; three hours of speech 131 or 331 are in the General Education courses. Speech 235, Communications 133, 231, PED 339, 333; 12 hours of English (six hours of composition and six hours of literature) in the General Education course sequence.
French-Opt II Specialization: (24 semester hours) Required: Fre 131, 132, 231, 232, 330, 337, 338, plus three hours from Fre 331, 332, 339, 435, 436, 4371, 4372, 4373, 4374.

General Science-Opt IV (Plan II Composite Field) Specialization: (48 semester hours) Bio 141, 142; Chm 141, 143, Chm 142, 144; Geo 141, 142; Phy 141, 143, Phy 142, 144, plus 16 hours ( 12 advanced) in a single area (Bio, Chm, Phy, Geo).
Health-Opt II Specialization: ( 27 semester hours) Hlth 131, 133, 234, 331, 336, 337, 434, 437, HEc 138. Foundations program must include Bio 143, 144.
History-Opt I Specialization: (36 semester hours) His 131, 132, 134, 339. 24 additional hours- 15 hours advanced (nine hours U.S., nine hours Non U.S. History).
History-Opt II Specialization: (24 semester hours) His 131, 132, six hours advanced American History, six hours advanced World History, plus His 134 and 339, (When selected as area of greatest interest program must include Foreign Language through 232).

Vocational Home Economics Specialization: ( 52 semester hours) HEc 111, 112, 131, 132, 133, 137, 231, 232, 233, 239, 330, 334, 335, 336, 339, 411, 4308, 423, 439, 4101. See Home Economics section of this bulletin for complete description of certification plan in this area.
Journalism Communication-Opt II Specialization: (24 semester hours) Com 133, 231, 232, 234, 333, 3381, 431, 4383.
Life-Earth Science Middle School-Opt II Specialization: (27 semester hours) Bio 141, 142; Geo 237, 335 or 336, 4380; Bio 345; Bio (three hours advanced); Phy 137. Geo 141, 142 must be included in academic foundations.

[^9]Mathematics-Opt I Specialization: ( 36 semester hours) Mth 148, 149, 241, 3370, 233, 3311, 333, 335, 331, or Mth 3301, Mth 338. At least one course selected from the following list: Mth 3321, 4331, 431, 4315, 4316, 433, 438, 4321.
Mathematics-Opt II Specialization: ( 26 semester hours) Mth 148, 149, 233, 234 or 3370, 335, 333 or 338, and any two courses from the following group: Mth 331, 3311, 3321, 4315, 4316, 4321, 433.
Music (All Levels) See Music Department in this bulletin.
Kinesiology-Opt I See Department Health, Physical Education and Dance in this bulletin.
Kinesiology-All Levels See Department Health, Physical Education and Dance in this bulletin.
Physical Science-Opt II Specialization: (28-30 semester hours) Chm 141, 142; Phy 141 or 143,142 or 144 ; plus 12 hours to be selected from: Chm 333, 341, 342, 4401, 438; Phy 330, 335, 324, 414 or 415 , 416 or 417. (Foundation electives must include Mth 148 and 149 if not taken in required core.)
Physics-Opt II Specialization: (24 semester hours) Phy 141, 142, or 247, 248, 333, 335; one course selected from 324, 346, 448; plus six to eight hours selected from 324, 338, 416, 417, 436, 448.
Political Science Specialization: ( 24 semester hours) POLS 131, 231 or $231 \mathrm{H}, 232$ or 232 H , plus one course from each group bracketted: (334, 335, 339, 437, 3301, 3313, $3315,4312),(432,433),(332,337,435), 331,3317,4381,4383),(3316,430,434,439)$. Foreign Language proficiency through 232 for B.A.
Psychology-Opt II Specialization: (24 semester hours) Psy 131, 234, 241, 332, 333, 336, 432, 436.
Reading-Opt II Specialization: (24 semester hours) PED 232, 337, 3346, 3326, 431, 439; PED 3305, 339.
Social Studies-Opt IV (Plan II Composite Field) Specialization: (49 semester hours)
A. Thirty semester hours: Eco 131, 132; Geo 141, 237, 238; six hours POLS; His 131, 132, 134.
B. Eighteen semester hours ( 12 advanced) selected from the following: History, political science, geography, or Economics.
Sociology-Opt II Specialization: (24 semester hours) Soc 131, 132; one course from Soc 231, 336, 338 or 339; one course from Soc $233,330,335,432$, or 435 ; four courses from Soc 332, 432, 333, 434, 436, 438, or 439.
Spanish-Opt II Specialization: (24 semester hours) Spa 131, 132, 231, 232, 330, 335, plus six hours from Spa 331, 333, 337, 338, 431, 432, 433, 434, or 436.
Special Education-Generic-Opt II Specialization: (24 semester hours) PED 2301, 2302, 3304, 3305, 4307, 4308, 4309, 4310. (See Special Education section of this bulletin).
Speech-Opt II Specialization: (24 semester hours) Spc 232, 233, 235, 238, 332, 334, 4324, 434.
Theater (Drama)-Opt II Specialization: (25 semester hours) The 132, 135, 137, 210, $232,332,338,435,4371$. (Departmental participation in productions also required each semester.)
3. Professional Development ( 24 semester hours)

PED 331 Foundations of Education
PED 332 Educational Psychology
PED 3325 Need of the Special Learner
PED 3326 Reading Strategies the Content Areas
PED 338 Curriculum, Materials and Evaluation in the Secondary School

## PED 438 Classroom Management <br> PED 462 Student Teaching in the Secondary School

4. Free Electives (three-to-six semester hours)

A minimum of three semester hours are to be chosen by the student as free electives.
Below are listed the required Curriculum and Instruction courses and the year that they should be taken.
A. Secondary Certification Sequence

Year I
Year II; PED 2101
Year III: PED 331, 332, 3326
Year IV: PED 338, *3325, *438, *462
B. All-Level Certification Sequence (Phys Edu, Music, Art, Hearing Impaired) Year I
Year II: PED 2101
Year III: PED 331, 332, 3326
Year IV: PED 338, *3325, *434, *463
*These courses will be taken concurrently and will comprise a professional semester.

## Recommended Program of Study

The secondary education degree and certification requirements are shown in outline below.

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate with a teaching field will be required to meet teacher education standards. It will be necessary to consult with your department head of the College of Education and Human Development Advising Center concerning the specifics of these requirements.

Many variations are possible based upon the choice of teaching fields, overlaps of teaching field and academic foundation requirements, free electives. The outline does provide a desirable sequence of courses:

## First Year

Eng Composition ....................................................... 6
Mth 6
Science Laboratory ..... 8
PE Activity (2 semesters) .....  2
First Teaching Field .....  3
Second Teaching Field. .....  .3
Spc 131/331 ..... 3
CS 1303
34
Third Year
PED 331 Foundations of Education .....  .3
PED 332 Educational Psychology. .....  3
PED 3326 Reading Strategies the Content Areas....
PED 338 Curriculum and Materials .....  .3
First Teaching Field ( 6 hours advanced) .....  .9
Second Teaching Field (6 hours advanced) .....  .9
Academic Foundations Electives .....  .6

## Second Year

Eng Literature ........................................................... 6 Six hours of Sophomore American History from: 231, 232, 233, 234, 235, 236 6
POLS 231, 232 American Government I, II, .....  6
PE Activity (2 semesters) .....  2
First Teaching Field .....  6
Second Teaching Field. .....  6
Academic Foundations Electives ..... 3
PED Seminar in Teacher Education ..... $\ldots$
Fourth Year
PED 3325 Need of the Special Learner .....  3
PED 438 Classroom Management .....  3
PED 462 Student Teaching in the Secondary School .....  6
First Teaching Field (Advanced) .....  6
Second Teaching Field (Advanced) .....  6
Free Electives. .....  26
26

## Bachelor of Science Degree - Special Education

Students may secure the Bachelor of Science degree in Special Education-Generic and at the same time certify for a Provisional Certificate-Secondary with a teaching field in Special Education-Generic. Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate
with a teaching field will be required to meet teacher education standards. It will be necessary to consult with your department head or the College Advising Center concerning the specifics of these requirements. The Generic Program will train special educators who can meet the demands of Comprehensive Special Education in the State of Texas. The preparation is broader and more flexible than for those whose training is based on disability categories.

With successful completion of the degree requirements, the student may apply for a Special Education-Generic Certificate.

Specific information concerning the program may be obtained from the Department of Professional Pedagogy or from the Advisement Office.

## Special Education-Generic Requirements

A student may complete the requirements for Special Education Certification within the Elementary or Secondary Education undergraduate program. It is also possible to obtain certification in conjunction with or following the completion of a valid Texas teaching certificate.

## Recommended Program of Study

The Bachelor of Science in Education-Special Education degree, with Generic certification requirements, is shown below.

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate with a teaching field will be required to meet teacher education standards. Specific information may be obtained from the Department of Professional Pedagogy.

First Year
Eng-Composition ..... 6
Mth ..... 6
Science Laboratory ..... 8
PE Activity ( 1 per sem) ..... 2
Second Teaching Field .....  6
Spc 131/331 .....  3
CS 130 .....  3
Academic Foundations Electives .....  6
34
Third Year
PED 331 Foundations of Education ..... 3
PED 332 Educational Psychology .....  3
PED 338 Curriculum and Materials ..... 3
PED 3304 Educational Needs of Exceptional Individual ..... 3
PED 3305 Rdng/L.A. Excp Lrnr ..... 3
PED 4307 Prctm Rdng/L.A. Excp ..... 3
PED 3326 Reading Strategies the Content Areas .....  3
Second Teaching Field (Advanced) ..... 6
Academic Foundations Elective .....
Free Electives .....  2

## Second Year

Eng Literature ..... 6
His Sophomore American History .....  6
POLS 231, 232 American Government I, II .....  .6
PE Activity (1 per semester) .....  2
PED 2301 Foundations of Special Education .....  3
PED 2302 Identification of the Exceptional Individual .....  3
PED 2101 Seminar in Teacher Education .....  .1
Second Teaching Field .....  .6
Academic Foundations Elective .....  3Fourth Year
PED 3325 Need of the Special Learner ..... 3
PED 438 Classroom Management ..... 3
PED 4308 Appraisal Processes for Exceptional Individuals .....  3
PED 4309 Instruction of the Exceptional Learner... 3PED 4310 Practicum Instructing ExceptionalIndividual 3
PED 436 Student Teaching-Special .....  .6
Second Teaching Field (Advanced) .....  6

# Bachelor of Science - Elementary With Special Education - Generic 

Students desiring the degree in Elementary Education with Special Education-Generic can do so by following the prescribed Elementary Education plan along with the 24 semester hour Special Education-Generic Area of Specialization inclusion. Specific information may be obtained from either the Department of Professional Pedagogy or the Advisement Office.

## Associate of Science - Education

The Associate of Science in Education is administered by the Department of Professional Pedagogy.

Students completing this program will be prepared to function as instructional aides in a variety of public school and other programs directly concerned with the education of children. The total hours completed in this degree are acceptable toward a Bachelor of Science in Education Degree if that is the student's objective.

## Recommended Program of Study

The Associate of Science Degree in Education is shown below. Variations to meet individual student needs in the program of study are possible. Specific information must be obtained from the Department of Curriculum and Instruction or the Advisement Office.
First Year
Eng Composition ..... 6
Mth/Laboratory Science ..... 3-4
His Sophomore American History .....  6
PE Activity ( 1 per semester) .....  2
Psy 234 or 235 Child/Adolescent Psychology ..... 3
PED 2301 Foundations of Special Education ..... 3
Free Electives .....  9

## Second Year

Eng Literature ..... 3
Mth/Laboratory Science ..... 3-4
POLS 231 American Government I .....  3
POLS 232 American Government II ..... 3
PED 231 Instructional Media in Classroom .....  3
PED 2302 Identification of Exceptional Individual ..... 3
PED 3305 Rdng/L.A. Excp Lrnr .....  3
Free Electives .....  .9
32-33

## Professional Pedagogy Courses (PED)

Note: To enroll in non-professional development courses, it is not necessary for students to be admitted to the teacher education program.
120 College Reading and Writing Skills ..... 2:1:2
Provide procedures, practices, and individual help with reading assignments, writing papers, taking essay ex- aminations, and taking lecture notes. Not applicable to TEA certification plans.
2101 Seminar in Teacher Education ..... 0:0:0Designed to introduce students at the pre-professional level to career choices and acquaint them with proceduresfor entering teacher education.
2301 Foundations of Special Education ..... 3:3:0
An orientation to background, terminology and programs for those who are exceptional. Designed as an overviewof Special Education. A first course for those planning to certify in Special Education.
2302 Identification and Characteristics of the Exceptional Individual ..... 3:3:0Principles of normal and abnormal child growth and development. Nature and causes of behavioral and physicalcharacteristics and basic techniques of management.
2310 Peer Advisor-Counselor Training ..... 3:2:2Designed primarily for those who will be learning about systematic helping and interpersonal relating by practicingthe skills that constitute the helping process. Content based on learning theory, social-influence theory, behavior-modification principles and practice, and skills-training and problem-solving methodologies. Not applicable toTEA certification plans.
Prerequisite: Permission of the instructor.
232 Feundations of Reading Instruction ..... 3:3:0An orientation to background, terminology and programs for the teaching of reading. Designed to give an overviewof the history of the English language, the reading process and the psychology of reading instruction.Prerequisite: Sophomore standing.3:3:0Evaluation and application of various techniques for determining educational needs of the exceptional individualand general instructional arrangement considerations.
3305 Instructional Alternatives for Teaching Reading and Language Arts to the Exceptional Learner ..... 3:3:0 Identification of skill deficiencies, modification of curriculum, designing and implementation of instructional strategies for pupils evidencing disabilities in reading and language arts.

| 331 | Foundations of Education |
| :--- | :--- |
| Focuses on the historical, philosophical, organizational, professional and cultural-ethnic components of American |  |
| education with particular emphasis on awareness and understanding of specific needs of children and youth of |  |
| various cultural-ethnic components. Selective field experiences required. |  |
| Prerequisite: Junior standing, PED 2101. |  |
| Educational Psychology |  |

3326 Reading Strategies for the Content Areas 0:0:0
This course is designed to provide the basic principles, concepts and procedures of reading and to enable prospective teachers to incorporate reading instructional techniques effectively into the content areas. Emphasis will be placed on the sound teaching practices within the confines of the content area classroom.
333 Language Arts in the Elementary School
3:3:0
The study and use of materials and techniques in the teaching of oral and written communication.
Prerequisite: PED 331.
$\begin{array}{ll}334 \text { Child Development and Evaluation } & \text { 3:3:0 } \\ \text { Principles of growth and development. Measurement and evaluation of learning. }\end{array}$
Prerequisite: PED 331.
335 Arithmetic in the Elementary School
3:3:0
A study of the content, materials and methods used in teaching arithmetic.
Prerequisite: PED 331.
336 Children's Literature $\quad$ 3:3:0
A study designed to provide students with information about children's books, periodicals and related media and their use with children. Techniques and materials for motivating children to develop a continuing interest in reading.
Prerequisite: Junior standing.
$\begin{aligned} & 337 \text { Materials and Resources for Teaching Reading } \\ & \text { A concentration on planning, producing, selecting, organizing and evaluating instructional materials and equip- }\end{aligned}$ ment to be used in teaching reading.
Prerequisite: PED 233 or PED 339.
338 Curriculum, Materials and Evaluation in the Secondary School
3:3:0
The structure and organization of the curriculum, materials used and types of evaluation utilized.
Prerequisite: PED 331.
339 Reading in the Elementary School 3:3:0
Methods and materials for teaching reading in the elementary school. Emphasis upon the placement of materials and lesson planning.
Prerequisite: PED 331.

## 4101, $4201,4301,4601$ Institute or Workshop in Education

1-6:1-6:0
A number of institutes or workshops are designed to advance the professional competence of teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop or institute differs sufficiently from one previously taken.
4111, 4211,4311 Individual Study in Special Education 1-3:A:0
Investigation into special areas in special education under the direction of a faculty member. This course may be repeated for credit when topics of investigation differ.
Prerequisite: Consent of the department head.
4300 Behavioral Management \& Classroom Procedures 0:0:0
A comprehensive study of behavioral management in early childhood/elementary school environments. A developmental perspective will be presented and related to a discipline management system.
4302 Earty Childhood Development $\quad$ 3:3:0
A study of the psychological development of children from birth to age six, with recognition given to their basic needs. Includes some of the appropriate educational experiences for the early years.
4303 Instructional Strategies for Early Childhood 3:3:0
A comprehensive study of methods and materials for preschool and kindergarten-age children. Focus on oral language experiences, science and mathematics concepts and creative expression.

## 4304 Survey of the History of Early Education

 3:3:0A comparative study of the early childhood educational movements of the past and their impact on present and future programs.4305 Seminar in Early Childhood Educational Research3:3:0A survey of research studies in learning theory and in instructional practices for young children.
4306 Special Topics3:3:0
Significant topics in Elementary, Secondary and Special Education. The description of the particular area of studywill appear on the printed semester schedule. A student may repeat for a maximum of six semester hours whenthe area of study is different.4307 Practicum in Instructional Alternatives in Reading and Language Arts for the ExceptionalLearner3:A:0
Practicum experience in the identification and instruction of pupils evidencing disabilities in reading and languagearts.Prerequisite: PED 3305 or instructor's approval.
4308 Appraisal Processes in Programming for the Exceplional Individual ..... 3:3:0
Formal and informal methods of appraising the educational needs of the exceptional learner and the use ofinterpretative data to prescribe appropriate curriculum modification, instructional materials, teaching strategiesand classroom management.
4309 Instruction of the Exceptional Learner ..... 3:3:0Classroom management, teaching strategies, instructional materials for the exceptional learner. Various ap-proaches and rationales are presented.
4310 Practicum in Instructing the Exceptional Individual ..... 3:A:0Practicum experience with the exceptional learner. Includes identification, interpretation of data, developmentof instructional goals and implementation of instructional objectives. When experience is with emotionallydisturbed it includes at least 54 contact clock hours of work.
431 Diagnostic-Prescriptive Techniques in the Teaching of Reading ..... 3:3:0Techniques for ascertaining reading strengths and weaknesses. Planning and implementing instruction to meetindividual needs.
Prerequisite: Junior standing and PED 232, 337, 339.
4315 Education of Gifted Children ..... 3:3:0Identification, programs, guidance and administrative structure for gifted children.
432 Educating the Culturally Different ..... 3:3:0
Delineates personal characteristics and the effective domain of the culturally different and identifies educationalstrategies applicable to the teaching process.
433 Teaching Media and Audio-Visual Technology ..... 3:3:0Observation, demonstration and practice in utilizing modern teaching media, including teaching machines andprogramming.
4331 Microcomputer Applications ..... 3:3:0A practical course using the Apple II Microcomputers to master word processing, data base, and the spreadsheet.The use and evaluation of selected software along with current issues in microcomputers is included.
4336 Methods of Teaching Secondary School Science ..... 3:3:0
A study of modern inquiry methods common to the separate secondary science disciplines. Emphasis is placedupon the investigative or discovery approach to science instruction.
4337 Tests and Measurements ..... 3:3:0
Principles of human measurement and evaluation. Familiarity with most used tests and evaluation proceduresin educational settings.
434 Classroom Management Elementary ..... 3:3:0A study of problems relating to classroom management and curriculum.Prerequisite: PED 331 and 332.
3:3:0
435 Individualized Instruction Through TechnologyIndividualized instruction as the basic conceptual tool for the study, personalization and production of actualmaterials and modules useful in traditional and performance based instruction. The course will be conducted asa practicum in the theory and practice of individualized instruction.
436 Student Teaching in the Kindergarten ..... 3:A:0
Supervised observation and teaching the kindergarten. Three hours in kindergarten classrooms five days per weekfor eight weeks.
437 Science and Social Studies in the Elementary School ..... 3:3:0Content, methods and materials for teaching science and social studies in the elementary school.Prerequisite: 331 and 332.3:3:0Organization of subject matter, lesson planning, classroom management and general methods of teaching.Prerequisite: PED 338.

Reading Practicum
3:3:0
Participation in a directed field experience. The students will work with typical class, groups and individuals in the application of concepts, skills and techniques.
Prerequisite: Twelve semester hours of reading including PED 339 and 431 or by special permission of the Department head.
462 Student Teaching in the Secondary School 6:A:0
Supervised observation and teaching in the secondary school.
Prerequisite: See Admission to Student Teaching in this catalogue. All day in secondary professional semester classroom, five days per week for 12 weeks.
463 Student Teaching-Special 6:A:0
Special student teaching situations designed for students working all-level certificates, special education, kindergarten education and speech and hearing.
Prerequisite: See Admission to Student Teaching in this catalogue. Class: All day in a professional classroom setting, five days per week for 12 weeks.
465 Student Teaching in the Elementary School 6:A:0
Supervised observation and teaching in the elementary school.
Prerequisite: See Admission to Student.Teaching in this catalogue. Class: All day in elementary professional classroom, five days per week for 12 weeks.

## Department of Health, Physical Education and Dance

Department Chair: Alice C. Bell . . 102 McDonald Gym, Phone 880-8716

Director of Academic Programs: Mildred A. Lowrey
Director of Required Service Programs: Douglas Boatwright
Dance Coordinator: Julio de Bittencourt
Health Coordinator: Joel R. Barton
Graduate and Kinesiology Coordinator: Virginia Raye Holt
Professors: Bell, Crowder, Holt, Lowrey
Associate Professor: Barton
Assistant Professors: Boatwright, Chaisson, Gremillion, Morris, Park, Payton, Rogas, Worsham
Instructors: Gilligan, Lihs, Ramos, Wesbrooks; Zeek
Lecturers: Bagley, Barbre, Collins, Conway, Core, Cortez, Crawford, Gravitt, Guiton, Hurt, Perkins, Todd, Taylor
Artist in Residence: de Bittencourt
The Department of Health, Physical Education and Dance provides several career options for students. Three teacher education certification programs are offered: dance, health and kinesiology. Two programs of study are available which do not lead to teacher certification: dance and health. Undergraduate programs lead to a Bachelor of Science degree in Health or Kinesiology or Dance or a Bachelor of Arts degree in Dance. Graduate programs leading to a Master of Science degree are described in the Graduate Bulletin.

The general physical activity two semester program for all university students provides a varied selection of activities which include aquatics, dance, fitness and sports. The activity program is designed to enhance the general education objectives of the University.

## Recommended Programs of Study

## Dance

The dance division offers two programs of study. A student choosing a public school teaching career should follow the certification program which leads to certification to teach dance plus an approved additional teaching field at the secondary level. A student
selecting the non-certification program prepares for a career in private studio teaching, administration, choreography, professional performance and other dance-related fields. A student must have completed the English, Math, Biology, Political Science, and History General Education Requirements prior to enrolling in the 300 and 400 level dance theory courses. A grade of " C " must be earned in each of the dance theory courses.

## Bachelor of Science - Dance Teacher Certification Program

## First Year

Eng 131-132 Composition........................................ 6
Mth 1334 College Algebra......................................... 3
Mth ............................................................................ 3
Bio 143-144 Anat and Physiology ............................ 8
Spc 131................................................................... 3
CS 130 or 1311 .......................................................... 3
Phl 130...................................................................... 3
Hlth 137 Health and Wellness.................................. 3
Dan 127 Folk Dance .................................................. 2
Dan 129 Tap Dance .................................................. 2
36

## Third Year

PED 331 Intro to American.Public Ed ..................... 3
PED 332 Human Learning........................................ 3
PED 3326 Reading Strategies................................... 3
Kin 343 Exercise Physiology .................................... 4
Dan 235 Composition............................................... 3
Dan 335 Principles of Creative Dance...................... 3
Dan 1263 Ballet Tech................................................ 2
Soc Sci....................................................................... 3
Second Teaching Field............................................. 9
Electives ................................................................ 2

Second Year
Eng Literature .............................................................. 6
His 231-232 American History ................................. 6
POLS 231-232 American Government ..................... 6
Dan 231 Dance Production ....................................... 3
Dan 233 Rhythmic Analysis of Dance ..................... 3
Kin 231 Functional Anat \& Physiology ................... 3
Dan 1283 Modern Dance Tech ................................. 2
Second Teaching Field.............................................. 63
-

## Fourth Year

PED 338 Curriculum and Methodology ..................... 3
PED 438 Secondary Methodology and
Classroom Management.......................................... 3
PED 462 Student Teaching-Secondary...................... 6
Dan 336 Choreography.................................................... 3
Dance Theory Elective .................................................. 3
Dan 438 Dance History ............................................... 3
Second Teaching Field................................................ 9
Electives .......................................................................... 2

Total 138 semester hours

[^10]
# Bachelor of Science-Dance Non-Certification Program 

## First Year

Eng 131-132 Composition ..... 6
Mth 1334 College Algebra ..... 3
Mth ..... 3
Bio 143-144 Anat and Physiology ..... 8
Hlth 137 Health and Wellness .....  3
Phl 130 .....  3
Dan 127 Folk Dance ..... 2
Dance Studio Courses .....  6

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## Second Year

Eng Literature .3
Eng Literature (or equivalent) ..... 3
His 231-232 American History ..... 6
POLS 231-232 American Government ..... 6
Kin 231 Functional Anat \& Physiology .....  3
Dan 231 Dance Production .....  .3
Dan 233 Rhythmic Analysis of Dance ..... 3
Dan Studio Courses ..... 56

In order to develop and maintain a high technical level dance majors are required to take ballet technique and/or modern dance technique daily each semester.

## Third Year

Dan 235 Composition................................................ 3
Dan 335 Principles of Creative Dance...................... 3
Dan Theory Elective.................................................. 3
Dan 129 Tap Dance ................................................... 2
Dan 1263 Ballet Tech ................................................ 2
Dan 1283 Modern Dance Tech :.............................. 12
Kin 343 Exercise Physiology ................................... 4
Soc. Sci...................................................................... 3
Related Arts Minor.................................................... 9
Electives .................................................................... 3 . .3

## Fourth Year

Dan 336 Choreography.............................................. 3
Dan 438 Dance History ............................................. 3
Dan Theory Elective................................................. 6
Dan Studio Courses................................................... 4
Related Arts Minor.................................................... 6
Electives ....................................................................... 12

## Bachelor of Art - Dance Major Non-Certification Program

Same as the above program except for the completion of the course numbered 232 in a foreign language.

## Health

The health program of study offers two options for a career in health. A student choosing a teaching career should follow the certification program which leads to certification to teach health plus an approved additional teaching field at the secondary level. A student selecting the non-certification program prepares for a career in health agencies and municipal health departments. A student must have completed the English, Math, Biology, Political Science, and History General Education Requirements prior to enrolling in the 300 and 400 level health professional courses. A grade of " C " must be earned in each of the health professional courses.

# Bachelor of Science - Health Teacher Certification Program $\dagger$ 

First Year

Eng 131-132 Composition
Mth 1334 College Algebra ..... 3
Mth ..... 3
Bio 143-144 Anat and Physiology ..... 8
Hlth 137 Health and Wellness .....  3
Physical Activity ..... 2
Phl 130 ..... 3
Hlth 131 Emergency Care \& Safety .....  3
Hlth 133 Personal Health .....  .3Third Year
Spc 131 or 331 ..... 3
Hlth 238 Human Sexuality and Sexually Transmitted Diseases ..... 3
Hlth 336 Health in the Secondary School ..... 3
Hlth 337 Contemporary Issues .....  3
PED 331 Intro to American Public Ed .....  3
PED 332 Human Learning ..... 3
PED 3326 Reading Strategies ..... 3
PED 338 Secondary Curriculum and Methodology. .....  3
Second Teaching Field ..... 12

## Second Year

Eng Literature .....  6
POLS 231-232 American Government .....  6
His 231-232 American History .....  6
Social Science. .....  3
CS 130 or 1311 .....  3
Physical Activity ..... 2
HEc 138 Nutrition .....  3
Hlth 234 Public and Consumer Health .....  3
Fine Arts .....  3
Fourth Year
Hlth 434 Health and Human Ecology .....  3
Hlth 437 Health Science \& Epidemiology .....  3
PED 438 Secondary Methodology and Classroom Management .....  3
PED 462 Student Teaching-Secondary .....  6
Second Teaching Field. ..... 12

[^11]Total 132 semester hours

## Bachelor of Science-Health Non-Certification Program

First Year
Eng Composition .......................................................... 6
Mth 1334 (or above).................................................. 3
Mth :........................................................................... 3
Bio 143-144 Anat and Physiology ............................ 8
Phl 130 ...................................................................... 3
Physical Activity ...................................................... 2
Hlth 137 Health and Wellness.................................. 3
Hlth 131 Emergency Care and Safety...................... 3
Hlth 133 Personal Health.......................................... 3

Third Year
Hlth 336 Health in Secondary Schools.................... 3
Hlth 337 Contemporary Health Problems................ 3
POLS 3316 Intro to Public Admin ........................... 3
Fine Arts ................................................................... 3
*Electives ................................................................. 21

Second Year
Eng Literature ........................................................... 6
POLS 231-232 American Government ...................... 6
His Soph American History ...................................... 6
Psy 131 Introduction to Psychology......................... 3
Physical Activity ...................................................... 2
Eco 233 Principles and Policies ............................... 3
HEc 138 Nutrition ..................................................... 3
Hlth 234 Public and Consumer Health .................... 3
Hlth 238 Human Sexuality and Sexually
Transmitted Diseases 3

Fourth Year
Hlth 434 Health and Human Ecology ...................... 3
Hlth 437 Health Science \& Epidemiology ............... 3
Hlth 436 Practicum in Health................................... 3
HIth 446 Health Internship........................................ 4
Soc 437 Public Opinion............................................ 3
Spc 334 Interviewing ................................................ 3
*Electives ................................................................ 13

Total 134 semester hours
*Electives should include the following:
A related minor of 18 semester hours approved by department chair.
A related elective program of 16 semester hours approved by department chair.

## Kinesiology

The kinesiology program of study prepares the student for a teaching career in kinesiology for an advanced degree. A companion program of specialization in elementary kinesiology is available through the Bachelor of Science in Education (see Department of Education Professional Pedagogy in this bulletin for further information.) The kinesiology teaching certification program offers the following:

Secondary Option I (one teaching field)
All-Level Option II (one teaching field)
The course of study leading to a baccalaureate degree and teacher certification in kinesiology encompasses three areas of work: (1) the required block of professional theory courses; (2) the required block of professional development courses; and (3) the required block of professional activity courses.

The required block of professional theory courses will vary contingent upon the degree option selected. A grade of "C" must be earned in each of the kinesiology professional theory courses. A student must have completed the English, Math, Biology, Political Science, and History General Education Requirements prior to enrolling in the 300 and 400 level professional theory courses.

The required block of professional development courses are PED 331, 332, 3325, 3326, 338, 438 and 462. A student must be admitted to the College of Education and Human Development's teacher education program before enrolling in professional development courses.

The required block of professional activity courses are KinA 129, Dance 127 or 128, and KinA 2201. Fourteen additional hours must be selected from Dan 127 or 128, KinA 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 3201, 3202, 3203, 3204, 3205, 3206, 3207. A minimum of six hours must be selected from the advanced level courses. Of
the 20 hours taken to meet degree requirements, a grade of " $B$ " or higher must be earned. A student must have completed the English, Math, Biology, Political Science, and History General Education Requirements prior to enrolling in the 3000 level professional activity courses.

## Entrance Requirements

1. All newly entering Freshmen who meet the University's general entrance requirements will be admitted to the Department of Health, Physical Education and Dance.
2. Students who wish to enter the Department of Health, Physical Education and Dance must have a minimum 2.0 GPA on all work attempted.

## Bachelor of Science - Kinesiology <br> Teacher Certification Program - Secondary Option I $\dagger$

First Year
Eng 131-132 Composition ..... 6
Mth 1334 College Algebra .....  .3
Mth ..... 3
Bio 143-144 Anat \& Physiology ..... 8
Hlth 137 .....  .3
Kin 132 Foundations. .....  3
Dan 127 or 128 Folk or Square Dance .....  .2
KinA 129 Swimming .....  2
KinA Electives .....  2
Phl 130 .....  335
Third Year
Kin 332 Management Skills ..... 3
Kin 335 Atypical Child .....  3
Kin 343 Exercise Physiology .....  .4
Kin Elective ..... 3
Dan 335 Principles of Creative Dance. .....  .3
KinA Electives .....  6
PED 331 Intro to Am Public Edu .....  .3
PED 332 Human Learning. .....  3
PED 338 Secondary Curriculum and Methodology .....  3
PED 3326 Reading Strategies ..... 3

PED 3326 Reading Strategies ........................................... $\frac{34}{34}$
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Eng Literature ..... 6
POLS 231-232 American Government ..... 6
His 231-232 American History .....  .6
CS 130 or 1311 .....  .3
Kin 231 Functional Anat \& Physio .....  3
KinA 2201 Gymnastics Techniques .....  .2
KinA Electives .....  .6
Spc 131 or 331 .....  3
Fourth Year
Kin 436 Measurement \& Evaluation. .....  3
Kin 443 Motor Learning .....  4
Kin 438 Strategies in Kinesiology .....  3
Kin Electives .....  9
Soc Sci. ..... 3
PED 438 Secondary Methodology and Classroom Management .....  .3
PED 462 Student Teaching-Secondary. .....  6

Total 135 semester hours
tFor details concerning requirements for teacher certification and information on professional development courses, consult the College of Education and Human Development section in this bulletin.

# Bachelor of Science - Kinesiology <br> Teacher Certification Program All Level Option II $\dagger$ 

First YearEng 131-132 Composition 6
Mth 1334 College Algebra .....  3
Mth ..... 3
Bio 143-144 Anat. and Physiology .....  8
Hlth 137 .....
Kin 132 Foundations .....  3
Dan 127 or 128 Folk or Square Dance .....  2
KinA 129 Swimming .....  2
KinA Electives .....  2
Phl 130. ..... 3

## Second Year

Eng Literature .....  6
POLS 231-232 American Government .....  6
His 231-232 American History .....  6
CS 130-1311 .....  3
Spc 131 or 331 .....  3
Kin 231 Functional Anat \& Physiology .....  3
KinA 2201 Gymnastics Techniques .....  2
KinA Electives .....  .6
Third Year
Kin 332 Management Skills
Fourth Year
Kin 436 Measurement \& Evaluation ..... 3
Kin 438 Strategies in Kinesiology ..... 3
Kin 443 Motor Learning .....
Kin Elective ..... 3
Kin 336 Contemporary Problems in Secondary School ..... 3
Kin 337 Motor Development ..... 3
Kin 339 Movement Experiences for the Young Child ..... 3
Kin 343 Exercise Physiology ..... 4
KinA Electives ..... 6
Dan 335 Principles of Creative Dance. ..... 3
PED 331 Intro to Am Public Ed ..... 3
PED 332 Human Learning. .....  3
Soc Sci .....  3
PED 3326 Reading Strategies .....  3
PED 338 Secondary Curriculum and Methodology ..... 3
PED 434 Elementary Methodology and
Classroom Management ..... 3
PED 463 Student Teaching-All Level. ..... 6
Total 135 semester hours
tFor details concerning requirements for teacher certification and information on professional development courses, consult the College of Education and Human Development section in this bulletin.

## Dance Studio Courses (Dan)

## Dance studio courses (except 2110) will fulfill the physical activity requirements.

1240 Selected Dance Techniques ..... 2:1:2Instruction and practice in selected dance techniques. May be repeated for credit.
1251, 1252, 1253 Jazz I, II, III2:1:2
Instruction and practice in jazz dance. May be repeated for credit.
1261, 1262, 1263, 1264 Ballet Technique I, II, III, IV ..... 2:1:2Instruction and practice in ballet technique. Emphasis is placed on accurate technique and placement. May berepeated for credit.
127 Folk Dance Techniques ..... 2:1:2
Instruction practice in beginning folk dance. Emphasis is placed upon the historical and cultural background ofthe various national dances.
128 Square Dance Techniques ..... 2:1:2
Instruction and practice in square dance. Emphasis on class organization and teaching methods.
1281, 1282, 1283, 1284 Modern Dance Technique I, II, III, IV ..... 2:1:2
Instruction and practice in the techniques of modern dance and composition. May be repeated for credit.
129 Tap Dance ..... 2:1:2
Instruction and practice in beginning tap dance.
2110 Dance Production Workshop1:1:2
Practical application of the technical skills utilized in dance production including lighting, scenery and costuming.May be repeated for credit.
2221 Ballet Company ..... 2:1:5
The instruction, rehearsal and production of classical ballets. May be repeated for credit.
2:1:5
2222 Modern Dance Company
The instruction, rehearsal and production of modern dance and jazz works. May be repeated for credit.
2223 Dance Ensemble ..... 2:1:5
The instruction, rehearsal and production of various and divergent dance forms. May be repeated for credit.
2250 Improvisation ..... 2:1:2Exploration of human movement potential through imagery and/or movement manipulation.
2280 Social Dance ..... 2:1:2An introduction to partner, line and round dance forms of the 20th century.
Dance Theory Courses (Dan)
231 Dance Production ..... 3:2:1The study and practical application of the various elements utilized in dance production including lighting,scene design, costuming and publicity.
233 Rhythmic Analysis of Dance ..... 3:2:1
The analysis of movement in relationship to rhythmic patterns, meter, tempo, metric pulse, accents and melodicphrasing.

[^12]3:1:2The study of various dance forms utilized in the theater including character dance.331 Dance Notation3:2:1
The study of the primary forms of dance notation including Labanotation and Benesh notation and its applicationto various dance forms.
335 Principles of Creative Dance ..... 3:3:0
The study of creative exploration in a constructive and positive environment for children.
336 Choreography ..... 3:2:1
Analysis of the elements of choreography and its development and evaluation when applied to composition.Prerequisite: Dan 235
430 Individual Study in Dance ..... 3:A:0Selected problems and research in the area of dance.Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.
434 Contemporary Strategies of Dance3:3:0
The study of current trends, issues, and problems associated with the implementation of dance programs.3:3:0
The evolution of dance from prehistoric times to current social and theatrical forms.
Health Courses (HLTH)
131 Emergency Care and Safety ..... 3:3:0
American Red Cross standard first aid and personal safety course. CPR certification is included. ..... 3:3:0A study of body organs and diseases, systems, physical and mental health concepts, knowledges and appraisalof individual health. Designed to extend the student's skills in using facts to arrive at well informed decisionsconcerning their own personal health.
137 Health \& WellnessThis course will examine acquired knowledge and attitudes pertaining to wellness/health maintenance and theireffect upon individual decision-making within one's life span.
234 Puhlic and Consumer Health ..... 3:3:0
Traditional and modern methods of meeting public and consumer health needs; investigation and analysis ofpublic and consumer health problems; functions and organization of consumer services at the local, state, regionaland national levels.
236 Care and Prevention of Sports Injuries ..... 3:3:0
A study of the treatment and prevention of specific sport injuries. The injuries may be a result of activity in thehome, recreational, intramural, or extramural settings.
238 Human Sexuality and Sexually Transmitted Diseases ..... 3:3:0
This course is concerned with the basic information regarding the physical, psychological, social, and comparativecultural aspects of family health, sexual behavior, sex education, and sexually transmitted diseases. Emphasiswill be placed on the relationship between personal health and human sexuality. The understanding of humansexuality through self-awareness, value clarification and decision-making will also be a concern.
336 Health in the Secondary School ..... 3:3:0
A critical and comprehensive examination of current trends and issues or programs at the secondary schools.3:3:0The course deals with problems associated with current health issues which are related to individual and socialadjustment in society. Special emphasis will be given to substance abuse, stress management, and problemsrelating to aging.
338 Health in the Elementary School ..... 3:3:0
A critical and comprehensive examination of current trends and issues of problems at the elementary level.
4301 Workshop in Health3:3:0A number of workshops are designed to advance the professional competence of health practitioners. For eachdescription, the particular area of study will be indicated. May be repeated for credit when nature of workshopdiffers from one previously taken.
430 Individual Study in Health ..... 3:A:0
Selected problems in health. Not to be used in lieu of a required course.
Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.3:3:0
Emphasis on the human organism with the many aspects of environment and the implications in each area withregard to health. The course will cover aspects of air, land and water pollution with major sources of pollutionbeing designated and categorized into the areas of transportation, industry, power plants, refuse disposal andrecreational contributions.
436 Practicum in Health
3:3:0
Observation and study of health programs and organizations.
Prerequisite: Approval of department head.
437 Health Science and Epidemiology 3:3:0
A study of infectious and non-infectious diseases. The course treats epidemiology as a basic science of preventive medicine as well as the study of occurrence of disease in human populations.
446 Health Internship 4:3:2
Supervised internship at selected community, public or private health agencies and/or organizations. Prerequisite: Approval of department head.

## Kinesiology Theory Courses (Kin)

132 Foundations 3:3:0
Introduction to history, principles and philosophy of kinesiology; professional qualifications of leadership; special emphasis on theoretical and practical aspects.
216 Practicum in Driver Programs 1:1:0
Supervised observation and provision of actual experience in behind the wheel strategies for individuals conducting driver programs.
Prerequisites: HLTH 131, Kin 238.
238 Driver Program
3:3:0
Traffic rules and regulations and the basic facts concerning the cause and prevention of accidents. The course includes behind the wheel experiences.
231 Functional Anatomy and Physiology 3:3:0
A study of human movement from the perspectives of anatomy, physiology and kinesiology. Emphasis on the analysis of sport-skill performance.
Prerequisite: Bio 143-144.
232 Sport in Contemporary American Society 3:3:0
A study of various sociocutural factors in American society and their relationship to the sport experience.
233 Biomechanics of Exercise and Sport
3:3:0
A study of basic principles of human mechanics with application to motor performance and sport.
234 Psychology of Sport 3:3:0
Psychological perspectives of sport; personalities of sports participants and current literature related to psychological aspects of sport.
332 Management Skills 3:3:0 A study of the organization and administration of programs in recreation, dance, sports, and athletics.
335 Atypical Child 3:3:0
A study of the classification of atypical students who require modified programs. Special emphasis on developing personalized developmental programs. Field experience required.
336 Contemporary Programs in Secondary Schools 3:3:0
A critical and comprehensive examination of current trends and issues of programs at the secondary level.
337 Motor Development 3:3:0
Principles of motor development in children, including developmental stages and the understanding of motoric trends in human growth and development from birth throughout life.
339 Movement Experience for the Young Child 3:3:0
A study of movement experiences in dance, gymnastics, and games for the young child. Functional and practical application will be emphasized.
$\mathbf{3 4 3}$ Exercise Physiology $\quad$ 4:3:2
A study of the functions of the physiological systems during and after exercise.
Prerequisite: Bio 143-144, Kin 231.
430 Workshop 3:3:0
A number of workshops are designed to advance the professional competence of students. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken. Not to be used in lieu of a class.
430 Individual Study 3:A:0
Selected problems in the discipline; not to be used in lieu of a class. May be repeated for credit. Class by consultation.
Prerequisite: Senior standing and consent of department head.
431 Scientific Principles of Human Performance 3:3:0
Anatomical and physiological factors that influence optimal performance.
Prerequisites: Kin 343 and permission of instructor.
436 Measurement and Evaluation ..... 3:3:0
A study of practical measurement and evaluation procedures used in the assessment of human performance.Includes construction of evaluation instruments, experience in test administration and the use of elementarystatistical procedures in test score interpretations.
438 Strategies in Kinesiology ..... 3:3:0
A study of programs and problems associated with the implementation of programs.
Motor Learning4:3:2Principles of neuromuscular control mechanisms and correlates of movement behavior and motor learning.Presentation of materials dealing with the learning process, aspects of the learner, variables influencing the stateof the performer and application of these concepts to the acquisition of motor skills.
462 Kinesiology InternshipSupervised internship at selected public or private agencies and/or institutions.
Kinesiology Activities (KinA)
129 Swimming ..... 2:1:2
The introduction and development of skills and basic conditioning related to swimming with particular emphasis on acquisition of skill, appreciation of safety and skill progression.
2201 Gymnastics: Tumbling and Gymnastics ..... 2:1:2
The introduction and development of skills, general rules, and strategy related to gymnastics with particular emphasis on acquisition of skill, appreciation of safety and skill progression.
2202 Gymnastics: Apparatus ..... 2:1:2
The introduction and development of skills, general rules, and strategy related to gymnastics with particularemphasis on acquisitions of skill, appreciation of safety and skill progression.
2203 Golf ..... 2:1:2
The introduction and development of skills, general rules, and strategy related to golf with particular emphasison acquisition of skill, appreciation of safety and skill progression.
2204 Small Craft ..... 2:1:2The introduction and development of skills, general rules, and strategy related to small craft with particularemphasis on acquisition of skill, appreciation of safety and skill progression.
2205 Aerobic Fitness ..... 2:1:2
The introduction and development of skills, understanding of body functions and basic conditioning related toaerobic fitness with particular emphasis on acquisition of skill, appreciation of safety and skill progression.
2206 Water Safety Instruction2:1:2The introduction and development of skills, general rules, and strategy related to water safety instruction withparticular emphasis on acquisition of skill, appreciation of safety and skill progression.
2207 Archery/Badminton ..... 2:1:2The introduction and development of skills, general rules, and strategy related to archery and badminton withparticular emphasis on skill, appreciation of safety and skill progression.
2208 Strength Training ..... 2:1:2
The introduction and development of skills and general guidelines establishing a training program related tostrength training with particular emphasis on acquisition of skill, appreciation of safety and skill progression.
2209 Sports Officiating2:1:2
The introduction and development of skills, general rules, and strategy related to sports officiating with particularemphasis on acquisition of skill, appreciation of safety and skill progression.
3201 Baseball ..... 2:1:2Activities organized to focus on advanced strategies and coaching aspects of team sports.2:1:2
Activities organized to focus on advanced strategies and coaching aspects of team sports.2:1:2Activities organized to focus on advanced strategies and coaching aspects of team sports.3204 Tennis2:1:2
Activities organized to focus on advanced strategies and coaching aspects of team sports.2:1:2Activities organized to focus on advanced strategies and coaching aspects of team and individual sports.3206 Volleyball2:1:2
Activities organized to focus on advanced strategies and coaching aspects of team sports.2:1:22:1:2
Activities organized to focus on advanced strategies and coaching aspects of team sports.

## Physical Education General Activity (PEGA)

The activity courses from which two semesters are to be selected for graduation are listed below. The activity requirement is met during the Freshman and Sophomore years. The classes are designed to enlarge the educational experience of the student by development of skills and understandings associated with aquatics, dance and sports. The activities available provide for individual student interests and personal exercise needs at various experience levels. Many students take more than two semesters of activity.

Aquatics: PEGA The aquatic sections offer beginning swimming through advanced synchronized and competitive swimming, lifesaving and water safety instruction; diving from beginning through scuba and advanced springboard.

Dance: DAN The dance sections offer ballet, jazz, and modern dance at the beginning, intermediate, advanced and performance levels: folk dance and tap dance at the beginning and intermediate levels.

Fitness: PEGA The fitness sections offers general and individualized aerobics, conditioning, jogging, strength training and field sports designed to provide conditioning and sports skill development.

Sports: PEGA The sports sections offer instruction from beginning to competitive in badminton, baseball, basketball, fencing, golf, gymnastics, handball, martial arts, raquetball, tennis, track and field, soccer, softball, and volleyball.

## Aquatics Courses (PEGA)

120 Swimming 2:1:2
Demonstration, lectures and practice in the basic techniques of swimming and water safety skills. May be repeated for credit.
121 Swimming and Diving 2:1:2
Demonstrations, lectures and practice in the techniques and analysis of selected swimming strokes and dives.
220 Advanced Aquatic Sports
2:1:2
Lecture, demonstration and practice in synchronized or competitive swimming, scuba or springboard diving. Swimming proficiency test required. May be repeated for credit as topic varies.
225 Small Craft
2:1:2
The course is designed to create an interest in sailing and canoeing and to develop sufficient knowledge and skill to safely enjoy the sport as a recreational activity. Swimming proficiency test required.
226 Lifesaving
2:1:2
Development of proficiency in lifesaving. Completion of course includes American Red Cross certification. Prerequisite: Intermediate Swimming Skills.

## Dance Courses (DAN)

See Department of Dance Education in this bulletin for further information.

## Activity Courses (PEGA)

Several types of activities are listed under PEGA 111, 112, 113, 114, 221, 222, 223, or 224. Students should review the activities schedule for appropriate selection of activities.

[^13]221, 222, 223, 224 Activity 2:1:2
Physical activities directed toward development of lifetime skills in sports. May be repeated for credit.
Students enrolled in physical education activity classes are required to wear regulation costumes suggested by the instructor. These may be purchased at the University

Bookstore. Equipment for class may be provided by the student. A suit/towel rental and laundry fee, payable the first week of class, is charged for all swimming classes. Students enrolled in golf will be assessed a range fee payable the first week of class.

## Athletic Training Specialization

Certification and licensing of athletic trainers is available through meeting the following requirements:

1. Teacher certification with choice of teaching fields.
2. N.A.T.A. Certification upon passing certification examination.
3. Licensed Athletic Trainer by State of Texas upon passing state board examination.
Application must be made through athletic trainer as the number of students is limited.

## Driver Certification Requirements

Certification to teach driving is available as a special designation on an existing Texas Teaching Certificate. Specific course requirements are Hlth 131, Kin 238 and Kin 216.

# Department of Home Economics 

Department Chair: LeBland McAdams
Professor: Davidson, McAdams

115 Home Economics Building<br>Phone 880-8663

Associate Professors: Anderson, Hinchey
Assistant Professors: Camp, Elliff, Pemberton, Thompson
Instructors: Suiter, Nichols

## Bachelor of Science in Home Economics

The Department of Home Economics offers undergraduate instruction leading to the Bachelor of Science degree in Home Economics. The program is designed to prepare students for a professional career, for personal development and for the responsibilities of a contributing family member and citizen.

The Home Economics program offers opportunities for specialized professional preparation in the areas of home economics education, food service, dietetics, family and community service, fashion retailing and merchandising and interior design. Each of these areas of study is described on the following pages. A Master's Degree in Home Economics is also offered. Details may be found in the Graduate Bulletin.

Students may minor in Home Economics by earning 18 semester hours of credit approved by the department head. Students majoring in elementary education may use home economics as an area of specialization by completing 24 semester hours of approved courses. Some home economics courses may be taken as electives by students with other majors.

The degree of Bachelor of Science in Home Economics will be awarded upon the completion of the following requirements:
A. General Requirements

Phl 130 Philosophy of Knowledge ..................................................................... 3
English Composition ........................................................................................... 6
Literature ............................................................................................................... 3
Literature or Foreign Language.......................................................................... 3
Speech .................................................................................................................. 3
Sophomore Am. History...................................................................................... 6
Fine Arts............................................................................................................... 3
POLS 231, 232 ..... 6
Math 1334 or 1336 ..... 3
Math or Statistics ..... 3
Lab Science ..... 8
Social Science ..... 3
HLTH 137 Health and Wellness ..... 3
PE Activity (2 semesters) ..... 2
B. Professional Core Courses
HEc 111 Foundations of Home Economics ..... 1
HEc 112 Orientation to Home Economics as a Profession ..... 1
HEc 133 Visual Design ..... 3
HEc 137 Intimate Relationships: Marriage and the Family ..... 3
HEc 231 Textiles ..... 3
HEc 239 Nutrition. ..... 3
HEc 330 Consumer Economics ..... 3
HEc 411 Senior Seminar ..... 1C. Professional Specialization as described in the following Home Economicsprograms.

## Departmental Academic Policies

1. A grade of " $C$ " or higher for each course in the major field (including transfer courses) and a 2.0 grade point average in all course work are required for graduation.
2. Students are expected to take courses in the sequence shown in the University Bulletin for each degree program.

- Students must enroll in HEc 111 their first Fall semester and HEc 112 their first Spring semester.
- All 100/200 level HEc core courses, Freshman English and Mathematics requirements must be completed prior to enrollment in 300/400 level HEc courses.

3. Each student's use of English is subject to review up to and including the semester in which the student is scheduled to graduate. Based on the recommendations of the Director of Freshman English and the department head, additional diagnostic procedures and course work may be required before the student is recommended for graduation.
4. No student will be allowed to enroll in 400 level home economics courses until his/her grade point average is 2.0 or higher. Students are required to enroll in HEc 411 the Spring semester of the year in which they graduate.
5. Students returning from suspension, including transfer and change of major students, must prepare a performance contract in consultation with the department chair.

## Recommended Programs of Study

## General Home Economics

Advisor: Virginia Anderson
125 HE Bldg
The General Home Economics Program provides a broad background of preparation for the student who wishes to work as a Home Economist in one of many varied career options.

A 39 hour prescribed Home Economics curriculum provides a strong base in each of the areas of Home Economics. An 18 hour concentration provides an in-depth study in one Home Economics specialization. The specialization also includes 18 hours in a related field such as Communication, Business, Art, Political Science or one of the natural or behavioral sciences.
First Year
English Comp .....  .6
Mth 1334 or 1336 ..... 3
Bio or Chem .....
Phl 130 Philosophy of Knowledge .....  3
HEc 111 Foundation In HEc .....  .1
HEc 112 Orientation to HEc as a Profession ..... 1
HEc 133 Visual Design ..... 3
HEc 137 Intimate Relationships: Marriage and the Family .....  3
HEc 100/200 ..... 3
PE Activity ( 2 semesters) ..... 2-4
33-35
Third Year
Lit. or For. Language ..... 3
HEc 330 Consumer Eco .....  3

* HEc ..... 12
Related Field .....  6
American History ..... 6
Electives ..... 3
33
Second Year
Literature. ..... 3
Mth or Statistics ..... 3
Pol Sci 231, 232 ..... 6
Soc Sci ..... 3
HEc 231 ..... 3
HEc 239 .....  3
*HEc ..... 6
HEc 2323 Entrepreneurship \& Serv. Mgt ..... 3
HLTH 137 ..... 3Fourth Year
HEc 411 Senior Seminar .....  1
HEc 439 Resource Mgt. Systems ..... 3
HEc Internship ..... 3
* HEc 300/400 ..... 9
* HEc ..... 3
Electives ..... 3
Related Field ..... 12
*Special courses are selected in conference with academic advisor and must be approved by the advisor. Nine hours must be chosen from 300/400 level classes.


## Home Economics Education

| Advisors: Dr. Jane S. Davidson | 100 B HE Bldg |
| :--- | ---: |
| Dr. LeBland McAdams | 115A HE Bldg |

The Home Economics Education program provides professional training for careers requiring technical knowledge of home economics and the art of teaching. Graduates of this curriculum meet the state requirement for Vocational Home Economics Certification. This program also provides the basis for endorsement in special education and early childhood education. Students wishing to secure the Bachelor of Science degree in Home Economics and at the same time to certify for a provisional certificate for teaching vocational-home economics will be required to meet a revised set of teacher education standards. Before certification can be obtained, successful completion of the Examination for Certification of Teacher of Education (EXCET) is required. It will be necessary to consult with the department head in the Department of Home Economics concerning the specifics of these requirements.

Second Year
Eng Literature .....  .3
Chm or Bio .....
POLS 231, 232 Am. Govt. I \& II .....  6
HEc 231 Textiles .....
HEc 232 Dress Design ..... 3
HEc 233 Early Childhood Development .....  3
HEc 239 Nutrition .....  3
HEc 330 Consumer Economics .....  3
Supportive Electives. .....  6

## Third Year

Eng Lit
His (Soph)
PED 331 Foundations of Education ..... 3
PED 332 Educational Psychology .....  3
HEc 334 Advanced Child Development .....
HEc 336 Institutional Foods .....  3
HEc 335 Housing \& Home Furn ..... 3
HEc 337 Professional Image .....  3
PED 338 Cur., Mat., Eval., Sec. Sch .....  3
HEc 339 Seminar in Fam. \& Hum. Rel. or HEc 4327 Parenting .....  3
Fourth Year
PED 3326 Reading Strat Content Area .....  3
CS 130 or equiv .....  3
HEc 338 Phil \& Prin Voc Home Eco .....  3
HEc 411 Senior Seminar .....  1
HEc 4308 World of Work .....  3
HEc 433 Equipment .....  3
HEc 438 Career Development Strat .....  3
HEc 439 Resource Management Systems. .....  3
HEc 4612 Student Teaching in Home Economics... 6Supportive Elective 3

# Foods, Nutrition and Dietetics 

Advisors: Connie Elliff Amy Pemberton

102 HE Bldg 123 HE Bldg

The Foods, Nutrition and Dietetics curriculum provides professional preparation which meets the academic requirements of Plan IV of the American Dietetic Association. Graduates of this program are eligible for an accredited dietetic internship or an Approved Pre-professional Practice Program (AP4). Foods, Nutrition and Dietetics
First Year
Phl 130 Philosophy of Knowledge3
Eng Composition ..... 6
Bio 143-144 Human Physiology .....  8
Mth 1334 College Algebra. .....  3
CS 1311 Micro-Computers I .....  3
HEc 111 Foundations of Home Economics .....  1
HEc 112 Orientation to Home Economics as a Profession. .....  1
HEc 131 Basic Foods .....  3
HEc 231 Textiles. .....  3
HEc 133 Visual Design .....  3
PE Activity (2 semesters) .....  .2
Third Year
Soc 332 Social Psychology .....  3
Sophomore Am History .....  6
Eco 233 Principles and Policies .....  3
HEc 330 Consumer Economics. .....  3
HEc 332 Advanced Nutrition .....  3
HEc 333 Food Chemistry .....  3
HEc 336 Institutional Food Service .....  .3
MM 138 Fundamentals of Supervision and Leadership .....  .3
MM 232 Human Resources Management .....  3
Elective. .....  3

## Second Year

Eng Literature .....  3
Eng Lit. or Foreign Language ..... 3
POLS 231 American Government .....  3
POLS 232 American Government II. .....  3
Psy 131 Intro to Psychology .....  3
Chin 143-144 General. ..... 8
Bio 245 Introductory Microbiology .....  4
HEc 137 Intimate Relationships:
Marriage and the Family .....  3
HEc 239 Nutrition .....  .3
HLTH 137 Health and Wellness. .....  3
Fourth Year
Eng 331 Technical Report Writing .....  3
Spc 334 Interviewing .....  3
Mth 234 Elementary Statistics. .....  .3
HEc 338 Philosophy \& Principles of Vocational Home Economics .....  .3
HEc 411 Senior Seminar ..... 1
HEc 430 Therapeutic Nutrition ..... 3
HEc 2313 Layout, Design for Food Service \& Lodging Industry .....  3
HEc 2304 Resource Control for FoodService \& Lodging Industry .3
Electives (upper level) .....  .628
Family and Community Service
Advisor: Virginia Anderson

The Family and Community Services curriculum prepares the student for a career in private and governmental agencies that serve children and families. Courses equip the student to aid individuals and families in solving problems related to personal and family relationships as well as in home management and consumer skills. Field experiences required by various courses utilize the Lamar University Early Childhood Development Center and various social agencies.

A minor in Social Work, including field experience in a social agency meets the requirements for the graduate to apply for Texas Certification as a Social Worker.

A minor in Child Development including field experience with infant and early childhood program prepares the student to work with pre-school age children in settings other than the public school.

## First Year

English Comp................................................................ 6
Math 1334 or 1336 .............................................. 3
Bio or Chem........................................................ 8
HEc 111 Foundations of Home Economics ............ 1
HEc 112 Orientation of Home Economics ............... 1
HEc 133 Visual Design......................................... 3
HEc 137 Intimate Relationships
Marriage and the Family .......................................
Psy 131 Intro of Psychology ................................................... 3
Phl 130 Philosophy of Knowledge........................ 3
PE Activity ( 2 semesters)....................................... 2

Third Year
Literature or Foreign Language................................. 3
Spc 334 Interviewing ............................................... 3
American History ...................................................... 6
HEc 330 Consumer Economics................................. 3
HEc 337 Professional Image..................................... 3
HEc 334 Adv. Child Development .......................... 3
HEc 339 Seminar in Family and Human
Relations
.. 3
HEc 2314 Child Nutrition or Upper level
Nutrition............................................................ 3
MINOR:
HEc 4314 Prenatal and Infant Development............ 3
PED 336 Children's Literature................................. 3
OR
SWK 331 Social Work Practice 1.............................. 3
SWK 333 Social Work Practice II............................. 3
Second Year
Literature ..... 3
Mth or Statistics ..... 3
POLS 231, 232 .....  6
Soc 131 Intro to Sociology ..... 3
HEc 2323 Entrepren. \& Serv. Mgt. ..... 3
HEc 231 Textiles. ..... 3
HEc 233 Early Childhood Development ..... 3
HEc 239 Nutrition .....  3
HLTH 137 Health and Wellness ..... 3
MINOR:
PED 2301 Foundations of Special Education ..... 3OR
SWK 231 Survey of the Social Welfare
Institution
Institution .....  3 .....  3 ..... 33

## Fourth Year

HEc 338 Philosophy and Principles of Vocational Home Economics. ..... 3
HEc 411 Senior Seminar ..... 1
HEc 432 Family Clothing. ..... 3
HEc 435 Consumer Housing ..... 3
HEc 4327 Parenting ..... 3
HEc 439 Resource Mgt. Systems ..... 3
Behavioral Sci. elective. ..... 3
Electives .....  6
MINOR:
HEc 4367 Internship in Home Economics ..... 3
PED 4303 Instructional Strategies for Early Childhood .....  .3
HEc 4334 Administration of Programs for Young Children ..... 3
OR
SWK 335 Social Work Practice with Target groups. ..... 3
SWK 4321 Field Experience I. .....  3
SWK 4324 Field Experience II .....  .3
33

## Fashion Retailing and Merchandising

Advisors: Dr. LeBland McAdams<br>Paula Nichols Coleta Suiter

115A HE BIdg 113A HE Bldg 106 HE Bldg

The Fashion Retailing and Merchandising specialization provides professional training for positions in fashion coordination, visual merchandising, buying and retail management. The curriculum includes on-the-job training through an internship program. Students may elect to study at the Fashion Institute of Technology in New York during their Junior year.

## Fashion Retailing and Merchandising

## First Year

Phl 130 Philosophy of Knowledge............................. 3
Eng Composition ......................................................... 6
Mth 1334 or 1336........................................................ 3
Lab Science .................................................................... 4
CS 1311....................................................................... 3
HEC 111 Found. of Home Economics........................ 1
HEC 112 Orient. to Home Economics
as a Profession.
. .1
HEc 132 Clothing Construction ............................................. 3
HEc 133 Visual Design................................................ 3
HEc 137 Intimate Relationships:
Marriage \& Family ................................................. 3
HLTH 137 Health \& Wellness........................................ 3
PE Activity (2 semesters) ............................................. 2
35

## Third Year

Speech 334.................................................................... 3
Soph. History ................................................................ 3
Acc 231 .......................................................................... 3
Pol. Sci. 232 .................................................................... 3
Mkt. 331 ........................................................................ 3
Elective........................................................................... 3
HEc 2323 Entrepreneurship \& Service Mgt ............. 3
HEc 239 Nutrition ......................................................... 3
HEc 330 Consumer Economics................................... 3
HEc 3306 Merchandising Products ............................... 3
HEc 337 Professional Image........................................ 3

## Second Year

Literature................................................................... 3
Literature or Foreign Language...........................................................................
History 233 or 234 .................................................... 3
Lab Science..................................................................... 4
Mth or Statistics ....................................................... 3
Pol. Sci. 231 ................................................................. 3
Eco 233...................................................................... 3
HEc 130 Social \& Psychological
Aspects of Clothing............................................. 3
HEc 231 Textiles....................................................... 3
HEc 232 Dress Design ............................................... 3
HEc 234 Introduction to
Fashion Retailing................................................. 3

34

## Fourth Year

Mkt 432 ..................................................................... 3
Bus. Electives (300/400) ........................................... 6
Elective....................................................................... 3
HEc 411 Senior Seminar........................................... 1
HEc 432 Family Clothing.......................................... 3
HEc 4337 Advanced Textiles.................................... 3
HEc 434 Fashion Prod. \& Distr................................. 3
HEc 436 Retail Mgmt ................................................ 3
HEc 439 Resource Mgt. Systems .............................. 3
HEc 4317 Internship in Fashion
Merchandising......................................................... 6
$\ldots$

## Interior Design

Advisors: Kathryn Camp Dr. Jane Hinchey

## 107A HE Bldg 127 HE Bldg

The Interior Design specialization provides professional training for a wide range of design problems extending from personal to public environments. The program requires a 24 hour minor in Art.

## Interior Design

## First Year

English Comp ..... 6
Math 1334 or 1336 .....  .3
HEc 111 Foundations of Home Economics ..... 1
HEc 112 Orientation to Home Economics ..... 1
HEc 133 Visual Design .....  3
HEc 137 Intimate Relationships:
Marriage and the Family .....  3
Art 131 Drawing I ..... 3
Art 132 Drawing II. .....  3
Art 134 Design II ..... 3
Egr 135 Arch. Graphics ..... 3
Phl 130 Philosophy of Knowledge .....  3
PE Activity (2 semesters) .....  2
Literature or Foreign Language. ..... 3
POLS 231, 232 ..... 6
Math or Statistics. .....  3
HEc 2323 Entrepreneurship Serv. Mgt. ..... 3
HEc Textiles. .....  3
HEc 2307 History of Arch. and ID ..... 3
HEc 2327 Contemp. Arch. and ID ..... 3
HEc 237 Fundamentals of ID: Studio I .....  3
Phy 144 Conceptual Physics. ..... 4
HLTH 137 Health and Wellness ..... 3
Third Year
Acc 231 Principles of Accounting3
HEc 330 Consumer Economics ..... 3
His 233 Am History - Dev. of Society .....  3
His 234 Am History - Arts in America .....  .3
Spc 334 Interviewing .....  3
Lab Sci. .....  4
HEc 239 Nutrition ..... 3
HEc 335 Housing, Furnishings, and Space Planning .....  3
HEc 3305 Commercial Interiors Studio II .....  3
HEc 3327 Treatments of ID .....  3
Art 3313 Illustration I .....  3
34

## Fourth Year

HEc 411 Senior Seminar ............................................ 1
HEc 4305 Advanced ID: Studio III............................. 3
HEc 433 Equipment and Layout................................ 3
HEc 4347 Internship in ID........................................... 3
HEc 439 Resource Mgt, Systems ................................ 3
HEc 337 Professional Image......................................... 3
HEc 436 Retail Mgt........................................................ 3
Egr 4301 Special Topics
Art History el: 235 or 236 ; or $4358,4368,4388 \ldots . .6$
Art elective.
.. 6


## Restaurant/Institutional Food Management

| Advisors: Dr. Lee Thompson | 119 HE Bldg |
| :--- | :--- |
| Connie Elliff | $\mathbf{1 0 2 ~ H E ~ B l d g ~}$ |

The Restaurant and Institutional Food Management program is designed to provide students with the competencies they need to succeed in and contribute to the Restaurant and Hotel industry, an industry that continues to realize a shortage of management talent resulting from a growing Travel and Tourism Industry. A bachelors degree in RIFM will qualify the student for a wide variety of careers in what is known as the Hospitality Industry, including management positions in the following: Hotels/Motels, Restaurants, Resorts, Private Clubs, Catering Operations, Hospital Foodservice, School Foodservice, Rail Feeding (AMTRAK), Cruise Ship Dining, as well as, vendors supplying these activities. A number of scholarships are available from the Sabine Restaurant Association, as well as, the national and state restaurant associations.
First Year
Eng Composition .6
Mth 1334 College Algebra. .....  3
Phl 130 Philosophy of Knowledge ..... 3
HEc 111 Foundations of Home Economics ..... 1
HEc 112 Orient. to Home Economics as a Profession .....  1
HEc 131 Basic Foods .....  3
HEc 1302 Intro to Hospitality Industry. .....  3
HEc 133 Visual Design .....  3
HEc 137 Intimate Relationships:
Marriage and Family. .....  3
Hlth 137 Health and Wellness ..... 3
PE Activity ( 2 semesters) ..... 2
Third Year
Acc 231-232 Principles of Accounting ..... 6
POLS 231, 232 ..... 6
American History (Soph) .....  6
HEc 330 Consumer Economics ..... 3
HEc 1303 Purchasing for the Food Service \& Lodging Industry ..... 3
HEc 2313 Layout, \& Design for the Food Service \& Lodging Industry .....  3
BLW 331 Business Law .....  3
CS 1311 Microcomputers I ..... 3

## Second Year

Eng Literature ............................................................ 3
Phy 144 Conceptual Physics ..... 4
Laboratory Science Elective ..... 4
Eco 233 Prin. and Policies .....  .3
Mth 234 Statistics or Equivalent .....  3
HEc 1301 Sanitation and Safety in Food Service .....  3
HEc 239 Nutrition ..... 3
HEc 231 Textiles .....  3
HEc 2301-2302 Quantity Food Service Systems Management .....  .6
HEc 2305 Internship in RIFM .....  3
PE Activity ( 2 semesters) .....  237
Fourth Year
Mgt 331 Principles of Mgt .....  3
Mkt 331 Principles of Marketing .....  3
Mgt 333 Personnel mgt .....  3
HEc 2304 Resource Control for the
Food Service \& Lodging Industry ..... 3
HEc 3304 Travel and Tourism .....  3
HEc 4307 Management Internship in RIFM ..... 3
HEc 4357 Operational Analysis for Hospitality Organizations ..... 3
HEc 1304 Lodging Orientation and Front Office Procedures .....  3
HEc 411 Senior Seminar ..... 1
Foreign Language Spoken by a Developed Nation.. 3Electives 300/400 Level6

# Associate of Applied Science Degree in Restaurant/Institutional Food Management 

Advisors: Dr. Lee Thompson Amy Pemberton<br>119 HE Bldg<br>123 HE Bldg

This program is designed to prepare students for entry-level supervisory positions in the various segments of the food service industry. A number of scholarships for students who wish to enroll in this program have been made available by the Texas Restaurant Association and others: The AAS Degree requirements are spaced over a two-year period. Students planning to continue their education with the Bachelor of Science Degree Program in Restaurant/Institutional Food Management should consult an advisor concerning degree requirements.

## First Year

| Semester 1 | Semester 2 |
| :---: | :---: |
| HEc 131 Basic Foods.......................................... 3 | HEc 1304 Lodging Orientation and |
| HEc 1301 Food Sanitation \& Safety ...................... 3 | Front Office Procedures................................... 3 |
| HEc 1302 Intro to the Hospitality Industry ............ 3 | HEc 2322 Beverage Management......................... 3 |
| HEc 1303 Purchasing for the Food and Lodging Industry . 3 | HEc 137 Intimate Relationships: <br> Marriage and the Family |
| HEc 239 Nutrition .............................................. 3 | Math 1334 College Algebra or |
| Eng 131 Composition or BC 132 | TM 134 Business Mathmetics........................... 3 |
| Business Communications ............................... 3 | MM 138 Fundamentals of Supervision \& L.eadership or HEc 2323 Entrepreneurship \& Service Management $\qquad$ |
| . | HEc Elective....................................................... 3 |
| 18 | 18 |

## Second Year

| Semester 1 | Semester 2 |
| :---: | :---: |
| HEc 2103 Food Service Mgt. Seminar .................. 1 | Spc 131. |
| HEc 2301/2302 Quántity Food Systems Mgt I-II ..... 6 | Eco 233 or MM 132 Free-Enterprise ..................... 3 |
| HEc 2304 Resource Control for the Food | MM 232 Human Rescurces Mgt ........................... 3 |
| and Lodging Industry ...................................... 3 | HEc Elective....................................................... 3 |
| HEc 2305 Internship for RIFM ............................ 3 | Psy 131 Intro to Psy or IS 1312 |
| CS 1311 Micro-Computers I or BDP 133 | Applied Supervision....................................... 3 |
| Intro to Data Processing.................................. 3 | HEc 2313 Layout and Design for the Food Service \& Lodging Industry. |
| 16 |  |

## Home Economics Courses (HEc)

111 Foundations of Home Economics ..... 1:1:0Introduction to Home Economics as a discipline. History, root disciplines and philosophy will be explored.Registration required the first Fall semester of enrollment in a home economics program.
112 Orientation to Home Economics as a Profession ..... 1:1:0
An overview of the home economics profession which includes contact with professionals in varied careers. Registration required the first Spring semester of enrollment in a home economics program.
1205 Supervised Field Experience 1 ..... 2:A:0Provides the students with "hands on" experience in all aspects of food service operations, and in key areas ofhotel operations.
130 Social Aspects of Clothing ..... 3:3:0
An interdisciplinary approach to clothing emphasizing the cultural, psychological, sociological and economical aspects of wearing apparel.
1301 Sanitation and Safety in Food Service ..... 3:3:0
Study of sanitation and safety standards and procedures in food service.
1302 Intro to the Hospitality Industry ..... 3:3:3An overview of the restaurant and hotel industry from a management perspective. Topics addressed encompassopportunities existing in the tourism industry, including restaurant and hotel management, the manager's roleand lifestyle, competencies required, current trends and issues, and basic service management models.
1303 Purchasing for the Food Service and Lodging Industry ..... 3:3:0The study of procedures for purchasing, handling, and storing foods and other material utilized by hospitalityorganizations.
1304 Lodging Orientation and Front Office Procedure ..... 3:3:0
A survey of the lodging industry to include its history, growth and development, and future direction. Emphasison front office procedures and interpersonal dynamics from reservations through the night audit. May result inan American Hotel \& Motel Association certification.
131 Basic Foods ..... 3:2:4
Study of food science principles and their application in the preparation of foods and food products.?A study of basic construction techniques for making garments of professional quality. Students learn to customfit commercial patterns.
133 Visual Design ..... 3:2:3
Study of art elements with experiences in applying the principles of design. Develops an appreciation of naturaland man-made designs in the daily environment.
137 Intimate Relationships: Marriage and the Family ..... 3:3:0
A study of the individual and the family. Special emphasis on individual development, sexuality, tasks of marriageand parenting skills in relation to the family life cycle.
138 Principles of Nutrition ..... 3:3:0Basic principles of nutrition in health and disease.$\mathbf{2 1 0 3}$ Restaurant and Institutional Food Management Seminar 1:1:0A study of current topics of interest to hospitality managers.
230 Computers for Home Economics ..... 3:3:0Emphasis given to the effect of computers on family, community, school and business community. Designed tointroduce students to skills necessary for computer literacy.
2301 Quantity Food Service Systems Management I ..... 3:1:5
A study of and practical experience in all PRODUCTION functions associated with creating a quality diningexperience for a defined market. This course is to be taken with HEc 2302. (Prerequisite: HEc 131, Corequisite:HEc 2302)
2302 Quantity Food Service Systems Management II ..... 3:1:5
A study of and practical experience in all SERVICE functions associated with creating a quality dining experiencefor a defined market. This course is to be taken with HEc 2301. (Prerequisite: HEc 131, Corequisite: HEc 2301)
2304 Resource Control for the Food Service and Lodging Industry3:3:0
A study of techniques utilized in controlling resources in the food service and lodging industries. (Prerequisite:Completion of Mathematics requirement or permission of the instructor.)
2305 Internship in Restaurant and Institutional Food Management ..... 3:A:0A supervised field experience in the food service and lodging industry.
3:3:0 2307 History of Architecture and Interior Design ..... 3:3:0
A study of period design in architecture, interiors and furnishings from antiquity to the 20 th Century.3:3:0
Study of artistic presentation of food items including entrees, side dishes, baked products and desserts.
2313 Layout, \& Design for the Food Service and Lodging Industry ..... 3:3:0
A study of the principles of layout and design, including the selection and maintenance of related equipment,and techniques for improving productivity in a service-oriented environment. (Prerequisite: Completion of HEc2301/2 or permission of the instructor.)
2314 Child Nutrition ..... 3:3:0
Study of nutritional needs from birth through adolescence; emphasis on menu planning for groups of children.
2315 Workshop In RIFM ..... 3:3:0Intended to provide RIFM students with an opportunity to pursue industry related research interests or learningexperiences not made available elsewhere in the curriculum.
231 Textiles ..... 3:3:0
A study of the physical and chemical properties of textiles. Emphasis on consumer selection and care of fabrics.
2322 Beverage Management ..... 3:3:0A survey of the beverage service sector of the hospitality industry to include a descriptive review of spirits, wines,and beers, mixology, purchasing, resource control, marketing, physical plant requirements, and staffing.
2323 Entrepreneurship \& Service Mgt ..... 3:3:0An exploration of the research and models utilized by contemporary managers in effecting excellence in theoutput of service organizations. Designed for those especially interested in entrepreneurship, as well as, intra-preneurship.
2327 Contemporary Architecture and Interior Design ..... 3:3:0A study of the classical, organic and post modern designs in architecture, interiors, and furnishing in the 20thCentury.
232 Pattern Design ..... 3:2:3
-The study of basic principles of flat pattern designing with emphasis on development of creative designs throughthe use of the flat pattern.Prerequisite: HEC 132 or satisfactory score on the pre-test for HEC 132.
233 Early Childhood Development ..... 3:3:0A study of the young child as a basis for understanding the dynamics of child growth and development withemphasis on education for parenthood.
Introduction to Fashion Retailing3:3:03:3:0An introductory study of the contemporary aspects of retailing with application to fashion merchandising \&retailing.
235 Independent Study in Restaurant and Institutional Food Management ..... 3:3:0
Designed to afford independent learning experiences for RIFM students. Under supervision, the student pursuesthe study of individual interests in the area of restaurant or lodging management.
237 Fundamentals of Interior Design: Studio I ..... 3:2:4
Visual and verbal communication as related to the interior design profession. Emphasis on presentation analysisand techniques, use of media, design development, individual and/or group creative design problem solving.Prerequisites: :HEc 2327, Egr 135
239 Nutrition ..... 3:3:0
Study of the nutritional needs of the body and proper selection of foods to meet these needs throughout the lifecycle.
2315 Supervised Field Experience III ..... 4:A:0Minimum of 200 hours supervised field experience in food service management.330 Consumer Economics3:3:0
Consumer principles and rational decision-making skills for coping with consumer issues affecting families andindividuals.
3304 Travel and Tourism ..... 3:3:0This course is designed to recount the history of travel, explore its future, and discuss the role of the componentsof Tourism. The student is given an opportunity to examine the economic, social, and political impacts of Tourismas well as methods of forecasting demand. Focus is on the importance of the planner, the travel agent, and thetravel-market researcher to hospitality organizations.
3305 Commercial Interiors: Studio II ..... 3:2:4
Studio experiences dealing with small to medium commercial building construction, materials, environmentalcontrols, and interior furnishings. Group creative problem solving.
Prerequisites: HEc 3327, Art 3313 or permission of instructor
3306 Products Merchandising ..... 3:3:0
A study of textile and non-textile-products. Special emphasis on housewares, furniture, accessories, home fur-nishings, and appliances.
331 Clothing Selection ..... 3:3:0Consumer skills in wardrobe planning and apparel purchasing with emphasis on career dressing based on lifestyle,figure and color analysis, personality and image.
332 Advanced Nutrition ..... 3:3:0The advanced study of normal nutrition including digestion, absorbtion, and metabolism of proteins, carbohy.drates, lipids, vitamins and minerals.
Prerequisites: HEc 239 or HEc 138, Bio 143-144, Chm 143-144
3327 Treatments of Interior Design ..... 3:2:3
A study of materials and technology applied to interior environments. An introduction to practices and procedures of interior design.
Prerequisite: HEc 133, 231
333 Food Chemistry ..... 3:3:0
An introduction to the properties and metabolism of amino acids, enzymes, hormones, proteins, nucleic acids, carbohydrates, lipids, vitamins and minerals with an emphasis on their metabolic interrelationships in health and disease.
Prerequisite: Chm 143 and 144.
334 Adv. Child Development 3:2:3
Parenting skills and Nursery School organization and procedures developed through observation and participation experience with children under five.
Prerequisite: HEc 233.

A study based on an understanding of design in architecture and furniture; design principles; creative problem solving and financial planning related to choice of home and furnishings to meet individual needs.
Prerequisite: HEC 133.
336 Institutional Food Service 3:2:3
Overview of quantity food service. Emphasis on food sanitation; menu planning; institutional equipment; purchasing, receiving, storing, issuing and serving food; preparation techniques.
Prerequisite: HEc 131.
337 Professional Image 3:3:0 Basic management concepts as applied to individual and professional development.
338 Philosophy and Principles of Vocational Home Economics 3:3:0
Interpretation of home economics as a discipline concerned with quality of life for families and individuals. Provides experiential foundation for developing sound instructional programs in varied settings.
339 Seminar in Family and Human Relations $\quad$ 3:3:0 and life styles; community resources; and family life education.
411 Senior Seminar 1:1:0
A reading-discussion course concerned with current issues in home economics.
431 Special Topics
3:3:0
Special topics including workshops and institutes in home economics. A description of the particular area of study will appear on the printed semester schedule. May be repeated for a maximum of six semester hours when the area of study is different.
A. Clothing/Textiles/Merchandising
B. Family Relations/Child Development
C. Food/Nutrition
D. Home Economics Education
E. Housing/Home Furnishings/Interior Design
F. Home Management/Equipment/Consumer Economics
G. Hospitality Industry

430 Therapeutic Nutrition
3:3:2
Biochemical changes in diseases, particularly those of nutritional origin; prevention, and the dietary modifications for their correction. Special emphasis on patient care, rehabilitation and nutrition education.
Prerequisite: HEc 239 or HEc 138, Bio 143-144.
4305 Advanced Interior Design: Studio III
3:2:4
Studio experiences analyzing, developing, and evaluating complex interior environments. Individual and/or group creative problem solving. Application of business practices and ethics in interior design.
Prerequisite: HEC 3305
4307 Management Internship in Restaurant and Institutional Food Management 3:A:0
A supervised working experience in hospitality management.
Prerequisites: Completion of Mgt 331, HEC 2301/2, and HEC 2304 or permission of the instructor.)
4308 The Worid of Work Seminar
3:2:1
A comprehensive study of competencies related to home economics related occupations and careers. Supervised field experiences of at least 15 hours in selected vocational home economics settings.
4313 Prenatal and Infant Development 3:3:0
Study of physical, social, emotional and cognitive development from conception to age two.
4317 Internship in Fashion Merchandising.
3:A:0
Supervised work experience of at least 20 hours a week for eight weeks or its equivalent in sales experience and management training in a retail firm. Weekly conference and/or seminar will be required.
Prerequisite: Senior standing and consent of instructor. Advanced registration required. May be repeated with varied experiences for a maximum of six hours credit.
432 Family Clothing 3:3:0
A study of cultural, functional and technological aspects of textiles and clothing with emphasis on clothing consumption needs during various stages of the family life cycle.
Prerequisite: Junior or senior standing.
4327 Parenting
3:A:0
A study of the importance of family relationships in the development of the child and individual behavior. Specific study of parenting skills, interaction between parent and child, interrelationships between family and larger community.

Selection, use and care of basic residential equipment; adapting work centers to individual needs and demonstration techniques.
4334 Administration of Programs for Young Children 3:3:0 Principles and practices of administration for daycare, pre-school and other programs for young children.
4337 Advanced Textiles
3:3:0
A study of consumer merchandising aspects of textiles. Includes selecting appropriate fabrics for apparel and home furnishings, testing fabrics, textile specifications, and the textile industry.

## 434 Fashion Production and Distribution

 3:3:0A Study of the textile and apparel industry with emphasis on the production, distribution and marketing of products. Includes off campus experiences through field trips.
4347 Internship in Interior Design 3:A:0
Supervised work experience of at least 20 hours a week for eight weeks or its equivalent with interior designer, architect, home or office furnishings firm, speciality shop, research and restoration. Weekly seminar on objectives, practices, procedures and ethics for the professional interior designer.
Prerequisite: Senior standing and consent of the instructor. Advanced registration required. May be repeated with varied experiences for a maximum of six hours credit.
435 Consumer Housing
3:3:0
A study of the home as the environment that shapes human lives. Designed to create an awareness of the social responsibilities related to housing and to provide experiences associated with planning and selecting suitable homes.
4357 Operational Analysis for Hospitality Organizations
3:3:0
Designed to develop and/or refine those competencies needed to solve practical management problems in the Hospitality Industry utilizing a structured approach to problem solving. Integrates principles learned in previous Liberal Arts, Business, and Hospitality courses into the decision making process.
(Prerequisites: Completion of all RJFM and Business courses or permission of the instructor.)
436 Retail Management 3:3:0
Principles and methods: problems of store location and layout, sales promotion, buying, pricing, selling, personnel management, credit, and stock control.
4367 Internship in Home Economics 3:A:0
Supervised work experience of at least 20 hours a week for eight weeks or its equivaleut in a Home Ecouomics related occupation. Weekly conference andior seminar will be required,
Prerequisite: Senior standing and consent of instructor. Advanced registration required. May be repeated with varied experiences for a maximum of six hours credit.
437 Individual Problems in Home Economics 3:A:0
Designed to afford research opportunities and work experience for senior students. Under supervision, the students pursue individual interests in the profession of home economics.
Advance registration required. May be repeated with varied experience for up to six hours credit.
438 Career Development Strategies in Home Economics
3:3:0
Consideration of effective strategies designed to develop and integrate essential elements for vocational home economics programs.
Prerequisites: HEc 338, HEc 4308 or consent of professor.
$\mathbf{4 3 9}$ Resource Mgt. Systems
A conceptual study of philosophies and principles of resource management. Practical application through individual and group problems.
Prerequisite: 24 hours in Home Economics or permission of instructor.
462 Student Teaching in Home Economics 6:A;0
Supervised observation and teaching in a vocational home economics classroom.
Prerequisite:HEc 438. Class: six hours in an approved vocational program five days per week for eight weeks. Advanced regislration required.


Students in the College of Engineering work with this artificial vision system and other examples of state-of-the art high technology.

## College of Engineering

Departments: Chemical Engineering, Civil Engineering, Computer Science, Electrical Engineering, Industrial Engineering, Mathematics and Mechanical Engineering

Fred M. Young, P.E., Ph.D., Dean

## Annie Sue Green, Engineering Advisor <br> Susan Wiemers, Undergraduate Advisor for Computer Science

## Degrees

## Computer Science

B.S., Bachelor of Science, Computer Science
B.S., Bachelor of Science, Computer
and Information Science

## Engineering

B.S., Bachelor of Science, Chemical Engineering
B.S., Bachelor of Science, Civil Engineering
B.S., Bachelor of Science, Electrical Engineering
B.S., Bachelor of Science, Industrial Engineering
B.S., Bachelor of Science, Mechanical Engineering

## Mathematics

B.A., Bachelor of Arts
B.S., Bachelor of Science

2006 Cherry Engineering Bldg. Phone 880-8741
2608 Cherry Engineering Bldg. Phone 880-8810 201B Maes Bldg. Phone 880-8004

M.S., Master of Science, Computer Science

B.S., Bachelor of Science, Industrial Technology<br>M.S., Master of Engineering Science<br>M.E., Master of Engineering<br>M.E.M., Master of Engineering Management<br>D.E., Doctor of Engineering

Each department in the College of Engineering is associated with the chapter of its national honor society which include: Alpha Pi Mu, Chi Epsilon, Eta Kappa Nu, Omega Chi Epsilon, Pi Mu Epsilon, Pi Tau Sigma, Tau Beta Pi, and Upsilon Pi Epsilon.

## Cooperative Education Program

A Cooperative (Co-op) Education Program, in which the student spends alternate terms at work and at study, is offered to qualified students in the College of Engineering. Programs are available for computer science, engineering, industrial technology, and mathematics students.

To meet the minimum qualifications for the Co-op program a student must have:

1. Completed all the work in the first two semesters of the degree program.
2. At least a 2.5 over-all grade point average for engineering and mathematics or 3.0 over-all G.P.A. for computer science.

To remain in the program, the student must maintain a grade point average above a 2.5 and perform in a manner satisfactory to the employer and Lamar University.

A co-op is considered to be a full-time student during any work term in which the co-op is registered for Career Development. By participating in the Co-op program throughout the Sophomore and Junior years a student extends the time required to obtain a degree to five years. However, in doing so, he gains the equivalent of almost two years experience in industry.

A student may apply for admission to the Co-op program through the Engineering Cooperative Education Office.

## Engineering Programs

The five undergraduate curricula in engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. The Accreditation board for Engineering and Technology defines engineering as "the profession in which a knowledge of the mathematical and natural sciences gained by study, experience and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind." Clearly, from this definition, engineers are to form the interface between science and society as they apply, in realistic terms, the findings of science.

## Entrance Requirements

Entering Freshmen and new transfer students are considered provisional majors. The Coilege of Engineering Advisement Center is responsible for the academic advisement of provisional engineering majors.

The entrance requirements from high school for engineering degree programs are:

| 1. | English . | 4 units |
| :---: | :---: | :---: |
| 2. | Mathematics | 2 units |
|  | Algebra. |  |
|  | Trigonometry .. | 1/2 unit |
| 3. | Natural Sciences | 1 unit |
|  | Chemistry.. |  |
|  | Physics.................................................. | 1 unit |
| 4. | Social Sciences. | 2 units |
| 5. | Electives........ | $3^{1 / 2}$ units |
| 6. | Foreign Language | 1 unit |
|  | Total............................................ | 15 units |

Students who meet the general entrance requirements of the University, but lack in specific requirements for the engineering curricula may, upon approval of the dean, be permitted to enroll in the College of Engineering; however, all deficiencies must be removed before the end of the second academic year. Students having entrance deficiencies or weaknesses are urged to use the summer terms preceding the Freshman year in college to remove them. Students attaining a sufficiently high grade in the CEEB Mathematics Level I exam may be eligible for advanced placement in the Calculus and Analytic Geometry sequence. These tests are administered during the freshmen orientation periods and during the regular registration periods.

Transfer students are required to have a minimum 2.0 GPA on all work attempted before entering the College of Engineering. Normally transfer credit is considered for course work with a grade of " C " or better.

## Standards

In addition to the University requirements, the College of Engineering enforces the following standards:

1. Students are required to take courses in the sequence shown in the University Bulletin for each degree program.
2. Engineering students are expected to maintain a GPA of 2.25 to remain in a program. Students who drop below 2.25 GPA will be placed on probation (maximum load of 13 semester hours). Students who drop below a 2.0 GPA will be suspended from the College of Engineering for one long term. Students returning from suspension must prepare a performance contract in consultation with their academic advisor. A minimum term of the contract requires the
student to remove deficiencies every semester of enrollment. Students who fail to meet the terms of their contract will be permanently suspended.
3. Engineering students are expected to maintain a minimum GPA of 2.0 in their major courses (Any course with an Engineering prefix.) A performance contract with the student's department head is required for continued enrollment.
4. Degree credit is normally allowed only for courses in which a grade of "C" or better is earned. A course may be repeated for additional credit toward a degree only as specified by the official course description in the University Bulletin. Excluding courses which may be taken for additional credit toward a degree, a student may not register for any course more than four times. Any student who wishes to repeat a course must do so before completing a more advanced course in the same subject matter field.
5. Upon the completion of at least 51 semester hours of the Common Program with a GPA of 2.25 or more on all required courses, a student will be considered for admission to an engineering program. For all engineering programs, it is required that 45 semester hours (at least 25 semester hours in engineering at the 300 and 400 level) be earned after admission to the professional program.
6. All electives must be approved by the student's advisor.

The Dean of Engineering may require students to meet the current degree requirements or program standards.

## Engineering Core Program

First Semester
ENG 131 Composition............................................. 3
MTH 148 Calculus I......................................................... 4
CHM 141 Chemisiry.4

EGR 114 Engineering Graphics......................................... 1
EGR 111 Engineering Orientation ............................. 1
PHIL 130 Philosophy of Knowledge ......................... 3
PE Physical Education ............................................. 2 18

## Third Semester

MTH 241 Calculus III................................................ 4
EGR 234 Thermodynamics ....................................... 3
PHY 248 Physics II................................................... 4
EGR 230 Statics ........................................................ 3
EGR 223 Engineering Economics ............................. 2
EGR 1221 Fortran ........................................................ 2
ENG 13x Composition .....  3
MTH 149 Calculus II. ..... 4
EGR 1121 Intro to Computer Prog, .....  1
PHY 247 Physics I ..... 4
Selected by Major (1). ..... 3-4
PE Physical Education .....  2
17-18
Fourth Semester
Selected by major (2). ..... 6-9
EGR 233 Circuits .....  3
EGR 231 Dynamics .....  3
MTH 3401 Diff. Equa. .....  4
Notes

| (1) | ChE | CHM 142 |
| :--- | :--- | :--- |
|  | CE | HLPH 137 |
|  | EE | HLPH 137 |
|  | IE | IE 330 |
|  | ME | HIS 231 |
|  | ChE | CHM 241, ChE 334 |
|  | CE | CE 232, Statistics Elective, History Elective |
|  | EE | EE 217, English Literature, Fine Arts |
|  | IE | IE 338, IE 336 |
|  | ME | HIS 232, IE 222, CE 232 |

## Engineering Courses (Egr)

111 Introduction to Engineering ..... 1:1:0
History of engineering, philosophy of engineering practice, the electronic calculator and analysis of the problems of being an engineering student.
1121 Introduction to Camputers I

| 114 | Engineering Graphics I 1:0:3 |
| :---: | :---: |
|  | Principles of orthographic projection combined with descriptive geometry to solve space problems graphically. Lettering and drafting techniques emphasized. |
| 1221 | Introduction to Computers II $\quad$ 2:2:0 |
|  | Flow charting, digital computers, FORTRAN, FORTRAN programming. |
|  | Prerequisite: Egr 1121 |
| 135 | Architectural Graphics for Interior Design |
|  | Designed to provide students with the basics of architecture necessary to prepare layouts, general specifications, traffic patterns, plans and elevations, and other subjects required to design modern homes, townhouses, condominiums, and general commercial facilities. Modular design will be stressed to take advantage of the standardization within the building industry. |
| 210 | Introduction to Computer Aided Design 1:0:3 |
|  | An introduction to computer aided design, elementary graphics, display, data input and output. Prerequisite: Mth 241 or concurrent, Egr 1121, Egr 230. |
| 215 | Engineering Graphics II 1:0:3 |
|  | Descriptive geometry, an introduction to computer graphics, and special problems approved by the instructor. Prerequisite: Egr 114 and Egr 1121 |
| 223 | Engineering Economics 2:3:0 |
|  | The time value of economic resources, engineering project investment analysis, effect of taxes on engineering project decisions. |
|  | Prerequisite: Mth 148, Egr 1121 or Egr 1221. |
| 230 | Statics 3:3:0 |
|  | Statics of particles and rigid bodies. Use is made of basic physics, calculus and vector algebra. |
|  | Prerequisite: Physics 247. |
| 231 | Dynamics • • 3:3:0 |
|  | Kinematics of rigid bodies, kinetics of rigid bodies, work and energy, impulse and momentum. |
|  | Prerequisite: Egr 230 or equivalent, Mth 241 or concurrent. |
| 233 | Circuits I 3:3:0 |
|  | Linear network analysis. Fundamental network laws and methods. Transient response. Sinusoidal steady state analysis and response. |
|  | Prerequisite: Mth 149, Phy 248, Egr 1221, Eng Composition (six hrs). |
| 234 | Thermodynamics 3:3:0 |
|  | The fundamental laws of thermodynamics; properties of systems solids, gases and liquids and thermodynamic tables. |
|  | Prerequisite: Phy 247; Mth 241 or concurrent. |
| 236 | Career Development I 3:3:0 |
|  | Comprehensive treatment of career-related special assignments and projects. |
|  | Prerequisite: Approval of academic dean. |
| 237 | Career Development II 3:3:0 |
|  | Comprehensive treatment of career-related special assignments and projects. |
|  | Prerequisite: Egr 236. |
| 330 | Energy and Society 3:3:0 |
|  | Principles and practices of energy engineering are surveyed and used as background for understanding how energy and the environment are related to the industrial, business, economic, political and public sectors of society. Designed for students not enrolled in engineering, the course may not be used for credit toward any engineering degree. |
|  | Prerequisite: Junjor standing. |
| 335 | Computer Aided Design 3:3:0 |
|  | Course stresses two- and three-dimensional applications on the CAD system. Elementary two-dimensional geometric design: Advanced two-dimensional geometric design and application. Three-dimensional curve, surface and solid design with three-dimensional geometric analysis: Design optimization and interfacing computer aided design and computer aided manufacturing. |
|  | Prerequisite: Junior standing (admitted into a professional engineering program). |
| 336 | Career Development III $\quad$ 3:3:0 |
|  | Comprehensive treatment of career-related special assignments and projects. |
|  | Prerequisite: Egr 237. |
| 337 | Career Development IV 3:3:0 |
|  | Comprehensive treatment of career-related special assignments and projects. Prerequisite: Egr 336 |
| 4101, | 4201, 4301, 4401 Special Topics 1-4:A:0 |
|  | An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ. |

A study of AM, FM and pulse width modulation for telemetry of data and use of analog and digital computers for storing and analyzing the data.
Career Development V
3:3:0
Comprehensive treatment of career-related special assignments and projects.
Prerequisite: Egr 337.

# Department of Computer Science 

Department Chair: Ronald S. King
Professors: McGuire, Nylin, Read, Waldron
Associate Professors: Harvill, Jordan, Koh
Assistant Professor: Foreman, Harris
Lecturer: Wiemers
Laboratory Supervisor: McNeely

## Bachelor of Science - Computer Science

The Computer Science program at Lamar is a broad-based program in Computer Science emphasizing the areas of programming languages, data structures, information systems theory of programming languages, compiler theory, applications of Computer Science and computer architecture. The program requires 42 hours in Computer Science, 18 hours in an area of specialization, 18 to 20 hours in mathematics, six hours in business, eight hours in laboratory science, six-to-eight hours in free electives as well as the general University requirements for a bachelor's degree. The student who completes this four-year academic program is awarded a Bachelor of Science degree in Computer Science and is well prepared to pursue a professional career as a Computer Scientist, or to pursue graduate work in computer science or in an area of specialization.

## Computer Science Academic Standards

1. No course can be counted towards the Bachelor of Science degree in Computer Science if a grade of less than a " C " is made in the course, except in an unusual case with the approval of the undergraduate advisor or the department head.
2. Students must make a grade of "C" or better in all prerequisite courses for a given course before that course may be taken. This applies to both computer science majors and non-computer science majors who desire to enroll in a computer science course.
3. Students whose grade point average falls below 2.3 will be placed on departmental probation and will be suspended from the Computer Science Department, if they do not regain an overall grade point average of 2.3 within one long semester.
4. Students on departmental probation may not take more than 12 academic hours or 13 academic hours provided a laboratory course is included per long semester.

## Computing Laboratories

The computing laboratories of the Department of Computer Science are located on the first and second floors of the west wing of the Maes Building. There are five laboratories, each containing 24 workstations and several special purpose laboratories with specialized workstations for artificial intelligence, computer graphics, and software engineering. The Department also has two lectoriums and eight classrooms for instructional purposes. All classrooms, lectoriums, and laboratories are equipped with state-of-the-art computer equipment and state-of-the-art teaching aids such as computer monitors in the ceiling to permit students to see what is displayed on the instructor's microcomputer/terminal located on the teacher's station. These laboratories are open
seven days a week for approximately 80 hours to permit students to have free access to them. When not used as scheduled laboratories, all laboratories are open for use by students in Computer Science.

In addition, students in the department have access to the University's computing system which is a medium size mainframe with a large variety of terminals and other peripheral equipment.

## Requirements for becoming a Computer Science Major

First semester students should have a combined score of 850 or greater on the SAT test or equivalent ACT test score, or rank in the upper one third of their graduating class.

Students who have already earned academic credit from another college or university should have a combined score of 850 or greater on the SAT test or rank in the upper one third of their graduating class and have at least an overall grade point average of 2.3 on all academic work, or must have completed at least 30 academic semester hours with an overall grade point average of 2.3 or better.

## Requirements for a Teacher's Certificate in Computer Science

The Computer Science courses required for a teacher's certificate are CS 1411, CS 1413, CS 2313, CS 3301, CS 4305, CS 4321, CS 4306, and CS 4101.

For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.

## Requirements for a Minor in Computer Science

CS 1411, CS 1413, CS 2313, CS 2411, plus nine additional hours taken from 300/ 3000 and/or 400/4000 level courses.

## Bachelor of Science-Computer Science <br> Recommended Program of Study

| First Year |  |
| :---: | :---: |
| First Semester | Second Semester |
| CS 1411 Principles of Computer Science I............ 4 | CS 1413 Principles of Computer Science II........... 4 |
| English Composition .......................................... 3 | English Composition .......................................... 3 |
| Mth 1345.......................................................... 3 | Mth 148........................................................4-3 |
| His 231 ............................................................. 3 | His 232 ............................................................. 3 |
| PHL 130............................................................ 3 | Eco 131............................................................ 3 |
| PE................................................................... 2 | PE.................................................................... 2 |
| 18 | 19 |
| Second Year |  |
| First Semester | Second Semester |
| CS 2313 Digital Computer Systems....................... 3 | CS 2411 COBOL, Programming............................ 4 |
| Mth 149.........................................................4-3 | Mth 233......................................................... 3 |
| Lab Science...................................................... 4 | Lab Science....................................................... 4 |
| POLS 231 .......................................................... 3 | English Literature ............................................ 3 |
| Fine Arts ........................................................... 3 | HLTH 137.......................................................... 3 |
| 17 | 17 |

Third Year
First Semester
CS Elective .....  .3
CS Elective .....  3
Mth 234/3370 ..... 3
Specialization ..... 3
LIT/Foriegn Lang.
Second Semester
CS Elective ..... 3
CS Elective .....  3
Mth 4315/331 .....  3
Specialization ..... 3
Specialization ..... 3

## Fourth Year

| First Semester | Second Semester |
| :---: | :---: |
| CS Elective........................................................ 3 | CS Elective........................................................ 3 |
| CS Elective........................................................ 3 | CS Elective....................................................... 3 |
| CS 431 ............................................................. 3 | Specialization ................................................... 3 |
| Specialization ................................................... 3 | POLS 232 ......................................................... 3 |
| Specialization ................................................... 3 | Spe 131........................................................... 3 |
| 15 | 15 |

Total Hours 128

## Comments:

1. An area of specialization is chosen by the student and consists of at least 18 semester credit hours which must be approved by the undergraduate advisor.
2. Students whose area of specialization is Engineering must take Phy 247 and Phy 248 as their lab science.
3. CS electives must be chosen from the following groups with at least six hours taken from each group:

Group 1: CS 3307, CS 4306, CS 4309, CS 4311, CS 4312, CS 4321, CS 4319
Group 2: CS 3305, CS 4302, CS 4305, CS 4310
Group 3: CS 3301, CS 4307, CS 4308, CS 4317
4. No more than two semester hours of PE activities will count toward the degree in Computer Science.
5. CS 1311 is a deficiency course for entering Freshman who are not familiar with computers.
6. Lab Science courses must be chosen from:

Bio 141 and Bio 142; Chm 141 and Chm 142; Geo 141 and Geo 142; or Phy 141 and Phy 142.

## Bachelor of Science - Computer and Information Sciences

The Computer and Information Sciences program encompasses the areas of systems analysis and design, software engineering, data base management, applications of artificial intelligence and expert systems, and advanced applications programming.

The program requires 48 hours in computer science and computer and information sciences, 12 hours in psychology, sociology and speech, 6 hours in mathematics, 9 hours in business, 8 hours in laboratory science, 21 hours in academic electives as well as the general University requirements for a bachelor's degree.

The student who completes this program is well equipped for a career as a systems analyst, programmer/analyst, applications programmer, or information center specialist.
B.S. Computer and Information Sciences ..... 132 hours
Recommended Program of Study
First Year

| First Semester | Second Semester |
| :---: | :---: |
| ENG 131 Eng Comp............................................ 3 | ENG 132 Eng Comp............................................ 3 |
| CS 1311 Micro Comp I....................................... 3 | CS 1411 Prin of CS I .......................................... 4 |
| CIS 131 Intro to Info Sys..................................... 3 | M'TH 234 Elem Stats ........................................... 3 |
| MTH 1345 Discrete Math.................................... 3 | ECO 131 Principles (Micro)................................. 3 |
| HIS 231 His of U.S. (1763-1877) .......................... 3 | HIS 232 His of U.S. (1877-Present) ....................... 3 |
| PEGA ............................................................... 2 | PEGA ............................................................... 2 |
| 18 | 18 |
| Second Year |  |
| First Semester | Second Semester |
| ENG LIT ........................................................... 3 | SPC 131 PUBLIC SPEAKING 3 |
| CS 1413 PRIN COMP SCI II................................. 4 | CS 2313 DIG COMP SYS .................................... 3 |
| GOV 231 AM GOV I........................................... 3 | CS 2411 COBOL PROG ....................................... 4 |
| ACC 231 PRIN OF ACC ...................................... 3 | GOV 232 AM GOV II.......................................... 3 |
| PSY 131 INTRO TO PSY .................................... 3 | PSY 331 SYS HIS PSY/334 INDUS PSY............... 3 |
| 16 | 16 |
| Third Year |  |
| First Semester | Second Semester |
| CS 3307 DATA BASE SYS ................................. 3 | CIS 331 COMPUTER ARCH................................. 3 |
| CS 4311 INFO SYS I ........................................... 3 | CS 3301 SPECIAL LANG TOPICS........................ 3 |
| SOC 332 SOC PSY/334 INDUS SOC..................... 3 | CS 4312 INFO SYS II......................................... 3 |
| *LAB SCI.......................................................... 4 | PHL 130............................................................ 3 |
| LITERATURE/Foriegn Lang ................................. 3 | *LAB SCI.......................................................... 4 |
| 16 | 16 |
| Fourth Year |  |
| First Semester | Second Semester |
| CIS 431 ADVANCED APPL PROG ........................ 3 | CIS 433 SYS DEVEL PROJEC「............................ 3 |
| SPC 334 INTERVIEWING.................................... 3 | CIS 435 EXP SYS............................................... 3 |
| FINE ARTS........................................................ 3 | CIS 437 ARTIFICIAL INTELLIGENCE ................... 3 |
| ACAD ELEC...................................................... 3 | ACAD ELEC ...................................................... 3 |
| ACAD ELEC...................................................... 3 | ACAD ELEC..................................................... 3 |
|  | ACAD ELEC..................................................... 3 |
| 18 | 18 |

[^14]
## Bachelor of Science - Computer Science with Teacher Certifications in Computer Science and Mathematics

Students who wish to earn a Computer Science degree and to be certified to teach Computer Science and Mathematics at the secondary level in public schools may obtain this goal by completing an additional 15 hours beyond those required for a Bachelor of Science degree in Computer Science.

Students who desire further information on this program should contact the undergraduate advisor in the Computer Science department.

For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.

## Dual Programs - Bachelor of Science in Computer Science and Bachelor of Science in Electrical Engineering

The departments of Computer Science and Electrical Engineering offer qualified highly motivated students the opportunity to earn both a Bachelor of Science degree in Computer Science and a Bachelor of Science degree in Electrical Engineering in four academic years including six summer sessions. Students may obtain additional information about this intensive program by contacting either the department of Electrical Engineering or the department of Computer Science. This program of study consists of 176 semester credit hours as described in the following outline.

## Bachelor of Science in Computer Science and Bachelor of Science in Electrical Engineering

First Year

Fall Semester
Egr 111 .....  1
Egr 114 .....  .1
CS 1411 .....  4
Eng 131 ..... 3
Mth 148 ..... 4
Mth 1345 ..... 3
Egr 1121 .....  1
PE .....  219
Summer Semester I
Chm 1414
Egr 230 ..... 3
Mth 3370
3
3

## Spring Semester

CS 1413 ..... 4
Egr 1221 .....  2
Eng 132 ..... 3
Mth 149 .....  .4
Phy 247 ..... 4
PE. ..... 2

$\qquad$Summer Semester II
Chm 142 .....  4
Second Year
Fall Semester
Egr 234 ..... 3
Egr 215 .....  1
Egr 223 .....  2
CS 2411 .....  .4
Phy 248 .....
Mth 233 ..... 3
PE. ..... 2
19
Summer Semester I
CS/EE 3305 ..... 3
EE 331 ..... 3

Spring Semester
Egr 233 .....  3
Egr 210 .....
Egr 231 ..... 3
EE 217 ..... 1
Mth 241 ..... 4
Mth 331 ..... 3
CS 2313 .....  3
PE. .....  219
Summer Semester II
3
Phy 3353

| Third Year |  |  | - |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall Semester |  | Spring Semester |  |  |
| EE 318 | ........ 1 | EE 319 |  | ........ 1 |
| EE 333 | ... 3 | EE 336 |  | . 3 |
| EE 3301 | ... 3 | EE 3201 |  | . 2 |
| CS 4306. | .. 3 | EE 332 |  | . 3 |
| CS 3307. | ... 3 | EE 431 |  | . 3 |
| Eng Lit..... | $\ldots 3$ | CS 4302 |  | ... 3 |
|  |  | HIS 231..... |  | ....... 3 |
|  | 16 |  |  | 18 |
| Summer Semester I |  |  | Summer Semester II |  |
| EE 337 | ... 3 | Spc 131......... |  | ....... 3 |
| PHL 130.. | $\underline{. . . . . . .3}$ | POLS $231 . . .$. |  | ......... 3 |
|  | 6 |  |  | 6 |
| Fourth Year |  |  |  |  |
| Fall Semester |  |  | Spring Semester |  |
| EE 411 | $\ldots 1$ | EE 412 |  | ....... 1 |
| EE 416 | $\ldots .1$ | EE 417 |  | $\ldots . . . .1$ |
| EE 436 | $\ldots$ | EE Elective |  | ...... 3 |
| EE Elective | ......... 3 | EE Elective ... |  | $\ldots$ |
| EE/CS 4310. | ......... 3 | CS 4317/4319 |  | . 3 |
| CS 4307...... | ........... 3 | CS $431 . . . . . .$. |  | ......... 3 |
| His 232 | $\ldots . . . . .3$ | POLS $232 \ldots$ |  | ......... 3 |
|  | 17 |  |  | 17 |
| Summer Semester I |  | Summer Semester II |  |  |
| Eng. Lit/Foreign Lang........ | ......... 3 | Fine Arts ...... |  | $\ldots . . . . .3$ |
| HLTH 137....................................... | $\underline{. . . . . . . .3}$ |  |  |  |
|  | . 6 |  |  | 3 |

Total Hours 188

## Computer Science Courses (CS)

## 130 Microcomputers and Saciety <br> 3:2:3

Computer literacy development of the hardware and software for microcomputers, microcomputer applications in all phases of society, ethics, software piracy, how to use software packages to enable a more useful utilization of microcomputers. Effects of microcomputers on all phases of society with special emphasis placed on areas such as education, personal use, etc. (A student may not receive credit for both CS 130 and CS 1311.)
1311 Micro-Computers I 3:2:3
Functional hardware components of micro-computers and networks of micro-computer system software, high level compilers/interpreters, text editors, data base management system, query systems, impact of micro-computers on society, and techniques for applications of micro-computers to appropriate real world problems. (A student may not receive credit for both CS 130 and CS 1311.)
1411 Principles of Computer Science 1 4:3:3
Major hardware components, problem solving and algorithmic development, program structures, data types, method and styles of program development, data structures and solution of significant problems using a block structured language such as ADA and Pascal.
Prerequisite: Mth 1345 or concurrent.
1413 Principles of Computer Science 11 4:3:3
Continuation of CS 1411, algorithm analysis, program verification, advanced data structures and their implementations, run time behavior of programs, program efficiency, data verification and solution of complex real world problems using these concepts.
Prerequisite: CS 1411 and Mth 1345.
2313 Digital Computer Systems 3:2:2
Basic computer architecture and assembly language programming. System software, including loaders and assemblers. Input-output devices and programming.
Prerequisite: CS 1413.

## 2411 COBOL Programming

Extensive coverage of the COBOL language and its variations, flexibility and power of COBOL, emphasis on structured programming, processes for management of secondary storage, large scale computing and access methods.
Prerequisite: CS 1413.
3101 Special Language Topics 1:1:0
The study of the theory and applications of specialized computer languages and language packages. This course may be repeated for different languages and language packages.
Prerequisite: Consent of instructor.
3201 Special Language Topics 2:2:0
The study of the theory and applications of specialized computer languages and language packages. This course may be repeated for different languages and language packages.
Prerequisite: Consent of instructor.
3301 Special Languages Topics 3:3:0
The study of the theory and applications of specialized computer languages and language packages. This course may be repeated for different languages and language packages.
Prerequisite: Consent of instructor.
3305 Introduction to Computer Organization
3:3:0
The introduction and the structure of the major hardware components; the mechanics of information transfer and control within a digital computer system; and the fundamentals of logic design.
Prerequisite: CS 2313.
3307 Data Base Systems
3:3:0
Introduction to data base systems, includes relational, hierarchical, and network data base models; methods of controlling concurrent accesses, backup and recovery techniques; and distributed data base systems.
Prerequisite: CS 2411.
4104, 4201, 4301 Special Topics
1-4:A:0
An investigation into specialized areas of computer science under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.
4302 Operating Systems and Computer Architecture I
3:3:0
To introduce the major concept areas of operating systems principles; develop an understanding of the organization and architecture of computer systems at the register-transfer and programming levels of system description; and the inter-relationships between the operating system and the architecture of computer systems.
Prerequisite: CS 2313 and CS 4305.
4305 Data Structures and Algorithm Analysis
3:3:0
Data structure; analysis and design techniques for non-numeric algorithms which act on data structures; and utilization of algorithmic analysis and design criteria in the selection of methods for data manipulation. Prerequisite: CS 1413.
4306 Techniques of Information Processing and Retrieval
Continuation of CS 4305. Keyword and descriptive indexing, decision tables, real time information processing and total information systems.
Prerequisite: CS 4305 and CS 2411.
4307 Organization of Programming Languages
The organization of programming languages, especially run-time behavior of programs; the formal study of programming language specification and analysis; and the continued development of problem solution and programming skills.
Prerequisite: CS 2313 or 4305
4308 Theory of Programming Languages 3:3:0
Formal definition of programming languages, including specifications of syntax, semantics, statements and notations used in the construction of compilers, structure of translators and compilers.
Prerequisite: CS 4307.
4303 Introduction to Simulation Techniques
3:3:0
External properties of multivariate functions with and without constraints, convex functions, linear programming. Computer simulation utilizing logical, numerical and Monte Carlo modeling. The generation, termination and flow of entities through storage and processing facilities.
Prerequisite: Mth 234 or 3370 and CS 1413.
431 Project Laboratory
3:2:3
Senior projects with hardware/software implementation and testing.
Prerequisite: consent of department head and Senior standing.
4310 Computer Architecture
3:3:0
Representation of information, calculators, storage, addressing, input, output, memory and control. Credit will not be given for both CS 4310 and EE 4310.
Prerequisite: EE 4303 or CS 3305. Assembly language desirable.

## 4317 Artificial Intelligence

Fundamentals of Artificial Intelligence, problem solving techniques, search methods, heuristic methods, knowledge representation, natural languages, learning, and programming projects drawn from selected areas of artificial intelligence.
Prerequisite: CS 1413
4319 Computer Graphics
History of computer graphics, graphics hardware, fundamental graphic operations graphic packages, interaction techniques, user/computer dialogue, 3 (and greater) dimensional viewing, graphics algorithms, and different media for graphic output.
4321 Micro-Computers
3:3:0
Hardware components, languages, operating systems, date file systems, utilities and software development for micro-computers.
Prerequisite: Consent of Department Head.

## Computer Information Sciences Courses (CIS)

## CIS 131 Introduction to Computer Information/Systems

Introduction to the concepts of information, information codes, information processing, computer hardware and software required by large scale computer information systems, history of information/systems, and program/ system development in a high level language.

## CIS 331 Computer Hardware, System Software and Architecture

A functional system level in-depth study of computing equipment, organization of components and devices into architectural configurations, the principles of system software and data flow through hardware/software configuration.
Prerequisite: CS 2411 and CS 3307.

## CIS 431 Advanced Application Programming

Advanced application programming utilizing a high level language, such as ADA or COBOL, with emphasis on the following: review and summary of programming techniques, program standards and documentation, structured design, source and object library development, interactive program development, efficiency techniques, utilization of data base management systems and a student project involving system testing, data creation and oral presentation.
Prerequisite: CS 3307.

## CIS 433 System Development Project with Information Center Techniques

A review of the data base environment; system development criteria in a data base environment; information center system development processes; data modeling; identification of student projects; and the identification/ selection and initialization of the appropriate software tools to carry out the solution of the project utilizing microcomputers, minicomputers, or a mainframe.
Prerequisite: CIS 431.

## CIS 435 Expert Systems and Decision Making

Review of system principles; methods of decision making and problem solving; decision support systems; expert systems overview; hands on experience with a rule based expert system software package; knowledge acquisition; meta-knowledge; and manipulation of information system models as a decision making procedure.
Prerequisite: CS 431 and CS 3301 (LISP/PROLOG).

## CIS 437 Artificial Intelligence in Decision Making

AI perspective; AI tools and techniques; principles and practices of decision making; feasibility situations; probabilities; optimization and satisfying; principles of logic programming; and AI in information centers.
Prerequisite: CIS 431 and CS 3301 (LISP/PROLOG).

## Department of Chemical Engineering

Program accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.
Department Chair: Jack R. Hopper
115 Stadium Hall, Phone 880-8785
Professors: Hopper, Walker, Yaws
Associate Professors: Chen, Ho, Li
Adjunct Professors: Wing
Laboratory Technician: Stauffer
Chemical engineering is the profession in which a knowledge of mathematics, chemistry and other natural sciences gained by study, experience and practice is applied
with judgement to develop economic ways of using materials and energy for the benefit of mankind. The chemical engineer enters into almost every modern industry. From petroleum to synthetic rubber, from steel to medicines, the chemical engineer engages in design, research, development, production, sales and management. Among the fields in which the chemical engineer is of prime importance are petroleum, petrochemicals, metals, plastics, paints, foods, paper, glass, dyes, synthetic fibers and a host of others.

The Department of Chemical Engineering will permit transfer of up to 78 semester hours from a junior college or a community college, if appropriate courses were taken at the junior (community) college level. The appropriate list of courses for a particular college can be made available upon request.

| Bachelor of Science - Chemical Engineering |  |
| :---: | :---: |
| Recommended Program of Study |  |
| First and Second Year |  |
| (See Com | Program) |
| Third Year + |  |
| **CHE 333 - Thermo II .................................. 3-0-3 | CHE 332 - Heat Transfer** .............................3-0-3 |
| CHE/ME 3311-Mom Trans ............................. 3-0-3 | CHE 441 - Kinetics**....................................3-3-4 |
| *CHE 437 - Computer ................................... 3-0-3 | POLS 232 - Government II.............................3-0-3 |
| POLS 231 - Government I..............................3-0-3 | CHM 432 -, Physical......................................3-0-3 |
| CHM 341 - Organic I.....................................3-4-4 | CHM 342 - Organic II..........................................3-4-4 |
|  | Soc Sci Elect .3-0-3 |
| 15-4-16 | 18-7-20 |
| Fourth Year |  |
| CHE 442 - Mass Transfer ............................... 3-3-4 | CHE 433 - Proc Cont .....................................3-0-3 |
| \#CHE 431 -Lab ............................................ 1-6-3 | CHM ELECTIVE (1) .......................................1-4-2 |
| CHE 436 - Design I.......................................3-0-3 | CHE 434 - Design II......................................1-6-3 |
| \#CHE 414 -Seminar ..................................... 1-0-1 | CHE 435 - Adv Anal.....................................3-0-3 |
| Fine Arts ..................................................... 3-0-3 | HIST - American...........................................3-0-3 |
| ENG - Lit .....................................................3-0-3 | Health \& Wellness ........................................3-0-3 |
| HIST - American..........................................3-0-3 | ENG-Lit......................................................3-0-3 |
| 18-9-20 | 17-10-20 |

@ Diagnostic Placement Test
(1) Approval of Department Head

* These courses are offered during both Fall and Spring Semester
** These courses are offered during the Summer Session
+ Completion of CHE \& CHM courses required before registration for Fourth Year CHE courses
\# Extensive Oral Communications Included


## Chemical Engineering Courses (ChE)

331 Momentum Transfer
Fluid-flow concepts are presented through the derivation of the basic equations of continuity, energy and mo-
mentum. Engineering aspects of flow measurement, pressure-drop calculations and pumping requirements are
considered. Same as ME 3311 . Che 3311 and ME 3311 may not both be counted for credit.
Prerequisite: Egr 234, ChE 334
$\mathbf{3 3 2}$ Heat Transfer
Principles of conduction, convection and radiation, and their application to the design of heat transfer equipment
and systems.
Prerequisite: ChE 3311, ChE 333.
333 Thermodynamics
Application of the First and Second Laws to chemical processes. Thermodynamic properties of pure fluids and
mixtures, Physical equilibrium.
Prerequisite: ChE 334, Egr 234, Chm 341 or concurrent, Chm 241 or concurrent.334 Process Analysis3:3:0Application of mathematics, physics and chemistry to the solution of problems in industrial chemistry. Materialand energy balance calculations on processes undergoing physical and chemical changes.Prerequisite: Egr 234 or concurrent.
4111 Seminar ..... 1:1:0Oral presentation of advanced topics or research work in chemical engineering.
414 Seminar ..... 1:1:0Oral and written presentation of selected topics in chemical engineering from recent technical publications.Prerequisite: Senior standing in Chemical Engineering.
422 Laboratory 1 ..... 2:0:6A continuation of ChE 431. Intensive experimental work in one or more areas studied in ChE 431. May be takenon an individual instruction basis.
Prerequisite: ChE 431.Laboratory I3:1:6Experiments in heat transfer, mass transfer, fluid flow, reaction kinetics and thermodynamics.Prerequisite: ChE 442 or concurrent.
433 Process Control ..... 3:3:0
Selection of equipment to measure and control process variable. Analysis of process response to variations inprocess parameters.Prerequisite: ChE 437, 441, 442, Mth 3401.
434 Plant Design II ..... 3:1:6A continuation of ChE 436, with emphasis on a major design project.Prerequisite: ChE 436.
435 Advanced Analysis ..... 3:3:0
Development of mathematical equations for chemical engineering applications. Solution of ordinary and partialdifferential equations.Prerequisite: ChE 333, 3311, 332, 437, 441, Mth 3401.
436 Plant Design I ..... 3:3:0Application of chemical engineering principles to the design of chemical processes and plants. Equipment designand specifications. Economic evaluation of processes and equipment.
Prerequisite: ChE 441: ChE 442 or concurrent.
437 Computer Applications ..... 3:3:0Use of the digital computer in performing process calculations. Advanced techniques of FOR'TRAN programming.Prerequisite: Egr 1121, 1221, ChE 334, ChE 333 or concurrent.
3:3:0
Introductory Petroleum EngineeringThe modern techniques of producing oil will be reviewed. Drilling operations, primarily and secondary recoveryoperations, methods of evaluation, production rate potential and reserve, as well as other aspects of reservoirengineering will be studied.Prerequisite: Senior/graduate standing.
441 Reaction Kinetics ..... 4:3:3
Chemical equilibrium. Analysis of experimental data to determine reaction rate parameters in homogeneous, heterogeneous, catalytic and non-catalytic reactions. Development of equations for batch, stirred-tank and tubular flow reactors. Application of differential equations to process and reactor design.
Prerequisite: Mth 3401, Chm 241, ChE 332 or concurrent, ChE 333 or concurrent, Chm 342 or concurrent, Chm 432 or concurrent.
442 Mass Transfer ..... 4:3:3
Principles of diffusion. Simultaneous mass, energy and momentum transfer. Analysis of absorption, extraction and distillation processes.
Prerequisite: ChE 333, 332, Chm 241, 341, 342, 432.

## Department of Civil Engineering

Program accredited by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology.
Department Chair: Enno Koehn
Professors: Koehn, Morgan, Rogers

2010 Cherry Engineering Building, Phone 880-8759

Associate Professors: Daniali, Mantz
Adjunct: Fischer, Mittra
Laboratory Technician: Mohtashami

Civil Engineering is a people serving profession and as such is vital to the world's economic, political, and social well-being. The many areas to which civil engineers make substantial contributions include bridges, dams and levees, harbors, waterways and irrigation facilities, buildings, airports, highways, pipelines, railroads, power lines, water supply systems and waste treatment facilities. Civil engineers engage in a wide range of activities such as research, design, development, management, and the control of engineering systems and their components. With today's fast-paced technological changes, civil engineering provides for unique and unlimited career opportunities that can only be met by professionally trained people.

The civil engineering program is designed with a broad base to prepare men and women for careers in all phases of civil engineering and to enable them to perform other managerial and technical functions which require scientific and engineering backgrounds. The curriculum embraces a sound core of physics, chemistry and mathematics. To this is added a substructure of engineering sciences. Areas of study include geotechnical, structural, hydraulic, environmental, surveying, and construction engineering. Options are approved to fit the individual interest of the civil engineering student.

Because of the wide scope of activities in which the civil engineer is engaged, and because of the broad spectrum of student interest, civil engineering graduates may choose either to enter the profession immediately after receiving their bachelor's degree or go directly to graduate school. No matter what the student chooses, the curriculum provides a firm foundation for today's world.

To encourage and assist scholars in civil engineering, the Katherine E. and William C. Mundt endowment was established in 1983. This fund provides for scholarships for qualified students. Application forms are available in the civil engineering department office.

## Bachelor of Science - Civil Engineering

## Additional Degree Requirements:

Candidates for degrees in this program are strongly encouraged to consider sitting for the National Council of Engineering Examiners Examination on "Fundamentals of Engineering" as administered by the State Board of Registration for Professional Engineers.

## Recommended Program of Study

> First and Second Years (b)

# (See Common Program) 

## Third Year

First Semester
CE 220 Surveying ..... 2
CE 331 Environmental Science .....  3
CE 334 Structural Mechanics .....  3
CE 335 Hydraulics I .....  3
Elective Political Science. .....  3
Elective History ..... 3

## Second Semester

CE 320 Materials Engineering..................................... 2
CE 336 Hydrology........................................................ 3
CE 337 Water Utility Systems .................................. 3
CE 339 Geotechnical Engineering I........................... 3
CE 439 Structural Steel Design.................................. 3
Elective Political Science

| Fourth Year |  |
| :---: | :---: |
| First Semester | Second Semester |
| CE 4212 Civil Engr Syst Design Project................. 2 | CE 411 Seminar .................................................. 1 |
| CE 432 Management, Planning, Scheduling and | CE 4290 Civil Engr Syst II ................................... 2 |
| Estimating...................................................... 3 | CE 431 Hydraulics II.......................................... 3 |
| CE 434 Geotechnical Engineering II...................... 3 | CE Elective(a).................................................... 3 |
| CE 438 Reinforced Concrete Design...................... 3 | Elective Social Science(a) .................................... 3 |
| CE Elective(a)..................................................... 3 | Elective Science(a).............................................. 4 |
| Elective Literature ................................................ 3 | Elective Fine Arts(a)........................................... 3 |
| 17 | 19 |

## Notes:

(a) All electives must be approved by the Head of the C.E. Dept. CE Electives must include design content of an amount to satisfy ABET criteria.
(b) It is vital that CE 232 and Egr 231 be completed before the start of the third year.

## Civil Engineering Courses (CE)

## 220 Surveying

Introduction to the basic principles of surveying. Use of equipment for measurement of horizonal and vertical distances and angles. Field practice and calculations associated with design and layout of highway curves including vertical and horizontal alignments. Transition spirals. Error Analysis. Computer utilized in calculations.
Prerequisite: Egr 1121, 114.
Corequisite: Mth 148.
232 Mechanics of Solids 3:3:0
Effect of loads on deformable bodies. Uniaxial and biaxial stress-strain relationships. Indeterminate systems. Study of stresses due to axial, torsional and bending effects. Bucking of columns.
Ргегеquisite: Egr 230.
320 Materials Engineering 2:1:3
Principles/techniques for investigating properties and behavior of engineering members and materials using experimental methods.
Prerequisite: CE 232.
3290 Civil Engineering Systerns I
2:2:0
Principles of systems analysis utilized for solving civil engineering problems. Application of probability, statistics, and regression analysis to the engineering design process. Specific examples in civil engineering taken under consideration. Course title and description may vary when taught as a CE Elective.
Prerequisite: Mth 241.
Corequisite: CE 232.
331 Environmental Science 3:2:3
Introduction to the hydrologic cycle and the chemistry and microbiology of the natural aquatic environment. Emphasis is on the physical, chemical and biological aspects of water and waste water systems in relation to man's environment. Laboratory work is in the physical, chemical and biological analysis of water and waste water.
Prerequisite: Chm 142.
334 Structural Mechanics
3:2:3
Analysis of loadings for bridges and buildings. Effects of moving loads. Influence lines. Shear and movement diagrams. Analysis of indeterminate structures. Introduction to structural design investigation of frames, girders and bents.
Corequisite: Mth 3401.
Prerequisite: CE 232.
335 Hydraulics I
3:2:3
Basic principles of fluid flow. Friction and drag studies. Calibration of flow measuring devices. Flow characteristics of open and closed conduits. Presentation of oral and written reports.
Prerequisite: Egr 231.
336 Hydrology 3:3:0
Precipitation, surface water, infiltration, and sub-surface water. Analysis of rainfall and runoff data. Collection studies. Hydraulics of wells. Net storm rain; peak discharge and flood runoff.
Corequisite: Egr 231.

General survey of environmental engineering covering water supply and sanitary sewerage systems. Design of water distribution and wastewater collection systems.
Prerequisite: CE 331, CE 335.
339 Geotechnical Engineering 1
3:2:3
Basic principles of soil behavior under load. Soil properties and classification. Study of hydraulics as applied to soil mechanics.
Prerequisite: Egr 114.
Corequisite: CE 232.
411 Seminar
1:0:2
Discussion of ethical, professional, and technical topics related to the practice of civil engineering. Presentation of oral and written reports.
Prerequisite: Senior standing.
420 Photogrammetry and Mapping 2:0:6
Principles of aerial photography applied to map making, route locations and ground control. Introduction to use of photogrammetry equipment, including stereocopes and plotters.
Prerequisite: CE 220.
4212 Civil Engineering Systems Design Project
2:0:6
Planning, design, and analysis of a civil engineering system or project; an integrated and realistic group project is utilized which involves numerous major aspects of the civil engineering profession.
Prerequisite: CE 335.
Corequisite: CE 438, CE 439.
4290 Civil Engineering Systems II
2:2:0
Principles of systems analysis utilized for solving civil engineering problems. Application of probability and statistics, numerical methods, linear programming, dynamic programming, optimization, finite elements and finite differences to the engineering design process.
Prerequisite: CE 3290 or Statistics.
Corequisite: CE 334, CE 337, CE 339.
430 Indeterninate Structures
3:2:3
Basic principles of structural analysis and design based upon the requirements of equilibrium and continuity. Matrix methods and the application of strain energy, slope deflection and moment distribution procedures for the analysis of frames, trusses and beams. Digital computer methods utilized. Course title and description may vary when taught as a CE Elective.
Prerequisite: CE 334.
431 Hydraulics II
3:2:3
Continuation of CE 335-Hydraulics I emphasizing practical design applications of basic fluid mechanics principles in fluid measurement, machinery, closed conduit flow, open channel flow and hydraulic transients. Presentation of oral and written reports.
Prerequisite: CE 335.
4310 Soil-Structure Interaction
3:2:3
Analysis of the mechanical behavior of soil-structure systems under the effect of static and dynamic loading, impact and stress wave propagation design. Applications to structures supported by shallow and deep substructures, and underground structures. Computer techniques are employed. Course title and description may vary when taught as a CE Elective.
Prerequisite: CE 434.
432 Management, Planning, Scheduling, and Estimating
Principles governing the effective and efficient management of engineering projects including the application of comprehensive planning, scheduling, and cost estimation procedures.
Prerequisite: Senior standing.
433 Environmental Health Engineering
3:3:0
Problems of public health in rural and industrial centers with water, housing, heating, cooling, ventilation, milk, food, insects and rodents. Biostatistics and public health laws, ordinances and regulations.
Prerequisite: Bio 243 or CE 331.
434 Geotechnical Engineering II
Compressibility and strength characteristics. Stress distribution. Shallow and deep foundations, earth pressure theories, retaining walls, and slope stability.
Prerequisite: CE 339.
Corequisite: CE 438.
Hydraulic design of municipal utilities including storm water and waste water collection systems, water distribution networks, and treatment plant facilities. Course title and description may vary when taught as a CE Elective. Prerequisite: CE 337.

Transportation Engineering . . . . . . . . . . . . 0
Study of highway pavements. History and development of transportation facilities. Drainage requirements. Fundamentals of highway location, design, construction, and maintenance. Course title and description may vary when taught as a CE Elective.
Prerequisite: Senior standing.
Reinforced Concrete Design
3:2:3
The design of structural concrete members based upon working stress and strength design methods. Study of standard specifications. Introduction to prestressed concrete.
Prerequisite: CE 334.
Strucfural Steel Design
3:2:3
The elastic design of buildings and bridge components according to standard specifications. Application of load and resistance factor design. Introduction to plastic design of steel structures.
Prerequisite: CE 334.

## Department of Electrical Engineering

Program accredited by the Engineering Accreditiation Commission of the Accredition Board for Engineering and Technology.
Department Chair: Floyd M. Crum 2006 Cherry Building, Phone 880-8746
Professors: Bean, Cooke, Crum, Wakeland, Watt
Associate Professors: Carlin
Laboratory Technician: Ingram
For many years the use of electricity has played a major role in the advancement of societies throughout the world. From megawatts of electrical power to microprocessors not as large as the pupil of the eye, the world of tomorrow will depend even more heavily than today upon the use of electricity.

Men and women who are electrical engineers will play vital roles in key areas affecting everyone's life by working in such areas as: microprocessor based instrumentation systems; advanced computer systems--both large scale and personal size; medical instrumentation, and computer-aided diagnostic and information systems; automatic control systems for mass transit, food production and process control; power generation and distribution systems. If these challenges sound worthwhile and you want to contribute, an Electrical Engineering degree will provide you that opportunity.

The Department of Electrical Engineering will permit transfer of up to 72 semester hours from a junior college or a community college if appropriate courses were taken at the junior or community college level. The appropriate list of courses for a particular college is available upon request.

In addition to the admission requirements for a major in Electrical Engineering, a student must have a GPA of 2.0 or better in the EE courses, including EGR 233, to graduate. Additionally, there are four sequences of courses that serve as a foundation for advanced electrical engineering courses. No more than one "unimproved D" is allowed in each of the following sequences of courses in order to continue the sequence, or to gradaute.
a. EGR 233, EE 331, 3305, 332
b. EE 333, 431, 432, 4302
c. EGR 1121, 1221, EE 3301
d. EE 217, 318, 319, 3201, 426, 427

A " $D$ " in a course is considered "improved" when the course has been repeated with a "C" or better.

## Bachelor of Science - Electrical Engineering <br> Recommended Program of Study

First and Second Year<br>(See Common Program)

Third Year
First Semester

## Second Semester

EE 318 Electronics Lab. ..... 1
EE 331 Circuit Il ..... 3
EE 333 Electronics I ..... 3
EE 3301 Electrical Anal ..... 3
EE 3305 Log Dsgn of Switch Sys ..... 3
Phy 345 Modern Phycics ..... 4
EE 319 Electric Machinery Lab
1
1
EE 3201 Digital Lab ..... 2
EE 332 Circuit Design .....  3
EE 336 Electrical Mach/Transf. ..... 3
EE337 Electromagnetic Fields I .....  3
EE 431 Electronics II .....  3
Hist 231 .....  3
Fourth Year
First Semester
EE 411 Elect Engr Seminar I ..... 1
EE 426 Project Lab .....  2
EE 436 Control Engr ..... 3
EE439 Computer Aided Dsgn .....  .3
*EE Elective (1) ..... 3
Hum/Soc Elective .....  3
Govt 231 .....  .3

## Second Semester

EE 412 Elect Engr Seminar II. ..... 1
EE 427 Project Lab. ..... 2
*EE Electives (2) .....  6
Hist 232. .....  3
Govt 232 .....  3

[^15]
## Electrical Engineering Courses (EE)

217 Circuits Laboratory ..... 1:0:3Experience in the use of elementary electrical equipment and elements, including the oscilloscope.Corequisite: Egr 233.
318 Electronics Laboratory ..... 1:0:3Design of power suppies and amplifiers using diodes, transistors, thysistors and linear integrated circuits.Prerequisite: EE 217.Corequisite: EE 333.
319 Electric Machinery Laboratory ..... 1:0:3Three phase circuits, DC and AC motors and generators; transformers.Prerequisite: EE 217.Corequisite: EE 336.
3201 Digital Laboratory ..... 2:1:3
Testing and design of digital circuits; introduction to small computer hardware and software.Prerequisite: EE 217 and EE 3305 or CS 3305.
3301 Elecirical Analysis ..... 3:3:0Application of the digital computer to analysis and design of electrical systems using numerical methods.Prerequisite: Mth 331, Egr 233, 130.
3305 Logical Design of Switching Systems3:3:0Switching algebra. Formulate and manipulate switching functions. Combinational networks. Flip-flops. Sequentialnetworks.Prerequisite:Junior standing.
331 Circuits II ..... 3:3:0
Power calculations, polyphase circuits. Frequency response, resonance, magnetically coupled circuits, two port networks. Fourier series, Fourier and Laplace transform application.
Prerequisite: Egr 233.
Corequisite: Mth 331 or 3301 .

332 Circuit Design 3:3:0
Circuit design concepts using frequency domain. Pole-zero characterization of system response. Synthesis of passive and active networks.
Prerequisite: EE 331.
333 Electronics I
3:3:0
An analysis of both digital and analog signal processing methods by the use of solid state electronic devices, Bipolar, FET and linear integrated circuits.
Prerequisite: Egr 233.
Corequisite: EE 318 for EE students.
336 Electric Machinery/Transformers
3:3:0
A study of transformers and conventional electric machinery. DC motors and generators, synchronous machines and induction motors.
Prerequisite: EE 331.
Corequisite: EE 319.

## 337 Electromagnetic Fields I

3:3:0
Vector analysis, coordinate systems, static electric fields, electric potential, dielectric, conductors, capacitance, current, static magnetic fields, magnetic materials, magnetic potential, inductance, electromagnetic forces. Maxwell's equations, time-varying fields, plane waves.
Prerequisite: Mth 331, Phy 248, Egr 233.
4101 Individual Study 1:1:0
Independent study under the direction of a faculty member. May be repeated for credit.
411 Electrical Engineering Seminar I 1:1:0
A study of the literature of electrical and related engineering fields; preparation and presentation of papers on electrical subjects.
Pre or Corequisite: EE 426 or 427.
412 Electrical Engineering Seminar II 1:1:0
Preparation, presentation and discussion of material on the engineering profession, the interface between technology and society, and new areas of engineering involvement.
Pre or Corequisite: EE 426 or 427.
426 Projects Laboratory 2:1:3
Senior design projects with hardware implementation and testing. Preparation of project proposals, formal report and presentation.
Prerequisite: EE 217, 318, 319, 3201, 431.
427 Projects Laboratory 2:1:3
Senior design projects with hardware implementation and testing. Preparation of project proposals, formal report and presentation.
Prerequisite: EE 217, 318, 319, 3201, 431.
4302 Communication Theory
3:3:0
Principles of modulation; random signal theory and network analysis; basic information theory; analysis of noise.
One hour design content.
Prerequisite: EE 332.
4304 Advanced Topics
3:3:0
Topics are selected on the basis of the needs of an adequate number of students. May be repeated for credit when topics vary.
Prerequisite: EE 331, 431.
4306 Minicomputers 3:3:0
Introduction to assembly language programming and small computer organization. 1-1/2 hours design content. Prerequisite: EE/CS 3305.
4307 Microcomputers $\quad$ 3:3:0
Microcomputer organization, peripheral devices, systems software for small computers. 1-1/2 hours design content.
Prerequisite: EE 4306 or CS 3302.
4309 Electric Power Systems
3:3:0
An introduction to electric power system analysis. Transmission line calculations, system operation, short circuit computations. One hour design content.
Prerequisite: EE 336, 337.
431 Electronics II
Indepth study of semiconductor device characteristics, BJT's FET's, SSI logic and linear integrated circuits.
Prerequisite: EE 333, 3305, 331.

Nuclear reaction mechanics; radioactivity; neutron reactions; fission products, decay; reactor kinetics, systems; radiation, dose limits, shielding. One hour design content.
Prerequisite: Egr 234 and Phy 335.
432 Electronics ШI 3:3:0
Analog systems with semiconductor elements. Frequency response, feedback and feed forward amplifier design, power electronic devices with regulated power supplies. Two hours design content.
Prerequisite: EE 431.
436 Control Engineering
3:3:0
Transfer functions; state variables; time response; frequency response and stability. Prerequisite: EE 332, 3301.

## 438 Instrumentation

3:3:0
Unified methods for the design of signal and conditioning circuits between sensors and computers. Accepted practice for sensor based microprocessor and microcomputer data acquisition and processing systems. Instrumentation amplifier circuits. Two hours design content.
Prerequisite: EE 333, 3305.
439 Computer Aided Design
3:3:0
An introduction to computer aided design and experience with design software. A realistic programming project concerning design will be assigned. Intensive programming efforts and fluency in Fortran, C, or Pascal will be required.
Prerequisite: Junior standing.

## Department of Industrial Engineering

Department Chair: Victor Zaloom
2014 Cherry Building, Phone 880-8804
Professors: Gates, Zaloom
Associate Professor: Thomas, Chu
Visiting Assistant Professor: Tosirisuk
Laboratory Technician: Costa
The Department of Industrial Engineering offers the Bachelor of Science degree in Industrial Engineering and in Industrial Technology.

## Industrial Engineering

Programs accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Industrial engineering serves vital functions in today's world and provides a wide range of career opportunities.

Industrial engineering deals not only with things but also with people. It especially deals with managerial problems requiring a knowledge of fundamental science and engineering practice for their solution.

Industrial engineers combine advanced study in management systems, economics and decision-making to answer such questions as: "What products or services should we offer?... What materials and methods should we use?...How can we best motivate and reward people?...How can we improve quality, productivity and service?"

Typical responsibilities of the industrial engineer involve design, operation and management. While manufacturing industry demands many graduates, increasing numbers are finding satisfying employment in other kinds of businesses. Airlines, banks, restaurant chains, department stores and hospitals, e.g. all use industrial engineers. Governmental agencies of all sorts are attracting graduates.

Women find special opportunities in industrial engineering. Responsible jobs and excellent salaries accompany a demand which far exceeds the supply of women in the field. Advancement on the same basis as that experienced by men makes the profession especially attractive.

The Department of Industrial Engineering at Lamar University is one of the leaders in integrating computer-aided design and computer-aided manufacturing into the curriculum.
Bachelor of Science - Industrial Engineering
Recommended Program of Study
First and Second Year
(See Common Program) Third Year
First Semester
IE 322 Introduction to Manufacturing ..... 2
IE 4303 Fin Anal \& Des .....  3
Hlph 137 .....  3
His 231 American History I .....  3
POLS 231 American Government I .....  3
IE 4321 ENG Data .....  3

## Second Semester

Chm 142 ..... 4
IE 432 Statistical Decision Making for Engineers ... 3
English Literature (a) .....  3
POLS 232 American Government II. .....  3
HIST 232 American History II. .....  3
Soc. Sci. Elect .....  3
19
Fourth Year

## First Semester

IE 435 Production and Inventory Control................ 3
IE 430 Quality Control 3
IE 434 Materials Science and Manufacturing Processes. .....  3
ME 3311 Momentum Transfer .....  3
IE 4315 Organization and Management .....  3
EGR 335 CAD .....  3

## Second Semester

IE 436 Design of Production Facilities..................... 3
IE 437 Operations Research..................................... 3
IE 431 Computer Aided Manuf. ............................... 3
IE 4316 Industrial and Product Safety..................... 3
Fine Arts ..................................................................... 3 3

Total Semester Hours 135

## Notes:

(a) Any course in Sophomore Literature (ENG 2311-2319) will satisfy this requirement.
(b) Psychology, Sociology or Economics will be approved.
(c) An upper level course in Engineering Design.
(d) Physical Education, Engineering or Mathmetics may not be elected. Approval of advisor required.

## Industrial Technology

The Department of Industrial Engineering also offers a Bachelor of Science degree in Industrial Technology. This curriculum is especially designed to prepare two-year technology graduates to work effectively in the engineer-technologist team and to assume management responsibilities.

The first two years of this program are administered by the College of Technical Arts. Students entering Lamar as freshmen will be advised on their technology major by Technical Arts. This degree requires successful completion of Lamar University's Associate of Applied Science degree-or equivalent-composed of a minimum of 36 semester hours of related and sequential courses. Technology courses beyond those specified in a major field must be approved by the Industrial Engineering Department.

Admission to the Industrail Technology Program will be granted, upon application, after completion of a minimum of 45 semester hours toward the Associate of Applied Science Degree or the Engineering common program with a grade point average (GPA) of at least 2.00. Six hours of Freshman English Composition and Mth 1334 and Mth 1341 or higher level math courses must be included in the 45 semester hour minimum.

Any student in the Industrial Technology program considering working toward an Industrial Engineering degree at any time in the future should so inform his or her advisor, since certain adjustments in the Industrial Technology program will make it easier to obtain an Industrial Engineering degree.
Bachelor of Science - Industrial Technology
Recommended Program of Study
First Year

First Semester
Technology Courses ..... 12
Eng 131 Composition (a) .....  3
PEGA/MLB/MS 1 ог 2
16-17
Second Year
First Semester ..... 12
Technology Courses ..... 3
IE 3301 Survey of IE. .....  3
18
Second Semester
Technology Courses ..... 12
Technology Course or Elective. .....  3
Hlph 137 .....  3
Technology Courses ..... 12
PEGA/MS ..... 1 ог 2
Phil 130 Philosophy of Know. .....  3
16-17
Third Year
First Semester
Mith 1334 College Algebra. ..... 3
POLS 231 American Government I ..... 3
Soc. Sci. Elect........................ ..... 1
IE Elective I (c) ..... 16
Mth 1341 Analysis .....  3
POLS 232 American Government II. .....  .3
IE 438 Work Measurement .....  3
IE 336 Appli in IE ..... 3

## Second Semester

Fourth Year

## Fourth Year

First Semester
Speech ..... 3
IE 333 Engineering Economy ..... 3
IE 339 Materials Science and Manufacturing Processes ..... 3
His 231 American History I. ..... 3
IE 4351 Production and Inventory Systems .....  3
English Lit (b) ..... 3
His 232 American History II .....  3
IE 4301 Survey of Quality Control. .....  3
E 4315 Organization and Management .....  3
Lab Science II .....  4 ..... 16
Total Semester Hours 131-133

## Notes:

(a) Any of Eng 132-Eng 135 will satisfy this requirement.
(b) Any of Eng 2311-Eng 2316 will satisfy this requirement.
(c) A 300 or 400 level IE course, from approved list.

## Industrial Engineering Courses (IE)

322 Introduction to Manufacturing ..... 2:1:3Production planning, programming and operation of metal cutting machinery.
311 IE Seminar I
Identifying and analyzing Industrial Engineering problems.
Identifying and analyzing Industrial Engineering problems.1:1:0Corequisite: IE 330, admission to IE department.
330 Industrial Engineering ..... 3:3:0
Introduction to Industrial Engineering, its tools and techniques.
3301 Survey of Industrial Engineering3:3:0

The origins and evolution of Industrial Engineering. The problem solving techniques available and their appli-

The origins and evolution of Industrial Engineering. The problem solving techniques available and their appli-

The origins and evolution of Industrial Engineering. The problem solving techniques available and their appli-  cations.  cations.  cations.
Not open to students majoring in engineering.
Not open to students majoring in engineering.
Not open to students majoring in engineering.
3303 Economic Analysis and Design
3303 Economic Analysis and Design
3303 Economic Analysis and Design ..... 3:3:0 ..... 3:3:0 ..... 3:3:0
Capital budgeting. Depreciation and income taxes. Decisions under uncertainty.
Capital budgeting. Depreciation and income taxes. Decisions under uncertainty.
Capital budgeting. Depreciation and income taxes. Decisions under uncertainty.
Prerequisite: Egr 223, Mth 3370.
Prerequisite: Egr 223, Mth 3370.
Prerequisite: Egr 223, Mth 3370.Total Semester Hours 131-133(c) A 300 or 400 level IE course, from approved list.局
332 Industrial Engineering Anatysis I ..... 3:3:0
Descriptive analysis of Engineering Data, probability distributions applied to engineering design, sampling in anengineering environment, estimation.Prerequisite: Mth 241.
3311 Machining Processes ..... 3:1:3
Theory and practice of machine tool applications, safety quality and economics. Introduction to digital program-ming of machine tools and processes.
Not open to students majoring in engineering.
Prerequisite: BASIC Programming, Junior standing.
333 Engineering Economy ..... 3:3:0
Economics applied to the evaluation of engineering proposals. The effects of depreciation, taxation and interestrates.Not open to students majoring in engineering.
Prerequisite: Mth 1341.
335 Accounting for Engineers3:3:0Introduction to principles of bookkeeping and cost accounting. Use of cost records to help the engineer/executivemake decisions.
IE-336 Applications in I-E-.3:2:3Determination of work content, layout, methods, and times required for manufacturing tasks. Design of jobs andworkplace for productivity and human value content.
Prerequisite: Mth 3370 or IE 332.
339 Manufacturing Materials and Process ..... 3:3:0
Functional and economic selection of materials and processes in manufacturing.
Not open to students majoring in engineering.
Prerequisite: Chm 143 or equivalent, IE 3311.
430 Quality Assurance and Control ..... 3:3:0
Assurance that products perform as intended. Reducing or eliminating defective output.
Prerequisite: Mth 3370 or IE 332.
4301 Quality Control Applications ..... 3:3:0
Quality assurance and the application of statistics to the control of quality. Control charts, acceptance samplingreliability and the role of standards in the quality function.Not open to students majoring in engineering.Prerequisite: Mth 234.
4303 Financial Analysis and Design ..... 3:3:0A comprehensive analysis of accounting and financial reports, inventory control records, description and incometaxes, and capital budgeting. Design of financial systems under risk and uncertainty. Computer modeling offinancial systems.
431 Computer Applications in Industrial Engineering ..... 3:3:0Computer Aided Manufacturing-Design problems in the areas of computer numerical control, robotics andcomputer vision are presented. Manufacturing Control Systems are discussed as they relate to a Computer In-tegrated Manufacturing (CIM) environment.Prerequisite: BASIC programming, IE 222 or equivalent, and Senior standing.
4315 Organization and Management3:3:0The theory of organization and management. How the executive functions to achieve the organization's goals.Prerequisite: Junior standing.
4316 Industrial and Product Safety ..... 3:3:0Loss control engineering. Mandatory and voluntary standards. Product liability.Prerequisite: Senior standing.
4321 Engineering Data Anatysis ..... 3:3:0
Application of probability and statics to engineering problems. Collection and presentation of engineering data.Fundamentals of commonly applied discrete and continuous probability functions and their engineering appli-cations.
Prerequisite: Mth 241.
432 Statistical Decision Making for Engineers ..... 3:3:0Analysis of data to help the engineer/executive make decisions. Evaluations of performance claims.Mth 3370 or IE 332 and Mth 3301. Junior standing in engineering.
434 Materials Science and Manufacturing Processes ..... 3:3:0Basic principles underlying the behavior of engineering materials and methods of processing these materials.Prerequisite: IE 222. Chm 141 or equivalent.

Techniques for planning and controlling production and inventories. Modern materials requirements planning. Prerequisite: Mth 3370 or IE 332, IE 330.
4351 Production and Inventory Systems 3:3:0
The design and operation of systems for managing production and inventories.
Not open to students majoring in engineering.
Prerequisite: Mth 234, CS 131.
436 Design of Production Facilities $\quad$ 3:1:6
Use of the principles from other IE courses to determine the location, layout, ueeded equipment and facilities and other factors in facilities design.
Prerequisite: IE 322, 330, 3303, 338, 434 and engineering core.
437 Operations Research 3:3:0
An introduction to the construction and mathematical models of organizational systems to aid executives in making decisions.
Prerequisite: M1h 3370, Egr 223 and IE 3303.
438 Work Maesurement 3:2:3
Analysis of layout, methods and motion. Measurement of work content and time manual and machine tasks. Setting time standards.
Not open to students majoring in engineering.

## Department of Mechanical Engineering

Program accredited by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology.
Interim Department Chair: Harry T. Mei 2026 Cherry Building, Phone 880-8769
Professors: Martinez, Mei, Young
Associate Professors: Boughton, Corder, Gold
Adjunct Instructors: Craigue
Laboratory Technician: Colville
Mechanical engineering is a very diverse profession which includes the analysis, design, synthesis and selection of materials for mechanical and thermal systems. This wide range of applications requires a solid foundation in the basic sciences and mathematics as well as in the engineering sciences.

Application of the sciences to the many phases of mechanical engineering is initiated in the junior year. Opportunity is provided the student at the senior level to examine certain aspects of mechanical engineering in more detail or to prepare for graduate study.

Mechanical engineers are found in virtually every phase of industry. They are engaged in professional engineering, research, development, management, and public service. The end products resulting from the application of their knowledge and professional skills are many and a list would include, for example, energy conversion, energy economics, all forms of transportation, central power plants, nuclear reactors, space vehicles, computers, and complex and challenging engineering endeavors.
Bachelor of Science - Mechanical Engineering
Recommended Program of Study
First and Second Year
(See Common Program)
Third Year
First Semester
English Literature ..... 3
ME 330 Mech Design I ..... 3
ME 3311 Fluid Mech. ..... 3
ME 338 Thermo Il .....  3
Fine Arts .....  .3
ME 335 CAE. ..... 3
18
Second Semester
ME 321 Measurements Lab. ..... 2
ME 331 Heat Transfer ..... 3
ME 332 Mech Design Il ..... 3
ME 334 Dyn Sys Anal .....  3
EE 333 Electronics ..... 3
Political Science I. ..... 3

## Fourth Year

ME 421 lnt Sys Des ..... 2
ME 4313 Thermal Sys Des ..... 3
ME 4319 Materials Science. ..... 3
ME 4323 Mech Des Ill ..... 3
Political Science Il ..... 3
*ME Elective ..... 3
ME 411 Seminar

First Semester

*At least three hours must be an ME design elective course.

## Mechanical Engineering Courses (ME)

Second Semester
ME 4316 Engr Des Project. ..... 3
ME 4317 Engr Sys Analysis ..... 3
*ME Elective
*ME Elective ..... 3
Social Science.
Social Science. ..... 3
Health \& Weliness
Health \& Weliness ..... 3
Approved Mth of Science. ..... 3

321 Measurements Laboratory $\quad$ 2:1:3 temperature, speed, power, torque, frequency, and flow measurements are conducted.
Prerequisite: ME 3311 and ME 338 or concurrent with both.
330 Mechanical Design I . 3:3:0 Introduction to the concepts associated with the design of machine elements. Kinematics in the analysis of mechanisms: centros, velocities and accelerations in plane mechanisms; rolling and sliding in belts, chains and cams; gears in plane or epicyclic trains.
Prerequisite: Egr 231 and CE 232 or concurrent with instructor's approval.
331 Heat Transfer 3:3:0
Theory of conduction and potential flow, radiation and convection with engineering techniques and applications. Prerequisite: Mth 3401 and ME 3311 or parallel.
Fluid Mecbanics $\quad$ 3:3:0
Fluid-flow concepts are presented through the derivation of the basic equations of continuity, energy and momentum. Engineering aspects of flow measurement, pressure-drop calculations and pumping requirements are considered.
Prerequisites: Egr 231, 234, CE 232 and Mth 3401 or with instructor's approval.
Mechanical Design II
3:2:3
The design of machine components considering loads, stress, deflection and stiffness, material properties; failure theories; designing for static strength and fatigue strength. A written and oral presentation of the conceptual design of a machine to meet a specified societal need is required.
Prerequisites: CE 232 and ME 330 or concurrent with instructor's approval.
334 Dynamic Systerns Analysis
3:3:0
Physical and mathematical aspects of mechanical, hydraulic, pneumatic, thermal, and electrical systems are introduced. Analysis techniques for modeling the dynamic performance of lumped mass systems are presented and applied using a unified state-space representation. Both formal analytical and extensive computer methods are utilized for the determination of model response.
Prerequisites: ME 3311 or concurrent with instructor's approval.
335 Computer-Aided Engineering (CAE) ..... 3:2:3Introduction to MSC/NASTRAN is provided. Overview of finite element analysis and its application in mechanical engineering. Course focuses on the modeling aspects of mechanical systems simulation for static stress and deflection analysis.
Prerequisites: Egr 231 and CE 232 or concurrent with instructor's approval.
338 Thermodynamics II 3:3:0
A continuation of Egr 234 including vapor and gas cycles, mixtures of gases, thermodynamics of chemical systems and psychrometrics.
Prerequisite: Mth 3401 and Egr 234.
Seminar
1:1:0
Instruction in effective public speaking. Oral and written presentation and dicussion of selected topics including those from current literature of fields related to mechanical engineering. Professional activities are encouraged.
421 Integrated Systems Design
2:1:3
The techniques of integrated systems design are treated. The student is required to utilize these techniques by performing a system design. The formation of teams is encouraged. Instruction in team dynamics is provided. Presentation of intermediate and final results by each team to the class is required followed by peer response. Prerequisites: ME 334 and Senior standing.

4311 Controls Engineering
3:3:0
The theory of integrated automatic controls systems with application to combustion, temperature, pressure, flow and humidity control. Industrial control systems are considered
Prerequisite: ME 331 and 334.
4312 Gas Dynamics
Fundamentals of one-dimensional compressible flow. An introduction to multidimensional wave phenomena with various applications.
Prerequisite: ME 3311 and ME 338.
4313 Thermal Systems Design 3:3:0
Heat transfer study with emphasis on heat exchanger design, optimization of energy exchange, economics and design feasibility. A formal oral presentation of a written report is made by the individual to the class followed by questions and answers.
Prerequisites: ME 331, 334, 338
Fundamental and scientific principles of physical metallurgy to include nucleation theory of solidification, behavior of single and polycrystalline solids under stress and heat treatment plastic deformation and recrystallization and basic principles of X-ray deffraction used in physical metallurgy.
Prerequisite: ME 4319 or concurrent.
4315 Thermodynamics III
3:3:0
Topics in applied thermodynamics selected from any of the following: Psychrometriccs, combustion, equilibrium reactions, compressible flow, thermodynamic machinery and optimization of power plant and utility systems using availability analysis and/or linear programming. May be repeated for credit with consent of instructor.
Prerequisite: ME 334, ME 338.
4316 Engineering Design Project
3:1:6
Student research projects are planned, scheduled, designed and evaluated. Experience is gained in the execution of an engineering project and a formal technical report is required.
Prerequisite: ME 421, and senior standing.
4317 Engineering Analysis II
3:3:0
A continuing of ME 334 with some emphasis being placed on analog methods and computer tecchniques in solving engineering problems.
Prerequisite: ME 334.
4319 Materials Sciencce
3:2:3
Atomic and crystallographic structures of materials, mechanical properties of materials, elastic and plastic be-

- havior as well as stress and strain measurement, yield phenomena, hardness and laboratory techniques are considered. Criteria for selection of engineering materials are discussed.
Prerequisites: CE 232.
432 Mechanical Vibrations
3:3:0
The theory of vibrating systems, including kinematics and vibrations, harmonic and non-harmonic, single and multiple degrees of freedom; free and forced vibrations, with and without damping. Applications to crank and slider, rotating machinery, balancing, vibration isolation and absorption, and instrumentation.
Prerequisite: ME 332, ME 334 and Senior standing.
Space mission parameters. Basic elements of propulsion systems and propulsion systems parameters. Selected problems of thermochemical systems and electro-magneto-thermal systems.
Prerequisite: ME 331 and ME 338.

4323. Mechanical Design III ..... 3:2:3

Continuation of the design of machine components including the design of threaded fasteners and power screws, welded joints, mechanical springs, lubrication and sliding bearings, roling-element bearings, spur gears, shafts, clutches and brakes, and miscellaneous power transmission components. Completion of the conceptual design begun in ME 332 to include the addition of a power source, greater design detail in the elements, economic aspects of the design, and other matters as appropriate. Both a report and a presentation are required. Team formation and the use of MSC/NASTRAN as an analysis tool are encouraged.
Prerequisites: ME 332.
Aerodynamics
3:3:0
Topics include circulation and curl, irrotational flow, velocity potential, vortex theorems, the equations of motion, flow about a body, and the thin airfoil. Vector and complex notations are used.
Prerequisite: ME 3311 and ME 334 or concurrent.
434 Internal Combustion Engines 3:3:0
The principles of design and analysis of various types of internal combustion engines.
Prerequisite: ME 331 and ME 338.
435 Turbomachinery $\quad \mathbf{3 : 3 : 0}$
Flow problems encountered in the design of water, gas and steam turbines, contrifugal and axial-flow pumps and compressors.
Prerequisite: ME 3311 and ME 338.
436 Dynamics of Machinery 3:2:3
Kinematics of mechanisms, gears and epicyclic gear trains. Synthesis of linkages. Calculation of inertia forces and shaking forces on machines. Multi-cylinder engine balancing. Graphical and analytical methods are employed. Prerequisite: ME 332 and ME 334.
437 Advanced Machine Design 3:2:3
The application of machine design principles to an integrated design of a complete machine, including fabrication and economic consideration.
Prerequisite: ME 4323.
438 Environmental Systems Engineering 3:2:3
Design of refrigeration and air-conditioning systems including selection of mechanical equipment, controls, piping and duct layout.
Prerequisite: ME 331 and ME 338 or with instructor's approval.
439 Advanced Strength of Materials
3:3:0
Introduction to the fundamental theory of three-dimensional elasticity with specialization of the general theory to provide the theory of plane stress and plane strain. Application of the general theory is made by analyzing the stress and deflection in a beam having a steel-concrete-steel sandwich configuration.
Prerequisites: CE 232 and ME 334.

# Department of Mathematics 

Department Chair: John R. Cannon Lucas Building, Phone 880-8792
Director of Mathematics Instruction: Sam M. Wood, Jr.
Professors: Cannon, Crim
Professor Emeritus: Bell (1979), Latimer (1979)
Associate Professors: Baj, Brenizer, Dingle, Laidacker, Matheson, Price, Wood
Assistant Professors: Baker, Chiou, Green, Harvill, Lauffer, Read
The Department of Mathematics offers courses in applied and pure mathematics, computer science, mathematics education for elementary and secondary school certification, and statistics. These programs permit students to select courses suited to a variety of interests and career goals. Advising plays an integral role in achieving these objectives. Consequently each student is assigned an advisor to assist with scheduling and career planning. An active mathematics club provides students with the opportunity to work with fellow mathematics majors in a number of activities.

The department offers the following Baccalaureate degrees:
Bachelor of Arts in Mathematics
Bachelor of Science in Mathematics
Bachelor of Science in Mathematical Sciences (Applied Mathematics Concentration) Bachelor of Science in Mathematical Sciences (Statistics Concentration)

The first two degree programs emphasize the traditional aspects of mathematics, both as a basic science and as the major tool in solving problems. They provide depth in analytical reasoning, abstraction and structure. Students graduating with these degrees are equipped to enter secondary teaching or to pursue graduate programs, in mathematics or statistics.

The last two programs prepare students for careers in a variety of fields, including positions in industry, business and government. Students who chose one of the latter two programs, concentrating in applied mathematics or statistics, will have the appropriate information recorded on their transcripts.

The importance of the mathematical sciences to the ambitious scientist and engineer cannot be overemphasized. Many phenomena of nature can best be understood when translated into language of mathematics. A student majoring in science or engineering at the university should become acquainted with the basic tools of mathematics.

Undergraduate education in mathematics has, and will continue, to undergo substantial changes during this decade. The computer is primarily responsible for this. High speed computing machines have for many years been an important mathematical applications tool in business, industry and government. This has created new demands for professional applied mathematicians. Such people optimally have a solid background in basic mathematics, an understanding of algorithm design and analysis, a programming skill in at least one programming language, and finally, a mastery of important techniques in applied mathematics, such as operations research and statistics.

People with such qualifications may secure positions in industrial management, market forecasting, high-technology fabrication plants and other comparable positions.

Finally, those with an interest in statistics are quite valuable to firms-for example, banking and insurance who deal with a large amount of data and thus need professional mathematicians to develop and maintain the associated computer software.

## Placement

Entrance into all mathematics courses is determined by the advisor in the student's major department, consistent with course prerequisites and possible SAT and TASP (Texas Academic Skills Program-Certification Test for Entrance into College) requirements for entry level courses. Students who fail the mathematics portion of TASP must begin their mathematics with Developmental Math 1301. Students who have passed the mathematics portion of TASP but do not have an adequate SAT score are to initiate their mathematics with Developmental Math 1302 or possibly Mathematics 1331 depending upon the mathematics requirements in their major degree plan.

## Teacher Certification Mathematics

Those wishing to secure a provisional certificate-secondary with a teaching field in mathematics-need to consult the College of Education section in this bulletin for details concerning certification.

## Recommended Programs of Study

Requirements Common to all Four Degree Programs:

1. General requirements: 51 semester hours
a. Eng - Composition - six semester hours
b. Eng - Literature - six semester hours
c. Laboratory Science - eight semester hours (same science see p. 223)*
d. Pols 231, 232
e. His 231, 232
f. PE (Activity)-four semester hours
g. Phil 130
h. Fine Arts - 3 semester hours
i. Social Science -3 semester hours
j. Hlth 137-3 semester hours
k. Speech -3 semester hours
2. Major requirements: $46-48$ hours
a. Mth 148, 149, 241 - Calculus and Analytic Geometry
b. Mth $1345,233,331,335,338,3370,4315$
c. Mth Electives - seven-to-nine semester hours at the 300/3000 level or higher depending on program of study.
d. CS - six semester hours
3. Minor requirements (see program below)
4. Electives (see program below)
5. Degree credit for Mathematics courses is allowed only for courses in which a grade of " $C$ " or better is earned.
6. Students graduating with a Baccalaureate Degree in Mathematics are required to take a national standardized examination. The exam presently being used is the Educational Testing Service and College Board Achievement Test. The test results should be sent directly from the testing service to the Mathematics Department of Lamar University. Students taking the exam must have completed 90 semester hours and should have credit for or be enrolled in Mth 335.
*To be chosen from Phy 141/142, or 247/248 Chem. Bio, or Geo 141/142

## Bachelor of Arts - Mathematics Major

1. Additional General Requirements: 10-12 Hours

Foreign Language
2. Additional Major Requirements: Select three courses from the List: Mth 3311, 333, 3321, 4202, 4203, 431, 433, 4316, 4321, 4322, 4325
3. Minor Requirements: 18 Hours

Total Hours 125-129

## Bachelor of Science - Mathematics Major

1. Additional General Requirements: None
2. Additional Major Requirements: Seven-to-nine hours

Select three courses from the list: Mth 3311, 333, 3321, 4202, 4203, 431, 433, 4316, 4322, 4325
3. Professional Area: 24 Hours

Courses to be approved by the department.
4. Electives: 6 Hours

To be approved by the department.
Total Hours 127-129

## Bachelor of Science - Mathematical Sciences Applied Mathematics Concentration

This is a professional program that prepares the student to start an industrial or government career immediately after graduation. However, the student's training will be sufficiently comprehensive to allow entry into most graduate programs in the engineering, mathematical, physical, life or management sciences as well as computer science.

1. Additional General Requirements: None
2. Additional Major Requirements: Seven-to-nine hours

Select three courses from the list: Mth 4202, 4203, 431, 4316, 4325
3. Professional Area: 24 hours

Courses to be approved by the department

## 4. Electives: 6 hours <br> To be approved by the department. <br> Bachelor of Science - Mathematical Sciences Statistics Concentration

## (See Description under Bachelor of Science - Mathematics Science Applied Mathematics Concentration)

1. Additional General Requirements: None
2. Additional Major Requirements: Nine hours * a. Select one course from the list: Mth 4321, 4322
b. Select one course from the list: Mth 3321, 433, 4316
3. Professional Area: 24 hours

Courses to be approved by the department
4. Electives: 6 hours

At least six hours (to be approved by the department) must be from the Humanities and Social Sciences

## Standard Curriculum-For All Degree Programs

## First Year

First Semester
Eng Composition ..... 3Irst SemesterMth 148 Calculus and Analytic Geometry I
Mth 1345 Discrete Mathematics ..... 34
Laboratory Science .....  4
PE/MIb/MS
Second Semester
Eng Composition .....  3
Mth 149 Calculus and Analytic Geometry II .....  4
Computer Science. .....  3
Laboratory Science ..... 4
PE/MIb/MS ..... 216
Second Year
First Semester Second Semester
English Literature ..... 3
Mth 241 Calculus and Analytic Geometry III ..... 4
Computer Science .....
Pols 231 ..... 3
Mth 233 Linear Algebra ..... 3
16
Literature or Foreign Langauge .....  3
Mth 331 Differential Equations .....  3
Pols 232 ..... 3
Mth 3370 Intro to Theory Stat Infer ..... 3
Professional Elective ..... 3
Phil 130 Philosophy of Knowledge .....  3
Third Year
First Semester
Mth Sci Elective ..... 2 or 3
Mth 338 Advanced Calculus .....  3
His 231 ..... 3
Professional Elective ..... 3
Elective ..... 3
Mth Sci Elective ..... 2 or 3
Professional Elective .....  6
His 232 ..... 3
Mth 335 Modern Algebra. ..... 3

## Second Semester

Speech ..... 3
17 or 18
Fourth Year
First Semester
Fine Arts .....  3
Mth 4315 Numerical Analysis .....  3
Professional Elective ..... 6
Hlth 137 .....  3
Second Semester
Mth Sci Elective ..... 3
Professional Elective ..... 6
Elective ..... 3
Social Science .....  3

## Mathematics Courses (Mth)

| 1331 | Survey of Mathematics I $3: 3: 0$ |
| :---: | :---: |
|  | Sets, the systems of whole numbers, the system of integers, elementary number theory, the system of rationals, and the system of real numbers. |
|  | Prerequisite: Two years of high school algebra and TASP or Dmth 1302. |
| 1334 | College Algebra $\quad$ 3:3:0 |
|  | Linear, quadratic equations and inequalities, determinants, matrices, systems of equations, partial fractions, binomial theorem, logarithms, theory of equations. |
|  | Prerequisite: Two years of high school algebra, 400 Math SAT, and TASP or Dmth 1302. |
| 1335 | Precalculus Mathematics 3:3:0 |
|  | Intensive review of algebra, trigonometry and analytic geometry. Prepares students for Mth 148 and 236. Prerequisite: Two years of high school algebra, trigonometry, 400 Math SAT and TSAP. |
| 1336 | $\begin{array}{ll}\text { Survey of Mathematics II } & \text { 3:3:0 }\end{array}$ |
|  | Equations, inequalities, graphs, functions, geometry, counting methods, probability, and statistics. |
|  | Prerequisite: Mth 1331. |
| 1337 | Trigonometry 3:3:0 |
|  | Study of trigonometric functions, identities, inverse functions, trigonometric equations, graphs and applications of trigonometry. Recommended for students who have not had high school trigonometry. |
|  | Prerequisite: Two years of high school algebra, Mth 1334 or concurrent, and TASP. |
| 134 | Mathematics for Business Applications 3:3:0 |
|  | Review of basic algebraic techniques, linear equations and inequalities; the mathematics of finance, matrices, |
|  | linear programming, and an introduction to probability and statistics. |
|  | Prerequisite: Two years of high school algebra, 400 Math SAT, and TASP or Dinth-1302. |
| 134 | Elements of Analysis for Business Applications 3:3:0 |

1341 Elements of Analysis for Business Applications 3:3:0
An introduction to calculus. The derivative, applications of the derivative, techniques of differentiation, exponential and natural logarithmic functions, an introduction to the integral calculus.
Prerequisite: Mth 134 or 1334, or their equivalent.
1345 Discrete Mathematics 3:3:0
An introduction to combinatorial and finite mathematics required in the study of computer science. Topics include special functions such as truncation, floor and ceiling, number theory, matrix algebra, summation notation, logic and Boolean algebra, probability, combinatorics, graph theory, difference equations and recurrence relations. Prerequisite: Mth 1334 or its equivalent.
148 Calculus and Analytic Geometry I 4:4:0
Functions, limits. derivatives of algebraic, trigonometric, exponential and iogarithmic functions, curve sketching, related rates, maximum and minimum problems, definite and indefinite integrals with applications.
Prerequisite: Mth 1335 or its equivalent.
149 Calculus and Analytic Geometry II
Methods of integration, polar co-ordinates, parametric equations and vectors.
Prerequisite: Mth 748 or its equivalent.
233 Linear Algebra I $\quad$ 3:3:0
A first course in linear algebra, including vector and matrix arithmetic, solutions of linear systems and the Eigenvalue-Eigenvector problem. Elementary vector space and linear transformation theory.
Prerequisite: Mth 148 (Mth 236) or current enrollment in Mth 148 (Mth 236).
234 Elementary Statistics
3:3:0
Non-calculus based introduction to statistics. Statistical measures of data, statistical description of data, elementary probability, random variables, binomial and normal distribution, estimation, testing hypotheses.
Prerequisite: Mth 1334 or its equivalent.
236 Calculus I
3:3:0
Sets, functions, limits, derivatives and applications. Introduction to integral calculus. Designed for students majoring in business, social and life sciences.
Prerequisite: Mth 1335 or its equivalent.
237 Calculus II 3:3:0
Integral calculus and applications. Functions of several variables. Convergence and divergence of series and sequences. Designed for students majoring in business, social and life sciences.
Prerequisite: Mth 236.
241 Calculus and Analytic Geometry III
4:4:0
Sequences, series, functions of several variables, vector analysis, partial derivatives, multiple integrals and differential equations.
Prerequisite: Mth 149 or its equivalent.

Historical origin and development of mathematical concepts through the sixteenth century. Topics include Eqyptian and Babylonian mathematics, Greek mathematics, and early European mathematics.
Prerequisite: junior standing and six hours of mathematics.
331 Ordinary Differential Equations $\quad$ 3:3:0 $\quad \begin{array}{r}\text { Classical and numerical solutions of ordinary differential equations and linear systems. Existence and uniqueness }\end{array}$ of solutions.
Prerequisite: Mth 237 (Mth 149) and Mth 233.
3311 Set Theory
Infinite sets, cardinal and ordinal arithmetic, axiom of choice, transfinite induction, introduction to topology. Prerequisite: Mth 149.
3313 Elementary Geometry
The development of Euclidean geometry, concepts of measurement and co-ordinate geometry.
Prerequisite: Mth 1336.
3315 Elementary Number Theory $\quad$ 3:3:0
A development of the elementary theory of numbers, Diophantine equations, congruences, Fibonacci numbers and magic squares.
Prerequisite: Mth 1334 and Mth 1336.
3317 Problem Solving 3:3:0
Role of inductive and deductive methods in solving and posing problems. Methodology is introduced via illustrative examples.
Prerequisite: 9 semester hours of Mathematics.
3321 Discrete Structures
Combinatorics, graphs, Boolean algebra, algebraic structures, coding theory, finite state machines, machine design and computability.
Prerequisite: Mth 149 and 233, and CS 1411.
333 Higher Geometry
3:3:0
Axiomatic and set-theoretic treatment of geometry. An analysis of the metric and synthetic approach to Euclidean geometry. Introduction to non-Euclidean geometries.
Prerequisite: Mth 149.
3345 Computer-Assisted Mathematical Problem Solving I $\quad$ 3:3:0
Utilization of the computer as a tool to gain insight into complex mathematical problems. Numerical integration, computation of special numbers (pi, exp(-20), gamma (1/3), etc.) Euler-Maclaurin summation formula, interpolation and extrapolation, splines and least squares, nonlinear equations and systems, maxima and minima. Graphics: plotting of surfaces, level sets, orbits of dynamical systems.
Prerequisite: Mth 331 or Mth 3401.
335 Modern Algebra
An introduction to algebraic structures, groups, rings, integral domains and fields.
Prerequisite: Mth 233 and Mth 149 (or 237).
$\mathbf{3 3 7 0}$ Introduction to the Theory of Statistical Inference 3:3:0
A calculus-based introduction to statistics. Probability, special probability distribution, nature of statistical methods, sampling theory, estimation, testing hypotheses.
Prerequisites: Mth 149 or 237.
338 Advanced Calculus 3:3:0
Sequences, series, Riemann integral, Weierstrass approximation theorem, Picard existence theorem for differential equations, Lebesque integral.
Prerequisite: Mth 241.
3401 Differential Equations and Linear Algebra $\quad$ 4:4:0
Classical techniques for ordinary differential equations, linear algebra, linear systems of ordinary differential equations, series solutions and Laplace transforms.
Prerequisite: Mth 241.

## 4131, 4231, 4331 Special Problems

1-3:1-3:0
Special advanced problems in mathematics to suit the needs of individual students. Course may be repeated for credit when the topic varies.
Prerequisite: Consent of instructor.
4202 Partial Differential Equations
Fourier series. Solution of boundary value problems including the heat equation, the wave equation, and the potential equation.
Prerequisite: Mth 241, and Mth 3401 or Mth 331.
4203 Vector Analysis
Vector algebra, vector calculus of three dimensional vector fields (gradients, curl, divergence Laplacian) Green's, Grauss' and Stokes' theorems.
Prerequisite: Mth 241.
431 (G) Complex Variables

Complex numbers, analytic functions, complex line integrals, Cauchy integral formula and applications.

Prerequisite: Mth 241.

Algorithms for solving linear and non-linear equations and systems thereof. Interpolating polynomials, finite difference approximations of derivatives, techniques of numerical integration. One-step and multi-step methods for solving ordinary differential equations and systems thereof.
Prerequisite: Mth 241 or Mth 331, and CS 1411, or its equivalent.

## 4316 (G) Linear Programming

3:3:0
Theory, development and computational aspects of the simplex method; convexity; degeneracy problems; revised simplex method; transportation problems, network flow problems; industrial applications.
Prerequisite: Mth 149, Mth 233 and CS 1411.

The simple linear model and the principle of least squares. Inference about slope parameter, prediction of future values, model checking, polynomial regression, multiple regression analysis, regression using matrix algebra. Prerequisite: Mth 3370 \& $M$ th 233.
4322 (G) Analysis of Variance
Single sample inference, two sample inference, single factor analysis of variance, multiple comparison in ANOVA, multi-factor analysis of variance, 2 p factorial experiment.
Prerequisite: Mth 3370 or 438.
4325 Finite Element Analysis 3:3:0
Fundamentals of the finite element method. Domain and discretization, interpolation functions and computer implementation. Applications to heat transfer, torsion of noncircular sections and irrotational flow.
Prerequisite: Mth 3401 or Mth 331, or equivalent.
433 (G) Linear Algebra II 3:3:0
Vector-spaces, linear transformations, matrices, determinants, Eigenvalues, Eigenvectors, canonical forms, bilinear mappings and quadratic forms.
Prerequisite: Mth 149 and 233.
4345 Compter-Assisted Mathematical Problem Solving II 3:3:0
Continuation of Mth 3345 . Topics selected from stability and error analysis for differential systems, numerical study of special functions, two-point boundary problems, random walks and Monte Carlo methods, extremal problems, numerical Fourier methods, and wave propagation phenomena. Results will be presented graphically where appropriate.
Prerequisite: Mth 3345.
438 (G) Theory of Statistical Inference : $\begin{aligned} & \text { 3:3:0 } \\ & \text { A formal introduction to statistical inference; sampling theory, general principles of statistical inference, goodness }\end{aligned}$
A formal introduction to statistical inference; sampling theory, general principles of statistical inference, goodness of fit test, regression and correlation, analysis of variance.
Prerequisite: Mth 3370.


Lamar Communications students get "real world" experience producing live news broadcasts.

# College of Fine Arts and Communication 

## Departments: Art, Communication, Music

W. Brock Brentlinger, Ph.D., Dean

Dishman Art Gallery, Phone 880-8137

## Aims and Purposes

In Relation to the University: Within the context of a philosophy that suggests that art and science may improve upon nature, the College of Fine Arts and Communication provides work on a professional level in several creative and practical disciplines. The College also assumes the role of contributing to the education of the "whole" man or woman; therefore, with the possible exception of some of the upper-level courses, all of the work available in the College is open to and within the capabilities of most students enrolled in the University. It is the purpose of those courses in the fine arts to confront the unknown from a non-science oriented approach to knowledge to encourage the development of aesthetic sensitivity and to provide for an enriching artistic experience. Several programs in Communication are available within the College. The goal of the coursework in these areas is to educate students for professional work within the fields of public speaking, the mass media, and communication disorders.

In Relation to the Departments: The College of Fine Arts and Communication offers the following basic degree programs:

1. Bachelor of Fine Arts, Art Major
a. Graphic Design
b. Studio Art
2. Bachelor of Science
a. Plan III All Level Teacher Certification
b. Secondary Art
3. Bachelor of Music Major in:
a. All Applied Fields
b. Theory and Composition
c. Teacher Certification, All Levels
4. Bachelor of Science
a. Speech-Public Address Major
b. Speech-Speech Pathology and Audiology Major
c. Speech-Theatre Major
d. Communication

The Bachelor of Arts is offered in all of the above disciplines except Communication.
5. Bachelor of General Studies Fine Arts

Descriptions of graduate programs leading to the Master of Music, Master of Music Education, Master of Science in Speech and Master of Science in Deaf Education degrees are included in the Graduate Bulletin.

## Humanities Courses (Hum)

The departments of art, communication and music of the College of Fine and Applied Arts cooperate in the offering of three interdisciplinary courses in fine arts appreciation.

[^16]231 Studies in Italian Culture
3:2:4
Exposure to and study of the history of the development of the cultural arts in central Italy by means of lectures and exploratory visits to churches, museums and important historical sites in Rome, Naples, Florence and nearby cities. Summers only. (LU-Rome only.)
331 Experiential Learning in the Arts
3:0:9
Design and implementation of experiential learning study project under guidance of faculty advisor. Provides opportunity to apply classroom learning to actual experiences in community art programs. May be repeated for credit.
439 Seminar in the Fine Arts
3:3:0
A study of aesthetics, i.e., the theory of fine arts and people's response to them particularly in reference to the visual arts, music and theater.

## Bachelor of General Studies - Fine Arts

The Bachelor of General Studies Fine Arts degree offers a program of interest to those who desire a wide knowledge of the arts without the intent of becoming practicing professional artists and teachers of the arts. Thus, the program offered through this degree resists any tendency toward specialization within the arts. It does provide opportunity, however, for an individual to construct a personal curricular plan, i.e., to follow a special interest within the arts, or to complement the student's appreciation and understanding of the arts through the selection of a rather broadbased program of elective courses from the University offerings as a whole.

## Recommended Program of Study

## First Year

| First Semester | Second Semester |
| :---: | :---: |
| The 131 Introduction to Theater ........................... 3 | Art 135 Art Appreciation.................................... 3 |
| MLt 121 Music Literature .................................... 2 | His 234 American History: Arts in America .......... 3 |
| MEd 131 Elements of Music................................ 3 | MLt 222 Music Literature .................................... 2 |
| English Composition .......................................... 3 | English Composition .......................................... 3 |
| Mth/Sci.......................................................... 3-4 | Mth/Sci.......................................................... 3-4 |
| PE Activity ....................................................... 2 | PE Activity ........................................................ 2 |
| 15-16 | 15-16 |
| Second Year |  |
| First Semester | Second Semester |
| Art 235 Art History Survey I ............................... 3 | Art 236 Art History II......................................... 3 |
| Eng 2311 English Literature................................. 3 | Eng Literature/Speech ......................................... 3 |
| POLS 231 American Government I...................... 3 | POLS 232 American Government II..................... 3 |
| Mth/Sci ..........................................................3-4 | Mth 1334........................................................... 3 |
| PE Activity HLTH 137 ....................................... 3 | His 231 American History ................................... 3 |
| Elective............................................................. 3 | Social Science................................................... 3 |
| 16-17 | 16-17 |
| Third Year |  |
| First Semester | Second Semester |
| MLt 333 Music History I..................................... 3 | MLt 334 Music History II.................................... 3 |
| Eng 337/4317 Drama.......................................... 3 | The 132 Stagecraft.............................................. 3 |
| Mus 110 Recital Attendance............................... 1 | Mus 110 Recital Attendance................................ 1 |
| Elective............................................................. 4 | Philosophy ....................................................... 3 |
| Elective............................................................ 4 | Elective............................................................. 4 |
| 15 | 14 |



## Department of Art

Department Chair: James K. Hill
100 Art Building, Phone 880-8141
Professors: Newman
Associate Professors: Fitzpatrick, Hill, Jack, Lokensgard, Madden, O'Neill
Instructor of Art: Carter
The Department of Art offers undergraduate instruction leading to the Bachelor of Fine Arts Degree in Graphic Design and Studio. Students may elect courses that further professional development in the following areas: Graphic Design, Illustration, Computer Graphics, Photography, Painting, Drawing, Printmaking, Sculpture, and Ceramics. The Bachelor of Science degree is offered in Art Education. The following subject areas may be selected for further professional study in the visual arts: Illustration, Graphic Design, and Computer Graphics. Art electives are available for non-majors who desire experiences in the visual arts as part of their general education.

Art majors are required to follow the prescribed sequence of courses. The letter grade " C " will be the minimum prerequisite grade for continuing studio courses in sequence.

All graduating art majors must be counseled by the Art Department Chairperson during the first semester of their Senior year.

During either the Fall or Spring semester prior to graduation, a candidate for a degree in art will be required to take Senior Thesis and prepare an exhibition. The Department of Art reserves the right to retain a selected work from each graduate for its collection.

A nonmajor student may be admitted to an art course requiring prerequisites with the consent of the instructor.

A minor in art is available to students in other programs or departments by earning 18 hours of credit approved by the department head.

Transfer credit of Freshman and Sophomore art courses is in compliance with the Transfer Curriculum for Visual Arts adopted by the Texas Higher Education Coordinating Board.

## Recommended Programs of Study Bachelor of Fine Arts-Graphic Design

Bachelor of Fine Arts in Graphic Design requires 75 hours of academic foundations with 60 credit hours of professional program.
First Year
First Semester
Art 131 Drawing I .....  3
Art 133 Design I. ..... 3
Fine Arts Core. .....  .3
English Composition ..... 3
PE Activity .....  .2
Laboratory Science .....  .4

## Second Semester

Art 132 Drawing II .....  3
Art 134 Design II .....  3
Philosophy .....  3
English Composition ..... 3
PE Activity .....  .2
Laboratory Science .....  4

## Second Year*

First Semester Second Semester
Art 231 Drawing III ..... 3
Art 233 Design III .....  3
Art 235 Art History Survey I .....  3
HLTH 137 ..... 3
Eng Literature .....  .3
Mth 1334 or above. .....  3
18
Art 232 Drawing IV ..... 3
Art 236 Art History II .....  .3
Art 237 Graphic Design I .....  .3
Social Science ..... 3
Eng Literature/Spc/Foreign Language .....  .3
Methods of Quantitative Analysis ..... 3
Third Year
First Semester
Art 139 Photography I ..... 3
Art 3313 Illustration I .....  .3
Art Elective .....  .3
Sophomore American History ..... 3
POLS 231 American Government I ..... 3
General Elective .....  3

## Second Semester

Art Elective .....  .3
Art 3343 Graphic Design III. .....  .3
Art History Elective. .....  .3
Sophomore American History .....  3
POLS 232 American Government II. ..... 3
Studio Seminar .....  .1
18 ..... 16
Fourth Year

## First Semester

Art 3333 ..... 3
Art 3355 Printmaking I .....  3
Art 3316 Watercolor I. .....  3
Art History Elective .....  .3
Art Elective .....  3

## Second Semester

Art 4399 Thesis ..... 3
Art Elective ..... 3
Art Elective ..... 3
Art Elective .....  3
Art History Elective .....  3
15
*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

## Bachelor of Fine Arts - Studio Art

Bachelor of Fine Arts in Studio requires 75 credit hours of academic foundations, 60 credit hours of professional program to include courses in the following areas:

Painting: 3316, 3317, 3326, 3327, 4316, 4326
Printmaking: $3365,4355,4399$
Drawing: 3325, 4315, 4325
Sculpture: 3375, 4375
Ceramic: 3376, 3386, 4376
First Year

## First Semester

Art 131 Drawing I ..... 3
Art 133 Design I. ..... 3
Fine Arts Core. .....  3
English Composition .....  3
PE Activity .....  .2
Laboratory Science .....  4
Art 231 Drawing III .....  3
Art 233 Design III ..... 3
Art 235 Art History Survey I .....  3
PE Activity HLTH 137 ..... 3
English Literature .....  3
Mth 1334 ..... 3
18
Second Year*
18

## Second Semester

Art 132 Drawing II.................................................... 3
Art 134 Design II ...................................................... 3
Philosophy 130.......................................................... 3
English Composition ................................................. 3
PE Activity ..................................................................... 2
Laboratory Science .................................................... 4
18
Art 232 Drawing IV .....  3
Art 234 Sculpture. .....  3
Art 236 Art History II .....  3
Art 238 Painting I .....  3
Social Science .....  3
Eng Literature/Spc/Foreign Language. .....  3

## Third Year

First Semester Second Semester
Art 238 ..... 3
Art 139 Photography I ..... 3
Art 3355 Printmaking 1 .....  3
Sophomore American History .....  3
POLS 231 American Government I ..... 3
Methods of Quantitative Analysis .....  .3
18 ..... 16
Art Elective .....  .3
Art History Elective .....  .3
Sophomore American History .....  .3
POLS 232 American Government II .....  3
Art 3335 or 3376 .....  3
Studio Seminar .....  1
Fourth Year

| Firsit Semester | Second Semester |
| :---: | :---: |
| Art Elective ....................................................... 3 | Art 4399 Thesis ................................................. 3 |
| Art Elective....................................................... 3 | Art Elective...................................................... 3 |
| Art Studio Elective (upper div)............................ 3 | Art Studio Elective (upper div)........................... 3 |
| Art History Elective............................................ 3 | Art History Elective............................................ 3 |
| General Elective................................................. 3 | Studio Seminar .................................................. 1 |
| Studio Seminar................................................ 1 |  |
| 16 | 13 |

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

## Bachelor of Science

## All-Levels Certification

## First Year

 Second SemesterFirst Semester
First Semester
Art 131 Drawing 1 .
3
Art 133 Design I. ..... 3
English Composition ..... 3
PE Activity ..... 2
Fine Arts .....  .3
Laboratory Science .....  4
Art 132 Drawing II .....  .3
Art 134 Design II ..... 3
English Composition .....  3
PE Activity .....  2
Philosophy 130 .....  3
Laboratory Science .....  4
18
18 ..... 18
Second Year*
First Semester
Art 231 Drawing III ..... 3
Art 233 Design III .....  .3
Art 235 Art History Survey I .....  3
English Literature .....  3
PE Activity HLTH .....  .3
Social Science ..... 3 ..... 18

## Second Semester

Art 236 Art History II ..... 3
English Literature/Foreign Language .....  .3
Methods of Quantitative Analysis .....  .3
Mth 1334 .....  .3
Speech 131 .....  .3
Art 237 Graphic Design I .....  .3
Third Year
Art 3355 Printmaking I .....  .3
Art 3371 Studies in Visual Art ..... 3
C\&I 331 Introduction to American Public
Education .....  .3
Art Elective ..... 3
POLS 231 American Government I ..... 3
Sophomore American History ..... 3

## First Semester

 .....  3POLS 232 American Government II. .....  .3
Sophomore American History .....  3
CS 130 ..... 3
Art 139 Photography I ..... 3
Art Electives .....  3

## Second Semester

PED 332

| First Semester | Second Semester |
| :---: | :---: |
| Art 3376 Ceramics I............................................ 3 | PED 463 Student Teaching All Levels/Special....... 6 |
| PED 338............................................................ 3 | PED 434 Elementary Methodology and Classroom |
| Art 3316 Watercolor I......................................... 3 | Management ................................................... 3 |
| Art Electives.................................................... 6 | Hum 439........................................................... 3 |
| 17 | 12 |

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

## Bachelor of Science Degree in Secondary Education (Option II)

| First Year |  |
| :---: | :---: |
| First Semester | Second Semester |
| Art 131 Drawing I.............................................. 3 | Art 139 Photography .......................................... 3 |
| Art 133 Design II ............................................... 3 | Art 134 Design II ............................................... 3 |
| English Composition .......................................... 3 | English Composition .......................................... 3 |
| Fine Arts Core.................................................... 3 | Art 135 ............................................................. 3 |
| Laboratory Science ............................................. 4 | Laboratory Science ............................................. 4 |
| PE Activity ........................................................ 2 | PE Activity ....................................................... 2 |
| 18 | 18 |
| Second Year |  |
| First Semester | Second Semester |
| Second Teaching Field....................................... 3 | Art 236 ............................................................. 3 |
| Second Teaching Field....................................... 3 | Philosophy ....................................................... 3 |
| Art 235 ............................................................. 3 | Methods of Quantitative Analysis........................ 3 |
| English Literature .............................................. 3 | Mth 1334......................................................... 3 |
| HLTH 137,........................................................ 3 | Speech 131....................................................... 3 |
| Social Science................................................... 3 | Second Teaching Field....................................... 3 |
| 18 | 18 |
| Third Year |  |
| First Semester | Second Semester |
| POLS 231 .......................................................... 3 | POLS 232 .......................................................... 3 |
| American History .............................................. 3 | American History ............................................. 3 |
| English Literature/Foreign Language..................... 3 | Art 3376 ........................................................... 3 |
| Art 3316........................................................... 3 | PED 332............................................................ 3 |
| PED 331........................................................... 3 | Second Teaching Field........................................ 3 |
| Second Teaching Field....................................... 3 | Second Teaching Field......................................... 3 |
| 18 | 18 |
| Fourth Year |  |
| First Semester | Second Semester |
| PED 338............................................................. 3 | PED 438............................................................ 3 |
| Art 3381 ............................................................ 3 | PED 462............................................................ 6 |
| Second Teaching Field....................................... 3 | Art 4341 ............................................................ 3 |
| Second Teaching Field....................................... 3 |  |
| Hum1 439........................................................ 3 |  |
| 15 | 12 |

## Teacher Certification - Art

Students wishing to obtain the Bachelor of Science degree and at the same time to certify for a provisional secondary certificate with a teaching field in art, must include in their degree program the following:

1. An approved 24 hour additional teaching field.
2. Professional Development
3. Approved electives to complete a total of 135 semester hours.

For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.

## Art Courses (Art)

131 Drawing I ..... 3:6:0A beginning course investigating a variety of drawing media, techniques and subjects, exploring perceptual anddescriptive possibilities.
132 Drawing II ..... 3:6:0
Continuation of Drawing I stressing the expressive and conceptual aspects of drawing.
Prerequisite: Art 131.
133 Design I ..... 3:6:0
The study of the elements and concepts of two-dimensional design.
134 Design II $\quad$ Continuation of Design I with emphasis upon three-dimensional concept. Prerequisite: Art 133.
135. Art Appreciation ..... 3:3:0An introductory course emphasizing the understanding and appreciation of visual arts (painting, sculpture,architecture). Open to all students.
139 Photography I ..... 3:6:0An introduction to basic photographic processes and techniques used as-an art medium.
231 Drawing III ..... 3:6:0A life drawing course emphasizing structure and action of the human figure.Prerequisite: Art 132.
232 Drawing IV ..... 3:6:0
A continuation of Drawing III with emphasis on individual expression
Prerequisite: Art 231.
233 Design III ..... 3:6:0
An advanced investigation into the problems of two-dimensional form with emphasis on individual expression.Prerequisite: Art 134.
234 Sculpture I ..... 3:6:0
An exploration of the various sculptural approaches in a variety of media including additive and subtractivetechniques.
Prerequisite: Art 132 and 134.
235 Art History Survey I ..... 3:3:0
A survey of painting, sculpture, architecture and the minor arts from prehistoric times to the 14th Century.
236 Art History Survey II ..... 3:3:0
A survey of painting, sculpture, architecture and the minor arts from the 14 th Century to the present.
237 Graphic Design I ..... 3:6:0
An introduction to photo-mechanical reproduction, camera ready art for reproduction, typesetting, text designand page layout.
238 Painting I ..... 3:6:0Exploring the potentials of painting media with emphasis on color and composition.Prerequisite: Art 132 and 134.
Photography II3:6:0Advanced study of black and white photography as an art medium.Prerequisite: Art 139.
3303 Large Format Camera Photography ..... 3:6:0Introduction to the use of the view camera.
Prerequisite: Art 3376.
3313 Illustration I ..... 3:6:0A media course. The preparation and execution of graphic material for reproduction.
3315 Drawing V ..... 3:6:0
Continuation of drawing and experimentation with various media for their adaptability to drawing principles.
Prerequisite: Art 232.
3316 Watercolor I ..... 3:6:0Study and practice in the planning and execution of paintings in transparent and opaque watercolor.Prerequisite: Art 233. May be repeated for credit.
3317 Painting II ..... 3:6:0Continuation of Painting I with emphasis on individual expression.Prerequisite: Art 238. May be repeated for credit.
3323 Illustration II ..... 3:6:0
Experimentation with various techniques and/or media. Continuation of Art 3313.Prerequisite: Art 3313.3325 Drawing VI3:6:0Continuation of Art 3315. May be repeated for credit.Prerequisite: Art 3315.
3326 Watercolor II ..... 3:6:0A continuation of 3316. May be repeated for credit.Prerequisite: Art 3316.
3327 Painting III ..... 3:6:0Continuation of 3317 . May be repeated for credit.Prerequisite: Art 3317.
3333 Graphic Design II ..... 3:6:0The study of advanced layout for media advertising, collateral and editorial material and the basic preparationof art for reproduction.Prerequisite: Art 237.
3335 Crafts ..... 3:6:0Basic processes of textile design, weaving and jewelry. May be repeated for credit.
3343 Graphic Design III3:6:0
Advertising layout in color and introductory package design. Hard copy production and use in practical problemsof design and reproduction.
Prerequisite: Art 139, 3313, 3333
3353 Fashion Layout and Illustration ..... 3:6:0A study of basic layout and illustration for fashion advertising.
3355 Printmaking I3:6:0An introduction to printmaking with an emphasis on intagho and relief processes.Prerequisite: Art 233.
3365 Printmaking II ..... 3:6:0A continuation of Art 3355 with emphasis on planographic and serigraphic techniques. May be repeated forcredit.Prerequisite: Art 3355.
3371 Studies in Visual Art ..... 3:3:0Applications of essential elements in the visual arts.
3375 Sculpture II ..... 3:6:0
Application of the principles of sculpture through experiment in clay, plaster and various materials. May berepeated for credit.Prerequisite: Art 234.
3376 Ceramics I ..... 3:6:0Investigation and practice in ceramic processes: forming and firing techniques. May be repeated for credit.Prerequisite: Art 234 or permission of instructor.
3386 Ceramics II ..... 3:6:0Opportunities for specialization in ceramic processes. May be repeated for credit.Prerequisite: Art 3376.
4303 Color Pholography ..... 3:6:0An introduction to color printing techniques and the use of color analyzers.Prerequisite: Art 3303.
4315 Drawing VII ..... 3:6:0Specialized problems in studio area. May be repeated for credit.Prerequisite: Art 232.
4316 Painting IV ..... 3:6:0Specialized problems in studio area. May be repeated for credit.4325 Drawing VIII3:6:0A continuation of Drawing VII. May be repeated for credit.Prerequisite: Art 3325.
4326 Painting $V$ ..... 3:6:0A continuation of Painting IV. May be repeated for credit.Prerequisite: Art 4316.
4331 Crafts-Paper Fabrication ..... 3:6:0
Investigation of techniques of manipulating or fabricating and impressing paper. Course may be repeated forcredit.
4336 Professional Practices3:3:0
A study of the practical aspects of the art profession with emphasis on health hazards, business procedures, andart law.
4338 Renaissance Art ..... 3:3:0
Study of 15 th and 16 th century art in the Western world.
4341 Crafts Stained Glass and Enameling ..... 3:6:0
Investigation of techniques of fabricating stained glass, both copper foil and leaded, fusing and enameling onglass and metal. Course may be repeated for credit.
4343 Computers in Art I ..... 3:6:0Introduction to computers as a creative tool. Language and logic. Development of image making techniques, datahandling and design.
4348 19th \& 20th Century Abstract Art ..... 3:3:0Foundation of Abstraction in European Art from Neo-Classicism through Surrealism.
4353 Computers in Art II ..... 3:6:0
Advanced topics in computer image making. Language and logic. Development of animation, sound and visualcommunications techniques. May be repeated for credit.
Prerequisite: Art 4343
4355 Printmaking III ..... 3:6:0Specialized problems in studio area. May be repeated for credit.Prerequisite: Art 3365.
4358 American Art ..... 3:3:0The development of painting, sculpture and architecture in the United State from Colonial times to the present.
4363 Computers in Art ШI ..... 3:6:0Advanced topics in computer image making. Student selected problems dealing with specific areas of computerimages. Work done on a contract basis with specified objectives and tangible results. May be repeated for credit.Prerequisite: Art 4343.
4368 Contemporary Art ..... 3:3:0
A historical and critical analysis of painting from 1900 to the present.
4373 Field Study in Graphic Design ..... 3:6:0Familiarization with the overall commercial art field through actual experience. Time to be arranged. Premissionof instructor.
4375 Sculpture III ..... 3:6:0Specialized problems in studio area. May be repeated for credit.Prerequisite: Art 3375.
4376 Ceramics III ..... 3:6:0Specialized problems in studio area. May be repeated for credit.Prerequisite: Art 3376.
4378 Primitive Art ..... 3:3:0
A study of the development and nature of primitive art
4381 Advanced Studies in Visual Art ..... 3:3:0
Curricula, methods, and materials for the secondary school. ..... 3:3:0
The development and evolution of modern architecture and sculpture from the late 19 th century to the present.3:A:0Study of specialized areas in Art History. May be repeated for credit.Prerequisite: Permission of instructor.3:A:0Study of specialized area within commercial art field. May be repeated for credit.Prerequisite: Permission of instructor.
4395 Directed Individual Study ..... 3:A:0Study of specialized area within fine arts field. May be repeated for credit.Prerequisite: Permission of instructor.
4398 History of Photography ..... 3:3:0The development and evolution of photography from its invention in 1839 to the present.3:6:0
Student-selected problem encompassing an area of emphasis with suitable research, production, written support and oral presentation to a faculty committee. Studio art majors may repeat for credit.

# Department of Communication 

Department Chair: Olen T. Pederson<br>\title{ 201 Communication Building, Phone 880-8153 }

Professors: Brentlinger, Pederson
Associate Professors: Andrews, Baker, Bethel, Harrigan, Rehman, Roth, Wilson
Assistant Professor: Gunnarson, Martin, Placette, Smith
Instructors: Gale, Gonzales, Mistric, Perkins
The Department of Communication offers the Bachelor of Science and Bachelor of Arts Degrees in Speech and the Bachelor of Science Degree in Communication Majors in Public Address. Theatre and Speech Pathology/Audiology are available under the bachelor's degree in speech. Teacher certification plans are offered in the fields of Speech, Theatre, Journalism and Deaf Education. The undergraduate major in Speech Pathology/Audiology is considered to be pre-professional in nature and provides a foundation for graduate study. A master's degree is required for professional employment in Audiology or Speech-Language Pathology (see Graduate Catalogue).

Students wishing to pursue a major in the Department must meet the following admission requirements: 1) A minimum score of 700 on the SAT or a composite score of 15 on the ACT, and 2) A minimum score of 35 on the Test of Standard Written English. Transfer students and those wishing to enter the Department through a change of major may do so by meeting the above requirements or by having a minimum grade point average of 2.50 based on at least 30 semester hours of college study. Grades of "D" are not accepted in courses in the major area.

## Programs of Study

The academic foundation course work required for all majors in the department in that each student must complete the basic Core Curriculum requirement of Lamar University. The student's advisor will provide direction to the student when courses choices are available to meet Core requirements.

Other required courses are listed with the information for each major.

## Bachelor's Degree in Speech - Public Address Major

This Program is designed to prepare students for careers in public relations, human resource development, personnel management, teaching at the secondary level and may serve as an appropriate curriculum for those wishing to enter law school the seminary, or pursue graduated education. Professional elective course work is selected on the basis of the student's career objectives.

Required Courses in Major: Spc 1302, 232, 233, 235, 238, 332, 334, 4301, 432, 4324, 433, 434.

## Bachelor's Degree in Speech - Theatre Major

This Program provides a well-balanced curriculum which prepares students to assume positions in either professional theatre or as teachers in secondary schools. Students participate in all phases of scheduled theatre productions and through coursework and participation are provided with a background in both performance and technical theatre. The bachelor of Arts Degree which requires the completion of 12 semester hours of a foreign language is recommended strongly.

Required courses in major: The 131, 132, 135, 137, 231, 232, 334, 336, 338, 434, 439. The teacher certification requirements differ slight and interested students should see the section below for specifics.

The Bachelor of Arts Degree which requires the completion of 12 semester hours of a foreign language is recommended strongly.

Required courses in major: The 131, 132, 135, 137, 231, 232, 334, 336, 338, 434, 439. The teacher certification requirements differ slightly and interested students should see the section below for specifics.

## Bachelor's Degree in Speech - Audiology \& Speech-Language Pathology Major

Accredited by the American Speech-Language-Hearing Association, this Program of Study leads to either the Bachelor of Arts or Bachelor of Science Degree in Speech Audiology or Speech-Language Pathology. The Undergraduate program is considered pre-professional in nature and completion of the Master's Degree is required for professional employment (see the Graduate Catalogue for requirements). Upon completion of the Master's Degree, students are eligible for professional certification and state licensure. Through course work and clinical practice, students prepare to assume positions as speech pathologists or audiologists in public schools, hospitals, clinics, rehabilitation centers and in private practice.

Required courses in major: Spc 1301, 1302, 1303, 1304, 2301, 2302, 2303, 2305, 3301, 3304, 3305, 4301, 4302, 4303, 4305 is recommended strongly if electives permit.

## Bachelor of Science Degree in Communication

This Program is designed to prepare student for careers in communication \& Media. Required courses for this major include: Com 131, 133, 231, 234, 2384, or 2385, 3383 or 4383,431, Spc. 332 or 334 and Spc 434.

## Teacher Certification Plans

Teacher certification programs are available in Speech, Journalism, Theatre and Deaf Education. Details concerning requirements for teacher certification and information on professional education courses should be obtained from the College of Education section in this bulletin.

## Recommended Course Sequence

Details regarding each of the teaching fields requirements should be obtained from a faculty advisor as the student's individual program is planned.

First Semester

Second Semester

English Composition ................................................. 6
Mathematics............................................................. 6
Lab Science ............................................................... 8
SPC 131 and Fine Arts.............................................. 6
Major courses........................................................... 6
Physical Activity ...................................................... 2 34

Third Year
Major courses 12
Professional Electives.............................................. 18

English Literature ..................................................... 6
POLS 231 and 232..................................................... 6
His 231 and 232........................................................ 6
Comp. Sci. 130 or 1311 Math 137 ............................ 6
Major Courses ......................................................... 9


Fourth Year
Major courses.......................................................... 12
Professional Electives.............................................. 18

## Communication Courses (Com)

A study of the principles of news writing, with emphasis upon concise, accurate, objectives writing. Proficiency in typewriting is required.

A basic course is gathering material and writing news stories for publication. Proficiency in typewriting is required.
Course may be repeated for a maximum of six semester hours.
Prerequisite: Com 133 with a grade of " $C$ " or higher.
232 Editing and Copyreading
3:2:3
The development and use of printing, type recognition, type harmony, preparing editorial material, writing headlines and correcting copy.
Prerequisite: Com 231 with a grade of " $C$ " or higher.
234 Introduction to Broadcasting
A general introduction to the field of broadcasting, including a study of station and network organization and control by law and societal forces.
Prerequisite: COM 131 with a grade of " $C$ " or higher.
2341 Principles of Broadcast Production
3:2:3
Training in radio and television basic production with emphasis on oper campus broadcast facilities. Different formats will be considered. Practical experience in announcing, planning, production of programs.
Prerequisite: Com 234 with a grade of " $C$ " or higher or consent of instructor.
2384 Evolution of Motion Pictures
3:3:0
Development of American film as an art form, industry, mass medium and "language."
2385 Film Genre
Familiar entertainment film types: science fiction, horror, gangster, and Westerns are analyzed for formal properties and idealogical content. May be repeated when units vary.
3234 Practicum in Communication
Laboratory experience in actual setting. Assignment may be made for specific on the job experience in newspaper offices, radio stations, television stations, advertising agencies, etc. May be repeated for a total of six semester hours. Approval required prior to registration.
Prerequisite: Print Journalism-COM 231; Radio-COM 337; TV—COM 338; Advertising-COM 4383 with a grade of " $C$ ' or higher.
333 Advanced Journalism Writing 3:2:3
Writing focusing on skills required for sports, human interest, feature, editorial and specific subject area columns. Prerequisite: Com 231 with a grade of " $C$ " or higher.
335 Journalism and Magazine Production
3:2:3
Analysis and participation in all phases of magazine production.
Prerequisite: Com 231 and 232 with a grade of " $C$ " or higher.
337 Audio Production
3:2:3
Principles and practice of introductory professional audio recording and editing.
Prerequisite: Com 131 and 234 with a grade of " $C$ " or higher.
338 Television Production
Activities in writing, acting, directing, producing, announcing and engineering various types of television productions.
Prerequisites: COM 131 and 234 with a grade of " $C$ " or higher.
3381 Photo Journalism
Principles of photography applied to the specific area of photojournalism. Each student must have access to a 35 mm adjustable camera.
Prerequisites: Art 139 and COM 234 with a grade of " $C$ "' or higher.
3383 Broadcast Advertising
3:3:0
Broadcast advertising theory and techniques in the total marketing mix.
Prerequisite: Com 131 with a grade of " $C$ ' or higher.
339 Television Field Production
Principles and practices, editing and post production.
Prerequisite: COM 338 with a grade of "C" or higher.
430 Communication Problems and Projects 3:3:3
Problems analyzed and evaluated under individual guidance of faculty. Course may be repeated for credit two times. Consent of faculty member required prior to registration.
431 Laws and Ethics of the Mass Media
A study of the responsibilities of the media, including ethical responsibilities to news sources, persons in the news, readers and employers and legal rights and restrictions.
Prerequisite: Com 131, 231 and 234 with a grade of " $C$ '" or higher.
432 History and Principles of American Journalism 3:3:0
The growth of modern newspapers, with emphasis on important persons in American journalism and the influence of their publications on the history of the United States.

Analysis of impact of mass communication on society.

## Broadcast News

Study and practice in developing news for broadcasting. Various types of news material, including the documentary, its procurement and presentation.
Prerequisite: COM 133, 338, and 339 with a grade of " $C$ " or higher.

| 4383 | Print Advertising |
| :--- | :--- |
|  | A study of advertising, including copy writing, type selection, layout and design for print media. |
|  | Prerequisite: Com 131 and 133 with a grade of ' $C$ ' or higher. |
| 4391 | Advanced Television Production |
|  | Seeks to develop professional competence in television production of news, commercials, documentaries and |
|  | special programs. |
|  | Prerequisite: $C O M 338$ and 339 with a grade of " $C$ " or higher. |

## Speech Courses (Spc)

| 1301 | Introduction to Speech, Hearing and Language Disorders |
| :--- | :--- |
| Overview of the profession of speech pathology, audiology and deaf education. |  |
| $\mathbf{1 3 0 2}$ | Phonology <br> Descriptive phonetics, phonetic alphabet systems. |
| $\mathbf{1 3 0 3}$ Hearing and The Anatomy of The Hearing Mechanism |  |
| The anatomy and physiology of the ear. The scientific variables of sound and hearing, and the perceptual phen- |  |
| omenoa that result. |  |
| 3:3:0 |  |

222 Forensic Activity ..... 2:0:4Participation in forensics and co-curricular speaking events including campus, community and intercollegiateoccasions. May be repeated for a maximum of eight semester hours credit.230 Articulation Disorders 3:3:0Prevention, assessment, etiology and remediation of articulation disorders.
2301 Articulation and Language Development ..... 3:3:0
Theory, calendar and overview of the normal constructs and development of language and articulation.
2302 Introduction to Deaf Studies ..... 3:3:0Historical and current considerations in the deaf education profession.
2303 Introduction to Audiology ..... 3:3:0Anatomy of ear, physics of sound, test modes and procedures.
2305 Sign Language I ..... 3:3:0
Introduction to finger spelling and the language of signs.
232 Interpersonal Communication ..... 3:3:0
Principles and practices of interpersonal communication in various settings.233 Advanced Public Speaking3:3:0Principles and practice in special occasion speaking.Prerequisite: Spc 131 or instructor's permission.
235 Oral Interpretation of Literature ..... 3:3:0
Instruction and practice in the principles of speech applied to performance in the interpretation of prose andpoetry.Prerequisite: Soph Eng Lit or instructor's permission.
238 Argumentation ..... 3:3:0
A study of evidence and reasoning and a critique of them as reflected in current public affairs.
239 Language for the Deaf ..... 3:3:0
Survey of systems of teaching language development in nursery and preschool age children.
3301 SP-1: Introduction to Articulation and Language Disorders ..... 3:3:0
An introduction to articulation \& language disorders, their etiology and therapy programs.
3304 SP-2: Introduction to Fluency, Voice and Organic Disorders in Speech Pathology ..... 3:3:0
An introduction to fluency, voice and organic disorders in speech pathology, their etiology and therapy programs.3:3:0Intermediate skills course in American Sign Language.
331 Business and Professional Speech ..... 3:3:0Application of the fundamentals of speech production to the needs of the professional person.332 Group Methods and Discussion3:3:0Communication theory of group processes. Practice in group problem solving.
Prerequisite: Spc 232
333 Interpretation of Children's Literature ..... 3:3;0Study of materials for different ages of children; sources of program material, practice in adapting material intoprograms; practice in presenting program in laboratory and in nearby, schools, hospitals and homes.:
334 Interviewing ..... 3:3:0Theory and practice in the several types of interviews current in che United States.3392 Speech for the Deaf3:3:0Speech development and teaching strategies in the young deaf child.
430 Prohlems and Projects in Speech ..... 3:A:0These problems are discussed and analyzed through discussion and research. Each student elects a project orproblem on which he/she does extensive research and presents a report to the department faculty. Course maybe repeated three times for credit. Permission of instructor required.
4301 Research in Communication, Communication Science \& Disorders ..... 3:3:0
Research, methods, experimental and statistical design in the area of communication and communication disorders.
4302 Advanced Audiology ..... 3:3:0
Hearing evaluation procedures, clinical evaluation techniques and instrumentation.4303 Clinical Practicum3:0:9
Introduction to clinical practice in speech pathology, audiology and deaf education. This course may be repeatedfor clinical clock hours accumulation.
4304 Advanced Reading/Language For The Deaf ..... 3:3:0
Theoretical interaction of development of language and the problems of reading acquisition for deaf/HoH children- approaches/techniques of assistance.
4305 Sign Language III ..... 3:3:0
Expanded American Sign Language for the Deaf.
4306 Literacy \& Deafness ..... 3:3:0
Methods of teaching language and reading to the hearing impaired.
432 Public' Relations ..... 3:3:0Theory, principles, and practice of public relations.Prerequisite: Com 131, 133, 234 and 338 or permission of instructor.
4324 Non Verhal Communication ..... 3:3:0Theory, research, analysis and practice in non verbal communication.
4326 Cognition/Socialization \& Deafness ..... 3:3:0
433 Organizational Communication ..... 3:3:0Theory, principles, and practice of communication within organizationsPrerequisite: Spc 232 and 334 or instructor's permission.
434 Persuasion ..... 3:3:0
The psychological and emotional principles involved in influencing individuals and groups. An analysis andpractice with the speech devices and techniques in effectively motivating audience reaction.
Prerequisite: Spc 131 and 238 or instructor's permission.
4341 Advanced Interviewing ..... 3:3:0
Study of modern communication and related research as applied in business and professional interviews.
4381 Rhetoric of Social Movements ..... 3:3:0Analysis of the rhetoric of selected social movements in American history.
439 Rhetoric and Public Address ..... 3:3:0A study and analysis of some of the world's great speeches with application of the principles of original speechesof special types.
Theater Courses (The)
131 Introduction to Theater. ..... 3:2:3A general survey of the major fields of theater. Emphasis on the various types, and styles of plays, knowledge ofthe functions of the personnel and other elements of theater production.
1311 Voice and Diction ..... 3:3:0
Vocal development, vocabulary building and pronunciation Skills through systematic drills.3:2:3
Basic course on the handling and construction of scenery, the care of stage properties, lighting and theatricalnomenclature.


Participation in a theatrical production for the children of local school districts. Exploration of the principles of producing plays for children. Participation in the production is required. May be repeated once for credit.

## 430/430G Theatre Management/Production Management

Management of the theatrical house and the principles of managing a theatrical production.
Recommended: The 4371
431 Problems and Projects in Theater
432 Advanced Design For The Theatre
Focus on the application of technical aspects of the production within a creative probleni-solving format. Prerequisite: THE 332
433/433G Advanced Scenic Construction
Advanced stagecraft with emphasis on construction and shop techniques including furniture work, specialtyjoinery, and the use of building materials including plastics, metal and specialty fabrics.
Prerequisite: The 132/232
434 Media Performance
A split course for both those interested in on camara and off camera work. Half of the semester will focus on theoff camera technology and the other half on the techniques of camera performance.
435 Costume Design ..... 3:2:3Advanced study of principles and practices of costumes design. Emphasis on drafting and historical accuracy.Prerequisite: The 332
4260 Musical Comedy ..... 2:0:6A laboratory course providing background study and practical work in the field of musical comedy, includingparticipation in the presentation of a full production. Open by audition or by consent of the instructor to studentsfrom all departments who are interested in acting or technical work in the theater, especially as applied to musicalcomedy. May be repeated for credit up to six hours.
4371 Directing Secondary School Dramatic Activities ..... 3:3:0Principles involved in directing activities in secondary schools. Practical experience with workshops constitutespart of this course.
437 Acting IV ..... 3:3:0Detailed study of period styles and techniques for acting.
Prerequisite: The 337
438 Advanced Directing ..... 3:3:3
Principles and practices of play directing. For upper level theatre majors only.
439 Summer Repetory Theater3:2:3Participation in a variety of shows during the summer season to enable the student to work in a professionalrepetory atmosphere. May be repeated two times for credit.
Department of MusicDepartment Chair: James M. Simmons106 Music Building, Phone 880-8144Professors: Carlucci, LeBlanc, Parks, Simmons, TruncaleAssociate Professors: Collier, OrnelasAssistant Professors: Babin, Culbertson, Dyess, Gilman, Johnson, ThomasAdjunct Instructors: Baker, Boone, Frazier, D., Frazier, R., Graham, Hines, Peirce,Pemberton, Shine-Gale, Wadenpfuhl-Gay
Lecturer in Music: Dowling
Academic Advisor: BlackThe Department of Music in an accredited institutional member of the NationalAssociation of Schools of Music. Three undergraduate degrees offered are 1) Bachelorof Music in Performance, 2) Bachelor of Music in Composition, and 3) Bachelor of Music(with Teacher Certification). The Bachelor of Music (with Teacher Certification) offersspecialization in either Band, Choir, or Orchestra. Two graduate degrees offered are 1)Master of Music in Performance and 2) Master of Music Education.

## Requirements for Music Majors

1. Meet the basic requirements for all degree programs.
2. Complete one of the programs of study listed below.
3. Students will be required to successfully complete seven semesters of Mus 110, Recital Attendance, to be approved for graduation.
4. A music course with a grade of "D" will not apply toward graduation.
5. All students must continue to take secondary piano for as many consecutive semesters as are required for the completion of the piano proficiency exam.
6. Piano majors (certification programs only) will take secondary voice or secondary instruments, whichever applies to their intended course of study (vocal or instrumental) for as many consecutive semesters as are required for the completion of the proficiency exam.

## Music Minor

Students who elect music as a minor must complete a minimum of 18 hours in music theory, applied music, or music literature, six of which must be advanced courses. Two semesters of Recital Attendance (Mus 110) will also be required. Music laboratory credit may be used at the discretion of the Department Head. Music Education certification is not available to students who minor in music.

## Audition Procedure

To be accepted as a Music Major at Lamar University, students, both new and transfer, must pass an audition in their major performance area (applied music). Auditions may be scheduled by contacting the Lamar University Department of Music, which sets a series of audition dates each year. Special audition dates can be arranged, if necessary.

## Theory Placement Examination

All music major applicants will be given a Theory Placement Examination to determine their level of theoretical knowledge. The examination will include: key signatures, triads, treble and bass clefs, musical terms, and ear training.

## Applied Music Requirements

## General Requirements

Music majors must be enrolled in applied music each long semester until the applied music requirement is met.

The required sequence of courses includes a minimum of four semesters of lower level ( 1200 series) courses in applied music.

Students in the teacher certification program must complete three additional semesters of upper level ( 3200 series) applied music courses. Students in the performance program must complete four semesters of upper level ( 3400 series) applied music courses.

Completion of the applied music requirement signifies the attainment of a given level of artistic performance rather than the completion of a specific number of semester hours credit. Student may, at the discretion of the applied music faculty, be required to repeate any course in the applied music sequence; in such a case, the course may be repeated for credit. The applied music requirement is not satisfied until approval of the faćulty is obtained.

Any student registered for an applied music course (except 1101, 1143 or 1183) will be required to perform a jury examination each semester. With the permission of the private instructor, a student may be exempt from the jury examination in the semester of the Senior Recital performance.

## Recital Performance Requirements

Bachelor of Music (with Teacher Certification): Each Bachelor of Music (with Teacher Certification) major will perform a Senior Recital 30 minutes in length. This may be performed in a joint recital and will be performed during the senior year. This recital can be scheduled during the regular recital period or as an afternoon recital. The student must be enrolled in applied music in the semester during which the recital is performed.
Bachelor of Music (in Performance): 1) Upon completion of four semesters of lower level applied music, the student must pass a performance jury examination to be eligible to advance to upper level ( 3400 series) applied music courses. 2) During the second semester of upper level instruction, the performance major must play a Junior Audition Recital. This recital must be 30 minutes in length. The recital may be given jointly with another student; however, each performer must complete their portion of the recital in
succession. The recital can be given during the regularly scheduled recital period or as an afternoon recital. A satisfactory Junior Audition Recital is a prerequisite for proceeding to a Senior Performance Recital. 3) During the fourth semester of upper level study, a Senior Performance Recital will be given. This recital must be 60 minutes in length and may be scheduled during the regular recital time, at the afternoon recital time, or at an approved evening time. General Policies for Performance Major auditions and Recitals: 1] A performance major must make formal application for admission țo upper-level applied music, Junior Audition Recital, and Senior Recital at least two weeks prior to the jury or recital. The application forms are available for the Chair of the Music Department and should be turned in to the applied teacher. 2) To advance to upper level applied music, the performance major must have two-thirds approval of the Sophomore jury. 3) Junior Audition Recitals and Senior Recitals will be graded on a pass/fail basis by a faculty panel of three, chosen by the Chair of the Music Department and the private teacher. Two-thirds approval of the faculty panel is necessary to pass.

## Ensemble Participation

Participation in a major ensemble is required of full-time music student each long semester, except when student teaching.

Major ensembles are as follows:
For vocal and keyboard (vocal emphasis) students: MLb 1101 (A Cappella Choir) or MLb 1104 (Grand Choir) (Placement by Audition)
For wind, keyboard (instrumental emphasis), and percussion students: MLb 124 (Marching Band) and MLb 1150 (Symphonic Band)
For string students: MLb 1120 (Orchestra)

## Recommended Program of Study <br> Bachelor of Music (model for all performance degrees)

First Year
AM applied major ( 2 courses) .................................. 4
AM 1143................................................................... 1
MLB Major Ensemble ( 2 courses)............................. 2
MLB 114 ( 2 courses)................................................. 2
MTY 132-133 ............................................................ 6
MLT 121................................................................... 2
MUS 110 ................................................................. $1^{\dagger}$
English Composition ................................................. 6
Philosophy of Knowledge.......................................... 3
Math .......................................................................... 6
Physical Education................................................... 2
35
Third Year
AM applied major ( 2 courses) .................................. 8
MLB Major Ensemble (2 courses)............................. 2
MLB 114 ( 2 courses)................................................. 2
MTY 321-322............................................................ 4
MLT 333-334............................................................. 6
MUS 335 or 336....................................................3**
MUS 337 or 338.....................................................3**
MLB 210, 213, or 413...........................................2t+
SPC 131 ...................................................................... 3

Physical Education.................................................. 2

$$
\begin{array}{l}\text { Second Year } \\ \text { AM applied major ( } 2 \text { courses) }\end{array} \text {............................... } 4
$$

MLB Major Ensemble ( 2 courses)............................ 2
MLB 114 ( 2 courses).................................................. 2

MTY 232-233 ............................................................ 6
MLT 222........................................................................................... 2
English Lit................................................................. 3
English Lit or Foreign Lang................................3-6*
Science ...................................................................... 8
Sophomore American History .................................. 6

36-39
Fourth Year
AM applied major ( 2 courses) .................................. 8
MLB Major Ensemble ( 2 courses)............................. 2
MLB 114 (2 courses).................................................. 2
MTY 421-422 ............................................................ 4
MLB 210 or 213 or 413 .........................................2t†
Political Science ...................................................... 6
Social Science................................................................................ 3
Health \& Wellness ..................................................... 3


## 



39

| Fourth Year | 36-39 |
| :---: | :---: |
| AM applied major (2 courses) | 8 |
| MLB Major Ensemble (2 courses) | 2 |
| MLB 114 (2 courses). | 2 |
| MTY 421-422 | 4 |
| MLB 210 or 213 or 413 | 2t+ |
| Political Science. | ..... 6 |
| Social Science. | . 3 |
| Health \& Wellness | .... 3 |

[^17]Bachelor of Music (with Teacher Certification) $\dagger$ (Band)
First Year Second Year
AM applied major ( 2 courses)
AM applied major (2 courses) ..... 4
MLB Major Ensemble (2 courses) ..... 2
MTY 232-233 ..... 6
AM 1143 ..... 1
MLB Major Ensemble ( 2 courses) ..... 2
MTY 132-133 .....  6
MLT 121 ..... 2
English Composition .....  6
Philosophy of Knowledge .....  3
Math ..... 6
MUS 110 ..... 1*
Third Year
AM applied major (2 courses)
MLT 222 ..... 2
MUS 335 ..... 3
English Lit ..... 6
Science .....  8
Sophomore American History .....  .6
POLS 231 .....  3
MLB Major Ensemble (2 courses) ..... 2
MTY 322 ..... 2
MTY 422 ..... 2
MLT 333-334
3
MUS 311-312 ..... 2
MUS 313-314 ..... 2
MUS 315 ..... 1
MUS 317 .....  1
MUS 336 ..... 3
MUS 338 .....  3
MUS 411-412 ..... 2
C \& I 331-332 ..... 6
POLS 232 ..... 3

40Fourth Year
AM applied major .....  .2
MLB Major Ensemble ..... 1
MTY 421 .....  2
Health \& Wellness ..... 3
CS 130 .....  3
C \& I 3326-338 ..... 6
C \& I 434 ..... 3
C \& I 463 ..... 6
SPC 131 .....  3

0

42
*Degree credit requires seven semesters of satisfactory completion of MUS 110.

# Bachelor of Music (with Teacher Certification) $\dagger$ (Orchestra) 

## First Year

AM applied major ( 2 courses) ................................... 4
AM 1143...................................................................... 1
MLB Major Ensemble ( 2 courses).............................. 2
MTY 132-133................................................................ 6
MLT 121......................................................................... 2
English Composition ..................................................... 6
Philosophy of Knowledge.......................................... 3
Math ............................................................................... 6
Physical Education (2 courses)................................... 4
MUS 110 ................................................................................
35
Third Year
AM applied major (2 courses).................................... 4
MLB Major Ensemble ( 2 courses).............................. 2
MTY 322 ......................................................................... 2
MTY 422 ..................................................................... 2
MLT 333-334..................................................................... 6
MUS 331 ...................................................................... 3
MUS 311-312................................................................. 2

MUS 315 ........................................................................ 1
MUS 336 ............................................................................... 3

MUS 411-412................................................................. 2
C \& I 331-332 ................................................................ 6
POLS 232 .................................................................... 3
Second Year
AM applied major ( 2 courses) ..... 4
MLB Major Ensemble (2 courses) ..... 2
MTY 232-233 ..... 6
MLT 222 .....  2
MUS 335 ..... 3
English Lit ..... 6
Science ..... 8

Sophomore American History

Sophomore American History .....  ..... 6 .....  ..... 6
POLS 231
POLS 231 ..... 3 ..... 340
Fourth Year
AM applied major ..... 2
MLB Major Ensemble ..... 1
MTY 421 ..... 2
Health \& Wellness .....  3
CS 130 ..... 3
C \& I 3326-338 ..... 6
C \& I 434 ..... 3
C \& I 463 ..... 6
SPC 131 ..... 3

## Bachelor of Music (with Teacher Certification) $\dagger$ (Choral)

First Year
AM applied major ( 2 courses)
AM 1143 ..... ** ..... **
MLB Major Ensemble ( 2 courses) .....  2
MLB Opera (production) ..... 1
MTY 132-133 ..... 6
MLT 121 ..... 2
English Composition .....  6
Philosophy of Knowledge .....  3
Math ..... 6
Physical Education (2 courses) .....  .4
MUS 110 .....  ${ }^{*}$36
Third Year
AM applied major (2 courses) .....  .4
MLB Major Ensemble (2 courses) .....  .2
MTY 322 .....  2
MTY 422 ..... 2
MLT 333-334 .....  6
MUS 331-332 ..... 6
MUS 335 ..... 3
MUS 337 ..... 3
C \& I 331-332 ..... 6
POLS 232 ..... 3

## Second Year

AM applied major ( 2 courses) .....  .4
MLB Major Ensemble (2 courses) .....  2
MTY 232-233 .....  6
MLT 222 .....  2
MUS 336 ..... 3
English Lit ..... 6
Science .....  .8
Sophomore American History .....  .6
POLS 231 .....  3Fourth Year
AM applied major ..... 2
MLB Major Ensemble ..... 1
MTY 421 .....  2
MLB Opera (production) .....  .1
Health \& Wellness .....  3
CS 130 .....  3
C \& I 3326-338 .....  6
C \& I 434 .....  3
C\&I 463 ..... 6
SPC 131 .....  3

* Degree aredit requires seven semesters of satisfactory completion of MUS 110.

DEGREE REQUIREMENT: A student participate in two productions.
** Piano majors will substitute secondary voice for AM 1143 and must take voice for as many consecutive semesters as necessary to pass the vocal proficiency exam.
+For details concerning requirements for teacher certification and information on professional education courses, consult the College of Education section in this bulletin.

## Applied Music Courses (AM)

(Refer to Applied Music Requirements in preceding Music Department materials for complete explanation and requirements for Applied Music courses)
1101 Beginning Band or Orchestral Instruments
1143 Secondary Piano
1183 Secondary Voice
1203, 3203, 3403 Bassoon
1211, 3211, 3411 Cello
1215, 3215, 3415 Clarinet
1217, 3217, 3417 Trumpet
1221, 3221, 3421 Flute
1223, 3223, 3423 French Horn
1227, 3227, 3427 Guitar
1231, 3231, 3431 Oboe
1233, 3233, 3433 Organ
1241, 3241, 3441 Piano
1251, 3251, 3451 Saxaphone
1253, 3253, 3453 Percussion
1257, 3257, 3457 Double Bass
1261, 3261, 3461 Trombone
1262, 3262, 3462 Euphonium
1263, 3263, 3463 Tuba
1271, 3271, 3471 Viola
1273, 3273, 3473 Violin
1281, 3281, 3481 Voice

## 1283, 3283, 3483 Composition

*One 30-minute private lesson and one one-hour class per week.
**One hour private lesson and one one-hour class per week.

## Music Courses (MUS)

## 110 Recital

Attendence at scheduled recitals and concerts as prescribed by the Department of Music. Successful completion of seven semesters required for graduation. Courses may be taken seven times for credit and is offered on a pass/ fail basis.

## 130 Introduction to Music

Survey of music for non-music students. Covers the major style periods from the Renaissance to the present with emphasis on the development of basic listening skills and critical thinking. Requires attendance at instructor specified recitals or concerts.

## 131 Basics of Music

Designed to familiarize non-music majors with basic elementary music fundamentals and skills.
231 Jazz: An American Art Form
A study of Jazz Styles: The history and analysis of jazz music and styles from the late 1800's to the present.
311 Brass
Music, materials, and basic techniques for trumpet and horn.
312 Brass
Music, materials, and basic techniques for trombone, baritone and tuba.
313 Strings
Music, materials, and basic techniques for violin and viola.
314 Strings
Music, materials, and basic techniques for cello and bass.
315 Percussion
Music, materials, and basic techniques for percussion instruments.
317 Marching Methods
Basic marching maneuvers. Charting various types of half-time shows, such as the pageant type and the precision drills, and arranging the music for these shows. Term project: a completely charted half-time show with music.
331 Kodaty Concepts of Music
The study of elementary folk music, materials and techniques using the Kodaly concept.
Prerequisite: MTY 131 (or equivalent).
332 Advanced Kodaly Concepts of Music
The study of advanced folk music, materials and techniques with the Kodaly concept.
Prerequisite: MUS 331 and MTY 131 (or equivalent).
334 Hymnody
A course designed for the music major and non-major. It is a chronological survey of Christian hymnody designed to aid in the understanding and appreciation of the hymns used in today's churches.

## 335 Choral Music

A detailed study of choral music. Areas of study include history, repertoire, and performance.
336 Instrumental Music
A detailed study of instrumental music. Areas od study include history, repertoire. and performance.
337 Choral Conducting
Basic patterns and rudiments of choral conducting and rehearsal techniques.
Prerequisites: Some vocal study, piano keyboard, one year of vocal laboratory and MTY 232.

## 338 Instrumental Conducting

Basic patterns and rudiments of instrumental conducting and rehearsal techniques.
Prerequisites: Applied music, instrumental performing laboratory and MTY 232.

## 410 Seminar

A general study of the problems encountered in music.

## 411 Woodwinds

Music, materials and basic techniques for flute, clarinet and saxaphone.
412 Woodwinds
Music, materials and basic techniques for oboe and bassoon.
. 430 Problems and Projects in Music Education
An individual problem or project will be assigned in the music education area as needs arise.
Prerequisite: Consent of the Department Chair.

## 431 Problems and Projects in Music Literature

An individual problem or project will be assigned in the music literature area as needs arise.
Prerequisite: Consent of the Department Chair.

Problems and Projects in Music Theory
An individual problem or project will be assigned in the music theory area as needs arise.
Prerequisite: Consent of the Department Chair.

## Music Laboratory (MLb)*

*Courses in Music Laboratory may be repeated for credit. Total credit not to exceed eight semesters for any one course.

| 113 | Jazz Improvision | 1:1:0 |
| :--- | :--- | :--- |
|  | Designed to provide background in the art of improvision |  |
| 114 | Repertoire and Pedagogy | 1:1:0 |

A presentation and study of the literature, its performance, styles and means of presentation for a particular instrument or instruments. Eight semesters in the same instrument required. (AM-Applied) of each major.
117 Dance Band ..... 1:0:3
Organized to furnish training in all styles of dance band performance. Open to any student who can qualify.
118 Percussion Ensemble
1:0:1

The study and performance of chanber percussion literature. Designed to provide experience on all of the percussion instruments.
118 Steel Band ..... 1:0:1
A performing ensemble representing the traditional steel band concept. Public concerts given regularly.
1120 Orchestra 1:0:6A performing ensemble open to all University students who can qualify. Required of any student majoring in astring instrument.
1140 Marching Band for Music MajorsA professional course limited to and designed specifically for music majors.Performs symphonic wind ensemble and band repertoire. Tryout required for admittance.
1101 A Cappella Choir1:0:6A course in choral singing, organized to furnish training in the more important works of choral literature.Presentation of selections in public throughout the year. Audition required. Open to qualified students from otherdepartments.
1104 Grand Chorus ..... 1:0:3

A course in choral singing, designed to aquaint the student with the larger works in choral literature. A public concert is given each semester. Open to qualified students from other departments.
1105 Cardinal Moods ..... 1:0:6Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire.Audition required. Open to qualified students from other departments. LU at Orange only.
1106 Cardinal Reflections ..... 1:0:6Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk'repertoire.Audition required. Open to qualified students from other departments. LU at Port Arthur only.
124 Marching Band ..... 2:0:6The study and performance of march music and military drill. Open to any student who can qualify. Two semesterscompletes PE activity requirement.
210 Opera ..... 1;0:3A laboratory class for advanced voice students providing study of complete operatic roles, scenes and excerptsfor presentation in the opera-theater. Annual full scale opera production. Auditions open to all qualified students.
213 AccompanyingAn applied study of the art of accompanying instrumentalists and vocalists.Prerequisite: Audition demonstrating sufficient pianistic proficiency.
2260 Musical Comedy ..... 2:0:6A laboratory course providing both background study and practical work in the specialized field of musicalcomedy, including participation in the presentation of a full production. Open to both vocalists and instrumen-talists from all departments by audition or by consent of instructor.
413 Chamber Music Ensemble1:0:3String ensemble, woodwind, brass ensemble and percussion ensemble. A course designed to give the student anopportunity to study and perform music written for the smaller instrumental ensembles. These groups willparticipate in various recital programs throughout the year. Open to any student upon recommendation of theinstructor.

## Music Literature Courses (MLt)

121 Music Literature
An appraisal of the important events in music history with emphasis upon those aspects of music ass
with style, form and performance. Familiarization of the student with music terminology and thorough
on score reading through the use of recordings from the significant periods of music history.
$\mathbf{2 2 2}$ Music Literature
A survey of the literature and advances made in music from the Medieval era to the mid-Renaissance.
Prerequisite: MTY 133 .

## 333 Music History

A survey of the literature and advances made in music from Mid-Renaissance to the pre-Classic era. Two hours of listening required per week in addition to class lecture.
Prerequisite: MLT 121-222 and MTY 232-233.

## 334 . Music. History

A survey of the literature and advance made in music from the Classic era. Two hours of listening required per week in addition to class lecture.
Prerequisite: MLT 121-222 and MTY 232-233
336 Choral Literature 3:3:0
A study of music written for combination of vocal music groups from the 12 th century to the present day.
Prerequisite: Junior status.
337 Instrumental Literature 3:3:0
An in depth study of the literature and pedagogy of symphonic literature for strings and winds.
Prerequisite: Junior status.

## Music Theory Courses (MTy)

$\begin{array}{lll}131 & \text { Elements of Music } & \text { 3:3:0 } \\ & \text { Designed to prepare students for advanced study in music theory. A study of scales, chords, musical terminology, }\end{array}$ key signatures, sight singing rhythm, musical notation and the harmonic; melodic and rhythmic structure of music.
132, 133 Elementary Harmony . . 3:5:0
Elementary keyboard and written harmony, sight singing; ear training.
Prerequisite: MTy 131 or by advanced standing exam.
232, 233 Advanced Harmony $\quad$ 3:5:0
Advanced keyboard and written harmony; sight singing; ear training.
Prerequisite: MTy 133.
321, 322 Counterpoint
2:2:0
16th and 18th century contrapuntal techniques through analysis and creative writing.
Prerequisite: MTy 233.
323 Jazz Arranging . 2:2:0
A study and analysis of jazz harmony, melody and rhythm as applied to jazz band instrumentation; a workshop. wherein arrangements are written and played.
421 Form and Analysis 2:2:0
Analytical study of musical forms and styles.
Prerequisite: MTy 233.
422 Orchestration $\quad$ 2:2:0
Techniques of writing and arranging for orchestral instruments in small combination and for full orchestra.
Prerequisite: MTy 233.


With a little help from a friend, a psychology student studies animal behavior and records his observations during a lab -session.

# College of Health and Behavioral Sciences 

Departments: Allied Health, Nursing, Psychology<br>Myrtle L. Bell, Ed.D., Dean 100 Ward Health Sciences Building Phone 880-8811

The College of Health and Behavioral Science was formed in 1981 when the department of Psychology merged with the departments of Allied Health and Nursing which had been in the College of Health Sciences. The departmental merger brought together programs of instruction in psychology, baccalaureate nursing, associate degree nursing, vocational nursing, dental hygiene, radiologic technology and respiratory technology.

## Goals of the College

The overall goal of the College of Health and Behavioral Sciences continues the tradition of the College of Health Sciences - to produce high caliber health specialists in specific areas of need and in sufficient numbers to contribute significantly to the improvement of health care of Southeast Texas citizens.

Since education of the health professional draws on concepts from the reservoir of knowledge in general and scientific education, health and behavioral science students are exposed to those concepts through university courses during the preprofessional semesters.

The bringing together of Psychology with Allied Health and Nursing initiates a broadening scope of interdisciplinary approaches to the education of future professionals in their respective fields. The major purposes of the Bachelor of Arts degree program are to acquaint the students with the tools and techniques of psychologists and to prepare them academically for employment with various social or mental health agencies under the supervision of licensed or certified personnel. Opportunities are also available in industrial and organizational settings. Although the same career opportunities as stated above are available for the student who completes the Bachelor of Science degree program, the program is designed primarily for the student who wishes to continue graduate study in psychology.

The College and its faculty are dedicated to responding to the health manpower needs of urban and rural health delivery systems. The tangible offerings include certificates, associate degrees and baccalaureate degrees listed below.

## Degrees Offered

Bachelor of Arts - Psychology
Bachelor of Science - Psychology
Bachelor of Science - Nursing
Associate of Science - Nursing
Associate of Applied Science: Dental Hygiene,* Radiologic Technology,* Respiratory Therapy.*
Certificate of Completion: Respiratory Technology.*

[^18]
# Department of Allied Health 

Department Chair: W. David Short

254A Ward Health Sciences Building<br>Phone: 880-8845

Assistant Professors: Bailey, Ball, Bronson, Fearing-Tornwall, Reynard, Short<br>Instructors: Hoosier, Huval<br>Clinical Instructors: Benoit, Burson, Guerrieri, Fredrick, Lawson<br>Adjunct Professors: Alford, Baxley, Bharathi, Burd, Darnell, Day, Franco, Garcia, Giglio, Jepson, Maddox, Nantz, Pinchback, Shaw, Sweet, Toups, Weaver

## Part-time Clinical Instructor: York

The health occupations within the department provide specific services to people in a variety of health care settings under the supervision of physicians or dentists. The goal of delivering services through a team of health specialists working cooperatively, characterizes allied health disciplines. The faculty aims to achieve this goal by providing an academic environment in which students can learn the theory underlying practice, gain positive attitudes toward their contribution to health care and achieve clinical competence through supervised application of knowledge.

## Admission to Department of Allied Health Programs

Students enrolled at Lamar University must submit an Application for Admission to the Department.

Students not enrolled at Lamar must submit two separate applications: one for admission to Lamar (obtained from the Office of Admissions and Records) and one for admission to the specific program (obtained from the program director, Ward Health Sciences Building).

Completed Application for Admission to Allied Health programs, with required transcripts, test scores and related documents, must be received on specific dates (see program statement) of each year, to be considered for admission to specific programs. Applicants are urged to follow application instructions carefully to ensure processing by program admission committees.

Applications for Admission are evaluated on the following basis:

1. Admission to the University (Admission section of this bulletin).
2. SAT or ACT scores.
3. Transcripts and grades in high school and previous college work.
4. Evidence of physical and emotional capability of completing the program of instruction and clinical practice. Health examinations are required. Forms are available with application forms.
5. Motivation for allied health practice demonstrated through letters of recommendation, employment and volunteer records and references, a statement of career goals and, in some cases, a personal interview.
6. Admission is limited by available space in clinical practice areas.

Additional costs above tuition and fees are required in all Allied Health Department programs. Uniforms, equipment and instruments, liability insurance, health examinations and transportation to clinical facilities are the responsibility of the student. Financial aid is available to eligible students: see Financial Aid and Award section of this bulletin.

Liability insurance and health examinations must be renewed each year of health science program.

Students may be assigned to clinical experiences during day, evening, night or weekend hours.

Clinical agencies may require additional health examinations, dress codes or conformity with other policies. Students will be informed in advance of each requirement.

## Health Sciences Courses (HS)


#### Abstract

\section*{Health Care Concepts}

2:2:0 Lecture course designed to provide the basic concepts appropriate to health. The various health care worker roles, professional ethics, communication, growth and development and related topics will be presented. The rationale for skills which are common to all health personnel will be introduced. The course is required for all health science majors and will be prerequisite for the beginning skill courses in the various programs.


## Dental Hygiene

## Program Director: Gail Bailey

The purpose of the Dental Hygiene Program is to prepare highly competent dental hygienists to meet the oral health care needs of the public.

The program is designed to produce practitioners who will meet part of the preventive, maintenance and therapeutic needs of the community and state concerning oral health and its effect on total health. Through basic education in the Dental Hygiene Program, students acquire knowledge and proficiency to become functioning members of the health care delivery team.

Applications for Admission to the Dental Hygiene Program and criteria for admission procedures are available from the Dental Hygiene Progam office, Ward Health Sciences Building. Applications and supporting materials are due by January 15 of each year.

While there are no course entry prerequisites, students are encouraged to take the supporting courses prior to applying to the program. Students completing Bio 143 and 144 will be given priority in the selection process. Supporting courses include all courses other than those designated with a "DH" preceding the course number. After acceptance, in order to progress in the Dental Hygiene Program, a minimum of " C " is required in all phases (lecture and laboratory/clinical practice) of dental hygiene courses and in Bio 143/144, Bio 245, and HEc 138.

A minimum grade point average of 2.0 must be maintained in all courses submitted on the degree plan to obtain the Associate of Applied Science degree. Graduates who successfully pass the Dental Hygiene National Board Examination are eligible to take state licensing exams in states where they plan to practice.

# Associate of Applied Science - Dental Hygiene Recommended Program Study 

## First Year

| Summer Session I | Summer Session II |
| :---: | :---: |
| Bio 143 Anatomy and Physiology ........................ 4 | Bio 144 Anatomy and Physiology ........................ 4 |
| DH 131 Orientation to Dental Hygiene.................. 3 | DH 127 Morphology and Occulsion...................... 2 |
| HS 121 Health Care Concepts............................. 2 |  |
| 9 | 6 |
| Fall Semester | Spring Semester |
| DH 132 Dental Radiology................................... 3. | DH 147 Dental Materials..................................... 4 |
| DH 134 Head and Neck Anatomy and | DH 148 General and Oral Pathology .................... 4 |
| Physiology ..................................................... 3 | DH 146 Clinic I.................................................. 4 |
| DH 155 Pre Clinic............................................. 5 | HEc 138 Principals of Nutrition.......................... 3 |
| Chem 143 Introductory Chemistry ........................ 4 |  |
| 15 | 15 |
| Seco | Year |
| Summer Session I | Summer Session II |
| Bio 245 Introductory Microbiology ....................... 4 | DH 221 Diet Analysis......................................... 2 |
|  | DH 223 Periodontology...................................... 2 |
|  |  |
| 7 | $7$ |

## Fall Semester

Psy 131 Introduction to Psych..................................... 3
DH 224 Pharmacology.................................................... 2
DH 233 Community Dentistry I................................ 3
DH 265 Clinic II........................................................ 6

Spring Semester
DH 225 Community Dentistry II................................. 2
DH 266 Clinic III ................................................................. 6
English 132 ............................................................... 3
Soc 131 Introduction to Sociology ............................ 3 14

NOTE: Credit by examination may be earned in some Dental Hygiene courses. See the program director.

## Dental Hygiene Courses (DH)

## 127 Dental Morphology and Occlusion

A detailed anatomical study of human teeth, their eruption, exfoliation and occlusion.
Prerequisite: Admission to the program.
131 Orientation to Dental Hygiene Practice $\quad$ 3:2:3
Orientation and introduction to the practice of dental hygiene, including his/her role in all phases of dental speciality practice.
Prerequisite: Admission to the program.
132 Dental Radiology 3:2:3
A detailed study of theories, clinical techniques and principles of dental radiographic practice. Radiation safety, protection, exposure, production, development and interpretation are emphasized.
Prerequisite: Admission to the program; Bio 143/144.
134 Head and Neck Anatomy and Physiology 3:3:0
A detailed study of the embryology, histology, anatomy and physiology of the head and neck region, including common dysfunction of the temporomandibular joint.
Prerequisite: Admission to the program or permission of program director; Bio 143/144.
147 Dental Materials
4:3:3
A study of the sources, properties, uses and techniques of manipulation of the various materials used in dentistry. Prerequisite: Admission to ithe program.
148 General and Oral Pathology 4:4:0
A histopathological study of oral lesions, pathogenic conditions of particular significance to dentistry and principles of general and oral pathology.
Prerequisite: Admission to the program or permission of program director.
155 Pre-Clinic
5:3:6
Theoretical amd clinical instruction in oral prophylaxis and preventive procedures. Transfer to patient simulation completed on manikins and class partners.
Prerequisite: Admission to the program.
146 Clinic I 4:2:8
Continuation and mastery of basic oral prophylaxis procedures. Advancement of complete patient care conducted in the dental hygiene clinic.
Prerequisite: Admission to the program; DH 155.
221 Dietary Analysis
2:2:0
Study and application of diet analysis consultation skills in influencing patient behavior change relative to diet and dental disease.
Prerequisite: Admission to the program; HEc 138.
223 Periodontology
2:2:0
Comparative study of normal and diseased peridontium and the effects of structural, functional and environmental agents.
Prerequisite: Admission to the program. Bio 245.
224 Pharmacology
Study of the uses and actions of drugs including drug side effects, contra-indications and oral manifestations.
Prerequisite: Admission to the program; Chem 143, Bio 245.
225 Community Dentistry II $\begin{array}{ll}\text { Application of program planning skills enhanced through actual community implementation. Analytical skills }\end{array}$ concerning critical evaluation of scientific data emphasized through a review of scientific literature.
Prerequisite: Admission to the program; DH 233.

## 233 Community Dentistry I

3:3:0
Theory and principles of public health including epidemiology, statistics, preventive medicine, health behavior and program planning related to governmental, sociological, environmental and cultural concerns.
Prerequisite: Admission to the program.

Advancement of clinical prophylaxis skills applied to periodically involved patients. Clinical and theoretical framework expanded through the addition of amalgam polishing procedures and diet consultation procedures. Prerequisite: Admission to the dental hygiene program; DH 155 and 146.
Clinic II 6:3:12

Continuation and advancement of dental hygiene skills including advanced scaling and root smoothing procedures. Time utilization emphasized.
Prerequisite: Admission to the program; DH 265.

## Radiologic Technology

Program Director: W. David Short
The purpose of this program is to prepare students for a career in Radiologic Technology. Each student will be assisted in the pursuit of technical competence through lectures, demonstrations, supervised study and practical experience. A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

The program is accredited by the Committee on Allied Health Education and Accreditation in cooperation with the Joint Review Committee on Education in Radiologic Technology, and graduates are eligible to apply for admission to the certification exam administered by the American Registry of Technologists.

Students are accepted into the Radiologic Technology Program in the summer of each year. Admission to the program is based upon evidence of personal, physical, intellectual and emotional characteristics which are assumed to be consonant with a successful career in radiological technology. The number of students is limited to the space available in clinical agencies.

The Radiologic Technology Program encourages students to take supporting courses prior to admission into the program. Supporting courses include all courses other than those designated with a "RA" preceding the course number. Although students are not required to take the supporting courses prior to admission to the program, the successful completion of these courses may enhance the students probability of acceptance into the program.

Radiologic Technology admission forms, criteria and admission procedures are available from the Radiologic Technology Program director, Ward Health Sciences Building. Applications are due by April 15 of each year.

A minimum grade of "C" (2.0) must be earned in all science courses and courses taken within the College of Health \& Behavioral Sciences for progression in the program. In addition, a grade point average of 2.0 must be maintained in all courses submitted on the degree plan to obtain the Associate of Applied Science degree.

# Associate of Applied Science - Radiologic Technology <br> Recommended Program of Study 

## First Year

Summer Session I
Bio 143 Anatomy and Physiology ........................... 4
HS 121 Health Care Concepts.................................. 2

Summer Session II
Bio 144 Anatomy and Physiology ............................ 4
RA 131 Orientation to Radiologic Technology........ 3
7
Spring Semester
RA 133 Advanced Positioning \& Pathology ............ 3
RA 144 Radiographic Physics.................................. 4
English 132 ............................................................... 3
Psy 131...................................................................... 3
RA 154 Radiographic Practicum II........................... 5

## Second Year

Summer Session IRA 234 Radiographic Practicum III
Fall SemesterRA 231 Special Procedures3
RA 242 Advanced Procedures ..... 4
RA 262 Radiographic Practicum V. ..... 6
Summer Session II
RA 235 Radiographic Practicum IV ..... 3
Spring Semester
RA 236 Radiographic Technology Seminar. .....  3
RA 233 Radiation Biology .....  3
RA 264 Practicum VI. .....  612

## Radiologic Technology Courses (RA)

131 Orientation to Radiologic Technology ..... 3:2:3Introduction to-Radiology; including history; organization, production of X-rays, radiation protection, darkroomtechnique, terminology and examinations performed in radiology department.
132 Radiographic Principles ..... 3:3:0Study of basic principles of X-ray production; emphasis on the relationship between milliamperage, kilovoltage,time and distrance as related to density and contrast on a radiograph. Film critique and dark room technique.
133 Advanced Positioning \& Pathology ..... 3:3:0
An intensive study in radiographic positioning to include skulls, trauma, pediatrics and pathology identifications.
143 Radiographic Positioning ..... 4:3:4Procedures in radiology. Basic, advanced contraindictations are explored. Topographic anatomy included. .
144 Radiographic Physics4:3:2
Intensive study of electromagnetism, electric transiormers, electrical rectification, production of X-rays and thepreventive maintenance of X-ray machines.
152 Radiographic Practicum I ..... 5:0:24
Introduction to the clinical environment in affiliate hospitals. Rotation through different work centers to observeand assist in the operation of the radiology department.
Course requires 24 hrs/week of clinical participation.154 Radiographic Practicum II5:0:24
Students make standard radiographs under close supervision by a qualified radiologic technologist.
Course requires 24 hrsiweek in clinical participation.
231 Special Procedures ..... 3:3:0Procedures uncommon to the radiology department. Specialized equipment involved. Anatomy, contrast mediaand radiographic projections used. Analysis of film quality.
233 Radiation Biology ..... 3:3:0Effects of radiation on the human population, methods of protection and dosimetry.
234 Radiographic Practicum III ..... 3:0:40
Clinical study to broaden the students' application of radiographic procedures. Proficiencies in diagnostic ra-diology will be emphasized. Course requires $40 \mathrm{hrs} /$ week of clinical participation.
235 Radiographic Practicum IV ..... 3:0:40A continuation of Ra 234 with increasing emphasis in diagnosticc radiology. Course requires $40 \mathrm{hrs} /$ week ofclinical participation.
Prerequisite: Ra 234.
236 Radiologic Technology Seminar ..... 3:3:0
An indepth study of testing methdology. Also covered will be new advanced in the field of radiology.
242 Advanced Procedures ..... 4:3:2Specialized technical procedures in radiology. Basic image detector principles, reducing patient exposure, ac-cessory devices for patient safety, comparison of radiographic tubes, enlargement techniques, comparison oftiming devices, mobile or bedside radiography, body section radiography and electronic image systems. Pediatricradiology included.
262 Radiographic Practicum V ..... 6:0:32Rotation through specialized procedure areas during clinical practice under limited supervision. Course requires32 hrs/week of clinical participation.
264 Radiographic Practicum VI ..... 6:0:32
Rotation through specialized areas in a radiology department. Emphasis on job responsibilities and confidencein skill performance. Course requires $32 \mathrm{hrs} /$ week clinical participation.

## Associate of Applied Science - Respiratory Therapy

Program Director: Paul Bronson

The purpose of this program is to prepare students for careers in respiratory care through lectures, laboratories and clinical experience aimed at qualifying the student for certification/registration by the National Board for Respiratory Care. A graduate of this 2-year instructional program is awarded the Associate of Applied Science Degree.

Upon successful completion of 5 semesters of the curriculum the student is eligible to take the Entry Level Certification Examination offered by the National Board for Respiratory Care. After successful completion of the program the graduate is eligible to take the Written Registry Examination and the Clinical Simulation Examinations. A passing score on these two examinations will qualify the individual as a Registered Respiratory Therapist (RRT).

Students are encouraged to take supporting courses prior to admission into the program. Supporting courses include all courses other than those designated with an "RT" preceding the course number. Although students are not required to take the courses prior to admission to the program, the successful completion of these courses may enhance the students probability of acceptance into the program.

Completed application forms must be submitted to the director of the respiratory therapy program by May 15 of each year. The program begins the Fall semester of each year. The number of students is limited to the space available in clinical agencies.

A minimum grade of " $\mathrm{C}:(2.0)$ must be earned in all science courses and courses taken within the College of Health \& Behavioral Sciences for progression in the program. In addition, a grade point average of 2.0 must be maintained in all course work to obtain the Associate of Applied Science Degree.

# Associate of Applied Science - Respiratory Therapy <br> Recommended Program of Study 

First Year

## Spring Semester

RT 122 Clinical Medicine........................................... 2
RT 138 RT Procedures II.............................................. 3
RT 131 Clinical Practicum I ........................................ 3
ENG 132 English Composition .................................. 3
BIO 144 Anatomy \& Physiology ................................. 4

15
Summer Session II
RT 124 RT Procedures IV............................................ 2

RT 123 RT Procedures III
RT 125 Clinical Practicum II ........................................ 2
4
RT 121 Clinical Medicine I. ..... 2MATH 1334 College Algebra3
BIO 143 Anatomy \& Physiology 3
HS 121 Health Care Concepts. .....  2
17
Second Year

## Fall Semester

RT 231 RT Procedures V .....  3
RT 233 Clinical Practicum IV .....  .3
BIO 245 Microbiology .....  .4
PHY 143 Physics .....  4

## Summer Session I

RT 221 Pulmonary Patho .....  .2
RT 235 Clinical Practicum VI .....  3

## Spring Semester

RT 232 Card/Pul/Renal A\&P ...................................... 3
RT 250 Clinical Practicum V...................................... 3
PSY 131 or SOC 131 .................................................... 3
CHEM 143 Chemistry.................................................. 4

Summer Session II
RT 234 RT Procedures VI............................................ 3
RT 236 Clinical Practicum VII.................................... 3

## Respiratory Therapy Courses (RT)

| 121 | Clinical Medicine I |
| :--- | :--- |
| Basic pathological process applicable to disease conditions important to the respiratory technician. Emphasis on |  |
| chronic respiratory diseases. |  |
| 2:2:0 |  |
| Prerequisite: Admission into the program. |  |
| $\mathbf{1 2 2}$ | Clinical Medicine $\mathbf{U}$ |

122 Clinical Medicine II 2:2:0
Prepares the student for the management of acute respiratory failure in newborn, pediatric, medical, surgical, obstetric and gynecology patients. Respiratory therapy involvement is emphasized.
Prerequisite: Completion of Fall Semester requirements.
123 Respiratory Care Procedures III 2:2:1
An indepth study of pulmonary function testing.
Prerequisite: Completion of Spring Semester requirements.
124 Respiratory Care Procedures IV 2:2:0
An indepth study of EKG and chest x-ray interpretation.
Prerequisite: Completion of SSI requirements.
125 Clinical Practicum II
2:0:16
Clinical experience in the hospital under direct supervision stressing pulmonary functions studies, respiratory home care, and bronchoscopy observations.
Prerequisite: Completion of Spring Semester requirements.
126 Clinical Practicum III 2:0:16
Clinical experience in the hospital under direct supervision stressing EKG studies, and sleep apnea studies. Prerequisite: Completion of SSI requirements.
131 Clinical Practicum I
3:0:16
Clinical experience in the hospital under direct supervision with the application of medical gas therapy, humidity and aerosol therapy, CPR, and pharmacological agents stressed.
Prerequisite: Completion of Fall Semester requirements.
137 Respiratory Care Procedures I 3:2:3
An introduction to Respiratory Care and selected concepts which delineate the role and function of Respiratory Care. Medical Terminology, Medical Gas Therapy, humidity and aerosol therapy, basic C.P.R., chest physical exam, and infection control are emphasized.
Prerequisite: Admission into the program.
138 Respiratory Care Procedures II 3:2:3
This course is designed to introduce blood gases, pharmacology, positive pressure breathing, artificial airways, chest physiotherapy, incentive spirometry and basic sciences and pediatric respiratory care.
Prerequisite: Completion of Fall Semester requirements.
221 Pulmonary Pathophysiology 2:2:0
An advanced study of disease with emphasis on the diseases which compromise the function of the respiratory apparatus.
Prerequisite: Completion of previous Spring Semester requirements.
231 Respiratory Care Procedures $V$ 3:2:3
An introduction to mechanical ventilation (adult, pediatric, and neonatal) cardiopulmonary monitoring. Prerequisite: Completion of previous SSII requirements.
Cardiopulmonary/Renal Anatony \& Physiology
Emphasizes the anatomy and physiology of the heart, circulatory system, respiratory system and the excretory system.
Prerequisite: Completion of previous Fall Semester requirements.
233 Clinical Practicum IV
3:0:16
Clinical experience in the hospital under direct supervision stressing critical care management in ICU areas. Prerequisite: Completion of SSII requirements.
234 Respiratory Care Procedures VI 3:2:3
An indepth study of advanced cardiac life support and pulmonary rehabilitation.
Prerequisite: Completion of previous SSI requirements.
235 Clinical Practicum VI
3:0:16
Clinical experience in the hospital under less direct supervision. The students will be assigned to any and all aspects of respiratory care including emergency room, code team and hyperbaric medicine.
Prerequisite: Completion of previous Spring Semester requirements.

Clinical experience in the hospital under less direct supervision. The students will be assigned to any and all aspects of respiratory care and will conduct teaching rounds.
Prerequisite: Completion of previous SSI requirements.

# Department of Nursing 

## Department Chair: Eileen Tiedt 233B Ward Health Sciences Building-880-8817 <br> Professor: Tiedt

Associate Professor: Trussell
Assistant Professors: Boyd, Carroll, Duncan, Esperat, Hall, H. Moss, Price-Nealy, Slaydon, J. Smith, Twiname, Wilsker
Instructors: Bumpus, Creed, Green, Komplin, Landry, Mason, P. Moss, McDonald, Welch, Wilmore
Clinical Instructors: Galeazzi, Gregory
Nursing education began at Lamar University in 1951, when the Vocational Nursing Program was approved in the College of Technical Arts. Eventually, the way was paved for the development of Registered Nurse preparation. The Associate of Science in Nursing program accepted students in January 1974, and the Bachelor of Science in Nursing Program admitted the first class in January 1976.

Nursing programs differ in their focus on education and clinical practice. It is pertinent then, to state the department's view of nursing education and nursing service.

Basic to the philosophy of the department is the belief that all people have the right to optimal health care. Nursing shares with other health sciences the goal of promoting health for individuals, families, and communities, as well as the responsibility for the care, comfort and coordination of services to clients experiencing acute, chronic and terminal illness. To accomplish this goal, nurses function in collaboration with other members of the health team, in a supportive role to the medical plan, and as independent practitioners of nursing. Nurses also function as patient/client advocates. Based on scientific knowledge, caring attitudes and technical skills, nurses focus on promotion of health, prevention of illness and disease. Nursing is concerned with expansion and application of new knowledge and methods of care, and with improvement of health care delivery systems.

To implement this philosophy, the curricula focus on the behavior of people in various levels of wellness. The programs provide understanding of the systems which influence living and care giving, and people's psychology and physiology under normal and pathological conditions. Attaining clinical competence is stressed.

Students of nursing meet course requirements through didactic courses, laboratory assignments, and clinical experience in health care facilities under supervision of University faculty. Students are expected to adhere to rules and regulations of Lamar University and the various facilities to which they are assigned. Specific policies may be obtained from program directors.

## Admission to Department of Nursing Programs

Students enrolled at Lamar University must submit an application for Admission to Nursing programs.

Students not enrolled at Lamar must submit two separate applications; one for admission to Lamar (obtained from the Office of Admissions), and one for admission to the specific program (obtained from the Advising Center, Room 257, Ward Health Sciences Building).

Completed Application for Admission to Nursing programs, with required transcripts, test scores and related documents must be received on specified dates (see
program statements to be considered for admission). Applicants are urged to follow application instructions carefully to ensure processing by admission committees.

Applications for Admission are evaluated on the following bases: $j$

1. Admission to the University (Admissions section of this bulletin.)
2. Transcripts and grades in high school and previous college work. Specified test scores may be required.
3. Evidence of physical and emotional capability of completing the program of instruction and clinical practice. Health examinations are required. Forms are available with application forms.
4. Motivation for nursing practice demonstrated through letters of recommendation, employment and volunteer records and references, statement of career goals and, in most cases, a personal interview
5. Admission may be limited by available space.
6. Students who have met the admission criteria and standards by the end of the spring semester of the year they are applying for admission to the nursing major will receive more favorable consideration.
7. See program of choice for additional requirements.

Additional costs above tuition and fees are involved in nursing programs. Uniforms, equipment, instruments, liability insurance, health examinations, special testing fees, course packet fees, additional.laboratory fees and transportation to clinical facilities are the student's responsibility. Financial aid is available for eligible students (see Financial Aid and Awards section of this bulletin).

Liability insurance and health examinations must be renewed each year of Nursing programs.

Students may be assigned to clinical experiences during day, evening, night or weekend hours.

Clinical agencies may require additional health examinations, dress codes or conformity with other policies. Students will be informed in advance of such requirements.

Transfer credits from other institutions will be evaluated on an individual basis.

## Bachelor of Science - Nursing

## Program Director: Eileen Tiedt

The purpose of the baccalaureate nursing program is to prepare professional nurse practitioners to meet community and state needs for nurses who can assume leadership in the delivery of health care.

The program is designed to prepare the graduate for beginning roles in assessing, planning, implementing and evaluating nursing and health care needs of individuals, families and groups in a variety of settings. This program also lays the foundation necessary for graduate study in clinical specialities, supervision, administration, education and/or research.

Completion of the program leads to a Bachelor of Science in Nursing degree. Recipients of the degree are eligible to make application to write the examination given by the Board of Nurse Examiners to become a Registered Nurse (RN).

The baccalaureate program also provides an opportunity for Registered Nurses who wish to pursue a Bachelor of Science Degree in Nursing.

Application for admission to the program is made during the Spring semester preceding the Sophomore year. Students are encouraged to develop and maintain early counseling contact with the department.

Admission to the nursing major follows criteria of the College of Health and Behavioral Sciences. Admission is determined by the Admissions Committee and is based on evaluation of the student's application and available space. To be considered for admission the student must:

1) Have a minimum grade of " C " with an overall grade point average (GPA) of 2.50 in the Physical Sciences and a minimum grade of " C " in all other prerequisites.
2) Have completed all prerequisite courses.
3) Have met the T.A.S.P. requirements, if applicable.
4) Submit a complete application and attendant materials to the Admissions Committee by March 1st of the Freshman year.
5) See also Admission to Department of Nursing Program criteria on page 263.

Credit may be earned by examination in selected nursing courses. Criteria for eligibility to take competency/equivalency examinations, fees, policies, procedures and other details may be obtained from the program director, Ward Health Sciences Building.

Students may be required to validate their knowledge of social, psychological or biological science courses which were taken more than 10 years prior to the date of application to the nursing program.

For progression in the Program a minimum grade of " C " must be maintained in all nursing and science courses, and an overall GPA of 2.0 must be maintained in all course work. A student who fails to perform satisfactorily in clinical practice will receive a failing grade in the nursing course regardless of the theory grade.

Nursing courses may be repeated once only by special permission, after demonstration of prerequisite knowledge and skills (see program director and/or Student Handbook for specific policies and procedures).

# Bachelor of Science - Nursing Major <br> Recommended Program of Study 

NOTE: This curriculum plan is in effect for all students entering as beginning freshman, fall, 1990.

## @Prerequisites

## Fall Semester

Bio 143 - Human Anat \& Physiology ....................... 4
Chm 143 - Intro Inorg............................................... 4
Psy 234 - Child Psychology ...................................... 3
HEc 138 - Intro to Nutrition or Phl 130................... 3
Eng 131 - Composition................................................... 3
PEGA ........................................................................ 2

## Spring Semester

Bio 144 - Human Anat \& Physiology ....................... 4
Chm 144-Intro Organic .......................................... 4
Psy 236 - Adult Devel \& Aging................................. 3
Phl 130 - Phil of Knowledge or HEc 138................. 3
Eng 132 - Composition............................................. 3
PEGA ......................................................................... 2 19

## First Year

## Fall Semester

Nur 221 - Basic Nursing Prac................................... 2
Bio 245 - Intro Microbiology ................................... 4
Math 1334 - College Algebra .................................... 3

+ Nur 253 - Hlt \& Well Assessment........................ 5
Nur 233 - Pathophysiology ...................................... 3
\#Speech ................................................................... 0
17


## Spring Semester

Nur 284 - Nursing Adult Client I............................. 8
Nur 232 - Pharm Nursing Prac ................................ 3
Literature ................................................................... 3
Psy 241 - Intro Stat Methods ................................... 4

Second Year

## Fall Semester

Nur 328 - Ecology of Nursing.................................. 2
Nur 353 - Nurs Adult Client II ......................................... 5
Nur 355 - Nurs Adult Client III................................ 5
His 231 - American History ..................................... 3
Fine Arts ..................................................................... 3

## Spring Semester

Nur 331 - Community .................................................. 3
Nur 382 - Nurs The Family I.................................... 8
Pols 231 - Intro Amer Government .......................... 3
Literature of Foreign Language................................. 3

## Third Year

## Fall Semester

Nur 481 - Nurs The Family II................................... 8
Nur 430 - Research Proc in Nursing ........................ 3
*Nur - Nursing Elective ........................................... 3
His 232 - American History ..................................... 3

Spring Semester
Nur 491 - Comp Nursing........................................... 9
Nur 433 - Seminar.................................................... 3
Pols 232 - American Government ............................ 3
*Elective - Non-major.............................................. 3 .
@ Prerequisite courses must be taken prior to admission to the nursing program.

* Students are encouraged to take this course sooner, if possible.
+ Meets HLTH 137 requirement for students completing the Nursing Major requirements.
\# Met by extensive oral communication assignments within the degree plan.


## Bachelor's Degree Nursing Courses (Nur)

221 (Concepts Basic to Nursing Practice) Health and Wellness Assessment
2:2:0
Introduction to selected concepts which serve as a framework for nursing practice. Beginning integration of content from the natural, physical, and social sciences applied to health care.
Prerequisite: Admission to the BSN Program or departmental consent.
232 Pharmacologic Basis of Nursing Practice
An introduction to pharmacology, principles of therapeutics and clinical applications.
Prerequisite: Departmental consent.
233 Basic Pathophysiology 3:3:0
Study of basic pathophysiology with emphasis on disease processes. Focus on implications for nursing practice. Prerequisite: Admission to the BSN program or department consent.
253 Concepts and Practice of Clinical Nursing $\quad$ 5:3:6
Beginning application of the nursing process and physical assessment skills. Emphasis on health assessment, maintenance and history taking.
Prerequisite: Admission to the BSN Program.
284 Nursing Care of the Adult Client I $\begin{aligned} & \text { 8:4:12 }\end{aligned}$
Application of the nursing process and physical assessment skills, emphasizing planning and intervention skills with adult clients experience interference in biological health.
Prerequisite: Nur 221, 233, 253, admission to BSN Program.
328 Ecology of Nursing 2:2:0
Consideration of nursing from historical perspective to aid understanding of contemporary practice. Emphasis on roles of the nurse. Introduction to legal and ethical issues and to the scientific approach to nursing. Focus on the inter-relatedness of nursing education and practice within the health care system.
Prerequisite: Nur 221, 233, 253, 284 or Departmental consent.
331 The Community as a Client $\quad$ 3:3:0
Expands previously presented concepts to include the delivery of health care to large and small groups. Emphasis is given to the concepts of the community as a client within the context of primary, secondary and tertiary health care.
Prerequisite: Departmental consent.
345 Physical Assessment
4:3:3
Clinical laboratory and classroom experience in applying physical assessment skills. Appropriate for junior and senior nursing students.
Prerequisite: Nur 233 or departmental consent.
353 Nursing Care of the Adult Client II
5:2:8
A continuation of Nur 284, with emphasis on the adult client experiencing interference with biological health. Prerequisites: Nur 253, 284.
355 Nursing Care of the Adult Client III $\quad$ 5:3:6
Application of nursing process, emphasizing planning and intervention skills with adult clients experiencing interferences in psychological health.
Prerequisites: Nur 253, 284.
382 Nursing Care of the Family I $\quad$ 8:3:15
Application of nursing process, emphasizing health maintenance of clients and families in community settings. Prerequisite: Nur 253, 284, 353, 355.
4301 Special Topics Nursing
3:3:0
Nursing elective introducing topics related to health care. Designed to expand the student's professional role in various health care settings and areas of specialization.
Prerequisite: Departmental Consent.

This elective provides the senior nursing student with an opportunity for individualized study of selected concepts and/or problems in professional nursing. The course may repeated as the content varies.
Prerequisite: Departmental consent.
430 Research Process in Nursing
Introduction to the philosophy and values of research, the major methods of conducting investigations and the
application of research findings to nursing and health care.
Prerequisite: Departmental consent.

Provides the senior nursing student the opportunity to study and discuss complex nursing and health care issues. Prerequisite: Department consent.
442 Emergency and Disaster Nursing 4:2:6
A lecture/discussion and clinical practice course designed to provide theory and practice for students interested in emergency and disaster nursing. Prerequisite: Departmental consent.
481 Nursing Care of the Family II 8:3:15

Application of nursing process emphasizing health restoration and rehabilitation of clients and families in the childbearing and childrearing cycles.
Prerequisite: Nur 382.
491 Comprehensive Nursing Practice 9:3:18
Application of nursing process to comprehensive nursing care. Leadership and management of nursing service delivery systems.
Prerequisite: Nur 481, 430.

## Associate of Science - Nursing

Program Director: Doris J. Price-Nealy

The purpose of the Associate of Science degree nursing program is to prepare a practitioner for beginning roles in assessing, planning, implementing, and evaluating, with assistance, the nursing and health care needs of clients in the hospital setting.

The associate degree nursing program may be completed in two calendar years. Students receive classroom instruction and supervised clinical experience in the nursing care of patients at local hospitals and community agencies. Each recipient of the degree is eligible to make application to write the state licensing examination given by the State Board of Nurse Examiners to become a registered nurse (RN).

A minimum grade of " C " must be maintained in all nursing and science, courses for admission and progression in the program, as well as to obtain the Associate of Science degree. For progression in the program an overall GPA of 2.0 must be maintained in all course work. A student who fails to perform satisfactorily in clinical practice will receive a failing grade in the nursing course regardless of the theory grade. Nursing courses may be repeated once by special permission, after demonstration of prerequisite knowledge and skills (see program director and/or Student Handbook for specific policies and procedures).

To be considered for admission, the student must submit an application to the admissions committee of the associate degree nursing program by March 1st of each year. This form, and information concerning admission procedures may be procured from the Advising Center, Room 257, Ward Health Science Building.

To be considered for admission the student must:

1) Complete all prerequisite courses with a grade of " C " or better.
2) Have met the T.A.S.P. requirements, if applicable.
3) See also Admission to Department of Nursing Programs criteria on page 263.

Students are encouraged to develop and maintain early counselling contact with the department.

Admission is determined by the Admissions Committee and is based on evaluation of the student's application, and, available space.
Associate of Science - Nursing
Recommended Program of Study
*Prerequisite
Bio 143 Anat \& Physiology ......................................... 4 Bio 144 Anat \& Physiology .....  .4
PE Activity .....  .2
Eng 131 Composition ..... $\ldots 3$
First Year
Spring Semester
Nur 192 Nursing Adult Client I............................... 9
Bio 245 Microbiology .....  4
Eng 132 Composition. .....  .9
Psy 234 Child Psychology. .....  .3
15 ..... 15
Second Year
Summer Session I
His 231 American History .....  .3
Pols 231 American Gov't (Texas) .....  3
Fall Semester
Nur 261 Maternity Nursing. .....  6
Nur 262 Nursing Child Client .....  .6
Eng Literature .....  3

## Summer Session II

Mth 1334 or TM 134 ................................................. 3
Pols 232 American Gov't 3
Spring Semester
Nur 292 Nursing Adult Client II ..... 9
His 232 American History .....  3
*Prerequisite courses must be laken prior to admission to the nursing program.

## Associate Degree Nursing Courses (Nur)

## 191 Mental and Physical Health I

Introduction to nursing concepts which form the framework for the nursing process. Includes physiology, nutrition, pharmacology, mental health, growth and development. Emphasis on technical, observational, and communication skills needed for effective nursing care.
Prerequisite: Admission to ADN Program.
192 Nursing Care of the Adult Client I 9:5:12
Continues integration of concepts basic to the nursing process. Emphasis on application of nursing process to care of hospitalized adults with disturbances in physical or mental health.
Prerequisite: Nur 191.
261 Maturnity Nursing 6:4:6
Application of concepts basic to the nursing process to the hospitalized maternity client. Emphasis on physiology, growth and development, emotional and envirommental influences on childbearing.
Prerequisite: Nur 192
262 Nursing Care of the Child Client 6:4:6
Application of concepts basic to the nursing process to the hospitalized child.
Prerequisite: Nur 261.
292 Nursing Care of the Adull Client II 9:4:15
Application of all concepts included in the nursing process to hospitalized adults with complex disturbances in physical and mental health. Introduction to management in hospital nursing service.
Prerequisite: Nur 262.

Department of Psychology<br>Department Chair: Richard G. Marriott<br>Professors: Barrington, Bell, J. Esser, Marriott, Walker<br>103 Psychology Building<br>Phone 880-8285

Associate Professor: Lindoerfer
Assistant Professors: Holtz, Matthei
Adjunct Assistant Professors: Duncan, Trahan
Adjunct Instructor: P. Esser

## Bachelor of Arts - Psychology Major

The degree of Bachelor of Arts in Psychology will be awarded upon completion of the following:

1. General Requirements:

English Composition: six semester hours
Literature: six semester hours
Mathematics: six semester hours; select from Mth 1334, 134, 1335 or 1341, $1345,234,236$ or 148,237 or 149
Biology 141-142 General: eight semester hours
Foreign Language: 12 semester hours completion of the 232 course in a foreign language
Political Science 231, 232 American Government: six semester hours
Sophomore American History: six semester hours
Physical Activity: two semesters
Philosophy 130: three semester hours
Speech 131: three semester hours
Fine Arts: three semester hours
Health and Wellness: three semester hours
2. Major:

Psychology 131 Introduction to Psychology
Psychology 241 Statistical Methods in Psychology
Psychology 342 Methods in Psychology
Psychology Additional 15 semester hours, a minimum of nine semester hours must be on the advanced level
3. Minor:

A approved minor of 18 semester hours, a minimum of six semester hours must be on the advanced level
4. Electives:

A sufficient number of approved electives to complete a total of 128 semester hours
5. Completion of Major Field Achievement Test (effective 5/90)

## Recommended Program of Study

## First Year

Bio 141, 142 General Biology ................................... 8
Eng Composition6
Foreign Language ..... 6
Mth ..... 6
Psy 131 Introduction to Psychology ..... 3
PE Activity ..... 2-4
Phl 130 ..... 3

## Second Year

Eng Literature ..... 6
Foreign Language. ..... 6
His Sophomore American History .....  .6
Psy 241 Intro to Statistical Methods ..... 4
Spc 131 ..... 3
Fine Arts ..... 3
Electives .....  8
Health \& Wellness ..... 3
Third Year
POLS 231, 232 American Govt I, II .....  6
Psy 342 Methods in Psychology ..... 4
Psy Advanced ..... 6
Minor. ..... 9
Electives ..... 6 ..... 31
Fourth Year
Psy, Ádvanced .....  9
Minor. .....
Electives ..... 14
Total 128 Hours

## Bachelor of Science - Psychology Major

The degree of Bachelor of Science in Psychology will be awarded upon completion of the following:

1. General Requirements:

English Composition: six semester hours
Literature: six semester hours
Speech 131: three semester hours
Mathematics: six semester hours; Select from Mth 1334, 134, 1335 or 1341, $1345,234,236$ or 148,237 or 149.
Computer Science: three semester hours; Select from CS 130, 1311, 1411 or Phy 133
Biology 141-142 General: eight semester hours
Political Science 231, 232 American Government: six semester hours
Sophomore American History: six semester hours
Science: eight semester hours (Geo 141-142; Che 141-142; Che 143-144; or
Phy 141-142; Phy 143-144)
Physical Activity: two semesters
Philosophy 130: three semester hours
Fine Arts: three semester hours
Health and Wellness: three semester hours
2. Major:

Psychology 131 Introduction to Psychology
Psychology 241 Statistical Methods in Psychology
Psychology 342 Methods in Psychology
Psychology 443 Experimental Psychology
Psychology Additional 18 semester hours, to include nine semester hours selected from Psychology 331, 332, 333, 334, and 432 and nine semester hours selected from Psychology 336, 431, 436, and 438.
3. Minor:

An approved minor of 18 semester hours a minimum of six semester hours must be on the advanced level
4. Electives:

A sufficient number of approved electives to complete a total of 128 semester hours
5. Completion of Major Field Achievement Test (effective 5/90)

## Recommended Program of Study

First Year
Bio 141-142 General Biology ..... 8
Eng Composition .....
Mth .....  .6
Science ..... 8
Psy 131 Introduction to Psychology .....  3
PE Activity ..... 2-4
Phl 130 ..... 3

## Second Year

Spc 131. .....  3
Eng Literature .....  .6
Computer Science. ..... 3
Psychology .....  3
Psy 241 Intro to Statistical Methods .....
Minor. .....  6
Fine Arts .....  3
Health \& Wellness .....  3
Electives .....  3
Third Year
POLS 231, 232 American Govt l, Il ..... 6
Psy 342 Methods in Psychology ..... 4
Psy, Advanced ..... 6
Minor. .....  6
Electives .....  .6
28
Fourth Year
His Sophomore American History .....  .6
Psy 443 Experimental Psychology .....  .4
Psy, Advanced ..... 9
Minor. .....  6
Electives .....  .5 ..... 30
Total 128 hours
Bachelor of Science in Psychology Bachelor of Science in Biology
First YearBio 141, 142 General Biology 8
Chm 141, 142 General ..... 8
Eng Composition .....  6
Mth 1335 Precalculus Mathematics .....  3
Psy 131 Introduction to Psychology ..... 3
Psy 241 Introduction to Statistical Methods ..... 4
PE Activity .....  2
Phl 130 .....  3
37
Summer
POLS 231, 232 American Government 1, II .....  6
Fine Arts .....  3
Health \& Wellness .....  3Third Year
His Sophomore American History .....  6Phy 141, 142 General
Bio 347 Genetics 8
Bio 345 Botany4
Psy 443 Experimental Psy. .....
***Psy Advanced ..... 9
35

## Second Year

Chm 341, 342 Organic. ..... 8
Bio 240 Comparative Anatomy or 444 Vertebrate Natural History ..... 4
Bio 245 Microbiology .....  4
Psy 342 Methods. .....  4
Eng Soph Literature. .....  6
Mth 236 Calculus 1 .....  3
Computer Science .....  3
***Psy Advanced .....  .335

## Fourth Year <br> Fourth Year

Bio 346 lnvertebrate Zoology. .....  4
Bio 417 Classical Biological Literature ..... 2
**Bio Electives ..... 12
***Psy Advanced .....  6
Electives ..... 13
*Both degrees must be awarded simultaneously.
**Biology electives chosen from Bio 342, 344, 446, 447.
***Advanced Psychology elective: Group I (choose any three): Psy 331, 332, 333, 334, 432; Group II (choose any three): Psy 336, 431, 436, 438.

## Psychology Courses (Psy)

131 Introduction to Psychology ..... 3:3:0
An introductory survey of the major areas of psychology such as learning, personality, social, testing, develop- mental and physiological. Emphasis is on psychology s the scientific study of behavior and includes both human and animal behavior.
234 Child Psychology ..... 3:3:0
A study of the growth and development of behavior patterns in children.
236 Adult Development and Aging ..... 3:3:0
A survey of major issues in adult development and aging including biological, cognitive, personality, social and disease factors.
Prerequisite: Psy 131 or 234.
241 Introduction to Statistical Methods ..... 4:3:2
Statistical concepts and techniques used in behavioral science research. Topics include graphs, measures of position, central tendency and dispersion, correlation and regression, probability, test of significance and intro- duction to non-parametric techniques.
330 Psychology of Communication ..... 3:3:0A study of the theory, structure and function of communication patterns in various group settings.Prerequisite: Psy 131.



Students are encouraged to enter non-traditional occupational training programs, preparing them for profitable careers.

## College of Technical Arts

Departments: Industrial Training Supervision, Technology

Kenneth E. Shipper, Ph.D., Dean

248 Beeson Technical Arts Building
Phone 880-8185
The College of Technical Arts provides technical and industrial education for thousands of men and women from Texas, other states and many foreign countries. It is housed in a modern plant consisting of six buildings containing 125,000 feet of classroom, shop and office space. The Cecil R. Beeson Technical Arts classroom and office building was completed for occupancy for the Fall of 1977. Parking for 480 cars is provided adjacent to these buildings. Entrance to this area, located in the 4400 block of MLK Parkway, is on Lavaca Street. The Port Arthur and Orange campuses also offer similar courses and programs.

An Associate of Applied Science degree is awarded at the Beaumont campus in the following fields of study: business data processing; child care technology; computer drafting technology; computer electronics and robotics technology; diesel mechanics; fire protection technology; industrial supervision; instrumentation technology; midmanagement; machine tools; occupational safety and health; refrigeration and air conditioning technology; real estate and welding.

The appliance repair, child care technology, industrial supervision, machine tools, diesel mechanics, occupational safety and health, plant maintenance, plate welding, real estate, and refrigeration programs have provisions for offering a Certificate of Completion when the specified course requirements have been satisfied.

## Associate Degree Programs

The College of Technical Arts offers career-oriented education in 14 degree programs in three departments in the College.

## Industrial Training Department

Diesel Mechanics
Machine Tools
Refrigeration and Air Conditioning Technology
Welding
Department of Supervision
Business Data Processing
Child Care Technology
Fire Protection Technology
Industrial Technology
Mid-Management
Occupational Safety and Health
Real Estate
Department of Technology
Computer Drafting Technology
Computer Electronics and Robotics Technology
Instrumentation Technology
All of the above two-year programs are designed to give the student training prior to entry into an occupation. Successful completion of one of these programs should provide the student with sufficient knowledge, skill and confidence to enter and advance rapidly in a selected field.

The curriculum of each program is designed to allow a student to enter in any semester and is arranged so that a student can take supporting work in either the College of Technical Arts or in other colleges in the University.

Course descriptions and further information about the College of Technical Arts are included in a separate bulletin. Requests for copies of the College of Technical Arts catalog should be addressed to the Office of the Dean, College of Technical Arts, Box 10043, Lamar University Station, Beaumont, Texas 77710.


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## College of Graduate Studies and Research

Robert D. Moulton, Ph.D., Associate Vice President for Research and Dean of Graduate Studies<br>Howell H. Gwin, Jr., Ph.D., Director of Graduate Studies

103 Wimberly Building Phone 880-8230
101 Wimberly Building
Phone 880-8229

## The Graduate College

The Dean of the College of Graduate Studies and Research is responsible for the direction of graduate programs of the University. The Dean is assisted by the Graduate Council, a body that serves in an advisory capacity to the Dean. The Council consists of representatives from each College offering graduate degrees.

## Degrees Offered

Master of Arts in
English
History
Political Science
Master of Business Administration
Master of Education in
Elementary Education
Counseling and Development
School Administration
Secondary Education
Special Education
Supervision
Master of Engineering
Master of Engineering Management
Master of Engineering Science
Master of Music
Master of Music Education
Master of Public Administration
Master of Science in
Biology
Chemistry
Computer Science
Deaf Education
Home Economics
Kinesiology
Mathematics
Psychology
Public Address
Speech Communication
Speech Pathology/Audiology
Theater
Doctor of Engineering

## The Graduate Bulletin

The Graduate Bulletin contains a complete listing of courses, admission requirements and other information of value to graduate students. Requests for copies should be directed to the College of Graduate Studies and Research, Lamar University, Box 10004, Lamar University Station, Beaumont, Texas 77710.

## Admission to a Degree Program

1. Applicants for admission to the Graduate College must submit the following materials to the Graduate Admissions Coordinator at least 30 days before registration.
A. An application for admission to the Graduate College.
B. An official transcript from each college or university attended.
C. Official scores on the aptitude section of the Graduate Record Examination (GRE) sent directly to Lamar University by the Educational Testing Service. (Applicants for the Master of Business.Administration degree are not required to take the GRE, but must submit scores on the Graduate Management Admission Test, GMAT. See the College of Business section of the current Graduate Bulletin for specific requirements).

## GRE AND GMAT SCORES MORE THAN FIVE YEARS OLD WILL BE ACCEPTED ONLY BY SPECIAL PERMISSION OF THE DEAN/DIREC. TOR OF THE GRADUATE COLLEGE.

2. Applicants must meet the following requirements:
A. A prospective student must have a bachelor's degree from an institution approved by a recognized accrediting agency.
B. All students whose native language is not English must make a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). Individual departments may require higher scores.
C. An applicant must meet $O N E$ of the following additional criteria.
3. A minimum combined score of 950 on the Verbal plus Quantitative sections of the Graduate Record Examination.
4. A minimum combined score of 900 on the Verbal plus Quantitative sections of the GRE with a minimum of 350 on the Verbal section.
5. Minimum scores of 400 on the Verbal section and 400 on the Quantitative section of the GRE with a minimum total of 800 on these two sections.
In academic year 1989-1990 a total of 850 on the Verbal plus Quantitative sections will be required; in academic year 1991-1992 the requirement will increase to 900 .
D. The following departments have established minimum grade point average requirements for admission to their degree programs.
12.5/4.0 overall or on the last 60 hours of undergraduate work:

Biology Kinesiology
English Political Science
History . Psychology
Home Economics Public Administration
22.0/4.0 overall or on the last 60 hours of undergraduate work:

Chemistry
33.0/4.0 on the last 60 hours of undergraduate work:

Computer Science
3. International students must provide the following additional items.
A. Complete official and certified translations of any transcripts which are not written in English.
B. A minimum score of 500 on the Test of English as a Foreign Language (TOEFL).
C. Proof of sufficient financial resources to meet the cost of attending Lamar University. International students must also present proof of adequate health insurance; those who plan to drive an automobile in the State of Texas must have liability insurance.
All application materials, scores, transcripts, etc., must be one file at Lamar University by May 15 for Fall admission; by October 1 for Spring admission, and by February 15 for Summer admission.
4. International students who are assigned to English as a Second Languages must enroll in ESL courses every semester or term such courses are offered until they receive a grade of "S." Students will not be admitted to candidacy or allowed to graduate until this requirement has been completed.
5. Applicants for the Master of Business Administration degree should consult the College of Business section in the current Graduate Bulletin for specific entrance requirements to that program.
6. Prospective Doctor of Engineering students must send a letter to the Dean, College of Engineering (Box 10057) giving information on the applicant's engineering experience, current employment, and major research interests.
7. Students who wish to pursue graduate work in any area for which they have not had the prerequisites will be required to make up deficiencies as required by the Graduate Council. In general, the student is required to have a minimum of 24 semester hours, ( 12 of which must be on the Junior-Senior level), of undergraduate work in the subject chosen as the graduate major. For a minor, 12 semester hours of undergraduate work are required.
8. Admission to the College of Graduate Studies does not imply candidacy for a degree.
9. The Dean of Admissions will notify the applicant of admission to the College of Graduate Studies. All transcripts, certificates, etc. become the property of Lamar University and are not returnable.
10. Admission requirements stated above are minimum requirements. The applicant must also have the approval of the departments in which the degree program is offered and must meet the specific requirements of that department. Further details may be found in the Graduate Bulletin of Lamar University.

## Post Baccalaureate Admission

1. Students who wish to take graduate courses but do not wish to be admitted to the College of Graduate Studies or who have not met all requirements for admission to the College may be admitted as Post Baccalaureate students in one of the undergraduate colleges under the following conditions:
A. The applicant must hold a bachelor's degree.
B. The applicant must submit an application for admission to the Post Baccalaureate program.
C. The applicant must submit an official transcript from each college previously attended.
D. The applicant must be approved for admission by the Dean of Admissions.
2. International students will not be admitted as Post Baccalaureate students.
3. If application for admission to a graduate degree is received in a subsequent semester and requirements for admission to the College of Graduate studies are completed, a maximum of six semester hours completed at Lamar before full admission is gained may be counted for degree credit with the approval of the department and the Graduate Dean/Director.
4. Post Baccalaureate students who have successfully completed six or more hours of graduate course work and who do not meet the minimum admission requirements for the College of Graduate Studies may petition for admission following the procedure outlined in the Graduate Bulletin under "Admissions Appeals." If admission is then granted by the College of Graduate Studies, the student may receive degree credit for six hours or for the number of hours completed at the end of the semester in which the student exceeds six hours.
5. Post baccalaureate students are not permitted to enroll in Business courses for graduate credit without prior consent of the Graduate Coordinator, College of Business.


The Lamar University-Beaumont faculty members are among the finest academicians in the nation.
Directory of Personnel 1990-91
Board of Regents
Ted Moor, Jr., Chairman ..... Beaumont
Amelie Cobb, Vice Chairman ..... Beaumont
C. W. Conn, Jr., Secretary ..... Beaumont
Truman Arnold ..... Texarkana
E. Linn Draper ..... Beaumont
Thomas M. Maes, II ..... Beaumont
Douglas Matthews Galveston
Wayne Reaud Beaumont
Ronald Steinhart Dallas
System Administration
George E. McLaughlin, Ed.D., Chancellor
Oscar K. Baxley, M.B.A., Vice Chancellor for Finance
W. S. Leonard, M.S., Vice Chancellor for Development
Andrew J. Johnson, Ph.D., Assistant to the Chancellor and Interim President, Lamar University-OrangeKyle Shook, Director of Internal Audit
Hubert Oxford III, General Counsel
Billy J. Franklin, Ph.D., President, Lamar University-BeaumontW. Sam Monroe, L.L.D., President, Lamar University-Port ArthurJohn Calhoun Wells, Ph.D., President, John Gray Institute
General Administration
Lamar University-Beaumont
Billy J. Franklin, Ph.D., President, Lamar University-Beaumont
William C. Nylin, Ph.D., Executive Vice President for Finance and OperationsJoseph D. Deshotel, J.D., Vice President for Administration and CounseI
J. Earl Brickhouse, B.S., Executive Director for Public Affairs
Ralph A. Wooster, Ph.D., Associate Vice President for Academic and Student Affairs; Dean ofFaculties
Joseph K. Kavanaugh, Ph.D., Associate Vice President and Dean of Students
Wayne Seelbach, Ph.D., Executive Assistant to the President for Coordination and Planning
Academic Administration
Bell, Myrtle L., Ed.D., Dean, College of Health and Behavioral SciencesBrentlinger, W. Brock, Ph.D., Dean, College of Fine Arts and CommunicationEnsign, Gary C., Ph.D., Director of Public ServicesHodge, Charles M., Ed.D., Dean, College of Education and Human DevelopmentIdoux, John P., Ph.D., Dean, College of Arts and SciencesMcCord, S. Joe, Ph.D., Director of Library ServicesMoulton, Robert, Ph.D., Associate Vice President for Reserach and Dean of Graduate StudiesRode, Elmer G., Jr., M.Ed., Dean of Records and RegistrarSethna, Beheruz N., Ph.D., Dean, College of BusinessShipper, Kenneth E., Ph.D., Dean, College of Technical Arts
Young, Fred M., Ph.D., Dean, College of Engineering
Principal Administrative Staff
Alborn, Ray, Head Football CoachAllen, Robert, Director of Physical PlantAsteris, Mark, Director of Media Services, Library

Avellar, Allan, Assistant Vice President for Personnel and Staff Development Beadle, Dalton, Purchasing Agent<br>Branch, Tony, Head Basketball Coach<br>Carpenter, Eugene W., Chief of University Police<br>Castete, Jesse, Director of Housing<br>Castete, Ralynn, Director of Financial Aid<br>Chapell, Dana, Director, Minority Scholars Institute<br>Cherry, Kathryn, Supervisor of Parking Office<br>Chesser, Melissa, Admissions Field Representative<br>Collier, Dixie, Coordinator, Services for Handicapped Students<br>Collins, Barry, Director of Recreational Sports<br>Conn, Carolyn, Director of Budget and Payroll<br>Cook, Bernie, Manager, Warehouse and Property Control<br>Cotton, Will, Director of Energy Management<br>Davis, Nancy, Coordinator of Special Services, Technical Arts<br>Droddy, Frances, Director, Early Childhood Development Center<br>Duhon, Patricia, Director of Systems and Programming<br>Duncan, Gary, Director, Lamar Police Academy<br>Fiorenza, Wanda, Executive Director, Alumni Association<br>Foundren, Darrell L., Director of Veterans Affairs/Evening Services<br>Forristall, Dorothy Z., Director of Learning Skills<br>Fosfer, Marion, Assistant Director, Occupational Health Safety<br>Francis, Clifton N., Director of Records and Registration<br>Galloway, Willie M., Administrative Assistant for University Reception Center<br>Gale, Thomas J., Technical Director/Theatre<br>Garlick, Starla, Assistant Director, Non-Credit Programs<br>Gwin, Howell H., Jr., Director of Graduate Studies<br>Harwood, Clint, Director, Computer Center<br>Hayes, Stuart W., Director of Photographic Services<br>Hunter, Robert, Director of Enrollment Management<br>Hurlbut, Brian, Director of Accounting<br>Johnson, Barry, Director of Bands<br>Jolly, Sonny, Athletic Director and Head Track Coach<br>Juhan, Gerry, Counselor, Testing and Career Services<br>Ketcham, Bonnie, Director of Reservations and Operations, Setzer Center<br>LeBlanc, Jerry, Director of Development<br>Ledet, Les, Station Manager, KVLU-FM Radio<br>Lee, Robert B., Director of Special Services<br>Lokensgard, Lynne, Director, Dishman Art Gallery<br>McCalley, Ruth, Director of Setzer Center<br>Mandz, Peter A., Hazardous Waste Coordinator<br>Martin, Jack T., Director of Placement<br>McLain, Bob, Operations Manager, Montagne Center<br>Morin, Joyce, Director of Assessment, Advising and Research Center<br>Moye, Gene E., Director of Student Financial Aid Accounting<br>Neumann, Richard L., Director of Assessment (Technical Arts)<br>Noble, Harry P., Assistant Vice President for Information Systems<br>O'Toole, Jack, Director of Postal Services<br>Pate, Sharon, International Student Advisor<br>Pearson, Edwin A., Director of Internal Services/Printing<br>Perkins, David, Head Baseball Coach<br>Perkins, Howard, Director of Student Publications<br>PettiJohn, Mike, Director of Food Service<br>Placette-Chapman, Jacquelynn F., Panhellenic Advisor<br>Potts, Joe, Director of Student Activities

Reingardt, Gary, Manager, Building Maintenance and Operations<br>Rice, Ray E., Safety Coordinator<br>Rogas, Dan W., Associate Athletic Director for Operations; Executive Director, Cardinal Club<br>Roy, M. Paul, Coordinator of Technical Arts Placement<br>Rush, James C., Director of Academic Services<br>Shaw, Ann, Dean of Student Development/Student Services<br>Smith, Joe Lee, Director of Public Information<br>Stracener, Bruce E., Assistant Vice President for Auxiliary Services<br>Thames, Dorothy Faye, Director of Developmental Education<br>Thomas, Karen, Building Manager, Setzer Center<br>Trammell, Janice, Assistant Director, Credit Programs<br>Turco, Charles P., Director of Special Programs<br>Williams, Harry, Vocational Counselor<br>Willcox, Tom, Director of Telecommunications<br>Wood, Rush B., Director of Sport Information

## Faculty 1990-91

The following list reflects the status of the Lamar University faculty as of Spring 1990. The date after each name is the academic year of first service to the University and does not necessarily imply continuous service.
Adell, Timothy P., 1987, Lecturer in English
B.A., North Park College; M.A., McNeese State University

Akers, Hugh A., 1977, Professor of Chemistry
B.S., University of California, Riverside; Ph.D., University of California - Berkeley

Allen, Charles L., 1979, Professor of Economics
B.A., East Texas State University; M.A., Ph.D., University of Arkansas

Allen, Joel L., 1960, Assistant Professor of Economics
B.S., Arkansas Agricultural and Mechanical College; M.S., Baylor University

Altemose, John R., Jr., 1973, Professor of Criminal Justice
A.B., Davidson College; M.Ed., Lamar University; M.A., Ph.D., Sam Houston State University
Aly, Ibrahim M., 1986, Assistant Professor of Accounting
B.Com., Cairo University; M.B., Ph.D., North Texas State University

Aminabhavi, Tejraj M., 1988, Adjunct Research Professor of Chemistry.
B.S., M.S., Karnatak Science College; Ph.D., University of Texas

Anderson, Adrian N., 1967, Professor of History; Chair, Department of History
B.S., M.A., Ph.D., Texas Tech University

Anderson, Virginia N., 1960, Associate Professor of Home Economics
B.S., Georgia State College for Women; M.Ed., Trinity University; Certified Family Life Educator
Andrews, Jean F., 1988, Associate Professor of Deaf Education
B.A., Catholic University of America; M.Ed., Western Maryland College; Ph.D., University of Illinois
Anusorn, Singhapakdi, 1987, Assistant Professor of Marketing
B.S., University of Wisconsin-Madison; M.B.A., University of Wisconsin-Whitewater

Aronow, Saul, 1955, Professor of Geology
B.A., City University of New York, Brooklyn College; M.S., State University of Iowa; Ph.D., University of Wisconsin
Asteris, Mark M., 1985, Instructor of Media Services Coordinator
B.A., King's College; M.L.S., Villanova University

Babin, L. Randolph, 1968, Assistant Professor of Music
B.M.Ed., M.M.Ed., Ph.D., Louisiana State University

Bagley, Larry, 1988, Lecturer in Health, Physical Education and Dance; Assistant Basketball Coach
B.A., Baptist Christian College; M.Ed., Stephen F. Austin

Bailey, P. Gail, 1975, Assistant Professor of Dental Hygiene; Director, Dental Hygiene Program B.S., M.Ed., Lamar University; Registered Dental Hygienist

Baj, Joseph A., II, 1964, Associate Professor of Mathematics
B.A., Kent State University; M.A., University of Texas

Baker, B. Joanne, 1981, Assistant Professor of Mathematics B.A., Lamar University; M.A., Ph.D., University of Texas at Austin

Baker, Barbara C., 1983, Instructor II of Supervision B.A., M.A., University of Southwestern Louisiana

Baker, Christopher P., 1976, Associate Professor of English; Director, Freshman English B.A., St. Lawrence University; M.A., Ph.D., University of North Carolina

Baker, Mary Alice, 1969, Associate Professor of Communication B.S., M.A., University of Oklahoma; Ph.D., Purdue University

Ball, John, 1988, Assistant Professor of Radiologic Technology B.S, Midwestern State University; M.Ed., Sam Houston State University, Registered Radiographer
Barbre, Al, 1983, Lecturer in Health Physical Education and Dance; Women's Head Basketball Coach
B.S., M.Ed., Stephen F. Austin State University

Barlow, H. A., 1951, Regents' Professor, Associate Professor of Accounting B.S., Louisiana Tech University; M.B.A., Louisiana State University; Certified Public Accountant
Barnes, Cynthia, 1982, Associate Professor of Office Administration B.S., Howard Payne University; MEd., Texas Tech University; Ed.D., North Texas State University
Barrington, Billy Ray, 1967, Professor of Psychology B.S., Southwest Texas State University; M.Ed,, Sam Houston State University; Ph.D., University of Houston
Barton, Joel E. III, 1987, Associate Professor of Health B.S., M.Ed., Ph.D., Texas A\&M University

Bean, Wendell C., 1968, Professor of Electrical and Nuclear Engineering B.A., B.S., Lamar University; M.S., Ph.D., University of Pittsburgh; Registered Professional Engineer
Bechler, David L.., 1981, Associate Professor of Biology
B.A., Indiana University; M.S., Northeast Louisiana University; Ph.D., St. Louis University
Bell, Alice C., 1975, Professor of Health; Chair, Department of Health, Physical Education and Dance
B.S., M.A., Ph.D., Texas Woman's University

Bell, Myrtle L., 1963, Professor of Psychology; Dean, College of Health and Behavioral Sciences B.S., M.S., Texas A\&I University; Ed.D., University of Texas

Benoit, Genevieve, 1987, Clinical Instructor of Dental Hygiene A.A.S., Lamar University; Registered Dental Hygienist

Berthiaume, Gerald B., 1978, Assistant Professor of Music B.M., University of Puget Sound; M.M., New England Conservatory of Music

Bethel, James A., 1987, Associate Professor of Communication B.A., University of Tulsa; M.A., Ph.D., University of Oklahoma

Birdwell-Pheasant, Donna, 1984, Associate Professor of Anthropology B.A., M.A., Ph.D., Southern Methodist University

Boatwright, J. Douglas, 1986, Assistant Professor of Kinesiology B.S., University of Alabama at Birmingham; M.S., Ph.D., Louisiana State University

Bonton, Donald R., 1981, Instructor I of Computer Drafting Technology A.A.S., Lamar University

Boughton, James K., 1980, Associate Professor of Mechanical Engineering B.S., Mlinois Institute of Technology; M.S., Lamar University; Registered Professional Engineer

Royd, Sandra M., 1979, Assistant Professor of Nursing
B.S.N., Wayne State University; M.S., University of Houston; Registered Nurse

Brenizer, Joan E., 1957, Associate Professor of Mathematics
B.S., Lamar University; M.A., University of Texas

Brentlinger, W. Brock, 1969, Professor of Communication; Dean, College of Fine Arts and Communication
B.A., Greenville College; M.A., Indiana State University; Ph.D., University of Illinois

Briggs, Kenneth R., 1966, Regents' Professor of Professional Pedagogy
B.S., M.Ed., Ed.D., North Texas State University

Bronson, Paul A., 1986, Assistant Professor of Respiratory Therapy; Director of Respiratory Therapy Program
B.S., Southern Colorado State College; M.Ed., Lamar University; Registered Respiratory Therapist
Bruner, Melissa A., 1988, Lecturer in English
B.A., University of Oklahoma; M.A., Miami University

Brunson, Richard W., 1982, Associate Professor of Management
B.S., U.S. Military Academy; M.B.A., Babson College; Ph.D., Michigan State University

Brust, Melvin F., 1978, Associate Professor of Finance.
B.S.E.E., M.S.E.E., University of Texas; Ph.D., North Texas State University; Registered Professional Engineer
Bryan, George A., Jr., 1964, Assistant Professor of Biology B.S., University of Texas at El Paso; M.S., Pennsylvania State University

Bumpus, Donna, 1988, Instructor of Nursing
B.S.N., Colorado Women's College; M.S.N., Vanderbilt University; Registered Nurse, Certified Enterostomal Therapy Specialist
Burke, Charles M., 1970 Professor of Curriculum and Instruction; Director, Lamar Early Access Program
B.A., Southeastern Louisiana University; M.Ed., Louisiana State University; Ed.D., University of Southern Mississippi
Burson, Carolyn, 1989, Clinical Instructor of Dental Hygiene A.A.S., Lamar University; Register Dental Hygienist

Cameron, Margaret D., 1956, Regents' Professor of Chemistry B.A., Texas Woman's University; M.S., University of Houston; Ph.D., Tulane University

Camp, Kathryn, 1985, Assistant Professor of Home Economics B.S., Kansas State College; M.S., University of Arkansas Tulane University

Campbell, Jerry W., 1976, Instructor III of Diesel Mechanics
A.A.S., Lamar University

Cannon, John R., 1988, Professor of Mathematics; Chair, Department of Mathematics
B.A., Lamar University; M.A., Ph.D., Rice University

Carley, Wayne W., 1983, Associate Professor of Biology B.S., M.A., Ph.D., University of California

Carlin, Dewey R., Jr., 1958, Associate Professor in the Department of Electrical Engineering B.S., Lamar University; M.S., University of Texas

Carlucci, Joseph B., 1971, Professor of Music B.M., M.M., Yale University; D.M.A., Eastman School of Music, University of Rochester

Carroll, Anita, 1986, Assistant Professor of Nursing
B.S.N., M.S.N., West Texas State University; Registered Nurse

Carroll, David J., 1975, Instructor; Cataloging Corrdinator B.A., Kansas State University; M.L.S., University of Denver

Carroll, John M., 1972, Professor of History A.B., Brown University; M.A., Providence College; Ph.D., University of Kentucky

Carruth, Carl, 1966, Associate Professor of Industrial Engineering B.S., Lamar University; M.S., University of Houston; Ph.D., University of Texas-Arlington; Registered Professional Engineer
Castle, David S., 1985, Assistant Professor of Political Science B.A., M.A., Marshall University; Ph.D., University of Rochester

Cater, Alice W., 1974, Instructor IV of Real Estate
B.B.A., Southern Methodist University; M.B.A., University of Texas at Austin

Carter, Keith D., 1988, Walles Chair Visting Professor and Instructor of Art B.B.A., Lamar University

Cavaliere, Frank J., 1985, Associate Professor of Business Law
B.A., Brooklyn College; B.B.A., Lamar University; J.D., University of Texas School of Law

Chaisson, Lisa René, 1988, Assistant Professor of Dance
B.A., Centenary College; M.F.A., Texas Woman's University

Chan, Chen-Wen Wendy, 1984, Adjunct Instructor/Computer Lab Supervisor B.S., Lamar University

Chappell, Dana Lynn, 1985, Instructor I of Child Care Technology and Director of Minority Scholars
B.S.Ed., Edinboro University of Pennsylvania; M.S.Ed., Duquesne University

Chelf, Roger D., 1989, Assitant Professor of Physics
B.S., M.S., University of Kentucky; Ph.D., Georgia Institute of Technology

Chen, Daniel Hao, 1982, Associate Professor of Chemical Engineering
B.S., National Cheng-Kung University; M.S., National Taiwan University; Ph.D.,

Oklahoma State University; Registered Professional Engineer
Chen, Julie T., 1989, Lecturer of English
B.A., Taiwan University; M.A., Oklahoma State University

Cherry, Richard T., 1966, Regents' Professor of Finance
B.A., Texas A\&M University; M.A., Ph.D., University of Texas

Chiou, Paul, 1988, Assistant Professor of Mathematics
B.S., National Chung Hsing University; M.A., Ph.D., University of Texas

Choi, Jai-Young, 1982, Associate Professor of Economics
B.A., Yonsei University; M.A., University of Kansas; Ph.D., University of Oklahoma

Chu, Hsing-wei, 1979, Assistant Professor in the Department of Industrial Engineering
B.S., Tunghai University; M.S., Asian Institute of Technology; Ph.D., University of Texas

Clark, Bradley D., 1988, Assistant Professor of Spanish-
B.A., M.A., Brigham Young University; Ph.D., University of Texas

Clark, Lynnwood M., Jr., 1972, Instructor III of Business Data Processing
B.S., Lamar University

Clem, Roger, 1985, Instructor of Communication Disorders
B.S., M.S., Lamar University; A.S.H.A. Certification in Audiology

Cocke, David, L., 1989, Professor of Jack M. Gill Chair of Chemistry and Director of the Environmental Chemistry Lab
B.S., University of Texas, 1966; M.S., Lamar University, 1969; Ph.D., Texas A\&M University, 1972
Collier, J. N., 1955, Associate Professor of Music
B.M., University of Houston; M.M., Southern Methodist University

Collins, Thomas Lee, 1987, Lecturer in Physical Education, Assistant Basketball Coach
B.S., Northwestern State University; M.A., Black Hills State College

Commander, Emily Sue, 1985, Lecturer in Developmental Mathematics B.S., M.S., Lamar University

Conway, Jeff S., 1986, Lecturer in Physical Education; Assistant Football Coach
B.S., Northwest Missouri State University; M.A., Sam Houston State University

Cooke, James L., 1956, Regents' Professor of Electrical Engineering
B.S., Texas Tech University; M.S., University of Texas; Ph.D., Northwestern University; Registered Professional Engineer
Cooper, Mark, 1984, Professor of Professional Pedagogy
B.S.E., M.S.E., Henderson State University; Ph.D., Georgia State University

Cooper, Roger W., 1979, Assaciate Professor of Geology
B.A., University of South Dakota; M.S., University of Wisconsin-Madison; Ph.D., University of Minnesota
Corder, Paul Ray, 1987, Associate Professor in the Department of Mechanical Engineering
B.S.M.E., M.S.M.E., Ph.D., Texas A\&M University

Core, Carol, 1988, Lecturer in Physical Education, Women's Tennis Coach B.S., Lamar University; M.S., New Mexico State University

Cortez, George James, 1987, Lecturer in Physical Education, Assistant Football Coach B.S., Texas A\&M University

Crawford, Katrinka J., 1981, Lecturer in Physical Education; Head Volleyball Coach B.S., Utah State

Creed, Virginia, 1986, Instructor of Nursing
B.S.N., University of North Florida; M.S.N., Medical College of Georgia; Registered Nurse

Crim, Sterling C., 1964, Professor of Mathematics
B.A., Lamar University; B.S., Baylor University; M.Ed., North Texas State University; M.A., George Peabody College for Teachers; Ph.D., University of Texas

Crowder, Vernon Roy, 1967, Professor of Kinesiology B.S., Lamar University; M.S., Ph.D., Louisiana State University

Crum, Floyd M., 1955, Regents' Professor of Electrical Engineering B.S., M.S., Lamar University; M.S., Ph.D., Louisiana State University

Culbertson, Robert M., Jr., 1974, Assistant Professor of Music B.M., Northern Illinois University; M.M., University of Wisconsin

Daigrepont, Lloyd M., 1981, Associate Professor of English B.A., M.A., Ph.D., Louisiana State University

Daniali, Saeed, 1981, Associate Professor of Civil Engineering B.S., Tehran Polytechnique; M.S., School of Engineering of Strasbourg; Ph.D., University of Lille; Registered Professional Engineer
Darsey, Nancy S., 1955, Professor of Office Administration; Chair, Department of Administrative Services B.B.A., M.B.A., Texas Tech University; Ph.D., Louisiana State University

Davidson, Jane S., 1970, Professor of Home Economics B.S., Texas Woman's University; M.S., Sam Houston State University; Ph.D., Texas Woman's University
Davis, Elvis C., 1956, Associate Professor of Accounting B.B.A., Lamar University; M.B.A., University of Arkansas; Certified Public Accountant
de Bittencourt, Julio C., 1988, Coordinator of Dance, Artist in Residence of Dance, Moody Lecturer in Dance
de Schweinitz, Edmund A., 1989, Lecturer of Developrnental Writing B.A., Lamar University; M.A., Trinity University

Dimick, Roger, 1985, Instructor II of Business Data Processing B.B.A., Lamar University

Dingle, Robert L., 1959, Associate Professor of Mathematics
B.S., M.Ed., University of Houston; M.S., University of Arkansas

Dorris, Keneneth L., 1965, Associate Professor of Chemistry B.S., Ph.D., University of Texas

Dowling, Richard W., 1989, Walles Chair Visiting Professor and Lecturer of Music B.M., University of Houston; M.M., Yale University

Drapeau, Richard A., 1983, Associate Professor of Business Statistics B.S., Arizonia State University; M.B.A., Lamar University; Ph.D., Texas A\&M University

Drury, Bruce R., 1971, Professor of Political Science M.B.A., M.A., University of Nebraska; Ph.D., University of Florida

DuBlinski, Beth J., 1989, Assistant Professor of Spanish B.A., Metropolitan State University; B.S., Marquette University; M.A., Ph.D., University of Colorado-Boulder
DuBose, Elbert T., Jr., 1974, Associate Professor of Political Science B.A., Southwest Texas State University; M.A., Texas Tech University; Ph.D., University of Oklahoma
Dugger, Linda J., 1970, Assistant Professor Acquisitions Coordinator B.A., M.L.S., North Texas State University

Duncan, Edwin Wilson, 1986, Assistant Professor of English B.A., Texas Tech University; M.A., Ph.D., University of Texas at Austin

Dunlap, Carla, 1989, Lecturer of Developmental Reading B.A., M.Ed., Lamar University

Durgin, Thomas R., 1980, Instructor II of Computer Electronics and Robotic Technology A.A.S., Lamar University

Dyess, J. Wayne, 1977, Assistant Professor of Music
B.M., Stephen F. Austin State University; M.M., Catholic University of America; Ed.D., University of Houston
Elliff, Connie Jo, 1976, Assistant Professor of Home Economics
B.S., Southwest Texas State University; M.S., Kansas State University; Registered Dietitian
Ellis, M. LeRoy, 1969, Professor of Modern Langauges
B.A., M.A., University of South Carolina; Ph.D., University of Aix-Marseille

Esperat, Maria Christina, 1979, Assistant Professor of Nursing B.S.N., M.S.N., Silliman University; Registered Nurse

Esser, James K., 1976, Professor of Psychology
B.S., University of Iowa; Ph.D., Indiana University

Everett, Donna R., 1989, Assistant Professor of Office Administration B.A., Phillips University; M.S., Ed.D., University of Houston

Fearing-Tornwall, Ruth O., 1980, Assistant Professor of Dental Hygiene
B.S., Northeastern University; M.S., Boston University School of Dentistry; Registered Dental Hygienist
Fitzpatrick, James E., 1982, Instructor I of Computer Electronics and Robotics Technology A.A.S., B.S., Lamar University

Fitzpatrick, Philip M., 1977, Associate Professor of Art B.F.A., M.F.A., Auburn University

Foreman, Myers L., 1985, Assistant Professor of Computer Science B.S., M.S., Lamar University; M.S., University of Southwestern Louisiana

Francis, Kurt T., 1988, Lecturer in English B.A., M.A., North Texas State University

Frazier, Robert L., 1974, Professor of Criminal Justice B.S., M.A., Ph.D., Sam Houston State University

Frederick, Linda G., 1989, Clinical Instructor Radiologic Technology
B.A., Lamar University; Registered Radiographer

Frederick, Maruice, Jr., 1982, Instructor II of Refrigeration \& Air Conditioning Technology A.A.S., Lamar University

Fritze, Ronald H., 1984, Associate Professor of History
B.A., Concordia College; M.A., M.L.S., Louisiana State University; Ph.D., University of Cambridge
Gale, Thomas J., 1988, Technical Dirctor/Theatre/Instructor
B.A., M.A., Old Dominion University

Galeazzi, Mary, 1988, Clinical Instructor of Nursing
B.S.N., Lamar University

Gardner, Kathryn A., 1979, Instructor III of Business Data Processing
B.B.A., Lamar University

Gaskin, Joyce H., 1986, Instructor I of Child Care Technology
B.S., University of Tennessee; M.S., University of Pittsburgh; M.A., Lamar University

Gates, David G., 1963, Professor of Industrial Engineering
B.S., M.S., University of Arkansas; Ph.D., Oklahoma State University; Registered Professional Engineer
Georgas, Marilyn D., 1962, Professor of English
B.A., Sam Houston State University; M.A., Lamar University; Ph.D., University of Texas

Gilligan, James P., 1972, Instructor of Physical Education
B.S., M.S., Lamar University

Gilman, Kurt Ardee, 1986, Assistant Professor of Music
B.M., Eastman School of Music; M.M., Texas Tech University

Godkin, Roy Lynn, 1981, Associate Professor of Management
A.B., Bethany Nazarene College; M.B.E., Nazarene Theological Seminary; M.A., Sangamon State University; Ph.D., North Texas State University
Goines, Oscar T., 1961, Assistant Professor of Physics
B.S., Stephen F., Austin State University; M.S., Texas A\&M University

Gold, Leonard M., 1989, Associate Professor of Mechanical Engineering B.S., M.S., Ph.D., Drexel University

Gonzales, Ramon, 1988, Lecturer in Speech Pathology and Audiology
B.S., M.S., Lamar University

Goulas, Fara, 1975, Assistant Professor of Education
B.A., Lamar University; M.A., University of Colorado; Ed.D., McNeese State University

Gravitt, Wilson Bert, 1987, Lecturer in Health, Physical Education and Dance; Assistant
Football Coach
B.S., Northeastern Oklahoma State University

Green, Alexia, 1988, Instructor of Nursing
B.S.N., University of Texas Medical Branch at Galveston; M.S.N., University of Texas Health Science Center at Houston; Registered Nurse
Green, Annie Sue, 1964, Assistant Professor of Mathematics; Director, Engineering Advisement Center
B.A., M.S., Lamar University

Green, Marcia L., 1972, Regents' Instructor IV of Related Arts
B.A., Bishop College; M.A., Stephen F. Austin State University; M.Ed., Lamar University; Ph.D., Texas Woman's University
Gregory, O. Delilah, 1973, Clinical Instructor of Nursing.
B.S.N., University of Texas Medical Branch-Galveston; Registered Nurse

Gremillion, Rae R., 1961, Assistant Professor of Kinesiology
B.S., M.S., Northwestern State University of Louisiana

Guiton, Kymond, 1986, Lecturer in Physical Education; Assistant Track Coach B.S., Lamar University

Gunnarson, Adele D., 1987, Assistant Professor of Audiology
B.S., University of Texas-Austin; M.S., Ph.D., University of Texas-Dallas; A.S.H.A.

Certification and Licensure in Audiology
Guerrieri, Louis, 1988, Clinical Instructor of Respiratory Therapy
B.A., Mansfield State College; Registered Respiratory Therapist

Gwin, Howell, H., Jr., 1962, Professor of History; Director, Graduate Studies
B.A., M.A., Ph.D., Mississippi State University

Gwynn, Robert S., 1976, Associate Professor of English
A.B., Davidson College; M.A., M.F.A., University of Arkansas

Haiduk, Michael W., 1983, Associate Professor of Biology B.S., M.S., Texas A\&M University; Ph.D., Texas Tech University

Hall, lva, 1985, Assistant Professor of Nursing B.S.N., University of Central Arkansas; M.S.N., University of Central Arkansas; Registered Nurse
Hamilton, Frank L., 1988, Adjunct Instructor of Instrumentation Technology A.A.S., Lamar University

Hansen, Keith C., 1967, Professor of Chemistry; Chair, Department of Chemistry B.S., Lamar University; Ph.D., Tulane University

Hargrave, Minus J., 1987, Instructor I of Computer Electronics and Robotics Technology A.A.S., Lamar University

Hargrove, W. Richard, 1964, Professor of Curriculum and Instruction
B.S., M.Ed., North Texas State University; Ed.D., George Peabody College for Teachers

Harmon, Anne, 1959, Associate Professor of Chemistry
B.S., Monmouth College; M.S., Baylor University

Harrel, Richard C., 1966, Professor of Biology
B.S., East Central State College; M.S.Ed., University of Georgia; Ph.D., Oklahoma State University

## Harrigan, W. Patrick, III, 1969 Associate Professor of Communication

B.S., Loyola University; M.F.A., Tulane University; Ph.D., Louisiana State University

Harris, Carolyn R., 1983, Assistant Professor of Computer Science
B.A., Texas Tech University; M.S., University of Southern Mississippi; Ph.D., University of Texas at Arlington
Harris, William T., 1983, Associate Professor of Accounting
B.B.A., M.B.A., Texas Tech University; Ph.D., Louisiana State University; Certified Public Accountant
Harvill, John B., 1984, Associate Professor of Computer Science
B.A., M.A., North Texas State University; Ph.D., Southern Methodist University

Harvill, John F., 1965, Assistant Professor of Mathematics
B.S., M.S., Northwestern State University of Louisiana

Haven, Sandra L., 1973, Associate Professor of Graduate Studies in Education B.S., Lamar University; M.A., Central Michigan University; Ed.D., University of Houston

Hawkins, Charla J., 1982, Lecturer in Developmental Mathematics B.B.A., M.S., Lamar University

Hawkins, Charles F., 1966, Regents' Professor of Economics; Chair, Department of Economics and Finance B.A., Lamar University; M.A., Ph.D., Louisiana State University

Henry, Lula, 1987, Associate Professor of Professional Pedagogy
B.S.E., Paul Quinn College; M.S.Ed., Arkansas State University; Ed.D., University of Missouri
Heumann, J. Mark, 1985, Assistant Professor of English B.A., Cornell University; M.A., University of Houston; Ph.D., State University of New York-Stony Brook
Hickman, Shirley F., 1989, Instructor I of Computer Electronics and Robotic Technology A.A., Houston Community College; B.S., University of Houston

Hill, James K., 1988, Associate Professor of Art; Chair, Department of Art B.F.A., University of New Mexico; M.A., University of New Mexico; Ed.D., Teachers College of Columbia University
Hinchey, Jane O., 1968, Associate Professor of Home Economics B.S., Winthrop College; M.S., University of Tennessee; Ph.D., Texas Woman's University

Ho, Tho-Ching, 1982, Associate Professor of Chemical Engineering
B.S., National Taiwan University; M.S., Ph.D., Kansas State University; Registered Professional Engineer
Hodge, Charles M., 1989, Professor of Educational Leadership; Dean, College of Education and Human Development
B.A., University of Arkansas at Pine Bluff; M.Ed., Ed.D., University of North Texas

Hogue, Bradley B., 1967, Professor of Curriculum and Instruction B.A., M.Ed., Southern Methodist University; Ed.D., North Texas State University

Holland, DeWitte T., 1971, Professor of Speech
B.S., United States Merchant Marine Academy; A.B., Howard College; B.D., Southern

Baptist Theological Seminary; M.A., University of Alabama; Ph.D., Northwestern University
Holt, Marion W., 1960; Associate Professor of History B.A., Hendrix College; M.A., Louisiana State University

Holt, Virginia Raye, 1975, Professor of Health; Coordinator of Health, Physical Education and Dance Graduate Programs
B.S., Georgia State College for Women; M.S., Baylor University; Ed.D., University of Tennessee
Holtz, Rolf, F., 1989, Assistant Professor of Psychology
B.A., University of Washington; M.S.Ed., Ph.D., University of Southern California

Hoosier, Peggy, 1982, Clinical Instructor of Radiologic Technology B.S., M.Ed., Lamar University; Registered Radiographer

Hopper, Jack R., 1969, Professor of Chemical Engineering; Chair, Department of Chemical Engineering
B.S., Texas A\&M University; M.Ch.E., University of Delaware; Ph.D., Louisiana State University; Registered Professional Engineer
Hudson, Jean Marie, 1951, Associate Professor of Accounting
B.A., Carleton Coliege; M.A., University of Oklahoma; Ph.D., University of Texas at Austin; Certified Public Accountant
Hunt, Madelyn D., 1973, Associate Professor of Biology
B.S., Lamar University; M.P.H., Dr.P.H., University of Texas School of Public Health; Registered Medical Technologist (A.S.C.P.)
Hurt, John Peter, 1986, Lecturer in Health, Physical Education and Dance; Assistant Football Coach
B.S., Mississippi College; M.A.T., Southeast Missouri

Huval, Martha J., 1978, Clinical Instructor of Radiologic Technology
B.S., M.Ed., Lamar University; Registered Radiographer

Idoux, John P., 1984, Professor of Chemistry; Dean, College of Arts and Sciences
B.A., University of St. Thomas; M.S., Ph.D., Texas A\&M University

Isaac, Paul E., 1960, Regents' Professor of History
B.A., Pepperdine College; M.A., Ph.D., University of Texas

Jack, Meredith M., 1977, Associate Professor of Art
B.F.A., University of Kansas; M.F.A., Temple University

Jett, Leonard, 1989, Lecturer in English
B.A., Southern Methodist University; M.A., University of Wisconsin-Madison

Johnson, Aileen S., 1986, Associate Professor of Educational Leadership B.A., Western Michigan University; M.A., Ph.D., Arizona State University

Johnson, Andrew J., 1958, Professor of History; Assistant to the Chancellor B.A., University of Texas; M.A., University of Chicago; M.A., Ph.D., Indiana University

Johnson, Barry W., 1983, Assistant Professor of Music; Director of Bands B.M.E., M.A., Sam Houston State University; Ed.D., University of Houston

Johnson, James C., 1989, Adjunct Instructor of Mid-Management B.S., Lamar University

Jolly, Sonny, 1971, Professor of Health and Physical Education, Head Track Coach and Athletic Director
B.S., M.S., Lamar University; M.Ed., Stephen F. Austin State University; Ed.D., North Texas State University
Jones, Bonner R., 1982, Instructor II of Electrical Technology A.A.S., B.S., Lamar University

Jones, Kirkland C., 1973, Professor of English
B.A., University of Washington; M.A., Texas Southern University; Ph.D., University of Wisconsin
Jones, Richard W., 1975, Professor of Accounting; Chair, Department of Accounting B.S.C., Texas Christian University; M.A., University of Alabama; Ph.D., University of Arkansas; Certified Public Accountant
Jordan, Donald L., 1979, Associate Professor of Computer Science
B.S., East Texas Baptist College; B.S., Lamar University; M.S., Air Force Institute of Technology; Ph.D., University of Houston
Jordan, Jim L., 1982, Associate Professor of Geology
B.S., Lamar University; Ph.D., Rice University

Juarez, Joe 1., 1968, Instructor IV of Basic Communications; Chair, Department of Supervision B.F.A., University of Houston; B.S., Lamar University; M.Ed., University of Houston

Karlin, Andrea, 1981, Associate Professor of Professional Pedagogy B.A., Hunter College; M.A., Ph.D., University of New Mexico

Kavanaugh, Carol A., 1988, Lecturer in English B.A., Alma College; M.A., Ohio University; M.Ed., Loyola University

Kavanaugh, Joseph K., 1988, Adjunct Associate Professor of Management
Ph.D., Louisiana State University, M.A., Ohio University; M.E.D., Ohio University, B.A., Oakland University
King, Ronald S., 1989, Professor of Computer Science, Chair, Department of Computer Science B.S., Lamar University; M.S., University of North Texas; Ph.D., University of Northern Colorado
Koehn, Enno, 1984, Professor of Civil Engineering; Chair, Department of Civil Engineering B.C.E., The City University of New York; M.S., Columbia University; M.C.E., New York University; Ph.D., Wayne State University; Registered Professional Engineer
Koh, Hikyoo, 1985, Associate Professor of Computer Science B.A., Young-Nam; M.S., University of Hawaii; Ph.D., University of Pittsburgh

Komplin, Jacquelyn, 1989, Instructor of Nursing B.S.N., University of Pittsburgh School of Nursing; M.S.N.. University of Texas-Galveston; Registered Nurse
Kriegel, Otto A., 1973, Instructor III of Machine Tools
Laidacker, Michael A., 1967, Associate Professor of Mathematics B.S., M.S., Lamar University; Ph.D., University of Houston

Laird, Gary, 1989, Lecturer of Developmental Reading B.A., M.A., Lamar University

Landry, Nancy, 1989, Instructor of Nursing
B.S.N., Lamar University; M.S.N., University of Texas Health Center; Registered Nurse

Lane, James E., 1967, Associate Professor of Professional Pedagogy Director, Teacher Certification
B.A., Abilene Christian University; M.Ed., Lamar University; Ed.D., North Texas State University
Lanier, Boyd L., 1970, Associate Professor of Political Science; Director College of Arts and Sciences Advising Center; Director of Bachelor of Applied Art and Sciences Program B.A., M.S., Ph.D., Florida State University

Laslovich, Michael J., 1988, Assistant Professor of Political Science B.A., University of Montana; M.A., University of Montana; Ph.D., Carleton University

Lauffer, Charles H., 1962, Assistant Professor of Mathematics B.S., M.S., Auburn University

LeBlanc, John R., 1971, Professor of Music; Director of Music Education B.M.Ed., McNeese State University; M.S.M., Southwestern Baptist Theological Seminary; M.M., Louisiana State University; Ph.D., University of Southern Mississippi

Lewis, William, 1986, Professor and Chair, Department of Military Science B.B.A., Upper Iowa University

Li, Ku-Yen, 1978, Professor of Chemical Engineering B.S., M.S., Cheng Kung University; Ph.D., Mississippi State University; Registered Professional Engineer
Lihs, Harriett, 1983, Instructor of Physical Education B.A., M.A., University of Iowa

Little, Jr., David S., 1975, Adjunct Instructor of Computer Drafting Technology A.A.S., Lamar University

Lindoerfer, Joanne S., 1980, Associate Professor of Psychology B.S., Loyola University, Chicago; M.S., Ph.D., University of Texas

Lindsey, Jalyne B., 1989, Adjunct Instructor of Technical Mathematics B.S., M.S., Lamar University

Lokensgard, Lynne L., 1973, Associate Professor of Art B.A., M.A., University of Minnesota; Ph.D., University of Kansas

Love, James J., 1976, Assistant Professor of Criminal Law; Director, Criminal Justice Program . B.A., Lamar University; J.D., University of Texas
Lowrey, Mildred A., 1974, Professor of Kinesiology; Director, Academic Programs, Health, Physical Education and Dance
B.S., Howard College; M.S., Alabama College; Ph.D., Florida State University

Ma, Li-Chen, 1972, Professor of Sociology
B.S., M.S., National Taiwan University; Ph.D., University of Georgia

Mackey, Howard, 1963, Professor of History B.A., University of Toledo; M.A., Ph.D., Lehigh University

Madden, Robert, 1959, Associate Professor of Art
B.A., Centenary College; M.F.A., University of Arkansas

Mainord, Robert A., Jr., 1981, Instructor I of Computer Electronics and Robotics Technology A.A.S., B.A., Lamar University

Malnassy, Phillip G., 1973, Associate Professor of Biology A.B., Hunter College, New York; Ph.D., Rutgers University

Mantz, Peter A., 1982, Associate Professor in the Department of Civil Engineering B.Sc., Newcastle University; M.Sc., Southampton University; Ph.D., London University; Chartered Engineer (UK)
Marble, Ronald I., 1967, Instructor IV of Welding A.A.S., Lamar University

Marriott, Richard G., 1976, Professor of Psychology; Chair, Department of Psychology B.S., Weber State College; M.A., Ph.D., University of New Mexico

Martin, Gabriel A., 1989, Associate Professor of Communications B.S., M.S., Ed.D., University of Southern Mississippi

Martin, Carol P., 1989, Lecturer in English B.A., McNeese State University; M.Ed., Louisiana State University; M.A., Louisiana Tech University
Martinez, Eugene P., 1959, Regents' Professor of Mechanical Engineering B.S., Lamar University; M.S., Rice University; Ph.D., University of Houston, Registered Professional Engineer
Mason, Ruth, 1973, Instructor of Nursing B.S.N., M.S.N., School of Nursing, University of Texas Medical Branch-Galveston; Registered Nurse
Matak, Pete, III, 1978, Instructor III of Diesel Mechanics A.A.S., Lamar University

Matheny, Sarah Sims, 1971, Assistant Professor of Professional Pedagogy B.S., Lamar University; M.Ed., Sam Houston State University

Matheson, Alec L., 1983, Associate Professor of Mathematics
B.S., University of Washington; Ph.D., University of Illinois

Mathis, Verbie T., 1978, Instructor III of Mid-Management B.S., Texas Eastern University; M.B.E., Stephen F. Austin State University

Matthei, Edward H., 1989, Assistant Professor of Psychology B.A., University of Chicago; Ph.D., University of Massachusetts

Mauer, William H., 1979, Instructor II and Program Coordinator of Computer Electronics and Robotics Technology
A.A.S., Lamar University

McAdams, LeBland, 1967, Professor of Home Economics; Chair, Department of Home Economics
B.S., Sam Houston State University; M.Ed., University of Houston; Ph.D., Texas Woman's University
McCaskill, Ed, 1987, Associate Professor of Professional Pedagogy
B.S., M.Ed., Sam Houston State University; Ed.D., East Texas State University

McCord, S. Joe, 1988, Professor, Director of Library Services
B.A., M.A., Ph.D., M.S., Louisiana State University

McDonald, Susan, 1989, Instructor of Nursing
B.S.N., Herbert Lehman College; M.S.N., Pace University; Registered Nurse

McGillivray, Robert E., 1984, Associate Professor of Accounting
B.S., M.B.A., University of Colorado; Ph.D., North Texas State University; Certified Public Accountant
McGraw, J. Leon, Jr., 1967, Professor of Biology
B.S., Lamar University; M.S., Ph.D., Texas A\&M University

McNeely, Arnold L., 1986, Computer Science Laboratory Supervisor B.S., Lamar University

Mei, Harry T., 1960, Professor of Mechanical Engineering B.S., National Taiwan University; M.S., Ph.D., University of Texas; Registered Professional Engineer
Mejia, Joe M., 1960, Associate Professor of Chemistry B.S., M.S., Texas A\&M University

Melvin, Cruse D., 1986, Professor of Physics; Chair, Department of Physics B.S., M.S., Stephen F. Austin State University; Ph.D., Tulane University

Mistric, Catherine A., 1985, Instructor of Communication/Clinical Supervisor B.S., M.S., Lamar University; A.S.H.A. Certified in Clinical Competence

Mock, Ralph K., Jr., 1966, Instructor IV and Program Coordinator of Computer Drafting Technology
A.A.S., Lamar University; Senior Certified Engineering Technician

Monk, Jr., David S., 1975, Adjunct Instructor of Computer Drafting Technology
Monroe, Vernice M., 1970, Associate Professor of Social Work; Director, Social Work Program B.S., M.S.W., University of Missouri

Montano, Carl B., 1981, Associate Professor of Economics.
B.S., M.S., University of the Philippines; Ph.D., Michigan State University

Moore, Bernadette B., 1989, Instructor of Physical Education .
B.S., Ling Physical Education College; M.S., Saint Thomas University

Morgan, William E., 1972, Professor of Civil Engineering B.S., U.S. Naval Academy; B.S., U.S. Naval Post Graduate School; M.S., University of Alaska; Ph.D., University of Texas; Registered Professional Engineer
Morris, Princess, 1988, Assistant Professor of Dance
B.F.A., Stephens College; M.F.A., University of Oklahoma

Moss, Helen M., 1978, Assistant Professor of Nursing B.S., McNeese State University; M.S.N., University of Texas at Austin; Registered Nurse

Moss, Jimmy D., 1986, Assistant Professor of Finance
B.S.C.E., M.B.A., Ph.D., Mississippi State University

Moss, Patti, 1986, Instructor of Nursing
B.S.N., University of Southwestern Louisiana; M.S.N.; University of Texas; Registered Nurse
Moulton, Rabert D., 1974, Professor of Communication; Associate Vice President for Research and Dean of Graduate Studies
B.S., M.S., University of Utah; Ph.D., Michigan State University; A.S.H.A. Certification in Speech Pathology
Mulvaney, Toni, 1989, Assistant Professor of Business Law B.A., Incarnate Word College; J.D., St. Mary's University, School of Law

Murray, M. Kathleen, 1973, Assistant Professor; Associate Director for Library Operations B.A., Bryn Mawr College; M.L.S., University of Texas

Nevils, Kerry L., 1983, Instructor II of Business Data Processing A.A.S., Lamar University

Newman, Jerry A., 1962, Regents' Professor of Art B.F.A., University of Texas; M.F.A., University of Southern California

Nichols, Paula, 1988, Instructor of Home Economics B.S., Baylor University; M.Ed., University of Houston

Noel, Gloria A., 1989, Adjunct Instructor of Developmental Writing B.A., M.A., McNeese State University

Nylin, Libbie C., 1976, Instructor III of Related Arts B.S., M.S., Lamar University

Nylin, William C., 1975, Professor of Computer Science; Executive Vice President for Finance and Operations
B.S., Lamar.University; M.S., Ph.D., Purdue University

O'Neill, Robert G., 1962, Associate Professor of Art
B.F.A., University of Nebraska-Omaha; M.F.A., University of Colorado

Ornelas, Raul S.; 1972, Associate Professor of Music
B.M., University of Texas; M.A., McNeese State University; D.M.A., University of Southern Mississippi
Ortego, James Dale, 1968, Regents' Professor of Chemistry
B.S., University of Southwestern Louisiana; Ph.D., Louisiana State University

Owen, Donald E., 1985, Professor of Geology; Chair, Department of Geology
B.S., Lamar University; M.S., Ph.D., University of Kansas

Palmer, Susan, 1987, Lecturer in English
B.A., Baylor University; M.A., Sam Houston State University

Parigi, Sam F., 1961, Regents' Professor of Economics
B.S., Saint Edward's University; M.B.A., Ph.D., University of Texas

Park, Patricia A., 1969, Assistant Professor of Physical Education; Women's Golf Coach B.S., University of New Mexico; M.S., Lamar University

Parrish, Reta G., 1964, Assistant Professor of Mathematics
B.A., Southern Methodist University; M.A., Texas Woman's University

Payton, John E., 1970, Assistant Professor of Physical Education; Athletic Academic Advisor B.S., M.S., A\&M University-Prairie View

Pearson, James M., 1962, Associate Professor of Economics B.B.A., M.S., Baylor University

Pearson, John Michael, 1988, Associate Professor of Management Information Systems B.S., Arizona State University; M.S., Air Force Institute of Technology; Ph.D., University of California-Irvine
Pearson, William M., 1969, Professor of Political Science; Chair, Department of Political Science B.S., Sam Houston State University; M.A., Texas A\&M University; Ph.D., Louisiana State University
Pederson, Olen T., 1975, Professor of Audiology; Chair, Department of Communication B.S., University of Houston; M.S., East Texas State University; Ph.D., University of Oklahoma; A.S.H.A. Certification and Licensure in Speech Pathology and Audiology
Peebles, Hugh O., Jr., 1963, Associate Professor of Physics B.S., University of Texas; M.S., Ph.D., Oklahoma State University

Pelkey, Stephen, 1987, Assistant Professor of Music B.M., Northwestern University; M.M., Yale University

Pemberton, Amy R., 1984, Assistant Professor of Home Economics B.S., M.S., Lamar University; Registered Dietitian

Perkins, David, 1984, Lecturer in Physical Education; Head Baseball Coach B.S., Lamar University

Perkins, Howard, 1972, Instructor of Communication; Director, Student Publications B.A., Lamar University; M.A., Louisiana State University

Petry, Jr., Roosevelt, 1989, Adjunct Instructor of Computer Drafting Technology A.A.S., Lamar University

Pizzo, Joseph F., Jr., 1964, Professor of Physics B.A., University of Saint Thomas; Ph.D., University of Florida

Placette, Adonia, 1985, Instructor of Communication B.S., M.S., Lamar University; Ph.D., Texas Tech University

Platt, Annette E., 1963, Associate Professor of English B.A., M.A., University of Texas; Ed.D., McNeese State University

Popp, Charles F., 1988, Lecturer in English B.A., University of Oklahoma; M.A., Midwestern State University

Price, Donald I., 1981, Associate Professor of Economics B.A., Hendrix College; M.A., Ph.D., University of Arkansas

Price-Nealy, Doris J., 1973, Assistant Professor of Nursing; Director, Associate of Science Degree Nursing Program B.S.N., Prairie View A\&M University; M.S.N., Ohio State University; Registered Nurse

Price, R. Victoria, 1972, Professor of Modern Languages B.A., Tift College; M.A., M.Ed., Lamar University; M.A., Ph.D., Rice University

Price, Richard L., 1970, Associate Professor of Mathematics
B.S., Prairie View A\&M University; M.A., University of Texas; M.A.R., Yale University; Ph.D., Ohio State University
Priest, Dale G., 1986, Assistant Professor of English and Modern Languages
B.A., Lamar University; M.A., Ph.D., Rice University

Ramos, Rosario I., 1975, Instructor of Physical Education
B.S., Lamar University; M.S., Texas Tech University

Read, Billy D., 1965, Assistant Professor of Mathematics
B.S., Lamar University; M.S., North Texas State University

Read, David R., 1965, Regents' Professor of Computer Science B.S., Lamar University; M.S., North Texas State University; Ph.D., University of Houston

Rehman, Sharaf N., 1988, Associate Professor of Communication B.A., Royal University; D.F.P., London Film School; M.Sc., Uppsala University; M.F.A., Rojyal University; M.Ed., Bowling Green State University; Ed.S., University of Toledo; M.B.A., West Texas State University; Ph.D., Bowling Green State University

Reynard, Betty Jane, 1979, Assistant Professor of Dental Hygiene B.S., M.Ed., Lamar University; Registered Dental Hygienist

Rice, Desmond V., 1987, Associate Professor of Professional Pedagogy B.A., Avondale College, N.S.W. Australia; M.A., San Francisco State University; Ed.D., University of Southern California
Richard, Connie J., 1979, Clinical Instructor of Nursing B.S.N., Lamar University; Registered Nurse

Rivers, Kenneth T., 1989, Assistant Professor of French B.A., M.A., Ph.D., University of California-Berkeley

Rogas, Dan W., 1955, Assistant Professor of Physical Education; Associate Athletic Director for Operations
B.S., Tulane University; M.S., Lamar University

Rogers, Bruce G., 1961, Professor of Civil Engineering B.S., University of Houston; M.S., Ph.D., University of Illinois; Registered Professional Engineer
Roth, Lane, 1978, Associate Professor of Communication
B.A., New York University; M.A., Ph.D., Florida State University

Roy, M. Paul, 1963, Instructor IV of Machine Tools; Placement Coordinator A.A.S., Lamar University

Runnels, William C., 1965, Associate Professor of Biology B.S., M.S., Texas A\&I University; Ph.D., Texas A\&M University

Sanderson, James B., 1989, Assistant Professor of English B.A., M.A., Southwest Texas State University; Ph.D., Oklahoma State University

Saur, Pamela S., 1988, Assistant Professor of Modern Languages
B.A., M.A., Ph.D., University of Iowa; M.Ed., University of Massachusetts

Saur, Stephen C., 1988, Assistant Professor of Social.Work B.A., University of Iowa; M.S.W., Florida State University

Scearce, Michael J., 1988, Lecturer in English B.A., M.A., Northeast Missouri State University

Schroder, John P., 1983, Instructor II of Computer Drafting Technology B.S., Southwestern Louisiana Institute

Seelbach, Wayne C., 1976, Professor of Sociology and Gerontology; Executive Assistant to the President for Coordination and Planning
B.A., Lamar University; M.A., Stephen F. Austin State University; Ph.D., Pennsylvania State University
Self, E. Lee, 1959, Professor of Professional Pedagogy, Director, Field Experiences
B.S., M.Ed., Northwestern State University of Louisiana; Ph.D., Louisiana State University

Sellekaerts, Wilty, 1987, Professor of Economics
Lic., University of Brussels; M.A., University of Michigan; Ph.D., Michigan State University

Sethna, Beheruz N., 1989, Professor of Marketing and Information Systems Management and Dean, College of Business
B.Tech., Indian Institute of Technology, Bombay; M.B.A., Indian Institute of Management, Ahmedabad; Master of Phil., Columbia University; Ph.D., Columbia University
Sheppeard, Sallye J., 1980, Associate Professor of English
B.A., M.A., Texas Christian University; M.R.E., Brite Divinity School; Ph.D., Texas Woman's University
Shipper, Kenneth E., 1971, Dean, College of Technical Arts: Instructor IV of Related Arts B.S., Sam Houston State University; M.A., Ph.D., University of Texas at Austin

Short, W. David, 1974, Assistant Professor of Radiologic Technology; Chair, Department of Allied Health B.S., Incarnate Word College; M.Ed., University of Houston; Registered Radiograher

Shukla, Shyam S., 1985, Assistant Professor of Chemistry; Director, Environmental Science B.S., University of Lucknow; M.S., University of Saskatchewan; Ph.D., Clarkson University
Simmons, James M., 1970, Professor of Music; Chair, Department of Music B.S., Memphis State University; M.M., University of Houston; Ed.D., McNeese State University
Sims, Victor H., 1978, Associate Professor of Criminal Justice B.A., University of Mississippi; M.S., Arizona State University; Ph.D., University of Southern Mississippi
Sisk, Dorothy A., 1989, Professor and Conn Chair of Gifted Education
B.S., Mount Union College; M.A., California State College; Ed.D., U. of California at Los Angeles
Slaydon, Bessie, 1980, Assistant Professor of Nursing B.S.N., McNeese State University; M.S.N., University of Texas-Galveston; Registered Nurse
Smith, Bobby L., 1981, Sergeant Major, Instructor of Military Science B.A., Columbia College

Smith, Frances J., 1977, Assistant Professor of Nursing B.S., Northwestern State University; M.S.N., Texas Woman's University; Registered Nurse

Smith, Kevin B., 1981, Associate Professor of Sociology; Chair, Department of Sociology, Social Work and Criminal Justice B.S., Texas A\&M University; M.A., Ph.D., Louisiana State University

Smith, Laura Kristine, 1989, Lecturer of Office Administration B.B.A., Lamar University; M.V.E., East Texas State University

Smith, Marshall, 1989, Assistant Professor of Audiology B.S., Auburn University; M.S., Penn State University; Ph.D., Florida State University

Soliman, Mahmoud E., 1989, Visiting Assistant Professor of Accounting B.S., M.Sc., U. of Alexandria; Ph.D., University of Georgia

Sontag, Monty L., 1972, Professional Pedagogy and Instruction B.A., University of Denver; M.A., Ed.D., Columbia University

Sparkman, Mickey M., 1987, Associate Professor, Associate Director for College Development B.S., University of Texas; M.S., North Texas State University; M.L.S., University of Texas

Spradley, Larry W., 1972, Professor of Business Statistics B.A., Stephen F. Austin State University; M.Th., Southern Methodist University; M.S., Lamar University; Ph.D., Texas A\&M University
Stahl, Deanna K, 1972, Instructor IV of Technical Mathematics B.A., M.S., Lamar University

Standley, Tray, 1975, Instructor III of Fire Protection Technology; Coordinator, Fire Training Program; LL.B., Baylor University
Stark, Jeremiah M., 1956, Professor of Mathematics
B.S., United States Coast Guard Academy; B.S., North Texas State University; S.M., Ph.D., Massachusetts Institute of Technology
Steiert, Alfred F., 1966, Assistant Professor of Management, Chair, Department of Mgt.-Mkt B.S., M.B.A., University of Florida

Stevens, Eleanor M., 1957, Assistant Professor of Office Administration, Director, College of Business Advising Center B.B.A., University of Texas; M.B.A., University of Houston

Stevens, James B., 1970, Professor of Geology B.S., M.S., University of Michigan; Ph.D., University of Texas

Stevens, Rita, 1985, Assistant Professor of Professional Development and Graduate Studies B.A., Glassboro State College; M.Ed., West Georgia College; Ed.D., Mississippi State University
Stidham, Ronald, 1970, Professor of Political Science B.S., M.A., East Tennessee State University; Ph.D., University of Houston

Stiles, JoAnn K., 1966, Assistant Professor of History B.A., M.A., University of Texas

Stone, Lorene Hemphill, 1984, Associate Professor of Sociology
B.A., Iowa State University; M.A., Ph.D., Washington State University

Storey, John W., 1968, Professor of History; Director of University Honors Program B.A., Lamar University; M.A., Baylor University; Ph.D., University of Kentucky

Sullivan, John T., 1984, Associate Professor of Biology A.B., Dartmouth College; M.S., Ph.D., Lehigh University

Summerlin, Charles Timothy, 1973, Professor of Engish; Chair, Department of English and Foreign Languages
B.A., Abilene Christian University; M.Ph., Ph.D., Yale University

Sutton, Walter A., 1963, Professor of History B.A., Rice University; M.A., Ph.D., University of Texas

Swan, Jerrel H., 1989, Adjunct Instructor of Refrigeration and Air Conditioning Technology A.A.S., Lamar University

Swerdlow, Marleen S., 1984, Associate Professor of Business Law B.S., Newcomb College of Tulane University; J.D., Bates College of Law, University of Houston
Swerdlow, Robert A., 1978, Professor of Marketing; Associate Dean, College of Business B.B.A., M.B.A., Lamar University; Ph.D., University of Arkansas

Tanner, Brian K., 1975, Instructor II of Machine Tools A.A.S., Lamar University

Taylor, Denise, 1988, Lecturer in Health, Physical Education and Dance; Assistant Women's Basketball Coach B.S., M.S., Texas Southern University

Thames, Dorothy Faye, 1957, Assistant Professor of Mathematics and Director of Developmental Education
A.B., Birmingham-Southern College; M.A., George Peabody College for Teachers

Thomas, Barbara, 1985, Assistant Professor of Music B.M., M.M., North Texas State University

Thomas, James L., 1983, Associate Professor in the Departments of Industrial and Mechanical Engineering; Director, CAD/CAM
B.S., Okihoma State University; M.S., Ph.D., Texas Tech University

Thompson, Ellis, 1956, Instructor III of Refrigeration and Air Conditioning Technology
Thompson, Bob, 1985, Professor of Graduate Studies in Education and Chair, Department of Professional Development and Graduate Studies
B.S., Abilene Christian; M.Ed., Ph.D., East Texas State University

Thompson, Lee, 1988, Assistant Professor of Home Economics B.S., Indiana University; M.S., Purdue; Ph.D., Indiana University

Tiedt, Eileen, 1981, Professor of Nursing; Chair, Department of Nursing; Director, Bachelor of Science Degree Nursing Program
B.S.N., Marquette University; M.S.N., Wayne State University; Ph.D., Ohio State University; Registered Nurse
Todd, Everett, 1987, Lecturer in Health, Physical Education and Dance; Assistant Football Coach
B.S., Rush University

Tritsch, Jon P., 1980, Serials Cataloger, Assistant Professor, Serials Cataloger B.S., Peru State College; M.L.S., Emporia State University; M.A., Sam Houston State University
Truncale, Joseph, 1954, Professor of Music B.M., North Texas State University; M.L., University of Houston

Trussell, Janie, 1986, Associate Professor of Nursing
B.S.N., Emory University; M.S.N., Texas Woman's University; Registered Nurse

Turco, Charles P., 1965, Professor of Biology; Director of Special Programs
B.S., Saint John's College; M.S., M.S.Ed., Saint John's University; Ph.D., Texas A\&M University
Twiname, B. Gayle, 1979, Assistant Professor of Nursing
B.S.N., University of North Florida; M.S.N., Medical College of Georgia; Registered Nurse; Certified Clinical Specialist Psychiatric-Mental Health Nursing
Utter, Glenn H., 1972, Professor of Political Science
B.A., State University of New York at Binghamton; M.A., Ph.D., State University of New York-Buffalo
Vanderleeuw, James M., 1988, Assistant Professor of Political Science
B.A., Ramapo College; M.A., University of Nevada-Reno; Ph.D., University of New Orleans
Veuleman, Malcolm W., 1970, Professor of Accounting
B.S., McNeese State University; M.B.A., Ph.D., University of Arkansas; Certified Public Accountant
Waldron, Bobby R., 1970, Professor of Computer Science; Chair, Department of Computer Science
B.S., Louisiana College; M.S., Northwestern State University of Louisiana; Ph.D., Texas A\&M University
Walker, Delia A., 1979, Instructor III of Computer Drafting Technology A.A.S., Lamar University

Walker, James L., Jr., 1969, Professor of Psychology
B.A., Baylor University; Ph.D., Texas Tech University

Walker, Richard E., 1963, Professor of Chemical Engineering B.S., Purdue University; M.S., Bucknell University; Ph.D., Iowa State University of Science and Technology; Registered Professional Engineer
Wall, George B., 1965, Professor of Philosophy
B.A., Occidental College; B.D., Fuller Theological Seminary; Ph.D., University of Southern Caiifornia
Warren, Michael E., 1966, Professor of Biology; Chair, Department of Biology B.A., M.A., Ph.D., University of Texas

Watt, Joseph T., Jr., 1965, Professor of Electrical Engineering; Director, Cooperative Education B.A., B.S., Rice University; M.S., Ph.D., University of Texas; Registered Professional Engineer
Watts, Doyle, 1985, Professor and Chair, Department of Professional Pedagogy B.A., Abilene Christian College; M.A., Ph.D., Texas Tech University

Webb, David, 1986, Lecturer in Health, Physical Education and Dance; Assistant Football Coach
B.B.A., Lamar University

Weisel, Juanita, 1988, Assistant Professor, Public Service Coordinator B.A., Notre Dame; M.L.S., Case-Western Reserve University

Welch, Myrtle, 1985, Instructor of Nursing
B.S.N., Stephen F. Austin University; M.S.N., Texas Woman's University; Registered Nurse
Wellan, Doris M., 1988, Assistant Professor of Marketing B.S., Louisiana State University; Ph.D., University of London

Wesbrooks, Ronald L., 1969, Instructor of Physical Education B.S., Eastern New Mexico University; M.S., Lamar University

Wesley, Carey B., 1966, Instructor IV of Welding; Chair, Industrial Training Department A.A.S., Lamar University

West, Thomas M., IV, 1988, Lecturer in English B.A., University of the South; M.A., Ph.D., University of Texas

Westgate, James W., 1989, Assistant Professor of Geology
B.S., College of William and Mary; M.S., University of Nebraska; M.S., Southwest Missouri State University; Ph.D., University of Texas
Whatley, Barbara L., 1987, Adjunct Instructor of Development Mathematics B.A., M.S., Lamar University

White, Mary Frances, 1985, Instructor and Reference/Interlibrary Loan Librarian B.A., M.A., Northern Illinois University

White, William, 1982, Professor of Graduate and Studies in Education
A.B., St. Bernard's College; M.Ed., University of Buffalo; Ph.D., State University of New York-Buffalo
Whittle, John A., 1969, Professor of Chemistry
B.S., University of Glasgow; Ph.D., University of London, Imperial College

Wiemers, Susan V., 1983, Lecturer and Undergraduate Advisor for Computer Science B.S., Southwest Texas State University; M.S., McNeese State University

Williams, Harry L., 1968, Vocational Counselor B.B.A., Stephen F. Austin State University; M.Ed., Lamar University

Williams, James A., 1982, Instructor II of Computer Electronics and Robotics Technology A.A.S., Lamar University

Wills, Curtis E., 1971, Associate Professor of Education B.S., M.Ed., Sam Houston State University; Ed.D., North Texas State University; Licensed Psychologist
Wilmore, Brenda, 1989, Instructor of Nursing B.S.N., Lamar University; M.S.N., University of Texas Medical Branch; Registered Nurse

Wilsker, Donna, 1985, Assistant Professor of Nursing B.S.N., University of Bridgeport; M.S.N., University of Maryland; Registered Nurse

Wilsker, Ira Lee, 1977, Instructor III of Mid-Management B.S., M.B.A., University of Maryland

Wilson, Howard F., 1987, Associate Professor of Speech Pathology B.S., M.S., Florida State University; Ph.D., Ohio University; A.S:H.A., Certification in Speech Pathology
Wilson, Jerry L., 1970, Instructor IV of Computer Electronics and Robotics Technology; Chair, Department of Technology B.S., M.Ed., Lamar University; Ph.D., Texas A\&M University

Wilson-Wilke, Neda E., 1987, Assistant Professor of Social Work B.S., Lamar University; M.S.W., University of Houston

Wood, Sam M., Jr., 1958, Regents' Professor; Associate Professor of Mathematics; Director, Mathematics Instruction B.A., University of Texas; M.S., Texas A\&M University

Woodland, Naaman J., Jr., 1957, Regents' Professor and Associate Professor of History B.A., B.S., Louisiana State University; M.A., Northwestern University

Woodward, John G., 1989, Adjunct Instructor of Computer Drafting Technology A.A.S., Vincennes University

Wooster, Ralph A., 1955, Regents' Professor of History; Associate Vice-President for Academic and Student Affairs; Dean of Faculties B.A., M.A., University of Houston; Ph.D., University of Texas

Wooten, Bob E., 1975, Professor of Management
B.B.A., M.B.A., Lamar University; Ph.D., Louisiana State University; Accredited Personnel Specialist (APS)
Worsham, William L., 1972, Assistant Professor of Kinesiology B.S., M.Ed., Lamar University

Wright, Stuart A., 1985, Assistant Professor of Sociology B.A., M.A., University of Houston; Ph.D., University of Connecticut

Yaws, Carl L., 1975, Professor of Chemical Engineering B.S., Texas A\&I University; M.S., Ph.D., University of Houston; Registered Professional Engineer
Yearwood, Stephenie, 1988, Assistant Professor of English
B.A., Tulane University; M.A., Ph.D., University of Texas

Yerick, Roger E., 1958, Professor of Chemistry
B.S., Texas A\&I University; Ph.D., Iowa State University

Young, Fred M., 1978, Professor of Mechanical Engineering; Dean, College of Engineering B.S.M.E., M.S.M.E., Ph.D., Southern Methodist University; Registered Professional Engineer
Zager, Pamela A., 1987, Instructor, Assistant Acquisitions. Librarian B.A., Louisiana Tech University; M.L.S., Louisiana State University

Zaloom, Victor A., 1981, Professor of Industrial Engineering; Chair, Department of Industrial Engineering
B.S.I.E., M.S.E., University of Florida; Ph.D., University of Houston; Registered Professional Engineer
Zeek, Paul T., 1971, Instructor of Physical Education; Head Athletic Trainer B.S., University of Texas-El Paso

## Part-Time Faculty

Abel, Robert D., 1987, Adjunct Instructor of Fire Technology B.S., Lamar University; M.S., Texas A\&M University

Achilles, Robert F., 1963, Regents' Professor of Speech Pathology B.S., McPherson College; M.A., Ph.D., Wichita State University; A.S.H.A. Certification and Licensure in Speech Pathology
Adams, Lucien J., Jr., 1981, Adjunct Instructor of Mechanical Engineering B.S., University of Southwestern Louisiana

Alford, Nathaniel, 1987, Adjunct Professor of Respiratory Therapy
B.S., Texas A\&M University; M.D., University of Texas Medical Branch at Galveston

Aubey, Hez, 1989, Adjunct Instructor of Finance
B.B.A., Economics, Lamar University; M.B.A., Economics, East Texas State University; Graduate School of Banking, Southern Methodist University
Baker, Diane, 1988, Adjunct Instructor of Music B.M., M.MED., Lamar University

Beale, Luther A., 1955, Professor of Civil Engineering B.S., M.S., Georgia Institute of Technology; Ph.D., University of Texas; Registered Professional Engineer
Bechmann, Michael J., 1987, Adjunct Instructor of Industrial Supervision B.B.A., M.B.A., George Washington University

Bell, M. Katherine, 1962, Regents' Professor; Associate Professor of Mathematics Emeritus B.S., Florida State University; M.A., University of Cincinnati

Bharathi, A., 1978, Adjunct Professor of Respiratory Therapy B.S., University of Madras, India; M.D., University of Madurai, India

Boone, Jim, 1983, Adjunct Instructor of Music B.S., M.Ed., Lamar University

Bost, David L., 1949, Professor of Professional Development and Graduate Studies B.A., Hardin Simmons University; M.J., University of Texas; Ph.D., East Texas State University; Professional Psychologist
Brennan, James J., 1968, Professor of Industrial Engineering B.S.E.E., Iowa State University of Science and Technology; M.S.I.E., University of Arkansas; Ph.D., University of Texas; Registered Professional Engineer
Brookshear, Robert D., 1983, Adjunct Instructor of Business Statistics B.B.A., North Texas State University; M.B.A., University of North Dakota

Brown, Otto George, 1962, Professor of Mechanical Engineering B.S., University of Oklahoma; M.S., Ph.D., University of Texas; Registered Professional Engineer

Burd, Jerry, 1982, Adjunct Professor of Dental Hygiene
B.S., University of Houston; D.D.S., University of Texas Health Science Center-Houston

Cammack, James E., 1984, Adjunct Instructor of Computer Science
B.S., Lamar University

Caples, Ginny, 1984, Adjunct Instructor of Finance
B.B.A., Sam Houston State University

Casey, Deborah A., 1989, Lecturer in Geology
B.S., Texas A\&M University

Coleman, Alan, 1984, Adjunct Professor of Dental Hygiene
B.S., Lamar University; D.D.S., University of Texas Dental Branch-Houston

Craigue, William, 1980, Adjunct Instructor of Mechanical Engineering
B.S., University of Virginia

Day, Charles, 1987, Adjunct Professor of Radiologic Technology
B.S., Lamar University; M.D., University of Texas Medical Branch at Galveston

De Ment, Dock B., 1981, Assistant Professor of Mathematics
B.A., Henderson State Teachers College; M.A., M.E., Louisiana State University

Dishman, Sherry, 1984, Clinical Instructor of Radiology
A.A.S., Lamar University; Registered Radiographer

Drawhorn, Douglas W., 1987, Adjunct Instructor of Occupational Safety and Health A.A.S., B.S., Lamar University

Duncan, James A., 1985, Adjunct Assistant Professor of Psychology
B.S., McNeese State University; M.A., Ph.D., Louisiana State University

Escamilla, Terry Dwain, 1985, Adjunct Instructor of Computer Science
B.S., Lamar University

Esser, Patricia R., 1986, Adjunct Instructor of Psychology; Assistant Director for Quality and Productivity, John Gray Institute
B.S., M.S., Lamar University

Fitzgerald, Steve, 1985, Adjunct Instructor of Mathematics
B.S., M.S., Lamar University

Fontenot, Cynthia C., 1978, Adjunct Instructor
B.A., M.B.A., Lamar University; Certified Public Accountant

Franco, Francisco, 1986, Adjunct Professor of Dental Hygiene
D.D.S., University of Mexico

Garcia, Sue, 1988, Adjunct Professor of Dental Hygiene
Gaskin, Bob L., 1988, Adjunct Instructor of Business Communications B.A., M.A., Lamar University

Gibson, Penny Kinnard, 1984, Adjunct Instructor of Curriculum and Instruction B.S., University of Texas; M.S., Lamar University

Giglio, Sam C., Jr., 1978, Adjunct Professor of Dental Hygiene
B.S., Lamar University; D.D.S., University of Texas Dental Branch-Houston

Gilchriest, William, 1985, Adjunct Instructor of English B.A., M.A., Lamar University

Goetz, George R., 1968, Assistant Professor of Management B.S., St. Edward's University; M.B.A., Lamar University

Gordon, Ezra L., 1987, Adjunct Instructor of Fire Protection Technology
Graham, Beth, 1983, Adjunct Instructor of Music
B.S., Lamar University; M.S., University of Illinois

Gray, Nancy T., 1981, Adjunct Instructor of Supervision B.S., Lamar University

Griffin, Richard P., 1977, Adjunct Instructor of Occupational Safety and Health B.S., Baylor University; M.B.A., Lamar University

Hart, Darlene, 1985, Adjunct Instructor of Mathematics
B.S., M.S., Lamar University

Hebert, Roland S., 1981, Adjunct Instructor of Occupational Safety and Health B.S., Lamar University

Hedgspeth, Joe M., 1980, Adjunct Instructor of Appliance Repair
Hegele, Richard, Jr., 1987, Adjunct Instructor of Electrical Technology
B.S., Lamar University

Henderson, Sandra, 1986, Adjunct Instructor of Professional Development and Graduate Studies
B.A., M.Ed., Lamar University

Higgins, J. B., 1949, Professor of Health, Physical Education and Dance; Athletic Director Emeritus
B.A., Trinity University; M.Ed., University of Houston

Hines, Betsy, 1985, Adjunct Instructor of Music B.M., M.M., University of Texas at Austin

Holmes, Paul W., 1953, Associate Professor of Music B.M., Hardin-Simmons University; M.M., University of Texas

Hurlbut, Brian, 1982, Adjunct Instructor of Business Data Processing B.S., Iowa State University; M.S., San Diego State College; M.B.A., University of Houston

Hutchins, Henry, III, 1964, Assistant Professor of English B.A., M.A., Southern Methodist University

Jepson, Harry L., 1978, Adjunct Professor of Dental Hygiene B.S., East Texas Baptist College; D.D.S., University of Texas School of Dentistry

Johnson, James O., 1980, Adjunct Instructor of Marketing B.B.A., University of Mississippi; M.A., University of Alabama

Jones, Ann D., 1957, Assistant Professor of Marketing B.S., M.S., University of Arkansas

Jones, William David, 1986, Adjunct Instructor of Education B.S., M.S., Lamar University

Kim, Young Han, 1985, Adjunct Assistant Professor of Chemical Engineering B.S., Dong A University; M.S., Kored Advanced Institute of Science; Ph.D., Lamar University
Lee, Kenneth R., 1980, Adjunct Instructor of Computer Science B.S., University of Texas at Austin; M.Ed., Lamar University

Loeb, Fred W., 1983, Adjunct Instructor of Accounting B.S., B.B.A., Lamar University; M.B.A., Southern Methodist University; M.S., University of Houston-Clear Lake; Certified Public Accountant
Mahady, Terrance, 1987, Adjunct Instructor of Music B.M.E., Southwestern Louisiana College; D.M.A., Ball State University

Martin, Gabriel, 1987, Adjunct Instructor of Speech Pathology and Audiology B.S., M.S., Lamar University

Martin, Terri Jean, 1988, Adjunct Instructor of Speech Pathology and Audiology B.S., M.S., Lamar University

McEwen, James Fred, 1986, Lecturer in Political Science B.S., M.P.A., Lamar University

McKay, Calvin J., 1966, Adjunct Instructor of Industrial Supervision B.S., University of Southwestern Louisiana

Mittra, Kumar T., 1977, Adjunct Professor of Civil Engineering B.S., Ranchi University; M.S., Indian Institute of Technology; Ph.D., University of Mississippi
Morman, Loretta W., 1988, Adjunct Instructor of Technical Mathematics B.A., M.Ed., Lamar University

Muzzillo, Ralpb, 1984, Adjunct Instructor of Management B.A., California State University-Northridge; J.D. Glendale School of Law

Nantz, William, 1989, Adjunct Professor of Dental Hygiene B.A., University of Texas; D.D.S., University of Texas Dental Branch-Houston

Nguyen, Thuy-Hoa, 1986, Adjunct Assistant Professor of Chemistry Ph.D., Iowa State University
Oliver, Monica Kelly, 1986, Clinical Instructor of Dental Hygiene A.D., Lamar University

Osborne, Jackson B., 1988, Adjunct Instructor of Real Estate L.L.B., Southern Methodist University

Owen, George G., 1982, Adjunct Instructor of Real Estate B.A., Lamar University

Parks, George L., 1947, Professor of Music B.S., Northwestern State College; M.A., Colorado State University; Ed.D., University of Houston
Peirce, Dwight, 1984, Adjunct Instructor of Music B.M., M.M., Cincinnati Conservatory of Music

Pittman, Victor Darryl, 1983, Adjunct Instructor of Computer Science B.S., Lamar University

Poole, Jeffry, 1983, Adjunct Instructor of Curriculum and Instruction B.S., M.Ed., Lamar University

Rigney, Carl J., 1957, Professor of Physics
B.S., University of Louisiana; M.S., Ph.D., Northwestern State University

Roberts, Katherine A., 1979, Clinical Instructor of Nursing B.S.N., University of Texas at Houston; Registered Nurse

Rogan, Rabert C., 1961, Professor of Art
A.A., Washburn University; M.F.A., University of Iowa; Ed.D., University of Kansas

Schexnaider, Craig, 1979, Adjunct Instructor of Accounting B.B.A., M.B.A., Lamar University; Certified Public Accountant

Schulte, Carol E., 1988, Adjunct Instructor of Plant Maintenance and Operations B.S.Ch.E., Wayne State University

Sethna, Madhavi B., 1989, Adjunct Instructor of Management
M.S., Clarkson University, Potsdam, New York; M.A., Columbia University; M.B.A., Indian Institute of Management; B. Commerce, Gujarat University
Shanks, James E., 1978, Adjunct Instructor of Technical Mathematics
B.S., Lamar University

Shaw, Paul B., 1974, Adjunct Professor of Respiratory Technology B.S., Mississippi State University; M.D., Tulane University

Shine-Gale, Betty, 1988, Adjunct Instructor of Music
B.M., Baylor University; M.M., Lamar University; M.S., Indiana University

Smith, Avia, 1985, Clinical Instructor of Respiratory Technology B.S., University of Houston; Registered Respiratory Therapist

Snyder, Patricia, 1985, Adjunct Instructor of Mathematics B.S., Lamar University; M.A., University of Texas at Austin

Stanley, William H., 1973, Professor of Education
B.S., North Texas State University; M.Ed., Hardin-Simmons University; Ed.D., North Texas State University
Stevens, Margaret S., 1980, Adjunct Instructor of Geology
B.A., Central Michigan University; M.S., University of Michigan

Straface, Robert D., 1981, Adjunct Instructor of Mid-Management B.A., Steubenville University; M.S., West Virginia University

Strickland, Arney L., 1969, Professor of English
B.A., M.A., Lamar University; Ph.D., Ball State University

Suiter, Coleta Faye, 1980, Adjunct Instructor of Home Economics
B.S., M.S., Lamar University

Tao, Frank F., 1986, Adjunct Research Professor in the Department of Chemical Engineering B.S., University of Chekiang; M.S., University of Missouri; Ph.D., University of Missouri at Rolla
Tarter, Phyllis, 1985, Adunct Instructor of English
B.A., M.A., Lamar University

Thomas, Robert Blaine, 1960, Professor of English
B.S., Virginia Polytechnic Institute and State University; M.A., M.S., Ph.D., Louisiana State University

Tosirisuk, Phadhana, 1989, Visiting Assistant Professor of Industrial Engineering B.S., M.E., Chulalongkorn; M.S., Lamar University; Ph.D., Pennsylvania State University

Trahan, Donald E., 1989, Adjunct Assistant Professor of Psychology
B.S., Lamar University; M.S., Ph.D., North Texas State University

Tucker, Jerry R., 1971, Associate Professor of Education
B.S., University of Texas; M.Ed., Trinity University; Ph.D., Texas A\&M University

Venza, Anthony J., Jr., 1977, Adjunct Instructor of Business Data Processing
B.A., B.B.A., M.B.A., Lamar University

Wadenpfuhl, Kathy, 1988, Adjunct Instructor of Music B.M., M.MEd., Lamar University

Wakeland, William R., 1978, Professor of Electrical Engineering B.S., U.S. Naval Academy; M.S., Naval Postgraduate School: Ph.D., University of Houston; Registered Professional Engineer
Walker, Byron P., 1979, Adjunct Instructor of Computer Drafting Technology A.A.S., Lamar University

Washburn, Wesley W., 1988, Adjunct Instructor of Machine Tools M.D., Long Island School of Medicine; D.M.D., Harvard School of Dental Medicine

Watts, James II., 1988, Adjunct Instructor of Mid-Management A.S., Kilgore College; B.S.I.E., Louisiana Tech University; M.B.A., University of Tennessee
Weaver, Richard, 1980, Adjunct Professor of Dental Hygiene B.S., Lamar University; D.D.S., University of Texas Health Science Center-San Antonio, Dental School
Wei, C. N., 1985, Adjunct Associate Professor in the Department of Chemical Engineering B.S., National Taiwan University; M.S., Ph.D., Catholic University of America

Wing, Milton S., 1985, Adjunct Instructor in the Department of Chemical Engineering B.S., Lamar University

Worsham, Margaret Carolyn, 1983, Adjunct Instructor of Computer Science B.S., M.S., Lamar University

York, Della, 1989, Clinical Instructor Radiologic Technology B.S., Lamar University; Registered Radiographer

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Lamar honors Mirabeau B. Lamar, second president of the Republic of Texas and Father of Public Education in Texas, whose sculpture adorns the Quadrangle.

## Correspondence Directory

All correspondence should be directed to Lamar University Station, Beaumont, Texas 77710. Telephone numbers for all campus stations may be obtained through the central switchboard, Area Code 409/880-7011.
Academic Programs ....................................................... Ralph A. Wooster, Interim Vice President, P.O. Box 10002

Administration ...........................................................................Joseph D. Deshotel, Vice President,
Admissions......................................................................James Rush, Director, Academic Services, P.O. Box 10009

Applications/Information.
Admissions Services, Admissions Services,
P.O. Box 10009
Assessment \& Advising Joyce Morin, Director,
P.O. Box 10040 Joyce Morin, Director,
P.O. Box 10040

## Athletics.

 , Rush, Director, Sonny Jolly, Athletic Director, P.O. Box 10066College of Arts \& Sciences..
John P. Idoux, Dean, P.O. Box 10058

College of Business
.Beheruz Sethna, Dean P.O. Box 10059

College of Education and Human Development.
Charles Hodge, Dean, P.O. Box 10034

College of Engineering.....................................................................................Fred M. Young, Dean, P.O. Box 10057

College of Fine Arts \& Communication.
W. Brock Brentlinger, Dean, P.O. Box 10077

College of Graduate Studies ..........................................................................Robert Moulton, Dean, P.O. Box 10004

College of Health \& Behavioral Sciences...........................................................Myrtle L. Bell, Dean,
College of Technical Arts ........................................................................ Kenneth E. Shipper, Dean, P.O. Box 10043

Computer Services ...................................................................................... Harry P. Noble, Director,
Development.................................................................................................Jerry LeBlanc, Director, P.O. Box 10568

Finance ....................................................................... William C. Nylin, Executive Vice President, P.O. Box 10003

Financial Aid............................................................................................ Ralynn Castete, Director, P.O. Box 10042

International Students .................................................................................. Sharon Pate, Advisor,
 P.O. Box 10021

Orientation...........................................................................................................................Director, P.O. Box 10006

Placement .........................................................................................................Jack Martin, Director, P.O. Box 10012
$\qquad$ P.O. Box 10001

Public Affairs.........................................................................J. Earl Brickhouse, Executive Director, P.O. Box 10546

Public Services and Continuing Education.
Gary Ensign, Director, P.O. Box 10008

Records \& Registration...........................................................................................Elmer Rode, Dean, P.O. Box 10010

Student Services.........................................................Joseph Kavanaugh, Associate Vice President, P.O. Box 10006
$\qquad$ P.O. Box 10015

Student Housing.............................................................................................. Jesse Castete, Director, P.O. Box 10041

Teacher Certification.........................................................................................James Lane, Director, P.O. Box 10034

Tuition/Fees/Expenses
. Brian Hurlbut, Director, P.O. Box 10003

Veterans Affairs..................................................................................... Darrell L. Fondren, Director, P.O. Box 10010


[^0]:    On the Cover: A Family Shares a Special Celebration

[^1]:    First Year
    Eng Composition ............................................................ 6
    Mth 1334 Coll Algebra....................................................... 3
    Bio 141-142 General................................................. 8
    Psy 131 Introduction................................................ 3
    Psy 234 Child............................................................ 3
    His 231-232 United States ....................................... 6
    Electives (minimum) .................................................... 3
    32
    Plus two years clinical affiliation

    Second Year

    Chemistry. (with laboratory)..................................... 3

    Bio 143 Anat \& Physiol............................................ 4
    Eng Literature ............................................................ 3
    POLS U.S. Govt ......................................................... 6
    Spc 131..................................................................... 3
    Soc 131 ...................................................................... 3
    Psy 432 Abnormal ..................................................... 3 30

    + Note: Lamar University provides only the pre-clinical years for the above three programs, changes in program requirements are under the control of the schools offering the clinical programs. For detailed course requirements contact the faculty advisor in Hayes 101.

[^2]:    **Offered Fall Semester only. If MLb 124 option is desired it should be added to third and fourth years, as four semesters are required.
    ***To be selected from Chm 430, 433, 437, 438, 441, 442.
    ****Eng 4335, Report Writing may be substituted for three hours literature.

[^3]:    **Offered Fall Semester only. If MLb option is desired it should be added to third and fourth years, as four semesters are required.
    ${ }^{* * *}$ To be selected from Chm 430, Chm 437. Chm 444, Bio 341, Bio 342, Bio 347. Bio 441 and Bio 447.

[^4]:    132 Composition
    3:3;0
    Further study and practice in the forms of expository and analytical writing. Topics for composition suggested from wide reading in at least two of the three genres: prose fiction, poetry, and drama. Research paper required. Prerequisite: Eng 131.

    Further study and practice in the forms of expository and analytical writing. Topics for composition suggested from a wide survey of various communications media: films, tapes, radio, television, periodicals, books, etc. Requires attendance at specific instructor-specified events in addition to class attendance. Research paper required. Prerequisite: English 131.

[^5]:    135 Composition: English' as a Second Language
    3:3:0
    Intensive grammar review followed by study and practice in basic forms of expository writing needed for writing essay examinations, themes and term papers.
    136 Composition: English as a Second Language
    3:3:0
    Further study in basic forms of expository writing. The primary aim of the course is to assist the student to prepare for writing required research papers. Practice in library research.
    Prerequisite: ESL 135.

[^6]:    1311 Introduction to Law Enforcement (Academy) 3:3:0
    A study of history and philosophy of law enforcement: structure of government; criminal justice system; Texas Penal Code of Criminal Procedure; search and seizure; civil procedures and laws of arrest.
    Prerequisite: Admission to Police Academy and consent of instructor.
    1312 Law Enforcement Related Fields (Academy)
    3:3:0
    A study of juvenile procedures; written and oral reports; interviews and interrogations; practical problems; courtroom demeanor and testimony; Texas liquor laws; and speech.
    Prerequisite: Admission to Police Academy and consent of instructor.

[^7]:    *Slightly different program of courses required by the Department of Administrative Services for students planning to secure teacher certification and for general business computer science and information systems management majors as well as by the Department of Economics for economics majors. See Department of Administrative Services and Department of Economics in this bulletin.

    Accounting Major 27 semester hours)
    Acc 331, 332, 333 Inter Acc
    Acc 334 Cost Acc
    Acc 338 Tax Acc
    Acc 430 Auditing
    Acc 431 Adv Acc
    Acc 435 Acc Systems

    ## Economics Major (24 semester hours)

    Eco 333 Inter Theory
    Eco 332 Money \& Banking
    Eco electives 9 sem. hours
    Eco 334 Macro
    Eco 339 Economics of the Firm
    Eco 4315 Gov \& Business

    ## Finance Major ( 21 semester hours)

    Fin 332 Financial Analysis
    Fin 431 Investments
    Fin 432 Financial Markets
    Fin 433 Commercial Markets
    Professional Track Elective
    Professional Track Elective
    Professional Track Elective
    General Business Major (18-24 semester hours)
    Business Concentration I
    Acc 334 Cost Accounting or
    Acc 338 Taxation Accounting
    Fin 333 Insurance or
    Fin 332 Financial Analysis
    Mgt 333 Personnel Management
    Mkt 431 Marketing Management
    Mkt 438 Small Business Enterprise
    OAS 431 Office Management

[^8]:    *Requires approval of the department head.
    **PE Activity not acceptable.
    **The faculty advisor should be consulted by the student to select electives that will be most beneficial in terms of career goals.

[^9]:    Note: Bio 143-144 are not prerequisite to advanced Biology courses as Foundation electives.

[^10]:    In order to develop and maintain a high technical level, dance majors are required to take ballet technique and/or modern dance technique daily each semester.
    tFor details concerning requirements for teacher certification and information and information on professional development courses, consult the College of Education and Human Development section in this bulletin.

[^11]:    tFor details concerning requirements for teacher certification and information on professional development courses, consult the College of Education and Human Development section in this bulletin.

[^12]:    Composition3:2:1The analysis of the basic elements of dance and the craft of composing dances.

[^13]:    111, 112, 113, 114 Activity
    1:1:2
    Physical activities directed toward concepts of fitness and basic movement skills inherent in conditioning and sports. May be repeated for credit.

[^14]:    *Two Consecutive Four Hour Courses Taken From Biology, Chemistry, Geolagy, or Physics

[^15]:    * Total elective design content must be a minimum of three hours.

[^16]:    130 Understanding the Arts
    3:3:0
    Through the study of art, music and theatre this course intends to provide a medium of learning which broadens the cultural horizon, genders respect for man's creative potential, and encourages emotional maturity through awareness and understanding of aesthetic responses.

[^17]:    *Vocal majors are required to take six hours of foreign language, representing two different languages to be selected from German,
    French, or Italian. This requirement may be waived by instrumental majors who have had one year of high school foreign language.
    ${ }^{* *}$ Students will take the course appropriate to their area of specialization.
    +tVocal majors are required to take four semesters of MLB 210 - Opera, to include participation in two productions; Keyboard majors will take four semesters of MLB 213 - Accompanying; Instrumental majors will take four semesters of MLB 413 - Chamber Music Ensemble courses.
    +Degree credit requires seven semesters of satisfactory completion of MUS 110.

[^18]:    *These programs are offered with the approval of the Texas Education Agency.

