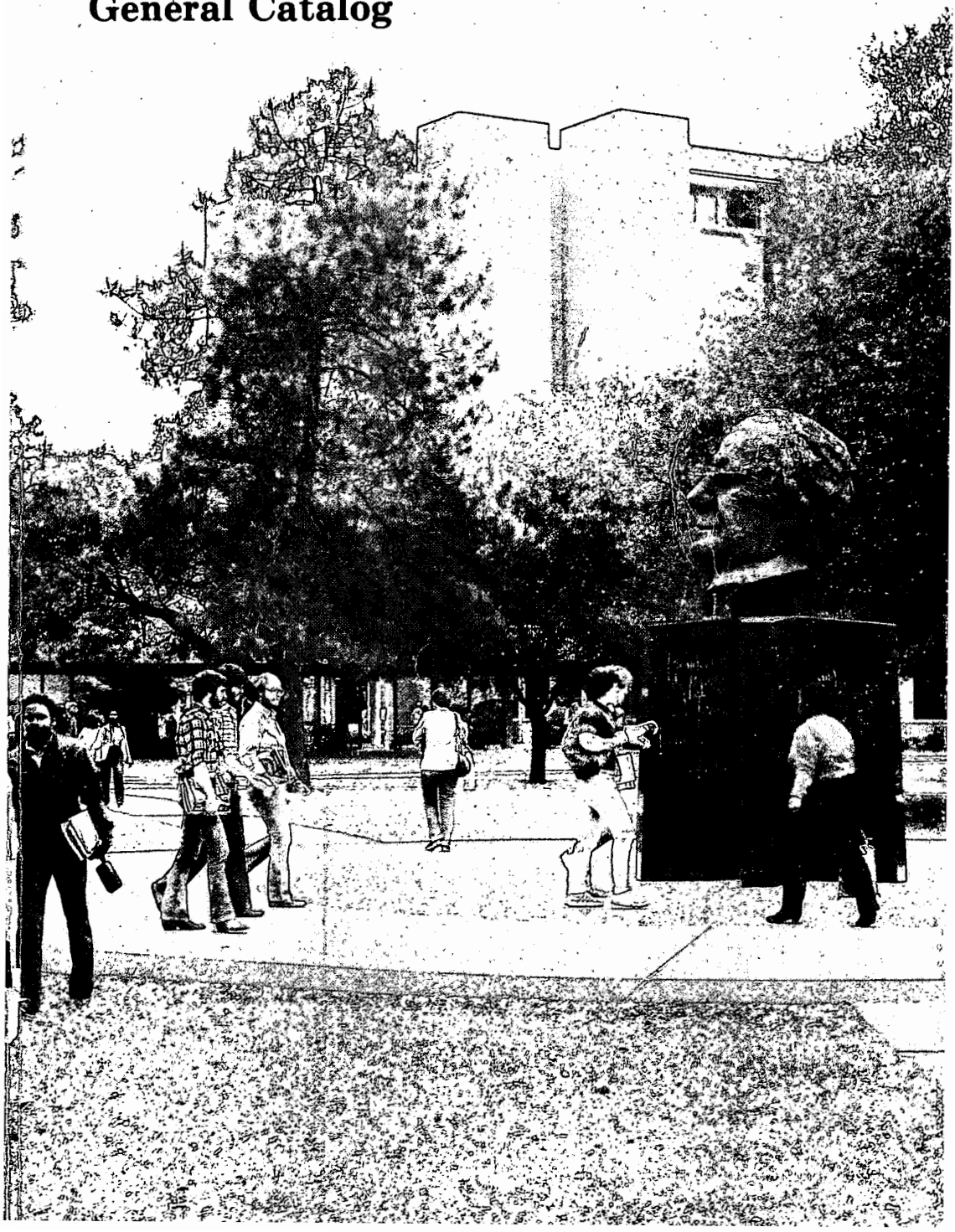
Lamar University Bulletin 1982-83

General Catalog



Cover photo features bust of Mirabeau Lamar by David Cargill with the Mary and John Gray Library in the background.

Lamar University

1982-83 Bulletin

Vol. 31 No. 1

Thirty-first annual catalog issue with announcements for 1982-83.

Founded in 1923, and established as a four-year coeducational state-supported college on September 1, 1951.

The provisions of this bulletin do not constitute a contract, expressed or implied, between any applicant, student, and faculty member in Lamar University. Lamar University reserves the right to withdraw courses at any time, change fees, calendars, curricula, graduation procedures, and any other requirement affecting students. Changes become effective when the proper authorities so determine the application to both propsective students and to the students already enrolled.

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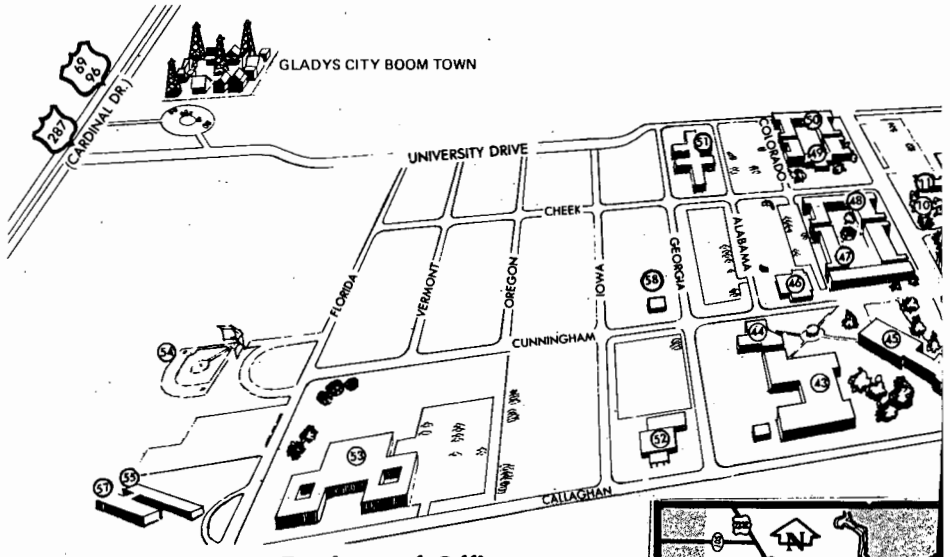

Register of Offices

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Finance	
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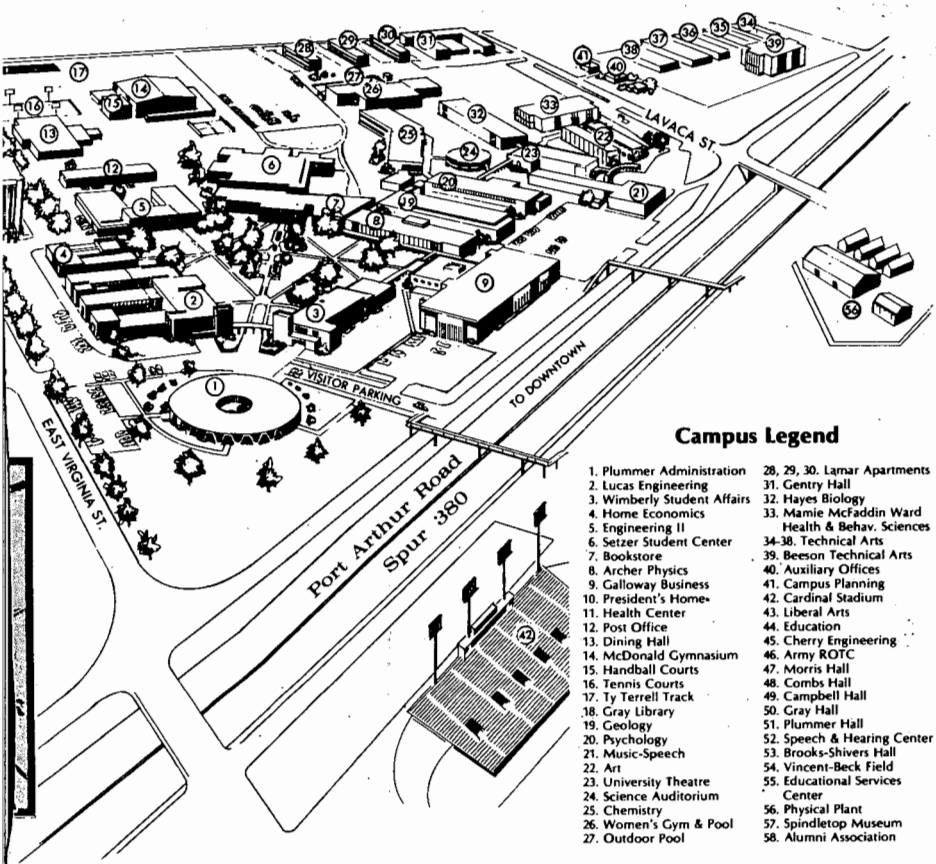
The Campus

Lamar University's campus has expanded rapidly during the past decade and now encompasses more than 200 acres. The University also has campuses in Orange and Port Arthur.

Guidelines for future expansion of the Beaumont campus are included in a conceptual master plan which will guide development into the year 2000. A large portion of the master plan already has been approved by the University's Board of Regents.

Architects have placed a strong emphasis upon developing a feeling of "monumentality and dignity," with the library as the dominant focus of the campus. The 20-year plan shows the addition of multi-storied buildings.



Campus Legend

1. Plummer Administration
2. Lucas Engineering
3. Wimberly Student Affairs
4. Home Economics
5. Engineering II
6. Setzer Student Center
7. Bookstore
8. Archer Physics
9. Galloway Business
10. President's Home
11. Health Center
12. Post Office
13. Dining Hall
14. McDonald Gymnasium
15. Handball Courts
16. Tennis Courts
17. Ty Terrell Track
18. Gray Library
19. Geology
20. Psychology
21. Music-Speech
22. Art
23. University Theatre
24. Science Auditorium
25. Chemistry
26. Women's Gym & Pool
27. Outdoor Pool
28, 29, 30. Lamar Apartments
31. Gentry Hall
32. Hayes Biology
33. Mamie McFaddin Ward Health & Behav. Sciences
34-38. Technical Arts
39. Beeson Technical Arts
40. Auxiliary Offices
41. Campus Planning
42. Cardinal Stadium
43. Liberal Arts
44. Education
45. Cherry Engineering
46. Army ROTC
47. Morris Hall
48. Combs Hall
49. Campbell Hall
50. Gray Hall
51. Plummer Hall
52. Speech & Hearing Center
53. Brooks-Shivers Hall
54. Vincent-Beck Field
55. Educational Services Center
56. Physical Plant
57. Spindletop Museum
58. Alumni Association

1982-83 Calendar

Published dates of this calendar are subject to-revision by published notice from the vice president for Academic Affairs.

Fall Semester—1982

S M T W T F S

AUGUST

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

SEPTEMBER

1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30

OCTOBER

1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

NOVEMBER

1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31

DECEMBER

1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31

August 1982

17 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
18 Registration begins
19 Registration
20 Registration
23 Classes begin—late registration—no schedule revisions
24-26 Schedule revisions—late registration
26 Last day for schedule revisions and/or late registration

September 1982

6 Labor Day—no classes
8 Twelfth Class Day

October 1982

1 Last day to drop or withdraw without penalty
8 Last day to apply for December graduation
Last day to pay for dimploma; cap and gown

November 1982

22 Last day to drop or withdraw
24 Thanksgiving recess begins at 10 p.m.
Dining halls close at 6 p.m.
Dormitories close at 10 p.m.
28 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
29 Classes resume at 8 a.m.

December 1982

8-14 Final examinations
15 Dining halls close at 6 p.m.
Dormitories close at 10 p.m.
16 Grades for Graduating seniors due by 8:30 a.m.
17 All grades due by noon
18 Commencement

Spring Semester—1983

S M T W T F S

JANUARY

1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31

FEBRUARY

1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28

MARCH

1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31

APRIL

1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30

MAY

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

January 1983

4 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
5 Registration begins
6 Registration
7 Registration
10 Classes begin—late registration—no schedule revisions
11-13 Schedule revisions—late registration
13 Last day for schedule revisions and/or late registration
25 Twelfth Class Day

February 1983

18 Last day to drop or withdraw without penalty
25 Last day to apply for May graduation
Last day to pay for diploma; cap and gown

March 1983

4 Spring recess begins at 5 p.m.
Dining halls and dormitories close at 6 p.m.
13 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
14 Classes resume at 8 a.m.

April 1983

1 Good Friday—No classes
20 Last day to drop or withdraw

May 1983

4-10 Final examinations
11 Dining halls close at 6 p.m.
Dormitories close at 10 p.m.
12 Grades for graduating students due by 4:30 p.m.
13 All grades due by noon
14 Commencement

Summer Session 1983—First Term

S M T W T F S

MAY

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

May 1983

30 Memorial Day—no classes
Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
31 Registration

JUNE

1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30

June 1983

1 Classes begin
2 Last day for schedule revisions and/or late registration
6 Fourth Class Day
14 Last day to drop or withdraw without penalty
28 Last day to drop or withdraw
30 Last day to apply for August graduation
Last day to pay for diploma; cap and gown

JULY

1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

July 1983

4 Independence Day—no classes
6 Last class day
8 All grades due by noon

Summer Session 1983—Second Term

JULY

1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

July 1983

7 Registration
8 Classes begin
11 Last day for schedule revisions and/or late registration
13 Fourth Class Day
21 Last day to drop or withdraw without penalty

AUGUST

1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31

August 1983

5 Last day to drop or withdraw
12 Last class day
Grades for graduating students due by 8:30 a.m.
Dining halls and dormitories close at 6 p.m.
13 Commencement
All grades due by noon

Table of Contents

General Information

Location

Lamar University, a state-supported institution, is located in Beaumont, Texas, one of the world's largest petrochemical centers. Beaumont is one of the fastest growing and most progressive cities in the Sunbelt. The city offers private and public schools, churches, museums, shopping districts and a wide range of leisure-time activities to serve the 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.

History

South Park Junior College was established in 1923 and was controlled by the South Park Independent School District. Classes were conducted in the South Park High School Building. An initial enrollment of about 125 students in 1923 had increased to 300 by 1931.

In 1932, the name of the institution was changed to Lamar College. At this time, separate facilities were provided, additional equipment was purchased and new policies instituted. By 1939, enrollment was approximately 640.

Lamar Union Junior College District was created in 1940, and Lamar College was separated from the South Park Independent School District. Bonds were approved and new facilities were constructed on the site of the present main campus.

A movement to expand Lamar College into a four-year state-supported school culminated in the creation of Lamar State College of Technology on September 1, 1951. Since then, enrollment has increased to more than 13,500 students, and the curriculum has been expanded to include many areas of study. Graduate work in specified fields began in the academic year of 1960-61, and extension work became an integral part of the educational program in 1964. A doctoral program in engineering was added in 1971. Lamar University at Orange, offering first and second year courses, opened in 1969. Lamar University at Port Arthur, also offering first and second year courses, began operation in the fall of 1975. The University also owns 36 acres on Pleasure Island in Port Arthur.

The institution's status as a university became official on August 23, 1971, when the name was changed to Lamar University.

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 president, administrative officers and faculty.

Statement of Purpose and Mission

Lamar University is a multi-purpose, state-supported university serving as an educational resource center. The university reaffirms its traditional teaching emphasis to prepare students for careers, for advanced studies, for personal development, and for public service. Further, Lamar University recognizes the importance of scholarly research and public service to its mission of educational leadership.

In keeping with its general purpose, scope, and mission, Lamar University is committed to the following goals:

1. Attract and retain qualified and motivated students including greater representation of those who are especially talented and gifted.
2. Develop broad basic knowledge, values, and skills; modes of critical thinking; and rational attitudes required for problem solving and decision making needed for personal development and effective citizenship.

3. Provide access to appropriate levels of instruction to assist students in meeting career objectives.
4. Offer graduate studies in those fields where need exists and where realistic competence can be achieved.
5. Provide public services, including continuing education programs, where need exists, support is available, and activities are appropriate to the university's mission.
6. Contribute to the broader educational experience of students by participation in effective international and intercultural programs.
7. Enhance the total development of students by providing a wide range of appropriate student activities and services.
8. Contribute to the artistic, cultural, scientific, professional, business and civic life of the region.
9. Contribute to the body of knowledge through research, creativity, and scholarly activity of its faculty.
10. Provide leadership promoting and supporting education, economic growth, cultural and social achievement in Southeast Texas.

Accreditation

Lamar is accredited by the Association of Texas Colleges and Universities, the Southern Association of Colleges and Schools and is approved by the Texas Education Agency.

Several departments and programs have been accredited by professional agencies. In the College of Engineering, the departments of Chemical, Civil, Electrical, Industrial and Mechanical Engineering are accredited by the Accreditation Board for Engineering and Technology. The undergraduate programs of the College of Business are accredited by the American Assembly for Collegiate Schools of Business. Other accreditations include the Department of Chemistry by the American Chemical Society; Department of Music by the National Association of Schools of Music; and the Departments of Elementary and Secondary Education by the National Council for the Accreditation of Teacher Education, and Council on Social Work Education.

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

Degree Offerings

Associate of Arts
Associate of Science
Associate of Applied Science
Bachelor of Arts in Biology, Chemistry, Economics, English, French, Geology, Government, History, Mathematics, Psychology, Sociology, Spanish and Speech.

Bachelor of Business Administration in Accounting, Economics, Finance, General Business, Management, Marketing, Office Administration, Pre-law, and Personnel Administration.

Bachelor of General Studies

Bachelor of Fine Arts in graphic arts, studio art.

Bachelor of Music

Bachelor of Science in Art, Biology, Chemistry, Criminal Justice, Education, Energy Resources Management, Environmental Science, Geology, Government, Health Education, Home Economics, Mass Communication, Mathematics, Medical Technology, Music, Nursing, Oceanographic Technology, Physical Education, Physics, Psychology, Sociology, Speech and the following **Engineering Fields:** Chemical, Civil, Computer Science, Electrical, Industrial, Mechanical, Engineering Technology and Industrial Technology.

Bachelor of Social Work

Master of Arts in English, Government and History.

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

Master of Engineering Science
Master of Music
Master of Music Education
Master of Science in Biology, Chemistry, Deaf Education, Health and Physical Education, Home Economics, Mathematics, Psychology, Speech, Speech Pathology/Audiology.
Master of Public Administration
Doctor of Engineering

Organization

The University is organized into nine colleges and two branch campuses, each administered by a dean.

These Colleges are Business, Education, Engineering, Fine and Applied Arts, Health and Behavioral Sciences, Liberal Arts, Sciences, Technical Arts and Graduate Studies. The branch campuses are located at Orange and Port Arthur, Texas.

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 Liberal Arts under the Department of Military Science.

Teacher Certification

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

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 4:45 p.m. are considered Evening 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 department of Extramural Education, Room 101 Wimberly Student Affairs Building.

Bookstore

The University operates 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.

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.

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.

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 Honeywell 66/20 computer with 384K 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. Over ninety terminals are available for interactive computer use. Extensive communication equipment can connect up to fourteen synchronous and forty-six 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 thirty 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 Division 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 sixteen asynchronous terminals.

The John E. Gray Institute

On March 21, 1981, the Board of Regents of Lamar University adopted a resolution creating the John E. Gray Institute. It is supported by the John E. Gray Foundation. The Institute provides a distinctive new dimension in practical and applicable research and educational services. It is a comprehensive, interactive, multi-purpose center dedicated to the mutual advancement of business, labor and industry and thereby to the general well-being of the economy of the Texas and Louisiana Gulf Coast.

In the long-term perspective, The Institute is envisioned to have substantial impact on the entire Gulf Coast Crescent for future generations. It is appropriately named for Dr. John E. Gray, President Emeritus of Lamar University, a man of profoundly beneficial influence on the region.

The Institute is a privately funded but state operated, non profit center for the development of new information planning initiatives, and the presentation of highly specialized activities and programs. It has four broad and deliberately overlapping functions: applied research and analysis; specialized instruction; problem solving; and information collection and distribution.

By design, The Institute is distinctive in the combination of its several aspects including: its continuing guidance from established leaders of American industry, labor and business; its emphasis on prompt and practical problem solving; its geographically provided opportunity for intense study and service in commercial, labor and industrial activities; its pragmatic, applied research focus; its emphasis on non-traditional and interdisciplinary educational activities; and its opertional flexibility.

Handicapped Students

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 Vice President for Administration and Planning 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 Heads 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 by notification initiated by the Vice President for Administration and Planning for the academic dean of the appropriate college. Such assistance will be available to the student during all instructional sessions including examinations and laboratory scheduled 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 universsity assumes the obligation to provide signers as third-party assistance to students with impaired hearing. When the Vice President for Administration and Planning has been previously notified of the course or courses involved, notification is forwarded to the department head responsible for the instructional course.

When authorized signers are hired by the instructional department as student assistant the 1980-81 rate is $5.00 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 Agency 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 at the end of the Spring semester by the Vice President for Finance in response to a requisition memorandum detailing the course, section, total hours of assistance provided, name and social security number of the signer and students assisted.

Lamar University at 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.

Lamar University at 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.

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 six floors with open access to 650,000 volumes. Seating accommodates 1200 students and faculty.

The first floor service areas include circulation, reference, media, 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 of Congress classification sequence from class A on the third floor through class Z on the sixth floor.

The seventh and eighth floors offer expansion space for the future, but are presently shared with other University services. Library special collections and a lecture room share the seventh floor with the Public Services Division, Continuing Education programs. The spacious and elegant eighth 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.

Office of Public Service

In addition to providing studies and other services for area business and community organizations, the Office of Public Service conducts on-campus and off-campus instructional programs, for credit and non-credit, with emphasis on adult education. A broad spectrum of vocational and academic courses are offered. Public Service is composed of the departments of Continuing Education and Extramural Education.

Lamar Language Institute

The institute provides non-academic credit instruction for non-native English speakers seeking functional competence for university study or for communication in an English speaking environment outside the academic setting. Classes are offered in the Fall, Spring and Summer semesters of each year.

At the beginning of each session, students are tested to determine what level of study is needed. A post-test at the end of each session is used to determine progress. Students in advanced levels are given the Test of English as a Foreign Language (TOEFL) to determine university admissibility with regard to language proficiency.

Classes are taught four hours a day, Monday through Friday. The curriculum includes pronunciation and conversation, listening comprehension, reading and vocabulary development, and grammar and writing skills. Classes are taught exclusively in English. The faculty possesses a wide variety of advanced professional training and experience in English language teaching.

To receive the necessary registration forms, write to Lamar Language Institute, P.O. 10023, LUS, Beaumont, TX 77710.

Admission to the Lamar Language Institute does not insure admission to Lamar University.

All forms from students applying from abroad must be received by the LLI no later than July 15 for the fall session; November 15 for the spring session, and April 1, for the summer session.

Office of Research and Programs

The Office of Research and Programs is administered by a director 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 will provide editorial help in the preparation of the application and budget and the arrangement and support of travel for meetings with donors or funding agencies.

Spindletop Museum

The Spindletop Museum, operated by Lamar University, is located in the Educational Services Center, 950 Florida Street, It has artifacts and exhibits on the early days of the oil industry in Texas which began on January 10, 1901, when the Lucas Gusher blew in on a field not far from the present Beaumont campus. An outdoor museum, Gladys City, re-creates the boom town which sprang up at Spindletop following the Lucas discovery. It is located at University and Cardinal Drives. Gladys City may be visited from 1-5 p.m. Sunday through Friday, and from 9 a.m. to 5 p.m. on Saturday. The Spindletop Museum is open from 9 a.m. to 5 p.m. Monday through Saturday and from 1 to 5 p.m. Sunday. Admission to Gladys City is 50 cents for adults, 25 cents for those under 18 years of age and free to Lamar students with their student activity cards. There is no admission charge to the Spindletop Museum.

University Relations and Development Offices

The University Relations Office was established in 1975, and includes the areas of development, public information and publications and printing.

The Development Office was reorganized in 1975 under the Office of University Relations. It is administered by a Director of Development, and the 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.

Alumni Association

The Association of Former Students of Lamar, 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 at the corner of Georgia and Cunningham Streets.

Veterans' Affairs Office

A Veterans' Affairs Office is maintained in the Wimberly Student Affairs 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.

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 at Orange and Lamar University at Port Arthur as well as to the main campus in Beaumont.

The Office of School Relations, located in the Wimberly Student Affairs 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 (713/838-7516).

Requirements for Students Entering From High Schools

An applicant is required to have graduated from an accredited high school and to have submitted entrance examination scores as specified 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.)

Entrance Examination Requirement

Applicants may submit either SAT or ACT scores in fulfillment of the entrance examination requirement. These examinations are required for counseling purposes. A person whose high school class has been graduated for at least seven years is exempt from this test requirement. 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, etc. 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 94704. ACT inquiries should be directed to the American College Testing Program, Box 168, Iowa City, Iowa 52240.

The Test of Standard Written English (TSWE), which is a part of the SAT, is also required of all applicants. Applicants who do not take the SAT will be required to take the TSWE before registration.

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.

Recommended High School Preparation

Although specific high school credits are not required for admission, the University expects each applicant to be adequately prepared to do academic work above the high school level. It is strongly recommended the following credits be included in the high school program:

English	4
Natural Sciences	2
Algebra	1
Geometry	1
Social Sciences	2

In some fields, foreign language is desirable. Applicants to the College of Engineering are required to have completed a minimum of two credits in algebra and one credit in geometry. In addition, engineers should have one-half credit in trigonometry, one credit in chemistry and one credit in physics. Any deficiencies must be made up after enrollment at the University.

Health Record Requirement

All students are required to submit health data as required by the state of Texas on first enrollment in Lamar Univeristy. Immunizations required are: (1)Polio (oral) to age of 19-3 doses, one after the 4th birthdate and (2)Diptheria and Tetanus (TD) adult type-3 doses within 10 years of enrollment. Records are considered to be obsolete after five years and must be resubmitted for continued enrollment.

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 your complete high school transcript sent to the University Admissions and Records Office immediately following graduation. Partial transcripts before graduation may be submitted but final certification of graduation is necessary.

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.

The application form ordinarily should be submitted before the other required credentials.

Acceptance Notices

Certificates of acceptance 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 Admissions and 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 Admissions and Records. Change of address forms are available in the Office of Admissions and 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 Admissions and 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.

Graduates of Non-Accredited High Schools

Applicants who have not graduated from an accredited high school may be admitted if they (1) have graduated in the upper ⅔ of their class, or (2) score 700 or above on the Scholastic Aptitude Test.

Freshman Orientation and Registration

A series of freshman orientation and registration programs is 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 departmental advisors about an academic program. Participation is optional, but is strongly recommended. Registration for the Fall Semester is completed at this time and tuition and fees are paid. Books may be purchased or reserved. Attendance at each sessions is limited and advanced reservations are necessary. Details of the program including available dates, costs and reservation

forms, are sent out following issuance of acceptance notices. Reservations should be requested early so a convenient date may be selected. Parents are invited to attend and to particiate in programs designed especially for them. Similar programs are available to new students entering the Spring Semester.

Academic Advising

College advising centers have been established in each college and branch campus to assist students in designing a program of study meeting the degree plan requirements of the department and guides 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 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 Liberal Arts college 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 Affairs 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 CLEP (College Level Examination Program).

1. **Advanced Placement Examinations** (Optional)
   Applicants who wish to receive credit for college-level work completed in high school may do so by submitted scores on 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	Required Score	Credit Granted
Chemistry	Score of 3 or above	Chemistry 141
English	Score of 4 or 5	Eng 131-132
	Score of 3	Eng 131 (Student receiving such credit must enroll in Eng 136
Foreign Language	Score of 4 or 5	12 semester hours of foreign language
	Score of 3	Three semester hours of foreign language
American History	Score of 3 or above	History 231-232*
European History	Score of 3 or above	History 131-132
Biology	Score of 3 or above	Biology 141-142
Calculus		
AB Test	Score of 4 or above	Mth 1335, 148 or Mth 134, 1341 or Mth 1335, 236
BC Test	Score of 4 or above	Mth 1335, 148, 149
Physics B	Score of 3 or above	Physics 141-142
Physics C (Mechanics)	Score of 3 or above	Physics 140
Physics C (E & M)	Score of 3 or above	Physics 241
Art	Score of 3 or above	Art 131, 133
Music	Score of 3 or above	MLt 111, 112

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 or who have 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	CEEB Test Required	Credit Granted
English	English Composition	Eng 131 if validated by completion of Eng 136 with a grade of "C" or better.
Foreign Lang	Spanish French German	0 to 12 semester hours depending on placement and validation.
Chemistry	Chemistry	Chem 141 if validated by completion of Chem 142 with a grade of "C" or better.
Mathematics	Level I	Up to 12 semester hours depending on placement and validation.
Physics	Physics	Physics 141 if validated by completion of Physics 142 or 241 with a grade of "C" or better.

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

Requirements of Students Entering From Other Colleges

To be eligible for unconditional admission, a transfer student must (1) be eligible to re-enter all colleges previously attended, and (2) have an over-all grade point average of C (2.0). Four grade points are counted for each semester hour completed with a grade of A, three for B, two for C, one for D and none for F.

The records of transfer applicants who meet requirement (1) above, but who are deficient in grade points, are evaluated for admission purposes on the same basis as if the work had been taken at Lamar. A student admitted on probation must remove deficiencies in accordance with the provisions of the section on academic probation and suspension.

Transfer students who have earned less than 18 semester hours of transferable credit also must submit SAT and/or ACT scores, and meet the same requirements as a student entering directly from high school. The University reserves the right to require tests of any student if it appears that scores would be helpful in making the admission decision or would be beneficial for counseling purposes.

International students must meet all of the requirements in the section on International Student Admission.

All students are required to submit the prescribed health data on first enrollment. Records are considered to be obsolete after five years and must be resubmitted for continued enrollment after that time.

Transfer of Credit

Credit earned at another accredited institution is acceptable for transfer and may be used to meet degree requirements provided the courses are applicable to the curriculum in which the student enrolls. An over-all grade point average of C (2.0) is the acceptable academic standard of performance. A student who has accumulated a grade point deficiency at another institution(s) and who is admitted on probation, will be required to make up the deficiencies at Lamar. In order to graduate, a student must have a 2.0 grade point average on all work attempted, on all work

attempted at Lamar, on all courses in the major, and on all courses which may be counted for the degree.

Students transferring from a junior college are limited to the transfer of 66 semester hours or to the number of hours required by this University during the freshman and sophomore years in the curriculum under which the student enrolls or to the number of hours listed as being acceptable for transfer in a published degree program.

Grades from other institutions are recorded as received. No grade is changed.

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 and Records, Lamar University, Lamar University Station, Box 10010, Beaumont, TX 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.
3. If entrance examination scores are required, take the prescribed entrance tests and/or have a record of test scores sent to the Office of Admissions and Records.

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 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. 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.

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.

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 Nondegree 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 nondegree student by submitting his/her high school transcript, application for admission and the required immunization record.

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 admission as an individual approval student: Applicants must furnish evidence of preparation substantially equivalent to that required of other applicants. They must possess the aptitude and the seriousness of purpose to successfully pursue a college course of study.

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 well in advance of the proposed registration date. Arrangements for the interview should be made after records and scores are received by the University but well in advance of registration. Individual approval applications cannot be considered during or immediately before the registration period.

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 exempted 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 Admissions 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 Admissions and 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; sex; marital status; country of citizenship; major and minor; semester hour load; classification; class schedule; eligibility for and particiation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received, with dates; previous educational agencies or institutions 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 Admissions and 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 IRS.

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 activity 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. Scores of 500 or above on the Test of English as a Foreign Language (TOEFL) are required along with scores on the Scholastic Aptitude Test (SAT). SAT scores may be waived for students who have completed a post-secondary academic degree with above average marks.

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 24 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.

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. All students are required to submit the official Health Data Form. 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 and Records.

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.** An orientation fee of $20 is charged and is payable to Lamar University, c/o Director of International Orientation, P.O. Box 10006, Lamar U. Station, Beaumont, Texas 77710, U.S.A. The program is designed to facilitate a smoother, less problematic 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.

Credit-in-Escrow Program

The Credit-in-Escrow 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 program, an applicant must (1) have completed the junior year in an accredited high school; (2) have at least a B+ average through the second quarter of the junior year of high school; (3) submit scores of 900 or equivalent on the PSAT, SAT or ACT, and (4) be recommended by the high school counselor or principal. 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 for a maximum of four hours per semester if selected for participation.

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

Student 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 and eligibility criteria can be obtained from the Office of Student Aid, P.O. Box 10042, Lamar Station, Beaumont, Texas 77710.

When To Apply

Applications should be completed by March 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 March 1 deadline.

How To Apply

Lamar University requires all students applying for aid to file the General Application for Student Aid. Students wishing to be considered for scholarships only should request the Scholarship Application. Students should be aware that scholarship funds are limited and 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 March 1 deadline should file about February 1.

After the application is complete the Student 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 Aid Office.

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. Scholarship applicants must have a combined score of 900 on the SAT or composite score of 20 on the ACT plus a grade point average in excess of 2.5 to be eligible for a university administered scholarship.

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 Lamar University Admissions Office and have the General Application and Financial Aid Form calculation on file in the Student Aid Office. Freshmen may be able to obtain required forms from their high school counselors or directly from the Student Aid Office, P.O. Box 10042, Beaumont, Texas 77710. Students currently enrolled at Lamar may obtain the forms from the Student Aid Office, Wimberly Student Affairs, 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 Eligibility 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 Eligibility Report to be sent to the student's address. The student should then send the Student Eligibility Report to the Student 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 which cover 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. The scholarship program at Lamar University is financed solely by public donation. 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 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 National Direct Student Loan Program, the Federally Insured Student Loan Program, and the Hinson-Hazelwood College Student Loan Act. Those interested in one of these loan programs should contact the Student 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 which 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. Fees are not exempt. During registration, valedictorians should report to the scholarship 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, 1110 Goodhue Building, Beaumont, Texas 77701.

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. Payment may be made by check, 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). The University will not accept counter checks or "changed" checks.

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.

Texas residents taking a 15 hour academic work load*:

Tuition	$60
Student Services Fee	40
General Use Fee	90
Setzer Student Center Fee	20
Student Health Fee	15
Parking Fee (if desired)	15
Health Insurance (if desired)	62
Books and Incidentals (estimated)	159
	$461
	+ lab fees

Part-time Student (Six semester hours):

Tuition	$50
Student Services Fee	24
General Use Fee	36
Setzer Student Center Fee	20
Student Health Fee	6
Parking Fee (if desired)	15
Books and Incidentals (estimated)	80
	$231
	+ lab fees

Tuition and general use fees vary with the semester hours carried so the total may differ from this estimate.

**Tuition for Texas residents taking 12 hours or less is $50 per semester. Each additional semester hour is $4 per hour. A full-time student is one who takes 12 or more semester hours of course work.*

Summary of Fees

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

Term	No. of Semester Hours	Tuition A	Tuition B	Student Services Fee	General Use Fee	Setzer Center Fee	Health Center Fee	Total Charge A	Total Charge B
Each	1	$50	$ 40	$ 4.00	$20	$20.00	$ 5.00	$ 94.00	$ 84.00
Fall	2	50	80	8.00	20	20.00	5.00	98.00	128.00
or	3	50	120	12.00	20	20.00	5.00	102.00	172.00
Spring	4	50	160	16.00	24	20.00	5.00	110.00	220.00
Semester	5	50	200	20.00	30	20.00	5.00	120.00	270.00
	6	50	240	24.00	36	20.00	6.00	131.00	321.00
	7	50	280	28.00	42	20.00	7.00	142.00	372.00
	8	50	320	32.00	48	20.00	8.00	153.00	423.00
	9	50	360	36.00	54	20.00	9.00	164.00	474.00
	10	50	400	40.00	60	20.00	10.00	175.00	525.00
	11	50	440	40.00	66	20.00	11.00	182.00	572.00
	12	50	480	40.00	72	20.00	12.00	189.00	619.00
	13	52	520	40.00	78	20.00	13.00	198.00	666.00
	14	56	560	40.00	84	20.00	14.00	209.00	713.00
	15	60	600	40.00	90	20.00	15.00	220.00	760.00
	16	64	640	40.00	90	20.00	15.00	224.00	800.00
	17	68	680	40.00	90	20.00	15.00	228.00	840.00
	18	72	720	40.00	90	20.00	15.00	232.00	880.00
	19	76	760	40.00	90	20.00	15.00	236.00	920.00
	20	80	800	40.00	90	20.00	15.00	240.00	960.00
Each	1	$25	$ 40	$ 4.00	$20	$10.00	$ 1.00	$ 57.50	$ 72.50
Six	2	25	80	8.00	20	10.00	2.00	62.50	117.50
Week	3	25	120	12.00	20	10.00	3.00	67.50	162.50
Summer	4	25	160	16.00	24	10.00	4.00	76.50	211.50
Session	5	25	200	20.00	30	10.00	5.00	87.50	262.50
	6	25	240	20.00	36	10.00	6.00	94.50	309.50
	7	28	280	20.00	42	10.00	7.00	104.50	356.50
	8	32	320	20.00	48	10.00	8.00	115.50	403.50
	9	36	360	20.00	54	10.00	9.00	126.50	450.50
	10	40	400	20.00	60	10.00	10.00	137.50	497.50

Code: A. U.S. citizens who are legal residents of Texas under tuition law; B. (1) U.S. citizens who are not legal residents of Texas under tuition law, and (2) aliens from non-exempt countries.

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; a nonresident U.S. citizen; or a citizen of another country. Determination of legal residence for tuition purposes is made on the basis of statutes of the State of Texas.

Each student pays a Student Service Fee of $4.00 per semester hour, with a maximum of $40 in a long session.

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.

Private Lessons in Voice and Instrumental Music

One half-hour lesson per week.....$18
Two half-hour lessons per week.....36

Late Registration Fee

A charge of $5 is made during the first day of late registration. This fee increases by $2.50 per day to a maximum of $15.

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.

Health and Accident Insurance

Health and accident insurance coverage is available at registration for regularly enrolled students. The fee is estimated at $62. This or similar insurance is required of all international students.

Special Fees

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

Exemption 1: Scholarships to High School Honor Graduates

The highest ranking student in the graduating class of a fully accredited Texas high school will be entitled to a tuition and laboratory fee waiver valued at approximately $100. Details may be obtained from the Student Aid Office.

Exemption 2: Veterans

Lamar is approved under all of the Veterans Educational Assistance programs for educational training of veterans of the U.S. Armed Forces.

Persons who were citizens of Texas at the time of entry into the Armed Forces, and who are no longer eligible for educational benefits provided for veterans of the United States, are exempt from tuition and laboratory fees. This applies to those who served in World War I, World War II, the Korean Conflict or the Vietnam War and were honorable discharged. 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 expect to attend under some veterans' benefit plan should contact the Office of Veterans' Affairs 60 to 90 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 Affairs Building.

Refund of Fees

Any student officially withdrawing or dropping courses 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 per cent.
2. During the first five class days, 80 per cent.
3. During the second week of the semester, 70 per cent.
4. During the third week of the semester, 50 per cent.

5. During the fourth week of the semester, 25 per cent.
6. After the fourth week of the semester, none.

Summer Session

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

Dropping Courses

All students who drop courses during the first 12 class days of the Fall or Spring Semester, or within the first four days of a Summer Session, and remain enrolled at Lamar University, will receive a refund on tutition and fees for that particular course or courses. These refunds will be made to the student six to ten weeks after the session begins.

All questions regarding refunds should be directed to the Finance Office.

Returned Check Fees

A student 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 $5.

Miscellaneous Fees

Associate Diploma	$10.00
Certificate of Completion	10.00
Bachelor's Diploma	10.00
Master's Diploma	10.00
Ph.D.'s Diploma	10.00
Bachelor's Cap and Gown Rental (keep cap and tassel)	15.00
Master's Cap, Gown and Hood Rental	15.00
Ph.D.'s Cap, Gown and Hood Rental	17.50
Returned Checks (Bookstore)	7.50
Re-entry Fee	5.00
Transcript Fee	2.00
Advanced Standing Examination (per course)	5.00
Photo Identification	2.00
Lost Photo I.D.	5.00
Swimming Pools (suits and towels)	15.00

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.

Rules and Regulations for 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.

Pertinent sections of the Texas statuates governing residence for tuition purposes follow. More detailed information on both the law and its interpretations may be obtained from the Office of Admissions and Records.

Pursuant to Title 3, Texas Education Code. Effective July 20, 1979

1 Minors

Statute: Section 54.052(a)(3) Dependent means an individual who is claimed as a dependent for federal income tax purposes by the individual's parent or guardian at the time of registration and for the tax year preceding the year in which the individual registers.

Section 54.052 (c) An individual, who is eighteen (18) years of age, or is a dependent and who is living away from his family, and whose family resides in another state or has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student:

Section 54.052 (d) An individual who is eighteen (18) years of age or under or is a dependent and whose family has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a nonresident student, regardless of whether he has become the legal ward of residents of Texas or has been adopted by residents of Texas while he is attending an educational institution in Texas, or within a 12-month period before his attendance, or under circumstances indicating that the guardianship or adoption was for the purpose of obtaining status as a resident student.

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

2 Residence of individuals Over Eighteen

Statute: Section 54.052 (e) An individual who is eighteen (18) years of age or over who has come from outside Texas and who is gainfully employed in Texas for a 12-month period immediately preceding registration in an educational institution shall be classified as a resident student as long as he continues to maintain a legal residence in Texas.

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

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

3 Married Students

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

4 Military Personnel and Veterans

Statute: 54.058 (a) Military personnel are classified as provided by this section in the following manner:

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

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

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

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

(g) If a members of the Armed Forces of the United States is stationed outside Texas and his spouse and children establish residence in Texas by residing in Texas and by filing with the Texas institution of higher

education at which they plan to register a letter of intent to establish residence in Texas, the institution of higher education shall permit the spouse and children to pay the tuition, fees, and other charges provided for, Texas residents without regard to length of time that they have resided within the State.

5 Employees of Institutions of Higher Education Other Than Students

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

6 Student Employees

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

7 Competivite Scholarships

Statute: Section 54.051 (p) A student who holds a competitive scholarship of at least $200 for the academic year or summer for which he is enrolled and who is either a nonresident or a citizen of a country other than the United States of America is entitled to pay the fees and charges required of Texas residents without regard to the length of time he had resided in Texas, provided that he must compete with other students, including Texas residents for the scholarship and that the scholarship must be awarded by a scholarship committee officially recognized by the administration of the institution of higher education.

8 Reciprocity Clause Applicable to Junior Colleges, Upper Level Institutions.

Statute: Section 54.060. Resident of Bordering State: Tuition. The non-resident tuition fee prescribed in this chapter does not apply to a nonresident student who is a resident of a state situated adjacent to Texas and who registers in any Texas public junior college situated in a county immediately adjacent to the state in which the nonresident student resides. The nonresident junior college student described in this section shall pay an amount equivalent to the amount charged a Texas student registered at a similar school in the state in which the nonresident student resides. The nonresident student described in this section shall pay equivalent fees and charges to those charged Texas students registered at a similar institution in the state in which the nonresident student resides, when such student registers at a Texas public senior upper level (those institutions offering only junior,senior, and graduate level programs) institution of higher education located within Texas public junior college district from which the nonresident student has graduated or completed 45 semester credit hours.

9 Waiver of Nonresident Tuition by Junior Colleges

Statute: Section 130.003(b) (4) ...the governing board of a public junior college district may waive the difference in the rate of tuition for nonresident and resident students for a person, and his dependents, who owns property which is subject to ad valorem taxation by the junior college district...

10 Citizens of Any Country Other Than the United States of America

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

13 Penalities

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

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

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. The second figure indicates the number of semester hours credit. The third figure (or figures) indicate 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 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 equivalent to one classroom hour. For laboratory work which requires reports to be written outside of class, two clock hours are usually counted as one semester hour.

Maximum Course Loads

The normal course load in a regular semester is 15-18 semester hours; for a six week summer term 6-8 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 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 Admissions and Records 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.

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.

Postponed Examinations

Arrangements for taking postponed examinations are made with the instructor concerned, but must be approved by the instructor's department head. Such arrangements should be made at least 48 hours before the examinations.

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.

Physical Activity Course Registration Requirement

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

1. Those who are unable to participate in a regular or modified activity course 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 four 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 freshman year courses in physical education, but must take two semesters of physical education at the sophomore level to complete the requirements for graduation.

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 counselor 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, LU Station.

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 week of the semester or first two days of a Summer Session.

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 Admissions and Records. A student may not drop a course within seven calendar days of the beginning of final examinations or three calendar days before the end of the summer term.

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 the student was dropped for the reason of excessive unexcused absences.

Reinstatement to Class

A student may be reinstated to class upon written approval on the official form by 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. Three copies of the withdrawal form signed by the department head, the director of library services and the Director of Retention, are presented to the Office of Admissions and 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 pentaly-free period.

A student may not withdraw within ten calendar days of the beginning of final examinations or five calendar 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.

Enforced Withdrawal Due to Illness

The director of the health center and the vice-president for student affairs, on the advice of competent medical personnel, may require withdrawal or deny admission of a student for health reasons (mental or physical).

Transfer from One Department to Another

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.

Transfer Credit for Correspondence Courses

Lamar does not offer courses by corresponsence. However, a maximum of 18 semester hours of correspondence work from 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 Admissions and 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 Admissions and Records no later than the last date to apply for graduation.

Seniors must file correspondence transcripts 14 days before graduation.

Credit by correspondence for a course failed in residence will not be accepted toward graduation.

Credit by Examination

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 $5 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 Admissions and Records Office or the Counseling and Testing Center. 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.

Except for satisfying the coursework-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 degree requirements. Credit will be awarded only when the student is already enrolled at Lamar at the time of the examination or when the student enrolls at Lamar after taking the examination.

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 Admissions and Registrar or from the Counseling and Testing Center.

Academic Progress

Classification of Students

Students are classified as freshmen, sophomores, juniors, seniors and post baccalaureate. 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.
Full-Time Student: a student taking 12 or more semester hours (four or more in a summer term) is classified as a full-time student.

Grading System

A — Excellent
B — Good
C — Satisfactory
D — Passing
F — Failure
I — Incomplete
W — Withdrawn
Q — Course was dropped
S — Credit
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 Admissions and 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 Admissions and 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 major Department Head, Instructor and Instructor's Department Head. Student semester hours attempted will be reduced by appropriate number of hours.

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.

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 I 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 Admissions and Records Office. Transcripts of academic records may be secured by an individual personally, or will be released on the student's written authorization.

Students who owe debts to the University may have their official transcripts withheld until the debt is paid.

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.

Deans' List

At the end of each semester the Office of Admissions and Records prepares 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 Dean's List and is announced by the academic dean of each college.

Scholastic Probation and Suspension

Students are expected to make acceptable scholastic progress toward their degree objectives. A "C" is the minimum satisfactory grade and a "C" average or 2.0 grade point average (G.P.A.), constitutes satisfactory performance. Since two grade points are awarded for each semester hour of "C", students are in good standing if they have earned at least twice as many grade points as 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.

All students with a grade point deficiency of 25 or more grade points at the end of the Fall and Spring Semesters shall be suspended for the following semester provided that no first time college student shall be suspended at the end of his/her first semester of attendance.

Students suspended from Fall and/or Spring Semesters by this action may, however, attend the Summer Session on probation. Students with a grade point deficiency less than 25 at the close of the Summer Session may register for the following Fall Semester but will be charged with a suspension.

Students returning from an academic suspension must continue to reduce their grade point deficiency every semester of enrollment until the deficiency is eliminated. Should students fail to reduce their deficiency in any one semester, they will be suspended, unless approved for probationary re-enrollment by the dean of their college.

The first academic suspension shall be for one long semester; the second for two long semesters; and the third for four long semesters and readmission only with special permission of the dean of the academic college.

A college may prescribe academic requirements for its majors in addition to the basic university grade point standard, with the approval of the vice-president for Academic Affairs. Students suspended under this provision may register in another college 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) thirty 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 head and shall follow regular channels to the vice president for academic affairs for a final decision. Endorsements and/or recommendations shall be required at each academic level. When approved by the vice president for academic 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. Meet the following minimum requirements:
   a. A grade point average of at least 2.0 both on all courses in the major field and on all courses attempted.
   b. 120 semester hours not including required activity courses in physical education, marching band, and/or ROTC.
      (1) 30 semester hours in residence at Lamar University with at least 24 semester hours earned after attaining senior classification, except for special degree programs in biology and medical technology.
      (2) 30 semester hours on the junior and senior levels. 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) 6 semester hours in government. (see note 1)
      (5) 6 semester hours in American history. (see note 2)
      (6) 12 semester hours in English (not to include English 137) including 6 semester hours in freshman composition and 6 semester hours in literature. 3 semester hours of technical report writing or 3 semester hours of speech communication or 3 semester hours of foreign language may be substituted for 3 hours of literature. (see note 3)
      (7) Four courses in laboratory science or mathematics, to include at least one course in laboratory science and at least one course in mathematics at or above the level of Math 1334.
      (8) 4 semesters of physical activity and/or marching band and/or ROTC. (see note 4)
      (9) 6 semester hours of electives from disciplines outside the major field.
      (10) No more than 18 semester hours of correspondence work and no more than 30 semester hours of correspondence and extension work combined may be applied to the bachelor's degree.
3. Complete the program of study as listed in the bulletin.

4. Make application for the Bachelor Degree and pay all designated fees.
5. Attend the official graduation exercises or recieve prior approval to be absent from the Dean of Admissions and Registrar.

Second Bachelor Degree

When another bachelor's degree is taken simultaneously, or has been taken previously, the second bachelor's degree may be granted upon the completion of all required work for the second degree. A total of 30 semester hours above the number required for the degree having the greater semester hour requirement 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 Science Degree

1. Meet the University's general education requirements for a bachelor degree.
2. Meet the specific requirements of the selected program of study as listed in the department concerned.

Bachelor of Business Administration Degree

1. Meet the University's general education requirements for a bachelor degree.
2. Meet the specific requirements of the selected program of study as listed in the department concerned.

Bachelor of General Studies Degree

1. Meet the University's general education requirements for a bachelor degree.
2. Meet the specific requirements of the selected program of study as listed in the department 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 100 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 college of dentistry or medicine.
4. Formally apply for the degree before August graduation deadline.

Associate of Arts Degree (A.A.)

1. Satisfy all admission conditions.
2. Meet the following minimum requirements:
   a. 30 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. 60 semester hours not including required activity courses in health and physical education, marching band and/or ROTC.
   d. Six semester hours in government.(see note 1)
   e. Six semester hours in American history.(see note 2)
   f. Nine semester hours in English (not to include English 137), including six semester hours of freshman composition and three semester hours of literature.(see note 3)
   g. Two courses in laboratory science or mathematics.
   h. Two semesters of physical education activity and/or marching band and/or ROTC.(see note 4)

3. Complete the course numbered 232 in a foreign language.
4. Complete an Associate of Arts program of study as outlined in the bulletin.
5. No more than a total of 15 semester hours of correspondence and extension credit may be applied toward the degree.
6. Make application for the Associate of Arts degree and pay all designated fees.

Associate of Science Degree (A.S.)

1. Satisfy all admission conditions.
2. Meet the following minimum requirements:
   a. 30 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. 60 semester hours not including required activity courses in health and physical education, marching band and/or ROTC.
   d. Six semester hours in government.(see note 1)
   e. Six semester hours in American history.(see note 2)
   f. Nine semester hours in English (not to include English 137), including six semester hours of freshman composition and three semester hours of literature.(see note 3)
   g. Two courses in laboratory science or mathematics.
   h. Two semesters of physical education activity and/or marching band and/or ROTC.(see note 4)
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 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. Complete an approved degree plan.
3. 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.
4. Complete 24 semester hours of major work at Lamar with 12 hours in 200 level courses.
5. 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 total of 15 semester hours above the number required for the degree having the greater semester hours requirements must be completed.

Degree Requirement Notes:

1. Texas law requires six hours in government, which includes consideration of the U.S. Constitution and that of Texas. This shall normally be satisfied by completing Government 231 and 232 or other appropriate government courses approved by the head of the Governement Department. Three semester hours may be satisfied by an advanced standing examination.
2. Texas law requires six hours in American History. This normally shall be satisfied by completing two courses in the History 231-236 sequence or other appropriate history courses approved by the head of the History Department. Three semester hours may be satisfied by a course in Texas History or by an advan ed standing examination.
3. A score of 31 on the Test for Standard Written English or satisfactory completion of the developmental English course (English 137) is a prerequisite to admission to English 131. Students who do not qualify for enrollment to English 131 classes through the application of these standards may petition the Board of Regents through the Office of the President for exemption from enrollment qualifications.
4. All full-time students must register for physical activity courses until they have met the requirement except as follows:

a. Those with physical handicaps who have written exemptions from the University physician.
b. Those who enroll in marching band and/or ROTC for four semesters.
c. Those who are 25 or more years of age, at their option.
d. Those veterans who have completed basic training in military service may be exempted from the freshman courses in physical education. Two semester courses at the sophomore level must be completed to meet graduation requirements.

Students exempt from the physical education requirements must submit elective hours approved by their major department in lieu of the requirement.

Graduation

Application for Graduation

Applications for graduation must be filed with the Office of Admissions and Records. The current University Calendar contains exact dates.

Before final approval of these applications, the follow supplementary materials must be submitted:

1. Statements showing reasonable expectation of completion of degree requirements by graduation time.
2. Transcript showing grade point average of at least 2.0 on all courses taken and applied to meet degree requirements. A course is counted each time taken whether failed or passed.
3. Receipt showing payment of cap and gown and diploma fees.
4. Clearance of all financial and property matters to date.
5. Approval of the department sponsoring the student.

The application of a student lacking a grade point average of 2.0 on either overall or in the student's major field, will be removed from the graduation list at the beginning of the semester.

If a student under such condition does complete all degree requirements, the student may apply for a statement of such completion and appear for the next graduation date.

The student is responsible for making the application, for securing official advisement about study plans for the last two semesters, and for checking compliance with all degree requirements with the Office of Admissions and Records.

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 interrups 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. Deletions 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 matriculate 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, (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 "honors," 3.65 to 3.79 for "high honors" and 3.80 to 4.00 for "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

Counseling and Testing Center

Lamar University maintains a Counseling and Testing Center located in the Wimberly Student Affairs Building to serve students encountering educational, career, social or personal difficulties as well as to provide testing services. The center is staffed with a fully-trained and qualified psychologist and counselors and a psychometrist to assist in the resolution of student problems and questions.

While the Counseling Center does not address problems of a long-term therapeutic nature, students encountering difficulties are encouraged to consult the office on a no-charge basis. All contacts are maintained as confidential and there are no entries made in the student's records. In order to assist students in making decisions concerning choices of majors and careers, the Counseling Center maintains the Guidance Information System, a computerized guidance system, as well as a career library.

The Testing Center coordinates required testing by Lamar University and provides individual testing services for students. These services include the administration and interpretation of vocational interest and personality tests. The Testing Office also acts as a National Test Center for programs such as the Graduate Record Examination, Law School Admission Test, National Teacher Examination, Graduate Management Admission Test, Scholastic Aptitude Test (SAT), American College Testing Program (ACT), College Level Examination Program (CLEP), General Educational Development Test (High School Equivalency Test), Miller's Analogies Test and numerous other tests. Information and application forms concerning these tests may be obtained from the Testing Office.

Health Center

The University maintains a Health Center for the use of students. Two types of service are available: (1) out-patient service for those who have minor ailments but who do not require constant supervision, and (2) infirmary service for those who are in need of the continued attention of the University physician or of nursing care.

It is not possible for the University to provide unlimited medical service. Special medicines, examinations, treatments, X-rays and laboratory tests are not furnished. No charge is made, however, for up to 10 days care each semester in the Health Center, except for meals.

All students pay a Health Service Fee of $5 up to 5 semester hours then $1 for each additional hour with a maximum of $15 for each of the Fall and Spring semesters, and $1 per semester hour with a maximum of $10 for each of the Summer sessions. Vaccines, serums and gamma globulin will be given in the Health Center from 1:00 to 4:30 P.M. Monday through Friday free of charge. Pre-admission vaccinations are not included. All drugs prescribed and dispensed in the Health Center are free of charge except for a limit of one prescription refill per illness or accident. The first $100 of costs for emergency care of accidental injuries sustained on the campus and treated in a local hospital or doctor's office will be paid from student health fees. For services in the Health Center, each student must present his or her student identification card.

The Health Center is located on East Virginia Street adjacent to tennis courts. The Health Center does not provide care for students requiring surgery or the services of specialists. In these cases, every effort will be made by the physician or nurse to refer to a doctor or facility for treatment; furthermore, every effort will be made to notify the parent or guardian of the student's needs.

The University assumes no responsibility for continued medical care for chronically ill or injured students. These students should arrange for the care of a private physician. When the University is not in session, the Student Health Center is not responsible for a student's health care.

The University is not under obligation to provide hospital services elsewhere if the Health Center is filled to capacity. The Health Center, however, has a sufficient number of beds for all normal needs.

Students who are ill should report promptly to the Health Center for medical care.

Learning Skills Programs

The Department of Learning Skills Programs is continually seeking to develop new programs and approaches to aid students in making the most of their college experience and thus increase student retention.

Carefully selected and trained student counselors under the direct supervision of the Director of Learning Skills conduct a systematic instructional program designed to provide students with the opportunity to develop the kinds of skills necessary for satisfactory performance in college courses. This program is designed to serve all students—both the very able learners and students with potential academic problems. Any student, regardless of SAT or ACT score, high school rank, grade point average, or classification is eligible to take the course.

The office of Learning Skills Programs also assists with new student orientation and with obtaining and evaluating assessment data for appropriate programs.

Students who desire more information should contact the Director of Learning Skills, Galloway Business Building, Room 102.

Placement Center

The Placement Center is a centralized operation responsible for placement activities for all colleges of the University. The placement center's services are available at no charge to students, faculty, staff and all former students. The center keeps updated information in career fields and job areas, employers and the kind of employees being sought.

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

The center also offers student seminars pertaining to job search techniques, interviews, resume writing and job availability. The Placement Center is located in Room 102 of the Galloway Business Building.

Special Services Program

The Special Services Program, under the auspices of the Vice President for Student Affairs/Dean of Students, is designed to provide support services for studetns who need academic counseling or other assistance to successfully complete their college education. The goal of the office is to increase the retention and graduation rate of students who, by traditional academic measures, would have difficulty succeeding in college. There are also cultural and social activities and seminars included in the program to motivate, expose and help students learn to think more clearly and effectively in problem-solving situations.

The Special Services Program staff includes a career counselor to help with educational and vocational planning, a mathematics specialist to instruct and assist students who require supplementary help in that area, and a reading specialist to assist students who need help in reading and/or English. In addition, a student tutoring staff is available to provide individualized assistance to program participants. Any student enrolled at Lamar University who is determined to be educationally or economically disadvantaged or physically handicapped is eligible to receive tutoring and participate in the activities of the program.

The program operates in close cooperation with the Counseling and Testing Center, the Office of Retention Services, and the Director of Learning Skills in order to deliver its services in the most efficient, effective, and pervasive manner.

The overall thrust of the program is: (1) to identify those students having academic difficulty; (2) diagnose the difficulty and; (3) and bring the total resources of the Special Services Program and the university to bear on a given student's problem.

The Special Services Program office is located on the second floor of the Education Building in Room 244, P.O. Box 10049, Lamar University, Beaumont, Texas 77710.

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 the student in developing a meaningful context for his university years.

Student Development

In the event of an emergency between the hours of 8:00 a.m. and 4:30 p.m., the Office of Student Development will attempt to locate a student on campus and/or to relay an emergency message to him or her.

Students may also request this office to notify faculty member(s) prior to or during an extended absence due to personal or family illness, accident, hospitalization, etc. This notification does not constitute an excused absence from class; however, it does advise the faculty member(s) as to the reason a student is absent and the expected date of his or her return.

Certain directory information on currently enrolled students is available in this office. Also students interested in leadership development programming should contact the Office of Student Development.

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 are named 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 offices are located in Room 211 of the Setzer Student Center and are staffed by three student officers and a full-time secretary.

Setzer Student Center

The Richard W. Setzer Student Center provides facilities for leisure-time recreation and is the campus center for many extracurricular activities. The Center includes a games area, TV rooms, check cashing/ticket sales, music listening room, snack bar, graphics operations, reservations office, video lounges, a ballroom, various meeting rooms and lounges, and The Perch, a pizza parlor, dellicatessen operation. The Center houses the offices of the Setzer Student Center Council, Student Government Association, Recreational Sports, Student Organizations, Alpha Phi Omega, Student Publications and various staff members who work with these organizations and many others. Commercial business housed in the Center include the Lamar University Bookstore, the Teachers Credit Union of Beaumont and a campus hair styling shop.

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 Center for the majority of its functions.

The SSCC is comprised of 12 committees: concert, performing arts, forum, contemporary film, classic film, coffeehouse, recreation, social, video tape, video tape productions, travel and homecoming. Students and members of the faculty and staff are urged to seek membership on these committees.

Student Organizations

More than 147 student organizations currently active at Lamar offer student membership opportunities in one or more of the service, professional, religious, mutual interest, honor, sorority, fraternity or recreational groups. Participation in student organizational activity enhances the education of students, who are strongly encouraged to affiliate with the organization(s) of their choice and participate in the programs.

Recreational Sports

All faculty, staff and currently enrolled students 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 25 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 inter-relationships occuring in athletic competition.

Sports Clubs are made up of individuals interested in a specific sport and seek competition beyond the boundaries of the University. Further information on any facet of the Recreational Sports Program may be obtained from room 212 of the Setzer Student Center.

Publications

University student publications include the *University Press,* a student newspaper published twice a week during the long terms; *The Cardinal,* a full-feature magazine published once a semester; and *Pulse,* a literary magazine of student work.

Offices for *University Press* and *The Cardinal,* both of which serve as training opportunities for students interested in journalism, are at 200 Setzer Center. *Pulse* offices are located in Room 03 of the Liberal Arts Building.

The *Student Handbook* sets forth University policies and procedures relative to student conduct, rights and responsibilities. It is available at registration and at other times in 116 Wimberly Student Affairs building or 200 Setzer Center. It is the responsibility of each student to obtain and read this publication. The *Student Directory* — containing a listing of the names, addresses and telephone numbers of students, faculty and administrators—is also available in the Setzer Student Center. Students should contact the Office of Admissions and Records to complete a form if they wish not to be listed in the *Student Directory.*

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.

Eligibility for Intercollegiate Athletics for Men

A high school graduate with a minimum 2.00 G.P.A. from high school, who is registered for a minimum 12 semester hours is immediately eligible for intercollegiate athletics at Lamar.

Regulations of the Southland 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 baccalaurate degree in a designated program

of studies since the beginning of the student athlete's last season of completion; or (2) satisfactory completion of degree credit which averages at least 12 semester hours during each of the previous semesters enrolled; (3) a minimum 1.6 G.P.A. must be maintained; hours earned in summer school may be utilized to satisfy requirements in sub-paragraph (1).

For additional details on eligibility for intercollegiate athletics for men, the student should contact the Director of Men's Athletics.

Eligibility for Intercollegiate Athletics for Women

A high school graduate who has been admitted as a regular student and who is registered for a minimum of 12 semester hours is eligible for intercollegiate athletics in the Texas Association for Intercollegiate Athletics for Women, in which Lamar University is a charter member.

For additional details on eligibility for intercollegiate athletics, the student should contact the Director of Women's Athletics.

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, Section 4.19. 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 for False Statements

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.

Official 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.

Student 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 Vice President for Student Affairs/Dean of Students will take appropriate action.

Penalty for failure to clear up these obligations may be: a) no 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* under "Student Conduct and University Discipline." The Dean of Student

Development 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 Office of the Dean of Student Development and the action of the Discipline Committee is subject to review by the Vice-President for Student Affairs/Dean of Students.

Parking Regulations

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

Student Housing

The student housing program is designed to supplement the academic program by providing opportunities for social and intellectual development and recreation in a pleasant living environment. A variety of living styles, designed with most of the conveniences of an apartment and all the advantages of campus living, include semi-private rooms, modern furniture, carpet, central heating and air conditioning. Residence hall staff assist with programs and serve as advisors and counselors to the residents.

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

Students who do not feel the residence hall program meets their personal needs may elect to find living accommodations off-campus.

Reservations

To reserve a room in a University residence hall or apartment, contact the Housing Office. A check or money order for $50 must accompany the reservation request. Reservations may be cancelled with full refund until three weeks before the first day of registration. No refunds will be issued on cancellations received after this date.

All unclaimed rooms will be declared vacant and the deposit forfeited at 6 p.m. on the first day of regular registration unless the student gives the Housing Office sufficient notice to hold the room for a longer period. Residents will receive deposit refunds, less any breakage or cleaning charges, at the end of a semester on proper withdrawal from the housing unit. The deposit will not be refunded if the student moves from the housing system before the end of a semester, and a penalty will be charged as stated on the housing contract.

Assignments

Permanent assignments cannot be made until the student reports for check-in. The University reserves the right to assign students to specific apartments, 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 apartments, dormitories and rooms, and all possible 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, in Brooks-Shivers Hall, and adjacent to Stadium 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

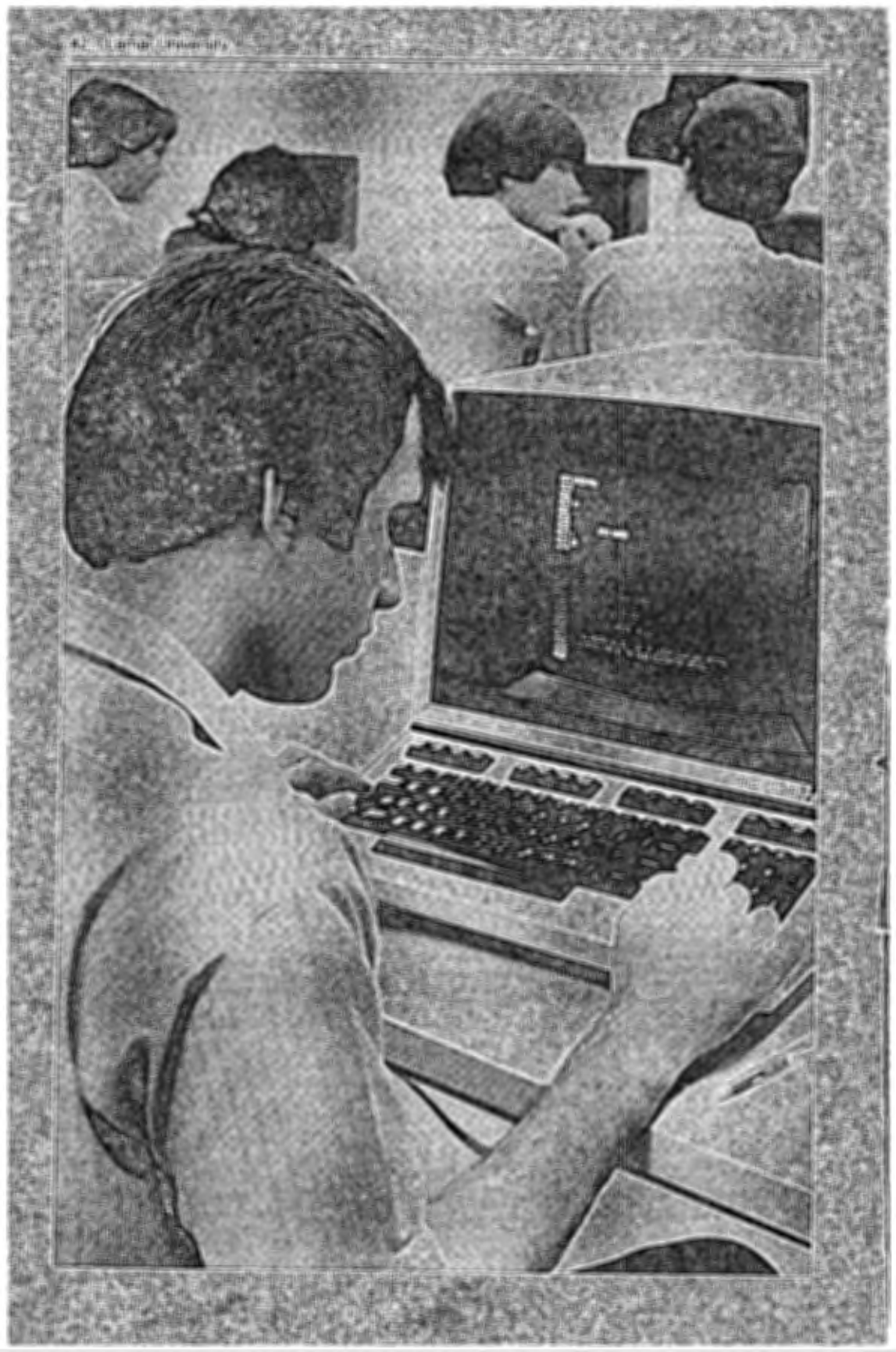
Room and Board fees may be paid in one, two or three installments as outlined on the schedule furnished by the Housing Office. Statements will not be mailed to students or parents and

a $5 late fine will be charged for failure to comply with the established schedule. Failure to pay all room and board fees by the specified date will result in suspension.

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

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 the activity-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.



College of Business

Departments: Accounting; Administrative Services; Economics; Management, Marketing, and Finance
John A. Ryan, Ph.D., Dean
Robert A. Swerdlow, Graduate Coordinator
Charles F. Hawkins, Director of Research Services
Joel L. Allen, Director of J. D. Landes Center for Economic Education
Alfred F. Steiert, Director of Advising Center

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 programs of the College of Business are accredited by the American Assembly of Collegiate Schools of Business.

Four departments—Accounting; Administrative Services; Economics; and Management, Marketing, and Finance—make up the College of Business. The Bachelor of Business Administration degree is granted in all areas. A Bachelor of Arts 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

Members of the faculty of the College of Business believe the education of the modern business man and woman should include a well-rounded general education as well as professional study to provide a thorough understanding of environment and heritage. Such an understanding is necessary if American industries are to meet their responsibilities in a changing social and industrial order.

Of equal importance is the business graduate's understanding of the social, legal, governmental and economic framework within which the American industrial organizations exist and operate. The general educational requirements are patterned to develop such understandings.

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.

Regardless of a graduate's position in the business world, he or she will need to understand the interaction of all areas and functions of business operations. The development of such basic business understandings 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. It prepares a graduate to assume a position of responsibility in business, public service or education.

The attainment of these objectives requires not only a given pattern of courses but also successful teaching and research. In classroom presentation, the College utilizes many approaches including lecture, discussion, case method, individual research projects, etc. Lower level courses are presented primarily from historic and descriptive points of view, while the upper level courses are designed to develop the student's ability to analyze and utilize research findings in problem-solving situation.

Degrees

The Bachelor of Business Administration curriculum consists of three distinct phases: non-professional education, professional specialization and electives.

The degree will be awarded upon the completion of the following:

I. Curriculum Requirements:

A. Non-professional: education courses:
Eco 131, 132 Principles of Economics
English Composition six semester hours
Government 231, 232 American Government
Sophomore American History six semester hours
Literature three semester hours
Mth 134 Mathematics for Business Applications, Mth 1341 Elements of Analysis for Business Applications or Mth 236, 237 Calculus I and II
Four semesters of required physical activity and/or marching band and/or ROTC
Laboratory Science eight semester hours
Soc, Phl, Ant or Psy three semester hours
Spc 131 Speech Communication or
Spc 331 Business and Professional Speech
Approved non-professional education electives six to nine semester hours

B. Pre-professional courses:
Acc/AS/Eco/Mgt 130 Business Environment and Public Polic
CS 133 Introduction to Computer Programming

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 Principles of Management
Mgt 332 Production Management
Mgt 437 Administrative Policy
Mkt 331 Principles of Marketing
OAS 335 Business Communications

D. Professional Specialization (18-24 semester hours):

Slightly different program of courses required by the Department of Administrative Services for students planning to secure teacher certification and by the Department of Economics for economics majors. See Department of Administrative Services and Department of Economics in this bulletin.

Accounting Major (24 semester hours)
Acc 331, 332 Inter Acc
Acc 334 Cost Acc
Acc 338, 339 Tax Acc
Acc 430 Auditing
Acc 431 Adv Acc
Acc elective 3 hours

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)
Eco 332 Money & Banking
Fin 332 Financial Analysis
Fin 333 Insurance
Fin 431 Investments
Fin 432 Financial Markets
Fin 433 Financial Institutions
Fin 434 Real Estate

General Business Major (18 semester hours)
Business Concentration I
Acc 334 Cost Accounting or
Acc 338 Taxation Accounting
Fin 333 Insurance
Fin 431 Investments or
Fin 332 Financial Analysis
Fin 434 Real Estate
Mgt 333 Personnel Management
Mkt 431 Marketing Management
Eleven semester hours of advanced courses in College of Business.

Advertising Communication Concentration II
Art 233 Design III
Art 237 Graphic Design I
Art 3333 Graphic Design II
Com 131 Introduction to Mass Communication
Com 3383 Broadcast Advertising or
Mkt 333 Marketing Promotion
Com 431 Laws and Ethics of Mass Media or
Art 3343 Graphic Design III
Eleven semester hours of advanced courses in College of Business.

Industrial Engineering Concentration III
IE 330 Industrial Engineering
IE 333 Engineering Economy
IE 339 Materials Science and Manufacturing Processes
IE 432 Statistical Decision Making for Engineers
IE 435 Production and Inventory Control
IE 437 Operations Research
Eleven semester hours of advanced courses in College of Business.

Computer Science Concentration IV
BAC 330 Computer Applications in Business or
CS 3304 COBOL Programming
BAC 433 Business Analysis III or
Mgt 438 Management of Computer Installations
CS 230 RPG Programming
CS 3302 Introduction to Computer Systems

CS 4305 Data Structures
and Algorithm Analysis
CS 4306 Techniques of Information
Processing and Retrieval
Eleven semester hours of advanced
courses in College of Business.
Retail Merchandising
Concentration V
HEc 132 Clothing Selection and
Construction
HEc 231 Textiles
HEc 232 Dress Design
HEc 331 Advanced Clothing
Construction
HEc 434 Fashion and Production
HEc 436 Home and Fashion
Merchandising
Eleven semester hours of advanced
courses in College of Business.
Pre-law Concentration VI
Acc 338 Taxation Accounting
Acc 339 Taxation Accounting
BLW 434 Advanced Legal Principles
Fin 332 Financial Analysis or
Eco 336 Survey of Labor Economics
Fin 333 Insurance or
Fin 434 Real Estate
Mkt 438 Small Business Enterprise
Nine semester hours of advanced
courses in College of Business.
Management Major (18 semester hours)
Acc 334 Cost Accounting
Mkt 431 Marketing Management
Mgt 333 Personnel Management
Mgt 431 Budgetary Control
Mgt 432 Organ Behav and Adm or
Mkt 435 Quant Tech in Mkt
BLW 332 Labor Law or
Eco 336 Survey of Labor Economics
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 233 Advanced Typewriting
OAS 336 Word Proc Con & Admin
OAS 337 Elec Word Proc Sys
OAS 338 Sec Office Procedures
OAS 363 Advanced Shorthand & Transcription
OAS 431 Office Management
Office Administration Major — Plan II
(21 semester hours)
OAS 233 Advanced Typewriting
OAS 336 Word Proc Con & Admin
OAS 338 Sec Office Procedures
OAS 363 Advanced Shorthand & Transcription
OAS 431 Office Management
OAS 438 Business Edu Methods
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 Labor 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 128 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 in all work required for degree.

IV. Application for the degree must be made through the Office of the Dean of Business.

The **Bachelor of Arts** 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 in all work required for the degree.

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.

Selection of a Major

Every candidate for a degree must choose a major field in the College of Business. This choice must be made before the beginning of the junior year and is subject to the approval of the head of the department of the major field.

Minor Program in Business

Non-business students may minor in business but without any specialized field of study. Such students should complete Acc/AS/ECO/MGT 130, ECO 131, 132, Acc 231, 232, MGT 331, MKT 331, and FIN 331.

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 Head: M. W. Veuleman **235 Galloway Business Building**
Professors: Bennett, Landes, Veuleman
Associate Professors: Barlow, Davis, Farrar, Jones
Assistant Professors: Croley, Hudson

Business and industry are controlled largely through the findings of adequate accounting systems. Accounting is concerned with the analytical recording of transactions related to a large variety of business, institutions and industries, including interpretations of resulting data. Decisions and policies of significance are based on information obtained through the medium of accounting procedures.

The program in accounting is designed for those students seeking careers in either private or public accounting. Students pursuing this degree program must take all professional courses at Lamar University.

Bachelor of Business Administration — Accounting Major

Recommended Program of Study

First Year

Acc/AS/Eco/Mgt 130 Bus Envir & Pub Policy	3
CS 133 Introduction to Computers	3
Eco 131, 132 Principles	6
Eng Composition	6
Mth 134, 1341 Mathematics for Business Applications & Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II	6
Laboratory Science	8
PE Activity (2 semesters)	2
	34

Second Year

Acc 231, 232 Principles	6
Eng Literature	3
Gov 231, 232 American Government	6
His Sophomore American History	6
Soc, Phl, Ant or Psy	3
Spc 131 or 331	3
PE Activity (2 semesters)	2
Electives	3
	32

Third Year

Acc 331, 332 Interm	6
Acc 338, 339 Taxation Accounting	3
BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mkt 331 Principles of Marketing	3
Electives	5
	35

Fourth Year

Acc 430 Auditing	3
Acc 431 Advanced Accounting	3
Acc 334 Cost Accounting	3
Eco 339 Economics of the Firm	3
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
OAS 335 Business Communications	3
Electives (College of Business)	3
Acc Electives	3
	27

Accounting Courses (Acc)

230 Income Tax 3:3:0
A survey of the Internal Revenue Code with useful applications for the individual and small corporate taxpayer. Includes the preparation of individual and corporation tax forms and related schedules. For non-accounting majors.

231 Principles of Accounting 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, liability accounting and corporate owner's equity accounting.

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, a review and elaboration of accounting principles and specialized accounting topics. Second, cost and managerial accounting with basic cost systems, budgeting and special analyses for management.
Prerequisite: Acc 231 with grade of C.

331 Intermediate Accounting 3:3:0
Analysis of special problems and theories of current assets and corporation accounting: capital stock; retained earnings and dividends; treasury stock; cash; receivables; inventories; net income concepts; corrections of prior year's earnings.
Prerequisite: Acc 231 with a grade of B and Acc 232 with a grade of C.

332 Intermediate Accounting 3:3:0
Continuation of Acc 331 with emphasis on the interpretation of data relative to managerial decisions: investments; fixed assets; liabilities and reserves; analysis of operations; ratios; statement of application of funds.
Prerequisite: Acc 331 with grade of C.

334 Cost Accounting 3:3:0
Job order and process cost approach to the control of manufacturing operation: material; labor; overhead allocation; departmentalization; budgeting; data presentation.
Prerequisite: Acc 232.

337 Municipal and Governmental Accounting 3:3:0
Special procedures for enterprises operating under appropriated budgets with attention given to federal, state, municipal governmental units; bond funds; special assessment funds; general funds; budgets; financial statements.
Prerequisite: Acc 232.

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; standard deduction.
Prerequisite: Acc 232.

339 Taxation Accounting 3:3:0
Provisions of the income tax code as applied to proprietorships, partnerships, estates, trusts and corporations; withholding; inventory; installment sales; reorganizations; filing returns; refunds; social security taxes; estate taxes; gift taxes.
Prerequisite: Acc 338.

430 Auditing 3:3:0
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.
Prerequisite: Acc 332 with grade of C.

431 Advanced Accounting 3:3:0
Analysis of special problems and theories relative to partnership formation and operations: receivership; corporate mergers and acquisitions; branch operations; consolidated statements.
Prerequisite: Acc 332 with a grade of C.

433 C.P.A. Review 3:3:0
Preparation for candidates for the Certified Public Accountants' examination through review and study of problems and questions relative to the examination.
Prerequisite: Consent of the instructor.

434 Advanced Cost Accounting 3:3:0
Standard costs, budgeting and control of manufacturing costs, reporting for managerial evaluation.
Prerequisite: Acc 334.

435 Accounting Systems 3:3:0
Analysis of theoretical models illustrating structure, design and installation of specific accounting systems with emphasis on computer applications.
Prerequisite: Acc 232.

439 Special Topics in Accounting 3:3:0
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 head and instructor.

Department of Administrative Services

Department Head: Nancy S. Darsey **237 Galloway Business Building**
Professors: Kirksey, Darsey
Associate Professors: Spradley, White
Assistant Professors: Dorrell, Johnson, Owens, Snider, Vaughn

The Department of Administrative Services offers degrees in General Business and Office Administration as well as one-year and two-year certificates in Office Administration.

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, Computer Science Concentration, Retail Merchandising Concentration, and Pre-law Concentration.

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 programming, 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.

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.

Pre-law

The Department of Administrative Services offers a four-year program especially designed for law students. Students completing the program may enter directly into the law school of their choice.

Recommended Programs of Study

Bachelor of Business Administration

General Business Major—Business Concentration—Plan I

First Year		Second Year	
Acc/As/Eco/Mgt 130 Business Environment and Public Policy	3	Acc 231, 232 Principles	6
CS 133 Introduction to Computers	3	Eng Literature	3
Eco 131, 132 Principles	6	Gov 231, 232 American Government	6
Eng Composition	6	His Sophomore American History	6
Mth 134, 1341 Mathematics for Business Applications & Elements of Analysis for Business Applications or 236, 237 Calculus I & II	6	Soc, Phl, Ant or Psy	3
Laboratory Science	8	Spc 131 or 331	3
PE Activity	2	PE Activity	2
		Electives (non-business)	3
	34		32

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 Principles of Marketing 3
OAS 335 Business Communications 3
Electives (non-business) 3
Electives (College of Business 300 or 400 Level) 6

33

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 3
Fin 431 Investments or Fin 332 Financial Analysis 3
Fin 434 Real Estate 3
Mgt 333 Personnel Management 3
Mgt 437 Administrative Policy 3
Mkt 431 Marketing Management 3
Electives (College of Business 300 or 400 Level) 5

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Advertising Communication Concentration—Plan II

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy 3
CS 133 Introduction to Computers 3
Eco 131, 132 Principles 6
Eng Composition 6
Mth 134, 1341 Mathematics for Business Applications &
Elements of Analysis for Business Applications or 236, 237 Calculus I & II 6
Laboratory Science 8
PE Activity 2

34

Second Year

Acc 231, 232 Principles 6
Eng Literature 3
Gov 231, 232 American Government 6
His Sophomore American History 6
Soc, Phl, Ant or Psy 3
Spc 131 or 331 3
PE Activity 2
Electives (non-business) 3

32

Third Year

BAC 331, 332 Business Analysis 6
BLW 331 Business Law 3
Com 131 Introduction to Mass Communication 3
Fin 331 Principles of Finance 3
Mgt 331 Principles of Management 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) 5

32

Fourth Year

Art 233 Design III 3
Art 237 Graphic Design I 3
Art 3333 Graphic Design II 3
Com 3383 Broadcast Advertising or Mkt 333 Marketing Promotion 3
Com 431 Laws and Ethics of Mass Media or Art 3343 Graphic Design III 3
Eco 334 Macro Economics or Eco 339 Economics of the Firm 3
Mgt 437 Administrative Policy 3
Elective (non-business) 3
Electives (College of Business 300 or 400 Level) 6

30

Industrial Engineering Concentration—Plan III

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy 3
CS 133 Introduction to Computers 3
Eco 131, 132 Principles 6
Eng Composition 6
Mth 134, 1341 Mathematics for Business Applications &
Elements of Analysis for Business Applications or 236, 237 Calculus I & II 6
Laboratory Science 8
PE Activity 2

34

Second Year

Acc 231, 232 Principles 6
Eng Literature 3
Gov 231, 232 American Government 6
His Sophomore American History 6
Soc, Phl, Ant or Psy 3
Spc 131 or 331 3
PE Activity 2
Elective (non-business) 3

32

Third Year

BAC 331, 332 Business Analysis 6
BLW 331 Business Law 3
Fin 331 Principles of Finance 3
IE 330 Industrial Engineering 3
Mgt 331 Principles of Management 3
Mkt 331 Principles of Marketing 3
OAS 335 Business Communications 3
Elective (non-business) 3
Electives (College of Business 300 or 400 Level) 5

32

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 Processes 3
IE 432 Statistical Decision Making 3
IE 435 Production and Inventory Control 3
IE 437 Operations Research 3
Mgt 332 Production Management 3
Mgt 437 Administrative Policy 3
Electives (College of Business 300 or 400 Level 6

30

Computer Science Concentration—Plan IV

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy 3
CS 133 Introduction to Computers 3
Eco 131, 132 Principles 6
Eng Composition 6
Mth 134, 1341 Mathematics for Business Applications &
Elements of Analysis for Business Applications or 236, 237 Calculus I & II 6
Laboratory Science 8
PE Activity 2

34

Second Year

Acc 231, 232 Principles 6
Eng Literature 3
Gov 231, 232 American Government 6
His Sophomore American History 6
Soc, Phl, Ant or Psy 3
Spc 131 or 331 3
PE Activity 2
Elective (non-business) 3

32

Third Year

BAC 330 Comp Appl Bus COBOL or CS 3304 COBOL Prog 3
BAC 331, 332 Business Analysis 6
BLW 331 Business Law 3
CS 230 RPG Programming 3
CS 3302 Introduction to Computer Systems 3
Fin 331 Principles of Finance 3
Mgt 331 Principles of Management 3
Mkt 331 Principles of Marketing 3
OAS 335 Business Communications 3
Electives (College of Business 300 or 400 Level) 2

32

Fourth Year

BAC 433 Business Analysis III or Mgt 438 Mgt Comp Install 3
CS 4305 Data Structures and Algorithm Analysis 3
CS 4306 Information Processing and Retrieval 3
Eco 334 Macro Economics or Eco 339 Economics of the Firm 3
Mgt 332 Production Management 3
Mgt 437 Administrative Policy 3
Elective (non-business) 3
Electives (College of Business 300 or 400 Level) 9

30

Retail Merchandising Concentration—Plan V

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy 3
CS 133 Introduction to Computers 3
Eco 131, 132 Principles 6
Eng Composition 6
Mth 134, 1341 Mathematics for Business Applications &
Elements of Analysis for Business Applications or 236, 237 Calculus I & II 6
Laboratory Science 8
PE Activity 2

34

Second Year

Acc 231, 232 Principles 6
Eng Literature 3
Gov 231, 232 American Government 6
His Sophomore American History 6
Soc, Phl, Ant or Psy 3
Spc 131 or 331 3
PE Activity 2
Elective (non-business) 3

32

Third Year

BAC 331, 332 Business Analysis 6
BLW 331 Business Law 3
Fin 331 Principles of Finance 3
HEc 132 Clothing Selection and Construction 3
HEc 231 Textiles 3
Mgt 331 Principles of Management 3
Mkt 331 Principles of Marketing 3
OAS 335 Business Communications 3
Electives (College of Business 300 or 400 Level) 5
32

Fourth Year

Eco 334 Macro Economics or Eco 339 Economics of the Firm 3
HEc 232 Dress Design 3
HEc 331 Advanced Clothing Construction 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
Elective (non-business) 3
Electives (College of Business 300 or 400 Level) 6
30

Pre-Law Concentration—Plan VI

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy 3
CS 133 Introduction to Computers 3
Eco 131, 132 Principles 6
Eng Composition 6
Mth 134, 1341 Mathematics for Business Applications &
Elements of Analysis for Business Applications or 236, 237 Calculus I & II 6
Laboratory Science 8
PE Activity 2
34

Second Year

Acc 231, 232 Principles 6
Eng Literature 3
Gov 231, 232 American Government 6
His Sophomore American History 6
Soc, Phl, Ant or Psy 3
Spc 131 or 331 3
PE Activity 2
Elective (non-business) 3
32

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 Principles of Marketing 3
OAS 335 Business Communications 3
Electives (non-business) 5
Electives (College of Business 300 or 400 Level) 3
32

Fourth Year

Acc 338 and 339 Tax Acc 6
BLW 434 Advanced Legal Principles 3
Eco 334 Macro Economics or Eco 339 Economics of the Firm 3
Fin 332 Financial Analysis or Eco 336 Survey of Labor Economics 3
Fin 333 Insurance or Fin 434 Real Estate 3
Mgt 437 Administrative Policy 3
Mkt 438 Small Business Enterprise 3
Electives (College of Business 300 or 400 Level) 6
30

Bachelor of Business Administration
Office Administration Major

Plan I—This program is designed for those students seeking professional careers in secretarial and office administration.

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy 3
Eco 131, 132 Principles 6
Eng Composition 6
Laboratory Science 8
Mth 134 & 1341 Bus Math & Analysis or Mth 236 & 237 Calculus I & II 6
OAS 233 Advanced Typewriting 3
PE (2 semesters) 2
34

Second Year

Acc 231, 232 Principles 6
CS 133 Introduction to Computers 3
Eng Literature 3
Gov 231, 232 American Government 6
His Sophomore American History 6
Spc 131 or 331 3
PE (2 semesters) 2
Elective 3
32

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 Principles of Marketing 3
OAS 363 Advanced Shorthand & Transcription 6
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 Word Processing Concepts & Administration. 3
OAS 337 Electronic Word Processing Systems 3
OAS 338 Secretarial Office Procedures 4
OAS 431 Office Management 3
Soc, Phl or Ant 3
Electives (College of Business
300 or 400 Level) 8

32

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.

First Year

CS 133 Comp Prog 3
Eco 131, 132 Principles 6
Eng Composition 6
Laboratory Science 8
Mth 134 & 1341 Bus Math & Analysis or
Mth 236 & 237 Calculus I & II 6
OAS 233 Advanced Typewriting 3
PE (2 semesters) 2

34

Second Year

Acc 231, 232 Principles 6
Eng Literature 6
Gov 231, 232 American Government 6
His Sophomore American History 6
Spc 131 or 331 3
PE (2 semesters) 2
Elective 3

32

Third Year

BAC 331 Business Analysis 3
BLW 331 Business Law 3
Edu 331 Foundations 3
Edu 332 Educational Psychology 3
Edu 338 Curriculum, Materials and Evaluation 3
Fin 331 Principles of Finance 3
Mgt 331 Principles of Management 3
Mkt 331 Principles of Marketing 3
OAS 363 Advanced Shorthand & Transcription 6
Elective (Restricted) 3

33

Fourth Year

Edu 438 Classroom Management 3
Edu 462 Student Teaching 6
Mgt 332 Production Management 3
Mgt 437 Administrative Policy 3
OAS 335 Business Communications 3
OAS 336 Word Processing Concepts & Administration. 3
OAS 338 Secretarial Office Procedures 4
OAS 431 Office Management 3
OAS 438 Business Education Methods 3
Elective 3

33

Two-Year Certificate of Completion in Office Administration

First Year

Eco 131, 132 Principles 6
Eng Composition 6
Mth 134 Mathematics for Business Applications 3
OAS 131 Secretarial Communications 3
OAS 134 Office Machines 3
OAS 135 Records Management 3
OAS 233 Advanced Typewriting 3
Spc 131 Public Speaking 3
PE (Activity) 2

32

Second Year

Acc 231, 232 Principles 6
BLW 331 Business Law 3
CS 133 Introduction to Computers 3
Eng Literature 3
OAS 336 Word Processing Concepts & Administration. 3
OAS 337 Electronic Word Processing Systems 3
OAS 338 Secretarial Office Procedures 4
OAS 363 Advanced Shorthand & Transcription 6
Elective 3

33

One-Year Certificates

Stenographic Option

CS 133 Introduction to Computers 3
Eng Composition 6
OAS 131 Secretarial Communications 3
OAS 134 Business Machines 3
OAS 135 Records Management 3
OAS Shorthand (2 courses) 6
OAS Typewriting (2 courses) 6
PE (Activity) 2

32

Clerical Option

Acc 231 Prin 3
CS 133 Introduction to Computers 3
Eco 131 Principles 3
Eng Composition 3
OAS 131 Secretarial Communications 3
OAS 134 Business Machines 3
OAS 135 Records Management 3
OAS Typewriting (2 courses) 6
PE (Activity) 2

32

Administrative Services Courses (AS)

130 Business Environment and Public Policy 3:3:0
Survey course emphasizing interaction of business with its external and internal environments. Introduction to public policy process and issues with focus on ethical and moral considerations. Recommended for freshman, especially business majors.

411-414 Special Topics in Administrative Services 1:A:0
Intensive investigation of topics in business analysis, business computers, law, or office administration. Library and/or laboratory and conferences with supervising faculty member. May be repeated when area of study differs.
Prerequisite: Approval of department head and instructor.

421-424 Special Topics in Administrative Services 2:A:0
Intensive investigation of topics in business analysis, business computers, law, or office administration. Library and/or laboratory and conferences with supervising faculty member. May be repeated when area of study differs.
Prerequisite: Approval of department head and instructor.

431-434 Special Topics in Administrative Services 3:A:0
Intensive investigation of topics in business analysis, business computers, law, or office administration. Library and/or laboratory and conferences with supervising faculty member. May be repeated when area of study differs.
Prerequisite: Approval of department head and instructor.

Business Analysis and Computers Courses (BAC)

230 Elementary FORTRAN Applications to Business 3:3:0
An introductory course to familiarize business students with elementary applications of FORTRAN as needed in special business situations.
Prerequisite: CS 133.

330 Computer Application in Business COBOL 3:3:0
Emphasis on utilizing the resources of COBOL in business applications such as payrolls, accounts receivable and payable, invoice extensions, tax accounting problems and invoice updating.
Prerequisite: CS 133.

331 Business Analysis I 3:3:0
Introduction to the quantitative methods of analysis as applied to business problems. Topics of study include collection of data, statistical description, business forecasting through time series analysis, index numbers, and probability in business decision making. Computer package programs are used throughout the course in analyzing realistic business problems.
Prerequisite: 6 hours of approved math.

332 Business Analysis II 3:3:0
A continuation of BAC 331. Emphasis on use of statistics in business decision making. Topics of study include probability distribution sampling and estimation, hypothesis testing in business research, business forecasting through regression analysis, Bayesian and chi-square analyses. Computer package programs are used throughout the course in analyzing realistic business problems.
Prerequisite: BAC 331.

333 Computer Applications in Business FORTRAN 3:3:0
Emphasis on utilizing the resources of FORTRAN in statistical and other business applications, such as measures of central tendency and dispersion, amortization schedules, depreciation and correlation analysis.
Prerequisite: BA 230 or equivalent.

433 Business Analysis III 3:3:0
An intermediate course in business analysis to prepare students for better utilization of quantitative techniques in every phase of business. Topics include analysis of variance, simple and multiple correlation and regression analysis, statistical decision theory and selected non-parametic statistical techniques.
Prerequisite: BAC 332.

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 Labor Law 3:3:0
Historical interpretations and present provisions of regulations governing labor. Common law; state and federal statues; Fair Labor Standards Act; workmen's compensation; social security; liability; United States Department of Labor; social legislation.

434 Advanced Legal Principles 3:3:0
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 Petroleum Law 3:3:0
Survey of the legal factors involved in oil and gas ownership and production. Topics include rights and duties of the landowner; rights and duties of the producer and other parties to a lease; oil and gas leases; types of property interests in oil and gas leases; basics of pooling and utilization and problems commonly encountered in conveying of rights and ownership.
Prerequisite: BLW 331.

Office Administration Courses (OAS)

121 Beginning Typewriting 2:1:2
Introduction to the touch system on electric typewriters. Development of typewriting techniques as a foundation for skill development and transfer to electronic keyboarding equipment. Simple letter forms and manuscripts for students' personal use.

131 Secretarial Communications 3:3:0
Practical secretarial projects emphasizing use of functional English in correspondence; good judgement in other secretarial communications.
Limited to students pursuing one- or two-year certificate programs.

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 adding and calculating machines, duplicating machines, transcription machines, key punch and automatic typewriter.
Prerequisite: OAS 121 or comparable typewriting skill.

135 Records Management 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.

231 Beginning Shorthand 3:2:2
Introduction of either Gregg Diamond Jubilee or Century 21 Shorthand. Reading; writing; theory principles; brief or speed forms; previewed dictation.

232 Intermediate Shorthand 3:2:2
Intensification of shorthand reading and writing skills. Brief form or speed form and theory review; speed-building dictation; pretranscription practice.
Prerequisite: OAS 231 or equivalent.

233 Advanced Typewriting 3:2:2
Application of acquired typewriting skills and knowledge to planning, organizing, and typewriting a variety of production problems with professional speed and efficiency. Includes business forms, statistical tables, financial statements, legal documents, reports, and correspondence.
Prerequisite: OAS 132 or equivalent.

262 Beginning-Intermediate Shorthand 6:4:4
Intensive introduction to either Gregg Diamond Jubilee Shorthand or Century 21 Shorthand. (OAS 262 equivalent to OAS 231 and OAS 232). Reading; writing; theory principles; brief or speed forms and theory; previewed dictation; pretranscription practice.

334 Dictation and Transcription 3:3:0
Stress on building shorthand speed and improving mailable-letter transcription skill. Vocabularly development; sustained dictation; volume production.
Prerequisite: OAS 363 or equivalent.

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 Word Processing Concepts and Administration 3:3:0
Concepts of word processing; phases; planning the work areas and work loads; teamwork; decision making; systems approach; cost control; office organization; management, and supervision of word processing installations. Comparison of features and capabilities of various automatic typewriter systems.

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 and 336.

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.

363 Advanced Shorthand and Transcription 6:4:4
Improvement of ability to take dictation and transcribe mailable copy. Theory principles; brief or speed form derivatives; vocabulary development; speed building; mailable transcription; office-style dictation.
Prerequisite: OAS 232 or equivalent.

431 Office Management 3:3:0
Administrative management of business offices; social, legal, and ethical considerations in office management; employee recruitment, training, supervision, and motivation; information systems; office location and layout; selection of equipment and supplies; office cost control.

432 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.

438 Business Education in the Secondary School 3:3:0
Teaching theories, materials, methods, and evaluation in business education with emphasis on motor-skill subjects. Other topics include history and trends, course planning, teaching aids and resources, and ethics and professional growth.

Department of Economics

Department Head: Hi K. Kim **240 Galloway Business Building**
Professors: Kim, Parigi, Partin
Associate Professors: Hawkins, Pearson
Assistant Professors: C. Allen, J. Allen, Montano, Price
Instructor: Alliston

The Department of Economics offers two degrees:

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 non-profit organizations.

Bachelor of Arts: 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 or education.

Representative employment opportunities for both degrees are found in banking, government, industrial relations, management, research and forecasting, communications, international trade and sales.

Teacher Certification—Economics

Students of secondary education wishing to certify in Economics as a teaching field, see Department of Secondary Education 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

Bachelor of Business Administration — Economics Major

First Year

Eco 131, 132 Principles	6
Eng Composition	6
Mth 134 & 1341 Business & Analysis or Mth 236 & 237 Calculus I & II	6
Laboratory Science	8
CS 133 Introduction to Computers	3
PE Activity	2
	31

Second Year

Acc 231, 232 Principles	6
Eng Literature	3
Gov 231, 232 American Government	6
His Sophomore American History	6
PE Activity	2
Soc, Phil or Ant	3
Spc 131 Public Speaking	3
Elective	3
	32

Third Year

BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mkt 331 Principles	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
	33

Fourth Year

Eco 332 Money and Banking	3
Eco 4315 Government and Business	3
Mgt 331 Principles of Management	3
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
OAS 335 Business Communications	3
*Electives	12
	30

**Electives must include 9 semester hours of advanced courses in economics, and six semester hours of approved, advanced electives.*

Bachelor of Arts — Economics Major

First Year

Eco 131, 132 Principles	6
Eng Composition	6
Mth 134 & 1341 Business & Analysis or Mth 236 & 237 Calculus I & II	6
Laboratory Science	8
PE Activity	2
Elective	3
	31

Second Year

Eng Literature	3
Foreign Language	6
Gov 231, 232 American Government	6
His Sophomore American History	6
CS 133 Introduction to Computers	3
PE Activity	2
Elective	6
	32

Third Year

Eco 333 Interm Theory	3
Eco 334 Macro Economics	3
Eco 339 Economics of the Firm	3
BAC 331, 332 Business Analysis	6
OAS 335 Business Communications	3
Foreign Language	6
*Electives	9
	33

Fourth Year

Eco 332 Money and Banking	3
Eco 433 History of Economic Thought	3
*Electives	24
	30

**Electives include nine semester hours of advanced courses in economics, and six semester hours of approved, advanced electives.*

Economics Courses (Eco)

131 Principles (Micro) 3:3:0

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.

230 Current Economic Issues 3:3:0

A survey of current economic issues and problems: energy, environment, inflation, unemployment, tax structures, organization of industries and markets, and consumerism. Issues discussed will vary in order to emphasize topics of greatest concern. Course may be taken for credit by majors or non-majors.

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: 6 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: 6 hours of Economics.

333 **Intermediate 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, stablilization 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 Labor 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: 6 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; business forecasting; demand analyses; cost analyses; game theory; pricing policies; governmental relations.
Prerequisite: Eco 131.

4101, 4201, 4301, 4401, 4501, 4601 **Institute in Economics** 1-6:1-6:2-4
Institutes are designed to advance the professional competence of participants. The description of the area of study of each institute will appear on the printed semester schedule. When courses are conducted in sufficiently different areas and with the approval of the department head, a participant may repeat the course for credit.

4111, 4211, 4311, 4411, 4511, 4611 **Problems in Economics** 1-6: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 Urban 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** 3:3:0
An analytical, institutional, historical and empirical analysis of monetary theory, and its interrelations with the generally accepted economic goals.
Prerequisite: Eco 132, 332, or 334 or approval of instructor.

4315 **Government and Business** 3:3:0
Promotion, regulation and restriction of business enterprises by government. Regulatory agencies; antitrust laws; consumerism; transportation; industrial organization and concentration and the eco-legal environment.

433 **History of Economic Thought** 3:3:0
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: 3 hours of Economics.

435 **Comparative Economic Systems** 3:3:0
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: 3 hours of Economics.

436 **Business Cycles** 3:3:0
The nature and causes of business cycles. Cyclical theories; business fluctuations; forecasting stabilization; current problems. *Prerequisite: 6 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.

439 **Mathematical Economics** 3:3:0
A formulation of economic theory in mathematical terms. Special attention is given to general equilibrium analysis; interindustry economics and activity analysis.
Prerequisite: Eco 131, 132, Mth 1341 or differential and integral calculus.

Department of Management—Marketing—Finance

Department Head: Charles D. McCullough **236 Galloway Business Building**
Professors: Cherry, McCullough, Ryan
Associate Professors: Swerdlow, Taylor, White, Williams, Wooten
Assistant Professors: Bilici, Brust, Godkin, Goetz, Jones, Steiert
Management-Finance Coordinator: Bob Wooten

Degree Programs

Finance

The finance program is designed in such a way that a graduate of the program will have a broad education in the financial aspects of our economy and will be qualified for a wide variety of positions in financial institutions and financial departments of business firms.

Management

The purpose of the management curriculum is to give the student an understanding of the fundamentals of management and the relationship between all functional areas of business control. This program will equip the student to advance more rapidly to an executive position in industry. A student may specialize in personnel management or in production management by exercising given options in the pattern of course work required.

Personnel Administration

The Bachelor of business Administration in Personnel Administration offers professional training in areas of personnel management specialization. The curriculum is designed to provide the student with an understanding of personnel management and to educate majors in recognized functional fields of leadership in business and industry. The functional areas are: (1.) Employment, placement, and personnel planning. (2.) Training and development. (3.) Compensation and benefits. (4.) Health, safety, and security. (5.) Employment and labor relations. (6.) Personnel research.

After passing an examination in one of the functional areas listed above and meeting minimum experience requirements, the successful candidate will be awarded Accredited Personnel Specialist (APS) status.

Marketing

The marketing curriculum provides information concerning buying, transporting and selling of goods as now performed by the service organizations in our economy. Over one-fourth of all the employed workers in America are engaged in some phase of marketing. This field has countless opportunities for specialists.

Academic Counseling

During the first two years of academic work in the College of Business, a finance, 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) before advancing to junior (300 level) courses. This will insure completion of junior level course prerequisites.

First Year

First Semester		Second Semester	
Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3	Eng Composition	3
Eng Composition	3	Eco 132 Principles	3
Eco 131 Principles	3	CS 133 Introduction to Computers	3
Mth 134 Mathematics for Business Applications or Mth 236 Calculus I	3	Mth 1341 Elements of Analysis for Business or Mth 237 Calculus II	3
Laboratory Science	4	Laboratory Science	4
PE/MLb/ROTC	1-2	PE/MLb/ROTC	1-2
	17-18		17-18

Second Year

First Semester		Second Semester	
Eng Literature	3	Spc 131 or 331	3
His Sophomore American History	3	His Sophomore American History	3
Acc 231 Principles	3	Acc 232 Principles	3
Gov 231 American Government I	3	Gov 232 American Government II	3
Soc or Psy	3	*Elective (non-business)	3
PE/MLb/ROTC	1-2	PE/MLb/ROTC	1-2
	16-17		16-17

**PE Activity not acceptable.*

Recommended Programs of Study

Bachelor of Business Administration—Finance Major

(See Core Program of First and Second Year)

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
Eco 332 Money and Banking	3	Fin 333 Insurance	3
Fin 331 Principles of Finance	3	Fin 431 Investments	3
Mkt 331 Principles of Marketing	3	Mgt 331 Principles of Management	3
*Elective (non-business)	3		
	18		15

Fourth Year

First Semester		Second Semester	
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3	Fin 433 Financial Institutions	3
Fin 432 Financial Markets	3	Fin 434 Real Estate	3
Mgt 332 Production Management	3	Mgt 437 Administrative Policy	3
OAS 335 Business Communications	3	*Elective (non-business)	3
Elective (College of Business 300 or 400 Level)	3	Elective (College of Business 300 or 400 Level)	3
	15		15

PE Activity not acceptable.

Bachelor of Business Administration Personnel Administration (Accreditation)

(See Core Program for First and Second Year)

Third Year

First Semester		Second Semester	
BLW 331 Business Law	3	Fin 331 Principles of Finance	3
Mkt 331 Principles of Marketing	3	Mgt 331 Principles of Management	3
BAC 331 Business Analysis I	3	BAC 332 Business Analysis II	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3	OAS 335 Business Communications	3
*Elective (non-business)	3	**Psy 335 Motivation	3
	15		15

Fourth Year

First Semester		Second Semester	
Psy 336 Psy Tests & Measurements	3	BLW 332 Labor Law or Eco 336 Survey of Labor Economics	3
Mgt 333 Personnel Management	3	Mgt 437 Administrative Policy	3
Mgt 432 Organizational Behavior and Administration	3	Mgt 433 Personnel Accreditation Review	3
Mgt 332 Production Management	3	OAS 431 Office Management	3
Elective (College of Business 300 or 400 Level)	6	Elective (College of Business 300 or 400 Level)	3
	18		15

PE Activity not acceptable.
***Prerequisite: Psy 131.*

Bachelor of Business Administration Management Major

(See Core Program for First and Second Year)

Third Year

First Semester		Second Semester	
Acc 334 Cost Accounting	3	Fin 331 Principles of Finance	3
BAC 331 Business Analysis I	3	BAC 332 Business Analysis II	3
BLW 331 Business Law	3	Mgt 332 Production Management	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3	Mgt 333 Personnel Management	3
Mgt 331 Principles of Management	3	Mkt 331 Principles of Marketing	3
*Elective (non-business)	3		
	18		15

Fourth Year

First Semester		Second Semester	
BLW 332 Labor Law or Eco 336 Survey of Labor Ecomonics	3	Mgt 437 Administrative Policy	3
Mgt 431 Budgetary Control	3	Mkt 431 Marketing Management	3
Mkt 435 Quantitative Techniques in Marketing or Mgt 432 Organizational Behavior and Administration	3	*Elective (non-business)	3
OAS 335 Business Communications	3	Elective (College of Business 300 or 400 Level)	3
Elective (College of Business 300 or 400 Level)	3	Elective (College of Business 300 or 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		Second Semester	
BAC 331 Business Analysis I	3	BAC 332 Business Analysis II	3
Fin 331 Principles of Finance	3	BLW 331 Business Law	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3	Mgt 332 Production Management	3
Mgt 331 Principles of Management	3	Mkt 332 Principles of Retailing	3
Mkt 331 Principles of Marketing	3	Mkt 333 Marketing Promotion or Mkt 432 Buyer Behavior	3
*Elective (non-business)	3		
	18		15

Fourth Year

First Semester		Second Semester	
Mkt 431 Marketing Management	3	Mgt 437 Administrative Policy	3
Mkt 435 Quantitative Techniques in Marketing or Mkt 433 International Marketing	3	Mkt 437 Advanced Marketing Problems	3
Mkt 436 Marketing Research	3	*Elective (non-business)	3
OAS 335 Business Communications	3	Elective (College of Business 300 or 400 Level)	3
Elective (College of Business 300 or 400 Level)	3	Elective (College of Business 300 or 400 Level)	3
	15		15

PE Activity not acceptable.

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 process and issues with focus on ethical and moral considerations.
Recommended for freshmen who have an interest in business.

331 Principles of Management 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.

419 Special Problems in Business 1:A:0
Investigation into special areas in business under the direction of a faculty member.

429 Special Problems in Business 2:A:0
Investigation into special areas in business under the direction of a faculty member.

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 Organizational Behavior and Administration 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 Personnel Accreditation Review 3:3:0
Comprehensive study of seven specialized areas of related subject matter designed to prepare candidates for the professional personnel accreditation examination.
Prerequisite: Consent of the instructor.

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, 332, 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 133.

439 Special Problems in Business 3:A:0
Investigation into special areas in business under the direction of a faculty member.

449 Special Problems in Business 4:A:0
Investigation into special areas in business under the direction of a faculty member.

Marketing Courses (MKT)

331 Principles of Marketing 3:3:0
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.

332 Principles of Retailing 3:3:0
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 U.S. business is stressed. A detailed analysis 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 Enterprise** 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.

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 and business. Emphasis is placed on problems concerning financial planning, investments in real estate, personal property, insurance, and securities.
Prerequisite: Non-finance majors only.

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** 3:3:0
A study of the operation of supply and demand for funds in financial markets to determine interest rates. Topics include sectional supply, demand factors, and the analysis of markets for specific types of financial instruments.
Prerequisite: Fin 331.

433 **Financial Institutions** 3:3:0
A survey of the operating characteristics, sources and uses of funds and regulatory environment of the major financial institutions in the U.S. economy.
Prerequisite: Fin 331.

434 **Real Estate** 3:3:0
A survey of real estate principles and practices, including the law of real property, real estate appraisal, marketing and finance.
Prerequisite: Junior standing.

College of Education

Departments: Elementary Education, Secondary Education, Special Education, Health and Physical Education, Home Economics.
James O. Schnur Ed.D., Dean
Vernon H. Griffin, Ed.D., Director of Certification and Graduate Studies
E. Lee Self, Ph.D., Director of Field Experiences

The College of Education was established in 1959 and includes the departments of Elementary Education, Secondary Education, Special Education, Health and Physical Education for Men, Health and Physical Education for Women and Home Economics.

Providing education for prospective teachers is a tradition of the University. Non-teaching specialties in home economics and health and physical education are more recent offerings representing diversification and growth of the College of Education.

Degree and certification programs are described in separate departmental sections of this bulletin.

Information concerning graduate programs may be obtained in the Graduate Bulletin.

Degrees Offered

Bachelor of Science with majors in the following fields:

Elementary Education	Health Education
Secondary Education	Home Economics
Special Education	Physical Education
	Dance

Bachelor of Arts with a major in Dance
Associate of Science

Objectives

The faculty of the College of Education plans its curricula to provide graduates with solid academic foundations. This general education provides background in the social, economic and cultural aspects of contemporary life and is designed to give prospective teachers more understanding and wider experience on which to base their teaching careers.

Professional education programs have been built on a broad use of theory and principles which consider but do not emphasize techniques, so practitioners may grow and develop with changes in theory and technology.

The faculty integrates academic and professional study through lectures and discussions, through the observation of children in the teaching-learning process, through supervised student teaching and through the utilization of the best available equipment and materials.

Teacher Education—A Shared Responsibility

The preparation of teachers is a responsibility shared by all of the colleges of the University. Policies concerning teacher education programs and the actual curriculum requirements in each program are determined by the Teacher Education Council. This Council is composed of faculty members who represent the various departments of the University offering teacher education programs. Within the framework of the policies established, the College of Education coordinates all teacher education programs throughout the institution.

Teacher Education Programs

Lamar University provides undergraduate programs of teacher education which fulfill the curriculum requirements for the following Provisional Certificates in the State of Texas: elementary education, secondary education, generic special education, mental retardation, physically handicapped/minimal brain injury, emotionally distrubed, language and/or learning disabilities, early childhood/exceptional children, education of the deaf, speech and hearing therapy, driver education, all-levels music, all-levels art, kindergarten education and vocational home economics.

Information concerning graduate teacher education programs and professional certification may be found in the Graduate Studies Bulletin.

Admission to Teacher Education

Application for admission to the teacher education program is made at the beginning of the junior year. Applications are made during the time students are enrolled in Education 331 or 332. Transfer students who have had one or more courses in education must apply directly to the chariman of the selection committee. To be eligible for Education 331 or 332 or the first course in education taken at Lamar University, in the case of transfer students, the student must present a 2.0, C, overall grade point average in courses taken at Lamar. The student also must have successfully completed 60 hours, including the required 100 level courses in English and mathematics listed in Academic Foundations.

Prior to admission, students must demonstrate ability to write clear and correct English. Students may, at the discretion of the teacher education selection and retention committee, be required to pass examinations in speech, hearing and general physical health. Additional admission standards are set by the selection and retention committee, as approved by the Teacher Education Council.

Admission to Student Teaching

Students wishing to enroll in student teaching must be selected and approved in order to be eligible to register for this course. Applications for student teaching must be submitted to the director of student teaching by May 1, prior to the academic year for which student teaching is planned. This includes applications for the Spring Semester as well as applications for the Fall. Failure to follow this procedure may delay admission to the student teaching program by at least one semester.

In order to qualify for student teaching, students must meet the following standards:

1. Be of senior standing.
2. Possess a grade point average of 2.0 in all work taken at Lamar, in all subject areas in which he/she intends to teach and in all professional education courses completed.
3. Have completed adequate hours and courses in content areas in which he/she is certifying to teach.
4. Have completed all prerequisite courses in professional education.
5. Be formally admitted to the teacher education program.
6. Be approved by the director of student teaching.
7. Have completed six semester hours in education courses at this university prior to student teaching.
8. Have completed six hours in each teaching field (secondary), or in the area of specialization (elementary), at this University prior to student teaching (unless this requirement has been waived in writing by each of the concerned department heads).

Certification Policies

To be recommended for a teaching certificate, the applicant must present:

1. A grade point average of 2.0, (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 six hours in residence at Lamar in professional education courses.
3. A minimum of six hours in residence at Lamar.
    a. In each teaching field for secondary education (unless this requirement is waived in writing by the head of the department).
    b. In the area of specialization for elementary education (unless this requirement is waived in writing by the head of the department).

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 and all-levels speech and hearing therapy. Provisional Certificate endorsements are available in driver education, kindergarten education and in several areas of special education. 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 developent, and (4) free electives. Programs require the completion of 126 to 132 semester hours.

Academic foundation requirements for certificate programs are described below. Other requirements are outlined under the departmental sections of the bulletin.

Academic Foundations (54 to 60 semester hours)

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 ..... 42 hours
   - English Composition ..... 6 hours
   - Eng Literature ..... 6 hours
   - Mth (to include at least one course at or above the level of Mth 1334 ..... 6 hours
   - Science Laboratory (same science) ..... 8 hours
   - Gov 231 Intro Am Gov I ..... 3 hours
   - Gov 232 Intro Am Gov II ..... 3 hours
   - His Sophomore American History ..... 6 hours
   - PE Activity (four semesters) ..... 4 hours

   42 hours
2. Foundations electives and degree requirements ..... 12 to 18 hours

   These hours must be selected from approved courses in the following groups with courses included from a minimum of three groups:

   Group I: English, Foreign Language, Philosophy, Bible.
   Group II: Art, Music, Speech.
   Group III: Biology, Chemistry, Mathematics, Geology, Physics.
   Group IV: History, Government, Economics, Geography.
   Group V: Sociology, Anthropology, Psychology.

Special Certificates and Endorsements

All-levels Art degree and certificate. Described in the "Art" section of this bulletin.

Athletic Training. Described in the "Department of Health and Physical Education for Men" section of this bulletin.

Driver education endorsement. Described in the "Department of Health and Physical Education for Men" 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.

Special education certificate endorsements. Described in the "Special Education" section of this bulletin.

Education of the deaf and speech and hearing therapy. Described in the "Communication" section of this bulletin.

Vocational Home Economics degree and certificate. Described in the "Home Economics" section of this bulletin.

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 office of the Director of Certification in the College of Education.
2. Persons with degrees from Texas colleges and persons with degrees from out-of-state colleges apply to the Director of Certification in the College of Education 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 may obtain information from the Dean of the College of Education.

Professional Certificates

Requirements for Professional Certificates are described in the Graduate Bulletin.

Department of Elementary Education

Accredited by the National Council for the Accreditation of Teacher Education
Department Head: Charles M. Burke **202 Education Building**
Professors: Burke, Coody, Griffin, Hargrove, Hogue, Mang, McLaughlin, Schnur
Associate Professor: McIntosh
Assistant Professor: Karlin, Matheny, Riley
Instructor: Fitzgerald

Bachelor of Science in Education Elementary

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 one or more special education fields, 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 12 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 to six semester hours.

Academic Foundations (54-60 Semester Hours)

Described in prior section.

Academic Specialization (36 Hours)

A. Specialization in one area (18 hours, nine advanced, except in generic special education, life-earth science and home economics which require 24). Courses must be in one of the following areas: art, drama, economics, English, one foreign language, generic special education, history, home economics, life-earth science, mathematics, music, physical education, psychology, reading, one science, sociology or speech. Courses may include six hours, (eight in science), taken as part of the academic foundations. A listing of course sequences is available in the office of the head of the Department of Elementary Education.

B. Work in a combination of subjects (18 semester hours).
Geo 237 or Geo 238
Art 3371 Elementary Art Education
Spc 333 Interpretation of Children's Literature or

The 336 Creative Dramatics
MPE or WPE 339 Physical Education in Elementary School
MEd 131 Elements of Music
His 134 History of Texas

Professional Development (30 semester hours)
Edu 331 Foundations in Education
Edu 332 Educational Psychology
Edu 333 Language Arts in the Elementary School
Edu 334 Child Development and Evaluation
Edu 335 Arithmetic in the Elementary School
Edu 339 Reading in the Elementary School
Edu 434 Classroom Management
Edu 437 Science & Social Studies in the Elementary School
Edu 465 Student Teaching in the Elementary School

Free Electives (six semester hours)
A minimum of six semester hours are to be chosen by the student as free electives.

Bachelor of Science — Elementary Education

Recommended Program of Study

The elementary education degree and certification requirements are shown in outline form below, comprising a desirable sequence of courses.

First Year

Eng Composition	6
Science Laboratory	8
Mth 135, 136 Contemporary Mathematics	6
MEd 131 Elements of Music	3
His 134 History of Texas	3
PE Activity	2
Academic Foundations Electives	3
Geo 237 or 238 Physical, Cultural Geology	3
	34

Second Year

Eng Literature	6
His Sophomore American History	6
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
Science	3
PE 339 Physical Education in the Elementary School	3
PE Activity	2
Area of Specialization	3
Mth 3313 Modern Elementary Geometry	3
	32

Third Year

Art 3371 Elementary Art Education	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 333 Language Arts in the Elementary School	3
Edu 334 Child Development and Evaluation	3
Edu 335 Arithmetic in the Elementary School	3
Edu 339 Reading in the Elementary School	3
Edu 434 Classroom Management	3
Spc 333 Interpretation of Children's Literature	3
Area of Specialization	9
	36

Fourth Year

Edu 437 Science and Social Studies	3
Edu 465 Student Teaching in the Elementary School	6
Area of Specialization	6
Academic Foundations Electives	9
Free Electives	6
	30

Bachelor of Science — 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

Eng Composition	6
Science Laboratory	8
Mth 135, 136 Contemporary Mathematics	6
MEd 131 Elements of Music	3
His 134 History of Texas	3
PE Activity	2
Academic Foundations Electives	3
Geo 237 or 238 Physical, Cultural Geology	3
	34

Second Year

Eng Literature	6
His Sophomore American History	6
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
Science	3
PE 339 Physical Education in the Elementary School	3
Mth 3313 Modern Elementary Geometry	3
Edu 232 Foundations of Reading Instruction	3
Edu 233 Reading Skills	3
PE Activity	2
	35

Third Year

Art 3371 Elementary Art Education	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 333 Language Arts in the Elementary School	3
Edu 334 Child Development and Evaluation	3
Edu 335 Arithmetic in the Elementary School	3
Edu 339 Reading in the Elementary School	3
Edu 434 Classroom Management	3
Edu 336 Children's Literature	3
Edu 337 Materials and Resources	3
Spc 333 Interpretation of Children's Literature	3
	33

Fourth Year

Edu 437 Science and Social Studies	3
Edu 465 Student Teaching in the Elementary School	6
Edu 431 Diagnostic-Prescriptive Techniques	3
Edu 439 Reading Practicum	3
Academic Foundations Electives	9
Free Electives	6
	30

Bachelor of Science — Elementary Education

Special Education — Generic

The Bachelor of Science Degree in Elementary Education, with Special Education-Generic as an Area of Specialization, is shown below. Variations to meet individual student needs in the program of study are possible. Specific information may be obtained from either the Department of Elementary or Special Education.

First Year

Eng Composition	6
Science-Laboratory	8
Mth 135, 136 Contemporary Mathematics	6
MEd 131 Elements of Music	3
His 134 History of Texas	3
PE Activity (1 per semester)	2
Academic Foundations Electives	3
Geo 237 or 238 Physical, Cultural Geology	3
	34

Second Year

Eng Literature	6
His Sophomore American History	6
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
PE Activity (1 per semester)	2
SpEd 2301 Foundations of Special Education	3
SpEd 2302 Identification of Exceptional Individual	3
Mth 3313 Modern Elementary Geometry	3
Science	3
	32

Third Year

SpEd 3304 Edu Needs Excp Ind	3
SpEd 3305 Rdng/L.A. Excp Lrnr	3
SpEd 4307 Prctm Rdng/L.A. Excp	3
PE 335 or 339 Atypical/Elem Schl	3
Art 3371 Elementary Art Education	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 333 Language Arts in the Elementary School	3
Edu 334 Child Development and Evaluation	3
Edu 335 Arithmetic in the Elementary School	3
Edu 339 Reading in the Elementary School	3
Free Electives	3
	36

Fourth Year

SpEd 4308 Apprsl Proc Excp	3
SpEd 4309 Instruction of Exceptional Learner	3
SpEd 4310 Practicum Instructing Exceptional Learner	3
Spc 333 Interpretation of Children's Literature	3
Edu 437 Science and Social Studies	3
Edu 434 Classroom Management	3
Edu 463 Student Teaching-Special	6
Academic Foundations Electives	3
Free Electives	3
	30

Kindergarten Certificate 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.

Edu 4302 Early Childhood Development 3
Edu 4303 Instruction in Early Childhood 3
Edu 4304 History and Philosophy of Kindergarten 3
Edu 463 Student Teaching (three hours 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.

Kindergarten certification course work can be obtained on the Master's degree in Elementary Education. See the Graduate Bulletin for further information.

An Early Childhood/Exceptional Children certificate is obtainable. For details see Special Education section of this bulletin.

Department of Secondary Education

Accredited by the National Council for the Accreditation of Teacher Education

Department Head: **204 Education Building**

Professors: Adams, Bost, Briggs, Johnson, Self

Associate Professors: Snyder, Stanley, Tucker, Wills

Assistant Professor: Haven

Bachelor of Science in Education — Secondary

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 qualifying them to teach in one or more areas of special education or driver education. 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 above avenues, as shown below:

Bachelor of Science
Secondary Education
Art
Biology
Chemistry
Communication (Journalism)
Computer Science
Dance
Earth Science
Economics
English (second field only)
French
General Science
Government
Health Education
History
Life-Earth Science Middle School
Mathematics
Physical Education (Men)
Physical Education (Women)
Physical Science
Physics

Bachelor's Degree in a Particular Discipline
Art (all levels)
Business (Office Administration)
Communication (Journalism)
Dance
English
French
Government
Health Education
History
Home Economics
Mathematics
Music (all levels)
Physical Education
Physics
Spanish
Special Education Generic
Speech
Theater
Psychology
Social Studies
Sociology
Spanish
Special Education
Generic (second field only)
Speech
Theater

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** (54-60 Semester Hours)
   Described in introductory section for College of Education
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 Specialization: (24 semester hours) Art 131, 133, 134, 231, 3316, 3381, 4341, 4381. (Academic foundation must include Art 235 and 236).

Art (All Levels) Specialization: (48 semester hours) Art 131, 132, 133, 134, 231, 233, 3316, 3355, 3371, 3376, 3381, 4331, 4341, 4381, (plus six hours of advanced electives).

Biology Specialization: (24 semester hours) Bio 245, 345, 347, 346 or 441, 444, plus four hours to be selected from: Bio 440, 4402, 442, 443, 445, 446, 447, 449. Bio 141 and 142 must be included in Foundation Core; also Chem 141, 142, or 143, 144 required as Foundation electives.

Business Education Office Administration (Plan II Composite Field), Specialization: (54 semester hours) Acc 231, 232, BAC 331, BLW 331, CS 133, Fin 331, MGT 331, 332, 437, MKT 331, OAS 233, 335, 336, 338, 363, 431, 438. (Academic Foundations must include Eco 131, 132, Spc 131, plus three hours from a third group).

Chemistry Specialization: (24 semester hours) Chm 141, 142, 333, 343, plus nine additional hours. The nine additional hours must include five advanced hours.

Computer Science Specialization: (24 semester hours) CS 131, 132, 3302, 3304 or 4307, 4321, plus nine hours to be selected from: CS 3305, 4302, 4305, 4306, 4308. Foundation electives must include Mth 236, and 237 or Mth 139 and 231 if not taken in required core.

Dance Specialization: (24 semester hours) Dan 1263 or 1264, 1283 or 1284, 2221 or 2222, Dan 3301 or WPE 236, WPE 333, Dan 335, 336, 434, 439. Foundation program must include Bio 141-142, 330 WPE 123, 2251, Dan 127, 129 or 1252 or 1253.

Drama (See Theater).

Earth Science Specialization: (24 semester hours) Geo 141, 142, 237, 336, 4350, 4370, 4380, 418. Physics 137 Astronomy is required in the Foundation Area.

Economics Specialization: (24 semester hours) Eco 131, 132, 333, 334, plus 12 semester hours from any 300 or 400 level Eco course.

English Specialization: (27 semester hours) Six hours of sophomore literature; nine hours of advanced British Literature; six hours of advanced American Literature; Eng 3321; Eng 334 or 430 or 3312. Foundations programs must include a foreign language through 232 for students who had foreign language in high school and a foreign language through 132 for students who had no foreign language in high school. (When selected as area of greatest interest, program must include a foreign language through 232).

French Specialization: (24 semester hours) Fre 131, 132, 231, 232, 330, 337, 338, plus three hours of advanced French.

General Science (Plan II Composite Field) Specialization: (50 semester hours) Bio 141, 142, Chm 141 or 143, Chm 142 or 144, Geo 141, 142, Phy 141 or 143, Phy 142 or 144, plus 18 hours of advanced science courses.

Government Specialization: (24 semester hours) Gov 131 and at least one advanced Government course from each of five fields: American government; political philosophy;

international relations; comparative government; public administration. (See Government Department in this bulletin for listing of courses). Also required: Gov 231 and Gov 232, which are included in core requirements of adacemic foundations. (When selected as area of greatest interest, program must include a foreign language through 232).

Health Education Specialization: (24 semester hours) HEd 131, 133, 234, 237 or MPE 235, 331, 337, 434, 437. Foundations program must include Bio 141, 142, 330.

History Specialization: (24 semester hours) His 131, 132, six hours advanced American History, six hours advanced World History, plus His 231, 232 which are included in foundations program. (When selected as area of greatest interest program must include History 339 and Foreign Language through 232).

Home Economics (Vocational) Specialization: (48 semester hours) See Home Economics section of this bulletin for complete description of certification plan in this area.

Journalism Communication Specialization: (24 semester hours) Com 133, 231, 232, 333, 3381, 431, 432, 4382. (When selected as area of greatest interest must include Com 131).

Life-Earth Science Middle School Specialization: (24 semester hours) Bio 141, 142; Geo 141, 142; plus eight additional hours, six must be advanced, to be selected from: Bio 240, 245, 345, 346, 347, 444, 446; Geo 237, 336, 4350, 4370, 4380, 418. (Foundation electives must include Phy 137).

Mathematics Specialization: (26 semester hours) Mth 148, 149, 233, 234, 3311, 330 or 338, 333 or 435, 335 or 433. (Foundation electives must include CS 131).

Music (All Levels) See Music Department in this bulletin.

Physical Education (Men) Specialization: (24 semester hours) MPE 132, 231, 236, 331 or 332, 333, 336, 436, plus three elective hours in MPE from: MPE 237, 331 or 332, 335, 431, 432, 433 and 435. (Foundations program must include Bio 141, 142. When selected as area of greatest interest program must include Bio 330 and Spc 131.)

Physical Education (Women) Specialization: (24 semester hours) WPE 132, 235, 236, 333, 336, 432, 433, plus 3 hours advanced electives. Foundations program must include Bio 141, 142; Dan 127, or 1281; WPE 2251, and six hours from WPE 123, 223, 228, 229, 2201. Foundation electives must include Bio 330.

Physical Science Specialization: (28-30 semester hours) Chm 141, 142, Phy 141, 142; plus 12 hours to be selected from: Chm 333, 341, 342, 4401, 438; Phy 330, 335, 324, 414 or 415, 416 or 417; or Phy 143, 144; plus six advanced 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 Specialization: (24 semester hours) Phy 141, 142, 448, or Phy 140, 241, 242, 333, 335; plus six hours to be selected from 324, 346, 338, 436, 414, 416, 417. Foundations program must include Mth 148, 149, 241, 331, Chm 141, 142.

Psychology Specialization: (24 semester hours) Psy 131, 235, 432, 436, 330 or 435, 332 or 337, 333 or 434, 336 or 433. Foundation electives must include Psy 241.

Social Studies (Plan II Composite Filed) Specialization: (48 semester hours)

A. Thirty semester hours: six hours economics, six hours geography, six hours sociology, six hours advanced government, six hours advanced American history.
B. Twelve semester hours: selected from one of the following: Non-U.S. History, advanced government, sociology and economics (at least six hours advanced).
C. Six semester hours: selected from one of the fields not selected in "B" above (must be advanced).

Sociology Specialization: (24 semester hours) Soc 131, 132, 438, 439; plus 12 hours six advanced from 231, 339, 230 or 431, 233 or 432; and 332 or 336.

Spanish Specialization: (24 semester hours) Spa 131, 132, 231, 232, 330, 335, plus six hours of advanced Spanish.

Special Education-Generic Specialization: (24 semester hours) SpEd 2301, 2302, 3304, 3305, 4307, 4308, 4309, 4310. (See Special Education section of this bulletin for details).

Speech Specialization: (25 semester hours) Spc 233, 222 (two semesters required), 235, 238, 434, 438, 439 plus three hours selected from 332, 334 or 4371. (When selected as area of greatest interest foundations program must include Spc 1311).

Theater (Drama) Specialization: (25 semester hours) The 231, 237, 335, 4311, 4312, 437, 431, plus 210 Workshop (4 semesters required) (When selected as area of greatest interest foundations program must include Spc 1311).

3. **Professional Development** (18 semester hours)
   Edu 331 Foundations of Education
   Edu 332 Educational Psychology
   Edu 338 Curriculum, Materials and Evaluation in the Secondary School
   Edu 438 Classroom Management
   Edu 462 Student Teaching in the Secondary School
4. **Free Electives** (six semester hours)
   A minimum of six semester hours are to be chosen by the student as free electives.

Recommended Program of Study

The secondary education degree and certification requirements are shown in outline form below. Many variations based upon the choice of the two teaching fields, overlaps of teaching field and academic foundation requirements, and plan for use of academic foundation electives and free electives make the outline flexible to meet individual student needs. The outline does comprise 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
Academic Foundations Electives	6
	34

Second Year

Eng Literature	6
Six hours of Sophomore American History from: 231, 232, 233, 234, 235, 236	6
Gov 231-232 Introduction to American Government	6
PE Activity (2 semesters)	2
First Teaching Field	6
Second Teaching Field	6
Academic Foundations Electives	3
	35

Third Year

Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 338 Curriculum and Materials	3
First Teaching Field (6 hours advanced)	9
Second Teaching Field (6 hours advanced)	9
Academic Foundations Electives	6
	33

Fourth Year

Edu 438 Classroom Management	3
Edu 462 Student Teaching in the Secondary School	6
First Teaching Field (Advanced)	6
Second Teaching Field (Advanced)	6
Academic Foundations Electives	3
Free Electives	6
	30

Elementary and Secondary Education Courses (Edu)

1201 College Reading and Writing Skills 2:1:2
Provide procedures, practices, and individual help with reading assignments, writing papers, taking essay examinations, and taking lecture notes. Not applicable to TEA certification plans.

2301 Peer Advisor-Counselor Training 3:2:2
Designed primarily for those who will be learning about systematic helping and interpersonal relating by practicing the 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 to TEA certification plans.
Prerequisite: Permission of the instructor.

231 Instructional Media in the Classroom 3:3:0
The course is designed to familiarize students with the many types of instructional media and teaching machines found in modern classrooms, including development and construction of typical teacher-made materials.

232 Foundations of Reading Instruction 3:3:0
An orientation to background, terminology and programs for the teaching of reading. Designed to give an overview of the history of the English language, the reading process and the psychology of reading instruction.
Prerequisite: Sophomore standing.

233 Reading Skills 3:3:0
Analysis of scope and sequence of reading skills with teaching strategies for developmental reading and reading in the content areas.
Prerequisite: Sophomore standing.

331 Foundations of Education 3:3:0
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.

332 Educational Psychology 3:3:0
Principles and psychological problems involved in education with emphasis on learning theories and the practical application of psychological principles to teaching.
Prerequisite: Junior standing.

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: Edu 331.

334 Child Development and Evaluation 3:3:0
Principles of growth and development. Measurement and evaluation of learning.

335 Arithmetic in the Elementary School 3:3:0
A study of the content, materials and methods used in teaching arithmetic.
Prerequisite: Edu 331.

336 Children's Literature 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.

337 Materials and Resources for Teaching Reading 3:3:0
A concentration on planning, producing, selecting, organizing and evaluating instructional materials and equipment to be used in teaching reading.
Prerequisite: Edu 233 or Edu 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: Edu 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: Edu 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.

4302 Early Childhood Development 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 Instruction in 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 History and Philosophy of the Kindergarten 3:3:0
A 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 Research 3:3:0
A survey of research studies in learning theory and in instructional practices for young children.

4306 Special Topics 3:3:0
Significant topics in Elementary. Secondary and Special Education. The description of the particular area of study will appear on the printed semester schedule. A student may repeat for a maximum of six semester hours when the area of study is different.

431 Diagnostic-Prescriptive Techniques in the Teaching of Reading 3:3:0
Techniques for ascertaining reading strengths and weaknesses. Planning and implementing instruction to meet individual needs.
Prerequisite: Junior standing, 3 hours from Edu 233, 337, 339.

432 Educating the Culturally Different 3:3:0
Delineates personal characteristics and the affective domain of the culturally different and identifies educational strategies applicable to the teaching process.

433 Teaching Media and Audio-Visual Technology 3:3:0
Observation, demonstration and practice in utilizing modern teaching media, including teaching machines and programming.

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 placed upon 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 procedures in educational settings.

434 Classroom Management Elementary 3:3:0
A study of problems relating to classroom management and curriculum.
Prerequisite: Edu 331 and 332.

435 Indivudalized Instruction Through Technology 3:3:0
Individualized instruction as the basic conceptual tool for the study, personalization and production of actual materials and modules useful in traditional and performance based instruction. The course will be conducted as a practicum in the theory and practice of individualized instruction.

436 Student Teaching in the Kindergarten 3:A:0
Supervised observation and teaching in the kindergarten. Three hours in kindergarten classrooms five days per week for eight weeks.

437 Science and Social Studies in the Elementary School 3:3:0
Content, methods and materials for teaching science and social studies in the elementary school.
Prerequisite: 331 and 332.

438 Classroom Management Secondary 3:3:0
Organization of subject matter, lesson planning, classroom management and general methods of teaching.
Prerequisite: Edu 338.

439 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 Edu 337 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: Edu 438. Three hours in secondary classroom 5 days per week for 16 weeks.

463 Student Teaching—Special 6:A:0
Special student teaching situations designed for students working toward all-level certificates, special education, kindergarten education and speech and hearing.
Prerequisite: Edu 434 or 438. Class: the number of hours equivalent to 15 hours per week for 16 weeks.

465 Student Teaching in the Elementary School 6:A:0
Supervised observation and teaching in the elementary school.
Prerequisite: Edu 434. Class: 3 hours in elementary classrooms 5 days per week for 16 weeks.

Department of Special Education

Accredited by the National Council for the Accreditation of Teacher Education
Department Head: Monty Sontag **202 Education Building**
Professor: Sontag
Assistant Professors: Baxter, Goulas, Lane

Bachelor of Science in Education — 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. 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, and one additional Provisional Certificate endorsement in a Special Education categorical area. Teachers holding any of these described certificates or endorsements may be assigned to any level of a special education instructional program, pre-school through high school.

Specific information concerning the program may be obtained from the Department of Special Education.

Special Education-Generic and Categorical Certificate 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 any other valid Texas teaching certificate.

Certification may be obtained in Special Education-Generic or in the area of mental retardation, physically handicapped, emotionally disturbed, language and/or learning disabilities and early childhood/exceptional children.

To obtain certification in one or more areas of Special Education, students follow the same curriculum that is outlined for elementary or secondary teachers along with the selected Special Education sequence.

Select courses in the Generic series are considered acceptable substitutions for categorical needs when the categorical requirements are unavailable. Specific information concerning these substitutions may be obtained from the Department of Special Education.

The Special Education categorical requirements are as follows:

Mental Retardation
SpEd 2301 Foundations of Special Education
SpEd 3311 Identification and Habilitation of the Mentally Retarded
SpEd 430 Education of the Mentally Retarded
SpEd 431 Psychology of Exceptional Children
Edu 463 Student Teaching-Special

Physically Handicapped
SpEd 2301 Foundations of Special Education
SpEd 3312 Education of the Physically Handicapped
SpEd 431 Psychology of Exceptional Children
SpEd 439 Methods and Materials for Learning Disabilities
Edu 463 Student Teaching-Special

Emotionally Disturbed
SpEd 2301 Foundations of Special Education
SpEd 3313 Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed
SpEd 4314 Educational Needs of the Emotionally Disturbed
SpEd 4310 Practicum in Instructing the Exceptional Individual
Edu 463 Student Teaching-Special

Language and/or Learning Disabilities
SpEd 2301 Foundations of Special Education
SpEd 3316 Identification of Language and Learning Disorders
SpEd 439 Methods and Materials for Learning Disabilities
SpEd 4310 Practicum in Instructing the Exceptional Individual
Edu 463 Student Teaching-Special

Note: Six additional semester hours are required for L/LD certification.

Early Childhood/Exceptional Children
Select three hours from one of the following:
SpEd2301 Foundations of Special Education
SpEd 5361 Survey of Learning Potentials of Exceptional Children
Select three hours from one of the following:
SpEd 2302 Identification and Characteristics of the Exceptional Individual
SpEd 3304 Educational Needs of the Exceptional Individual
SpEd 4308 Appraisal Processes in Programming for the Exceptional Individual
SpEd 4309 Instruction of the Exceptional Individual
Select six hours from any two of the early childhood or kindergarten courses.

Multiple Special Education Certification

An additional six to 12 hours from categorical certification programs for mental retardation, physically handicapped, language and/or learning disabilities or emotionally disturbed over and above the hours required for the completion of one area will entitle the student to two or more certificates in Special Education along with certification in any major area in which a student has or is obtaining a valid Texas Teacher Certificate.

Any of the courses may be taken as elective hours by students who do not wish to certify in any of the Special Education areas. Additional information may be obtained from the head of the Department of Special Education.

Recommended Program of Study

The Bachelor of Science in Education-Special Education degree, with Generic certification requirements, is shown below. Variations to meet individual student needs in the program of study are possible. Specific information may be obtained from the Department of Special Education.

First Year

Eng-Composition	6
Mth	6
Science Laboratory	8
PE Activity (1 per sem)	2
Second Teaching Field	6
Academic Foundations Electives	6
	34

Second Year

Eng Literature	6
His Sophomore American History	6
Gov 231-232 Introduction to American Government	6
PE Activity (1 per semester)	2
SpEd 2301 Foundations of Special Education	3
SpEd 2302 Identification of the Exceptional Individual	3
Second Teaching Field	6
Academic Foundations Elective	3
	35

Third Year

Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 338 Curriculum and Materials	3
SpEd 3304 Educational Needs of Exceptional Individual	3
SpEd 3305 Rdng/L.A. Excp Lrnr	3
SpEd 4307 Prctm Rdng/L.A. Excp	3
Second Teaching Field (Advanced)	6
Academic Foundations Elective	3
Free Electives	6
	33

Fourth Year

Edu 438 Classroom Management	3
SpEd 4308 Appraisal Processes for Exceptional Individuals	3
SpEd 4309 Instruction of the Exceptional Learner	3
SpEd 4310 Practicum Instructing Exceptional Individual	3
Edu 463 Student Teaching-Special	6
Second Teaching Field (Advanced)	6
Free Electives	6
	30

Bachelor of Science in Education—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 Elementary or Special Education.

Associate of Science — Education

The Associate of Science in Education is administered by the Department of Special Education.

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 may be obtained from the Department of Special Education.

First Year

Eng Composition	6
Mth/Laboratory Science Science	3-4
His Sophomore American History	6
PE Activity (1 per semester)	2
Psy 234 or 235 Child/Adolescent Psychology	3
SpEd 2301 Foundations of Special Education	3
Free Electives	9
	32-33

Second Year

Eng Literature	3
Mth/Laboratory Science	3-4
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
Edu 231 Instructional Media in Classroom	3
SpEd 2302 Identification of Exceptional Individual	3
SpEd 3305 Rdng/L.A. Excp Lrnr	3
Free Electives	9
	30-31

Special Education Courses (SpEd)

2301 Foundations of Special Education 3:3:0
An orientation to background, terminology and programs for those who are exceptional. Designed as an overview of Special Education. A first course for those planning to certify in Special Education.

2302 Identification and Characteristics of the Exceptional Individual 3:3:0
Principles of normal and abnormal child growth and development. Nature and causes of behavioral and physical characteristics and basic techniques of management.

3304 Educational Needs of the Exceptional Individual 3:3:0
Evaluation and application of various techniques for determining educational needs of the exceptional individual and 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.

3311 Identification and Habilitation of the Mentally Retarded 3:3:0
Nature and causes of mental retardation, physical and mental characteristics; the organization and administration of classes; evaluation, integration and adaptation of the program to meet socio-economic needs. Includes experience in observing the behavior of mentally retarded children.

3312 Education of the Physically Handicapped 3:3:0
Description and characteristics of children with physical disabilities. Consideration of etiological factors and limitations in regular and special classes, hospital and homebound instruction. Includes experience in observing the behavior of physically handicapped children.

3313 Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed 3:3:0
The principles of normal and abnormal child growth and development, including biological and socio-cultural determinants of growth; classification and description of relevant psychological terminology as related to the behavior of the emotionally distrubed.

3316 Identification of Language and Learning Disorders 3:3:0
The identification of specific behavioral characteristics that interfere with adequate learning, with special emphasis on techniques to alter behavior. Discussion and presentation of theories of perception and cognition.

3317 Learning Potentials in the Severely and Profoundly Handicapped 3:3:0
Determining the degree of modifiability of pupil behaviors. Identifying functional levels, individual project.

3318 Practicum in Learning Potentials 3:3:0
Application of assessment procedures to be used with the severely and profoundly handicapped. Emphasis on both formal and informal measures. Formulation of educational programs from assessment. Individual projects.

4101, 4201, 4301, 4601 Institute or Workshop in Special Education 1-6:1-6:0
A number of 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.

430 Education of the Mentally Retarded 3:3:0
Problems of the selection, preparation, development and use of curriculum materials. Use of resources, selection of equipment, employment opportunities and a review of recent research. Includes experience in observing and modifying the behavior of mentally retarded children.

4306 Special Topics 3:3:0
Significant topics in Special Education. The description of the particular area of study will appear on the printed semester schedule. A student may repeat for a maximum of six semester hours when the area of study is different.

4307 Practicum in Instructional Alternatives in Reading and Language Arts for the Exceptional Learner 3:A:0
Practicum experience in the identification and instruction of pupils evidencing disabilities in reading and language arts.
Prerequisite: SpEd 3305 or instructor's approval.

4308 Appraisal Processes in Programming for the Exceptional Individual 3:3:0
Formal and informal methods of appraising the educational needs of the exceptional learner and the use of interpretative data to prescribe appropriate curriculum modification, instructional materials, teaching strategies and classroom management.

4309 Instruction of the Exceptional Learner 3:3:0
Classroom management, teaching strategies, instructional materials for the exceptional learner. Various approaches and rationales are presented.

4310 Practicum in Instructing the Exceptional Individual 3:A:0
Practicum experience with the exceptional learner. Includes identification, interpretation of data, development of instructional goals and implementation of instructional objectives. When experience is with emotionally disturbed it includes at least 54 contact clock hours of work.

431 Psychology of Exceptional Children 3:3:0
Social and emotional characteristics and adjustment problems of children and youth who are exceptional.

4314 Educational Needs of the Emotionally Disturbed 3:3:0
Programming possibilities based on the characteristics and severity of the individual's emotional problems. Integration of knowledge and competencies to provide an instructional program to meet the needs of emotionally disturbed children.

436 Education of Gifted Children 3:3:0
Identification, programs, guidance and administrative structure for gifted children.

438 Instructional Processes with the Severely and Profoundly Handicapped 3:3:0
Translating the behaviors of the severely and profoundly handicapped into developmental categories and applied instructional modification processes.

439 Methods and Materials for Learning Disabilities 3:3:0
Classroom management and teaching procedures for children with language and/or learning disabilities. Various learning theories are presented.

Department of Health and Physical Education for Men

Department Head: J. B. Higgins — 106 McDonald Gymnasium
Director of Academic Programs: L. A. Yates
Director of Required Activity Programs: Vernon Crowder
Professors: Crowder, Higgins, Yates
Associate Professor: Jolly
Assistant Professors: Frederick, Payton, Rogas, Worsham
Instructors: Gilligan, Wesbrooks, Zeek
Lecturers: Barr, Burnham, Foster, Green, Senorski, Vint

Bachelor of Science in Physical Education — Men

The following degree program fulfills curriculum requirements for the Provisional Teaching Certificate Secondary in the State of Texas.

Recommended Program of Study

First Year

Eng Composition	6
Bio 141-142 General Biology	8
Mth	6
Spc 131 Public Speaking	3
MPE 132 Principles	3
MPE 236 Physical Education in the Secondary School	3
PE Activity	2
*Electives	3
	34

Second Year

Eng Literature	6
Gov 231-232 Introduction to American Government	6
His Sophomore American History	6
MPE 231 Biomechanics of Sport and Exercise	3
PE Sophomore Activity	4
*Electives	9
	34

Third Year

Bio 330 Applied Anatomy and Kinesiology	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 338 Curriculum and Materials	3
MPE 331 Coaching Major Sports or MPE 332 Coaching Major Sports	3
MPE 333 Physiology of Exercise	3
MPE 336 Tests and Measurements	3
*Electives	12
	33

Fourth Year

Edu 438 Classroom Management Secondary	3
Edu 462 Student Teaching in the Secondary School	6
MPE Advanced Elective	3
MPE 436 Organization and Administration	3
*Electives	15
	30

**Electives must include the following:*
An approved additional teaching field of 24 semester hours Consult this bulletin, Department of Secondary Education, for requirements for additional teaching fields.
Nine semester hours of electives from the five groups described under "Academic Foundations" with courses included from a minimum of three groups.

Men's Physical Education Courses (MPE)

Activity Courses (MPE)

111 Concepts of Physical Fitness 1:1½:1½
First activity course required of all men students seeking a degree at Lamar. Nine weeks of lecture on the concepts of physical fitness followed by an individualized fitness program and pre and post testing. May be repeated for credit.

112 Freshman Activity 1:0:3
Continuation of first year physical education program. Nine weeks of recreational activity in one sport or activity of the student's choice. Fulfills second semester requirement.
Prerequisite: MPE 111.

113 Freshman Activity 1:0:3
Continuation of first year physical education program. Nine weeks of recreational activity in one sport or activity of the student's choice. Fulfills second semester requirement.
Prerequisite: MPE 111.

221-222 Sophomore Activity 2:3:0
Continuation of required physical education activity in the second year of the program. Consists of instruction in fundamentals, rules and participation in selected team, dual and individual sports and activities of the students' choice.
Prerequisite: MPE 111. May be repeated for credit.

2200 Modified Activity 2:1:2
Modified or special exercise programs and selected game fundamantals for those individuals who, for physical limitations, are unable to take regular activity courses.
May be repeated for credit.

2201 Intermediate Swimming 2:1:2
Optional activity in the physical education program. Lecture, demonstration and practice in the fundamentals of swimming.
Prerequisite: MPE 111 and demonstrated ability to swim.

2202 Senior Life Saving 2:1:2
Optional activity in the physical education program. Lectures, demonstrations and practice in the techniques of lifesaving.
Prerequisite: Demonstrated swimming ability.

2203 Water Safety Instruction 2:1:2
Optional activity in the physical education program. Organization, conditioning and preparation of students in the required swimming and lifesaving skills. Advanced students may qualify for American Red Cross Water Safety Instructor.
Prerequisite: Current Red Cross Senior Lifesaving Certificate.

2204 Strength Training 2:1:2
Optional activity in the required program. Individually structured isotonic strength training program using weights and weight room equipment.
Prerequisite: MPE 111. May be repeated for credit.

2205 Strength Training for Athletes 2:1:2
Optional activity in the required program. Advanced, intensified strength training program for athletes utilizing specialized programs for different sports.
Prerequisite: Varsity athlete. May be repeated for credit.

2206 Intermediate Tennis 2:1:2
Instruction and practice in the basic strokes, elements and basic game strategy of tennis.
Prerequisite: MPE 111. May be repeated for credit.

2207 Handball and Racquetball 2:1:2
Instruction and practice in beginning through advanced skills in handball and racquetball. Emphasis on teaching techniques and skill progression.
Prerequisite: MPE 111. May be repeated for credit.

2208 Advanced Baseball 2:1:2
Instruction and practice in the advanced techniques, skills and organization of baseball for players and potential coaches.
Prerequisite: MPE 111. May be repeated for credit.

2209 Advanced Basketball 2:1:2
Instruction and practice in the advanced techniques, skills and organization of basketball for players and potential coaches.
Prerequisite: MPE 111. May be repeated for credit.

2210 Golf 2:1:2
Instruction and practice in beginning through advanced golf skills. Emphasis on teaching technique and progression of skill.
Prerequisite: MPE 111. May be repeated for credit.

2211 **Gymnastics** 2:1:2
Instruction and practice in gymnastic skills to include spotting techniques, class organization and movement principles.
Prerequisite: MPE 111. May be repeated for credit.

2212 **Martial Arts** 2:1:2
Instruction and practice in the beginning skills of unarmed defense as a sport. Not designed for the advanced student.
Prerequisite: MPE 111. May be repeated for credit.

Professional Courses (MPE)

132 **Principles** 3:3:0
Definition, terminology, aims, objectives, history and principles of physical education, health education, recreation and safety. A survey course of the nature of the fields and specialized areas within the professional field with opportunities for self-evaluation in the professional competencies expected of personnel in the profession. May be used to satisfy part of requirements for Teacher's Certificate.

231 **Biomechanics of Exercise and Sport** 3:3:0
An introduction into the nature of motor skills. Emphasis is placed on analyzing and evaluating human motion in various forms of physical activity.

236 **Physical Education in the Secondary School** 3:3:0
Theory, methods and materials for instruction of physical education at the secondary level with stress on individual, team, recreational and carry-over type games and sports for later adult life participation. Classroom and field laboratories for demonstrations and practice included.
Prerequisite: MPE 132.

237 **Athletic Training and Conditioning** 3:3:0
A study of training and conditioning methods for the individual and team; arrangement and care of training room; care and prevention of athletic injuries.
Prerequisite: Bio 141-142.

330 **Safety and First Aid** 3:3:0
A survey of safety and first aid. Includes traffic safety and safety at home, work, school and play. Includes the scope, needs and limitations of first aid with laboratory training in the techniques and methods of treatment of injuries.

331 **Coaching Major Sports Football and Basketball** 3:3:0
The fundamentals, theory, history, development and modern techniques of football and basketball. Lectures and demonstrations in coaching methods and techniques.
Prerequisite: Nine semester hours in physical education.

332 **Coaching Major Sports, Baseball and Track** 3:3:0
The fundamentals, theory, history, development and modern techniques in baseball and track. Lectures and demonstrations in coaching methods and techniques. Some laboratory experience required in track phase of the course.
Prerequisite: Nine semester hours in physical education.

333 **Physiology of Exercise** 3:3:0
Muscular, nervous, circulatory and respiratory systems as related to exercise. Experiments on human subjects are used.
Prerequisite: Bio 141, 142 and 330.

334 **Driver Education** 3:3:0
Traffic rules and regulations and the basic facts concerning the cause and prevention of accidents. The course includes behind-the-wheel training in the use of the training automobile while instructing students. For teaching professional students how to teach driver education.
Prerequisite: Texas Driver's License.

335 **Organization and Administration of Intramural Sports** 3:3:0
Theory and practice of organizing and administering the intramural sports program. Includes problems in scheduling, financing, promotion, activities, officiating, classification of students and evaluation of the program.

336 **Tests and Measurements** 3:3:0
Use, interpretation, evaluation and administration of tests peculiar to health and physical education; application of elementary statistical procedures.
Prerequisite: Junior standing.

339 **Physical Education in the Elementary School** 3:3:0
The theory and practice of teaching physical education activities in the elementary grades. Classroom instruction and field laboratory assignments are included for demonstration and practice. Stress is placed on games of low organization. Classified as elementary physical education for purposes of teacher certification.

416 **Student Teaching in Driver Education** 1:1:0
Supervised observation and teaching of driver education in actual class and behind-the-wheel training.
Prerequisite: MPE 330 and 334.

430 Problems in Physical and Health Education, Recreation and Safety 3:A:0
Special problems in physical and health education, recreation and safety are assigned to individual students or to groups of students. Assignments are made and consultations are held.
Enrollment by prior approval from department head. Class: by consultation.

431 Recreation Leadership 3:3:0
A survey of the field of recreation with stress on playground and management, program making, observation and practice in activities and methods, leadership and skills. Includes problems in the promotion of recreation in the community.
Offered summer session only.
Prerequisite: 15 hours in physical education.

432 Officiating Football 3:3:0
A study of the rules and their interpretation and of the mechanics of officiating. The course is designed to develop the skill and knowledge required in officiating football.

433 Officiating Basketball 3:3:0
A study of the rules and their interpretation and of the mechanics of officiating. The course is designed to develop the skill and knowledge required to officiate basketball.

435 Adapted Physical Education 3:3:0
Diagnosis and recognition of remedial cases. Instructional and remedial activities for individuals needing modified or special exercise programs.
Prerequisite: Twelve hours in physical education, Bio 141-142 and 330.

436 Organization and Administration of Physical and Health Education and Athletics 3:3:0
Administration procedures in setting up and conducting programs in physical education, health education and intramural athletics. A survey of types of programs, administrative organizations, scope, personnel, policies, functions and duties of supervision, related problems in the three areas.
Prerequisite: Fifteen hours in physical education.

4301 Workshop in Physical Education 3:3:0
A number of 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 differs from one previously taken.

Athletic Training Specialization

Certification and licensing of athletic trainers is available through meeting the following:

1. Teacher certification with a teaching field in HPE and a second teaching field.
2. N.A.T.A. Certification upon passing certification examination.
3. Licensed Athletic Trainer by State of Texas upon passing state board examination.

Further information may be secured through the Department of HPE for Men. Application must be made through the athletic trainer as the number of students is limited.

Driver Education Certification Requirements

Certification to teach driver education is available as a special designation on an existing Texas Teaching Certificate. Specific course requirements are as follows:

MPE 330 Safety and First Aid
MPE 334 Driver Education
MPE 416 Student Teaching in Driver Education

Department of Health and Physical Education for Women

Department Head: Belle M. Holm 101B Women's Gymnasium
Director of Professional Programs: Alice C. Bell
Director of Dance Division: Rebecca O. Hill
Director of Graduate Division: Virginia Raye Holt
Director of Health Division: Alice C. Bell
Director of Physical Education Division: Mildred Lowrey
Professors: Bell, Holm
Associate Professors: Holt, Lowrey
Assistant Professors: Gremillion, Hill, Park, Penny
Instructors: de Bittencourt, Greenockle, Newberry
Lecturers: Bussell, Calvert, Crawford, Ghezzi, Kelly, Ramsey

The Department of Health and Physical Education for Women provides several career options for students. Three teacher education certification programs are offered: dance education coed, health education coed and women's physical education. Three programs of study are available which do not lead to teacher certification: dance education coed, health education coed and recreation education coed. Undergraduate programs lead to a Bachelor of Science degree in Health Education, Physical Education, 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 four semester program for all university students provides a varied selection of activities which include aquatics, dance and sports. The activity program is designed to enhance the general education objectives of the University.

Bachelor of Science

Recommended Programs of Study

Dance Education

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-certificationprogram prepares for a career in private studio teaching, administration or professional performance.

Dance Education Certification Program

First Year

Bio 141-142 General Biology	8
Eng Composition	6
Mth	6
Dan 127 Folk Dance	2
Dan 123 Introduction to Dance	2
Dan 129 or Dan 1252/1253	2
*Elective	3
Dance Elective Ballet or Modern	4
	33

Second Year

Eng Literature	6
His Sophomore American History	6
Gov 231-232 Introduction to American Government	6
WPE 2251 Tumbling and Gymnastics	2
Second Teaching Field	9
Dance Elective Ballet or Modern	4
	33

Third Year

Bio 330 Anatomy	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 338 Curriculum and Materials	3
WPE 333 Physiology of Exercise	3
Dan 3301 Theater Dance Forms or WPE 236 Administration of Physical Education	3
Dan 335 Principles of Creative Dance	3
Dan 2221 Ballet Company or Dan 2222 Modern Dance Company	2
Second Teaching Field	6
Dance Elective Ballet or Modern	4
	33

Fourth Year

Edu 438 Classroom Management	3
Edu 462 Student Teaching in the Secondary School	6
Dan 336 Choreography and Dance Production	3
Dan 434 Methods and Materials in Dance Education	3
Dan 439 History and Theory of Dance	3
Second Teaching Field	9
*Elective	6
	33

Total 132 hours

In order to develop and maintain a high technical level, dance education majors are required to take ballet technique or modern dance technique daily each semester.

Dance Education Non-Certification

The dance education major prepares the student for private studio adminstration, teaching and professional performance.

First Year

Bio 141-142 General Biology	8
Dan 1261, 1262, 1263 or 1264 Ballet Technique	2
Dan 127 Folk Dance	2
Dan 1281, 1282, 1283 or 1284 Modern Dance	2
Eng Composition	6
Mth or Foreign Language	6
MEd 131 Elements of Music	3
Dan 123 Introduction to Dance	2
	31

Second Year

Eng Literature	6
Gov 231-232 Introduction to American Government	6
His Sophomore American History	6
WPE 2251 Tumbling and Gymnastics	2
Dan 129 Tap Dance	2
Dan 2221 Ballet Company	2
Dan 2222 Modern Dance Company	2
Dan 2223, 1253, 2260 Ensemble, Jazz or Musical Comedy	2
*Electives	6
	34

Third Year

Bio 330 Anatomy	3
Art 139, 235 or 236	3
WPE 333 Physiology of Exercise	3
Dan 3301 Theatre Dance Forms	3
Dan 335 Principles of Creative Dance	3
*Electives	18
	33

Fourth Year

Dan 336 Choreography and Dance Production	3
Dan 430 Individual Study in Dance Education or Dan 4301 Workshop in Dance Education	3
Dan 434 Methods and Materials in Dance Education	3
Dan 439 History and Theory of Dance	3
*Electives	18
	30

Total 128 semester hours

**Electives should include the following:*
A related arts minor program of 18 semester hours approved by counselor.
A related elective program of 18 semester hours guided by counselor.
In order to develop and maintain a high technical level dance education majors are required to take ballet technique or modern dance technique daily each semester.

Bachelor of Art — Dance Major

Same as the above program except for the completion of the course numbered 232 in a foreign language.

Health Education

The health education program of study of 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.

Health Education Certification Program

First Year

WPE Activity	2
Bio 141-142 General Biology	8
Elective	3
Eng Composition	6
HEd 131 Emergency Care, Safety and Survival	3
HEd 133 Personal Health	3
Mth	6
Academic Foundation Elective	3
	34

Second Year

WPE Activity	2
Academic Foundation Electives	6
Eng Literature	6
Gov 231-232 Introduction to American Government	6
HEd 234 Public and Consumer Health	3
HEd 237 Health Education in the Secondary School	3
His Sophomore American History	6
	32

Third Year

Bio 330 Anatomy	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 338 Curriculum and Materials	3
Elective	3
HEd 331 Measurement in Health	3
HEd 337 Contemporary Health Problems	3
Second Teaching Field	12
	33

Fourth Year

Edu 438 Classroom Management	3
Edu 462 Student Teaching in the Secondary School	6
Academic Foundation Electives	6
HEd 434 Health and Human Ecology	3
HEd 437 Health Science and Epidemiology	3
Second Teaching Field	12
	33

Total 132 semester hours

**Academic foundation program required and electives may not include more than six semester hours eight in science overlap with any teaching field.*

Health Education Non-Certification

First Year

Activity 111	1
Bio 141-142 General Biology	8
*Elective	3
Eng Composition	6
HEd 131 Emergency Care, Safety and Survival	3
HEd 133 Personal Health	3
Mth	6
Psy 131 Introduction to Psychology	3
WPE 123 Basic Movement Fundamentals	2
	35

Second Year

Activity 112	1
Eco 233 Principles and Policies	3
*Elective	3
Eng Literature	6
Gov 231-232 Introduction to American Government	6
HEd 234 Public and Consumer Health	3
HEd 237 Health Education in the Secondary School	3
His Sophomore American History	6
WPE 225 Lifesaving	2
	33

Third Year

Bio 330 Anatomy	3
*Electives	14
Gov 3316 Introduction to Public Administration	3
HEd 337 Contemporary Health Problems	3
Spc 238 Oral Controversy	3
WPE 333 Physiology of Exercise	3
	29

Fourth Year

*Electives	14
HEd 430 Individual Study in Health Education	3
HEd 4301 Workshop in Health Education	3
HEd 434 Health and Human Ecology	3
HEd 437 Health Science and Epidemiology	3
Soc 437 Public Opinion	3
	29

Total 126 semester hours

**Electives should include the following:*
A related minor of 18 semester hours approved by counselor.
A related elective program of 16 semester hours guided by counselor.

Women's Physical Education

The women's physical education program of study prepares the student for a teaching career in women's physical education for an advanced degree. A companion program of specialization in elementary physical education is available through the Bachelor of Science in Elementary Education (see Department of Elementary Education in this bulletin for further information.

Women's Physical Education Certification Program

First Year

Activity selected from WOE 123, 223 228, 229, 2201	2
Bio 141-142 General Biology	8
Eng Composition	6
Mth	6
WPE 132 Introduction to Physical Education	3
WPE 2251 Tumbling and Gymnastics	2
Dan 127, 1281 Folk or Modern Dance	2
Elective	3
	32

Second Year

Activity selected from WPE 123, 223, 228, 229, 2201	4
Eng Literature	6
Gov 231-232 Introduction to American Government	6
His Sophomore American History	6
WPE 236 Administration of Physical Education	3
WPE 235 Psychosocial Aspects of Sport	3
Electives	5
	33

Third Year

Bio 330 Anatomy	3
Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
Edu 338 Curriculum and Materials	3
WPE 333 Physiology of Exercise	3
WPE 336 Techniques and Curriculum	3
Electives	4
Second Teaching Field	12
	34

Fourth Year

Edu 438 Classroom Management	3
Edu 462 Student Teaching in the Secondary School	6
WPE 432 Measurement and Evaluation	3
WPE 433 Motor Learning	3
WPE Elective (Advanced)	3
Electives	3
Second Teaching Field	12
	33

Total 132 semester hours

Dance Education Courses (Dan)

123 Introduction to Dance 2:1:2
A general introduction to dance. Emphasis is on basic terms, movements, concepts, and principles of dance.

1251, 1252, 1253 Jazz 2:1:2
Instruction and practice in jazz dance. May be repeated for credit.

1261, 1262, 1263, 1264 Ballet Technique 2:1:2
Instruction and practice in ballet technique. Emphasis is placed upon accurate technique and placement. May be repeated for credit.

127 Folk Dance 2:1:2
Instruction practice in beginning folk dance. Emphasis is placed upon the historical and cultural background of the various national dances.

1281, 1282, 1283, 1284 Modern Dance Technique 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.

2221 Ballet Company 2:1:5
The instruction, rehearsal and production of classical ballets. May be repeated for credit.

2222 Modern Dance Company 2:1:5
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.

2260 Musical Comedy Dance 2:1:5
A laboratory course providing both background study and practical work in the specialized field of musical comedy including participation in the presentation of a full production. Open by audition or by consent of the instructor to students from all departments who are interested in dance as applied to musical comedy. May be repeated for credit.

3301 Theater Dance Forms 3:1:2
Instruction, study and practice of the various dance forms utilized in the theater.

335 Principles of Creative Dance 3:3:0
Theory and practice of instructing creative dance. Emphasis is placed on positive reinforcement of the student as an individual and leading the student to gather self-expression in a dance/movement activity.

336 Choreography and Dance Production 3:2:1
Principles of the art of choreography and the study of the various facets utilized in dance production.

4101 Workshop in Dance Education 1:1:0
A number of workshops are designed to advance the professional competence of dance teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.

4201 Workshop in Dance Education 2:2:0
A number of workshops are designed to advance the professional competence of dance teacher. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.

4301 Workshop in Dance Education 3:3:0
A number of workshops are designed to advance the professional competence of dance teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.

430 Individual Study in Dance Education 3:A:0
Selected problems in Dance Education.
Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.

434 **Methods and Materials in Dance Education** 3:3:0
Objectives, methods and techniques of teaching dance: Classroom instruction and field laboratory assignments are included for demonstration and practice.

439 **History and Theory of Dance** 3:3:0
Chronological summary of characteristics and forms of dance from primitive rites to contemporary art forms; origins and evaluation of classic and contemporary dance forms.

Health Education Courses (HEd)

131 **Emergency Care, Safety and Survival** 3:3:0
Standard American Red Cross First Aid certification course, plus the Public Health Service Office of Civil Defense Medical Self-Help course and Safety Education. Among specific course requirements is one field trip.

133 **Personal Health** 3:3:0
A study of body organs and diseases, systems, physical and mental health concepts, knowledges and appraisal of individual health. Designed to extend the students' skills in using facts to arrive at well informed decisions concerning their own personal health.

234 **Public and Consumer Health** 3:3:0
Traditional and modern methods of meeting public and consumer health needs; investigation and analysis of public and consumer health problems; functions and organization of consumer services at the local, state, regional and national levels.

237 **Health Education in the Secondary School** 3:3:0
Presentation of health media in conjuntion with curriculum design and teaching methods. Emphasis placed upon the conceptual approach to teaching health education. Competencies regarding ten selected conceptual areas within the scope of health education are stressed.

331 **Measurement and Evaluation in Health Education** 3:3:0
Designed to provide the student with the understandings and tools needed to evaluate the secondary students' health status and progress within the school health program. Special emphasis placed upon competencies in detection and referral procedures for individual health appraisal. Evaluative measures and resources within schools and communities will be studied.

337 **Contemporary Health Problems** 3:3:0
The course deals with problems associated with current health issues which are related to individual and social adjustment in society. Emphasis will be placed upon social and psychological factors which promote successful interpersonal and family relationships.

338 **Health Education in the Elementary School** 3:3:0
Includes health problems and interests of elementary school children, the promotion of the healthful school environment, understanding of health appraisal of school children and the conceptual approach to curriculum construction.

4101 **Workshop in Health Education** 1:1:0
A number of workshops are designed to advance the professional competence of teachers. 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.

4201 **Workshop in Health Education** 2:2:0
A number of workshops are designed to advance the professional competence of teachers. 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.

4301 **Workshop in Health Education** 3:3:0
A number of workshops are designed to advance the professional competence of teachers. 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.

430 **Individual Study in Health Education** 3:A:0
Selected problems in health.
Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.

434 **Health and Human Ecology** 3:3:0
Emphasis on the human organism with the many aspects of environment and the implications in each area with regard to health. The course will cover aspects of air, land and water pollution with major sources of pollution being designated and categorized into the areas of transportation, industry, power plants, refuse disposal and recreational contributions.

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.

Women's Physical Education Courses (WPE)

Professional Courses (WPE)

123 **Basic Movement Fundamentals** 2:3:0
Study of joint actions, balance, locomotor forms, rhythm, force production and object projection. Introductions to movement patterns basic to sport or dance with accompanying movement analysis.

132 **Introduction to Physical Education** 3:3:0
Introduction to modern elementary and secondary physical education and to specialized related areas. Includes definitions, terminology, aims and objectives of physical education.

2201 **Tennis** 2:1:2
Instruction and practice in beginning through advanced tennis skills with emphasis on teaching technique and progression of skills. May be repeated for credit.

223 **Volleyball** 2:1:2
The development ofknowledge and skills inindividual fundamentals, techniques, training and team play. Emphasis on teaching, coaching and officiating methods.

224 **Soccer and Softball** 2:1:2
Instruction in the skills and knowledge of soccer and softball. Teaching methods and organization of outdoor field sports.

2251 **Tumbling and Gymnastics** 2:1:2
Development of tumbling skills with knowledge of movement principles, spotting techniques and class organization. Instruction and practice on gymnastics apparatus and floor exercise. Emphasis on spotting techniques and teaching methods. May be repeated for credit.

227 **Badminton** 2:1:2
Instruction and practice of beginning through advanced badminton techniques. Emphasis on organization and teaching methods of indoor racket sports.

228 **Track and Field** 2:1:2
Instruction in the skills and knowledge of track and field. Emphasis on teaching and coaching methods.

229 **Basketball** 2:1:2
The development of knowledge and skills in individual and team drills and skills. Emphasis on teaching and coaching methods.

235 **Psychosocial Aspects of Sport** 3:3:0
Psychological and sociological perspectives of sport; social psychology as it related to physical activity, social processes, personalities of sport participants, and current literature related to psychosocial aspects of sport.

236 **Administration of Physical Education** 3:3:0
Study of structure, organization, personnel, financing and management systems in the administration of physical education and athletic programs.

333 **Physiology of Exercise** 3:3:0
The application of physiological principles applied to muscular activity.
Prerequisite: Bio 141-142 and 330.

335 **Elementary Physical Education and Recreation for the Atypical Child** 3:3:0
The physical, mental, emotional and social traits of atypical children as they relate to motor learning. The effects of traits on motor learning. The objectives, programs and techniques and activities of instruction. Lectures, laboratory and observation.

336 **Techniques and Curriculum in Secondary Physical Education** 3:3:0
Study of and clinical experience in planning and guiding learning of movement activities. Includes presentation methods from command to problem solving and use of instructional materials and media.

339 **Physical Education in the Elementary School** 3:3:0
The theory of teaching physical education activities in the elementary grades. Classroom instruction and field laboratory assignments are included for demonstration and practice. Stress is placed on games of low organization. Classified as elementary physical education for purpose of teacher certification.

4101 **Workshop in Physical Education** 1:1:0
A number of workshops are designed to advance the professional competence of teachers. 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.

4201 **Workshop in Physical Education** 2:2:0
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from onepreviously taken.

4301 **Workshop in Physical Education** 3:3:0
A number ofworkshops are designed to advance the professional competence of teachers. 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.

430 Individual Study in Physical Education 3:A:0
Selected problems in Physical Education.
Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.

431 Introduction to Community Recreation 3:3:0
Foundations of organized recreation; backgrounds and theories, objectives and principles; social and economic factors; public, private and commercial interests; recreation and social institutions.

432 Measurement and Evaluation Procedures in Physical Education 3:3:0
Study of purposes and methods of evaluation in the physical education program. Includes construction of evaluation instruments, experience in test administration and the use of elementary statistical procedures in test score interpretations and research.

433 Motor Learning 3:3:0
Principles 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 state of the performer and application of these concepts to the teaching of motor skills.

Aquatics Courses (WPE)

120 Swimming 2:1:2
Demonstrations, 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 and Water Safety Instruction 2:1:2
Development of proficiency in lifesaving and water safety skills, the theory and study for teaching water safety technique and procedures. Completion of course includes American Red Cross certification.
Prerequisite: Intermediate Swimming Skills.

General Activity Program (WPE-Dan)

The activity courses from which four semesters are to be selected for graduation are listed below. The activity requirement is met during both semesters of the freshman and sophomore years. The classes are designed to enlarge the educational experience of the student by development 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. It is recommended the student take one aquatic class, one dance class, one sport class and one elective class. Many students take more than four semesters of activity.

Aquatics: WPE	The aquatic sections offer beginning swimming through advanced synchronized and competitive swimming, lifesaving and water safety instruction; and 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: WPE	The fitness sections offer general and individualized conditioning, jogging and field sports designed to provide conditioning and sports skill development.
Sports: WPE	The sports sections offer instruction from beginning to competitive in badminton, basketball, fencing, golf, gymnastics, racketball, tennis, track and field and volleyball.

Students enrolled in women's 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 $15 suit/towel rental and laundry fee, payable the first week of class, is charged for all swimming classes.

Activity Courses (WPE)

Several types of activities are listed under WPE 111, 112, 221, or 222. Students should review the activities schedule posted in the Women's Gymnasium prior to each semester for appropriate selection of activities.

Two semester hours dance classes may be taken as a part of the activity requirement.

111, 112 Activity 1:1:2

Physical activities directed toward basic movement skills inherent in conditioning and sports. May be repeated for credit. Two semester hours dance classes may be taken as a part of the activity requirement.

221, 222 Activity 2:1:2

Physical activities directed toward development of lifetime skills in sports. May be repeated for credit.

Department of Home Economics

Acting Department Head: Virginia Anderson **115 Home Economics Building**
Associate Professors: Davidson, El-Maguid, McAdams
Assistant Professors: Anderson, Hinchey
Instructor: Eliff, Martin
Adjunct Instructor Suiter

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 inthe areas of home economics education, food service and dietetics, family and community service, fashion retailing and merchandising and interior design. Each of these areas of study is described on the following pages.

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.

Recommended Programs of Study

General Home Economics

The General Home Economics Program provides a broad background of preparation for those who do not wish to specialize in a particular area of home economics. This liberal program provides a basis for a minor in a field of the student's choice: communication, art, business or other.

First Year

Eng Composition	6
Laboratory Science or Mth	6-8
HEc 131 Food Selection and Preparation	3
HEc 132 Clothing Selection and Construction	3
HEc 133 Visual Design	3
HEc 134 Foundations in Home Economics	3
HEc 137 Marriage and Family Relationships	3
PE Activity (2 semesters)	2
Electives	3
	32-34

Second Year

Eng Literature	3
Eng Lit or App Sub	3
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
HEc 231 Textiles	3
HEc 232 Dress Design	3
HEc 235 Meal Management	3
Mth	3
Laboratory Science	4
Elective	3
PE Activity (2 semesters)	2
	32-34

Third Year

HEc 233 Early Childhood Development	3
HEc 239 Nutrition	3
HEc 330 Consumer Economics	3
HEc 331 Advanced Clothing Construction	3
HEc 339 Seminar in Family Relations	3
His Sophomore American History	6
Electives 300-400 level	6
Electives Free	6
	33

Fourth Year

HEc 334 Advanced Child Development	3
HEc 335 Housing and Home Furnishings	3
HEc 433 Household Equipment	3
HEc 437 or 4307	3
HEc 439 Home Management	3
Electives	6
Electives	6
	27

Home Economics Education

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.

First Year

Eng Composition	6
Chm or Bio	8
HEc 131 Food Selection and Preparation	3
HEc 132 Clothing Selection and Construction	3
HEc 133 Visual Design	3
HEc 134 Foundations in Home Economics	3
HEc 137 Marriage and Family Relationships	3
Mth	3
PE Activity (2 semesters)	2
	34

Second Year

Eng Literature	6
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
HEc 231 Textiles	3
HEc 232 Dress Design	3
HEc 233 Early Childhood Development	3
HEc 235 Meal Management	3
HEc 239 Nutrition	3
Mth	3
Foundation Elective	3
PE Activity (2 semesters)	2
	35

Third Year

Edu 331 Foundations of Education	3
Edu 332 Educational Psychology	3
HEc 330 Consumer Economics	3
HEc 334 Advanced Child Development	3
HEc 335 Housing and Home Furnishings	3
HEc 338 Phil Prin Voc	3
HEc 339 Seminar in Family Relations	3
His Sophomore American History	6
Foundation Elective	3
Free Elective	3
	33

Fourth Year

HEc 433 Household Equipment	3
HEc 438 Teaching Methods and Materials	3
HEc 439 Home Management	3
HEc 462 Student Teaching in Home Economics	6
Foundation Electives	6
Free Electives	9
	30

Food Service and Dietetics

The Dietetic and Food Service curriculum provides professional preparation which meets the academic requirement of plan IV of the American Dietetic Association. Graduates of this program are eligible for an accredited dietetic internship.

First Year

Eng Composition	6
Bio 143-144 Human Physiology or Bio 142	4-8
Mth 1334 College Algebra	3
Eco 233 Principles and Policies	3
HEc 131 Food Selection and Preparation	3
HEc 132 Clothing Selection and Construction or HEc 432 Family Clothing	3
HEc 134 Foundations in Home Economics	3
HEc 235 Meal Management	3
PE Activity (2 semesters)	2
	30-34

Second Year

Eng Literature	3
Eng 4335 Technical Report Writing	3
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
Psy 131 Introduction to Psychology	3
Chm 141 & 142 General	8
Bio 245 Introductory Microbiology	4
HEc 137 Marriage and Family Relationships	3
HEc 239 Nutrition	3
PE Activity (2 semesters)	2
	35

Third Year

Soc 332 Social Psychology	3
His Sophomore American History	6
Acc 231-232 Principles of Accounting	6
HEc 330 Consumer Economics	3
HEc 332 Advanced Nutrition	3
HEc 333 Food Chemistry	3
HEc 336 Institutional Food Service	3
Edu 332 Educational Psychology	3
Electives	6
	36

Fourth Year

Mgt 331 Principles of Management	3
Mgt 333 Personnel Management	3
Bio 344 Advanced Physiology	3
CS 133 Introduction to Computers or Mth 234 Elementary Statistics	3
HEc 337 Personal Management	3
HEc 338 Philosophy & Principles of Vocational Home Economics	3
HEc 430 Theraputic Nutrition	3
HEc 433 Household Equipment	3
HEc 300 or 400 level	6
	31

Family and Community Service

The Family and Community Service curriculum prepares the student for a career in government and private agencies which serve families. A broad based knowledge of home economics equips the student to aid families in personal relationships, homemaking and consumer skills. A minor in social work including internship in a social agency provides professional training.

First Year

Eng Composition	6
Mth or Laboratory Science	6-8
HEc 131 Food Selection and Preparation or HEc 132 Clothing Selection	3
HEc 133 Visual Design	3
HEc 134 Foundations in Home Economics	3
HEc 137 Marriage and Family Relationships	3
Soc 131 Introduction to Sociology	3
PE Activity (2 semesters)	2
	29 or 31

Second Year

Eng Literature	3
Eng Lit or App Sub	3
Mth	3
Laboratory Science	4
His Sophomore American History	6
HEc 231 Textiles	3
HEc 233 Early Childhood Development	3
HEc 235 Meal Management	3
SWk 231 Survey of the Social Welfare Institution	3
Psy 131 Introduction to Psychology	3
PE Activity (2 semesters)	2
	36

Third Year

Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
HEc 239 Nutrition	3
HEc 330 Consumer Economics	3
HEc 334 Advanced Child Development	3
HEc 339 Seminar in Family Relations	3
SWk 331 Social Work Practice I	3
SWk 333 Social Work Practice II	3
Soc or Psy 300 or 400 level	3
Electives	6
	33

Fourth Year

HEc 432 Family Clothing	3
HEc 435 Consumer Housing	3
HEc 439 Home Management	3
SWk 335 Social Work Practice with Target Groups	3
SWk 4321, 4324	6
Soc or Psy 300 or 400 level	3
HEc 300 or 400 level	6
Electives	6
	33

Fashion Retailing and Merchandising

The Fashion Retailing and Merchandising specialization provides professional training for positions in merchandising, promotion, personnel and fashion coordination. The program includes on job training through a work study program.

First Year

Eng Composition	6
Mth or Laboratory Science	6-8
HEc 130 Psychology of Clothing	3
HEc 132 Clothing Selection and Construction	3
HEc 133 Visual Design	3
HEc 134 Foundations in Home Economics	3
HEc 137 Marriage and Family Relationships	3
Spc 131 Public Speaking	3
Art 131 Drawing I	3
PE Activity (2 semesters)	2
	33-35

Second Year

Eng Literature	3
Laboratory Science	4
Mth	3
HEc 231 Textiles	3
HEc 232 Dress Design	3
HEc 234 Introduction to Home and Fashion Retailing	3
Eco 233 Principles and Policies	3
Acc 231 Principles of Accounting	3
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
PE Activity (2 semesters)	2
	35

Third Year

His Sophomore American History	6
HEc 235 Meal Management or HEc 131 Food Selection and Preparation or HEc 239 Nutrition	3
HEc 330 Consumer Economics	3
HEc 331 Advanced Clothing Construction	3
HEc 335 Housing and Home Furnishings or HEc 237 Fundamentals of Interior Design	3
HEc 337 Personal Management	3
HEc 433 Household Equipment	3
Mkt 331 Principles of Marketing	3
Mkt 333 Marketing Promotion	3
Art 3353 Fashion Illustration	3
	33

Fourth Year

HEc 4317 Internship	6
HEc 432 Family Clothing	3
HEc 434 Fashion Production	3
HEc 436 Home and Fashion Merchandising	3
Foreign Language or Spc 331 or 334	3
Mkt 332 Principles of Retailing	3
MM 231, 138, or 232	3
Electives	6
	30

Interior Design

The Interior Design specialization provides professional training for a wide range of design problems extending from personal to public environments.

First Year

Eng Composition	6
Mth or Laboratoy Science	6-8
HEc 130 Psychology of Clothing or HEc 132 Clothing Selection and Construction	3
HEc 133 Visual Design	3
HEc 134 Foundations in Home Economics	3
HEc 137 Marriage and Family Relationships	3
Art 131 Drawing	3
Dft 133 Introduction to Drafting	3
PE Activity (2 semesters)	2
	32-34

Second Year

Eng Literature	3
Gov 231 Introduction to American Government I	3
Gov 232 Introduction to American Government II	3
HEc 131 Food Selection and Preparation or HEc 235 Meal Mangement or HEc 239 Nutrition	3
HEc 231 Textile	3
HEc 237 Fundamentals of Interior Design	3
HEc 2307 History of Architecture and Interior Furnishings	3
Art 132 Drawing II	3
Mth	3
Laboratory Science	4
Art 134 Design II	3
PE Activity (2 semesters)	2
	36

Third Year

Art 139, 235 or 236	3
Eco 233 Principles and Policies	3
Acc 231 Principles of Accounting	3
Spc 331 or 334 or Foreign Language	3
HEc 235 Meal Management or HEc 337 Personal Management	3
HEc 3305 Components of Interior Design	3
HEc 335 Housing and Home Furnishings	3
His 233 Sophomore American History	3
His 234 Sophomore American History	3
Art Elective	3
Art Elective (300-400)	3
	33

Fourth Year

HEc 433 Household Equipment	3
HEc 435 Consumer Housing or HEc 330 Consumer Economics	3
HEc 439 Home Management	3
HEc 4305 Advanced Interior Design	3
HEc 436 Home and Fashing Merchandising	3
HEc 4307 Internship in Interior Design	3
Mkt 331 Principles of Marketing	3
Art 3313 Illustration I	3
Art 300/400 level	3
Electives	6
	33

Home Economics Courses (HEc)

130 Psychology of Clothing 3:3:0

An interdisciplinary approach to clothing emphasizing the cultural, psychological, sociological and economical aspects of wearing apparel.

131 Food Selection and Preparation 3:2:4

Basic knowledge of scientific principles of food selection and preparation with application made in the laboratory.

132 Clothing Selection and Construction 3:2:4

A study of clothing construction principles with consideration given to new fabrics. Includes problems and procedures of consumer buying.

133 Visual Design 3:2:3

Study of art elements with experiences in applying the principles of design. Develops an appreciation of natural and man-made designs in the daily environment.

134 **Foundations in Home Economics** 3:3:0
An overview of the home economics profession which includes contact with professionals in many varied areas of service.

137 **Marriage and Family Relationships** 3:3:0
A study of the individual and the family. Special emphasis on individual development, sexuality, tasks of marriage and parenting skills in relation to the family life cycle.

138 **Principles of Nutrition** 3:3:0
Basic principles of nutrition in health and disease. Food selection and quality of nutrients in normal and therapeutic diets related to physiological and psychological needs of individuals considering socio-economic background.

2307 **History of Architecture and Interior Furnishings** 3:3:0
A study of period design in architecture and interiors from antiquity to the present; integration of the past with the present in understanding contemporary design.

231 **Textiles** 3:3:0
A study of the physical and chemical properties of textiles. Emphasis on consumer selection and care of fabrics.

232 **Dress Design** 3:2:3
Study principles of fashion design and flat pattern making. Master pattern is developed to design, draft and construct garments.
Prerequisite: HEc 132.

233 **Early Childhood Development** 3:3:0
A study of the young child as a basis for understanding the dynamics of child growth and development with emphasis on education for parenthood.

234 **Introduction to Home and Fashion Retailing** 3:3:0
An introductory study of the contemporary aspects of retailing. A broad view of retailing and its diverse operation with emphasis on home and fashion retailing.

235 **Meal Management** 3:1:4
Meal planning based on concepts of nutritional adequacy. Management of money, time and energy in relation to meals and table appointments.

237 **Fundamentals of Interior Design** 3:3:3
A study of the elements and principles of design as applied to interiors; planning furnishings to meet human needs; introduction to practices and procedures in interior design.

239 **Nutrition** 3:3:0
A survey study of food components and their interaction, the relation of nutrients to body requirements throughout the life cycle.

330 **Consumer Economics** 3:3:0
Consumer principles and rational decision-making skills for coping with consumer issues affecting families and individuals.

3305 **Components of Interior Design** 3:2:3
Study of building construction and materials, applied surfaces, lighting, furnishings and accessories.
Prerequisite: HEc 231 and 237.

331 **Advanced Clothing Construction** 3:3:2
A study of specialized techniques in the construction of a tailored garment. Emphasis is given to new technological advancement in fabric.

332 **Advanced Nutrition** 3:3:0
A study of developments in nutrient metabolism and their application. Concepts of biological values, bioenergetic and nutrition in health and disease.
Prerequisite: HEc 239.

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 141 and 142.

334 **Advanced 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.

335 **Housing and Home Furnishings** 3:2:3
A study based on an understanding of historical design in architecture and furniture; application of design principles in choice of home and furnishings to meet individual needs.
Prerequisite: HEc 133.

336 **Institutional Food Service** 3:3:2
A study of institutional equipment, maintenance and organization. Special emphasis on institutional food purchasing, quantity preparation, storage, inventory and cost control.
Prerequisite: HEc 131 and 235.

337 **Personal Management** 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 educational programs in varied settings.

339 **Seminar in Family Relations** 3:3:0
In-depth study of selected family topics. The family and the larger society; family structure and function; cultural patterns and life styles; community resources; and family life education.

411, 421, 431 **Special Topics** 1-3:1-3:0
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/MerchandisingB. Family Relations/Child DevelopmentC. Food/NutritionD. Home Economics EducationE. Housing/Home Furnishings/Interior DesignF. Home Management/Equipment/Consumer Economics

430 **Therapeutic Nutrition** 3:2:3
Biochemical changes in diseases, particularly those of nutritional origin; prevention, and the dietary modifications for their correction. Special emphasis on patient care, rehabilitation and nutritional education.
Prerequisite: HEc 332, 333, 336.

4305 **Advanced Interior Design** 3:3:2
Study of professional procedures and practices in presenting residential and commercial interiors, emphasis on client and designer relations.
Prerequisite: Senior standing and consent of the instructor.

4307 **Internship in Interior Design** 3:A:0
Supervised work experience of at least twenty hours a week for 8 weeks or its equivalent with interior designer, architect; home furnishings firm; speciality shop; research and restoration. Weekly conference and/or seminar will be required.
Prerequisite: Senior standing and consent of the instructor. Advanced registration required. May be repeated with varied experiences for a maximum of six hours credit.

4317 **Internship in Fashion Merchandising** 3:A:0
Supervised work experience of at least 20 hours a week for 8 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 6 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 **Internship in Family and Children Services** 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.
Prerequisite: Senior standing and consent of instructor. Advanced registration required. May be repeated with varied experiences for a maximum of 6 hours credit.

433 **Household Equipment** 3:3:0
Selection, use, and care of basic equipment; adapting work centers to individual needs and demonstration techniques.
Prerequisite: HEc 335 or 237.

4337 **Internship in Home Economics in Communication** 3:A:0
Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent in news paper, radio station, television and other media. 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 6 hours credit.

434 **Fashion Production and Distribution** 3:3:0
A 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 Home Economics in Business** 3:A:0
Supervised work experience of at least 20 houts a week for 8 weeks or its equivalent in utility company, appliance company or other business. 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 6 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 Internship in Food Service 3:A:0
Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent in hospital, nursing home, school, or commercial food service organizations. 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 6 hours credit.

436 Home and Fashion Merchandising 3:3:0
A study of home furnishings, household equipment and apparel retailing techniques. Includes off-campus experiences through field trips to the home furnishings and fashion markets, manufacturing companies, textile mills, etc.
Prerequisite: Senior standing.

4367 Internship in Home Economics Education 3:A:0
Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent in agriculture extension, nursery school, and private or public schools. Weekly conferrence 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 6 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.

438 Methods and Materials for Teaching Home Economics 3:3:0
Objectives, methods and techniques of teaching vocational home economics in the public school.
Prerequisite: Edu 331 and 332, and HEc 338.

439 Home Management 3:2:3
A conceptual study of philosophies and principles of resource management. Practical application through individual and group problems.
Prerequisite: HEc 235, HEc 330, HEc 433.

462 Student Teaching in Home Economics 6:A:0
Supervised observation and teaching in the secondary school.
Prerequisite: HEc 438. Class: 6 hours in an approved vocational program 5 days per week for 8 weeks. Advanced registration required.


SETZER STUDENT CENTER

College of Engineering

Departments: Chemical, Civil, Electrical, Industrial, Mechanical, Mathematics
Division: Computer Science
Fred M. Young, P.E., Ph.D., Dean

The College of Engineering offers five undergraduate curricula in engineering, two undergraduate curricula in mathematics and an undergraduate curriculum in computer science. Graduate curricula at the master's level are offered in both engineering and mathematics together with curricula leading to the Doctor of Engineering degree.

The five undergraduate curricula in engineering are accredited by the Accreditation Board for Engineering and Technology. All six departments in the College of Engineering have associated with them chapters of their national honor societies which include Tau Beta Pi, Omega Chi Epsilon, Chi Epsilon, Kappa Nu, Alpha Pi Mu, Pi Tau Sigma, and Pi Mu Epsilon.

These curricula are designed to prepare graduating students for responsible positions as they become professional engineers, administrators, investigators, computer scientists, applied mathematicians or teachers.

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.

The first two years of study are common for all engineering curricula. Each student in the College of Engineering is assigned to a member of the faculty who serves as his or her counselor. Through individual counselors, students will be able to determine their ultimate professional interests as well as obtain help and guidance in academic life.

Upon enrollment, students choosing mathematics or computer science as their major are admitted directly into their program.

An entering freshman will be assigned a counselor from his or her major department.

The entrance requirements from high school for engineering degree programs in the College of Engineering are:

1.	English	4 units
2.	Mathematics	
	Algebra	2 units
	Trigonometry	½ unit
3.	Natural Sciences	
	Chemistry	1 unit
	Physics	1 unit
4.	Social Sciences	2 units
5.	Electives	4-½ units
	Total	15 units

Students who meet the general entrance requirements of the University, but lack in specific requirements for the engineering curricula may, upon consultation with 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.

Attention is directed to the section in this bulletin on admission requirements and, in particular, to the requirement that each person desiring to enter the College of Engineering must take the Level I Mathematics Test. 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.

The Department of Mathematics has developed a placement test for entrance into the freshman mathematics courses: Mth 134, 1334, 1335, 148 or 236. All entering students (except those with grades of A or B in high school Algebra I, Algebra II and Trigonometry plus a score of at least 26 on the ACT or at least 590 on the CEEB Mathematics Level I test) are required to take this placement test before entering these courses. These tests are administered during the orientation periods held before registration, and during the regular registration periods. Entrance into all other mathematics courses is determined by the counselor in the student's major department. The Department of Chemistry requires a placement test of all students entering Chm 141. These tests are administered during the orientation periods held before registration, during the summer prior to fall semester registration and during the summer registration periods.

In addition to instruction in the various branches of engineering, the functions of the College of Engineering include research, both on fundamental and applied problems; provision of a center of technical meetings and activities and the management of a cooperative education program.

A Cooperative (Coop) Education Program, in which the student spends alternate terms at work and at study, is offered to qualified students in the College of Engineering. The Cooperative Education Programs in Chemical, Civil, Electrical, Industrial and Mechanical Engineering meet the requirements for basic-level accreditation of the Accreditation Board for Engineering and Technology (ABET). The same standards for Cooperative Education Programs are upheld for industrial technology, mathematics and computer science, although the ABET does not accredit curricula in these areas. To meet the minimum qualifications for the Coop program; a student must have:

1. Completed all the work in the Engineering Common Program for the first year.
2. An over-all grade point average of 2.5, using all grades earned.

To remain in the program, the student must maintain a grade point average equal to or above the minimum qualification level and perform in a manner satisfactory to both the employer and to Lamar.

The period during which a student may participate in the Coop program extends through the regular sophomore and junior years. Coop privileges are not extended to freshman or senior students. By participating in the Coop program throughout the sophomore and junior years of eligibility, a student extends the time required to obtain a degree to five years; but in doing so, gains the equivalent of almost two years experience in industry.

A student may apply for admission to the Coop program through the Office of the Dean of Engineering.

Repetition of a Course

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.

A course in which a student has a grade of "B" or better may not be repeated for credit.

Academic Progress — University Standards

Academic regulations for all students at Lamar University are outlined in the University Bulletin and other official documents. For students in the College of Engineering, additional requirements and regulations are described below.

Students are expected to take courses in the sequence shown in the University Bulletin for each degree program.

Students are expected to make acceptable progress toward their degree objectives. Students who fail to make such progress and accumulate grade point deficiencies may be placed on academic probation or suspension from a degree program in the College of Engineering.

All students with any grade point deficiency at the end of any semester shall be placed on academic probation in the degree program in the College of Engineering and will continue on probation as long as a deficiency exists.

All students with a grade point deficiency of 25 or more grade points, either in their major field, or overall, at the end of any semester shall be suspended from all degree programs in the College of Engineering for the following semester. This regulation does not apply to a student at the end of the first semester of residence at Lamar University.

A student returning from academic suspension may return to a major field in the College of Engineering but will be on probation at least the first semester after his/her return.

Students returning from the academic suspension described above are expected to reduce their overall deficiency and any grade point deficiency in their major field every semester of enrollment until the deficiency is eliminated. Should the student fail to reduce either (major or overall) deficiency in any one semester, including summer session, the student will again be suspended from the academic program in the College of Engineering. The first academic suspension shall be for one semester, the second for two successive semesters. Readmission to a program in the College of Engineering after the second suspension is permitted only with written permission of the student's department head and the dean of the College of Engineering.

Students on the academic probation described above may not:

(a) register for more than 13 semester credit hours; (b) submit the degree program for graduation for any program in the College of Engineering; (c) apply for graduation from any program in the College of Engineering; (d) represent the College of Engineering in any extra-curricular activity; (e) hold collegiate office; (f) participate in trips or tours except when required as class projects; (g) participate in the Cooperative Education Program.

It is to be understood that while on probation, the student should primarily take courses in which he or she formerly received "D" or "F", or courses which are background-preparation courses for those in which unsatisfactory grades were previously made.

Engineering Program Standards (ChE, CE, EE, IE and ME)

Admission to An Engineering Program

Upon the completion of at least 51 semester hours of the Common Program, and with a GPA of 2.25 or more on all required courses, a student will be admitted to an engineering program.

For all engineering programs, it is required that forty-five semester hours (twenty-five semester hours in engineering at the 300 and 400 level) be earned after admission to the professional program.

Retention in An Engineering Program

Engineering students are expected to maintain a GPA of 2.25 to remain in a program. Students who drop below a 2.25 GPA will be placed on departmental probation (maximum load of 12 smester 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 faculty advisor for approval by the Department Head.

Students must make up grade points every semester for which they are enrolled until a GPA of 2.5 is achieved. If a student fails to make up grade points as required, he or she will be suspended from the College of Engineering and admission to any program revoked. For readmission, the student would be required to meet the admission standards given above and to satisify the requirement of earning forty-five semester hours after readmission and prior to graduation.

Electives

It is recommended that every student seek advice from his or her counselor regarding electives. All electives, designated (i.e., technical electives, mathematics electives, etc.) or not, must be approved by the student's department head.

Common Program — Engineering

First Year

First Semester		Second Semester	
Chm 141 Gen Chm	4	Chm 142 Gen Chem	4
English Composition	3	English Composition	3
Mth 148 Calc & Anal Geom I	4	Mth 149 Calc & Anal Geom II	4
Egr 111 Introduction to Engineering	1	Egr 1221 Introduction to Computers II	2
Egr 114 Egr Graphics I	1	Phy 140 Introductory Mechanics	4
Egr 1121 Introduction to Computers I	1	PE (1)	
American History	3		
PE (1)			
	17		17

Second Year

First Semester		Second Semester	
Phy 241 Heat, Elec, Mag	4	Egr 233 Circuits	3
Mth 241 Calc & Anal Geom III	4	Egr 231 Dynamics	3
Egr 230 Statics	3	Egr 210 Introduction to Computer Aided Design	1
Egr 234 Thermo	3	Mth 3301 Lin Alg & Diff Equ	3
Egr 215 Egr Graphics II	1	PE (1)	
Egr 223 Egr Econ	2	Specified by Major (2)	6-7
PE (1)			
	17		16-17

Note:
(1) All students must meet the University's requirement for Physical Education, Marching Band or ROTC; However, neither the credit hours nor the grade points will count toward an Engineering Degree or GPA requirements.
(2) The following courses are specified for each engineering major:
Chemical Engineering: Chm 241, Che 334
Civil Engineering: Phy 222, CE 232, Geo 220
Electrical Engineering: His 232, EE 217, Gov 231
Industrial Engineering: Mth 3370, IE 334
Mechanical Engineering: CE 232, Approved Science Electives (3), IE 212

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 Computers I 1:1:0
Flow charting, digital computers, BASIC, BASIC programming.

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 2:2:0
Flow charting, digital computers, FORTRAN, FORTRAN programming.

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 and special problems approved by the instructor.
Prerequisite: Egr 114. Egr 215 may be taken concurrently with 114 if the student has one year of high school drawing and permission of the Engineering Advisement Center.

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.

230 Statics 3:3:0
Statics of particles and rigid bodies. Use is made of basic physics, calculus and vector algebra.
Prerequisite: Physics 140.

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 241, Egr 1221.
Corequisite: EE 217, for EE students.

234 Thermodynamics 3:3:0
The fundamental laws of thermodynamics; properties of systems solids, gases and liquids and thermodynamic tables.
Prerequisite: Phy Heat; Mth 241 or concurrent.

236 Career Development I 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of academic dean.

237 Career Development II 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
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: Junior standing.

336 Career Development III 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Egr 237.

337 Career Development IV 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
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.

421 Data Processing 3:1:3
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.

436 Career Development V 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Egr 337.

Bachelor of Science — Engineering Technology

An increasing need is found in industry for those who have a knowledge of basic engineering, and a desire to relate themselves to machines and equipment as operators, maintenance men, testers or as engineering aides. In general, these engineering technologists must have a sufficient knowledge of mathematics to understand some of the procedures being followed by a professional engineer, but the engineering technician need not have the depth of mathematics knowledge required to engage in creative engineering or high-level design.

The five engineering departments, Chemical, Civil, Electrical, Industrial and Mechanical, are authorized to specify a set of courses leading to the Bachelor of Science in Engineering Technology, with an option in the engineering field of the student's choice. Requirements for the Bachelor Degree General, as specified in this bulletin must be satisfied, but the engineering technology student has considerable freedom in the selection of courses subject to the approval of the department head in the engineering field selected.

Computer Science Division

Division Director: Bobby R. Waldron **106 Liberal Arts Building**
Professor: McGuire, Nylin
Associate Professors: Read, Waldron

Assistant Professor: Jordan, Koh
Adjunct Instructors: Bilici, Bolton, Huang

Bachelor of Science — Computer Science

The computer industry is one of the fastest growing industries in society today. With this growth comes an ever increasing need for computer analysts, programmers, researchers, technicians and designers. The computer science program at Lamar is a broad degree program encompassing all of these fields. Emphasis is in the area of data structures, programming languages, information storage and retrieval, operating systems and compiler theory. An 18-hour specialization is provided for a minor in areas such as mathematics, industrial engineering, electrical engineering, business, or any area chosen by the student with the approval of his or her advisor. The student must make a grade of at least a C or better on any course which counts towards his or her major or area of specialization. The student who completes this four (4) year academic program is awarded a Bachelor of Science in Computer Science and is well prepared to pursue a career in Computer Science, pursue graduate work in Computer Science, or pursue a career in his or her area of specialization.

Recommended Program of Study

First Year

First Semester		Second Semester	
CS 131 Computer Programming I	3	CS 132 Computer Programming II	3
English Composition	3	English Composition	3
Mth 148/Mth 236	3-4	Mth 149/Mth 237	3-4
His 231 American History	3	His 232-236	3
Elective	3	Elective	3
PE/MLb/ROTC	1	PE/ROTC	1
	16-17		16-17

Second Year

First Semester		Second Semester	
CS 3302 Introduction to Computer Systems	3	CS 4305 Data Structure and Algorithm Analysis	3
Statistics	3	Mth 233 Computational Linear Algebra	3
Gov 231	3	Business Elective	3
Lab Science	4	Gov 232	3
English Literature	3	Lab Science	4
PE/MLb/ROTC	1	PE/ROTC	1
	17		17

Third Year

First Semester		Second Semester	
CS 3304 COBOL Programming	3	CS 4302 Operating Systems and Computer Architecture I	3
CS 4307 Organization of Programming Languages	3	CS Elective	3
Mth/Statistics Elective	3	Specialization	3
Specialization	6	English Lit/Speech	3
		Mth 4316/IE 4302	3
	15		15

Fourth Year

First Semester		Second Semester	
CS Elective	6	CS Elective	6
Specialization	3	Specialization	3
Electives	3 or 5	Electives	6
Elective (Outside of Engineering)	3		
	15 or 17		15

Total Semester Hours 128

Comments:

1. An area of specialization is chosen by the student and consists of 18 semester credit hours which must be approved by his or her advisor.
2. Students whose area of specialization is Math, Engineering, or Physics must take Mth 148, Mth 149, and Mth 241 as their Math elective.
3. Students whose area of specialization is Engineering must take Phy 140 and Phy 241 as their lab science.
4. A student must take 15 semester credit hours of Computer Science electives which must be approved by his or her advisor with at least 9 semester credit hours in courses numbered 300/3000 or above.

Computer Science Courses (CS)

130 Computers and Society 3:3:0
Introduction to computers, their history, their uses in society and the consequences of their applications to society and man. Interaction with computers will be accomplished by using the BASIC programming language.

131 Computer Programming I 3:3:0
Introduction to problem solving methods; algorithm development; and how to design, code, debug, and document programs using good programming style and a high level language.

132 Computer Programming II 3:3:0
Continuation of the development of discipline in program design, in style, in debugging and testing; algorithmic analysis; and basic aspects of string processing, recursion, internal search/sort methods and simple data structure.
Prerequisite: CS 131 and Mth 1334 or higher.

133 Introduction to Computers 3:3:0
Utilization of digital computers using both the BASIC and FORTRAN higher level languages to solve business oriented problems.

230 RPG Programming 3:3:0
An introduction to RPG programming RPG techniques, specifications and routines.
Prerequisite: CS 131 or CS 133.

235 Engineering Computation II 3:3:0
Problem theory, flow charting, advanced FORTRAN programming. Solution of advanced problems from various engineering disciplines.
Prerequisite: CS 132.

3302 Introduction to Computer Systems 3:3:0
Introduction to computer architecture; basic concepts of computer systems; and machine, assembler level and micro languages.
Prerequisite: CS 132.

3304 COBOL Programming 3:3:0
A thorough coverage of the COBOL language and some of its variations is presented in this course. The emphasis is placed on the language, its flexibility and power as well as on applications.
Prerequisite: CS 131 or 133.

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 3302.

4104, 4201, 4301, 4401 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 4305.

4305 Data Structures and Algorithm Analysis 3:3:0
Data structure; analysis and design techniques for nonnumeric algorithms which act on data structures; and utilization of algorithmic analysis and design criteria in the selection of methods for data manipulation.
Prerequisite: CS 132.

4306 Techniques of Information Processing and Retrieval 3:3:0
Continuation of CS 4305. Keyword and descriptive indexing, decision tables, real time information processing and total information systems.
Prerequisite: CS 4305.

4307 Organization of Programming Languages 3:3:0
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 3302, 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.

4309 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: CS 132, EGR 1221 and Mth 234 or 438.

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.

4311 Information Systems I 3:3:0
The analysis, design, installation documentation, maintenance, and modifications of informations systems including both hardware and software.
Prerequisite: CS 3304, 4305.

4312 Information Systems II 3:3:0
A continuation of CS 4311 with special emphasis on using state of the art computer technology in maintenance and modification of information systems.

4321 Computer Uses in Education 3:3:0
Theoretical and practical studies of how a computer can be used as an effective teaching tool in secondary schools. An introduction to computer aided instruction, games and simulation.
Prerequisite: Consent of advisor.

439 Scientific Computer Applications 3:3:0
An automatic language approach to solving interdisciplinary problems. This is a course primarily for life and earth-science majors.

Department of Chemical Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Jack R. Hopper **100 Lucas Building**
Professors: Hopper, Walker, Yaws
Assistant Professors: Li
Adjunct Professor: Shaver
Laboratory Technician: Stauffer

The work of the chemical engineer is the changing of raw materials into finished products with efficiency and economy. Chemical engineers are concerned primarily with the design, construction and operation of equipment and plants in which chemical or physical changes of materials are involved. 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 Common Program)

Third Year

First Semester		Second Semester	
**ChE 333 Thermodynamics	3	**ChE 332 Heat Transfer	3
ChE/ME 3311 Momentum Transfer	3	**ChE 441 Reaction Kinetics	4
*ChE 437 Computer Applications	3	Gov 232 Introduction to American Government II	3
Gov 231 Introduction to American Government	3	His American	3
Chm 341 Organic	4	Chm 342 Organic II	4
	16		17

Fourth Year

First Semester		Second Semester	
ChE 442 Mass Transfer	4	ChE 433 Process Control	3
ChE 431 Laboratory I	3	Chm 426 Instrumental Analysis	2
ChE 436 Plant Design I	3	ChE 434 Plant Design II	3
ChE 414 Seminar	1	ChE 435 Advanced Analysis	3
Elective	3	***Chm Elective	3
English Literature	3	English Lit/Tech Rpt Writ	3
	17		17

Total Semester Hours 135

Notes:
* *These courses are offered during both Fall & Spring Semester.*
** *These courses are also offered during the Summer Session.*
*** *Requires approval of Department Head.*

Chemical Engineering Courses (ChE)

3311 Momentum Transfer 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. Same as ME 3311. Che 3311 and ME 3311 may not both be counted for credit.
Prerequisite: Egr 234.

332 Heat Transfer 3:3:0
Principles of conduction, convection and radiation, and their application to the design of heat transfer equipment and systems.
Prerequisite: ChE 3311.

333 Thermodynamics 3:3:0
Application of the First and Second Laws to chemical processes. Thermodynamic properties of pure fluids and mixtures. Physical equilibrium.
Prerequisite: ChE 334, Egr 234.

334 Process Analysis 3:3:0
Application of mathematics, physics and chemistry to the solution of problems in industrial chemistry. Material and energy balance calculations on processes undergoing physical and chemical changes.
Prerequisite: Egr 234 or concurrent.

4111 Seminar 1:1:0
Oral presentation of advanced topics or research work in chemical engineering.

414 Seminar 1:1:0
Oral and written presentation of selected topics in chemical engineering from recent technical publications.

422 Laboratory II 2:0:6
A continuation of ChE 431. Intensive experimental work in one or more areas studied in ChE 431. May be taken on an individual instruction basis.
Prerequisite: ChE 431.

431 Laboratory I 3:1:6
Experiments in heat transfer, mass transfer, fluid flow, reaction kinetics and thermodynamics.
Prerequisite: ChE 442 or concurrent.

4316 Stagewise Processes 3:3:0
Advanced study of absorption, extraction, distillation and diffusion, with emphasis on multicomponent mixtures.

4318 Advanced Distilation 3:3:0
Principles of multicomponent distillation, including prediction of equilibrium compositions of multicomponent mixture.

4321 Process Economics 3:3:0
Calculations involving economic evaluation of processes and equipment. Optimization of plants for least cost or maximum profit.

4322 Unit Operations 3:3:0
A study of chemical engineering operations not considered in other courses. An advanced study of one or more selected chemical engineering operations.

4323 Engineering Materials 3:3:0
Engineering properties of solid, liquid and gaseous materials. Selection and deterioration of materials for various industrial applications.

4325 Introduction to Nuclear Engineering 3:3:0
Interaction of neutrons with matter, nuclear properties of materials, shielding and control of reactors, production of neutrons by nuclear fission, discussion of the various types of reactors and introduction to reactor theory and design.

433 Process Control 3:3:0
Selection of equipment to measure and control process variables. Analysis of process response to variations in process parameters.
Prerequisite: Che 441, 442, Mth 3301.

434 Plant Design II 3:1:6
A 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 partial differential equations.
Prerequisite: Mth 3301.

436 Plant Design I 3:3:0
Application of chemical engineering principles to the design of chemical processes and plants. Equipment design and specifications. Economic evaluation of processes and equipment.
Prerequisite: ChE 441; ChE 442 or concurrent.

437 Computer Applications 3:3:0
Use of the digital computer in performing process calculations. Advanced techniques of FORTRAN programming.
Prerequisite: Egr 1121, 1221, ChE 334, ChE 333 or concurrent.

438 Introductory Petroleum Engineering 3:3:0
The modern techniques of producing oil will be reviewed. Drilling operations, primarily and secondary recovery operations, methods of evaluation, production rate potential and reserve, as well as other aspects of reservoir engineering 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, catayltic and non-catalytic reactions. Development of equations for batch, stirred-tank and flow reactors. Application of different equations to process and reactor design.
Prerequisite: ChE 332 or concurrent, ChE 333 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.

Department of Civil Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Luther A. Beale **108A Engineering Building**

Professors: Beale, Rogers

Associate Professors: Morgan, Singh

Civil Engineering is vital to the world's economic, political and social well-being. Modern technological developments are ever widening the vistas of this profession and deepening its scientific roots. These trends are accentuating and creating needs that can be met only by truly professional people whose education has the breadth of a liberal education and the depth of a firm foundation in mathematics and science. This curriculum is designed to meet these requirements.

It is strong in the engineering sciences including the natural and earth sciences. It embraces a sound core of mathematics, physics and chemistry. Completion of this curriculum will enable a student to enter the professional field of practice or to pursue an advanced program of study leading to a graduate degree in civil engineering. Areas of activity include soil, structural, hydraulic, sanitary, transportation, surveying and mapping, and power engineering. This curriculum is modern and designed to meet the requirements of the space and atomic age. Options are provided to fit the individual interest of the civil engineering student.

Bachelor of Science — Civil Engineering

Additional Degree Requirements:

Candidates for degrees in this program must submit a certificate showing they have passed 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
(See Common Program)

Third Year

First Semester		Second Semester	
Mth 3370 Statistics	3	CE 212 Route Surveying	1
CE 210 Civil Engineering Management	1	CE 311 Geodesy and Mapping	1
CE 211 Engineering Measurements	1	CE 313 Materials Engineering	1
CE 213 Experimental Stress Analysis	1	CE 336 Hydrology	3
CE 331 Environmental Science	3	CE 337 Water Utility Systems	3
CE 334 Structural Mechanics	3	CE 339 Soil Science	3
CE 335 Hydraulics I	3	CE 430 Indeterminate Structures	3
Elective Eco Prin & Policies	3	CE 439 Structural Steel Design	3
	18		18

Fourth Year

First Semester		Second Semester	
BA 331 Business Law	3	Gov 232 American Government	3
American History	3	CE 411 Seminar	1
Gov 231 American Government	3	CE 412 Contracts and Specifications	1
CE 434 Soil Engineering	3	CE 413 Photogrammetry	1
CE 438 Reinforced Concrete Design	3	CE 431 Hydraulics II	3
Elective Speech	3	Elective Literature	3
		Elective CE Design	3
	18		15

Total Semester Hours 137

Civil Engineering Courses (CE)

210 Civil Engineering Management 1:1:0
Role of the civil engineer as a manager and executive director of civil engineering design, project administration and construction. Organizations, policies, objectives, motivation, staffing, budgeting, information systems, computers, equipment, proposals, standard practices, planning and review are topics of discussion.

211 Engineering Measurements 1:0:3
Introduction to basic principles of surveying. Use of equipment for measurement of horizontal and vertical distances and angles. Computer utilized in calculations.

212 Route Surveying 1:0:3
Field practice and calculations associated with design and layout of highway curves including vertical and horizontal alignments. Transition spirals. Surveying for transmission systems. Computer utilized.
Prerequisite: CE 211.

213 **Experimental Stress Analysis** 1:0:3
Physical testing of materials. Experimental determination of deformations and stresses using electronic strain gauges. Study of tension members, beams, columns and torsion members. Elastic and inelastic instability considered.
Prerequisite: CE 232 or concurrent.

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. Buckling of columns.
Prerequisite: Egr 230.

310 **Cost Estimating and Economy** 1:1:0
Methods of estimating cost of engineered construction. Optimization of design, economic considerations utilized in engineering.

311 **Geodesy and Mapping** 1:0:3
Advanced surveying principles applied to horizontal and vertical control for mapping.
Prerequisite: CE 212.

312 **Research** 1:1:0
Methods of research including literature searches. Proposal writing for engineering projects. Principles of technical writing and communication.

313 **Materials Engineering** 1:0:3
Study of material properties and suitability for engineering design. Material types and designations covered by standard specifications including ASTM. Reports required based on laboratory and library research.
Prerequisite: CE 213.

331 **Environmental Science** 3:2:3
Introduction to the hydrologic cycle and the chemistry and microbiology of the natural aquatic environment, with emphasis on the physical, chemical and biological aspects of water and waste water systems in relation to man's environment. Laboratory work in the physical, chemical and biological analysis of water and waste water.
Prerequisite: Chm 142.

334 **Structural Mechanics** 3:3:0
Analysis of loadings for bridges and buildings. Dynamic effects of moving loads. Influence lines. Shear and moment diagrams, analysis of indeterminate structures. Introduction to structural design investigation of frames, girders and bents.
Prerequisite: CE 232.

335 **Hydraulics** 3:2:3
Basic principles of fluid flow. Friction and drag studies. Calibration of flow measuring devices. Flow characteristics of open channels and closed conduits Boundary Layer Theory.
Prerequisite: Egr 231.

336 **Hydrology** 3:3:0
Precipitation, surface water, infiltration, sub-surface water. Analysis of rainfall and runoff data. Collection studies. Hydraulics of wells. Net storm rain; peak discharge and floor runoff.
Prerequisite: Geo 220, CE 335.

337 **Water Utility Systems** 3:3:0
General survey of environmental engineering covering water supply and sanitary sewerage systems.
Prerequisite: CE 331, CE 335.

339 **Soil Science** 3:2:3
Basic principles of soil behavior under load. Soil properties and classification. Study of hydraulics as applied to soil mechanics.
Prerequisite: Geo 220.

411 **Seminar** 1:1:0
Discussion of professional topics. Study of technical journals and transactions. Presentation of oral and written reports. Completed thesis required.
Prerequisite: CE 410.

412 **Contracts and Specifications** 1:1:0
Law and practice controlling the writing of engineering contracts and specifications.
Prerequisite: BA 331.

413 **Photogrammetry** 1:0:3
Principles of aerial photography applied to map making, route locations and ground control. Introduction to use of photogrammetry equipment, including stereoscopes and plotters.
Prerequisite: CE 215.

430 **Indeterminate Structures** 3:3:0
Basic principles of structural analysis and design, based upon requirements of equilibrium and continuity. Classical methods of strain energy, slope deflection and moment distribution used for analysis of frames, trusses and beams. Digital computer methods stressed.
Prerequisite: CE 334.

431 Hydraulics II 3:3:0
Continuation of CE 335-Hydraulics emphasizing practical applications of basic fluid mechanics principles in fluid measurement, machinery, closed conduit flow, open channel flow and hydraulic transients.
Prerequisite: CE 335.

4310 Soil-Structure Interaction 3:3:0
Analysis of the mechanical behavior of soil-structure systems under the effect of static and dynamic loading, impact and stress wave propagation. Applications to structures supported by shallow and deep substructure and underground structures. Computer techniques are employed.
Prerequisite: CE 434.

4312 Advanced Structural Design 3:3:0
Design principles associated with plastic design of steel, pre-stressed concrete, composite structures, hybrid girders and thin shell concrete. Computer methods of analysis utilized.
Prerequisite: CE 430.

433 Environmental Health Engineering 3:3:0
Problems of public health in rural, urban 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 Soil Engineering 3:3:0
Compressibility and Strength characteristics. Stress distribution. Shallow and deep foundations, earth pressure theories, retaining walls, stability slopes.
Prerequisite: CE 339.

435 Water and Waste Water Treatment 3:3:0
Principles of physical, chemical and biological processes employed in water and waste water treatment. Design of selected units within water and waste water treatment systems.
Prerequisite: CE 337.

437 Transportation Engineering 3:3:0
Study of highway pavements. History and development of transportation facilities. Drainage requirements. Fundamentals of highway location, design, construction and maintenance.

438 Reinforced Concrete Design 3:3:0
The design of structural concrete members based upon elastic and plastic theory. Study of standard specifications. Introduction to prestressed concrete.
Prerequisite: CE 334.

439 Structural Steel Design 3:3:0
The elastic design of buildings and bridge components according to standard specifications. Plastic design of steel structures.
Prerequisite: CE 334.

Department of Electrical Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: William R. Wakeland **224 Cherry Building**
Professors: Bean, Cooke, Crum, Wakeland
Associate Professors: Carlin, Watt
Assistant Professor: Bohrer
Adjunct Instructor: Hardy
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: micro processor based instrumentation systems; advanced computer systems—both large scale and personal size; medical instrumentatiion, 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 are available upon request.

The academic standards of the College of Engineering require that a student satisfy certain criteria for admission to a particular engineering program. There are four sequences of courses which serve as the foundation for advanced courses in electrical engineering. Poor performance in these courses will seriously handicap a student in the advanced courses. Therefore, after admittance to the Electrical Engineering program and during the course of study, no more than one "unimproved D" is allowed in each of the following sequences of courses in order to continue the sequences or to graduate.

a. EGR 233, EE 331, 3305, 332
b. EE 333, 431, 432, 4302
c. EGR 1111, 1221, EE 3301
d. EE 217, 318, 319, 3201, 416, 417

A "D" in a course is considered "improved" when the course has been repeated with a "C" or better.

Bachelor of Science — Electrical Engineering

Recommended Program of Study

First and Second Year
(See Common Program)

Third Year

First Semester		Second Semester	
EE 318 Electronics Laboratory	1	EE 319 Electric Machinery Laboratory	1
EE 331 Circuits II	3	EE 3201 Digital Laboratory	2
EE 333 Electronics I	3	EE 332 Circuit Design	3
EE 3301 Electrical Analysis	3	EE 336 Electrical Machinery/Transformers	3
EE 3305 Logical Design of Switching Systems	3	EE 337 Electromagnetic Fields I	3
Phy 335 Modern Physics	3	EE 431 Electronics II	3
		*Math Elective	2
	16		17

Fourth Year

First Semester		Second Semester	
EE 411 Electrical Engineering Seminar I	1	EE 412 Electrical Engineering Seminar II	1
EE 416 Projects Laboratory	1	EE 417 Projects Laboratory	1
EE 436 Control Engineering	1	EE Electives	6
EE 431 Electronics II	3	English Literature	3
**Hum/Soc Elective	3	***Elective	3
Spc or Technical Writing	3	Gov 232	3
	17		15

Total Semester Hours 135

Notes:
* *From list of approved courses: Mth Elective: 4202, 4203*
** *Hum/Soc Elective:*
(a) Any humanities, phiolsophy, anthropology, literature course
(b) History 330, 331, 332, 333, 337, 338, any 400 level course
(c) Sociology 131, 132, 230, 330, 332, 333, 334, 336, 337, 431, 433, 434, 435, 436
*** *Outside of department, approved by advisor.*

Electrical Engineering Courses (EE)

217 Circuits Laboratory 1:0:3
Experience in the use of elementary electrical equipment and elements, including the oscilloscope.
Corequisite: Egr 233.

318 Electronics Laboratory 1:0:3
Design of power supplies and amplifiers using diodes, transistors, thysistors and linear integrated circuits.
Prerequisite: EE 217.
Corequisite: EE 333.

319 Electric Machinery Laboratory 1:0:3
Three 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/CS 3305.

3301 Electrical Analysis 3:3:0
Application of the digital computer to analysis and design of electrical systems using numerical methods.
Prerequisite: Mth 3301, Egr 233, 2331 or 1221.

3305 Logical Design of Switching Systems 3:3:0
Switching algebra. Formulate and manipulate switching functions. Combinational networks. Flip-flops. Sequential networks.
Prerequisite: Egr 233.

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 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, or Phy 241 with permission of the instructor.
Corequisite: EE 318 for EE students.

335 Direct Energy Conversion 3:3:0
An introductory study of direct heat to electrical energy conversion methods such as those employed by thermoelectric devices, thermionic converters, magnetohydrodynamic engines, solar and fuel cells.
Prerequisite: Egr 233, 234.
Corequisite: EE 333.

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, dielectrics, conductors, capacitance, current, static magnetic fields, magnetic materials, magnetic potentials, inductance, electromagnetic forces. Maxwell's equations, time-varying fields, plane waves.
Prerequisite: Mth 3301, Phy 241, 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.
Prerequisite: EE 3301.
Pre or Corequisite: EE 416.

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.
Prerequisite: EE 3301.
Pre or Corequisite: EE 416.

416 Projects Laboratory 1:0:3
Methods of laboratory experimental analysis of devices and systems.
Prerequisite: EE 217, 318, 319, 3201.
Corequisite: EE 431.

417 Projects Laboratory 1:0:3
Senior projects with hardware implementation and testing.
Prerequisite: EE 416.

4201 Digital Logic Laboratory 2:1:3
Laboratory study of digital devices and systems.
Prerequisite: EE 4303 or CS 3305.

4302 Communication Theory 3:3:0
Principles of modulation; random signal theory and network analysis; basic information theory; analysis of noise.
Prerequisite: EE 332.

4304 Advanced Topics 3:3:0
Topics are selected on the basis of the needs of an adequate number of students. Topic areas include nuclear power; digital machines, languages, and algorithms; optimization techniques; power systems analysis; advanced fields problems. May be repeated for credit when topics vary.
Prerequisite: EE 331 or concurrent.

4305 Digital Systems 3:3:0
Coding, iterative circuits, special purpose circuits vs. computers, and algorithms.
Prerequisite: EE 3305 or CS 3305.

4306 Minicomputers 3:3:0
Introduction to assembly language programming and small computer organization.
Prerequisite: EE/CS 3305.

4307 Microcomputers 3:3:0
Microcomputer organization, peripheral devices, systems software for small computers.
Prerequisite: EE 4306 or CS 3302.

4308 Automata Theory 3:3:0
Sets, relations, structure of sequential machines, incompletely specified machines, partition methods, state identification and fault detection.
Prerequisite: EE 3305 or CS 3305.

4309 Electric Power Systems 3:3:0
An introduction to electric power system analysis. Transmission line calculations, system operation, short circuit computations.Prerequisite: EE 336, 337.

4310/CS 4310 Computer Architecture 3:3:0
Representation of information, calculators, storage, addressing, input/output, memory and control.
Prerequisite: EE 3305 or CS 3305. Assembly language desirable.

431 Electronics II 3:3:0
Indepth study of semiconductor device characteristics, BJT's, FET's, SSI logic and linear integrated circuits.
Prerequisite: EE 333, 3305.

4311 Introduction to Nuclear Power 3:3:0
Nuclear reaction mechanics; radioactivity; neutron reactions; fission products, decay; reactor kinetics, systems; radiation, dose limits, shielding.
Prerequisite: Egr 234 and Phy 335.

432 Electronics III 3:3:0
Analog systems with semiconductor elements. Frequency response, feedback and feed forward amplifier design, power electronic devices with regulated power supplies.
Prerequisite: EE 431.

436 Control Engineering 3:3:0
Transfer functions; state variables; time response; frequency response and stability.
Prerequisite: EE 332.

438 Instrumentation 3:3:0
Unified methods for the design of signal conditioning circuits between sensors and computers. Accepted practice for sensor based microporcessor and minicomputer data acquisition and processing systems. Instrumentation amplifier circuits.
Prerequisite: EE 333, 3305.

Department Of Industrial Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Victor Zaloom **117 Lucas Building**
Professors: Brennan, Gates
Associate Professor: Carruth
Assistant Professor: Chu

The Department of Industrial Engineering offers the Bachelor of Science degree in Industrial Engineering and in Industrial Technology.

Industrial Engineering

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.

Lamar's 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 BSIT Program will be granted, upon application, after completion of a minimum of 45 semester hours toward the Associate of Applied Science Degree with a grade point average (GPA) of at least 2.20. Six hours of Freshman English Composition and Mth 1334 and Mth 1341 must be included in the 45 semester hour minimum.

Any student in the BSIT program considering working toward a B.S. in Industrial Engineering at any time in the future should so inform his or her advisor, since certain adjustments in the BSIT program will make it easier to obtain the BSIE.

Bachelor of Science — Industrial Engineering

Recommended Program of Study

First and Second Year
(See Common Program)

Third Year

First Semester		Second Semester	
IE 212 Production and Fabrication Processes	1	IE 335 Accounting for Engineers	3
IE 330 Industrial Engineering	3	IE 338 Work Study	3
IE 339 Materials Science and Manufacturing Processes	3	IE Elective (1)	3
IE 311 IE Seminar I	1	English Literature (2)	3
IE 3303 Economic Analysis and Design	3	Gov 232 Introduction to American Government II	3
His 232 American Histoy II	3	Hum/Soc Elective (3)	3
Gov 231 Introduction to American Government I	3		
	17		18

Fourth Year

First Semester		Second Semester	
IE 411 IE Seminar II	1	IE 430 Quality Assurance and Control	3
IE 432 Statistical Decision Making for Engineers	3	IE 436 Design of Production Facilities	3
IE 435 Production and Inventory Control	3	IE 437 Operations Research	3
ME 3311 Momentum Transfer	3	IE 4315 Organization and Management	3
Eng 4335 Technical Report Writing	3	IE Elective (1)	3
Technical Elective (4)	3	Free Elective (5)	3
	16		18

Total Semester Hours 136

Notes:
(1) IE 4313 Human Engineering, IE 4316 Industrial & Product Safety or IE 434 Design of Tools & Processes will be approved.
(2) Any course in Sophomore Literature (Eng 2311—2319) will satisfy this requirement.
(3) Psychology, Sociology or Economics will be approved.
(4) An upper level course in Engineering, Math, Business or Computer Science, with approval of advisor.
(5) Physical Education, Engineering or Mathematics may not be elected. Approval of advisor required.

Bachelor of Science — Industrial Technology

Recommended Program of Study

First Year

First Semester		Second Semester	
Technology Courses	12	Technology Courses	12
Eng 131 Composition	3	English Composition	3
HPE 111/MLB 124/AER 121	1 or 2	HPE 112/AER 122	1 or 2
	16-17		16-17

Second Year

First Semester		Second Semester	
Technology Courses	12	Technology Courses	12
Technology Course or Elective	3	Technology Course or Elective	3
HPE 221/MLB 124/AER 221	2	HPE 222/AER 222	2
	17		17

Third Year

First Semester		Second Semester	
Mth 1334 College Algebra	3	Mth 1341 Elements of Analysis	3
CS 131 Computer Programming I	3	Chm 143 Introductory	4
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
IE 333 Engineering Economy	3	English Literature (2)	3
IE 311 IE Seminar I	1	IE 334 Human Relations in Industry	3
Elective I (3)	3	IE 212 Production and Fabrication Processes	1
	16		17

Fourth Year

First Semester		Second Semester	
Mth 234 Elementary Statistics	1	His 232 American History II	3
IE 330 Industrial Engineering	3	IE 338 Work Study	3
IE 339 Materials Science and Manfacturing Processes	3	Technical Elective (5)	3
His 231 American History I	3	IE Elective (4)	3
Elective II	3	Eng 4335 Technical Report Writing (6)	3
	15		15

Total Semester Hours 131-133

Notes:
(1) Any of Eng 132—Eng 135 will satisfy this requirement.
(2) Any of Eng 2311—Eng 2316 will satisfy this requirement.
(3) 300 level courses in Psychology, Sociology, Economics or Business, with approval of advisor.
(4) A 300 or 400 level IE course, with approval of advisor.
(5) A 300 or 400 level course in Engineering, Mathematics, Business or Science, with approval of advisor.
(6) SPC 331 may be substituted with approval of advisor.

Industrial Engineering Courses (IE)

212 **Production and Fabrication Processes** 1:0:3
Machinery, welding, casting, forming and joining operations on materials of engineering importance. Demonstrations, lectures and laboratory exercises.

235 **Engineering Computation II** 3:3:0
Problem theory, flow charting; advanced FORTRAN Programming. Solution of advanced problems from various engineering disciplines.

311 **IE Seminar I** 1:1:0
Identifying and analyzing Industrial Engineering problems.

330 **Industrial Engineering** 3:3:1
Introduction to Industrial Engineering, its tools and techniques.

3302 **Functional Characteristics of Digital Computers** 3:3:0
Machine, assembler level and macro languages, data representation, instruction formats, addressing, computer structure. CS 3302 and IE 3302 may not both be counted for credit.
Prerequisite: Egr 2331 or IE 235.

3303 **Economic Analysis and Design** 3:3:0
Capital budgeting. Depreciation and income taxes. Decisions under uncertainty.
Prerequisite: Egr 223.

333 **Engineering Economy** 3:3:0
Economics applied to the evaluation of engineering proposals. The effects of depreciation, taxation and interest rates.
Not open to students majoring in engineering.
Prerequisite: Mth 1341.

334 **Human Relations in Industry** 3:3:0
The role of individuals and groups in industrial organizations. Satisfying and using their needs and goals.

335 **Accounting for Engineers** 3:3:0
Introduction to principles of bookkeeping and cost accounting. Use of cost records to help the engineer/executive make decisions.

338 **Work Study** 3:2:3
Determination of contents, techniques and times required for various tasks. Design of jobs and workplaces for maximum productivity.
Prerequisite: Mth 1341 or Mth 234.

339 **Materials Science and Manufacturing Processes** 3:3:0
Basic principles underlying the behavior of engineering materials and methods of processing these materials.
Prerequisite: Chm 143 or equivalent.

411 **IE Seminar II** 1:1:0
Preparing and presenting engineering reports. Real-life problems are studied and students report findings and recommendations.

430 **Quality Assurance and Control** 3:3:0
Assurance that products perform as intended. Reducing or eliminating defective output.
Prerequisite: Mth 234.

4302 **System Analysis and Design** 3:3:0
Multiprocessing and real time systems, timesharing, core management systems, interfacing, analysis and design of systems to meet specific requirements, management systems, systems programming, IE 4302 and CS 4302 may not both be counted for credit.
Prerequisite: IE 3302.

4303 **Linear Programming** 3:3:0
Linear programming problems and solutions. Special procedures and techniques of application.
Prerequisite: Egr 2331.

4313 **Human Engineering** 3:2:3
The engineering design of tools and equipment to meet the physiological needs of human beings.

4315 **Organization and Management** 3:3:0
The theory of organization and management. How the executive functions to achieve the organization's goals.

4316 **Industrial and Product Safety** 3:3:0
Loss control engineering. Mandatory and voluntary standards. Product liability.
Prerequisite: Senior standing.

432 **Statistical Decision Making for Engineers** 3:3:0
Analysis of data to help the engineer/executive make decisions. Evaluation of performance claims.
Prerequisite: Mth 3370.

434 **Manufacturing Engineering** 3:2:3
Selection of process and machine tools for product manufacture. Tooling and fixture design. Introduction to numerical control and computer aided manufacture.
Prerequisite: IE 333, 338.

435 **Production and Inventory Control** 3:3:0
Techniques for planning and controlling production and inventories. Modern materials requirements planning.
Prerequisite: Mth 234, IE 330.

436 **Design of Production Facilities** 3:1:6
Use of the principles from other IE courses to determine the location, layout, needed equipment and facilities and other factors in facilities design.
Prerequisite: IE 212, 330, 333, 338, 339.

437 **Operations Research** 3:3:0
An introduction to the construction of mathematical models of organizational systems to aid executives in making decisions.
Prerequisite: Mth 234, IE 333.

Department of Mechanical Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Otto G. Brown **222 Cherry Building**
Professors: Brown, Martinez, Mei, Young
Associate Professor: Bruyere
Assistant Professor: Nguyen
Adjunct Associate Professor: Boughton
Adjunct Instructors: Craigue, Kavanaugh
Visiting Lecturer: Chattopadhyay
Laboratory Technician: Hundley

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.

The Department of Mechanical Engineering will assist prospective transfer students from junior or community colleges in planning courses to fit the mechanical engineering curriculum at Lamar University. The appropriate list of courses for a particular junior college can be obtained from the Department of Mechanical Engineering.

Bachelor of Science — Mechanical Engineering

Recommended Program of Study

First and Second Year
(See Common Program)

Third Year

First Semester		Second Semester	
ME 330 Kinematics	3	ME 321 Instrumentation and Testing Laboratory	2
ME 3311 Momentum Transfer	3	ME 331 Transport Theory	3
ME 338 Thermodynamics II	3	ME 332 Elements of Mechanical Design I	3
Mth Elective	3	ME 334 Engineering Analysis I	3
American History	3	EE 333 Electronics I	3
English Literature	3	English Literature	3
	17		17

Fourth Year

First Semester		Second Semester	
ME 421 Engineering Systems Design	2	ME 4316 Engineering Design Project	3
ME 4313 Thermal Systems Design	3	ME 4317 Engineering Analysis II	3
ME 4319 Materials Science	3	ME Elective	3
ME 4323 Elements of Mechanical Design II	3	Gov 232 Introduction to American Government II	3
*ME Elective	3	Free Elective	3
Gov 231 Introduction to American Government I	3	ME 411 Seminar	1
	17		16

Total Semester Hours 135

**At least 3 hours must be an ME design elective course.*

Mechanical Engineering Courses (ME)

321 Instrumentation and Testing Laboratory 2:1:3
Various instruments with mechanical engineering applications are studied and tests are made. Emphasis is on pressure, temperature, speed, power, torque, frequency and various types of flow measurements.
Prerequisite: ME 3311 and ME 338 or parallel with both.

330 Kinematics 3:3:0
Analysis of mechanisms. Centros, velocities and accelerations in plane mechanisms; rolling and sliding in belts, chains and cams; gears in plain and epicyclic trains.
Prerequisite: Egr 231 and CE 232 or parallel.

331 Transport Theory 3:3:0
Theory of conduction and potential flow, radiation and convection with engineering techniques and applications.
Prerequisite: Mth 3301 and ME 3311.

3311 Momentum Transfer 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.
Prerequisite: Egr 234, 231, CE 232 and Mth 3301.

332 Elements of Mechanical Design I 3:2:3
The design of machine components including shafting, columns, springs and frames with regard to static and dynamic forces employing analytical and graphical analysis.
Prerequisite: CE 232 and ME 330.

334 Engineering Analysis I 3:3:0
Methods of analysis of engineering situations requiring application of fundamentals of engineering science and mathematics are studied. Mathematical methods of engineering analysis are presented and applied.
Prerequisite: ME 3311.

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 3301 and Egr 234.

411 Seminar 1:1:0
Oral and written presentation and discussion of selected topics including those from current literature of fields related to mechanical engineering. Professional activities are encouraged.

421 Engineering Systems Design 2:1:3
The design techniques of integrated component systems are treated. The student is required to utilize these techniques by designing such a system.
Prerequisite: 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 ME 334.

4312 Gas Dynamics 3:3:0
Fundamentals of one-dimensional compressible flow. An introduction to multidimensional wave phenomena with various applications.
Prerequisite: ME 4313 or parallel.

4313 Thermal Systems Design 3:3:0
Heat transfer study with emphasis on heat exchanger design, optimization of energy exchange, economics and design feasibility.
Prerequisite: ME 331, 334, 338.

4314 Fundamentals of Physical Metallurgy 3:3:0
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 diffraction used in physical metallurgy.
Prerequisite: ME 4319 or parallel.

4315 Thermodynamics III 3:3:0
Topics in applied thermodynamics selected from any of the following: Psychrometrics, 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; ME 4313 in parallel.

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, 4313.

4317 Engineering Analysis II 3:3:0
A continuation of ME 334 with some emphasis being placed on analog methods and computer techniques in solving engineering problems.
Prerequisite: ME 334.

4319 Materials Science 3:2:3
Properties of materials. Aspects of elastic behavior as well as stress and strain measurement, yield phenomena, tensions, torsion, hardness and assorted effects and considered. Criteria for selected proper engineering materials are discussed.
Prerequisite: CE 232.

432 Mechanical Vibrations 3:3:0
The theory of vibrating systems, including kinematics or 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 334 and senior standing.

4320 Propulsion Systems 3:3:0
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 338.

4321 Space Dynamics 3:3:0
An analytical treatment of the mechanics of orbital motion, with applications to the trajectories of the astronomical objects and space vehicles.
Prerequisite: ME 3311.

4323 Elements of Mechanical Design II 3:2:3
The design of power transmission machinery. Completed design of some assigned machine.
Prerequisite: ME 332.

433 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 notation is used.
Prerequisite: ME 3311 and ME 331 or parallel.

434 Internal Combustion Engines 3:2:3
The principles of design and analysis of various types of internal combustion engines.
Prerequisite: ME 331 and ME 338.

435 Turbomachinery 3:3:0
Flow problems encountered in the design of water, gas and steam turbines, centrifugal 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-cyclinder 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.

439 **Advanced Strength of Materials** 3:3:0
Introduction to the fundamental theory of three-dimensional elasticity. Specialization of the general theory to provide the theory of plane stress and plane strain. Determination of stress and deflections in a beam on elastic foundations, plates, shells and cylinders. Study of torsion of bars and cylinders.
Prerequisite: CE 232 and ME 334.

Department of Mathematics

Department Head: Richard A. Alo **205 Lucas Building**
Director of Mathematics Instruction: Sam M. Wood, Jr.
Professors: Alo, Berzenyi, Cowan, Crim, Stark, Vanzant
Professor Emeritus: Latimer (1979)
Professor Emerita: Bell (1979)
Associate Professors: Baj, Brookner, Brenizer, Dingle, Laidacker, Price, Wood
Assistant Professors: Green, Harvill, Lauffer, Lee, Parrish, Read, Thames
Instructor: Mades

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 are designed to 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 individual advisor to assist with the student's schedule and career planning. An active mathematics club and computer science club provide students with the opportunity to work with fellow mathematics and computer science majors in a number of activities.

The department offers the following degrees:
Bachelor of Arts in Mathematics
Bachelor of Science in Mathematics
Bachelor of Science in Mathematical Sciences
Bachelor of Science in Mathematical Sciences Statistical Concentration
Master of Science

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 greater depth in analytical reasoning, abstraction and structure. Students graduating with these degrees generally go on to graduate work in Mathematics or allied fields such as Physics, Computer Science, Statistics or into teaching.

Programs in the mathematical sciences prepare students for careers in a variety of fields. In addition to teaching in elementary, middle and senior high schools, students can prepare for opportunities in industry, business and government by electing options in applied mathematics, in computer science or by pursuing the regular mathematics major with electives chosen in statistics, computer science or business.

The importance of the mathematical sciences to the ambitious scientist and engineer of the present day cannot be overemphasized. Many phenomena of nature can only be understood adequately when translated into the language of mathematics. In a day when inventions are sought almost on schedule, a student majoring in science or engineering at a university may expect to find an emphasis on the basic tool 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 research tool. However, what is particulary striking about the 1980's is the extent to which computers also are being used for other tasks in 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 advanced programming languages as well as advanced software techniques, and finally, a mastery of important techniques in applied mathematics such as operations research and statistics.

People with these qualifications are needed in virtually all industrial and governmental settings. Those with an orientation toward engineering are needed to maintain and develop the mathematical software associated with computer-aided design. Moreover, many engineering problems are now simulated and solved on computers and there is a need for mathematicians to develop and maintain computer algorithms for these problems. Those whose interests lie primarily in industrial management are especially valuable in such diverse activities as industrial control,

market forecasting and computer-based accounting systems. 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 Test

The Mathematics Department has developed a Placement Test for entrance into freshman mathematics courses. This test will assist the department in placing a student in the course for which the student's chances for successful completion are best. The test will be given during the summer orientation and regular registration periods. For information concerning the test, contact the Mathematics Department, Box 10047, Lamar University, Beaumont, Texas, 77710. All entering students except those with grades of A or B in high school Algebra I, Algebra II and Trigonometry plus a score greater than 26 on the ACT or at least 590 on the Level I CEEB Mathelatics test are required to take the placement test before entering Mth 134, 1334, 1335, 148 or 236. Entrance into all other mathematics courses is determined by the counselor in the student's major department.

Teacher Certification Mathematics

Those wishing to secure the Bachelor of Arts or the Bachelor of Science in Mathematics or the Bachelor of Science in Mathematical Sciences and at the same time certify for a provisional certificate secondary school certificate with a teaching field in mathematics must include in their degree program the following:

1. 18 hours of professional education including Edu 331, 332, 338, 438 and 462.
2. Minor to be expanded to include an approved 24 hour teaching field other than mathematics (Consult this bulletin—College of Education).
3. CS 131 and Mth 148, 149, 233, 234.
4. 12 hours of advanced mathematics to include Mth 330 or 338, 3311, 333 or 435, 335 or 433.
5. Approved electives sufficient to make a total of 129 semester hours.

Elementary certification requires the Mathematics sequence 135, 136, 3313. This can be expanded into either an 18 or 24 semester hour specialization in elementary mathematics. For specific courses, contact the Department of Mathematics.

Recommended Programs of Study

Bachelor of Arts — Mathematics Major (Minimum) 126 hours

1. General requirements: (Minimum) 48 hours
   a. Eng—Composition—six semester hours
   b. Eng—Literature—six semester hours
   c. Laboratory science—eight semester hours (same science)*
   d. Gov. 231, 232
   e. History—Soph Am His—six semester hours
   f. Foreign Language through 232 (same language)
   g. PE (Activity)—four semester hours (minimum)
2. Major requirements: 36 hours
   a. Mth 148, 149, 241—Calculus and Analytic Geometry
   b. Mth 233—Computational Linear Algebra
   c. Mth Electives—21 semester hours (15 of which must be 300/3000 level or above including Mth 3311) approved by the department
3. Minor requirements (to be approved by the department) 18 hours
4. Electives (to be approved by the department) 24 hours

**To be chosen from Phy 140/241, or 141/142 Chem, Bio or Geo.*

Bachelor of Arts — Standard Curriculum

First Year

First Semester		Second Semester	
Mth 148 Calculus and Analytic Geometry I	4	Mth 149 Calculus and Analytic Geometry II	4
English Composition	3	English Composition	3
Science	4	Science	4
Elective	3	Elective	3
PE/MLb 124/ROTC	1	PE/ROTC	1
	15		15

Second Year

First Semester		Second Semester	
Mth 241 Calculus and Analytic Geometry III	4	Eng Literature (1)	3
English Literature	3	His Soph American History	3
His Soph American History	3	Foreign Language 132	3
Foreign Language 131	3	Mth Elective	6
Mth 233 Computational Linear Algebra	3	PE Activity	1
PE Activity	1		
	17		16

Third Year

First Semester		Second Semester	
Foreign Language 231	3	Foreign Language 232	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Mth Advanced Elective	6	Mth Advanced Elective	3
Minor	3	Minor	3
Elective (2)	3	Elective	3
	18		15

Fourth Year

First Semester		Second Semester	
Mth Advanced Elective	3	Mth Advanced Elective	3
Minor	6	Minor	6
Elective	6	Elective	6
	15		15

Notes:
(1) In place of English literature the student may choose a course in Speech, Technical Report Writing or Foreign Language.
(2) Six hours of electives must be chosen outside the major field.

Bachelor of Science — Mathematics Major (Minimum) 126 hours

1. General requirements: (Minimum) 33 hours
   a. Same as general requirements for Bachelor of Arts except there is no foreign language requirement.
2. Major requirements: 48 hours
   a. Mth 148, 149, 241
   b. Mth 233, Mth 238
   c. Mth Electives—24 semester hours—21 of which must be 300/3000 level or above including Mth 3311
   d. CS 131, CS 132
3. Professional Electives: 27 hours
   a. Courses (to be approved by the department) in the Colleges of Engineering, Science or Business.
4. Electives: 18 hours
   a. At least six hours (to be approved by the department) must be from the Humanities and Social Sciences.

Bachelor of Science—Standard Curriculum

First Year

First Semester		Second Semester	
Eng Composition	3	Eng Composition	3
Mth 148 Calculus and Analytic Geometry I	4	Mth 149 Calculus and Analytic Geometry II	4
Science	4	Science	4
Elective	3	CS 131 Computer Programming I	3
PE/MLb 124/ROTC	1	PE/ROTC	1
	15		15

Second Year

First Semester		Second Semester	
Mth 241 Calculus and Analytic Geometry III	4	Mth 238 Introduction to Applied Mathematics	3
Mth 233 Computational Linear Algebra	3	Professional Electives	6
English Literature	3	Mth Elective	3
His Soph American History	3	His Soph American History	3
CS 132 Computer Programming II	3	PE Activity	1
PE Activity	1		
	17		16

Third Year

First Semester		Second Semester	
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Professional Elective	3	Professional Elective	6
English Literature (1)	3	Elective (2)	3
Mth Advanced Elective	6	Mth Advanced Elective	6
	15		18

Fourth Year

First Semester		Second Semester	
Professional Elective	6	Professional Elective	6
Elective (2)	3	Elective	6
Mth Elective	6	Mth Elective	3
	15		15

Notes: (1) In place of English literature the student may choose a course in Speech, Technical Report Writing or Foreign Language.
(2)Six hours of electives must be chosen outside the major field.

Bachelor of Science — Mathematical Sciences

This is a professional program that is terminal in the sense that the student will be prepared 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. The term mathematical sciences indicates the scope and breadth of this program since it includes subdisciplines such as applied mathematics, computer science and statistics.

Structure of Degree.

To insure the student is thoroughly trained in the important areas of mathematical sciences that will arise in his/her later studies, the first two years of the program are tightly structured. The requirements here are referred to as the Basic Program.

Basic Program

Calculus	10 or 12
Physics (Phy 140 and Phy 241)	8
Chemistry, Biology or Geology 141	4
Mth 233 Computational Linear Algebra	3
Mth 331 Differential Equations	3
CS 131 and 132 Computer Science	6
Mth 3370 & 437 Probability and Statistics	6
Mth 4315 Numerical Analysis	3
Mth 238 Introduction to Applied Math	3
Mth 3321 Finite Mathematics	3
Mth 3324 Practicum	3
	52 or 54

University Requirements

English Composition and Literature	12
Sophomore History	6
PE/MLb/ROTC (minimum)	4
Gov 231, 232 Sophomore Government	6
Electives (chosen outside of the major college)	6
	34

Tracks

In the last two years the student is given the opportunity to select one of a number of different options or TRACKS. As opposed to a minor in a particular subject, a track, by definition, permits the interdisciplinary aspect of this degree. It consists of at least 20 credit hours.

Some examples of these tracks are given below. Other tracks may be designed in consultation with a student's counselor to meet the special needs of an individual student. More details also are given in departmental brochures.

Computer Science

CS/IE 3302 Introduction to Computer Systems (CS 132)
CS 4305 Data Structure and Algorithm Analysis (IE 3302)
CS 4307 Organization of Programming Languages
CS 4306 Techniques of Information Processing and Retrieval (IE 3302 and CS 4305)
IE 437 Operations Research
Mth 3322 Computability
Mth 4325 Finite Element Analysis
Additional courses to complete a track will be chosen with the assistance of a student's counselor.

Administration and Management Science

Required Courses:
IE 4315 Organization and Management
Mgt 432 Organizational Behavior and Administration
ACC 231 Principles of Accounting
ECO 233 Principles and Policies
Mkt 331 Principles of Marketing (Eco 232 or 233)
Electives:
In addition to the 5 required courses above, the student will choose 2 or more from the following set of courses.
Eco 334 Macro Economics
BLW 331 Business Law
Eco 4315 Government and Business (6 hours of Eco)
Acc 334 Cost Accounting (Acc 232) or IE 335 Accounting for Engineers
A course in the Department of Sociology such as Soc 332 Social Psychology or substitute approved for the individual's program by the head of the student's department.

Scientific Computation

CS 4305 Data Structure and Algorithm Analysis (IE 3302)
EE 331 Circuits II (Circuits I) or EE 3305 Logical Design of Switching Systems
CS 3302 Introduction to Computer Systems
CS 4310 Computer Architecture
ME 3311 Momentum Transfer (Egr 234)
Egr 231 Dynamics (Preferred Egr 132 instead of Phy 140)
EE 3301 Electrical Analysis (Mth 241, Egr 233)
Phy 222 Vibrations, Sound and Light

Control Systems

Egr 233 Circuits I (Mth 149)
EE 332 Circuit Design (EE 331)
EE 436 Control Engineering (EE 332)
CS 3302 Introduction to Computer Systems
CS 4302 Operating Systems and Computer Architecture I
Phy 222 Vibrations, Sound and Light (Phy 241)
ME 3311 Momentum Transfer (Egr 234)

Civil Engineering

Required Courses:
CE 211 Engineering Measurements
Egr 231 Dynamics (Egr 230, Mth 149)
CE 232 Mechanics of Solids (ME 231, Egr 230)
Structures Option:
Geo 141 Physical Geology
CE 334 Structural Mechanics (CE 232)
CE 430 Indeterminate Structures (CE 334)
CE 438 Reinforced Concrete Design (CE 334)
CE 439 Structural Steel Design (CE 334)
Options in Environmental Science and Soil Engineering have also been developed. Interested students should contact the Department Head of Mathematics.

Mechanical Engineering

Required Courses:
Egr 230 Statics
Egr 233 Circuits I (Phy 241, Mth 149)
Egr 234 Thermodynamics (Phy 241, Mth 241)
Mechanics Option:
Egr 231 Dynamics (Egr 230, Mth 149)
CE 232 Mechanics of Solids (ME 231, Egr 230)
ME 4319 Materials Science (CE 232)
Options in Energy and Engineering Science have also been developed. Interested students should contact the Department Head of Mathematics.

Pre-Medicine

Phy 222 Introductory Physics—Vibrations, Sound and Light
Phy 212 Introductory Physics—Laboratory on Vibrations and Waves
Bio 142 General Biology II (after having chosen Bio 141 in core)
Chm 141-142 General Chemistry
Chm 341-342 Organic Chemistry (Chm 142)
Biology/Chemistry Electives (Two courses should be selected from the following list to complete the requirements for a TRACK. Additional courses may be chosen from this list to complete elective requirements in the mathematical sciences curriculum.
Bio 245 Microbiology (Bio 141/142)
Bio 347 Genetics (Bio 141/142)
Bio 344 Advanced Phsyiology (Chm 341/342)
Bio 341 Histology (Bio 141/142 and 240 or 243/244)
Chm 241 Quantitative Analysis (Chm 142)
Chm 441 Biochemistry I (Chm 241 and 342)

Data and Systems Analysis

This track is designed for students without specialized interest. The core of this track is operations research, in which the student is introduced to important material techniques for solving problems which arise in industry. The track includes advanced courses in statistics in which computing plays an important role. This sequence is highly recommended for students interested in graduate work in Management Science.
IE 437 Operations Research (Mth 234, IE 333)
IE 430 Quality Assurance and Control (Mth 234)
IE 432 Statistical Decision Making for Engineers (Mth 234)
IE 335 Accounting for Engineers
CS 4306 Techniques of Information Processing and Retrieval (CS 4305)
Mth 3370 Introduction to the Theory of Statistical Inference (Mth 241)

Statistics

Mth 3370 Introduction to the Theory of Statistical Inference
Mth 4316 Mathematical Programming
Mth 437 Mathematical Theory of Probability
Mth 4317 Modern Developments in Statistical Methodology
Mth 4321 Least Squares and Regression Analysis
Mth 4322 Analysis of Variance
Utilize professional and other electives to establish a minor in a discipline like Biology, Geology, Chemistry, Engineering, Business, etc.

Other Tracks

Tracks my also be designed in the following areas: Electrical Engineering, Chemical Engineering, Industrial Engineering, Pre-Law, Actuarial Science.

Interested students should contact the Department Head of Mathematics.

Bachelor of Science — Mathematical Sciences

General Degree Requirements

University requirements	28 credits
Core Program	51 or 54
Mathematical Sciences Electives	12
Electives	9
Humanities and Social Science Electives	6
Professional Technical Electives	18
	124 or 127

Mathematical Sciences — Statistics Concentration

Degree Requirements

University requirements	28
Core Program*	55 or 58
Mathematical Sciences	15
Electives	3
Humanities and Social Science Electives	6
Professional Technical Electives	18
	125 or 128

In the Statistics concentration the core course Mth 331 is replaced by Mth 4317 Modern Developments in Statistical Methods.

Bachelor of Science — Mathematical Sciences

(Standard Curriculum)

First Year

First Semester		Second Semester	
†Eng Comp	3	†Eng Composition	3
†Am His 231/236	3	CS 132 Computer Programming II	3
Mth 148/236 Calculus	4 or 3	Mth 149/237 Calculus II	3 or 4
CS 131 Computer Programming I	3	Mth 3370 Introduction to Theory of Statistical Inference	3
Humanities & Social Science Elective	3	Phy 140 Introductory Mechanics	4
PE/MLb/ROTC	1	**PE/ROTC	1
	16 or 17		17 or 18

Second Year

First Semester		Second Semester	
Phy 241 Introductory Physics, Heat, Electricity and Magnetism	4	English Literature (1)	3
Mth 241 Calculus and Analytic Geometry III	4	Mth 233 Computational Linear Algebra	3
English Literature	3	Mth 3321 Finite Mathematics	3
Mth 238 Introduction to Applied Mathematics	3	Chem/Bio/Geo 141	4
PE/MLb/ROTC	1	***Elective	3
	15	**PE/ROTC	1
			17

Third Year

First Semester		Second Semester	
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Mth 437 Mathematical Theory of Probability	3	†His 231/236	3
Mth 331 Ordinary Differential Equations	3	Mth 4315 Numerical Analysis	3
*Professional Elective	3	Mth Sci Elective	3
Mth Sci Elective	3	Professional Elective	3
	15		15

Fourth Year

First Semester		Second Semester	
Mth Sci Elective	3	Mth 3324 Practicum in Applied Mathematics	3
Professional Elective	6	Mth Sci Elective	3
***Elective	6	Humanities and Social Science Elective	3
		Professional Elective	3
		***Elective	3
	15		15

†*Student must choose two distinct courses from the indicated list.*

**Professional electives are courses selected in consultation with the student's advisor to complete the track selected by the student. If the student's track requires it, this Professional Elective should be chosen from Chem/Bio/Geo 142 or Phy 242.*

***Spring units may be allotted to the fall semester of all four years.*

****To be selected with the approval of the student's counselor.*

(1) In place of English literature, the student may choose a course in Speech, Technical Report Writing or Foreign Language.

Bachelor of Science — Mathematical Sciences

Statistics Concentration

(Standard Curriculum)

First Year

First Semester		Second Semester	
Eng Composition	3	English Composition	3
†His 231/236	3	CS 132 Computer Programming II	3
Mth 148/236 Calculus	4 or 3	Mth 149/237 Calculus II	4 or 3
CS 131 Computer Programming I	3	Mth 3370 Introduction to Theory of Statistical Inference	3
Humanities and Social Sciences Elective	3	Phy 140 Introductory Mechanics	4
PE/MLb/ROTC	1	**PE/ROTC	1
	16 or 17		17 or 18

Second Year

First Semester		Second Semester	
Phy 241 Introductory Physics, Heat, Electricity, Magentism	4	English Literature	3
Mth 241 Calculus III	4	Mth 233 Computational Linear Algebra	3
Chem/Bio/Geo 141	4	Mth 3321 Finite Mathematics	3
Mth 238 Introduction to Applied Mathematics	3	Minor	3
PE/MLb/ROTC	1	Chem/Bio/Geo 142	4
	16	**PE/ROTC	1
			17

Third Year

First Semester		Second Semester	
Gov 231	3	Gov 232	3
Mth 437 Mathematical Theory of Probability	3	†His 231/236	3
Mth 4315 Numerical Analysis	3	Mth 4316 Mathematical Programming	3
Minor	3	Mth 438 Theory of Statistics	3
English Literature (1)	3	Minor	3
	15		15

Fourth Year

First Semester		Second Semester	
Mth 4317 Statistical Methodology	3	Mth 3324 Practicum in Applied Mathematics	3
Mth 4321 Least Square Regression Analysis	3	Mth 4322 Analysis of Variance	3
CS Elective	3	Minor	6
Minor	3	***Elective	3
***Elective	3		
	15		15

†Student must choose two distinct courses from the indicated list.
***Spring units may be allotted to the fall semester of all four years*
****To be selected with the approval of the student's counselor.*
(1) In place of English literature, the student may choose a course in Speech, Technical Report Writing or Foreign Language.

Mathematics Courses (Mth)

1312 Trigonometry-Lecture 3:3:0
Study of trigonometric functions and identities, inverse functions, graphs and applications of trigonometry. Only recommended for students who have had no trigonometry in high school.
Prerequisite: Mth 1314 or its equivalent.

1313 Individualized Tutorial Computational Skills 3:3:0
Study of basic concepts and operations involved in computations. Problems from business, science, metrication, construction and geometry. Not recommended for students who have received credit for a course for which this or its equivalent is a prerequisite.

1314 Individualized Tutorial Basic Algebra 3:3:0
Review of skills and concepts of basic algebra. Signed numbers, linear equations and systems, quadratics, radicals and logarithms.
Recommended for those who need a review before taking Mth 134 or 1334. Not recommended for students who have received credit in a course for which this or its equivalent is a prerequisite. When used as a prerequisite, a grade of "B" or better is recommended.

1334 College Algebra 3:3:0
Linear, quadratic equations, factoring, fractions, exponents, radicals, determinants, systems and theory of equations, partial fractions, sequences, series, binomial theorem, logarithms, mathematical induction.
Prerequisite: Mth 1314 or its equivalent.

1335 Precalculus Mathematics 3:3:0
Fundamentals of algebra, trigonometry and analytic geometry. Prepares students for Mth 148 and 236.
Prerequisite: Mth 1334 or its equivalent.

1336 Survey of Mathematics 3:3:0
Mathematics history, problem solving, logic and other selected topics of current interest. Recommended for degrees with undesignated mathematics requirements.
Prerequisite: Mth 1334 or its equivalent.

134 Mathematics for Business Applications 3:3:0
Linear equations, systems, inequalities, programming. Vectors, matrices and logarithms.
Prerequisite: High School Algebra I and II or Mth 1314.

1341 Elements of Analysis for Business Applications 3:3:0
Probability, differential and integral calculus.
Prerequisite: Mth 134 or 1334 or their equivalent.

1342 Introduction to Mathematics of Finance 3:3:0
Simple and compound interest as applied to promissory notes, perpetuities, annuities, depreciation and bonds. Calculators will be used.
Prerequisite: Mth 1334 or Mth 134 or the equivalent.

135 Contemporary Mathematics I 3:3:0
Logic, introduction to mathematical reasoning, sets and relations, the system of whole numbers, numeration systems, system of integers and elementary number theory.

136 Contemporary Mathematics II 3:3:0
Fractions and rational numbers, decimals and real numbers, concepts of probability, introduction to statistics, some concepts from algebra.
Prerequisite: Mth 135.

148 Calculus and Analytic Geometry I 4:4:0
Functions, limits, derivatives of algebraic, trigonometric, exponential and logarithmic 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 4:4:0
Methods of integration, differential equations, polar coordinates and vector analysis.
Prerequisite: Mth 148 or its equivalent.

233 Computational Linear Algebra 3:3:0
Algorithmic approach to basic problems of linear algebra, solution of linear equations, linear programming and the simplex method.
Prerequisite: Mth 149 or Mth 237 may be taken concurrently.

234 Elementary Statistics 3:3:0
Introduction to computational statistics data, measures of central tendency and variation. The normal distribution, correlation and sampling.
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, computer and life sciences.
Prerequisite: High school Algebra I, II and Trigonometry or Mth 1335.

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, computer and life sciences.
Prerequisite: Mth 236.

238 Introduction to Applied Mathematics 3:3:0
Mathematical modeling with applications to the biological, social and management sciences. Selected topics to suit the needs of individual students.
Prerequisite: Mth 134, 1334 or 1335 or their equivalents.

241 Calculus and Analytic Geometry III 4:4:0
Vectors, parametric equations, functions of several variables, partial derivatives, multiple integrals, functions of complex variable.
Prerequisite: Mth 149 or equivalent.

330 Principles of Mathematics 3:3:0
Introduction to some modern mathematical topics. Symbolic logic, development of the number system, groups, fields, sets and function theory.
Prerequisite: Mth 149 or 237.

3301 Differential Equations and Linear Algebra 3:3:0
Ordinary differential equations. Laplace transforms, linear algebraic equations, matrices, eigenvalues, systems of differential equations.
Prerequisite: Mth 241.

331 Ordinary Differential Equations 3:3:0
Solution and modeling techniques, existence and uniqueness, numerical procedures, linear euqations and systems, special functions, autonomous nonlinear systems, qualitative techniques.
Prerequisite: Mth 233 and 241.

3311 Set Theory 3:3:0
Infinite sets, cardinal and ordinal arithmetic. Axiom of choice. Transfinite induction. Applications in the topology of the real line, complex plane and simple closed curves.
Prerequisite: Mth 149.

3313 Modern Elementary Geometry 3:3:0
A study of the structure of geometry with primary emphasis on the needs of the elementary teacher.
Prerequisite: Mth 136.

3315 Number Theory for Education Majors 3:3:0
A development of the elementary theory of numbers with emphasis on the needs of teachers.
Prerequisite: Mth 136.

3317 Problem Solving 3:3:0
Role of inductive and deductive methods in solving and posing problems, motivational techniques to help children become problem solvers. Methodology is introduced via illustrative examples.
Prerequisite: Mth 1334 or its equivalent or above.

3319 Combinatorics 3:3:0
Emphasis on decision-making applications. Topics covered: sets and order sets, order relation, logic, induction, generating functions, general methods of counting, permutations, Polya's theorem, partitions, trees, networks, scheduling problems, integral and conditional linear programming, decision problems.
Prerequisite: Mth 149 or Mth 237.

3321 Finite Mathematics 3:3:0
Liner programming, matrix game theory, social science models, transportation models, graph theory models.
Prerequisite: At least one course from Mth 148, 233, 236, 238.

3322 Computability 3:3:0
Existence of non-computable functions, notion of computability; recursive functions, Turing machines, Markov algorithms; equivalence of these notions. Church's thesis, recursive enumerability; unsolvability.
Prerequisite: Junior standing.

3324 Practicum in Applied Mathematics 3:3:0
Introduction to methods and practices of applied mathematics. The student with faculty supervision will be required to identify, analyze and construct a mathematical model of an appropriate problem in his or her chosen field. A partial list of areas particularly suited to these techniques includes: biology, economics, psychology and oceanography.
Prerequisite: Consent of department head of Mathematics.

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 other geometrics as time allows.
Prerequisite: Mth 149.

335 Modern Algebra 3:3:0
Group theory, integral domains, fields, polynomials, unique factorization domains, rings and ideals, spectral theorem in finite dimensional spaces. Jordan canonical form and other selected topics.
Prerequisite: Mth 233.

3361 Applied Abstract Algebra 3:3:0
Binary relations and graphs, Boolean algebra, semigroups, groups, rings, polynomial rings, ideals, finite fields with applications to computer design, circuits, switching networks, linear finite state machines, finite state automata and coding theory.
Prerequisite: Mth 233.

3370 Introduction to the Theory of Statistical Inference 3:3:0
Data, organizing and describing data, probilility and statistical inference.
Prerequisite: Mth 241.

338 Advanced Calculus 3:3:0
The concept of a function, limits sequences, continuity, differentiability; the Reimann integral, infinite series, Taylor series.
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 when the topic varies.

4142, 4242, 4342 Special Topics in Analysis 1-3:1-3:0
Special advanced problems in analysis to suit the needs of individual students. This course may be repeated for credit when topics differ.

4202 Partial Differential Equations 2:2:0
Fourier series, separation of variables applied to problems for heat, wave and Laplace equations. Transform methods and numerical procedures.
Prerequisite: Mth 241.

4203 Vector Analysis 2:2:0
Vector algebra, vector calculus of three dimensional vector fields, (gradients, curl, divergence, Laplacian) Green's Gauss', and Stokes' theorems.
Prerequisite: Mth 241.

431 Complex Variables 3:3:0
Complex numbers, analytic functions, complex line integrals, Cauchy integral formula and applications.
Prerequisite: Mth 241, 3311.

4315 Numerical Analysis 3:3:0
Approximations, interpolations, finite differences, numerical integration, curve fitting.
Prerequisite: Mth 139 or 149 or Mth 237 and CS 132 or Egr 133 or its equivalent.

4316 Mathematical 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 241 or 237 and 3 semester hours of computer science courses.

4317 Modern Developments in Statistical Methodology 3:3:0
Special subjects in higher mathematics to meet the needs of individual students.
Prerequisite: Approval of instructor.

4321 Least Squares and Regression Analysis 3:3:0
Simple, multiple and curvilinear regression analysis; orthogonal polynomials; nonlinear least squares.
Prerequisite: Approval of instructor.

4322 Analysis of Variance 3:3:0
Analysis of variance in experimental statistics, single and multiple classifications; factorials; analysis of designed experiments including randomized blocks and Latin squares; multiple comparisons and orthogonal contrasts.
Prerequisite: Approval of instructor.

4325 Finite Element Analysis 3:3:0
Fundamentals of the finite element method. Domain discretization, interpolation functions, computer implementation. Applications to heat transfer, torsion on noncircular sections, and irrotational flow.
Prerequisite: Mth 241 and either Mth 331 or any 400 level mathematics courses.

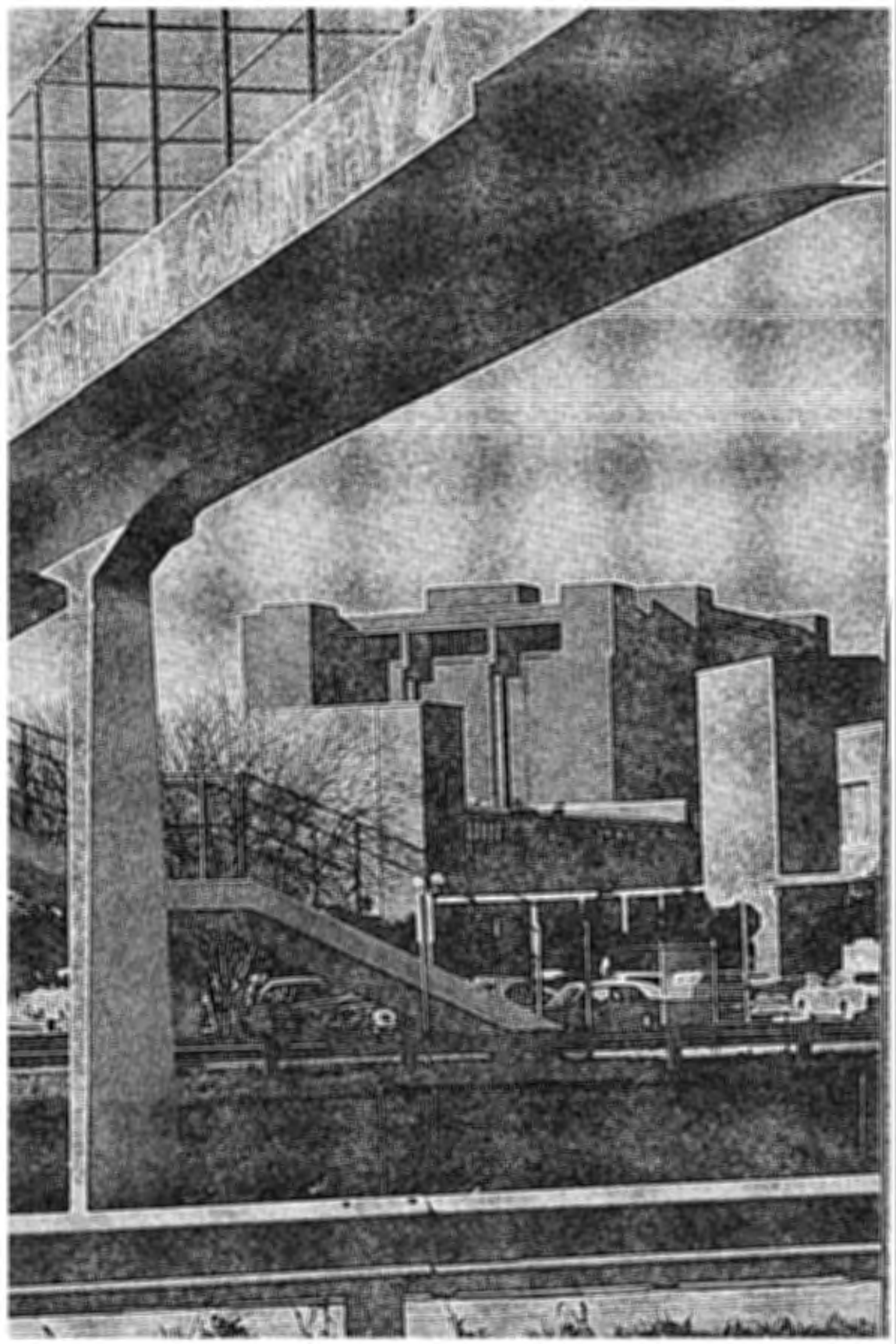
433 Linear Algebra 3:3:0
Linear spaces, linear transformations, matrices, determinants, eigenvalues, eigenvectors, inner product spaces, adjoint spaces, self adjoint transformations, quadratic forms, principal axis transformations, spectral decomposition.
Prerequisite: Mth 233, 149 or Mth 237.

435 Introductory Topology 3:3:0
Topological, metric, product, connected and compact spaces. Continuity, homeomorphism, sub-spaces, components and open coverings. Some applications to analysis.
Prerequisite: Mth 3311.

4351 Cultural Approach to Mathematics 3:3:0
Designed for liberal arts students, teachers of elementary and secondary mathematics and non-mathematical subjects. A survey demonstrating how mathematics is intricately related to physical sciences, philosophy, logic, religion, literature, music, painting and other arts. Resources are Italy with its vast heritages as found in its museums and national monuments.

437 Mathematical Theory of Probability 3:3:0
Single event probabilities; permutations/combinations; discrete probabilities density, binomial, Poisson and normal functions; expectations/variances; Central Limit theorem; Chi-square/F-distributions; (emphasis placed on use of concepts rather than the rigorous proofs of the theorems themselves.
Prerequisite: Mth 3370.

438 Statistical Methods 3:3:0
Sampling; introduction to least squares/regression analysis; experimental designs, completely randomized design (CRD), randomized complete block design (RCBD), and factorial designs.
Prerequisite: Permission of the instructor or Mth 437.



College of Fine and Applied Arts

Departments: Art, Communication, Music
W. Brock Brentlinger, Ph.D., Dean

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 and Applied Arts 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. In this respect the aims and purposes of the College of Fine and Applied Arts agree with and complement those of Lamar University. The College also offers several programs in the applied arts designed to equip the student, as practically as possible, for vocations in the fields of advertising, communication and speech and hearing therapy.

In Relation to the Departments: The College of Fine and Applied Arts offers the following basic degree programs:

1. Bachelor of Fine Arts Art Major
   a. Graphic Design
   b. Studio Art
2. Bachelor of Science Art Major
   a. Plan I Graphic Design
   b. Plan II Studio Art
   c. Plan III All Level Teacher Certification
   d. Secondary Art
3. Bachelor of Music Majors in:
   a. All Applied Fields
   b. Theory and Composition
   c. Music Education
4. Bachelor of Science Music Major, Teacher Certification all levels
   a. Instrumental Major
   b. Piano Major
   c. Vocal Major
   d. Theory and Composition
5. Bachelor of Science Speech Major
   a. Plan I Teacher Certification in Speech, Theater or Journalism
   b. Plan II Teacher Certification in Speech and Hearing Therapy
   c. Plan III Teacher Certification in Deaf Education
   d. Plan IV Speech and Hearing Therapy, Public Address, Theater or Communication
6. Bachelor of Arts Speech major, available in all four plans listed
   a. Bachelor of Science Communication Majors
   b. Bachelor of General Studies Fine Arts

Descriptions of graduate programs leading to the Master of Music or Master of Music Education degree 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.

130 **Appreciation of Art and Music** 3:3:0
Survey course of art and music appreciation. Introduces student to major monuments of painting, sculpture and architecture. The course is concerned with basic principles of line, color, space and form common to visual art. The music section seeks to develop the student's perception of "sound" and "time" in music. A wide spectrum of music is presented including jazz, rock, opera, nonwestern and traditional classical.

131 **Appreciation of Music and Theater** 3:3:0
A survey course of music and theater appreciation. Introduces student to the concepts of "sound" and "time" in music. A wide spectrum of music will be presented including jass, rock, opera, nonwestern and traditional classical. The theater section presents theater as a fine art including comment on the related fields of motion pictures and television.

132 **Appreciation of Theater and Art** 3:3:0
A survey course of theater and art appreciation. Introduces the student to theater as a fine art including comment of the related fields of motion pictures and television. The art section of the course presents the major monuments of painting, sculpture and architecture. Explains the basic principles of line, color, space and form common to all visual arts.

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.

335 **Topics in Museum Studies** 3:3:0
Research seminars and individual directed study conference courses on selected topics, techniques and developments in museology. May be repeated for a maximum of six semester hours when the area of study is different.

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 his/her own curricular plan, i.e., to follow a special interest within the arts, *or* to complement his/her 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 233 Introduction to Theater	3	Art 139 Art Appreciation	3
MLt 122 Music Literature	2	His 234 American History: Arts in America	3
MEd 131 Elements of Music	3	MLt 122 Music Literature	2
English Composition	3	English Composition	3
Mth/Sci	3-4	Mth/Sci	3-4
PE Activity	1	PE Activity	1
	15-16		15-16

Second Year

First Semester		Second Semester	
MLt 113 Pop Music Survey	1	Art 236 Art History II	3
Art 235 Art History Survey I	3	Eng Literature/Spc/Foreign Language	3
Eng 2311 English Literature	3	Gov 232 Introduction to American Government II	3
Gov 231 Introduction to American Government I	3	Mth	3
Mth/Sci	3-4	His 231 American History	3
PE Activity	1	PE Activity	1
	14-15		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 334 Stagecraft	3
Hum 331 Experiential Learning	3	Hum 331 Experiential Learning	3
Elective	4	Elective	3
Elective	4	Elective	4
	16		16

Fourth Year

First Semester		Second Semester	
The 436 History of Theater	3	Hum 439 Seminar Fine Arts	3
Hum 331 Experiential Learning	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3		
	15		12

Department of Art

Department Head: Robert C. Rogan **107B Art Building**
Professor: Rogan
Associate Professors: Madden, Newman, O'Neill
Assistant Professors: Jack, Lokensgard
Instructors: Fitzpatrick, Sommerfeld
Adjunct Instructors: Crain, Webb

The Department of Art offers undergraduate instruction leading to the Bachelor of Fine Arts degree or the Bachelor of Science degree. Art courses are designed for the general student as well as those who intend to enter the visual arts professionally.

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 Chairman during the first semester of their senior year.

During the senior year, a candidate for a degree in art will be required to prepare a one-person exhibit or to participate in a group exhibit. 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.

Students may minor in art by earning 18 hours of credit approved by the department head.

Recommended Programs of Study

Bachelor of Fine Arts

Specialization in Graphic Design

First Year

First Semester		Second Semester	
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
Art 139 Art Appreciation	3	Hum 131 Appreciation of Music and Theater	3
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Mth/Laboratory Science	3-4	Mth/Laboratory Science	3-4
	16-17		16-17

Second Year

First Semester		Second Semester	
Art 231 Drawing III	3	Art 232 Drawing IV	3
Art 233 Design III	3	Art 236 Art History II	3
Art 235 Art History Survey I	3	Art 237 Graphic Design I	3
PE Activity	2	PE Activity	2
Eng Literature	3	Eng Literature/Spc/Foreign Language	3
Mth/Laboratory Science	3-4	Mth/Laboratory Science	3-4
	17-18		17-18

Third Year*

First Semester		Second Semester	
Art 239 Photography I	3	Art 3393 Photography II	3
Art 3313 Illustration I	3	Art 3343 Graphic Design III	3
Art 3333 Graphic Design II	3	Art History Elective	3
Sophomore American History	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Dft 133 Introduction to Drafting	3	Eco 233 Principles and Policies	3
	18		18

Fourth Year

First Semester		Second Semester	
Graphic Design Elective	3	Art 4343 Problems in Graphic Design	3
Art 3355 Printmaking I	3	Art Elective	3
Art 3316 Watercolor I	3	Art Studio Elective	3
Art History Elective	3	Art History Elective	3
Free Elective	3	Free Elective	3
	15		15

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.*

Specialization in Studio Art

First Year

First Semester		Second Semester	
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
Art 139 Art Appreciation	3	Hum 131 Appreciation of Music and Theater	3
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Mth/Laboratory Science	3-4	Mth/Laboratory Science	3-4
	16-17		16-17

Second Year

First Semester		Second Semester	
Art 231 Drawing III	3	Art 232 Drawing IV	3
Art 233 Design III	3	Art 234 Sculpture I	3
Art 235 Art History Survey I	3	Art 236 Art History II	3
PE Activity	2	Art 238 Painting I	3
English Literature	3	PE Activity	2
Mth/Laboratory Science	3-4	Eng Literature/Spc/Foreign Language	3
	17-18		17

Third Year*

First Semester		Second Semester	
Art 3315 Drawing V	3	Art 3317 Painting II	3
Art 3316 Watercolor I	3	Art 3325 Drawing VI	3
Art 3355 Printmaking I	3	Art History Elective	3
Sophomore American History	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Mth/Laboratory Science	3-4		
	17-18		15

Fourth Year

First Semester		Second Semester	
Art Studio Elective	3	Art Studio Elective	3
Art Studio Elective	3	Art Studio Elective	3
Art Studio Elective	3	Art Studio Elective	3
Art History Elective	3	Art History Elective	3
Electives	6	Electives	6
	18		18

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.*

Bachelor of Science

Specialization in Graphic Design

First Year

First Semester		Second Semester	
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Hum 131 Appreciation of Music and Theater	3	Mth/Laboratory Science	3-4
Mth/Laboratory Science	3-4	Dft 133 Introduction to Drafting	3
	16-17		16-17

Second Year

First Semester		Second Semester	
Art 231 Drawing III	3	Art 236 Art History II	3
Art 233 Design III	3	Art 237 Graphic Design I	3
Art 235 Art History Survey I	3	Art 239 Basic Black & White Photography I I	3
English Literature	3	PE Activity	2
PE Activity	2	Elective	3
Elective	3	Eng Literature/Spc/Foreign Language	3
	17		17

Third Year*

First Semester		Second Semester	
Art 3313 Illustration I	3	Art 3343 Graphic Design III	3
Art 3333 Graphic Design II	3	Graphic Design Elective	3
Sophomore American History	3	Sophomore American History	3
Mth/Laboratory Science	3-4	Mth/Laboratory Science	3-4
Elective	3	Eco 233 Principles and Policies	3
	15-16		15-16

Fourth Year

First Semester		Second Semester	
Art 3355 Printmaking I	3	Art 4343 Problems in Graphic Design	3
Art Elective	3	Art Elective	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Electives	9	Electives	9
	18		18

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.*

Bachelor of Science

Specialization in Studio Art

First Year

First Semester		Second Semester	
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
English Composition	3	Art 139 Art Appreciation	3
PE Activity	1	English Composition	3
Hum 131 Appreciation of Music and Theater	3	PE Activity	1
Mth/Laboratory Science	3-4	Mth/Laboratory Science	3-4
	16-17		16-17

Second Year

First Semester		Second Semester	
Art 231 Drawing III	3	Art 231 Drawing IV	3
Art 233 Design III	3	Art 234 Sculpture I	3
Art 235 Art History Survey I	3	Art 236 Art History II	3
PE Activity	2	Art 238 Painting I	3
English Literature	3	PE Activity	2
Mth/Laboratory Science	3-4	Eng Literature/Spc/Foreign Language	3
	17-18		17

Third Year*

First Semester		Second Semester	
Art 3316 Watercolor I	3	Art 3327 Painting III	3
Art 3317 Painting II	3	Sophomore American History	3
Art 3355 Printmaking I	3	Electives	6
Sophomore American History	3	Mth/Laboratory Science	3-4
Electives	3		
	15		15-16

Fourth Year

First Semester		Second Semester	
Art History	3	Art History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Electives	12	Electives	12
	18		18

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.*

Bachelor of Science

All-Levels Certification

First Year

First Semester		Second Semester	
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Mth	3	Mth	3
Elective	3	Elective	3
	16		16

Second Year

First Semester		Second Semester	
Art 231 Drawing III	3	Art 236 Art History II	3
Art 233 Design III	3	English Literature	3
Art 235 Art History Survey I	3	PE Activity	2
English Literature	3	Science (Laboratory)	4
PE Activity	2	Electives	6
Science (Laboratory)	4		
	18		18

Third Year*

First Semester		Second Semester	
Art 3316 Watercolor I	3	Art 3381 Secondary Art	3
Art 3371 Elementary Art Education	3	Edu 334 Child Development and Evaluation	3
Edu 331 Foundations of Education	3	Gov 232 Introduction to American Government II	3
Edu 332 Educational Psychology	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Elective	4
Sophomore American History	3		
	18		16

Fourth Year

First Semester		Second Semester	
Art 3355 Printmaking I	3	Art 4341 Crafts Sec Edu	3
Art 3376 Ceramics I	3	Art 4381 Problems: Art Education	3
Art 4331 Crafts Elementary Education	3	Edu 463 Student Teaching—Special	6
Edu 438 Classroom Management Secondary	3	Electives	3
Electives	3		
	15		15

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.*

Teacher Certification—Art

Students wishing to obtain the Bachelor of Science degree in art 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. Art 131, 133, 134, 231, 3316, 3381, 4341, 4381.
2. An approved 24 hour additional teaching field. (See list of approved teaching fields in the College of Education section of this Bulletin).
3. Eighteen hours of education: 331, 332, 338, 438, 462.
4. Approved electives to complete a total of 132 semester hours.

Art Courses (Art)

131 **Drawing I** 3:6:0

A beginning course investigating a variety of drawing media, techniques and subjects, exploring perceptual and descriptive 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 3:6:0
Continuation of Design I with emphasis upon three-dimensional concept.
Prerequisite: Art 133.

135 Introduction to Visual Studies 3:3:0
Development of aesthetic awareness through examination of our environment and its relationship to visual arts.

139 Art Appreciation 3:3:0
An introductory course emphasizing the understanding and appreciation of visual arts (painting, sculpture, architecture). Open to all students.

1393 Introduction to Photographic Arts 3:3:0
Fundamentals of photography, including cameras, films and lighting. Recommended for non-majors who wish a course requiring no laboratory.

231 Drawing III 3:6:0
A 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 subtractive techniques.
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 14th Century to the present.

237 Graphic Design I 3:6:0
An introduction to the field of graphic design with emphasis on typography and basic layout.

238 Painting I 3:6:0
Exploring the potentials of painting media with emphasis on color and composition.
Prerequisite: Art 132 and 134.

239 Basic Black and White Photography I 3:6:0
An introduction to basic photographic processes and techniques used as an art medium.

3313 Illustration I 3:6:0
A media course. The preparation and execution of graphic material for reproduction.

3315 Drawing V 3:6:0
Continuation of drawing. Experimentation with various media and their adaptability to drawing principles.
Prerequisite: Art 232.

3316 Watercolor I 3:6:0
Study and practice in the planning and execution of paintings in transparent and opaque watercolor.
Prerequisite: Art 233.

3317 Painting II 3:6:0
Continuation of Painting I with emphasis on individual expression.
Prerequisite: Art 238.

3323 Illustration II 3:6:0
Experimentation with various techniques and/or media. Continuation of Art 3313.
Prerequisite: Art 3313.

3325 Drawing VI 3:6:0
Continuation of Art 3315.
Prerequisite: Art 3315.

3326 Watercolor II 3:6:0
A continuation of 3316.
Prerequisite: Art 3316.

3327 Painting III 3:6:0
Continuation of 3317.
Prerequisite: Art 3317.

3333 Graphic Design II 3:6:0
The study of advanced layout for media advertising, collateral and editorial material and the basic preparation of art for reproduction.
Prerequisite: Art 237.

3335 Crafts 3:6:0
Basic processes of textile design, weaving, leather and jewelry. May be repeated for credit.

3343 Graphic Design III 3:6:0
The development of art and typography for media advertising, collateral and editorial material with emphasis on the preparation of camera ready art.
Prerequisite: Art 239, 3313, 3333.

3353 Fashion Layout and Illustration 3:6:0
A study of basic layout and illustration for fashion advertising.

3355 Printmaking I 3:6:0
An introduction to printmaking with an emphasis on intaglio and relief processes.
Prerequisite: Art 233.

3365 Printmaking II 3:6:0
A continuation of Art 3355 with emphasis on planographic and serigraphic techniques.
Prerequisite: Art 3355.

3371 Elementary Art Education 3:3:0
Curricula, methods, and materials for the elementary school.

3375 Sculpture II 3:6:0
Application of the principles of sculpture through experiment in clay, plaster and various materials. May be repeated for credit.
Prerequisite: Art 234.

3376 Ceramics I 3:6:0
Investigation and practice in ceramic processes: forming and firing techniques. May be repeated for credit.
Prerequisite: Art 234 or permission of instructor.

3381 Secondary Art Education 3:3:0
Curricula, methods, and materials for the secondary school.
Spring semester only.

3386 Ceramics II 3:6:0
Opportunities for specialization in ceramic processes. May be repeated for credit.
Prerequisite: Art 3376.

3393 Advanced Photography 3:6:0
Advanced study of photography as an art medium.
Prerequisite: Art 239.

4315 Drawing VII 3:6:0
Specialized problems in studio area. May be repeated for credit.
Prerequisite: Art 232.

4316 Painting IV 3:6:0
Specialized problems in studio area. May be repeated for credit.

4325 Drawing VIII 3:6:0
A continuation of Drawing VII.
Prerequisite: Art 3325.

4326 Painting V 3:6:0
A continuation of Painting IV. May be repeated for credit.
Prerequisite: Art 4316.

4331 Crafts Elementary Education 3:6:0
An introduction to various craft materials and techniques used in the elementary school. Course may be repeated for credit.

4333 Problems in Graphic Design 3:6:0
Further study of commercial art techniques and typography.
Prerequisite: Art 3343.

4336 Professional Practices 3:3:0
A study of the practical aspects of the art profession with emphasis on health hazards, business procedures, and art law.

4338 Renaissance Art 3:3:0
Study of 15th and 16th century art in the Western world.

4341 Crafts Secondary Education 3:6:0
An introduction to the various craft materials and techniques used in the secondary school. Course may be repeated for credit.

4343 Problems in Graphic Design 3:6:0
Study in commercial art techniques and production.
Prerequisite: Art 3343.

4348 Nineteenth & Twentieth Century Abstract Art 3:3:0
Foundation of Abstraction in European Art from Neo-Classicism through Surrealism.

4353 Special Problems in Graphic Design I 3:6:0
Investigation of problems, methods and other considerations relevant to designing an advertising campaign.
Prerequisite: Art 3343.

4355 Printmaking III 3:6:0
Specialized problems in studio area. May be repeated for credit.
Prerequisite: Art 3365.

4358 American Art 3:3:0
The development of painting, sculpture and architecture in the United States from Colonial times to the present.

4363 Special Problems in Graphic Design II 3:6:0
Continuation of 4353.
Prerequisite: Art 3343.

4368 Contemporary Art 3:3:0
A historical and critical analysis of painting, sculpture, and architecture in Europe and the Americas from 1900 to the present.

4371 Curriculum and Instruction in Art Education 3:3:0
Problems in selecting, evaluating, and guiding art activities. Study of children's development in art as background for teaching.

4373 Field Study in Graphic Design 3:6:0
Familiarization with the overall commercial art field through actual experience. Time to be arranged. Permission of instructor.

4375 Sculpture III 3:6:0
Specialized problems in studio area. May be repeated for credit.
Prerequisite: Art 3375.

4376 Ceramics III 3:6:0
Specialized 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 Problems: Art Education 3:6:0
Individual projects to be completed under faculty supervision.
Prerequisite: Art 3371, 3381.

4388 Modern Architecture and Sculpture 3:3:0
The development and evolution of modern architecture and sculpture from the late 19th century to the present in America and Europe.

4391 Directed Individual Study 3:A:0
Study of specialized area within art education field. May be repeated for credit.
Prerequisite: Permission of instructor.

4393 Directed Individual Study 3:A:0
Study of specialized area within commercial art field. May be repeated for credit.
Prerequisite: Permission of instructor.

4395 Directed Individual Study 3:A:0
Study of specialized area within fine arts field. May be repeated for credit.
Prerequisite: Permission of instructor.

Department of Communication

Department Head: DeWitte T. Holland **209 Chemistry Building**
Professors: Archilles, Brentlinger, Holland, James, Pederson
Associate Professors: Johnson, Harrigan, Moulton
Assistant Professors: Baechle, Baker, Campbell, Roth, Wilkerson, Winney
Instructors: Eddy, Morton
Adjunct Instructor: Perkins

The Department of Communication has four plans of study. Secondary teacher certification is offered in speech, drama or journalism under Plan I. Plan II is a generic speech and hearing science degree that is a foundation for the master's degree and for professional teacher certification in speech pathology or deaf education. Plan III is the communication degree and Plan IV is an individualized program in any of the areas of the department. It does not lead to teacher certification, but being highly flexible it lends itself to specialized professional interests or to preparation for graduate study. Non-communication department courses focusing on the

communicative process may be considered for communication credit in a degree of the department.

Communication and General Speech under Plan IV programs serve as appropriate degrees for entry into law schools. Either of these plans also may serve as a three year pre-law foundation for special degree programs described earlier under Degree Requirements. See the head of the Communication Department for details.

The department does not recognize grades of D in the major area for degree or teacher certification purposes, although they may be considered for elective purposes.

Theater majors, whether for degree or teacher certification purposes, are required to take Theater 210-Theater Practicum during four different semesters or summer terms. Two of these practicums may be transferred from other colleges.

Speech majors planning to certify to teach speech are required to take Speech 222-Forensic Activity twice.

Recommended Programs of Study

Bachelor of Science — Speech Major

Plan I (For those who wish to qualify for a secondary teacher's certificate in speech, drama or journalism).

First Year

First Semester		Second Semester	
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Science (Laboratory)	4	Science (Laboratory)	4
Mth	3	Mth	3
Major Required	6	Major Required	3
		Hum 130 Appreciation of Art and Music	3
	17		17

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
His United States (Soph)	3	His United States (Soph)	3
PE Activity	1	PE Activity	1
Major Required	6	Major Required	3
Electives	3	Electives	6
	16		16

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Edu 338 Curriculum, Materials and Evaluation	3
Edu 332 Educational Psychology	3	Gov 232 Introduction to American Government II	3
Gov 231 Introduction to American Government I	3	Major Adv	6
Major Adv	3	Teaching Field Two and/or Electives	6
Teaching Field Two and/or Electives	6		
	18		18

Fourth Year

First Semester		Second Semester	
Edu 438 Classroom Management Secondary	3	Edu 462 Student Teaching—Special	6
Major Adv	3	Teaching Field Two and/or Electives	6
Teaching Field Two and/or Electives	12		
	18		12

Teacher certification is available in speech, theater drama and journalism under Plan I.

Courses included in the Public Speaking/Speech area are: 222 twice, 233, 235, 238, 434, The 437, 439 and three advanced hours. In addition, Speech 1311 is a degree requirement.

Courses in the theater/drama area are: The 211 four times, 231, 237, 335, 4311, 4312, 437 and 431. In addition, Speech 1311 is a degree requirement.

Courses included in the journalism area are: Com 133, 231, 232, 333, 3381, 4383, 431 and 432. In addition, Com 131 is a degree requirement.

Plan II General Speech and Hearing Science. This program lays the foundation for professional teacher certification in speech therapy and deaf education which may be completed on the graduate level. For specifics on undergraduate provisional teacher certification, please see the Director of the Communication Disorders Program.

First Year

First Semester		Second Semester	
Bio 141 General Biology	4	Bio 142 General Biology	4
English Composition	3	Hum 130, 131	3
PE Activity	1	English Composition	3
Mth	3	PE Activity	1
Spc 1301 Introduction to Speech and Language Disorders	3	Mth	3
Spc 1302 Phonology	3	Spc 1303 Speech, Hearing and Voice Science	3
	17		17

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
His United States (Soph)	3	His United States (Soph)	3
PE Activity	1	PE Activity	1
Spc 2302 Introduction to Deaf Education	3	Spc 2303 Introduction to Audiology	3
Elective	6	Spc 2301 Introduction to Speech Pathology	3
		Elective	3
	16		16

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Spc 3302 Language Development and Language Disorders	3
Edu 332 Educational Psychology	3	SpEd 2301 Foundations of Special Education	3
Gov 231 Introduction to American Government I	3	Edu 334 Child Development and Evaluation	3
Spc 3303 Introduction to Manual Communication Systems	3	Gov 232 Introduction to American Government II	3
Spc 3301 Research	3	Elective	6
Bio 332 Anatomy and Physiology of Spech and Hearing	3		
	18		18

Fourth Year

First Semester		Second Semester	
Edu 434 Classroom Management Elementary	3	Spc 4303 Clinical Practicum	3
Spc 4302 Advanced Audiology	3	Electives	9
Spc 4301 Advanced Speech Pathology	3		
Electives	9		
	18		12
Total			132

Plan III

Bachelor of Science — Communication

The purpose of this degree program is a broadly-based preparation for university students who are interested in professional careers in mass communication, e.g., radio, television, newspaper, magazine, public relations, industrial media, sales and advertising. In its attempt to prepare students for the communications industry as a whole, rather than for a specific position, the program focuses attention upon significant concepts of the mass communication process in contrast to efforts to refine and perfect specific skills. The program does, however, give attention to the development of basic speech, media, art and writing proficiency. Thus, a unique characteristic of this degree is its purpose to provide the student with an interdisciplinary experience in the study of communication involving several departments. For this reason, the major requirement is 43 hours instead of the usual 24 or 30 hours. Within this total program, 27 hours of specific coursework is required, and the student will complete the 43-hour total by selecting 16 hours from a second group of related courses referred to in the degree plan as 'major electives.' Credit for internship may be granted through the major and free elective areas. Each student should complete at least one internship.

The student may desire to emphasize non-quantative business administration courses or teacher certification through careful use of electives in order to give a wider vocational opportunity.

First Year

First Semester		Second Semester	
English Composition	3	Eng 134 Composition	3
Science (Laboratory)	4	Science (Laboratory)	4
Spc 131 Public Speaking	3	Eco 233 Principles and Policies	3
Com 131 Introduction to Mass Communication	3	Com 133 News Writing	3
Hum 130, 131 or 132	3	CS 130 Computers and Society	3
PE Activity	1	PE Activity	1
	17		17

Second Year

First Semester		Second Semester	
Eng Literature/Spc 235	3	Spc 235/English Literature	3
Mth	3	Mth	3
Sophomore American History	3	Gov 232 Introduction to American Government II	3
Gov 231 Introduction to American Government I	3	Sophomore American History	3
Com 2384 Evolution of Motion Pictures	3	Major Elective	3
PE Activity	1	PE Activity	1
	16		16

Third Year

First Semester		Second Semester	
Com 234 Introduction to Broadcasting	3	Com 4383 Print Advertising	3
Foundation elective	3	Foundation elective	3
Com 431 Laws and Ethics of the Mass Media	3	Major electives	6
Eng 4326 Expository Writing or Com 231 News Reporting (R)	3	Foundation elective	3
Com 333 or Spc 434/332/439	3		
	15		15

Fourth Year

First Semester		Second Semester	
Foundation elective	6	Major electives	7
Major elective	3	General electives	8
General electives	3		
Com 3383 Broadcast Advertising	3		
	15		15

Total 124

Plan IV (For those not desiring teacher certification). This degree plan is designed for those wishing to emphasize communication, public address, theater or speech and hearing therapy, for purposes other than teaching certification. The plan provides a maximum of flexibility in the composition of the courses for the major. The first and second years of Plan IV are essentially the same as Plan I. It requires 124 semester hours. May serve as preprofessional training for the field of law. Requires 120 semester hours exclusive of the required physical education courses/marching band/ROTC.

Bachelor of Arts — Speech Major

Same as any of the above programs except for the completion of the course numbered 232 in a foreign language, six semester hours of literature, and an eighteen semester hour minor including six advanced hours. The B.A. is not available in Communication, Plan III.

Communication Courses (Com)

131 Introduction to Mass Communication 3:3:0
Study of mass communication, analysis of media conglomerates, advdertising, popular culture, and media-audience interaction.

133 News Writing 3:2:3
A study of the principles of news writing, with emphasis upon concise, accurate, objective writing. Proficiency in typewriting is required.

231 News Reporting 3:2:3
A basic course in 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.

234 Introduction to Broadcasting 3:2:3
A general introduction to the field of broadcasting, including a study of station and network organization and control by law and societal forces.

2341 Principles of Broadcast Production 3:2:3
Training in broadcast production with emphasis on operation of campus broadcast facilities. Different formats will be considered. Practical experience in announcing, planning, production of programs.
Prerequisite: Com 234 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 3:3:0
Familiar entertainment film types: science fiction, horror, gangster, and Westerns are analyzed for formal properties and ideological content. May be repeated when units vary.

3234 Practicum in Communication 2:0:6
Laboratory experience in an 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 eight semester hours.

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 or equivalent.

335 Magazine Production 3:2:3
Analysis and participation in all phases of magazine production.

338 Television Production 3:2:3
Activities in writing, acting, directing, producing, announcing and engineering various types of television productions.

3381 Photo Journalism 3:2:3
Principles of photography applied to the specific area of photojournalism. No experience is required, but each student must have access to a 35 mm adjustable camera.

3382 Cinematography 3:2:3
An introduction to the basic techniques involved in the use of the motion picture as a means of communication. A thorough knowledge of basic photographic theory will be expected. All aspects of motion picture production will be covered.

3383 Broadcast Advertising 3:3:0
Broadcast advertising theory and techniques in the total marketing mix.

431 Laws and Ethics of the Mass Media 3:3:0
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.

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.

433 Mass Communication and Society 3:3:0
Analysis of impact of mass communication on society.

438 Broadcast News 3:2:3
Study and practice in developing news for broadcasting. Various types of news material, including the documentary, its procurement and presentation.
Prerequisite: Com 234 or consent of instructor.

4383 Print Advertising 3:2:3
A study of advertising, including copy writing, type selection, layout and design for print media.

4391 Advanced Television Production 3:2:3
Seeks to develop professional competence in television production of news, commercials, documentaries and special program.

Speech Courses (Spc)

1301 Introduction to Speech, Hearing and Language Disorders 3:3:0
Overview of the profession of speech pathology, audiology and deaf education.

1302 Phonology 3:3:0
Descriptive phonetics, phonetic alphabet systems.

1303 Speech, Hearing and Voice Science 3:3:0
Introduction to the scientific variables of speech, hearing, and voice.

131 Public Speaking 3:3:0
Principles and practice of public speaking.

1311 Voice, Diction and Vocabulary 3:3:0
Vocal development, vocabulary building and pronunciation skills through systematic analysis and drill.

211 Parliamentary Procedure 1:1:0
Theory and practice in conducting a business meeting through standard parliamentary procedures.

222 Forensic Activity 2:0:4
Participation in forensics and co-curricular speaking events including campus, community and intercollegiate occasions. May be repeated for a maximum of eight semester hours credit.
Prerequisite: Permission of instructor required.

230 Articulation Disorders 3:3:0
Prevention, assessment, etiology and remediation of articulation disorders.

2301 Introduction to Speech Pathology 3:3:0
Etiology and treatment of speech disorders with emphasis on functional disorders.

2302 Introduction to Deaf Education 3:3:0
Historical and current considerations in the deaf education profession.

2303 Introduction to Audiology 3:3:0
Anatomy of ear, physics of sound, test modes and procedures.

232 Interpersonal Communication 3:3:0
Principles and practices of interpersonal communication in various settings.

233 Advanced Public Speaking 3:3:0
Principles and practice in special occasion speaking.

235 Oral Interpretation of Literature 3:3:0
Instruction and practice in the principles of speech applied to performance in the interpretation of prose and poetry.

238 Oral Controversy 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 Research and Literature in Speech and Hearing 3:3:0
Literature and research methods specific to speech and hearing.

3302 Language Development and Language Disorders 3:3:0
Normal language development, language assessment, language, intervention.

3303 Introduction to Manual Communication Systems 3:3:0
Introduction to fingerspelling and the language of signs.

331 **Business and Professional Speech** 3:3:0
Application of the fundamentals of speech production to the needs of the professional person.

332 **Group Methods and Discussion** 3:3:0
Communication theory of group processes. Practice in group problem solving.

333 **Interpretation of Children's Literature** 3:3:0
Study of materials for different ages of children; sources of program material, practice in adapting material into programs; practice in presenting program in laboratory and in nearby schools, hospitals and homes.

334 **Interviewing** 3:3:0
Theory and practice in the several rypes of interviews current in the United States.

3391 **Speech Reading, Auditory Training and Amplification Devices** 3:3:0
A survey of the literature, theory, and practice in rehabilitation of the hearing impaired.

3392 **Speech for the Deaf** 3:3:0
Methods of developing speech in the young deaf child.

430 **Problems and Projects in Speech** 3:A:0
These problems are discussed and analyzed through discussion and research. Each student elects a project or problem on which he/she does extensive research and presents a report to the department faculty. Course may be repeated three times for credit.

4301 **Advanced Speech Pathology** 3:3:0
Advanced speech pathology: introduction to specific communication disorders, diagnostic procedures and therapy programs.

4302 **Advanced Audiology** 3:3:0
Hearing evaluation procedures, clinical evaluation techniques and instrumentation.

4303 **Clinical Practicum** 3:0:9
Introduction to clinical practice in speech pathology, audiology and deaf education. This course may be repeated for clinical clock hours accumulation.

4304 **Intermediate Manual Communication** 3:3:0
Intermediate skills course in the language of sign.

432 **Public Relations** 3:3:0
Theory, principles, and practice of public relations communication.

4321 **Advanced Language for the Deaf** 3:3:0
Princiiples and techniques for systematic development of language from the first through the sixth grades.

4322 **Advanced Speech for the Deaf** 3:3:0
The study for problems of speech development and the maintenance of intelligible speech.

4323 **Non Verbal Communication** 3:3:0
Theory, research, analysis and practice in non verbal communication.

433 **Organizational Communication** 3:3:0
Theory, principles, and practice of communication within organizations.

434 **Persuasion** 3:3:0
The psychological and emotional principles involved in influencing individuals and groups. An analysis and practice with the speech devices and techniques in effectively motivating audience reaction.

4341 **Advanced Interviewing** 3:3:0
Study of modern communication and related research as applied in business and professional interviews.

4371 **Advanced Oral Interpretation** 3:3:0
Instruction and practice in oral interpretation of dramatic literature.

4381 **Rhetoric of Social Movements** 3:3:0
Analysis of the rhetoric of selected social movements in American history.

439 **Rhetoric and Public Address** 3:3:0
A study and analysis of some of the world's great speeches with application of the principles of original speeches of special types.

Theater Courses (The)

135 **Children's Theater** 3:2:3
Instruction and practice in the beginning principles of theater as applied to plays for children's audiences.

210 **Theater Practicum** 1:0:3
Laboratory instruction in production techniques required in the area of scenery, lighting, costumes and other technical areas. It may be repeated three times for credit of four hours.

2260 **Musical Commedy** 2:0:6
A laboratory course providing background study and practical work in the field of musical comedy, including participation in the presentation of a full production. Open by audition or by consent of the instructor to students from all departments who are interested in acting or technical work in the theater, especially as applied to musical comedy. May be repeated for credit up to six hours.

231 Beginning Stagecraft 3:2:3
Basic course in technical theater. Emphasis on methods of construction and handling of scenery, construction and care of stage properties, basic knowledge of lighting units and their use on the stage nomenclature of the crafts of theater. Laboratory: 3 hours and participation in department productions.

233 Introduction to Theater 3:2:3
A general survey of the major fields of theater arts. For students who have a limited theatrical experience or knowledge. Emphasis on the various types and styles of plays, knowledge of the functions of the actor, director, costumer, scene designer, light designer and other elements of theater production.

237 Acting 3:2:3
Detailed study of characterization and styles of acting through class assignments of individuals and group scenes. Course may be taken twice for credit. Laboratory: 3 hours and participation in department productions.

239 Dialects 3:2:3
Instruction and workshop for mastering dialects used on stage, or for impersonating cultures as speakers, radio or TV personalities.
Prerequisite: Speech 1302 or 1311.

335 Directing 3:2:3
To give the student a background knowledge in directing from the viewpoint of the interpreter, planner, organizer, businessperson, technician, actor, psychologist and artist with specific problems in directing scenes from plays.

336 Creative Dramatics 3:3:0
Instruction in the methods of introducing creative projects related to the development of creative play-making in the home, community and school.

3360 Advanced Children's Theater 3:2:3
Instruction and practice in advanced principles of theater as applied to plays for children's audiences.

430 Creative Communication 3:3:0
This is a process oriented approach to creative learning through creative communications. It is of special value to the communication of information in or out of the classroom at any age level.

431 Problems and Projects in Theater 3:A:0
Students will perform activities in one of the following areas: acting, directing, producing, designing and constructing costumes and stage settings for the school theater.
May be repeated three times for credit.

4311 Theory and Practice of Scenery and Lighting Design 3:2:3
Study and practice of the principles and techniques of stage scenery and lighting design with an emphasis on coordinating the two.
Prerequisite: Theater 231.

4312 Costume Design and Construction 3:2:3
Study and practice of the principles and techniques involved in designing and constructing costumes for the principal periods encountered in theater production.

434 Advanced Stagecraft 3:3:3
Advanced techniques in theater crafts. Emphasis on special problems in building and handling scenery, technical plotting of scenery, special lighting problems and physical requirements of a theater.

436 History of Theater 3:3:0
A survey of theater from 5th Century B.C. to the present day, with emphasis on methods and styles of presentation.

437 Directing Secondary School Theater Activities 3:A:0
Principles involved in extracurricular theater activities. Practical experience with workshop students consittutes a part of this course. Offered in spring terms only

Department of Music

Department Head: George L. Parks **106 Music-Speech Building**
Professors: Carlucci, Kaszynski, Parks, Wiley
Associate Professors: Collier, Holmes, LeBlanc, Truncale
Assistant Professors: Barrett, Shmider, Simmons
Instructors: Babin, Berthiaume, Culbertson, Dyess, Ornelas, Parks
Adjunct Instructors: Victor

The degrees of Bachelor of Music and Bachelor of Science Music Major (voice, piano, theory and composition, or instrumental major) are granted under the following conditions:

1. Meet the basic requirements for all degree programs.
2. Complete one of the programs of study listed below.
3. Pass a department qualifying examination given by the music faculty before the end of the first semester of the senior year. Junior level music history and music theory must be taken before the oral examination.

4. All students must continue to take secondary piano for as many consecutive semesters as are required for the completion of the barrier. Application for the piano barrier exam may be made during any semester of the student's enrollment except when otherwise specified.
5. Participate in student recitals as recommended by the department.
6. For graduation, all music majors must present a recital during the senior year as recommended by the department head.
7. All students, including transfers, must show adequate proficiency in their areas of specialization, as determined by the music faculty.
8. Auditions are required for junior level standings in the Bachelor of Music degree program.
9. All music majors will be required to take Humanities 132.

Recommended Programs of Study

Bachelor of Music — Composition

First Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb Band, Choir, Orchestra	1	MLb Band, Choir, Orchestra	1
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLt 121 Music Literature	2	MLt 122 Music Literature	2
English (Composition)	3	English (Composition)	3
PE	1	PE	1
AM Elective (must be piano with the exception of piano and organ majors)	1	AM Elective (must be piano with the exception of piano and organ majors)	1
Elective (Math, Science)	4	Elective (Math, Science)	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
	18		18

Second Year

First Semester		Second Semester	
AM 2283	2	AM 2284	2
MLb Band, Choir, Orchestra	1	MLb Band, Choir, Orchestra	1
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
English Literature	3	*Elective (non-music)	3
Sophomore American History	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
PE	1	PE	1
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
	17		17

Third Year

First Semester		Second Semester	
AM 3483	4	AM 3484	4
MLb Band, Choir, Orchestra	1	MLb Band, Choir, Orchestra	1
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
MLt 333 Music History	3	MLt 334 Music History	3
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
Elective (Math, Science)	3	Elective (Math, Science)	3
Hum 132 Appreciation of Theater and Art	3	Elective non-music	3
	17		17

Fourth Year

First Semester		Second Semester	
AM 4483	4	AM 4484	4
MLb Band, Choir, Orchestra	1	MLb Band, Choir, Orchestra	1
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
MLt 336 or MLt 337	3	MEd 337 or MEd 338	3
MTy 425 Band Arranging	2	MLb 114 Repertoire & Pedagogy	1
Music Elective	2	Music Elective	2
MLb 114 Repertoire & Pedagogy	1		
	15		13
Total			132

**Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.*

Instrumental (Strings)

First Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
AM 1143	1	AM 1143	1
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLb 122 Orchestra	2	MLb 122 Orchestra	2
MLt 121 Music Literature	2	MLt 122 Music Literature	2
English (Composition)	3	English (Composition)	3
PE	1	PE	1
Elective (Math, Science)	4	Elective (Math, Science)	4
	19		19

Second Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
MLb 423 Chamber Music Ensemble	1	MLb 423 Chamber Music Ensemble	1
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
MLb 122 Orchestra	2	MLb 122 Orchestra	2
Sophomore American History	3	Sophomore American History	3
Elective (non-music)	3	Hum 132 Appreciation of Theater and Art	3
PE	1	PE	1
English Literature	3	*Elective (Non-music)	3
	19		19

Third Year

First Semester		Second Semester	
AM Major Instrument	4	AM Major Instrument	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
MLb 122 Orchestra	2	MLb 122 Orchestra	2
MLt 333 Music History	3	MLt 334 Music History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Elective (Math, Science)	3	Elective (Math, Science)	3
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
	18		18

Fourth Year

First Semester		Second Semester	
AM Major Instrument	4	AM Major Instrument	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
MLb 122 Orchestra	2	MLb 122 Orchestra	2
MLt 337 Instrumental Literature	3	MEd 338 Instrumental Conducting	3
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
Chamber Music Elective	1	Chamber Music Elective	1
Elective (non-music)	2	Elective (non-music)	2
	15		15
Total			142

**Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.*

Instrumental (Wind, Percussion, or Jazz Studies)

First Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1	MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1
AM 1143	1	AM 1143	1
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
MLt 121 Music Literature	2	MLt 122 Music Literature	2
Music Elective or MLb 115 Jazz Combo	1	Music Elective or MLb 115 Jazz Combo	1
English (Composition)	3	English (Composition)	3
Elective (Math, Science) or Math and MLb 113 Jazz Improvization	4	Elective (Math, Science) or Math and MLb 113 Jazz Improvization	4
	19		19

Second Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1	MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
Music Elective or MLb 115 Jazz Combo	1	Music Elective or MLb 115 Jazz Combo	1
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
Sophomore American History	3	Sophomore American History	3
English (Literature)	3	*Elective (non-music)	3
Elective (non-music) or MLb 111, 113	2	Elective (non-music) or MLb 111, 113	2
	17		17

Third Year

First Semester		Second Semester	
AM Major Instrument (2 hours for jazz studies)	4	AM Major Instrument (2 hours for jazz studies and MTy 323 Jazz Arranging)	4
MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1	MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1
MLt 333 Music History	3	MLt 334 Music History	3
MLb 423 Chamber Music Ensemble or MLb 115 Jazz Combo	1	MLb 423 Chamber Music Ensemble or MLb 115 Jazz Combo	1
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Elective (Math, Science)	3	Elective (Math, Science)	3
	19		19

Fourth Year

First Semester		Second Semester	
AM Major Instrument (2 hours for jazz studies and MLb 115 Jazz Combo)	4	AM Major Instrument (2 hours for jazz studies and MLb 115 Jazz Combo	4
MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1	MLb 114 Repertoire & Pedagogy or MLb 117 Dance Band	1
MLt 337 Instrumental Literature or MEd Recording Techniques	3	MEd 338 Instrumental Conducting or MEd 431 Jazz Electronic Music	3
MTy 421 Form and Analysis	2	MTy 422 or 425	2
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
MEd 333 High School Stage Band	3	Elective (non-music)	3
MLt 330 Jazz History	3		
	18		15
Total			143

**Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.*

Piano And/Or Organ

First Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
Major Performing Ensemble	1	Major Performing Ensemble	1
AM Elective	1	AM Elective	1
MLt 121 Music Literature	2	MLt 122 Music Literature	2
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
English (Composition)	3	English (Composition)	3
PE	1	PE	1
Elective (Math, Science)	4	Elective (Math, Science)	4
	18		18

Second Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
Major Performing Ensemble	1	Major Performing Ensemble	1
MLb 423 Chamber Music Ensemble	1	MLb 423 Chamber Music Ensemble	1
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
English Literature	3	*Elective (non-music)	3
Sophomore American History	3	Sophomore American History	3
Elective (non-music)	3	Elective (non-music)	3
PE	1	PE	1
	18		18

Third Year

First Semester		Second Semester	
AM Major Instrument	4	AM Major Instrument	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
Major Performing Ensemble	1	Major Performing Ensemble	1
MLb 423 Chamber Music Ensemble	1	MLb 423 Chamber Music Ensemble	1
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
MLt 333 Music History	3	MLt 334 Music History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Elective (Math, Science)	3	Elective (Math, Science)	3
	18		18

Fourth Year

First Semester		Second Semester	
AM Major Instrument	4	AM Major Instrument	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
Major Performing Ensemble	1	Major Performing Ensemble	1
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
MLt 336 or MLt 337	3	MEd 337 or MEd 338	3
Hum 132 Appreciation of Theater and Art	3	Elective (non-music)	3
	14		14

Total 136

**Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.*

Vocal

First Year

First Semester		Second Semester	
AM 1281	2	AM 1282	2
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
AM 1143	1	AM 1143	1
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLt 121 Music Literature	2	MLt 122 Music Literature	2
English (Composition)	3	English (Composition)	3
Italian	3	German	3
PE	1	PE	1
	17		17

Second Year

First Semester		Second Semester	
AM 2281	2	AM 2282	2
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
Spc 1311 Voice, Diction and Vocabulary	3	English Literature	3
French	3	Elective (Math, Science)	3
Sophomore American History	3	Sophomore American History	3
PE	1	PE	1
	17		17

Third Year

First Semester		Second Semester	
AM 3481	4	AM 3482	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MLb 210 Opera	1	MLb 210 Opera	1
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
MLt 336 Choral Literature	3	MEd 337 Choral Conducting	3
MLt 333 Music History	3	MLt 334 Music History	3
Science (laboratory)	4	Science (laboratory)	4
	19		19

Fourth Year

First Semester		Second Semester	
AM 4481	4	AM 4482	4
MLb 114 Repertoire & Pedagogy	1	MLb 114 Repertoire & Pedagogy	1
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MLb 210 Opera	1	MLb 210 Opera	1
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Hum 132 Appreciation of Theater and Art	3	Elective (Math, Science)	3
	15		15

Total 136

Bachelor of Music in Music Education (Winds, Brass, Percussion)

(Qualifies for teacher certification music, all-levels)

First Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb Marching Band or PE	2	MLb 125 Symphonic Band	2
AM 1143	1	AM 1143	1
Sophomore American History	3	Sophomore American History	3
English Composition	3	Eng (Composition)	3
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLt 121 Music Literature	2	MLt 122 Music Literature	2
	19		19

Second Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb Marching Band or PE	2	MLb 125 Symphonic Band	2
AM 1143	1	AM 1143	1
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Science (laboratory)	4	Science (laboratory)	4
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
English Literature	3	English Literature	3
	18		18

Third Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb Marching Band or PE	2	MLb 125 Symphonic Band	2
MEd 311, 313	2	MEd 312, 314, 411	3
MEd 336 Instrumental Music	3	MEd 338 Instrumental Conducting	3
MLt 333 Music History	3	MLt 334 Music History	3
Edu 331, 332	6	Edu 334 Child Development and Evaluation	3
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
	20		18

Fourth Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb Marching Band or PE	2	MLb 125 Symphonic Band	2
Edu 438 Classroom Management Secondary	3	Edu 463 Student Teaching — Special	6
MTy 421 Form and Analysis	2	MTy 422 or 425	2
MEd 412 Woodwinds	1	MEd 315, 317	2
Elective (Foundation)	3		
Elective (Foundation)	3		
Hum 132 Appreciation of Theater and Art	3		
	19		14
Total Hours			145

The six hours of foundation electives must be chosen from two different foundation groups, and if marching band is taken for PE credit, an additional non-music elective must be taken.

Bachelor of Music in Music Education (Strings)

(Qualifies for teacher certification music, all-levels)

First Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 122 Orchestra	2	MLb 122 Orchestra	2
AM 1143	1	AM 1143	1
Sophomore American History	3	Sophomore American History	3
Eng (Composition)	3	Eng (Composition)	3
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLt 121 Music Literature	2	MLt 122 Music Literature	2
PE	1	PE	1
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
	20		20

Second Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 122 Orchestra	2	MLb 122 Orchestra	2
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Science (Laboratory)	4	Science (laboratory)	4
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
PE	1	PE	1
English Literature	3	English Literature	3
	18		18

Third Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 122 Orchestra	2	MLb 122 Orchestra	2
MEd 311 or 312	1	MEd 313 or 314	1
MEd 336 Instrumental Music	3	MEd 338 Instrumental Conducting	3
MLt 333 Music History	3	MLt 334 Music History	3
Edu 331, 332	6	Edu 334 Child Development and Evaluation	3
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
		Hum 132 Appreciation of Theater and Art	3
	19		19

Fourth Year

First Semester		Second Semester	
AM Major Instrument	2	AM Major Instrument	2
MLb 122 Orchestra	2	MLb 122 Orchestra	2
Edu 438 Classroom Management Secondary	3	Edu 463 Student Teaching — Special	6
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
MEd 411 or 412	1	MEd 315 Percussion	1
Elective (Foundation)	3		
Elective (Foundation)	3		
	16		13
Total Hours			143

The six hours of foundation electives must be chosen from two different foundation groups.

Bachelor of Music in Music Education (Piano/Organ, Voice)

(Qualifies for teacher certification music, all-levels)

First Year

First Semester		Second Semester	
AM 1241 or 1281	2	AM 1242 or 1282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
AM 1183 or 1143	1	AM 1184 or 1143	1
Sophomore American History	3	Sophomore American History	3
Eng (Composition)	3	Eng (Composition)	3
Mth 1334	3	Mth 134	3
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLt 121 Music Literature	2	MLt 122 Music Literature	2
PE	1	PE	1
	19		19

Second Year

First Semester		Second Semester	
AM 2241 or 2281	2	AM 2242 or 2282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
AM 1183 or 1143	1	AM 1184 or 1143	1
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
Science (laboratory)	4	Science (laboratory)	4
PE	1	PE	1
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
MLb 210 Opera	1	MLb 210 Opera	1
English Literature	3	English Literature	3
	19		19

Third Year

First Semester		Second Semester	
AM 3241 or 3281	2	AM 3242 or 3282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MEd 331 Elementary Methods and Materials	3	MEd 332 Techniques and Materials	3
MEd 335 Choral Music	3	MEd 337 Choral Conducting	3
MLt 333 Music History	3	MLt 334 Music History	3
Edu 331, 332	6	Edu 334 Child Development and Evaluation	3
MTy 321 Counterpoint	2	MTy 322 Counterpoint	2
		Hum 132 Appreciation of Theater and Art	3
	20		20

Fourth Year

First Semester		Second Semester	
AM 4241 or 4281	2	AM 4242 or 4282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
Edu 438 Classroom Management Secondary	3	Edu 463 Student Teaching — Special	6
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
MLb 210 Opera	1	MLb 210 Opera	1
Elective (Foundation)	3		
Elective (Foundation)	3		
	15		12

Total Hours 143

The six hours of foundation electives must be chosen from two different foundation groups. Organ majors will substitute organ for all piano. Piano/Organ majors may take band or orchestra, but must have at least four semesters of choir.

Bachelor of Science — Music Major

(Qualifies for teacher certification music, all-levels)

Instrumental Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
AM Major Instrument	2	AM Major Instrument	2
AM 1143	1	AM 1143	1
MLt 121 Music Literature	2	MLt 122 Music Literature	2
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
Science (Laboratory)	4	Science (Laboratory)	4
	20		20

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
Sophomore American History	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
AM Major Instrument	2	AM Major Instrument	2
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
Elective (Foundation)	3	Elective (Foundation)	3
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
	19		19

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Edu 334 Child Development and Evaluation	3
Edu 332 Educational Psychology	3	AM Major Instrument	2
AM Major Instrument	2	MEd 312 Brass	1
MEd 311 Brass	1	MLt 334 Music History	3
MLt 333 Music History	3	MEd 338 Instrumental Conducting	3
MEd 336 Instrumental Music	3	MEd 315 Percussion	1
MEd 317 Marching Methods	1	MTy 322 Counterpoint	2
MTy 321 Counterpoint	2	MEd 313-314	2
MLb 124 Marching Band or PE	2	MLb 125 Symphonic Band	2
	20		19

Fourth Year

First Semester		Second Semester	
Edu 438 Classroom Management Secondary	3	Edu 463	6
MTy 421 Form and Analysis	2	MTy 425 or 422	2
AM Major Instrument	2	AM Major Instrument	2
Elective (non-music)	4	MLb 125 Symphonic Band	2
MEd 411 Woodwinds	1	MEd 412 Woodwinds	1
MLb 124 Marching Band or PE	2		
	14		13
Total			144

The six elective hours must be chosen from two different academic foundation groups.

Piano and Organ Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
PE	1	PE	1
AM 1183	1	AM 1184	1
AM 1241	2	AM 1242	2
MLb Concert Choir or Orchestra	1	MLb Concert Choir or Orchestra	1
MLt 121 Music Literature	2	MLt 122 Music Literature	2
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
Science (Laboratory)	4	Science (Laboratory)	4
	17		17

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
Sophomore American History	3	Sophomore American History	3
PE	1	PE	1
AM 2241	2	AM 2242	2
MLb Concert Choir or Orchestra	1	MLb Concert Choir or Orchestra	1
MLt 213 Piano Pedagogy	1	MLb 210 Opera	1
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
	17		17

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Edu 334 Child Development and Evaluation	3
Edu 332 Educational Psychology	3	AM 3242	2
AM 3241	2	MEd 332 Techniques and Materials	3
MEd 331 Elementary Methods and Materials	3	MEd 337 Choral Conducting	3
MEd 335 Choral Music	3	MLb Concert Choir or Orchestra	1
MLb Concert Choir or Orchestra	1	MLt 334 Music History	3
MLt 333 Music History	3	MTy 322 Counterpoint	2
MTy 321 Counterpoint	2	Elective (Foundation)	3
	20		20

Fourth Year

First Semester		Second Semester	
Edu 438 Classroom Management Secondary	3	Edu 463	6
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
AM 4241	2	AM 4242	2
MLb Concert Choir or Orchestra	1	MLb Concert Choir or Orchestra	1
Elective (Foundation)	3	MTy 422 Orchestration	2
MTy 421 Form and Analysis	2		
	14		14
Total			138

The six elective hours must be chosen from two different academic foundation groups.

If the student is an organ major, substitute organ for all piano.

Piano or organ majors must take at least four semesters of their eight semesters of laboratory in choir.

String Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
Science (Laboratory)	4	Science (Laboratory)	4
MLt 121 Music Literature	2	MLt 122 Music Literature	2
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
AM Major Instrument	2	AM Major Instrument	2
MLb 122 Orchestra	2	MLb 122 Orchestra	2
PE	1	PE	1
	20		20

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
Sophomore American History	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
MEd 313 or 314	1	AM Violin or Cello	2
AM Major Instrument	2	AM Major Instrument	2
MLb 122 Orchestra	2	MLb 122 Orchestra	2
PE	1	PE	1
	18		19

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Edu 334 Child Development and Evaluation	3
Edu 332 Educational Psychology	3	MEd 338 Instrumental Conducting	3
MEd 311 Brass	1	MLt 334 Music History	3
MEd 336 Instrumental Music	3	MTy 322 Counterpoint	2
MLt 333 Music History	3	AM Major Instrument	2
MTy 321 Counterpoint	2	MLb 122 Orchestra	2
AM Major Instrument	2	AM 1143	1
MLb 122 Orchestra	2	Elective (Music)	1
	19		17

Fourth Year

First Semester		Second Semester	
Edu 438 Classroom Management Secondary	3	Edu 463	6
MEd 411 Woodwinds	1	MTy 422 Orchestration	2
MEd 332 Techniques and Materials	3	AM Major Instrument	2
MTy 421 Form and Analysis	2	MLb 122 Orchestra	2
AM Major Instrument	2	Elective (Foundation)	3
Elective (Foundation)	3		
MLb 122 Orchestra	2		
AM 1143	1		
	17		15
Total			145

The six elective hours must be chosen from two different academic foundation groups.

Theory and Composition Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
Science (Laboratory)	4	Science (Laboratory)	4
AM Major Instrument	2	AM Major Instrument	2
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
MLt 121 Music Literature	2	MLt 122 Music Literature	2
MLb Band, Chorus, Orchestra	1	MLb Band, Chorus, Orchestra	1
PE	1	PE	1
	19		19

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
Sophomore American History	3	Sophomore American History	3
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
AM 1241	2	AM 1242	2
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
MLb Band, Chorus, Orchestra	1	MLb Band, Chorus, Orchestra	1
PE	1	PE	1
		Elective (non-music)	3
	16		19

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Edu 334 Child Development and Evaluation	3
Edu 332 Educational Psychology	3	AM 3284	2
AM 3283	2	MTy 322 Counterpoint	2
MTy 321 Counterpoint	2	MEd 337 or 338	3
MEd 335 or 336	3	MLt 334 Music History	3
MLt 333 Music History	3	MEd 332 Techniques and Materials	3
MEd 331 Elementary Methods and Materials	3	MLb Band, Chorus, Orchestra	1
MLb Band, Chorus, Orchestra	1		
	20		17

Fourth Year

First Semester		Second Semester	
Edu 438 Classroom Management Secondary	3	Edu 463	6
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
MTy 425 Band Arranging	2	AM 4284	2
AM 4283	2	Elective (non-music)	3
Elective (Music)	2	MLb Band, Chorus, Orchestra	1
MLb Band, Chorus, Orchestra	1		
	12		14
Total			136

The six elective hours must be chosen from two different academic foundation groups.

Theory and Composition majors certifying in instrumental music may elect six hours from Percussion 315, Brass 311, 312, Strings 313, 314 or Woodwinds 411, 412. Those certifying in vocal music will take Music Education 331 and 332.

Vocal Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
PE	1	PE	1
AM 1143	1	AM 1143	1
AM 1281	2	AM 1282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MLt 121 Music Literature	2	MLt 122 Music Literature	2
MTy 132 Elementary Harmony	3	MTy 133 Elementary Harmony	3
Science (Laboratory)	4	Science (Laboratory)	4
	17		17

Second Year

First Semester		Second Semester	
English Literature	3	English Literature	3
Sophomore American History	3	Sophomore American History	3
PE	1	PE	1
AM 2281	2	AM 2282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MLb 210 Opera	1	MLb 210 Opera	1
Mth 1334 College Algebra	3	Mth 134 Mathematics for Business Applications	3
MTy 232 Advanced Harmony	3	MTy 233 Advanced Harmony	3
	17		17

Third Year

First Semester		Second Semester	
Edu 331 Foundations of Education	3	Edu 334 Child Development and Evaluation	3
Edu 332 Educational Psychology	3	AM 3282	2
AM 3281	2	MEd 332 Techniques and Materials	3
MEd 331 Elementary Methods and Materials	3	MEd 337 Choral Conducting	3
MEd 335 Choral Music	3	MLb 1104 Grand Chorus	1
MLb 1104 Grand Chorus	1	MLt 334 Music History	3
MLt 333 Music History	3	MTy 322 Counterpoint	2
MTy 321 Counterpoint	2	Elective (Foundation)	3
	20		20

Fourth Year

First Semester		Second Semester	
Edu 438 Classroom Management Secondary	3	Edu 463	6
Gov 231 Introduction to American Government I	3	Gov 232 Introduction to American Government II	3
AM 4281	2	AM 4282	2
MLb 1104 Grand Chorus	1	MLb 1104 Grand Chorus	1
MTy 421 Form and Analysis	2	MTy 422 Orchestration	2
Elective (Foundation)	3		
	14		14
Total			136

The six elective hours must be chosen from two different academic foundation groups.

Applied Music Courses (AM)

1101 Beginning Band or Orchestral Instruments 1:1:0
1143 Secondary Piano 1:1:0
1183, 1184 Secondary Voice 1:1:0
1203, 1204, 2203, 2204, 3203, 3204, 4203, 4204 Bassoon 2:1½*:0
3403, 3404, 4403, 4404 Bassoon 4:2**:0
1211, 1212, 2211, 2212, 3211, 3212, 4211, 4212 Cello 2:1½*:0
3411, 3412, 4411, 4412 Cello 4:2**:0
1215, 1216, 2215, 2216, 3215, 3216, 4215, 4216 Clarinet 2:1½*:0
3415, 3416, 4415, 4416 Clarinet 4:2**:0

1217, 1218, 2217, 2218, 3217, 3218, 4217, 4218 Cornet-Trumpet 2:1½*:0
3417, 3418, 4417, 4418 Cornet-Trumpet 4:2**:0
1221, 1222, 2221, 2222, 3221, 3222, 4221, 4222 Flute 2:1½*:0
3421, 3422, 4421, 4422 Flute 4:2**:0
1223, 1224, 2223, 2224, 3223, 3224, 4223, 4224 French Horn 2:1½*:0
3423, 3424, 4423, 4424 French Horn 4:2**:0
1231, 1232, 2231, 2232, 3231, 3232, 4231, 4232 Oboe 2:1½*:0
3431, 3432, 4431, 4432 Oboe 4:2**:0
1233, 1234, 2233, 2234, 3233, 3234, 4233, 4234 Organ 2:1½*:0
3433, 3434, 4433, 4434 Organ 4:2**:0
1241, 1242, 2241, 2242, 3241, 3242, 4241, 4242 Piano 2:1½*:0
3441, 3442, 4441, 4442 Piano 4:2**:0
1251, 1252, 2251, 2252, 3251, 3252, 4251, 4252 Saxophone 2:1½*:0
3451, 3452, 4451, 4452 Saxophone 4:2**:0
1253, 1254, 2253, 2254, 3253, 3254, 4253, 4254 Percussion 2:1½*:0
3453, 3454, 4453, 4454 Percussion 4:2**:0
1257, 1258, 2257, 2258, 3257, 3258, 4257, 4258 String Bass 2:1½*:0
3457, 3458, 4457, 4458 String Bass 4:2**:0
1261, 1262, 2261, 2262, 3261, 3262, 4261, 4262 Trombone or Baritone 2:1½*:0
3461, 3462, 4461, 4462 Trombone or Baritone 4:2**:0
1263, 1264, 2263, 2264, 3263, 3264, 4263, 4264 Tuba 2:1½*:0
3463, 3464, 4463, 4464 Tuba 4:2**:0
1271, 1272, 2271, 2272, 3271, 3272, 4271, 4272 Viola 2:1½*:0
3471, 3472, 4471, 4472 Viola 4:2**:0
1273, 1274, 2273, 2274, 3273, 3274, 4273, 4274 Violin 2:1½*:0
3473, 3474, 4473, 4474 Violin 4:2**:0
1281, 1282, 2281, 2282, 3281, 3282, 4281, 4282 Voice 2:1½*:0
3481, 3482, 4481, 4482 Voice 4:2**:0
2283, 2284 Composition 2:1½*:0
3283, 3284, 4283, 4284 Composition 2:1½*:0
3483, 3484, 4483, 4484 Composition 4:2**:0
**One 30-minute private lesson and one one-hour class per week.*
***One hour private lesson and one one-hour class per week.*

Music Education Courses (MEd)

131 Elements of Music 3:3:0
Designed to familiarize non-music majors with the meaning of musical notation and the harmonic, melodic and rhythmic structure of music.

311 Brass 1:1:0
Techniques and materials in the teaching of instrumental music in the elementary school. Trumpet and Horn.

312 Brass 1:1:0
Techniques and materials in the teaching of instrumental music in the elementary school. Trombone, Baritone and Tuba.

313 Strings 1:1:0
Techniques and materials in the teaching of instrumental music in the elementary school. Violin and Viola.

314 Strings 1:1:0
Techniques and materials in the teaching of instrumental music in the elementary school. Cello and Bass.

315 Percussion 1:1:1
Materials for the percussion instruments. Performance on all percussion instruments.

317 Marching Methods 1:2:0
Basic marching maneuvers. Charting various types of half-time shows for football games, 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 Elementary Methods and Materials 3:3:0
Techniques and materials in teaching of music in the lower elementary grades. The child's voice, rote singing; rhythmics, introduction of notation, creative music activities.
Prerequisite: MTy 131 or equivalent.

332 Techniques and Materials in Teaching of Music in the Upper Elementary Grades 3:3:0
Creative music, rhythmic activity, rote singing, reading of notation and effective use of materials.
Prerequisite: MTy 131 or equivalent.

333 The Organization and Development of the High School Stage Band 3:3:0
The relationship of the jazz band to the over-all music program; instrumentation; sources of music; types of presentation; rehearsal and techniques; study of the effective application of dynamics, phrasing, intonation and balance for improved performance.

335 Choral Music 3:3:0
A detailed study, primarily at the secondary level, of the organization and administration of choirs, glee clubs, small ensembles and vocal problems encountered in the choral music class.

336 Instrumental Music 3:3:0
Materials and problems encountered in the instrumental music field of the high school. A detailed study of the organization and administration of bands, orchestras, etc.

337 Choral Conducting 3:3:0
Basic patterns and rudiments of choral techniques as applied to secondary school choral groups. Limited to music majors.
Prerequisite: Some vocal study, piano keyboard, one year of vocal laboratory and music theory.

338 Instrumental Conducting 3:3:0
The rudiments of conducting as applied to high school instrumental groups, phrasing interpretation, etc. of the instrumental field, both band and orchestra.

410 Seminar 1:1:0
A general study of the problems encountered in music.

411 Woodwinds 1:1:0
Techniques and materials in the teaching of instrumental music the elementary school. Flute, Clarinet and Saxophone.

412 Woodwinds 1:1:0
Techniques and materials in the teaching of instrumental music in the elementary school. Oboe and Bassoon.

430 Recording Techniques

431 Jazz Electronic Music

Music Laboratory (MLb)*

**Courses in Music Laboratory may be repeated for credit. Total credit not to exceed eight semester hours for any one course.*

111 Jazz Piano 1:1:0
A study of contemporary jazz piano styles.

112 Fender (Electric) Bass 1:1:0
Basic fundamentals of jazz and pop Fender bass performance.

113 Jazz Improvisation 1:1:0
Designed to provide background in the art of improvisation.

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.

115 Jazz Combo

117 Dance Band 1:0:3
Organized to furnish training in all styles of dance band performance. Open to any student who can qualify.

122 Orchestra 2:0:6
A performing ensemble open to all university students who can qualify. Required of any student majoring in a string instrument.

124 Marching Band 2:0:6
The study and performance of march music and military drill. Open to any student who can qualify. Four semesters completes PE requirement.

125 Symphonic Band 2:0:6
Performs symphonic wind ensemble and band repertoire. Tryout required for admittance.

1101 A Cappella Choir 1:0:6
A 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 other departments.

1102 Cardinal Singers 1:0:6
Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments.

1104 Grand Chorus 1:0:3
A course in choral singing designed to acquaint 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 1:0:6
Performing 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 1:0:6
Performing 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.

210 Opera 1:0:3
A laboratory class for advanced voice students providing study of complete operatic roles, scenes and excerpts for presentation in the opera-theater. Annual full scale opera production. Auditions open to all qualified students.

2260 Musical Comedy 2:0:6
A laboratory course providing both background study and practical work in the specialized field of musical comedy, including participation in the presentation of a full production. Open to both vocalists and instrumentalists from all departments by audition or by consent of instructor.

423 Chamber Music Ensemble 2:0:5
String ensemble, woodwind, brass ensemble and percussion ensemble. A course designed to give the student an opportunity to study and perform music written for the smaller instrumental ensembles. These groups will participate in various recital programs throughout the year. Open to any student upon recommendation of the instructor.

Music Literature Courses (MLt)

111, 112 Music Principles 1:0:2
An appraisal of the important events in music history with emphasis upon those aspects of music associated with style, form and performance. Familiarization of the student with music terminology and a thorough briefing on score reading through the use of recordings from the significant periods of music history.

113 Pop Music Survey 1:1:0
A study of present day pop music.

121-122 Music Literature 2:2:0
An appraisal of the important events in music history with emphasis upon those aspects of music associated with style, form and performance. Familiarization of the student with music terminology and a thorough briefing on score reading through the use of recordings from the significant periods of music history.
Prerequisite: MLt 121 must be taken before MLt 122.

213 Piano Pedagogy 1:2:0
A brief, chronological survey and analysis of the styles and forms of compositions in relation to keyboard instruments. Minimum knowledge of all keyboard instruments will be required. Special emphasis will be placed on the contribution of the performers, composers and compositions in the field of piano literature.

330 Jazz History

331 Music of Non-West Cultures 3:3:0
The music of China, Japan, and India will be examined by historical survey, by analysis of musical scores, and by other appreciational methods.

332 Music Appreciation 3:3:0
A course designed to acquaint the non-music major with some phases and aspects of music listening, theory, rhythm and other forms of musical enjoyment.

333 Music History 3:3:2
A survey of the literature and advances made in music from the early Christian era through the middle Baroque (c. 1700). Two hours of listening required per week in addition to class lecture.
Prerequisite: MLt 121-122 and MTy 232-233.

334 Music History 3:3:2
A survey of the literature and advances made in music from the late Baroque (J. S. Bach and others) through the present time. Two hours of listening required per week in addition to class lecture.
Prerequisite: May be taken before Music History 333, so long as prerequisites for Music History 333 have been satisfied.

335 Music of the Afro-American 3:3:0
A general study of the present day American Negro music and a study of the Afro-American music historical background.

336 Choral Literature 3:3:0
A study of music written for combinations of vocal music groups from the 12th 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.

338 Chamber Opera 3:3:0
A class in chamber opera of short operatic works for students providing study of complete roles and ensemble operatic excerpts for presentation in concert. Open to all students from all departments by audition. LU-Rome only.

339 Grand Opera 3:3:0
A class providing study of complete operatic roles, scenes and excerpts from standard and contemporary works for presentation in opera-theater. Auditions open to all qualified students from all departments. LU-Rome only.

Music Theory Courses (MTy)

131 Elements of Music 3:3:0
Designed to prepare students for advanced study in music theory. A study of scales, chords, musical terminology, 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 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 2:2:0
Techniques of writing and arranging for orchestral instruments in small combinations and for full orchestra.
Prerequisite: MTy 233.

425 Band Arranging 2:2:0
Techniques of writing, transcribing from orchestra score and arranging for the instrumentation of the high school marching and concert bands.

College of Health and Behavioral Sciences

Departments: Allied Health, Nursing, Psychology
Myrtle L. Bell, Ed.D., Dean

The College of Health and Behavioral Sciences 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 over-all 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 psychologist 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.*
Certificate of Completion: Respiratory Technology,* Vocational Nursing.*
**These programs are offered with the approval of the Texas Education Agency.*

Department of Allied Health

Department Head: William David Short **254A Ward Health Sciences Building**
Assistant Professors: Atherton
Instructors: Fearing, Rivers, Short, Young
Clinical Instructors: Bronson, Godwin, Hayes, Huval, Meador, Reynard, Wallace
Adjunct Professors: Baker, Barry, Bebeau, Bhara thi, Bridges, Brown, Darnell, Giglio, Gish, Glass, Greener, Jepson, Koehler, Marino, Neusel, Ortiz, Powell, Reeves, Shaw, Sweet, Tanner, Toups, Weaver
Part-time Clinical Instructors: Allen, Cole, Shakelford

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 department programs.

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 Summer Session I. 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. Transcripts and grades in high school and previous college work.
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 allied health practice demonstrated through letters of recommendation, employment and volunteer records and references, a statement of career goals and, in most cases, a personal interview.
5. Admission may be limited by available space.

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. A wrist watch with a second hand is needed. Financial aids are available to eligible students: see Financial Aid and Award section of this bulletin.

Liability insurance and health examinations must be renewed each year of a 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)

121 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.

330 Human Sexuality 3:3:0
A lecture and discussion class exploring the biological, psychological, social and cultural aspects of human sexuality for health professionals.

430 Concepts of Loss 3:3:0
Study of a variety of losses experienced through the life span. Includes loss of relationships, jobs, body function, youth and independence, spouses, mobility, dying and death. Sensitivity exercises. Strategies for helping people cope with and adapt to losses.

433 Concepts of Health Care Administration 3:3:0
Study and application of management, supervision and administrative theory and techniques in health care settings. Emphasis on planning, implementing and evaluating delivery of health care.

434 Advanced Concepts in Community Health 3:3:0
Advanced concepts in community and public health; including application of epidemiology, research and legislative processes to assess, plan for, implement and evaluate community health needs and programs.
Prerequisite: Introductory course in Community Health, or consent of instructor.

Dental Hygiene

Program Director: Frieda I. Atherton

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, D.H.A.T. Application Forms, and criteria for admission procedures are available from the Dental Hygiene Program office, Ward Health Sciences Building. Applications and supporting materials are due by January 15 of each year.

To progress in the Dental Hygiene Program, a minimum grade of "C" (2.0) is required in all phases (lecture and laboratory/clinical practice) of dental hygiene courses and in science courses.

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 of Study

First Year

Summer Session I

Bio 143 Anatomy and Physiology	4
DH 131 Orientation to Dental Hygiene	3
HS 121 Health Care Concepts	2
	9

Summer Session II

Bio 144 Anatomy and Physiology	4
DH 127 Morphology and Occlusion	2
	6

Fall Semester

DH 132 Dental Radiology	3
DH 144 Head and Neck Anatomy and Physiology	4
DH 145 Pre Clinic	4
Chem 143 Introductory Chemistry	4
	15

Spring Semester

DH 137 Dental Materials	3
DH 138 General and Oral Pathology	3
DH 146 Clinic I	4
Chem 144 Introductory Chemistry	4
	14

Second Year

Summer Session I

Bio 245 Microbiology	4
HEc 138 Principles of Nutrition	3
	7

Summer Session II

Eng 131 English Composition	3
DH 221 Diet Analysis	2
DH 223 Periodontology	2
	7

Fall Semester

Psych 131 Introduction to Psych.	3
DH 224 Pharmacology	2
DH 233 Community Dentistry I	3
DH 255 Clinic II	5
	13

Spring Semester

DH 225 Community Dentistry II	2
DH 256 Clinic III	5
Eng 131 English Composition	3
Soc 131 Introduction to Sociology	3
	13

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** **2:1:3**
A detailed anatomical study of human teeth, their eruption, exfoliation and occlusion.
Prerequisite: Admission to the program.

131 **Orientation to Dental Hygiene Practice** 3:2:3
Orientation and introduction to the practice of dental hygiene, including his/her role in all phases of dental specialty 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.

137 **Dental Materials** 3:2:3
A study of the sources, properties, uses and techniques of manipulation of the various materials used in dentistry.
Prerequisite: Admission to the program.

138 **General and Oral Pathology** 3:3:0
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.

144 **Head and Neck Anatomy and Physiology** 4:4:0
A detailed study of the embryology, histology, anatomy and physiology of the head and neck region, including common dysfunctions of the temporal-mandibular joint.
Prerequisite: Admission to the program or permission of program director.

145 **Pre-Clinic** 4:2:6
Theoretical and 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.

221 **Dietary Analysis** 2:2:0
Study and application of diet analysis consultation skills in effecting patient behavior change relative to diet and dental disease.
Prerequisite: Admission to the program.

223 **Periodontology** 2:2:0
Comparative study of normal and diseased periodontium and the effects of structural, functional and environmental agents.
Prerequisite: Admission to the program.

224 **Pharmacology** 2:2:0
Study of the uses and actions of drugs including drug aide effects, contra-indications and oral manifestations.
Prerequisite: Admission to the program.

225 **Community Dentistry II** 2:1:3
Application of program planning skills enhanced through actual community implementation. Analytical skills concerning critical evaluation of scientific data emphasized through a review of scientific literature.
Prerequisite: Admission to the program.

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.

255 **Clinic II** 5:2:12
Advancement of clinical prophylaxis skills applied to periodontally involved patients. Clinic and theoretical framework expanded through the addition of amalgam polishing procedures and diet consultation procedures.
Prerequisite: Admission to the dental hygiene program; DH 145 and 146.

256 **Clinic III** 5:2:12
Continuation and advancement of dental hygiene skills including advanced scaling and root smoothing procedures. Time utilization emphasized.
Prerequisite: Admission to the program; DH 255.

Radiologic Technology

Program Director: William David Short

The purpose of this program is to prepare students for a career in Radiologic Technology. Each student will be assited 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 and becomes eligible to take the American Registry Examination for Radiologic Technology.

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 radiologic technology.

Radiologic Technology application for 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 radiologic technology and science courses 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

Recommended Program of Study

First Year

Summer Session I

Bio 143 Anatomy and Physiology	4
HS 121 Health Care Concepts	2
	6

Summer Session II

Bio 144 Anatomy and Physiology	4
RA 131 Orientation to Radiologic Technology	3
	7

Fall Semester

RA 132 Radiographic Principles	3
RA 143 Radiographic Positioning	4
Math	3
Eng 131 English Composition	3
RA 152 Radiographic Practicum I	5
	18

Spring Semester

RA 133 Medical-Surgical Disease	3
RA 144 Radiographic Physics	4
Eng 131 English Composition	3
Psy or Soc	3
RA 154 Radiographic Practicum II	5
	18

Second Year

Summer Session I

RA 234 Radiographic Practicum III	3

Summer Session II

RA 235 Radiographic Practicum IV	3

Fall Semester

RA 231 Special Procedures	3
RA 242 Advanced Procedures	4
RA 262 Radiographic Practicum V	6
	13

Spring Semester

RA 236 Radiographic Technology Seminar	3
RA 233 Radiation Biology	3
RA 264 Practicum VI	6
	12

Radiologic Technology Courses (RA)

131 Orientation to Radiologic Technology 3:2:3
Introduction to Radiology; including history, organization, production of X-rays, radiation protection, darkroom technique, terminology. Examinations performed in radiology department.

132 Radiographic Principles 3:3:0
Study of basic principles of X-ray production; emphasis on the relationship between milliamperage, kilovoltage, time and distance as related to density and contrast on a radiograph. Film critique and dark room technique.

133 Medical-Surgical Disease 3:3:0
Subjects in this course will include medical and surgical diseases and their relation to Radiography. Student technologists will also be introduced to basic departmental administration and equipment maintenance.

143 Radiographic Positioning 4:3:4
Procedures in radiology. Basic, advanced contraindications are explored. Topographic anatomy included.

144 Radiographic Physics 4:3:2
Intensive study of electromagnetism, electric transformers, electrical rectification, production of X-rays and the preventive maintenance of X-ray machines.

152 Radiographic Practicum I 5:0:20
Introduction to the clinical environment in affiliate hospitals. Rotation through different work centers to observe and assist in the operation of the radiology department.

154 Radiographic Practicum II 6:0:25
Students make standard radiographs under close supervision by a qualified radiologic technologist.

231 Special Procedures 3:3:0
Procedures uncommon to the radiology department. Specialized equipment involved. Anatomy, contrast media and radiographic projections used. Analysis of film quality.

233 Radiation Biology 3:3:0
Effects of radiation on the human population, methods of protection and dosimetry. Basic principles of radiation therapy and nuclear medicine.

234 Radiographic Practicum III 3:0:40
Clinical study to broaden the students' application of radiographic procedures. Proficiencies in diagnostic radiology will be emphasized.

235 Radiographic Practicum IV 3:0:40
A continuation of Ra 234 with increasing emphasis in diagnostic radiology.
Prerequisite: Ra 234.

236 Radiologic Technology Seminar 3:3:0
An indepth study of testing methodology. Also covered will be new advances in the field of radiology.

242 Advanced Procedures 4:3:2
Specialized technical procedures in radiology. Basic image detector principles, reducing patient exposure, accessory devices for patient safety, comparison of radiographic tubes, enlargement techniques, comparison of timing devices, mobile or bedside radiography, body section radiography and electronic image systems. Pediatric radiology included.

262 Radiographic Practicum V 6:0:32
Rotation through specialized procedure areas during clinical practice under limited supervision.

264 Radiographic Practicum VI 6:0:32
Rotation through specialized areas in a radiology department. Emphasis on job responsibilities and confidence in skill performance.

Respiratory Technology

Program Director: Paul A. Bronson

The purpose of this program is to prepare students for careers in respiratory therapy through lectures, laboratories and clinical experiences aimed at qualifying the student for certification in respiratory therapy. Upon successful completion of the course, the graduate must complete an additional one year of experience in respiratory therapy under medical supervision to be eligible to take the examination given by the National Board for Respiratory Therapy. A passing score on the examination will qualify the individual as a Certified Respiratory Therapy Technician (C.R.T.T.).

Completed application forms must be submitted to the director of the respiratory technology program by April 15 of each year. These forms and the admission procedures are available from the program director, Room 252, Ward Health Sciences Building.

A minimum grade of "C" 2.0 must be earned in all respiratory technology and science courses for progression in the program. In addition, a grade point average of at least 2.0 must be maintained in all courses to obtain the Certificate of Completion in Respiratory Technology.

Certificate of Completion — Respiratory Technology

Recommended Program of Study

Summer Session I

Bio 143 Anatomy and Physiology	4
HS 121 Health Care Concepts	2
RT 123 Basic Respiratory Technology Care	2
	8

Summer Session II

Bio 144 Anatomy and Physiology	4
RT 131 Orientation to RT Practice	3
	7

First Year

Fall Semester

RT 121 Clinical Medicine I	2
RT 141 RT Procedures I	4
RT 143 RT Sciences	4
RT 160 RT Clinic I	6
	16

Spring Semester

RT 122 Clinical Medicine II	2
RT 137 RT Procedures II	3
RT 138 Cardiopulm Tech	3
RT 161 RT Clinic II	6
	14

Respiratory Technology Courses (RT)

121 Clinical Medicine I 2:2:0
Basic pathological process applicable to disease conditions important to the respiratory technician. Emphasis on chronic respiratory diseases.

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.

123 Basic Respiratory Technology Care 2:2:0
A basic introduction to the concepts of oxygen care, physical examinations, gas modalities and oxygen analyzers.

131 Orientation to RT Practice 3:3:6
Oxygen administration and physical examination of the chest. Laboratory consists of simulated practice sessions.
Prerequisite: HS 121. Taught only in the summer.

137 Respiratory Therapy Procedures II 3:2:3
Prepares the student to skillfully operate various volume ventilators and to effectively administer assistance required by medical staff.
Prerequisite: Concurrent enrollment in RT 138, 122, and 161.

138 Cardiopulmonary Technology 3:2:3
Emphasizes the importance of the heart and lungs to respiratory therapy. Relates the cardiopulmonary systems to airway management, cardiopulmonary resuscitation, blood gas analysis, pulmonary function studies and chest physiotherapy.

141 Respiratory Therapy Procedures I 4:3:4
Instruction and application of techniques and skills necessary to administer common methods of gas, aerosol and humidity therapy. Pharmacology for respiratory therapy discussed in detail and correlated with intermittent positive pressure breathing procedures and equipment.

143 Respiratory Therapy Sciences 4:3:2
Basics of mathematics, chemistry, physics and microbiology as they relate to respiratory therapy principles and procedures.

160 Respiratory Therapy Clinic I 6:0:24
Introduces the student to the respiratory therapy department in clinical facilities. Observation of techniques of therapists and technicians as they perform services. The student will participate in basic respiratory therapy procedures including intermittent positive pressure breathing, aerosol, humidity and gas therapy.
Prerequisite: Concurrent enrollement in RT 141, 143 and 121.

161 Respiratory Therapy Clinic II 6:0:24
Clinical application of treatment conditions discussed concurrently in RT 122, 137 and 138. Special emphasis on practice in critical care areas utilizing volume ventilators. Experience in the management of artificial airways, tracheobronchial aspiration, blood gas analysis and pulmonary function testing are included.

Department of Nursing

Department Head: Eileen Tiedt — **233B Ward Health Sciences Building**

Professor: Grubb, Neumann, Tiedt
Associate Professor: Taylor
Assistant Professors: Esperat, Gardner, Lewis, Malone, Moss, Poole, Price, Waugh
Instructors: Askew, Boyd, Cloud, Hale, Mulford, Roberts, Slaydon, Smith, Twiname, Wohler
Instructor III: Aycock
Instructor II: Kjelson, Rudloff, Stone
Instructor I: Mason
Clinical Instructors: Calhoun, Dennis, Dickey, Diltz, Dunlap, Gilmore, Gregory, Kilpatrick, Oldham, Richard, Richardson, Rosetta, Wielgus

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 regime, 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, and in support of the client and family. 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 experiences 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 Records), 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:

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.

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 aids are 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.

Courses taught during the summer sessions may require different registration procedures.

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 summer 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 overall grade point average GPA of 2.50 in all college work.
2) Have completed all prerequisite psycho/social/biological science courses with an average of "C+" (2.5) or better.
3) Submit a complete application and attendant materials to the Admissions Committee by July 1 prior to the sophomore year.

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 will 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.

Nursing courses may be repeated once by special permission, after demonstration of prerequisite knowledge and skills (see program director for specific policies and procedures).

Bachelor of Science — Nursing Major

Recommended Program of Study

First Year

First Semester		Second Semester	
Bio 143 Human Anatomy and Physiology	4	Bio 144 Human Anatomy and Physiology	4
Chm 143 Introductory	4	Chm 144 Introductory	4
Chm 143 Introduction	4	Psy 234 Child Psychology	3
Psy 131 Introduction to Psychology	3	Soc 131 Introduction to Sociology	3
HEc 138 Principles of Nutrition	3	Eng 132 Composition	3
Eng 131 Composition	3	HPE	1
HPE	1		
	18		18

Second Year

First Semester		Second Semester	
Bio 245 Introductory Microbiology	4	Nur 231 Concepts Basic to Nursing Practice	3
Mth 1334 College Algebra	3	Nur 284 Concepts and Practice of Clinical Nursing	8
Nur 132 Basic Nursing Skills	3	Nur 332 Pharmacologic Basis of Nursing Practice	3
Nur 233 Basic Pathophysiology	3	Eng 231 Literature	3
Elective (Non Major)	3	HPE	1
HPE	1		
	17		17

Third Year

First Semester		Second Semester	
Nur 328 Ecology of Nursing	2	Nur 331 The Community as a Client	3
Nur 391 Nursing Care of Adult Client	9	Nur 382 Nursing Care of Childbearing Families	8
His 231 American History	3	Nur 430 Research Process in Nursing	3
Elective (Non Major)	3	Gov 231 Introduction to American Government I	3
	17		17

Fourth Year

First Semester		Second Semester	
Nur 481 Nursing Care of Childrearing Families	8	Nur 491 Comprehensive Nursing Practice	9
Nur Elective	3	Nur 433 Senior Seminar	3
His 232 American History	3	Gov 232 Introduction to American Government II	3
Eng Literature (2)	3		
	17		15

Bachelors Degree Nursing Courses (Nur)

132 Basic Nursing Skills 3:2:3
Focuses on the development of basic nursing skills, mathematical and measurement skills and terminology. Required for all ADN and BSN applicants. Results in a Nurse Aide Certificate.

221 Concepts Basic to Nursing Practice 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 BS Program or departmental consent.

233 Basic Pathophysiology 3:3:0
Study of basic pathophysiology with emphasis on disease processes. Focus on implications for nursing practice.

284 Concepts and Practice of Clinical Nursing 8:3:15
Beginning application of the nursing process. Emphasis on health assessment and history taking.
Prerequisite: Nur 132, admission to BS 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: Departmental consent.

3305 Directed Study in Nursing 3:3:0
This elective provides the nursing student with an opportunity for individualized study of selected concepts and/or problems in professional nursing. Course may be repeated as content varies.
Prerequisite: Departmental consent.

331 The Community as a Client 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.

332 Pharmacologic Basis of Nursing Practice 3:3:0
An introduction to pharmacology, principles of therapeutics and clinical applications.
Prerequisite: Departmental consent.

3331 Folk Medicine 3:3:0
Study of societal influence on health attitudes and beliefs of different cultures. Components such as religion language, family structure, and traditional community life style are examined with regard to their implications for health providers.
Prerequisite: Departmental consent.

3332 Ethical Issues in Health Care 3:3:0
Wide range exploration of ethical issues central to providing health care in contemporary America.
Prerequisite: Departmental consent.

3333 Legal Concepts in Health Care 3:3:0
Study of the principles of law that affect the delivery of health care.

3334 Health Planning 3:3:0
Introduction to planning process in health systems development including specific planning issues relating to facilities, services, and manpower.
Prerequisite: Departmental consent.

3335 Trends in Health Professions 3:3:0
Examines major forces affecting health care delivery and implications for health workers. Topics include demographies, technological changes, disease trends, governmental action and changes in the health delivery system.
Prerequisite: Departmental consent.

3336 Ethnic Consideration of Health Care 3:3:0
Application of the theory of major biological, psychological, sociological and cultural characteristics of ethnic people of color. Current concepts of ethnic variations and their principles for health practice will be focused upon.

3337 Teaching in Health Sciences 3:3:0
Principles and methods of the teaching-learning process for health professions will be examined. Using a systems approach to instructional development, health teaching in a variety of setting will be explored. Topics include classroom and clinical instruction of health students; patient and public health education; and continuing education for health professionals.

336 Oncology Nursing 3:3:0
Emphasis is on the bio-psycho-social needs of clients with cancer. Course content includes pathophysiology, diagnosis and staging, modes of therapy, psychosocial problems, the nurse's role and support groups.
Prerequisite: Departmental consent.

339 Psycho-Social Aspects of Nursing 3:3:0
Enhances student's ability to transfer knowledge from psychology, sociology and nursing, to care of clients with disturbances in mental, social, and physical health.
Prerequisite: Departmental consent.

345 Physical Assesment 4:3:4
Clinical laboratory and classroom experience in applying physical assessment skills. Appropriate for junior and senior nursing students.
Prerequisite: Nur 233 or departmental consent.

382 Nursing Care of Childbearing Families 8:4:12
Application of nursing process, emphasizing planning and intervention skills with clients and families in the childbearing cycle.
Prerequisite: Nur 284.

391 Nursing Care of Adult Client 9:4:15
Application of nursing process, emphasizing planning and intervention skills with adult clients experiencing interferences in biological and/or psychological health.
Prerequisite: Nur 284.

411 Directed Reading in Nursing 1:1:0
Provides the senior nursing student an opportunity to engage in reading and library study of selected concepts in nursing, under faculty supervision. May not be repeated.
Prerequisite: Departmental consent.

4305 Directed Study in Nursing 3:3:0
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 3:3:0
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.

431 Clinical Elective in Nursing 3:1:8
Opportunity to expand knowledge of theory and practice in selected areas of nursing. Course may be repeated as content varies.
Prerequisite: Nur 362 and departmental consent.

432 Nursing of Children in Crisis 3:3:0
Use of the nursing process in the care of children and their families facing crisis. This course covers the dynamics of the crisis situation and the adaptive responses of the child and family.
Prerequisite: Departmental consent.

433 **Senior Seminar** 3:3:0
Provides the senior nursing student the opportunity to study and discuss complex nursing and health care issues.
Prerequisite: Nur 321.

434 **Media in Nursing** 3:
An introduction to the use and development of media in a variety of nursing settings.
Prerequisite: Departmental consent.

435 **Managing Time and People** 3:3:0
A lecture-discussion and clinical practice course designed for nurses in management positions. Emphasis on solving on-the-job problems through application of practical management strategies. Focus on improving time management skills, including setting priorities, increasing job and life satisfaction. Includes managment skills in delegating and evaluation of personnel. Strategies for coping with people and situations which cause problems for nurse managers. Students will choose current on-the-job problems and devote on-duty time on their resolution.
Prerequisite: Employment in a managerial position.

436 **Occupational Health Nursing** 3:3:0
Considers occupational health nursing from a variety of viewpoints. Analysis of current and projected trends and continuing need to assure industrial workers maximal level of wellness, safe work environment, and optimal production.
Prerequisite: Departmental consent.

437 **Concepts of Child Health Promotion and Maintenance** 3:3:0
Expansion of assessment, diagnostic, and nursing intervention skills to facilitate child health promotion and maintenance. Designed for nurses interested in health of children in community settings and schools.
Prerequisite: Nur 464 or departmental consent.

439 **Nursing Care of Clients with Cardiopulmonary Problems** 3:3:0
Intensive study of clients with selected complex disturbances in cardiopulmonary function.
Prerequisite: Departmental consent.

441 **Advanced Neonatal Nursing** 4:3:4
The physiology, pathology and nursing skills necessary to care for neonatal infants in intensive care units. Relationship of health status of infant on the maternal-infant bonding process emphasized.
Prerequisite: Nur 363 or departmental consent.

442 **Emergency and Disaster Nursing** 4:2:10
A lecture/discussion and clinical practice course designed to provide theory and practice for students interested in emergency and disaster nursing.
Prerequisite: Departmental consent.

443 **Health Seminar** 4:4:0
Examines complex health issues from an interdisciplinary prospective.

481 **Nursing Care of Childrearing Families** 8:4:12
Application of nursing process with emphasis on evaluation of children and their families experiencing episodic as well as long term health problems. A variety of clinical settings.
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 382, 430.

Associate of Science — Nursing

Program Director: Doris J. Price

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 coordinated 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 for specific policies and procedures).

To be considered for admission, the student must submit an application to the director of the associate degree nursing program by April 15 of each year. This form, and information concerning admission procedures may be procured from the Advising Center, Room 257, Ward Health Science Building. The student must also complete the required courses offered in Summer Session I and Summer Session II with a grade of "C" or better. Students are encouraged to develop and maintain early counseling contact with the department.

Associate of Science — Nursing

Recommended Program of Study

First Year

Summer Session I

HS 121 Health Care Concepts	2
Bio 143 Human Anatomy and Physiology	4
PE Activity	1-2
	7-8

Summer Session II

Nur 132 Basic Nursing Skills	3
Bio 144 Human Anatomy and Physiology	4
	7

Fall Semester

Eng 131 Composition	3
Psy 131 Introduction	3
Nur 161 Mental and Physical Health I	6
Gov 231 Intro. Am. Gov. I	3
	15

Spring Semester

Bio 245 Microbiology	4
Eng 132 Composition	3
Nur 172 Nursing Adult Client I	7
His 231 American History	3
	17

Summer Session I and II

Nur 281 Maternity Nursing	8

Second Year

Fall Semester

Nur 282 Nursing Child Client	8
Gov 232 Intro. Am. Gov. II	3
PE Activity	1-2
Soc 131 Introduction	3
	15-16

Spring Semester

Nur 283 Nursing Adult Client II	8
His 232 American History	3
Eng Literature	3
	14

Associate Degree Nursing Courses (Nur)

132 Basic Nursing Skills 3:2:3
Focuses on the development of basic nursing skills, mathematical and measurement skills and terminology. Required for all ADN and BSN applicants. Results in a Nurse Aide Certificate.

161 Mental and Physical Health I 6:2:16
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: Nur 132, admission to ADN program.

172 Nursing Care of the Adult 7:3:16
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 161.

2101, 2201, 2301, 2401 Special Topics in Nursing 1-4:1-4:0
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.

281 Maternity Nursing 8:4:16
Application of concepts basic to the nursing process to the hospitalized maternity client. Emphasis on physiology, growth and development, emotional and environmental influences on childbearing.
Prerequisite: Nur 172.

282 Nursing Care of the Child Client 8:4:16
Application of concepts basic to the nursing process to the hospitalized child.
Prerequisite: Nur 281.

283 **Nursing Care of the Adult Client II** 8:2:24
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 282.

Vocational Nursing

Program Director: Sandra Boyd

Vocational Nurses provide basic nursing care under the direct supervision of a Registered Nurse. Upon successful completion of the program, graduates receive a certificate of completion and are eligible to make application to write the examination given by the State Board of Vocational Nurse Examiners to become a Licensed Vocational Nurse (LVN).

Vocational nursing classes begin in the Fall and Spring Semesters with application deadlines being July 15 and November 1 of each year. To be considered for admission applicants must submit an SAT score of at least 550 or an ACT score of at least 11. Application forms and procedures are available from the Advising Center, Room 257, Ward Health Sciences Building.

A minimum grade of 75 per cent must be obtained in theory courses and an "S" (Satisfactory) in all clinical courses for progression in the program. Vocational nursing courses may be repeated once by special permission.

Vocational Nursing

Recommended Program of Study

First Semester

VN 175 Nursing Skills I	7
VN 144 Anatomy	4
VN 122 Nutrition	2
VN 166 Clinical Practice I	6
	19

Second Semester

VN 163 Nursing Skills II	6
VN 136 Medical Surgical Nursing I	3
VN 133 Pharmacology	3
VN 167 Clinical Practice II	6
	18

Third Semester

VN 137 Medical Surgical Nursing II	3
VN 138 Obstetrical Nursing	3
VN 139 Pediatric Nursing	3
VN 121 Personal and Vocational Adjustments	2
VN 168 Clinical Practice III	6
	17

Vocational Nursing Courses (VN)

121 **Personal and Vocational Adjustments** 2:2:0
Introduction to health care delivery systems, professional organizations, mechanics of licensure and transition to graduate status.

122 **Nutrition and Diet Therapy** 2:2:0
Fundamental principles of basic nutrition, the relationship of food to normal health and the application of basic principles of nutrition to diet therapy in the treatment of disease.

133 **Pharmacology** 3:3:0
This course is designed to introduce the student to pharmacology and the administration of medicines.

136 **Medical Surgical Nursing I** 3:3:0
Specific theory in the diseases and conditions of integumentary, special sensory, respiratory, endocrine, muscular and cardiovascular systems.

137 **Medical Surgical Nursing II** 3:3:0
Specific theory in the disease and conditions of gastrointestinal, genitourinary, male and female reproductive, nervous and skeletal systems.

138 **Obstetrical Nursing** 3:3:0
Specific theory on the care of mothers and newborn infants.

139 **Pediatric Nursing** 3:3:0
Specific theory on the care of sick children.

144 **Anatomy and Physiology** 4:4:0
The primary objective is to introduce principles of the biological and physical sciences that contribute to the student's understanding of the human body process in normal and certain abnormal conditions.

163 **Nursing Skills II** 6:2:8
Continuation of basic care skills, adding more complex skills such as drug administration, sterile technique and assisting with special procedures.

166 **Clinical Practice I** 6:0:24
Introduction to basic needs of hospitalized adults and children.

167 **Clinical Practice II** 6:0:24
Refinement of skills presented in Clinical Practice I with emphasis on nursing care needs of adults and children experiencing common medical-surgical problems.

168 **Clinical Practice III** 6:0:24
Continues development of skills from previous Clinical Practice with introduction to basic care of the obstetrical patient and newborn infant.

175 **Nursing Skills I** 7:2:8
Presentation of basic patient care skills; basic microbiology; mental health and illness; personal and professional ethical and legal responsibilities.

Department of Psychology

Department Head: Richard G. Marriott

103 Psychology Building
Professors: Barrington, Bell, Hawker
Associate Professors: Flocke, Walker
Assistant Professors: Buller, Die, Marriott
Instructor: Mitchell

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
   (A minimum of 3 semester hours at or above the level of Mth 1334)
   Biology 141-142 General eight semester hours
   Foreign Language 12 semester hours completion of the 232 course in a foreign lanaguage
   Government 231, 232 American Government six semester hours
   Sophomore American History six semester hours
   Physical Activity four semesters
2. Major:
   Psychology 131 Introduction to Psychology
   Psychology 241 Statistical Methods in Psychology
   Psychology 242 Methods in Psychology
   Psychology Additional 15 semester hours, a minimum of 12 semester hours must be on the advanced level
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 126 semester hours.

Recommended Program of Study

First Year	
Bio 141, 142 General Biology	8
Eng Composition	6
Foreign Language	6
Mth	6
Psy 131 Introduction to Psychology	3
PE Activity	2-4
	31-33

Second Year	
Eng Literature	6
Foreign Language	6
His Sophomore American History	6
Psy 241 Introduction to Statistical Methods	4
Electives	8
PE Activity	2-4
	32-34

Third Year

Gov 231, 232 Introduction to American Government...6
Psy 242 Methods in Psychology...4
Psy Advanced 3 hrs...6
Minor...9
Electives...6

31

Fourth Year

Psy, Advanced...9
Minor...9
Electives...12

30

Total 126 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
   *Mathematics 6-12 semester hours; completion of Mth 236, 237 or the equivalent, maximum of 6 semester hours in computer science may be substituted for the 200 level mathematics courses upon completion of six semester hours in mathematics including Mth 1335.
   Biology 141-142 General eight semester hours
   Government 231, 232 American Government six semester hours
   Sophomore American History six semester hours
   Science eight semester hours
   Physical Activity four semesters
2. Major:
   Psychology 131 Introduction to Psychology
   Psychology 241 Statistical Methods in Psychology
   Psychology 242 Methods in Psychology
   Psychology 343 Experimental Psychology
   Psychology Additional 15 semester hours, a minimum of nine semester hours must be on the advanced level.
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.

Recommended Program of Study

First Year

Bio 141-142 General Biology	8
Eng Composition	6
Mth	6
Science	4
Psy 131 Introduction to Psychology	3
Psy 241 Introduction to Statistical Methods	4
PE Activity	2-4
	33-35

Second Year

Eng Literature	6
Mth	6
Science	4
Psy 242 Methods in Psychology	4
Minor	6
Electives	3
PE Activity	2-4
	31-33

Third Year

Gov 231, 232 Introduction to American Government	6
Psy 343 Experimental Psychology	4
Psy	6
Minor	6
Electives	9
	31

Fourth Year

His Sophomore American History	6
Psy Advanced	9
Minor	6
Electives	12
	33

Total 128 hours

**Deviations from the Mth 236, 237 sequence require prior approval of department head.*

*Bachelor of Science in Psychology
*Bachelor of Science in Biology

First Year

Bio 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	2-4
	34-36

Second Year

Chm 341, 342 Organic	8
Bio 240 Comparative Anatomy	4
Bio 342 Embryology	4
Psy 242 Methods	4
Eng Soph Literature	6
Mth 236 Calculus I	3
Mth 237 Calculus II	3
Psy Electives	3
	35

Summer

Gov 231, 232 Introduction to American Government	6
PE Activity	2-4
Electives	6
	14-16

Third Year

His Sophomore American History	6
Phy 141, 142 General	8
Bio 347 Genetics	4
Bio 344 Advanced Physiology	4
Psy 343 Experimental Psy	4
Psy Electives Adv 6 hrs	9
	35

Fourth Year

Bio 444 Vertebrate Natural History	4
Bio 416 Classical Biological Literature	1
Bio 446 Ecology	4
Bio 447 Cellular Biology	4
Bio Electives	8
Psy Elective Adv	3
Electives	13
	37

**Both degrees must be awarded simultaneously.*

Psychology Courses (Psy)

120 Psychological Processes in Career Selection **2:2:0**

A study of the factors influencing the decision making process and methods used in resolving conflicts regarding career selection. Includes lectures, administration of standardized interest inventories, self-exploration, and review of majors available to students.

Prerequisite: Undeclared majors or consent of instructor.

131 Introduction to Psychology 3:3:0
An introductory survey of the major areas of psychology such as learning, personality, social, testing, developmental and physiological. Emphasis is on psychology as the scientific study of behavior and includes both human and animal behavior.

132 Fields of Applied Psychology 3:3:0
A survey of the major fields of applied psychology such as personal and vocational adjustment, industrial-organizational psychology, consumer psychology and environmental psychology. Emphasis is on ways in which the principles of psychology can be applied to practical problems in life and work.
Prerequisite: Psy 131.

234 Child Psychology 3:3:0
A study of the growth and development of behavior patterns in children.

235 Adolescent Psychology 3:3:0
A study of the growth and development of behavior patterns in adolescents.

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, tests of significance and introduction to non-parametric techniques.

242 Methods in Psychology 4:3:2
An introduction to the methods of research employed in the scientific study of behavior. Topics include nature and philosophy of science, experimental design, data analysis and report writing. Several experiments are designed, conducted and reported by students.
Prerequisite: Psy 131 and 241.

330 Psychology of Communication 3:3:0
A study of the theory, structure and function of communication patterns in various group settings.
Prerequisite: Psy 131.

331 Systems and History of Psychology 3:3:0
Historical development of psychology. Emphasis on the evolution of major systems of psychology.
Prerequisite: Psy 131.

332 Psychology of Personality 3:3:0
A study of several of the major theories of personality organization and adjustment processes.
Prerequisite: Psy 131.

333 Psychology of Social Interaction 3:3:0
Investigation of psychological basis of interpersonal behavior. Emphasis is on the study of individual experience and behavior in relation to the social environment, and how individual behavior both affects and is affected by social interaction.
Prerequisite: Psy 131.

334 Industrial Psychology 3:3:0
Introduction to Psychological processes and techniques as they apply in industrial settings. Emphasis on selecting, training and evaluating workers. Emphasis also on organizational influences on behavior.
Prerequisite: Psy 241.

335 Motivation 3:3:0
A study of contemporary concepts, theories and research in motivation.
Prerequisite: Psy 131.

336 Psychological Tests and Measurements 3:3:0
Theory and use of instruments for measurements of intelligence, interests, aptitude and attitudes.
Prerequisite: Psy 131, 241.

337 Psychology of Adjustment 3:3:0
A study of normal adjustment and commonly used defenses against anxieties.

339 Psychology and Biology of Sexuality 3:3:0
Understanding of human sexuality through progressive study of conception and birth, through the development of sex roles, to the acquisition of sexual maturity and functioning in society. Credit may not be recieved for both Bio 339 and Psy 339.

342 Statistical Methods 4:3:2
A continuation of Psy 241 with emphasis upon design and analysis of experiments. Includes Chi square, Student's *t*, analysis of variance and linear regression.
Prerequisite: Psy 241.

343 Experimental Psychology 4:3:2
Techniques to demonstrate and investigate concepts in psychology. Includes planning and executing an original research project.
Prerequisite: Psy 242.

410,420,430 Undergraduate Research 1-3:A:0
Designed to provide an opportunity for advanced psychology students to pursue an individual research project under the direction and supervision of a faculty member. May be repeated for credit.
Prerequisite: 9 hours of psychology and permission of instructor.

4101,4201,4301 Special Topics in Psychology 1-3:A:0
Topics in developmental, physiological, social, differential, experimental, quantitative, cognitive or clinical psychology. Includes library and/or laboratory work and conferences with a staff member. A description of the particular area of study will be indicated. A student may repeat the course for credit when the area of study varies.

431 Sensation and Perception 3:3:0
A review of research and theory regarding the structure and function of the basic sensory processes and sensory perception.
Prerequisite: Psy 131.

432 Abnormal Psychology 3:3:0
A study of abnormal behavior. Special emphasis on the symptomatology, etiology and therapeutic approaches.
Prerequisite: Psy 131.

433 Differential Psychology 3:3:0
Individual and group behavior differences and similarities.
Prerequisite: Psy 131.

434 An Introduction to Group Psychotherapy 3:3:0
An introduction to the theory and techniques of group psychotherapy. Instruction will be combined with experimental learning of the basic skills used in group psychotherapy.
Prerequisite: Psy 131.

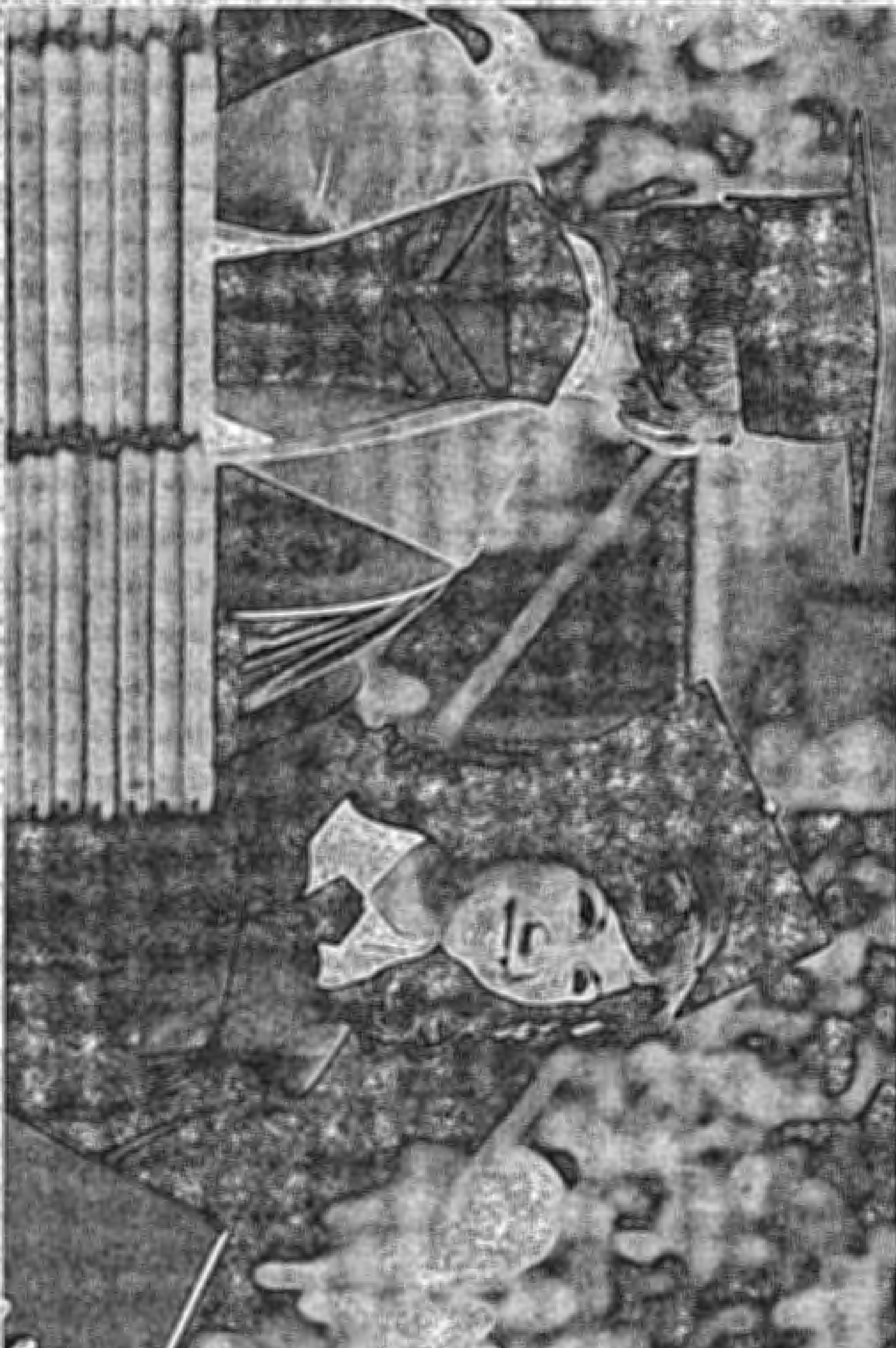
435 Leadership and Group Dynamics 3:3:0
A study of the nature, evaluation and utilization of intra and inter-personal forces producing behavior in various group structures.
Prerequisite: Psy 131.

436 Learning 3:3:0
Theories and research concerning learning processes, with a consideration of practical implications.
Prerequisite: Psy 131.

437 Quantitative Psychology 3:3:0
Theory and application of psychophysical and psychological scaling methods.
Prerequisite: PSY 241.

438 Physiological Psychology 3:3:0
Survey of the physiological bases of behavior with emphasis on the mechanisms in the central nervous system.
Prerequisite: Psy 131.

439 Contemporary Problems in Psychology 3:3:0
A critical and comprehensive examination of current problems in selected areas of psychology. Topics will vary from semester to semester.
Prerequisite: Nine hours in psychology or permission of instructor. May be repeated for credit when topics vary.



College of Liberal Arts

Departments: English and Foreign Languages; Government; History; Military Science; Sociology, Social Work and Criminal Justice
Preston B. Williams, Ph.D., Dean

Degree Offerings

Bachelor of Arts with majors in the following fields:

English	History
French	Sociology
Government	Spanish

Bachelor of General Studies—Liberal Arts
Bachelor of Science with majors in the following fields:

Criminal Justice	Sociology
Government	

Bachelor of Social Work
Associate of Science with a major in the following field:
Law Enforcement

Information concerning graduate programs in English, government, history and public administration may be obtained in the Graduate Bulletin.

The Liberal Arts

Lamar University accepts the philosophy that higher education involves the whole mind of a person and thus should not be limited to job preparation. Thus, every student in the University takes a substantial portion of his/her first two years of work in courses offered by the College of Liberal Arts.

The liberal arts are those fields which "liberate" the mind and give the student an opportunity to learn about and to criticize the various facts and assumptions about people, society and the relationship between the individual and that society. Broadly speaking, the area may be divided into the Humanities (English, history, journalism, modern languages and philosophy) and the Social Sciences (government, sociology, anthropology, economics and psychology).

Specialization in one or more of these disciplines provides an excellent liberal education and the best possible pre-professional preparation.

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

Bachelor of General Studies—Liberal Arts

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, government, history, modern languages, philosophy, psychology, and sociology.

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

Honors Program—Liberal Arts

The Lamar University Honors Program is an enriched program offering a variety of courses designed specifically for qualified and highly motivated students. Although the program is supervised by the Colleges of Liberal Arts and Sciences, students working toward any approved major can participate. Normally, some scholarships are available to qualified students who enroll in the program.

Within the College of Liberal Arts, the Honors Program includes special honors courses in sophomore literature Eng 2318 and Eng 2319, special honors section in sophomore government Gov 231H and Gov 232H, special honors section of American history His 231H and His 232H and two advanced interdisciplinary courses especially designed for the program Hon. 331 and Hon. 431.

Honors Courses (Hon)

331 Liberal Arts Honors Seminar I 3:3:0
An interdisciplinary course designed for the Liberal Arts Honors Program. The content depends upon the combination of disciplines involved.
May be repeated for credit when topic varies.

431 Liberal Arts Honors Seminar II 3:3:0
An interdisciplinary course designed for the Liberal Arts Honors Program. The content depends upon the combination of disciplines involved.
May be repeated for credit when topic varies.

Department of English and Foreign Languages

Department Head: Annette E. Platt **4 Liberal Arts Building**
Director of Freshman English: Timothy Summerlin
Acting Director of English as a Second Language: Arney L. Strickland
Professors: Barnes, Ellis, Emmons, Frissell, Georgas, Meeks, Olson, Rule, Strickland, Thomas, Urbano, Wall
Associate Professors: Francis, K. Jones, Platt, Renfrow
Assistant Professors: Baker, De Rose, Gwynn, Hutchings, Leitch, Pineda, Price, Reynolds, Smith, Summerlin, Wilkerson.
Adjunct Instructors: Braud, Callicutt, Chiasson, Daigrepont, Frankland, R. Jones, Oates, Quebe, Sheppeard, Zurlo
Laboratory Supervisor: Pardo

Bachelor of Arts—English

The degree of Bachelor of Arts in English will be awarded upon the completion of the following requirements:

A. General Requirements:
Foreign Language through the course numbered 232.
Freshman composition six semester hours.
Mathematics and laboratory science four courses, at least one in mathematics and one in a laboratory science. No courses less advanced than college algebra will fulfill the mathematics requirement except as indicated under Teacher Certification below.
History 131 and 132 not required for persons who earn a teacher's certificate.
Sophomore American history six semester hours.
Sophomore American government Government 231 and 232.
Physical activity courses, marching band or ROTC four courses.

B. Major:
Sophomore literature six semester hours
Advanced American literature six semester hours
Advanced British literature nine semester hours
English 430 (except as indicated under Teacher Certification below).

C. Minor:
An approved minor of 18 semester hours, including at least six semester hours in advanced course.

D. Sufficient approved electives to complete a total of 126 semester hours (except as indicated under Teacher Certification below).

Teacher Certification—English

Students wishing to secure the Bachelor of Arts degree in English and at the same time to certify for a provisional certificate-secondary with a teaching field in English, must include in their degree program the following:

1. Six hours of mathematics and eight hours of science. The mathematics requirement must include at least college algebra or a more advanced course.
2. An approved additional teaching field in the place of the minor (consult this bulletin, College of Education).
3. English 334, 3312 or 430.
4. English 3321.
5. Eighteen hours of education: 331, 332, 338, 438, 462.
6. Approved electives sufficient to bring the total number of hours to 132.

Recommended Program of Study—English

First Year

Eng Composition	6
His 131-132 World Civilization	6
Foreign Language 131-132	6
Mth	6
Electives	6
PE Activity	2
	32

Second Year

Eng Sophomore Lit	6
Sophomore Am. History	6
Gov. 231 and 232	6
Foreign Languages 231-232	6
Electives	6
PE Activity	2
	32

Third Year

Eng	9
Laboratory Science	8
Minor	9
Electives	6
	32

Fourth Year

Eng 430 History of the English Language	3
Eng	6
Minor	9
Electives	12
	30

Bachelor of Arts—French or Spanish

The degree of Bachelor of Arts in French and Bachelor of Arts in Spanish will be awarded upon the completion of the following requirements:

A. General Requirements:
Freshman English six semester hours
Literature six semester hours
*Mathematics six semester hours
*Science laboratory eight semester hours
Sophomore American History six semester hours
Sophomore American Government six semester hours
Physical Education or Band four semesters

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 three semester hours
Spanish
Spanish 131-132 Elementary Spanish
Spanish 231-232 Reading, Composition, Conversation
Spanish 330 Spanish Conversation

Spanish 335 Advanced Composition
Advanced Spanish six semester hours

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.

*Students may follow general degree requirements in regard to science and mathematics.

Teacher Certification—French, Spanish

Student wishing to obtain the Bachelor of Arts degree in French or Spanish and at the same time certify for a provisional certificate-secondary with a teaching field in French or Spanish, must include in their degree program the following:

1. An approved 24 hour additional teaching field (See College of Education section of this bulletin for a list of approved teaching fields).
2. Education 331, 332, 338, 438 and 462.
3. Sufficient approved electives to complete a total of 132 semester hours.

Recommended Program of Study—French or Spanish

First Year

*Maj Lang 131-132 Elementary	6
Eng Composition	6
**Mth	6
HPE Activity	2
Elec	12
	32

Second Year

Maj Lang 231, 232 Intermediate	6
Eng Literature	6
Sophomore American His	6
**Sci	8
HPE	4
Elec	2
	32

Third Year

Maj. Lang: Fre 330, 337, 338	9
or	
Maj Lang: Spa 330, 335	6
Spa Adv.	3
Elec incl minor	15
	30

Fourth Year

Maj Lang Adv.	3
Elec incl minor	30
	33

*Must be included if student has not already had the equivalent.
**Students may follow general degree requirement in regard to Science and Mathematics

English Courses (Eng)

131 **Composition** 3:3:0
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.

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.

134 **Composition** 3:3:0
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.

135 **Composition** 3:3:0
Intensive 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 English and Foreign Languages department.
Offered long semesters and on main campus only. Must be taken the first 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 requirement 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.)

137 **Developmental Reading and Writing** 3:3:0
Development of writing skills, broadening reading background and improvement of reading comprehension. Emphasis on inidvidualized instruction in composition. This course does not satisfy general degree requirements for Freshman English.
(Note: Satisfactory completion of this course for those who score 30 or below on the SAT Test of Standard Written English is prerequisite to Eng 131.)
(Note: Satisfactory completion of six hours of freshman composition is prerequisite to sophomore literature courses. Unless specified by a particular department, any combination of the six sophomore courses below will satisfy a sophomore literature requirement.)

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 nineteenth and twentieth 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.

2315 **The Literature of Africa** 3:3:0
Major writers of Africa, including various genres and works translated from languages other than English.

2316 **Black Writers of America** 3:3:0
Significant contributions to American literature from Colonial times to the present.

2318 **Sophomore Literature Honors Course** 3:3:0
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.

333 **Shakespeare** 3:3:0
Rapid reading of the histories, comedies and tragedies. The development of Shakespeare as a dramatist; his relationship to the Elizabethan theater; his social, political and literary background in the Tudor-Stuart era.

334 **Advanced Grammar** 3:3:0
Intensive analysis of sentences, the concept of structural meaning.

335 **Creative Writing** 3:3:0
A workshop approach to the writing of poetry, fiction and drama.
Prerequisite: Recommendation by the department head. May be repeated with permission of department head.

336 **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. May be taken for credit more than once if the topic varies.

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.

3312 **Introduction to Linguistics** 3:3:0
A survey of descriptive and historical linguistics intended to provide some understanding of the nature of language and linguistic change, of the current methods used in describing and comparing languages, and of the interaction of language and culture.

3313 **Mythology** 3:3:0
Classical, Scandinavian, German and Oriental mythology emphasizing the myths, deities and great legendary characters of Greek, Roman, Scandinavian, Teutonic and Oriental civilizations most frequently referred to in the literature of the Western world.

3316 **Poetic Analysis** 3:3:0
A study of the forms and techniques and the critical evaluation of poetry.

3321 **Methods of Teaching English** 3:3:0
Methods of teaching reading and composition at the secondary level, with special attention to the assigning and evaluating of written work.

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.

3331 **Advanced Survey of British Literature** 3:3:0
Intensive survey of British literature from the beginnings to 1800, with wide collateral reading in literary history.

3332 **Advanced Survey of British Literature** 3:3:0
Intensive survey of British literature from 1800 to present, with wide collateral reading in literary history.

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 Sixteenth Century Literature** 3:3:0
Critical studies in the poetry, prose and drama of the age. May be taken for credit more than once if the topic varies.

434 **Shakespeare** 3:3:0
Intensive study of selected major plays.
Prerequisite: English 333 or permission of the instructor.

435 **Studies in Seventeenth Century Literature** 3:3:0
Critical studies in the poetry, prose and drama of the period 1600-1660. May be taken for credit more than once if the topic varies.

438 **Studies in Eighteenth Century Literature** 3:3:0
Critical studies in the poetry, prose and drama of the period 1660-1800. May be taken for credit more than once if 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 once if 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 the topic varies.

4312 **Studies in Language and Linguistics** 3:3:0
Special problems in linguistics, such as the history of American English, regional dialects, new grammats. May be taken for credit more than once if the topic varies.

4317 **Contemporary Drama** 3:3:0
A study of dramatic trends and representative plays from Ibsen to the present.

4318 **Contemporary Poetry** 3:3:0
A study of poetry developments in England and America with emphasis on representative poets from Hardy to the present.

4319 **Contemporary Fiction** 3:3:0
A study of prose fiction representative of modern ideas and trends, with emphasis on English and Continental authors.

4322 **Russian Literature** 3:3:0
Selected works from nineteenth and twentieth century Russian literature in translation. Pushkin to Sholokov.

4325 **Language: Sound and Meaning** 3:3:0
Theory of language for non-English majors. A study of meaning as related to words and to grammatical features. English phonology as applied to orthography. May not be counted for English major credit.

4326 **Expository Writing** 3:3:0
The practical application of the techniques of mature exposition; classification, explanation, evaluation. With permission 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.

4328 **Early American Literature** 3:3:0
A survey of all significant writers from the beginning of Colonial America to 1828.

4329 **Modern American Literature** 3:3:0
A critical survey of major American writers of the twentieth century.

4333 **Studies in a Particular Author** 3:3:0
Intensive critical study of a major writer such as Chaucer, Milton, Hawthorne, Faulkner. May be taken for credit more than once when the topic varies.

4334 **Critical Studies in Literature** 3:3:0
Intensive critical study of a particular genre or theme in comparative literature or criticism. May be taken more than once for credit when the topic varies.

4335 **Technical Report Writing** 3:3:0
Supervised preparation of technical and scientific reports according to standard usage recommended by scientific and engineering societies. English majors who take this course must count it as an elective.

4336 **Directed Studies in American Literature** 3:3:0
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 between a student and an instructor. May be taken for credit more than once if the topic varies.
Prerequisite: Junior standing.

Philosophy Courses (Phl)

131 **Introduction to Philosophy** 3:3:0
General characteristics of philosophy as a field of knowledge and as a method of inquiry.

232 **Logic** 3:3:0
Nature and methods of correct reasoning; deductive and inductive proof; logical fallacies.

332 **Ethics** 3:3:0
A critical analysis of the concepts, methodology and theories of ethics.

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 nineteenth century; emphasis upon philosophers of the seventeenth and eighteenth 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)

130 **Study Skills and Cultural Orientation** 3:3:0
Preparation for library research, dictionary use and American testing procedures. Focus on aspects of American culture that affect the foreign student studying in the United States.

131 **Pronunciation and Conversation** 3:3:0
The course focuses on phonology and grammatical patterns of American English. Oral presentations and practice in idiomatic expression. Frequent use of laboratory tapes.

132 **Listening Comprehension** 3:3:0
The course aims toward achieving the goal of understanding native speech at normal speed in unstructured situations.

133 **Reading and Vocabulary Development** 3:3:0
The course emphasizes vocabulary building and increasing reading comprehension skills. Use of magazines, newspapers and other types of reading material.

134 **Grammar and Writing Skills** 3:3:0
Progressive work in mastering English grammar for purposes of writing. Frequent guided and free writing exercises.

NOTE: The student for whom English is a second language can satisfy the general degree requirements for freshman English by completing successfully ESL 135 and ESL 136. The courses, however, may not be taken simultaneously.

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.

137 **Developmental Skills in ESL** 3:3:0
Students for whom English is a second language are placed in this course when English proficiency scores fall below the prescribed level for exemption. This course does not satisfy general degree requirements for Freshman English. Grading on a Satisfactory-Unsatisfactory basis.

231 **Masterpieces in British and American Literature** 3:3:0
Critical study of six to ten major works in British and American 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.

232 **World Masterpieces in English Translation** 3:3:0
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.

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. Socio-cultural aspects of second language learning.

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.

133 **First Year French** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses.

134 **Modern French Literature in Translation** 3:3:0
A study of representative works of the twentieth century in translation, including such writers as Gide, Maruiac, Sartre, Camus, Ionesco and the masters of the new novel. The course will consist of an analysis of the principal works of the authors followed by class discussion.

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 majors and of students desiring teacher certification in French. (This course may not be substituted for Fre 232 to meet the language requirement for the Bachelor of Arts degree.)
Prerequisite: Fre 231 or equivalent.

331 **Contemporary French Drama** 3:3:0
A study of representative plays of the twentieth century with emphasis on the theater of post World War II. Dramatists studied include Giraudoux, Sartre, Camus, Ionesco, Beckett, Arrabal.
Prerequisite: Fre 232.

332 **Contemporary French Novel** 3:3:0
A study of representative novels of the twentieth century, including such writers as Gide, Mauriac, Sartre, Camus and the masters of the New Novel.
Prerequisite: Fre 232.

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.

338 **French Phonetics** 3:3:A
A study of the French sound system. Laboratory exercises to improve pronunciation.
Prerequisite: Fre 232.

339 **French Culture and Civilization** 3:3:0
A survey of the intellectual, philosophic, political and social development of France. Readings of significant works in these areas. Lectures, readings, oral and written reports.
Prerequisite: French 232 or equivalent.

430 **Problems in Teaching Foreign Languages** 3:3:0
An examination of materials and methods used to teach a foreign language. A careful analysis of those areas of French and Spanish which are of particular importance and which are particularly difficult for beginning students to learn. Preparation of pattern drills. Examination of textbooks for secondary and elementary levels. Demonstration teaching. Open only as elective credit to students desiring teacher certification in French and Spanish.
Prerequisite: 6 advanced hours in the language.

431 **The Nineteenth Century French Novel** 3:3:0
Prerequisite: 6 hours of advanced courses in French.

433 **17th Century French Literature** 3:3:0
A study of representative plays of Corneille, Racine and Moliere, with secondary stress on the prose and poetry of the period.
Prerequisite: 6 hours advanced courses in French.

435 **Survey of French Literature through the 18th Century** 3:3:0
Readings from significant works. Lectures, readings, oral and written reports.
Prerequisite: Six hours advanced courses in French.

436 **Survey of French Literature Since the 18th Century** 3:3:0
Readings from significant works. Lectures, readings, oral and written reports.
Prerequisite: Six hours advanced courses in French.

437 **French Poetry** 3:3:0
A study of the evolution of French poetry, with primary stress on the poetry of the 19th and 20th centuries.
Prerequisite: Six hours advanced courses in French.

438 **Directed Study** 3:3:0
Students may study individually with an instructor in an area of mutual interest to the student and the instructor. May be taken for credit more than once if the topic varies.

German Courses (Ger)

131 **Elementary German** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.

132 **Elementary German** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
Prerequisite: Ger 131 or equivalent determined by examination.

230 **Technical Translation** 3:3:0
Translation of technical textbook and selected articles in technical and scientific journals. (Ger 230 with a prerequisite of Ger 132 does not meet the requirement for a BA degree. Science majors working toward a BA degree may substitute Ger 230 for Ger 231.)
Prerequisite: Ger 132.

231 **Reading, Composition, Conversation** 3:3:0
Grammar review; conversation; selected readings, including readings from areas of special interests of individual students. Science students may enroll in this course to complete language requirements for the BS degree.
Prerequisite: Ger 132 or equivalent, or placement by proficiency test.

232 **Reading, Composition, Conversation** 3:3:0
Grammar review as needed. Composition, conversation and emphasis upon reading and vocabulary building.
Prerequisite: Ger 231 or equivalent, or placement by proficiency test.

Italian Courses (Ita)

131 **Elementary Italian** 3:3:0
Conversation, reading, dictation, grammar. Use of tapes. Emphasis will be placed on vocabulary and pronunciation.

132 **Elementary Italian** 3:3:0
Conversation, reading, dictation, grammar. Use of tapes. Emphasis will be placed on vocabulary and pronunciation.
Prerequisite: Italian 131.

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.

133 **First Year Spanish** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses.

134 **Spanish for Health Care Services** 3:3:0
Emphasis is placed on pronunciation, vocabulary and basic conversation related to hospital care and nursing services. This course will concentrate on practical Spanish for doctors, nurses and other helath care personnel. Taped laboratory material available.

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 Conversation** 3:3:0
Required of majors and of students desiring teacher certification in Spanish.
Prerequisite: Spa 231 or equivalent.
(Note: This course may not be substituted for Spa 232 to meet the language requirement for the Bachelor of Arts 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, Santo Domingo, Mexico and Central America. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.

332 **Culture and Civilization of Spanish-American Countries** 3:3:0
A study of the geography, history, government, art, economic resources and psychology of South America. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.

333 **Survey of Spanish-American Literature** 3:3:0
A study of outstanding writers and their works up to the nineteenth century *modernista* movement. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.

334 **Survey of Spanish-American Literature** 3:3:0
A study of outstanding writers and their works from the *modernista* movement to the present day. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.

335 **Advanced Composition** 3:3:0
Vocabulary building, intensive review of grammar as needed for sentence structure. The development of the paragraph in written composition: Frequent written reports.
Prerequisite: Spa 232.

336 **Advanced Composition** 3:3:0
Continuation of vocabulary building and stylistics of written Spanish. Development of the term paper on topics of interest to the student as well as literary topics. Frequent written reports.
Prerequisite: Spa 232, but it is recommended that the student take Spa 335 first.

337 **Contemporary Spanish-American Short Story** 3:3:0
The authors chosen are among the best interpreters of the spiritual and intellectual climate of Spanish America. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.

338 **Contemporary Theater of Spain** 3:3:0
Emphasis will be given to the theater of Lorca, Casona, Buero Vallejo, Calvo Sotelo, Alfonso Sastre and other major authors of today.
Prerequisite: Spa 232.

431 **Contemporary Spanish Literature** 3:3:0
Prerequisite: 6 hours of advanced Spanish.

432 **Development of Spanish Novel** 3:3:0
Prerequisite: 6 hours of advanced Spanish.

433 **Survey of Spanish Literature Through the 17th Century** 3:3:0
A study of the most significant works of Spanish literature through the seventeenth century. Readings from *El Cid, El Conde Lucanor, La Celestina,* poetry of the Renaissance, Cervantes' prose and the Golden Age drama. Lectures, readings, oral and written reports.
Prerequisite: 6 hours of advanced Spanish.

434 **Survey of Spanish Literature Since the 17th Century** 3:3:0
A study of the most significant works of Spanish literature from the eighteenth century through the twentieth century. Readings with emphasis on the drama and the novel. Lectures, readings, oral and written reports.
Prerequisite: 6 hours of advanced Spanish.

436 **Spanish American Novel** 3:3:0
Prerequisite: 6 hours of advanced Spanish.

438 **Directed Study** 3:3:0
Students may study individually with an instructor in an area of mutual interest to the student and the instructor. May be taken for credit more than once if the 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 six weeks 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, 1981, 1983, etc., for as long as there is interest in it. Participants study French and German 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. The German courses may be taken as electives. Students who have not completed elementary or intermediate language courses, that is, language 131, 132, 231 and 232, may take those courses abroad.

4371 French Studies Abroad 3:3:A
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.

4372 French Studies Abroad 3:3:A
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.

4373 French Studies Abroad 3:3:A
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.
Prerequisite: French 4371 or 4372.

4374 French Studies Abroad 3:3:A
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.

4371 German Studies Abroad 3:3:A
A study of the German 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.

4372 German Studies Abroad 3:3:A
Students may register for this course concurrently with German 4371. A study of the German 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.

4373 German Studies Abroad 3:3:A
The course is designed for students who have completed German 4371 or 4372. It consists of a more advanced study of German 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.
Prerequisite: German 4371 or 4372.

4374 German Studies Abroad 3:3:A
Students may register for this course concurrently with German 4373. The course is designed for students who have completed German 4371 or 4372. It consists of a more advanced study of the German 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.
Prerequisite: German 4371 or 4372.

Department of Government

Department Head: Manfred Stevens

56 Liberal Arts Building
Professors: Stevens, Tucker
Associate Professors: Pearson, Drury, Lanier, Utter
Assistant Professors: Dubose, Sanders, Stidham

Bachelor of Arts—Government Major

A. General Requirements:
Freshman English—six semester hours
Literature—six semester hours
*Mathematics 1334 and three additional hours
*Science—laboratory—eight semester hours
Completion of the 232 course in a foreign language
Sophomore American History—six semester hours
Physical activity courses, Band or ROTC—four semesters

B. Major:
Government 231-232—American Government
Government 131—Introduction to Political Science
Government 3319—Statistics for Social Scientists
Advanced Government (at least one course from each of five fields)—15 semester hours. The fields are American government (Gov 334, 335, 339, 436, 437, 3301, 3312, 3313, 3315); political philosophy (Gov 3302, 3303, 433); international relations (Gov 332, 336, 337, 435); comparative government (Gov 331, 3317, 4381, 4382, 4383); public administration (Gov 3316, 430, 434, 439).

C. Minor:
An approved minor of 18 semester hours, including at least six advanced hours. (Freshman English composition courses may not be counted toward a minor in English)

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

Bachelor of Arts—Teacher Certification—Government

Students wishing to secure the Bachelor of Arts degree in Government and at the same time certify for a provisional certificate secondary with a teaching field in Government, must include in their degree program the following:

1. Six hours of mathematics and eight hours of science.
2. An approved 24 hour additional teaching field in place of the minor, consult this bulletin, College of Education.
3. Education 331, 332, 338, 438 and 462.
4. Sufficient electives to complete a total of 132 semester hours.

**For science and mathematics the general degree requirements may be followed.*

Recommended Program of Study

First Year

Gov 131	3
Eng—Composition	6
Foreign Language	6
Mth (incl 1334)	6
PE Activity	2
Electives*	6
	29

Second Year

Eng—Literature	6
Foreign Language	6
PE Activity	4
AM His	6
Gov 131	3
Gov 231-232	6
Gov 3319	3
	34

Third Year

Gov (Adv)	9
Electives or Edu 331, 332, 338	9
Laboratory Science	8
Minor (or other teaching field) and Electives	5-8
	31-34

Fourth Year

Gov (Adv)	6
Electives or Edu 438 and 462	9
Minor (or other teaching field) and Electives	15-18
	30-33

**His 131-132 are recommended.*

Bachelor of Science—Government Major

The Bachelor of Science degree in government emphasizes career education. It will be awarded upon completion of the requirements for the Bachelor of Arts degree in government with the following substitution for the foreign language requirement: Computer Science 131; Gov 4319 and nine additional hours to be selected from two of the following areas: Accounting 231-232; Computer Science—Adv; Economics 131-133 or Adv; Mathematics—Adv; Psychology—Adv.

Recommended Program of Study

First Year

Gov 131	3
Eng—Composition	6
Math (incl 1334)	6
PE	2
Computer Science	3
Electives*	12
	32

Second Year

Eng—Literature	6
Am History	6
Gov 131	3
Gov 231-232	6
Gov 3319	3
PE Activity	4
Approved Electives	6
	34

Third Year

Gov (Adv)	9
Laboratory Science	8
Gov 4319	3
Minor and Electives	12
	30-34

Fourth Year

Gov (Adv)	6
Minor and Electives	21
	27-30

**His 131-132 are recommended.*

Government—Pre-law

Students may pursue either the Bachelor of Arts degree or the Bachelor of Science degree as candidates for admission to a school of law. The degree requirements are the same as those specified above. Guidance and counseling for the needs of the pre-law student are available.

Career Development Program (Pre-Law)

Exceptional students may qualify for a cooperative education program presently available in the legal profession. While this is primarily directed at the pre-law student, other programs are being planned to allow students cooperative education experience in local government, public administration and with the Lamar Social Data Center. Students earn up to 12 semester hours of elective 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 practical skills useful to the potential lawyer. Admission to the program is by permission of the head of the Department of Government.

Government Courses (Gov)

231 Introduction to American Government I 3:3:0
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.

231H Introduction to American Government I Honors 3:3:0
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.

232 Introduction to American Government II 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.
Prerequisite: Government 231.

232H 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.
Prerequisite: Sophomore standing and departmental approval.

Note: Gov. 231-232 will, starting with the Fall semester 1979, fulfill the six hour requirement in American Government. Students who completed one of the following courses Gov. 2322, 2323, Gov. 2324, Gov. 2325 must enroll in Gov. 231 to complete the six hour requirement in American Government.

131 **Introduction to Political Science** 3:3:0
An introductory survey of political ideas and institutions and a review of the methods for analyzing the political behavior of individuals, groups and nations.

2322 **Texas Government** 3:3:0
A study of the constitution, government and politics of Texas.

321 **Legal Internship I** 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 head.

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 head, Gov 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 head, Gov 322.

324 **Administrative Internship I** 2:2:0
Practical experience in adminstrative office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head.

325 **Administrative Internship II** 2:2:0
Practical experience in administrative office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, Gov 324.

326 **Administrative Internship III** 2:2:0
Practical experience in administrative office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, Gov 325.

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 imperalism; 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** 3:3:0
The role of the office in political and diplomatic, social and economic terms, as well as in the policy-making aspects.

336 **International Institutions** 3:3:0
An analysis of the political and legal foundations of international organizations with emphasis on the procedure and machinery for the peaceful settlement of international disputes. The League of Nations, the United Nations, specialized agencies, disarmament and regional arrangements will be considered.

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.

339 **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.

3301 **The Legislative Process** 3:3:0
The structure, functioning and political control of legislative bodies.

3302 **Classical Political Thought** 3:3:0
The chief concepts of outstanding political thinkers from the Greeks to the Renaissance.

3303 **Modern Political Thought** 3:3:0
A continuation of Government 3302 from the Renaissance to Karl Marx, including the Reformation leaders, Hobbes, Locke, Rousseau and Hegel.

3313 **The Judicial Process** 3:3:0
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.

3315 **Conflict Management in American Politics** 3:3:0
An examination of various approaches political, social, psychological, philosophical and legal to the study of conflict, and its management and resolution; specific cases of conflict to be studied will be drawn from American politics.

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** 3:3:0
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 tests of significance.

421 **Legal Internship IV** 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 head, Gov 323.

422 **Legal Internship V** 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 head, Gov 421.

423 **Legal Internship VI** 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 head, Gov 422.

424 **Administrative Internship IV** 2:2:0
Practical experience in administrative office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, Gov 326.

425 **Administrative Internship V** 2:2:0
Practical experience in administrative office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, Gov 424.

426 **Administrative Internship VI** 2:2:0
Practical experience in administrative office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, Gov 425.

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.

433 **Contemporary Political Thought** 3:3:0
The significant trends in political thought from Karl Marx to the present, including Lenin, Sorel, Green, Freud and elitist and fascist writers.

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 **The International System** 3:3:0
The study of the legal bases of the modern international system and the political and the political and legal characteristics of developing world order.

436 **American Constituional Law and Development** 3:3:0
Development of the American Constitution through judicial interpretations, with particular emphasis on cases dealing with federalism, commerce, congress and the executive.

437 **American Constitutional Law and Development** 3:3:0
A continuation of Gov 436 with particular emphasis upon cases dealing with due process and civil rights.

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 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 head of Department of Government.*

4312 American State Government 3:3:0
A survey of American state political systems from a comparative basis.

4319 Advanced Research Methods 3:3:0
Analysis or study of special problems, topics, cases, models and theories in political science research.

4381 Government and Politics of the Soviet Union 3:3:0
A study of the origin, development, structures, functions and behavior of the Soviet decision-making organs.

4382 Government and Politics of East Asia 3:3:0
An introduction to the political ideas, institutions and process of China and Japan considered against their social and economic development with special emphasis on contemporary political problems.

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 History

Department Head: Adrian N. Anderson **57 Liberal Arts Building**
Professors: Anderson, Gwin, Isaac, Mackey, MacDonald, Norton, Satterfield, Storey, Sutton, Williams, Wooster
Associate Professors: Carroll, Holt, Lambert, Woodland
Assistant Professor: Stiles

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 including English 2311
Mathematics and laboratory science—four semester courses, at least one in mathematics and one in laboratory science. Mathematics and science courses must be selected from a list of approved courses, and must include at least one course in mathematics at or above the level of Math 1334.
Completion of the 232 course in a foreign language
Sophomore government—six semester hours
Physical Education or Band—four semesters

B. Major:
History 131-132—World History
Sophomore American History—six semester hours
History 339—Historical Research
Advanced United States History—six semester hours
Advanced World (Non-United States) History—six semester hours

C. Minor:
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—History

Students wishing to secure the Bachelor of Arts degree in history and at the same time certify for a provisional certificate—secondary with a teaching field in history, must include in their degree program the following:

1. Six hours of mathematics and eight hours of science. Must be selected from list of approved courses.
2. An approved 24 hour additional teaching field (See College of Education section of this bulletin for a list of approved teaching fields).
3. Education 331, 332, 338, 438 and 462.

4. Sufficient approved electives to complete a total of 132 semester hours.

Recommended Program of Study

First Year

His 131-132—World History	6
Freshman English	6
Foreign Language	6
Mth	6
Electives	6
PE—Activity	2
	32

Second Year

Sophomore American History	6
Literature (including Eng 2311)	6
Foreign Language	6
Science	8
Sophomore Government	6
PE—Activity	4
	36

Third Year

His 339	3
His (Adv)	6
Electives	9
Minor (or other Teaching Field) and Electives	12-14
	30-32

Fourth Year

His (Adv)	6
Edu 438 and 462 or Minor (or other Teaching Field) and Electives	15-17
	30-32

History Courses (His)

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 honors students.
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 honors students.
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 3:3:0
A historical survey of cultural life in the United States.

235 American History: The Americas to 1810 3:3:0
The United States and the Western Hemisphere from the beginning to 1810.

236 American History: The Americas since 1810 3:3:0
The United States and the Western Hemisphere since 1810.

NOTE: Various colleges and departments may counsel their majors into certain of the American history courses listed above; otherwise the student may satisfy his/her American history requirement by taking any two courses selected from History 231, 232, 233, 234, 235 or 236.

330 History of Ideas 3:3:0
The Judeo-Christian and Greco-Roman elements in the Western intellectual tradition.

331 Social and Intellectual History of the United States to 1865 3:3:0
Life and thought in the United States prior to 1865.

332 American Thought Since Darwin 3:3:0
Life and thought in the United States since 1865.

333 History of American Economic Life 3:3:0
A study of economic change in the context of institutional development in the United States.

334 Military History of the United States 3:3:0
History of American warfare and the development of American military institutions and practices.

337 Diplomatic History of the United States 3:3:0
Historical development of American diplomacy.

338 **Urban History of the United States** 3:3:0
The origin and development of cities in the United States.

339 **Historical Research** 3:3:0
Principles 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.

433 **Russia and Eastern Europe to 1860** 3:3:0
Russia, Poland, and the Balkans from the period of the Byzantine Empire to 1860.

434 **Nineteenth Century Europe** 3:3:0
Europe from 1815 to 1914.

435 **Twentieth 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** 3:3:0
Greece and Rome from earliest times to the fall of the Roman Empire in the West.

4319 **Medieval Civilization** 3:3:0
Western Europe and the Mediterranean area from the late Roman period to 1453.

4321 **The Far East to 1800** 3:3:0
Japan, China, Indo-China and India to 1800.

4322 **The Far East since 1800** 3:3:0
Japan, China, Indo-China and India since 1800.

4323 **Latin America to 1810** 3:3:0

4324 **Latin America Since 1810** 3:3:0

4325 **Tudor and Stuart England** 3:3:0
England from 1485 to 1688.

4326 **Eighteenth Century England** 3:3:0
England Great Britain from 1688 to 1815.

4327 **Victorian England** 3:3:0
Great Britain from 1815 to 1914.

4328 **Contemporary America: The United States Since 1940** 3:3:0

4329 **Modern European Intellectual History** 3:3:0
An examination of the major European intellectual movements and thinkers from the Renaissance to the present.

4331 **Russia Since 1860** 3:3:0
The development of modern Russia, from 1860 to the present.

4332 **Afro-American History to 1865** 3:3:0
The black experience in Africa and in the Western Hemisphere prior to emancipation.

4333 **Afro-American History since 1865** 3:3:0
The black experience toward achieving freedom in the United States.

4334 **Early National Period** 3:3:0
The United States from 1789 to 1820.

4335 **Topics in History** 3:3:0
Selected special topics in major areas of history. Course may be repeated for a maximum of six semester hours credit 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.

4337 Directed Studies in European History 3:A:0
Individual study with an instructor in an area of mutual interest. May be repeated for a maximum of six semester hours credit when topic varies.
Prerequisite: Departmental permission.

4338 Directed Studies in American History 3:A:0
Individual study with an instructor in an area of mutual interest. May be repeated for a maximum of six semester hours credit when topic varies.
Prerequisite: Departmental permission.

4339 Directed Studies in Historical Research 3:A:0
Individual study with an instructor on historiography and historical research methods.
Prerequisite: Departmental permission.

Department of Sociology, Social Work and Criminal Justice

Department Head: Wayne C. Seelbach **55 Liberal Arts Building**
Associate Professors: Altemose, Drenan, Frazier, Ma, Seelbach, Woodward
Assistant Professors: Love, Monroe, Smith
Instructor: Sims

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 its majors and encourages career oriented education.

The degrees offered by this 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 4 semesters of 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 2 required physical activity courses for a minimal total of 62 semester hours.

Sociology

Program Director: Wayne C. Seelbach

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.

Bachelor of Science—Sociology Major

The degree of Bachelor of Science in Sociology will be awarded upon completion of the following requirements:

A. General Requirements:
Meet the University's general requirements for a bachelor's degree which are described earlier in this bulletin under degree requirements.

B. Major—minimum of 30 semester hours to include:
Sociology 131—Introduction to Sociology
Sociology 438—Research Methods
Sociology 439—Social Theory

C. Professional Core—9 semester hours
Social Work 231—Survey of the Social Welfare Institution
Criminal Justice 1301—Crime and Criminals
Psychology 131—Introduction to Psychology

D. Minor—an approved minor of 18 semester hours, 6 of which must be advanced.
E. Electives:
Sufficient approved electives to complete a total of 124 semester hours.

Recommended Program of Study

First Year

Soc	6
Psy 131	3
Swk 231	3
Eng Composition	6
Math	6
Science	8
PE Activity	2
	34

Second Year

Soc	6
CJ 1301	3
Eng Literature	3
Eng 4335, Spch, Lit, or Lang	3
His Sophomore American	6
Minor/electives	9
PE activity	2-4
	32-34

Third Year

Soc	12
Minor/Electives	18
	30

Fourth Year

Soc 438, 439	6
Gov 231, 232	6
Minor/Electives	16
	28

Bachelor of Arts—Sociology Major

The degree of Bachelor of Arts in Sociology will be awarded upon completion of the following requirements:

A. General Requirements:
Meet the university's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements."
Completion of the 232 course in a foreign language.
Literature—6 semester hours
B. Departmental requirements:
The requirements concerning major, professional core, minor, and electives are the same as for the Bachelor of Science degree listed above.

Recommended Program of Study

First Year

Soc	6
Eng Composition	6
Math	6
Science	8
Language	6
PE Activity	2
	34

Second Year

Soc	3
Swk 231	3
CJ 1301	3
Psy 131	3
Eng Literature	6
Language	6
His Soph American	6
PE Activity	2-4
	32-34

Third Year

Soc	15
Gov 231, 232	6
Minor/Electives	9
	30

Fourth Year

Soc 438, 439	6
Minor/Electives	22
	28

Teacher Certification—Sociology

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree in sociology and at the same time to certify for a provisional certificate—secondary, with a teaching field in sociology must include in their degree program the following:

1. Six hours in mathematics to include Mth 1334 and eight hours in the same laboratory science.
2. An approved 24 hour additional teaching field. (See list of approved teaching fields in the College of Education section of this bulletin.)
3. Education: 331, 332, 338, 438, and 462.
4. Sufficient approved electives to complete a total of 124 semester hours.

Cooperative Education (Coop) Program

A cooperative Education Program, in which the student spends alternate semesters at study and at work is available to qualified students in the Department of Sociology, Social Work, and Criminal Justice. This program is coordinated by the Director of Cooperative Education. Details may be obtained from that office or from the department head.

Pre-Law

Students may pursue either the Bachelor of Arts or the Bachelor of Science in sociology as prospective candidates for admission to a school of law. The degree requirements are the same as those specified above but should include the following courses as electives or a minor:

Criminal Justice 1303—Criminal Law
Criminal Justice 234—Law of Crimes
Criminal Justice 331—Procedural Law
Criminal Justice 4314—Legal Research and Advocacy
Governemnt 436—American Consittutional Law and Development
Government 437—American Constitutional Law and Development
Business Law 331—Business Law
Business Law 3311—Labor Law
Business Law 434—Advanced Legal Principles

Social Work

Program Director: Vernice M. Monroe

Social Work is a profession that 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, groups and communities face difficulties and find solutions to problems. Social work practice involves more than a desire to "do good"; it involves the synthesis of knowing, doing, feeling and understanding.

The Social Work Program is accredited by the Council on Social Work Education.

Bachelor of Social Work

The Bachelor of Social Work will be awarded upon completion of the following requirements:

A. General Requirements:
   Meet the university's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements."
   The lab science course must be biology.
B. Major—33 semester hours
   Social Work 131, 231, 331, 332, 333, 334, 335, 432, 4321, 4324, plus 3 hours of electives in Social Work.
C. Professional Core—21 hours
   Sociology 131, 132, 336, 438
   Psychology 131, and 234 or 235
   Criminal Justice 1301
D. Minor: An approved minor of 18 semester hours, 6 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 probation and parole departments, prisons, and jails. For this concentration, the following courses are required: Criminal Justice 1301, 1302, 1303, 1304, 436, and 437.
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 total of 124 semester hours.

Recommended Program of Study

First Year

Eng Composition	6
Math	6
Swk 131, 132	6
Soc 131, 132	6
Psy 131	6
PE Activity	2
	32

Second Year

Eng Literature	3
His Sophomore American	6
CJ 1301	3
Swk 331	3
Science (Bio)	8
Psy 234 or 235	3
Electives	3
PE activity	2-4
	31-33

Third Year

Eng 4335, Spch, Lit, or Lang	3
Gov 231, 232	6
Soc 336, 438	6
Swk 332, 333, 335	9
Minor/Electives	6
	30

Fourth Year

Swk 334, 432, elective	9
Swk 4321, 4324 (Field Placement)	6
Minor/Electives	16
	31

Criminal Justice

Program Director: James J. Love

Bachelor of Science—Criminal Justice Major

The Bachelor of Science in Criminal Justice offers preparation for professional careers in law enforcement and corrections. It also provides a background for students interested in graduate education in criminal justice or in law school. The degree will be awarded upon the completion of the following requirements:

A. General Requirements:
Meet the university's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements."

B. Major—30 semester hours
CJ 1301—Crime and Criminals
CJ 1302—Control of Crime
CJ 1303—Criminal Law
CJ 1304—Juvenile Justice
CJ 232—Investigation
CJ 332—Counseling
CJ 4312—Contemporary Issues
CJ 434*—Applications
CJ 434*—Applications
CJ 435—Management and Organization

**With the permission of the Department Head, students with professional experience in the criminal justice system may substitute six semester hours of electives for the required six semester hours of CJ 434—Applications.*

C. Professional Core:
9 semester hours from any one of the areas indicated below and 3 semester hours from each of the three areas not chosen (total 18 semester hours).

Corrections
CJ 333—Correctional Counseling
CJ 436—Probation and Parole
CJ 437—Penology

Law and Courts
CJ 234—Law of Crimes
CJ 331—Procedural Law
CJ 4314—Legal Research and Advocacy

Law Enforcement
CJ 231—Police Work
CJ 433—Police Problems
CJ 4310—Conflict Management

Nature of Crime
CJ 336—Narcotics and Vice
CJ 337—Organized Crime
CJ 4313—Community Crime Prevention

D. Foundation Electives:
Sociology 131
Sociology 438
Social Work 231
Psychology 131

E. Electives—sufficient approved electives to complete a total of 124 semester hours. (Students wishing to meet requirements for Basic Certification from T.C.L.E.O.S.E. should include CJ 331 and CJ 435 as electives.)

Recommended Program of Study

First Year

Eng Composition	6
Math	6
Science	8
Criminal Justice	6
Soc 131	3
PE Activity	2
	31

Second Year

Eng Literature	3
Eng 4335, Spch, Lit, or Lang	3
Psy 131	3
Swk 231	3
Criminal Justice	15
PE activity	2-4
	29-31

Third Year

Gov 231, 232	6
His Sophomore American	6
Criminal Justice	9
Electives	12
	33

Fourth Year

Soc 438	3
Criminal Justice	18
Electives	10
	31

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 univeristy's general requirements for the associate of science degree which are described earlier in this bulletin under "Degree Requirements."

B. Criminal Justice Core:
CJ 1301—Crime and Criminals
CJ 1302—Control of Crime
CJ 1303—Criminal Law
CJ 1304—Juvenile Justice
CJ 231—Police Work
CJ 232—Investigation
CJ 234—Law of Crimes

C. Electives:
Sufficient approved electives to complete a total of 62 semester hours. (Students wishing to meet requirement for Basic Certification from T.C.L.E.O.S.E. should include CJ 331 and CJ 435 as electives).

Recommended Program of Study

First Year

Soc 131	3
Eng Composition	6
Math and/or Lab Sci	6-8
His Sophomore American	6
PE Activity	2
Criminal Justice	9
	32-34

Second Year

Gov 231, 232	6
Eng Literature	3
Criminal Justice	12
Electives	9
	30

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** 3:3:0
Attributes of society and of persons which are subject to disapproval; the causes, extent and consequences of problems; programs and prospects of their resolution.

230 **Urban Problems** 3:3:0
The study of contemporary urban problems in America. Attention is given to problems of poverty; transportation, disorganization and city planning and reconstruction.

231 **Deviant Behavior** 3:3:0
The study of the major areas of social maladjustment from the standpoint of the processes underlying social and individual disorganizations, such as alcoholism, illegitimacy, suicide, drug addiction and other personal deviations.

233 **Marriage and the Family** 3:3:0
Characteristics of and problems within courtship, marriage and family in American society.

234 **Social Gerontology** 3:3:0
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 **Career Development I** 3:A:0
Special assignments related to work-experience in cooperation with employer under faculty supervision.

236 **Career Development II** 3:A:0
Special assignments related to work-experience in cooperation with employer under faculty supervision.

237 **Social Problems of the Aged** 3:3:0
An in-depth examination of the nature, causes and consequences of the major social problems experienced by older Americans.

330 **American Society** 3:3:0
Description and analysis of structural and functional characteristics of American society and culture.

331 **Sexual Interaction** 3:3:0
An overview of current scientific knowledge concerning human sexuality as a form of interaction between the sexes in the cultural milieu.

3313 **Career Development III** 3:A:0
Special assignments related to work-experience in cooperation with employer under faculty supervision.

3314 **Career Development IV** 3:A:0
Special assignments related to work-experience in cooperation with employer under faculty supervision.

332 **Social Psychology** 3:3:0
Social and cultural influences upon individual behavior and personality; interpersonal and intergroup relations and collective behavior.

333 **Urban Sociology** 3:3:0
Social and ecological processes in the urbanization movement; characteristics of urban society and culture.

334 **Industrial Sociology** 3:3:0
The social structure of industry and of the trade union interrelationships of industry, union and society; personal, social and cultural factors in industrial organization and operation.

335 **The Family** 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 between minority and dominant groups.

338 **Criminology** 3:3:0
Extent of and explanation for crime in American society; agencies dealing with crime and criminal; programs for 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 programs for prevention and control of juvenile delinquency.

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 be repeated 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.

4311 Medical Sociology 3:3:0
A study of social organization in the medical field with emphasis on the social interaction between persons involved.

4312 Advanced Deviant Behavior 3:3:0
In-depth study of behavior classified as deviation from the social norms.

432 Sociology of Education 3:3:0
A study of the multicultural influences on the school system and the democratic society. Included will be an analysis of educational problems in the multicultural society of Texas.

433 Adult Development and Aging 3:3:0
An in-depth analysis of the social and psychological processes associated with the passage of individuals through the age structure of American society.

4331 Seminar in Gerontology 3:3:0
Pre-professional seminar examining current theories, research, issues and career opportunities in the field of aging.

434 Social Change and Futurology 3:3:0
Analysis of the nature, sources, and effects of contemporary social changes with emphasis given to future types of social organization and functioning. Science and technology as stimulators of change.

435 Sociology of Religion 3:3:0
Religion as a social institution in contemporary America; development of religious systems; cultural, social and individual function of religion.

436 Social Movements 3:3:0
Historical, structural and tactical consideration in the development of major systems of belief and practice within society; political movements in American society.

437 Public Opinion 3:3:0
Factors and processes in formation and change of public opinion, influence of the mass media on communication; analysis and evaluation of propaganda.

438 Research Methods 3:3:0
Study of the logic, design, techniques and problems involved in social scientific research.

439 Social Theory 3:3:0
A survey of major sociological theorists and theories.

Social Work Courses (Swk)

131 Introduction to Social Work 3:3:0
An overview of the history, philosophy, field of practice and services of the social work profession. A field experience to introduce students to the social work profession is required.

231 Survey of the Social Welfare Institution 3:3:0
Study of the growth and development of the social welfare institution; with emphasis on selecred pieces of social welfare legislation and the effect on social welfare services.

331 Social Work Practice I 3:3:0
Course designed to help students acquire basic skills for social work practice: basic helping skills; engagement skills; observation skills; and communication skills.

332 Human Behavior in the Social Environment 3:3:0
Life cycle approach to the study of growth and development as impacted upon by the social environment.

333 Social Work Practice II 3:3:0
Theories, concepts, principles and modalities generic to social work practice. Emphasis on the use of interventive skills with client systems.

334 Social Policy and Administration 3:3:0
Anlaysis of social policies as related to selected social problems at all governmental levels. Emphasis placed on integrating policy into the administering of human service programs.

335 Social Work Practice With Target Groups 3:3:0
Acquisition of knowledge, skills and techniques for practice with multiproblem families, low income families, racial or ethnic minorities; and other client groups using a crisis intervention model.
Prerequisite: Swk 331 and 333.

410, 420, 430 Special Topics in Social Work 1-3:A:0
Topics in various areas in social services. Includes field and/or library work and conferences with a staff member. A student may repeat the course for credit when the area of study is different.
Prerequisite: Consent of the instructor.

432 Seminar 3:3:0
Current topics in social work. May be repeated for credit when the topic is varied.

4321 Field Experience I 3:A:0
Integration of theory into practice through placement in community social service agencies. Course includes a weekly 4-hour seminar. Placement to be arranged.
Prerequisite: Consent of field placement coordinator, Swk 333, 335, plus three additional hours in Swk.

4324 Field Experience II 3:A:0
Continuation of Swk 4321. Placement to be arranged.
Prerequisite: Consent of the instructor.

Criminal Justice Courses (CJ)

1301 Crime and Criminals 3:3:0
Introduction to the nature of crime and criminals. Violent crime, property crime, white collar crime, organized crime, narcotics and vice.

1302 Control of Crime 3:3:0
Introduction to contemporary crime control efforts. Police, courts, corrections, special programs. Survey of crime control efforts of selected foreign nations.

1303 Criminal Law 3:3:0
Introduction to the criminal law and its impact on the individual citizen. Emphasis upon application of legal principles to commonly encountered situations.

1304 Juvenile Justice 3:3:0
Introduction to juvenile crime. A survey of youthful involvement in the juvenile justice system, as both offender and victim. Role of police in preventing and controlling juvenile offenses. Basic provisions of the Texas Family Code.

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; first aid; courtroom demeanor and testimony; Texas liquor laws; speech; defensive tactics and firearms training.
Prerequisite: Admission to Police Academy and consent of instructor.

231 Police Work 3:3:0
Study of law enforcement as an occupation. Role of the police; relationship between the police and the community; effect of police work on the individual officer.

232 Investigation 3:3:0
Basic investigation procedures and techniques. Evidence; witnesses; informants; information sources. Current, popular and famous cases will be used as source material.

234 Law of Crimes 3:3:0
Basic principles of substantive law. Elements of common law crimes: examination of modern criminal laws with emphasis on practical applications of Texas criminal statutes and cases.
Prerequisite: CJ 1303.

331 Procedural Law 3:3:0
Texas Code of Criminal Procedure and case law governing investigative procedures, arrests, search and seizure. Legal trial rights; rules of evidence.
Prerequisite: CJ 1303.

332 Counseling 3:3:0
Basic counseling techniques for dealing with troubled individuals. Communication skills; crisis intervention.

333 Correctional counseling 3:3:0
Specialized counseling techniques for working with offenders. Criminal behavior patterns; constructive use of authority; preparation of presentence reports.
Prerequisite: CJ 332.

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.

433 Seminar in Police Problems 3:3:0
Advanced treatment of the major contemporary police problems from the viewpoint of both the administrative and line operations officer; integration of established scientific knowledge with practical police experience.
Prerequisite: 18 hours of Criminal Justice courses.

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 instructor.

435 Management and Organization in Criminal Justice 3:3:0
Principles of organizational behavior and management as applied to criminal justice organizations. Survey of managerial techniques.

436 **Probation and Parole** 3:3:0
Survey of probation, parole, and other community-based programs used in supervision of offenders. Sentencing; methods of selection and prediction.

437 **Penology** 3:3:0
survey of the structure and functions of correctional institutions. Emphasis on both jail and prison programs and problems. History of punishment and theories of corrections.

4310 **Conflict Management** 3:3:0
A study of interpersonal situations involving violence or the threat of violence. Techniques the police or correctional officer can use to control self and others; crisis intervention. Extensive use of the case studies, films, role plays and video tape.
Prerequisite: CJ 332.

4312 **Contemporary Issues in Criminal Justice** 3:3:0
Current topics in criminal justice. May be repeated for credit when the topic is varied.

4313 **Community Crime Prevention** 3:3:0
An in-depth study of alternative forms of crime control that employ community action as their primary process, and an analysis of current programs.

4314 **Legal Research and Advocacy** 3:3:0
Introduction to basic principles of legal research and brief writing. Use of a law library; introduction to oral advocacy; legal logic.

Anthropology Courses (Ant)

231 **Introduction to Anthropology** 3:3:0
A general introduction to the major subdisciplines of anthropology and their basic concepts. Throughout the course the evolutionary perspective on man is applied. Coverage is given to the physical and cultural evolution of man as well as to the ecological adaptations of contemporary small-scale or so-called "primitive" societies.

232 **Culture Areas** 3:3:0
North American Indians/Central and South American Indians/Asia/Oceania a series of area survey courses designed to introduce the student to the cultural diversity present in each area. Attention is given to cultural origins and pre-contact civilizations as well as to the impact of Western technology and colonization. The course may be repeated for credit when the designated topics are varied.

234 **Primitive Religion** 3:3:0
The comparative study of myths and belief systems of preliterate societies. Special attention will be given to the function of the myth in culture and society. The world views of the North and South American Indian and of the small scale societies of Africa, Asia and Oceania will receive most coverage in the course. Shamanism will also be discussed.

235 **Introduction to Archaeology** 3:3:0
An introduction to the method, theory and major prehistoric sequences of the old and New World.

331 **Culture and Personality** 3:3:0
Anthropological contributions to understanding the role of culture in personality development. Coverage is given to child rearing, language acquisition and normative approaches to culturally distinct personality.

332 **Ecological Anthropology** 3:3:0
Treatment of the problems of cultural adaptations of human societies to their environments. Attention is given the systemic relationship of environments, technology, economic exchange and authority in non-industrial societies.

431 **Topics in Anthropology** 3:3:0
Topics will be selected on basis of need and interest. Course may be repeated for credit, when the designated topics are varied.

Department of Military Science

Department Head: Major Wayne S. Smith ROTC Building
Assistant Professor: Captain Ingalls
Instructor: Master Sergeant Smith

ROTC Program

The Department of the Army has established a four-year Reserve Officers' Training Corp program at Lamar University. The ROTC program has as its primary objective the production 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.

The Department of Military Science course offerings consist of the basic course (100-200 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, may qualify to enroll. Students desiring to participate need only to register for basic military science course. These courses may be taken in lieu of required Health and Physical Education courses.

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, and complete the basic course or who qualify for previous military training, and are physically qualified are eligible for enrollment in the advanced course. The advanced course leading to an officer's commission in the United States Army Reserve or regular Army 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 can not 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 five and one-half 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 May 1.

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 are 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.

ROTC Scholarships: Competitive 3, 2, and 1-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 $ 100.00 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.

Students desiring additional information concerning the Army ROTC program should write to: Professor of Military Science, USA Third ROTC Region, SR Program, Lamar University Station, Box 10060, Beaumont, TX, 77710. Phone calls may be made collect to: (713) 838-8560, 8569, 8814.

Military Science Courses (MS)

121 **Learn What It Takes to Lead**
An introduction course designed to emphasize confidence building activities such as maoutaineering, rifle marksmanship, and orienteering, all of which are inherent in learning what it takes to lead.

122 **Woodland Skills/Survival**
Instruction includes basic survival skills required to survive in the wilderness. Survival techniques will include shelter construction, food preparation, first aid, water procurement, and directional finding techniques.

221 **Small Unit Operations**
Course consists of basic skills necessary for a small unit to perform in a military environment. Skills covered in the course include: Advanced mountaineering, weapons, communications, tactics and the enemy threat. Students plan and participate in a small unit operation in a field training exercise during the semester.
Prerequisite: 121 or permission of the PMS.

222 **Leadership/Leaders**
The functions of management, planning, organizing, directing, staffing, and controlling are introduced. Human behavior is examined and leadership is studied as it relates to accomplishment of objectives. Famous military leaders, to include Pershing, Patton, and Bradley, and their leadership techniques are also covered.

223 **Advanced Leadership Training**
In depth instruction on a wide range of leadership skills to include advanced mountaineering, orienteering, and small unit field operations. Physical fitness training is emphasized leading to participation in the Army physical fitness test. Students will participate in at least one orienteering meet and one overnight field training exercise per semester.
Prerequisite: MS 121, 221, and permission of PMS.

234 **Military History**
This course consists of the theory of war, and a survey of major battles and wars in history. The Punic Wars, American Civil War, World War II, Vietnam, and the present day threat to central Europe are included. Distinguished commanders and their personalities will also be studies to reflect their impact on the principles of war and the conduct of battles.

Advanced Course

Note: Prerequistie for enrollment in the advanced courses are as determined by the Professor of Military Science.

331 **Advanced Leadership Development** 3:3:1
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 garrison. Introduction to the employment of the infantry platoon through map an practical exercises.

332 **Platoon Leadership and Tactical Concepts** 3:3:1
Analysis of platoon leader's role in directing and coordinating the efforts of individuals, small units, and combined arms team in the execution of military operations. Related aspects include communications, tactics, weaponry, patrolling and map exercises designed for advance camp preparation.

333 **ROTC Advanced Camp**
Practical application of tactics; leadership training and practice; arms qualification. Six weeks during the summer at a military reservation designated by the Department of the Army (no fee).
Prerequisite: Military Science III courses and/or permission of PMS.

431 **Staff Organization and Management** 2:2:1
Methods of organization, administrative management, and personnel management are examined through conferences and practical exercises. A block of instruction emphasizes the military law system. Staff operation of the cadet corps and practical exercises in leadership are conducted during leadership laboratory.

432 **The Military Team an Its Role in World Activities** 2:2:1
The organization, capabilities, and mission of military units are examined through lectures and conferences, World changes and military implications related to the role of the Army are considered. Activie duty career planning is studied. Staff operation of the cadet corps and practical exercises are conducted during leadership laboratory.

Special Courses

U.S. Army ROTC Basic Camp
(Maximum of 8 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 prior to becoming academic juniors. In addition to free room, board, and transportation, students are paid approximately $470.00. Training includes practical exercises to enhance confidence, physical fitness an leadership qualities.
Prerequisite: Approval of the PMS.

Recondo
Develop leadership qualities of ROTC cadets through small unit tactics, self-discipline, self-confidence, and resourcesfulness. Cadets will be required to participate in one two-day training exercise during the semester.

Varsity 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 will be required to participate in one orienteering meet during the semester.

Courses in Bible and Religious Education

Instructors: Chatham, Crane, Eckstein, Gill, Mazzu, Wray

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.

132 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 3:3:0
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 3:3:0
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 3:3:0
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 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.

College of Sciences

Departments: Biology, Chemistry, Geology, Physics
Roger E. Yerick, Ph.D., Dean

The College of Sciences, formerly the School of Sciences, was established by the University in 1966 and comprises the departments of Biology, Chemistry, Geology and Physics. Prior to this reorganization, degrees had been granted in these areas by the School of Arts and Sciences, formed in 1952.

The Bachelor of Science degree is granted in biology, chemistry, geology, physics, oceanographic technology, energy resources management and environmental science. The Bachelor of Arts degree is offered in biology, chemistry and geology.

Information concerning graduate programs in biology and chemistry may be found in the Graduate Bulletin.

General Statement

Success in scientific pursuits requires an inquiring mind, thorough grounding in fundamental theory and manipulative skill. The ultimate of success is attained when these qualities are developed against a broad background of liberal education.

Through a specialized curriculum, the student prepares a career in business or industry, government service, teaching, research, advanced study and other professional fields.

Pre-professional training prepares the student for careers in medical technology, medicine, dentistry, pharmacy, physical therapy and veterinary medicine.

The pre-medical and pre-dental curricula have been programmed to satisfy requirements for admission to medical and dental schools. Students who gain admission to a medical or dental school after the completion of three years of work at Lamar University may be eligible to receive a Bachelor of Science in Biology degree after the successful completion of one year at the medical or dental school. Specific details may be obtained from either the Office of the Dean or the Department of Biology.

Academic instruction in science demands success in laboratory work. Because of the technical nature of laboratories, students are expected to display competence in following both written and oral instructions in performing their laboratory work. Failure to display this competency may result in a student being dropped from a course.

Degree Offerings

Bachelor of Arts with majors in the following fields:

- Biology
- Chemistry
- Geology

Bachelor of Science with majors in the following fields:

- Biology
- Chemistry
- Environmental Science
- Geology
- Oceanographic Technology
- Energy Resources Management
- Physics

Pre-Professional Programs

The College of Sciences administers pre-professional programs for students planning careers in medicine, dentistry, pharmacy, physical therapy, occupational therapy, physician's assistant and veterinary medicine.

The programs in physical therapy, occupational therapy and physician's assistant are administered by the Department of Biology and the specific programs of study are listed in that department.

The pre-medical, pre-dental, pre-veterinary medicine and pre-pharmacy programs are administered by the Office of the Dean of the College of Sciences and students should consult this office for academic advisement.

Students intending to pursue careers in medicine or dentistry are encouraged to major in any academic area of their choice; all fields of academic endeavor in the University are open.

The Dean of the College of Sciences is the chairman of the Pre-professional Advisory Committee for the Health Professions. Students in these areas should plan their academic and professional programs through that office.

Recommended Program of Study Pre-medical and Pre-dental

The first two years of study, as listed below, are designed to equip students with the minimum background in the biological and physical sciences needed for the Medical College Admissions Test (MCAT) or the Dental Admissions Test (DAT).

The third and fourth years of the pre-medical and pre-dental program are planned around the student's desired major. Additional courses in biology and chemistry are recommended in all cases. Applicants to these professional schools are generally considered more competitive by the respective admissions committees if they completed requirements for a baccalaureate degree prior to beginning the medical or dental curriculum.

First Year	
Eng Composition	6
Bio 141, 142 General	8
Chm 141, 142 General	8
*Mth	6
Phy 141-142	8
PE/MLb 124**/ROTC	2-4
	38-40

Second Year	
Eng Literature	6
Bio 240 Comp Anatomy	4
Bio 243, 244 Microbiology	8
Chm 341, 342 Organic	6
His 231-232	6
Elective	3
PE/MLb 124**/ROTC	2-4
	37-39

**Dental schools have no specific mathematics requirement. Medical schools require credit for Calculus I (Mth 236 or equivalent).*
***Offered Fall semester only.*

Veterinary Medicine

The following fulfills the minimum requirement for admission to study veterinary medicine in Texas.

First Year	
Eng Composition	6
Bio 141, 142 General	8
Chm 141, 142 General	8
Soph Am His	6
Mth 1335 Precalculus	3
Mth 236 Calculus I	3
	34

Second Year	
Eng Literature	3
Bio 347 Genetics	4
Chm 341, 342 Organic	8
Gov 231-232	6
Phy 141-142 General	8
	29

Additionally, six semester hours of Animal Science (including animal nutrition) and submission of scores on the Veterinary Aptitude Test (VAT) are required for entrance into the professional curriculum in veterinary medicine.

Pharmacy

Professional training in pharmacy is offered at three institutions in Texas. All require a minimum of two years pre-pharmacy training followed by three years in a College of Pharmacy.

Minimum entrance requirements differ for the several institutions, and students are cautioned to work closely and carefully with the pharmacy advisor in planning their careers. Exceptions to the minimum entrance requirements are seldom granted by the respective Colleges of Pharmacy.

All Colleges of Pharmacy in Texas require submission of test scores on the Pharmacy College Admission Test (PCAT).

Pre-pharmacy training for entrance into the College of Pharmacy, University of Houston:

First Year

Bio 141, 142 General	8
Chm 141, 142 General	8
Eng Composition	6
Mth 1335 Precalculus	3
PE Activity	2-4
*Electives	3
	30-32

Second Year

Bio 245 Microbiology	4
Chm 341, 342 Organic	8
Phy 141, 142 General	8
Eco 233 Principles and Policies	3
Eng Literature	6
*Electives	3
	32

Summer

His 231, 232 American	6
Gov 231, 232 American	6
	12

**Chosen from Ant, Hum, Psy or Soc.*

Pre-pharmacy training for entrance into the College of Pharmacy, the University of Texas: (Students applying to the University of Texas must be prepared to accept assignment to either the Austin or San Antonio campus for their last year of professional pharmacy training.)

First Year

Bio 141, 142 General	8
Chm 141, 142 General	8
Eco 233 Principles	3
Eng Composition	6
Mth 1335 Precalculus	3
Mth 236 Calculus	3
	31

Second Year

Bio 245 Microbiology	4
Bio 344 Advanced Physiology	4
Chm 341, 342 Organic	8
Phy 141, 142 General	8
Spc 331 Bus and Prof	3
**Electives	6
	33

Summer

His 231, 232 American	6
Gov 231, 232 American	6
	12

***Chosen from Hum, Psy, Soc or Ant*

Pre-pharmacy training for entrance into the College of Pharmacy, Texas Southern University, Houston:

First Year

Bio 141, 142 General	8
Chm 141, 142 General	8
Eng Composition	6
Mth 1334 Algebra	3
Mth 1335 Precalculus	3
PE Activity	3
	31

Second Year

Bio 245 Microbiology	4
Chm 341, 342 Organic	8
Phy 141, 142 General	8
Eng Literature	6
Eco 233 Principles	3
Hum Fine Arts Apprec	3
	32

Summer

His 231, 232 American	6
Gov 231, 232 American	6
	12

Cooperative Education Program

A Cooperative (COOP) Education Program in which the student spends alternate terms at work and at study, is offered to qualified students in the College of Sciences through the Departments of Biology, Chemistry, Geology 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.

Department of Biology

Department Head: Michael E. Warren — **101 Hayes Building**
Professors: Harrel, McGraw, Ramsey, Smith, Turco, Waddell, Warren
Associate Professors: Fitzgerald, Malnassy
Assistant Professors: Bechler, Bryan, Hunt, Runnels

Recommended Program of Study
Bachelor of Science—Biology Major

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
Electives	4
PE/MLb 124***/ROTC 2 sem	2 or 4
	34-36

Second Year

Eng Literature	6
Chm 341, 342 Organic	8
Phy 141, 142 General	8
**Bio selected from core	12
PE/MLb 124***/ROTC 2 sem	2 or 4
	34-36

Third Year

Gov 231-232	6
Electives	8
Mth 234 Statistics	3
**Bio selected from core	8
Bio Elective	8
Chem 441* or Bio 4302	3 or 4
	36-37

Fourth Year

Bio 416, 417 Bio Lit	2
Bio Electives	8
Electives	18
Soph Am His	6
	34

**Chm 241 required*

***The following courses must be included in the Biology Core: Bio 245 or 243, Microbiology; Bio 346, Inverthrate Zoology; Bio 345, Botany; Bio 240 or 444, Comparative Anatomy or Verthrate Natural History; Bio 347, Genetics.*

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

Bachelor of Arts—Biology

The recommended program of study for the BA in Biology is the same as the BS in Biology, see above, except that electives must include credit for the course numbered 232 in a foreign language. The program, as outlined, results in a minor in chemistry.

*Bachelor of Science in Psychology
*Bachelor of Science in Biology

First Year

Bio 141, 142 General	8
Chm 141, 142 General	8
Eng Composition	6
Mth 1355 Precalculus	3
Psy 131 Intro to Psy	3
Psy 241 Intro to Stat Meth	4
PE Activity	2-4
	34-36

Second Year

Chm 341, 342 Organic	8
Bio 240 Comparative Anatomy	4
Bio 342 Embryology	4
Psy 242 Methods	4
Eng Soph Literature	6
Mth 236 Calculus I	3
Mth 237 Calculus II	3
Psy Electives	3
	35

Summer

Soph Am Gov	6
PE Activity	2-4
Electives	6
	14-16

Third Year

Soph Am His	6
Phy 141, 142 General	8
Bio 347 Genetics	4
Psy 344 Adv Physiology	4
Psy 343 Experimental Psy	4
Psy Electives Adv 6 hrs	9
	35

Fourth Year

Bio 444 Vert Natural History	4
Bio 416 Bio Literature	1
Bio 446 Ecology	4
Bio 447 Cellular	4
Bio Electives	8
Psy Elective Adv	3
Electives	13
	37

*Both degrees must be awarded simultaneously.

†Bachelor of Biology
†Bachelor of Science in 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	2-4
Electives	6
	36-38

Second Year

Chm 341-342 Organic	8
Mth 237 Calculus	3
Eng Literature	6
Phy 141-142 General	8
Chm 241 Quantitative	4
Gov 231-232	6
PE/MLb 124**/ROTC	2-4
	37-39

Summer

Phy 335 Modern	3
Bio 243	4
Bio Elective	4
Electives	3
	14

Third Year

Bio selected from core***	16
Soph Am His	4
Chem 413 Physical Lab	1
Chm 333 Inorganic	3
Chm 431 Physical	3
Electives	6
	33

Fourth Year

Bio 416 or 417 Bio Lit	1
Bio Electives	8
Chm 441 Biochem	4
Chm Electives* min	8
Electives	11
	32

†*Both degrees must be awarded simultaneously.*
Biology electives to be chosen from Bio 244, 341, 342, 344, 447.
**Chemistry electives to be selected from Chm 414, 426, 432, 435, 436, 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.*
****The following courses must be included in the Biology Core: Bio 245 or 243, 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

First Year

Eng 131	3
Eng Composition	3
Bio 141, 142 General	8
Chm 141, 142 General	8
Mth 1334 Algebra	3
Mth 1335 Precalculus	3
Electives	4
PE/MLb 124***/ROTC 2 sem	2 or 4
	34-36

Second Year

Eng Literature	6
Bio 243-244 Microbiology	8
Chm 341-342 Organic	8
Phy 141-142 General	8
PE/MLb 124*/ROTC	2 or 4
	32-34

Third Year

Bio 344 Adv Physiology	4
Bio 340 Diagnostic Microbiology	4
Chm 241 Quantitative	4
Soph Am His	6
Bio 441 Parasitology	4
Electives Approved	8
Gov 231-232	6
	36

**Offered Fall Semester only. If MLb 124 option is desired it should be added to third and fourth year as four semesters are required.*
***Suggested Electives: Statistics, Genetics, Psychology, Epidemiology, Computer Science, in order of preference.*

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 approved for teaching by the Council on Medical Education and Hospitals of the AMA. After satisfactorily completing this training, the student is awarded the degree of Bachelor of Science Medical Technology.

The Program shown will fulfill Registry requirements.

Physical Therapy

First Year

Eng 131	3
Eng Composition	3
Bio 141-142 General	8
Chm 141-142 General	8
Mth 1335 Precalc	3
Psy 131 Introduction	3
Electives*	6
	34

Second Year

Physics 141-142	8
Sociology 131	3
Speech	3
Bio 344 Adv Physiology	4
Psy 241 Statistics	4
His 231-232	6
Gov 231-232	6
	34

Third Year

Bio 240 Comparative	4
Eng Literature	3
Psy 234 Child	3
Psy 337 Adjustment	3
Psy 432 Abnormal	3
Electives minimum*	10
	26

**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 Galveston. 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 one year 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.

Occupational Therapy

First Year

Eng 131	3
Eng Composition	3
Bio 141-142 General	8
Chm 141-142 General	8
Psy 131	3
Mth 1334	3
Psychology*	3
	31

Second Year

Eng Lit	6
His 231-232 United States	6
Gov 231-232	6
Soc	6
Electives	6
	30

Plus two years clinical affiliation

**Child Psychology not recommended.*

Physician's Assistant

First year same as first year Physical Therapy.
Second year same as second year Occupational Therapy.
Plus two years clinical affiliation

Note: Lamar University provides only the pre-clinical years for the above three programs, changes program requirements are under the control of the schools offering the clinical programs. For detailed course requirements contact the faculty advisor in Hayes 101.

Bachelor of Science—Oceanographic Technology
Marine Biology Option

First Year

Bio 141-142 General	8
Chm 141-142 General	8
Mth 1335 Pre-Calculus	3
Mth 236 Calculus I	3
Eng Composition	6
PE Activity	2-4
	30-32

Second Year

Geo 141-142 Phys, His	8
Phy 141-142 General	8
Mth 237 Calc II	3
His Soph Am His	3
Statistics	3
Eng Literature	6
PE 227-228 Swim, Life	4
	35

Third Year

Geo 344 General Ocean	4
Bio 346 Invert Zool	4
Bio 444 Vert Nat His	4
Bio 445 Marine Bio	4
Bio 449 Protistology	4
Chm 341-342 Organic	8
His Soph Am His	3
Elective	3
	34

Fourth Year

Geo 4370 Meteorology	3
Geo 417 Ocean Seminar	1
Geo 430 Phys Ocean	3
Bio 417 Bio Lit	1
Bio 243 Microbio	4
Bio 446 Ecology	4
Bio 443 Limnology	4
Gov 231	3
Gov 232	3
EE 438 Instrumentation	3
Elective	3
	32

Third or Fourth Summer

Geo 361 Field Course	6

Minimum Total 137

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 I	3
Eng Composition	6
PE Activity	2-4
	30-32

Second Year

Geo 241-242 Min, Opt Min	8
Bio 141-142 General	8
Mth 237 Calculus II	3
Egr 2331 Computation	3
Egr 114 Graphics	1
Eng Literature	6
PE 227-228 Swim, Life	4
	33

Third Year

Geo 4370 Petrology	4
Geo 4370 Meteorology	3
Geo 341 Stat, Data Proc	4
Geo 342 Structural Geo	4
Geo 344 General Ocean	4
Geo 419 Seminar	1
Phy 141-142 General	8
CE 339 Soils Sci	3
or	
Geo 346 Sed Stat	4
Bio 443 Limnology	4
	35-36

Fourth Year

Geo 430 Phys Ocean	3
Geo 433 Geophysics	3
*Geo Sr Geology Course	3
Geo 417 Ocean Seminar	1
Bio 445 Marine Bio	4
Gov 231	3
Gov 232	3
His Soph Am His	6
Electives	6
	32

Third or Fourth Summer

Geo 361 Field Course	6

Minimum Total 136

**A Senior course selected from the sequence Geo 431 thru Geo 438.*

Bachelor of Science—Oceanographic Technology
Ocean Engineering Option

First Year

Geo 141-142 Phys, Hist	8
Chm 141-142 General	8
Mth 148-149 Anal I & II	8
Eng Composition	6
PE Activity	6
	32

Second Year

Phy 141-142	8
Mth 241 Analysis III	4
Egr 2331 Computation	3
Egr 114 Graphics	1
Egr 230 Statics	3
CE 211 Measurements	1
CE 212 Rt Surveying	1
ME 231 Dynamics	3
Eng Literature	6
PE 227-228 Swim, Life	4
	34

Third Year

CE 331 Environ Sci	3
CE 339 Soils Sci	3
IE 333 Egr Economics	3
Geo 344 General Ocean	4
CE 232 Mech of Solids	3
Egr 233 Circuits & Flds	3
Egr 234 Thermodynamics	3
Geo 342 Struc Geo	4
His Soph Am His	6
	32

Fourth Year

Geo 4370 Meterology	3
Geo 417 Ocean Seminar	1
Geo 430 Physical Ocean	3
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
Gov 231	3
Gov 232	3
Elective	6
	33

Third or Fourth Summer

Geo 361 Field Course	6

Minimum Total 137

Bachelor of Science—Oceanographic Technology
Cooperative Education Plan

Note: In order to pursue this plan the student must be recommended by the Department and by Lamar's Director of Cooperative Education.

First Year

Geo 141 Physical	4
Phy 140 Intro Mech	4
Bio 141-142 General	8
Mth 148-149 Analysis I, II	8
Eng Composition	6
HPE Activity	2-4
	32-34

Second and Third Years
(Semesters and summers spent alternately on campus and on job training.)

Geo 142 Historical	4
Geo 231-232 Job Trng	6
Geo 233-234 Job Trng	6
Geo 4370 Meteorology	3
Geo 341 Stat, Data Proc	4
Geo 344 Ocean	4
Chm 141-142 General	8
Phy 141-142 General	8
Mth 241 Analysis III	4
Egr 133 Comput I	3
Egr 230 Statics	3
Egr 233 Circuits Flds	3
ME 231 Dynamics	3
CE 331 Environ Sci	3
CE 335 Hydraulics	3
Eng Literature	6
His Soph Am His	6
PE 227-228 Swim, Life	4
	81

Fourth Summer

Geo 361 Field Course	6

Fourth Year

Geo 417 Ocean Seminar	1
Geo 430 Phys Ocean	3
Bio 445 Marine Bio	4
Psy 131 Intro	3
Psy 330 Commun Psy	3
EE 438 Instrumentation	3
Gov 231	3
Gov 232	3
Eco 231 Principles	3
Electives	6
	31

Minimum Total 150

Cooperative Education Coop Program

A Cooperative (Coop) Education Program in which the student spends alternate terms at work and at study, is offered to qualified students in the Department of Biology. To meet the minimum qualifications for the Coop program, a student must have:

1. Completed all the work in the Biology Program for the first year.
2. An over-all grade-point average of 2.5 using all grades earned.

To remain in the program, the student must maintain a grade point average equal to or above the minimum qualification level and perform in a manner satisfactory to both her/his employer and to Lamar.

The period during which a student may participate in the Coop program extends through the regular sophomore and junior years. Coop privileges are not extended to freshman or senior students. By participating in the Coop program throughout eligibility, a student extends the time required to obtain a degree to five years; but in doing so, gains the equivalent of almost two years experience in industry.

A student may apply for admission to the Coop program through the Department Head, Department of Biology.

Biology Courses (Bio)

1400 Introductory Biology 4:3:2
Appropriate topics in biology for human-oriented non-science majors.

1401 Introductory Biology 4:3:2
A continuation of Bio 1400.

141 General Biology 4:3:2
A survey of organisms, molecules, cells, tissues, photosynthesis, genetics and evolution.

142 General Biology 4:3:2
Structure and function, development, reproduction and ecology.

143 Human Anatomy and Physiology 4:3:2
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 systems.
Prerequisite: Bio 133.

236 **Career Development** 3:3:0
Conprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of department head.

237 **Career Development II** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Bio 236.

240 **Comparative Anatomy of the Vertebrates** 4:3:4
Comparative anatomy presented from systemic viewpoint. Two 2-hour labs per week.
Prerequisite: Bio 141-142.

243 **Microbiology** 4:3:3
Classification, morphology, reproduction and physiology of microorganisms.
Prerequisite: Bio 141-142.

244 **Disease and Immunity** 4:3:3
Antigen-antibody responses and life cycles of disease-causing microorganisms.
Prerequisite: Bio 243.

245 **Introductory Microbiology** 4:3:2
Micro-organisms with emphasis on those of medical significance and problems of personal and community health.

330 **Applied Anatomy and Kinesiology** 3:3:0
Organization and mechanics of the human body and analysis of human motion, skeletal system, attachments and actions of muscles. Does not count toward biology major.
Prerequisite: Bio 141-142.

332 **Anatomy and Physiology of Speech and Hearing** 3:3:0
Human structure, function, respiration and hearing, for majors in speech and hearing pathology. Does not count toward biology major.
Prerequisite: Bio 141-142.

336 **Career Development III** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Bio 237.

337 **Career Development IV** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Bio 336.

339 **Biology and Psychology of Sexuality** 3:3:0
Understanding of human sexuality through the progressive study of conception and birth, through the development of sex roles, to the acquisition of sexual maturity and functioning in society. Credit may not be received for both Bio 339 and Psy 339.

340 **Diagnostic Microbiology** 4:2:6
Public health diagnostic procedures, epidemiology, control and treatment of human bacterial diseases.
Prerequisite: Bio 243-244; Chm 342 or concurrent enrollment.

341 **Histology** 4:3:3
Study of normal tissues of vertebrates including human tissue.
Prerequisite: Bio 141-142 and 240 or 243-244.

342 **Embryology** 4:3:3
Comparative study of meiosis, fertilization, cleavage and early embryology as it relates to human development of vertebrates.
Prerequisite: Bio 141-142, 240.

343 **Introduction to Medical Technology** 4:3:3
Procedures used in clinical laboratories; practice in hematology, serology and urinalysis.
Prerequisite: Bio 141-142, 243-244.

344 **Advanced Physiology** 4:3:3
General physiology, muscle-nerve relations, digestive, circulatory, respiratory, excretory, nervous and endocrine systems.
Prerequisite: Bio 141-142. Recommended: Chm 341-342.

345 **General Botany** 4:3:3
Introduction to plant structure and functions with emphasis on the seed plants.
Prerequisite: Bio 141-142.

346 **Invertebrate Zoology** 4:3:3
Classification, natural history, phylogenetic relationships and economic importance of the invertebrate phyla.
Prerequisite: Bio 141-142.

347 Genetics 4:3:3
General principles of heredity, including human inheritance.
Prerequisite: Bio 141-142.

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.

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 1:1:0
A survey of major written works in biology.
Prerequisite: Senior standing in biology.

417 Current Biological Literature 1:1:0
A survey of modern biological works published in recent journals.
Prerequisite: Senior standing in biology.

430 Undergraduate Problems 3:0:6
Individual investigation of a problem in biology. Formal report of research to be approved by two faculty members.
Prerequisite: Permission of instructor.

4302 Cellular Physiology 3:3:0
Basic processes in physiology, metabolism, transport, energetics, molecular and cellular mechanisms.
Prerequisite: Junior standing, credit for organic chemistry.

4303 Principles of Electron Microscopy 3:3:0
Principles of operation, adjustment and elementary maintenance of the electron microscopy. Preparation of specimens, sectioning and grid preparation.

4304 Electron Microscope Techniques 3:1:6
Practical experience in application of electron microscopy procedures from living tissue to finished photographic plate.
Prerequisite: Bio 4303 and consent of instructor.Supplementary lab fee.

436 Career Development V 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Bio 337.

440 Ornithology 4:3:3
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.

441 Parasitology 4:3:3
A study of the morphology, life history and host-parasite relationships of parasites of man and other vertebrates.
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.
Prerequisite: Bio 141-142.

445 Marine Biology 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 341, Chm 341-342.

449 Protistology 4:3:3
Morphology, taxonomy and ecology of protozoa, algae and fungi.
Prerequisite: Bio 141-142.

460 **Field Biology** 6:A:0
Environmental relationships and natural history of plants, invertebrates and vertebrates. Extensive field trips for study and collection of organisms in their natural habitat.
Prerequisite: Bio 345, 20 hours credit in biology and consent of instructor.Summers only.

Department of Chemistry

Department Head: Keith C. Hansen 217 Chemistry Building
Director of Environmental Science: Ewin A. Eads
Professors: Baker, Cameron, Eads, Hansen, Yerick
Associate Professors: Dorris, Harmon, Mejia, Ortego, Whittle
Assistant Professor: Akers
Adjunct Instructor: Seymour
Laboratory Manager: Grayson

The Department of Chemistry has been approved by the Committee on Professional Training of the American Chemical Society to offer ACS approved degrees.

Recommended Programs of Study
Bachelor of Science —Chemistry Major*

First Year

Chm 141, 142 General	8
Bio/Geo 141, 142 General	8
Mth 148, 149 Calc An Geo I, II	8
Eng Composition	6
HPE/MLb**/ROTC	2-4
	32-34

Second Year

Chm 241 Quantitative	4
Chm 333 Inorganic	3
Phy 140 Mechanics	4
Phy 241 Heat, Elec, Mag	4
Eng Literature****	6
Ger 131, 132 Elementary	6
Mth 241 Calc An Geo III	4
HPE/MLb**/ROTC	2-4
	33-35

Third Year

Chm 341, 342 Organic	8
Chm 431, 432 Physical	6
Chm 413, 414 Physical Lab	2
Phy 222 Vibr, Sound, Light	2
Phy 212 Lab, Vibr and Waves	1
CS 131, 132 Intro	6
His 231, 232 Amer. His	6
	31

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
CS 439 Problem Solving	3
Gov 231, 232 Amer Gov	6
Electives (outside of major)	6
	34

Minimum 126 semester hours + HPE/MLb/ROTC

**American Chemical Society approved degree plan.*
***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, 435, 437, 438, 441, 442.*
*****Eng 4335, Report Writing may be substituted for 3 hours literature.*

Bachelor of Science—Chemistry (Biochemistry Option)*

First Year

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

Second Year

Chm 241 Quantitative	4
Chm 333 Inorganic	3
Bio 243, 244 Microbio	8
Gov 231, 232 Amer Gov	6
Phy 141, 142	
or	
Phy 140, 241	8
Eng Literature	3
HPE/MLb**/ROTC	2-4
	34-36

Third Year

Chm 341, 342 Organic	8
Chm 431, 432 Physical	6
Chm 413, 414 Physical Lab	2
Bio 341 Histology	4
Phy 335	
or	
Phy 222, 212	3
His 231, 232 Amer. His	6
Chm/Bio Electives	3-4
	32-33

Fourth Year

Chm 441, 442 Biochem	8
Chm 446 Instrumental	4
Chm 436 Inorganic	3
Chm 412 Sr. Seminar	1
Eng Literature	
or	
Eng 4335 Report Writing	3
Bio/Chm Electives***	7
Electives	6
	32

Minimum 124 hours + HPE/MLb ROTC

**American Chemical Society approved degree plan.*
***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 433, Chm 435, Chm 437, Chm 438, Chm 444, Bio 342, Bio 344, Bio 347, Bio 441 and Bio 447.*

Bachelor of Arts—Chemistry Major

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

Second Year

Chm 241 Quantitative	4
Chm 333 Inorganic	3
Phy 140 Mech	4
Phy 241 Heat, Elec, Mag	4
Fre 131, 132 Elementary	6
Soph Am His	6
Eng Literature	6
HPE/MLb*/ROTC	2-4
	35-37

Third Year

Chm 341, 342 Organic	8
Phy 222, 212	3
Fre 231, 232 Reading	6
Gov 231, 232 Amer Gov	6
CS 133 Fortran	3
Minor/Electives	6
	32

Fourth Year

Chm 431, 432 Physical	6
Chm 413, 414 Physical Lab	2
Chm 411 Literature	1
Chm 412 Seminar	1
Minor/Electives	20
	30

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

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	2-4
Electives	6
	36-38

Second Year

Chm 341-342 Organic	8
Mth 237 Calculus	3
Eng Literature	6
Phy 141-142 General	8
Chm 241 Quantitative	4
Gov 231-232	6
PE/MLb 124**/ROTC	2-4
	37-39

Summer

Phy 335 Modern	3
Bio 243	4
Bio 244	4
Electives	3
	14

Third Year

Bio 240 Comparative	4
Bio 344 Adv Physiology	4
Bio 342 Histology	4
Bio 343 Embryology	4
Soph Am His	6
Chm 413 Physical Lab	1
Chm 333 Inorganic	3
Chm 431 Physical	3
Electives	6
	35

Fourth Year

Bio 416 or 417 Bio Lit	1
Bio 447 Cellular	4
Bio 347 Genetics	4
Chm 441 Biochem	4
Chm Electives* min	8
Electives	11
	32

†*Both degrees must be awarded simultaneously.*
**Chm electives to be selected from Chm 414, 426, 432, 435, 442, 444, 446. The degree will be ASC accredited if Chm 432 and 414, Chm 446 or Chm 426, and Chm 444 or 435 are elected.*
***Offered Fall Semester only. If MLb 124 option is desired it should be added to third and fourth year as four semesters are required.*

Bachelor of Science—Environmental Science

Interdisciplinary program in Chemistry, Biology and Civil Engineering.

First Year

Bio 141, 142 General	8
Chm 141, 142 General	8
Eng Composition	6
Mth 1335 Precalculus	3
Mth 236 Calculus I	3
Elective	3
HPE/MLb*/ROTC	2-4
	33-35

Second Year

Bio 243, 244 Microbio	8
Chm 241 Quantitative	4
Chm 334 Air Anal	3
Eng Literature	6
Mth 237 Calculus II	3
Phy 141, 142 General	8
HPE/MLb*/ROTC	2-4
	34-36

Third Year

Bio 446 Ecology	4
Chm 341, 342 Organic	8
Chm 434 Air Pollu Surv	3
CE 331 Envir Sci	3
Eng 4335 Report Writing	3
HED 434 Hlth/Human Eco	3
HED 437 Hlth/Epid	3
Chm 333 Inorganic	3
Gov 231 Amer Gov I	3
	33

Minimum 127 semester hours + HPE/MLb/ROTC

Fourth Year

Bio 443 Limnology	4
Chm 410 Sem Envi Sci	1
Chm 438 Radiochem	3
Chm Electives**	6-8
His 231, 232 Amer His	6
Gov 232 Amer Gov II	3
Bio Electives	8
	31-33

**Offered Fall Semester only. If MLb option is desired it should be added to third and fourth year as four semesters are required.*
***Selected with approval of department.*

Cooperative Education Program

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

Chemistry Courses (Chm)

130 Introductory Environmental Science 3:3:0
Fundamental concepts of environmental systems as related to urban affairs and man's environment. Air, water and soil pollution with control methods related to the modern technological society.

141 General 4:3:3
General practices, problems, fundamental laws and theories.
Prerequisite: High school chemistry or permission of department head.

142 General 4:3:3
A continuation of Chm 141. Properties of the elements. Elementary qualitative analysis and theories of solutions and 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 physiological chemistry.
Prerequisite: Chm 143 or 141.

236 **Career Development I** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of department head.

237 **Career Development II** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of department head.

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** 3:3:0
Generalization involving atomic and nuclear theory; properties of the elements with emphasis on periodicity; non-aqueous solvents, acids, bases, oxidation-reduction, etc.
Prerequisite: Chm 142.

334 **Air Analysis** 3:3:3
Theory and practice of chemistry as required in determination of ambient air quality.
Prerequisite: Chm 241, Mth 236.

336 **Career Development III** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of department head.

337 **Career Development IV** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of department head.

341 **Organic** 4:3:4
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 with grade of C or better.

342 **Organic** 4:3:4
A continuation of Chm 341.
Prerequisite: Chm 341.

410 **Seminar in Environmental Science** 1:1:0
Reports and assigned reading.
Prerequisite: senior standing in Environmental Science.

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** 1:0:4
Continuation of Chm 413.
Prerequisite: Chm 241 and Chm 432 or parallel.

426 **Instrumental Analysis** 2:1:4
Modern instrumental techniques in chemistry for non-chemistry majors. Theory and practice in optical, electrometric, chromatographic and spectrometric methods.
Prerequisite: Chm 241, 431 or equivalent, Mth 149 or 237, Phy 142 or 241. Credit not given for both Chm 426 and Chm 446.

430 **Organic Polymers** 3:3:0
Chemistry of industrial polymerization of organic compounds, petro-chemistry of organic monomer preparation and chemical characteristics of organic polymers. Industrial field trip(s).
Prerequisite: Chm 241, 333 and 342.

431 **Physical** 3:3:0
Modern chemical theory as applied to gases, liquids, solids and solutions.
Prerequisite: Chm 142, Phy 142 or 241, Mth 241 or 237 or parallel.

432 Physical 3:3:0
A continuation of Chm 431.
Prerequisite: Chm 431 or equivalent.

433 Modern Physical 3:3:0
Selected topics in modern physical chemistry.
Prerequisite: Chm 432 or parallel.

434 Air Pollution Surveys 3:3:3
Chemical, physical, meterological, biological, bacteriological and epidemiological factors as applied to determine the extent of environmental damage from air pollution.
Prerequisite: Chm 334 and senior standing.

435 Chemical Preparations 3:1:6
Theory and practice of chemical synthesis techniques.
Prerequisite: Chm 241, 333 and 342.

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 432.

438 Radiochemistry 3:2:3
Basic concepts of nuclear science. Principles and use of radiation measuring devices.
Prerequisite: Chm 241, Chm 333, Chm 431.

441 Biochemistry I 4:3:4
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 241 and Chm 342.

442 Biochemistry II 4:3:4
A detailed survey of metabolic pathways and processes.
Prerequisite: Chm 441.

444 Qualitative Organic Analysis 4:2:8
A study of systematic methods for the identification of organic compounds and mixtures of organic compounds.
Prerequisite: Chm 241 and 342.

446 Instrumental Chemical Analysis 4:3:4
Instrumental techniques of chemistry. Theory and practice in optical, electrometric and chomatographic methods.
Prerequisite: Chm 241, 342 or parallel, 431, Mth 149 or 237, Phy 142 or 241. Credit is not given for both Chm 426 and Chm 446.

427,437,447 Introduction to Research 2-4:A:0
Problems are on the undergraduate level and emphasize research techniques. With approval of the department head, these courses may be repeated for credit.
Prerequisite: B average in at least 12 semester hours of previous chemistry courses.

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 Geology

Department Head: H.E. Eveland — **214 Geology Building**

Professors: Aronow, Eveland, Matthews, Pampe, Tennissen

Associate Professor: Stevens

Assistant Professor: Davis, Rettke

Recommended Programs of Study
Bachelor of Science—Geology Major

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
	31

Second Year

Geo 241 Mineralogy	4
Geo 243 Optical Min	4
Mth 149 Analyt Calculus II	3
Egr 1121, 1221 BASIC, FORTRAN	3
Eng Literature	3
Spc 331 or OAS 335 or Eng 4326	3
Gov 231, 232	6
PE Activity	4
	31

Third Year

Geo 341 Stat-Data Proc 4
Geo 342 Structural Geo 4
Geo 345 Petrology 4
Geo 346 Sed Strat 4
Phy 141-142 General 8
**Elective 6

30

Fourth Year

Geo 419 Seminar 1
Geo 433 Geophysics 3
Geo 434 Geol U.S. or Geo 439 3
Geo 435 Geomorphology 3
Geo 437 Econ Min Depsts or Geo 438 3
Geo 442 Strat Paleo 4
His Soph Am His 6
**Electives 9

32

Third or Fourth Summer

Geo 360 Field Camp 6

Minimum Total 130

Those planning to specialize in Geophysics should substitute the sequence Phy 140, 241, 242.
***At least 6 semester hours of electives must be other than Geology courses.*

Bachelor of Arts—Geology Major

First Year

Geo 141-142 Phys, Hist 8
Chm 143 Introductory 4
Bio 141 General 4
Mth 1335 Pre-Calculus 3
Phy 137 Astronomy 3
Eng Composition 6
PE Activity 2-4

30-32

Second Year

Geo 241-243 Min, Opt. Min 8
Egr 1121,1221 BASIC, FORTRAN 3
Foreign Language 131-132 6
Gov 231 3
Gov 232 3
Eng Literature 6
PE Activity 2-4

31-33

Third Year

Geo 341 Stat-Dat Proc 4
Geo 342 Structural Geo 4
Geo 345 Petrology 4
Geo 419 Seminar 1
Foreign Language 231-232 6
His Soph Am His 6
****Electives 6

31

Fourth Year

*Geo 3 Sr. Geo Courses 9
Geo 419 Seminar 1
**Advanced Science 3-4
***Advanced Arts 6
****Electives 12

31-32

Minimum Total 123

Three Senior courses selected from the sequence Geo 431 thru Geo 438.
***A junior or senior course selected from Bio, Chm, Phy, Mth or Egr.*
****Two junior or senior courses selected from Eng, Soc, Gov, His, Phl, Ant, Eco, Spc or Art.*
*****At least 6 semester hours of electives must be other than Geology courses.*

Bachelor of Science—Energy Resources Management

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 2-4

31

Second Year

Geo 241-243 Mineralogy 8
Phy 141 General 4
CS 133 Intro Comput 3
BA 230 FORTRAN 3
Acc 231 Principles 3
Eco 131-132 Principles 6
Eng Literature 3
PE Activity 2-4

34

Third Year

Geo 345 Petrology 3
Geo 342 Structural Geo 1
Geo 437 Econ Min. Deposits 3
Acc 232 Principles 3
BAC 331, 332 Bus. Analy 6
BLW 331 Bus. Law 3
Eco 335 Intern'l Trade 3
Gov 231 Intro Am Gov 3
Spc 331 or OAS 335 3
****Elective 3

35

Fourth Year

Geo 438 Geophysics 3
Geo 438 Fossil Fuels 3
Che 4301 Petroleum Egr 3
Mgt 331 Management 3
BLW 434 Adv. Legal Princ 3
BLW 438 Petroleum Law 3
Eco 332 or 434 3
Gov 232 Intro Am Govt II 3
His 231, 232 Am Hist 6
****Electives 6

36

Minimum Total 136

*****At least 6 semester hours of electives must be other than Geology courses.*

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 Geology. Details may be obtained from the department head.

Geology Courses (Geo)

141 Physical Geology 4:3:2
Earth materials, structures, land forms, mineral resources and the processes which formed them.

142 Historical Geology 4:3:2
History of the earth and its life.
Prerequisite: Geo 141.

220 Geology for Engineers 2:2:2
A survey of physical geology for engineering students. A student may not receive credit for both Geo 220 and Geo 141.

231 Career Development I 3:A:0
Work-learn training. Registration by special permission only.

232 Career Development II 3:A:0
Work-learn training. Registration by special permission only.

237 Physical Geography 3:3:0
The fundamental concepts of local, regional and global geography.
Prerequisite: Sophomore standing.

238 Cultural Geography 3:3:0
History and distribution of cultural groups with emphasis upon the interaction between geographic environment and human cultures.

239 History of Life 3:3:0
History of the earth and its life forms. Includes the study of geologic time, fossils and prehistoric man. A student may not receive credit for both Geo 239 and Geo 142.

241 Mineralogy 4:3:3
The classification, properties, occurrence and identification of minerals. Field trip required.
Prerequisite: Geo 141 and Chm 141 or 143.

243 Optical Mineralogy 4:3:3
Optical properties of minerals. Use of the polarizing microscope in the identification of minerals.
Prerequisite: Geo 241.

331 Career Development III 3:A:0
Work-learn training. Registration by special permission only.

332 Career Development IV 3:A:0
Work-learn training. Registration by special permission only.

336 Geology of Texas 3:3:0
The topography, physiography, structure, geologic history and mineral deposits of Texas. Field trip required.
Prerequisite: Geo 142 or Geo 239.

339 Environmental Geography 3:3:0
The environmental significance of man's development of his atmospheric, aquatic and mineral resources. Field trips required.
Prerequisite: Geo 141 or 237.

341 Statistics and Data Processing 4:3:3
The application of digital computer and statistical techniques to the analysis of earth science data.
Prerequisite: Egr 1221.

342 Structural Geology 4:3:3
Rock deformation and the resulting structures. Field trip required.
Prerequisite: Geo 142, Mth 236.

343 Paleontology 4:3:3
The classification, morphology and identification of invertebrate fossils. Field trips required.
Prerequisite: Geo 142 or 239.

344 General Oceanography 4:3:3
Principles of oceanography. Geological, chemical, physical and biological environments of the ocean.
Prerequisite: Geo 141, Chm 141 or 143.

345 Petrology 4:3:3
The classification, properties, and occurence of rocks. Macro and micro techniques for the identification of rocks. Field trip required.
Prerequisite: Geo 243.

346 Sedimentation-Stratigraphy 4:3:3
The derivation and deposition of sediments. The environmental interpretation and physical correlation of sedimentary strata. Field trip required.
Prerequisite: Geo 345.

360 Summer Field Course 6:5:40
Description of stratigraphic sections, preparation of geologic maps and field reports.
Prerequisite: Geo 342.

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: 6 weeks.
Prerequisite: Geo 344 and PE 228.

417 Oceanographic Technology Seminar 1:1:0
Reports on current literature in oceanography. May be repeated for credit.
Prerequisite: Geo 344.

418 Earth Science Literature 1:1:0
Reports on current source materials. Not open to geology majors.
Prerequisite: 12 hours of Geology.

419 Seminar 1:1:0
Written and oral reports on current geological literature. May be repeated for credit.
Prerequisite: 20 semester hours of Geology.

422 X-ray Crystallography 2:0:6
X-ray techniques to identify crystalline substances. For advanced science and engineering students.
Prerequisite: one year of Chemistry or Physics.

427,428 Special Project 4:A:0
An individual library, laboratory or field project. To receive credit, an acceptable typewritten report is required.

430 Physical Oceanography 3:3:0
Physical processes and properties of oceans. Dynamics of oceanic current systems. Wind currents, waves and tides.
Prerequisite: Geo 344, Mth 237.

433 Geophysics 3:3:0
Application of the principles of physics to geologic problems. Use of geophysical techniques in petroleum exploration.
Prerequisite: Geo 342, Phy 142, Mth 237.

434 Geology of the United States 3:3:0
A regional study of the geomorphology, structural geology and geologic history of the United States.
Prerequisite: Geo 342.

435 Geomorphology 3:3:0
The development and classification of land forms. Field trip required.
Prerequisite: Geo 342.

437 Economic Mineral Deposits 3:3:0
Origin and of occurrence of commercially valuable minerals and rocks. Field trip required.
Prerequisite: Geo 345 or 4350.

438 Fossil Fuels 3:3:0
Origin and occurrence of coal, oil and gas deposits. Field trip required.
Prerequisite: Geo 345 or 4350.

439 Tectonics of North America 3:3:0
The development of tectonic theory as evidenced by and applied to the North American continent.
Prerequisite: Geo 342, Phy 142.

442 Stratigraphic Paleontology 4:3:3
The classification, morphology, and identification of invertebrate fossils. The application of paleontology to stratigraphic correlation. Field trip required.
Prerequisite: Geo 346.

4101,4201,4301,4401 Special Topics in Earth Science 4:A:0
Topics in the earth sciences. May be repeated for credit when the area of study is different.
Prerequisite: Permission of the instructor.

4302 Career Development 3:A:0
Work-learn training.
Registration by special permission only.

4350 Earth Materials 3:3:0
The study of minerals and rocks. Field trip required. A student may not receive credit for both Geo 4350 and Geo 241-243, 345.
Prerequisite: Geo 141, 237 or 239.

4370 Meteorology 3:3:0
The composition and processes of the atmosphere. Weather and climate and their effect on man's activities. Field trip required.
Prerequisite: 8 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: 8 hours of science.*

Department of Physics

Department Head: Joseph F. Pizzo **230 Archer Building**

Professors: Biser, Pizzo, Rigney
Associate Professors: Landegren, Peebles, Shepherd
Assistant Professor: Goines
Stockroom Supervisor: Accardo

High school preparation for the physics major must include two units of algebra and ½ unit of trigonometry. Those having inadequate high school mathematics must take Math 1334 to make up the deficiency, preferably in the Summer Session preceding the freshman year of college.

Physics is the fundamental science. A major in physics can serve 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.

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 26 semester hours in physics with at least 13 semester hours at the junior-senior level, including 333 and 335 and one of the three laboratory courses 324, 346 or 448; 15 semester hours of mathematics including 331 or 4301; and chemistry 142. Physics 110 is required of all freshman physics majors.

Although the preparation for some careers requires study in graduate school or professional school, at least the following options are available to the physics major:

1. Physics (Graduate School)
2. Pre-medical
3. Life Science
4. Oceanography
5. Teaching
6. Chemistry
7. Liberal Arts
8. Environmental Science
9. Engineering
10. Geology/Geophysics

Recommended Program of Study

First Year

Chm 141-142 General	8
Eng Composition	6
Mth 148-149 Cal & An G I & II	8
Phy 140 Intro	4
Phy 110 Phy Today	1
Electives	4-7
PE/MLb*/ROTC 2 sem	2 or 4
	33-38

Second Year

Option	8
Eng Literature	6
Mth 241 Cal & An G III	4
Phy 241-212-222 Intro	7
Electives	5-7
PE/MLb*/ROTC 2 sem	2 or 4
	32-37

Third Year

Gov 231-232	6
His Soph American	6
Mth 331 or 4301 Diff Eq	3
Phy 335 Modern Phy	3
Phy Electives	3-4
Option	12-15
	33-36

Fourth Year

Phy 448 Optics	
or	
Phy 346 Elected Measmnts	
or	
Phy 324 Modern Phy Lab	2-4
Phy Electives	6-8
Option	12-18
Electives	10-15
	30-35

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

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 amy be obtained from the department head.

List of options:

Preparation for graduate school in physics: nine additional semester hours of mathematics and 12-16 additional semester hours of advanced physics. Suggested electives: two years of German.

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: 24-36 semester hours from English, history, government, 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, 12-24 semester hours of advanced engineering. Suggested electives: economics and sociology.

Geology: 20 semester hours of geology, eight additional semester hours of biology, 3-9 semester hours of electronics. Electives unrestricted.

Physics Courses (Phy)

110 **Physics Today** **1:1:0**
A descriptive introduction to recent developments and noteworthy current problems, such as gravitational collapse.

111 **Astronomy Laboratory** **1:0:2**
Measurements with astronomical instruments such as telescopes and spectroscopes. Use of photographs from astronomical observatories to identify variable stars and classify individual stars according to spectra and magnitudes.
Prerequisite: Credit for or registration in Phy 137.

132 **Basics of Photography, Light and Optics** **3:2:1**
Light, cameras, lenses, film, filters, intensity, exposure, development, enlargement, color, infrared photography, Kirlian photography.

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.

140 **Introductory Mechanics** **4:3:3**
Emphasis is placed on derivation, units and problem solving.
Prerequisite: Credit for or registration in Mth 148.

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: Mth 1212 or 1335 or high school trigonometry.

142 **General Physics, Sound, Light, Electricity and Magnetism** **4:3:2**
A continuation of Phy 141.
Prerequisite: Phy 141.

143 **Physical Science** **4:3:2**
Designed for non-science majors. Appropriate topics from physics and chemistry are covered. A student already having acceptable credit for Mth 1341, 148, 236 or equivalent or for Phy 140 or 141 may not receive credit for Phy 143.

144 **Physical Science** 4:3:2
Covers topics not treated in Phy 143. Phy 143 is not a prerequisite for Phy 144. A student already having acceptable credit for Mth 1341, 148, 236 or equivalent or for Phy 142, 241 or 242 may receive credit for neither Phy 143 nor Phy 144.

212 **Introductory Physics, Laboratory on Vibrations and Waves** 1:0:3
Laboratory course to accompany or follow Physics 222.
Prerequisite: Credit for or registration in Phy 222.

222 **Introductory Physics, Vibrations, Sound and Light** 2:2:0
Emphasis is placed on derivations, units and problem solving.
Prerequisite: Physics 241.

234 **Career Development I** 3:A:0
Career related special projects, with detailed written report evaluated by a faculty member in physics.
Prerequisite: Permission of department head.

235 **Career Development II** 3:A:0
Career related special projects, with detailed written report evaluated by faculty member in physics.
Prerequisite: Phy 234.

241 **Introductory Physics, Heat, Electricity and Magnetism** 4:3:3
Emphasis is placed on derivations, units and problem solving.
Prerequisite: Phy 140 and Mth 148.

242 **Introductory Physics, Sound, Light and Quanta** 4:3:3
Emphasis is placed on derivations, units and problem solving.
Prerequisite: Phy 241.

245 **Introductory Acoustics** 4:3:2
Vibrations, waves, intensity and loudness, pitch and frequency, quality, intervals and scales, room acoustics, musical instruments, the human voice, electronic production of sound.
Prerequisite: Knowledge of scales and some ability to identify intervals.

324 **Modern Physics Laboratory** 2:1:3
Selected experiments such as determination of the electronic charge and mass, and of Planck's constant; blackbody radiation; gamma ray spectroscopy; specific heats of crystalline solids, mobility of electrons in semiconductors.
Prerequisite: Registration in or credit for Phy 335.

330 **Modern Genearl Physics** 3:3:0
Electronics, the photoelectric effect, atomic structure, X-rays, molecular and crystal structure, radioactivity and nuclear reactions. A student may not receive credit for both Phy 335 and Phy 330.
Prerequisite: Physics 142 and a year of chemistry.

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 140 or 141-142 and credit for or registration in Mth 331 or 4301.

334 **Career Development III** 3:A:0
Career related special projects, with detailed written report evaluated by a faculty member in physics.
Prerequisite: Physics 235.

335 **Modern Physics** 3:3:0
Conservation laws; special relativity; quantum effects; atomic structure; X-rays, nuclear and solid state physics.
Prerequisite: Phy 241-222 or Phy 141-142 and Mth 241.

338 **Electricity and Magnetism** 3:3:0
Electrostatic fields; potential; capacitance; dielectrics; electromagnetic waves. Maxwell's equations; conduction in gases; thermoelectricity.
Prerequisite: Phy 241-222 or 141-142 and credit for or registration in Mth 331 or 4301.

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 241-222 or Phy 141-142 and Mth 241.

346 **Electrical Measurements** 4:2:4
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 241-242 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: 6 hours of physics numbered above 300.

416,417 Seminar 1:1:0
Reports on current publications and on topics not treated in other physics courses.
Prerequisite: 6 hours of physics numbered above 300.

431 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: Mth 331 or 4301, and Phy 333 or M.E. 231.

432 Introductory Quantum Mechanics 3:3:0
Basic concepts of quantum mechanics. Schrodinger's equation; wave functions.
Prerequisite: Phy 333 or 431, Phy 335 and Mth 331 or 4301.

433 Solid State Physics 3:3:0
Crystal structure; binding forces; mechanical and thermal properties; electrical conductivity; semiconductors; dielectric properties; magnetic properties; surface effects; phosphors and photoconductivity.
Prerequisite: Phy 335.

434 Career Development IV 3:A:0
Career related special projects, with detailed written report evaluated by a faculty member in physics.
Prerequisite: Physics 334.

436 Nuclear Physics 3:3:0
Elementary particles; nuclear scattering of particles; reactions and nuclear structure.
Prerequisite: Phy 335.

437 Astrophysics 3:3:0
Analysis of light; stellar spectroscopy; atomic theory as applied to stars, double stars; luminosities; temperature and diameters of stars; variable stars; star clusters; the nebulae; stellar atmospheres and interiors; evolution of the stars.
Prerequisite: Phy 335.

448 Optics 4:3:3
Physical and Quantum Optics. Propagation of light; interference; diffraction; optics of solids; thermal radiation and light quanta; optical spectra; lasers.
Prerequisite: Phy 241-222 or Phy 141-142 and Mth 241.

College of Technical Arts

Departments: Adult Training, Industrial, Related Arts, Technical
Kenneth E. Shipper, Ph.D., Dean

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 Spur 380 Beaumont-Port Arthur Highway, is on Lavaca Street. The College of Technical Arts also offers courses and programs on campuses located in Orange and Port Arthur. Off-campus courses are offered in several cities in the area.

An Associate of Applied Science degree is awarded in the following fields of study: automotive mechanics; business data processing; child care technology; drafting technology; diesel mechanics; fire protection technology; electrical technology; electronics technology; general secretary; industrial electricity and electronics technology; industrial supervision; legal secretary; medical secretary; mid-management; machine tools; occupational safety and health; property tax administration; refrigeration and air conditioning technology; maintenance pipefitting; real estate; and welding.

A student may earn a diploma upon satisfactory completion of one of the following programs: accounting clerk; appliance repair; automotive mechanics; clerical; cosmetology; electronics; marine construction; or office occupations.

The child care technology, industrial supervision, maintenance pipefitting, 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 17 degree programs in four departments in the College.

Adult Training Programs
- Child Care Technology (Beaumont and Port Arthur)
- Electrical Technology (Beaumont)
- Fire Protection Technology (Beaumont)
- Maintenance Pipefitting (Beaumont)
- Occupational Safety and Health (Beaumont)

Industrial Department
- Automotive Mechanics (Port Arthur)
- Diesel Mechanics (Beaumont)
- Machine Tools (Beaumont)
- Refrigeration and Air Conditioning Technology (Beaumont)
- Welding (Beaumont, Orange, Port Arthur)

Related Arts Department
- Business Data Processing (Beaumont)
- Industrial Supervision (Beaumont and Orange)
- Mid-Management (Beaumont, Orange, Port Arthur)
- Property Tax Administration (Beaumont)
- Real Estate (Beaumont, Orange, Port Arthur)

Technical Department
Drafting Technology (Beaumont, Orange, Port Arthur)
Electronics Technology (Port Arthur)
General Secretary (Orange and Port Arthur)
Industrial Electricity and Electronics Technology (Beaumont and Orange)
Legal Secretary (Port Arthur)
Medical Secretary (Port Arthur)

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 curriculm 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.

Diploma Programs

Three departments in the College of Technical Arts offer diploma programs in seven fields of study. The departments that offer these programs are:

Adult Training Progams
Cosmetology (Port Arthur)
Marine Construction (Orange)

Industrial Department
Automotive Mechanics (Port Arthur)
Welding (Orange and Port Arthur)

Technical Department (Orange and Port Arthur)
Accounting Clerk
Clerical
General Secretary
Legal Secretary
Medical Secretary

Certificate Programs

In addition to the above degree and diploma programs, the College of Technical Arts offers Certificates of Completion in ten programs.

Adult Training Programs
Child Care Technology (Port Arthur)
Fire Protection Certification School (Beaumont)
Maintenance Pipefitting (Beaumont)
Occupational Safety and Health (Beaumont)
Plant Maintenance and Operations (Beaumont and Orange)

Industrial Department
Appliance Repair (Beaumont)
Refrigeration (Beaumont)
Plate Welding (Beaumont)

Related Arts Department
Industrial Supervision (Beaumont and Orange)
Real Estate (Beaumont, Orange, Port Arthur)

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.

College of Graduate Studies

Roger E. Yerick, Ph.D., Dean
Howell H. Gwin, Jr., Ph.D., Director

The Graduate College

The Dean of the College of Graduate Studies 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
- Government
- History

Master of Business Administration

Master of Education in
- Elementary Education
- Guidance and Counseling
- School Administration
- Secondary Education
- Special Education
- Supervision

Master of Engineering

Master of Engineering Science

Master of Music

Master of Music Education

Master of Science in
- Biology
- Chemistry
- Health and Physical Education
- Home Economics
- Mathematics
- Psychology
- Speech
- Speech Audiology and Pathology

Master of Public Administration

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 Office of the Dean of the College of Graduate Studies, Lamar University, Box 10004, Lamar University Station, Beaumont, Texas 77710.

Admission to a Degree Program

1. For admission to a degree program the applicant must meet the following minimum standards and have submitted the following credentials to the office of Admissions and Records at least four weeks before registration.
   A. An applicant must hold a bachelor's degree from an institution approved by a recognized accrediting agency.
   B. Two official transcripts sent directly from each college previously attended.

C. Scores on the aptitude section of the Graduate Record Examination (GRE) are sent directly to the Office of Admissions and Records by the Educational Testing Service. The Lamar Testing and Counselling Center, located in the Wimberly Student Affairs Building, administers the GRE. Application forms and information about the GRE are available at this center. Applicants for the Master of Business Administration are not required to take the GRE, but are required to take the Graduate Management Admission Test. (See the College of Business section of this Bulletin for specific requirements).

D. Applicants for the Doctor of Engineering degree also should write a letter to the Dean of the College of Engineering. This letter should include information about the applicant, engineering experience, present employment and chief interests. Applicants also should indicate what type of work they would like to undertake for their field study.

E. All students are required to complete the University Health Form.

F. An application for admission sent to the Office of Admissions and Records.

G. The applicant's undergraduate grade point average and GRE scores must be above the minimum standard established by the college of Graduate Studies. For all students, except those wishing to pursue the Master of Business Administration degree, **one** of the following requirements for admission must be met:

(1) A minimum overall grade point average of 2.5 on a four point scale, and a minimum composite score, (verbal, quantitative and analytical), of 1100 on the aptitude section of the GRE.

(2) A minimum grade point average of 2.5 on the last 60 hours of undergraduate course work and a minimum composite score of 1100 on the aptitude section of the GRE.

(3) A grade point average lower than 2.5 but with a score of at least 540 on an appropriate section or the GRE aptitude test. A composite score of 1100 is also required. Departmental requirements are as follows:

540 in either V or Q	540 in V	540 in Q
Biology	English	Audiology
Education	History	Chemistry
Government	Speech	Engineering
HPE (Men and Women)	Speech Pathology	Mathematics
Home Economics		
Music		
Psychology		
Public Administration		

(4) A minimum overall grade point average of 2.5 on a four point scale and a score at or above the 25th percentile on the appropriate Advanced Test of the GRE, (appropriate test will be determined by the department in which the graduate program is offered), or, in the case of students applying to the College of Education, a score at or above the 25th percentile on the appropriate Area Exam of the National Teachers Examination. This does not exempt such students from submitting GRE aptitude scores before admission.

(5) A minimum overall grade point average of 3.0 on all work and the recommendation of the department in which the graduate program is offered. This does not exempt such students from submitting GRE aptitude scores prior to admission.

(6) The Graduate Council has approved higher standards for admission to some programs. These are stated in the particular departmental section of this Bulletin.

2. Students wishing to pursue the Master of Business Administration degree should refer to the College of Business section of the bulletin for specific requirements.

3. Provisional admission to a degree program for one term may be granted to some applicants who show promise of the ability to successfully complete a graduate degree program, but who have not submitted the necessary credentials, (see above), four weeks before

registration. Students admitted with provisional admission may not register for more than twelve hours graduate credit and must submit all required credentials and meet the minimum standards stated above during the first term. Provisional admissions may not be extended past one term, and students so admitted who do not meet the minimum standards will not be allowed to re-enroll. International students will not be admitted on a provisional basis.

4. Admissions requirements for international students are evaluated on an individual basis after the following information is received:
   A. Two official transcripts from each college previously attended. Complete and official English translations must be furnished along with the certified copies of the transcripts.
   B. Scores on the aptitude section of the GRE and scores on the Test of English as a Foreign Language, (TOEFL), must be submitted. In general, an international student whose native language is not English is expected to score 500 or above on the **TOEFL** and over 1100 on the aptitude section of the GRE. Application form, test scores, financial statement and complete educational records for international students must be on file by the dates indicated: term beginning in August, by June 15; January, by November 1; June by March 15.
   C. an original statement of financial resources. The University provides a form for this purpose. Other forms will not be accepted.
5. Any other applicant whose native language is not English and who attended foreign secondary schools, colleges, or universities must submit **TOEFL** scores of 500 or above in addition to the requirements stated above. Individual departments may require even higher scores.
6. A student who wishes to pursue graduate work in any area for which he/she has not had the prerequisites will be required to make up deficiencies as prescribed 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.
7. Admission to the College of Graduate Studies does not imply candidacy for a degree.
8. The dean of admissions will notify the applicant upon admission to the College of Graduate Studies. All transcripts, certificates, etc. become the property of Lamar University and are not returnable.
9. Admission requirements stated above are minimum requirements. The applicant must also have the approval of the departments in which the degree program is offered.

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 of Graduate Studies, may be admitted as Post Baccalaureate students in one of the undergraduate colleges under the following conditions:
   A. The applicant must hold the bachelor's degree.
   B. The applicant must submit an application for admission to the Post Baccalaureate program.
   C. The applicant must submit official transcripts from each college previously attended.
   D. The applicant must complete the University Health Form.
   E. The applicant must be approved for admission by the dean of admissions.
2. International students will not be admitted to the Post Baccalaureate Program.
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 12 semester hours previously completed *may* counted for degree credit with the approval of the department and the graduate dean.
4. No post baccalaureate student will be allowed to use hours in excess of this amount for graduate degree credit.
5. Post baccalaureate students pursuing the MBA degree are not permitted to enroll in Business courses for graduate credit. They may, however, take undergraduate courses to remove academic deficiencies.

Directory of Personnel 1982-83

Board of Regents

Lloyd Hayes, Chairman ..... *Port Arthur*
A.H. (Bob) Montagne ..... *Orangefield*
Hubert Oxford, III, Secretary ..... *Beaumont*
Otho Plummer, Chairman Emeritus ..... *Beaumont*
Thomas M. Maes, II ..... *Beaumont*
W. Donham Crawford ..... *Beaumont*
B.A. (Mark) Steinhagen ..... *Beaumont*
Merlin P. Breaux ..... *Sour Lake*
George A. Dishman, Jr. ..... *Beaumont*

General Administration

Kemble, C. Robert, *Ph.D., President*
Johnson, Andrew J., *Ph.D., Vice President for Administration and Planning*
Geddes, David D., *Ph.D., Vice President for Academic Affairs*
Leonard, W. S., *M.S., Vice President for University Relations*
Baxley, Oscar K., *M.B.A., Vice President for Finance*
McLaughlin, George E., *Ed.D., Vice President for Student Affairs/Dean of Students*
Hargrove, W. Richard, *Ed. D., Assistant to the President/Dean for Academic Services*
Johnson, Philip L., *Ph.D., Executive Director, John E. Gray Institute*
Wooster, Ralph A., *Ph. D., Dean of Faculties*

Academic Administration

Brentlinger, W. Brock, *Ph.D., Dean, College of Fine and Applied Arts*
Bell, Myrtle L., *Ed.D., Dean, College of Health and Behavioral Sciences*
Johnston, Maxine, *M.L.S., Director of Library Services*
Monroe, W. Sam, *LL.D., Dean, Lamar University at Port Arthur*
Rode, Elmer G., Jr., *M.Ed., Dean of Admissions and Registrar*
Ryan, John A., *Ph.D., Dean, College of Business*
Schnur, James O., *Ed.D., Dean, College of Education*
Shipper, Kenneth E., *Ph.D., Dean, College of Technical Arts*
Welch, Joe Ben, *Ed.D., Dean, Lamar University at Orange*
Williams, Preston B., *Ph.D., Dean, College of Liberal Arts*
Yerick, Roger E., *Ph.D., Dean, College of Graduate Studies and Dean, College of Sciences*
Young, Fred M., *Ph.D., Dean, College of Engineering*

Faculty 1982-83

The following list reflects the status of the Lamar University faculty as of January, 1982. The date following each name is the academic year of first service to the University and does not necessarily imply continuous service.

Achee, Henri A., Jr. *1980, Reference Librarian, Instructor*
B.A., M.L.S., Louisiana State University

Achilles, Robert F. *1963, Regents' Professor of Speech*
B.S., McPherson College; M.A., Ph.D., Wichita State University

Adams, Howard W. *1956, Professor of Secondary Education*
B.A., Wayne State College; M.A., Ed.D., University of Nebraska

Akers, Hugh A. *1977, Associate Professor of Chemistry*
B.S., University of California, Riverside; Ph.D., University of California, Berkeley

Allen, Charles L. *1979, Assistant 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

Alliston, Wiley A. *1981, Instructor of Economics*
B.B.A., M.S., North Texas State University

Alo, Richard A. *1976, Professor of Mathematics and Head, Department of Mathematics*
B.A., Gannon College; M.S., Ph.D., Pennsylvania State University

Altemose, John R., Jr. *1973, Associate Professor of Criminal Justice*
A.B., Davidson College; M.A., Ph.D., Sam Houston State University

Anderson, Adrian N. *1967, Professor of History and Head, Department of History*
B.S., M.A., Ph.D., Texas Tech University

Anderson, Virginia N. *1960, Assistant Professor of Home Economics and Acting Head, Department of Home Economics*
B.S., Georgia State College for Women; M.Ed., Trinity University

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

Askew, Mary H. *1981, Instructor of Nursing*
A.S., Miami Dade College; B.A., Duke University; M.P.H., University of North Carolina

Atherton, Frieda L. *1976, Assistant Professor of Dental Hygiene and Director, Dental Hygiene Program*
B.S., Baylor University; M.S., University of Missouri-Kansas City; Registered Dental Hygienist

Aycock, Norma M. *1962, Instructor III of Nursing, Regents' Professor*
B.A., Ottawa University; M.Ed., McNeese State University; Registered Nurse

Babin, Louis Randolph *1968, Instructor of Music*
B.M.Ed., M.M.Ed., Louisiana State University

Baechle, Michael A. *1981, Assistant Professor of Communication*
B.S., Northwestern University; M.S., Indiana University; Ph.D., Northwestern University

Baj, Joseph A., II *1964, Associate Professor of Mathematics*
B.A., Kent State University; M.A., University of Texas

Baker, Christopher P. *1976, Assistant Professor of English*
B.A., St. Lawrence University; M.A., Ph.D., University of North Carolina

Baker, Harold T. *1962, Professor of Chemistry*
B.S., University of Minnesota; Ph.D., State University of Iowa

Baker, Mary Alice *1969, Assistant Professor of Speech and Director of Forensics*
B.S., M.A., University of Oklahoma

Barlow, H. A. *1951, Associate Professor of Accounting, Regents' Professor*
B.S., Louisiana Tech University; M.B.A., Louisiana State University; Certified Public Accountant

Barnes, Robert J. *1960, Regents' Professor of English*
B.A., M.A., University of Kansas; Ph.D., University of Texas

Barr, John D. *1978, Lecturer of Health and Physical Education for Men, Assistant Football Coach*
B.S., University of Oklahoma

Barrett, Mary French *1959, Assistant Professor of Music*
B.M., M.M., Eastman School of Music, University of Rochester; Performer's Certificate, Eastman School of Music

Barrington, Billy Ray *1967, Professor of Psychology*
B.S., Southwest Texas State University; M.Ed., Sam Houston State University; Ph.D., University of Houston

Baxter, Nick A. *1981, Assistant Professor of Special Education*
B.A., Quincy College; M.Ed., Our Lady of the Lake University; Ph.D., North Texas State University

Beale, Luther A. *1955, Professor of Civil Engineering and Head, Department of Civil Engineering*
B.S., M.S., Georgia Institute of Technology; Ph.D., University of Texas; Registered Professional Engineer

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, Assistant Professor of Biology*
B.A., Indiana University; M.S., Northeast Louisiana University; Ph.D., Saint Louis University

Bell, Alice C. *1971, Professor of Health and Physical Education for Women*
B.S., M.A., Ph.D., Texas Woman's University

Bell, Myrtle L. *1963, Professor of Psychology and Dean, College of Health and Behavioral Sciences*
B.S., M.S., Texas A&I University; Ed.D., University of Texas

Bennett, Richmond O. *1957, Professor of Accounting*
B.S., M.S., Texas A&M University; Ph.D., University of Texas; Certified Public Accountant

Berthiaume, Gerald B. *1978, Instructor of Music*
B.M., University of Puget Sound; M.M., New England Conservatory of Music

Berzsenyi, George *1969, Professor of Mathematics*
B.A., University of Dallas; M.S., Ph.D., Texas Christian University

Bilici, Hamdi *1981, Assistant Professor of Finance*
B.S., Istanbul University; M.B.A., Ph.D., Louisiana Tech University

Bilici, Lutchminia *1981, Adjunct Instructor of Computer Science*
B.S., Inter American University-Puerto Rico; M.S., Louisiana Tech University

Biser, Roy H. *1946, Regents' Professor of Physics*
B.A., Rice University; M.S., University of Michigan

Bolton, Georgia H. *1980, Adjunct Instructor of Computer Science*
B.S., M.S., Texas Tech University

Bonton, Michael D. *1981, Instructor I of Drafting*
A.A.S., Lamar University

Bost, David L. *1949, Professor of Secondary Education*
B.A., Hardin-Simmons University; M.J., University of Texas; Ph.D., East Texas State University; Licensed Psychologist

Boughton, James K. *1980, Adjunct Associate Professor of Civil Engineering*
B.S., Illinois Institute of Technology; M.S., Lamar University; Registered Professional Engineer

Boyd, Sandra M. *1979, Instructor of Nursing, Director of Vocational Nursing Program*
B.S.N., Wayne State University; M.S., University of Houston; Registered Nurse

Braud, Beverly *1979, Adjunct Instructor of English*
B.S., M.A., Louisiana State University

Brenizer, Joan E. *1957, Associate Professor of Mathematics*
B.S., Lamar University; M.A., University of Texas

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

Brentlinger, W. Brock *1969, Professor of Speech, Dean, College of Fine and Applied Arts*
B.A., Greenville College; M.A., Indiana State University; Ph.D., University of Illinois

Briggs, Kenneth R. *1966, Regents' Professor of Secondary Education, and Acting Head, Department of Secondary Education*
B.S., M.Ed., Ed.D., North Texas State University

Bronson, Paul A. *1976, Clinical Instructor of Respiratory Technology, Program Director of Respiratory Technology*
B.S., Southern Colorado State College; Registered Respiratory Therapist

Brookner, Ralph G. *1981, Associate Professor of Mathematics*
B.A., Rice University; M.A., University of Michigan; Ph.D., Columbia University

Brown, Otto George *1962, Professor of Mechanical Engineering, Head, Department of Mechanical Engineering*
B.S., University of Oklahoma; M.S., Ph.D., University of Texas; Registered Professional Engineer

Brust, Melvin R. *1978, Assistant Professor of Management and Finance*
B.S.E.E., M.S.E.E., University of Texas; Ph.D., North Texas State University; Registered Professional Engineer

Bruyere, John Alan *1957, Associate Professor of Mechanical Engineering*
B.S., M.S., University of Texas; Registered Professional Engineer

Bryan, George A., Jr. *1964, Assistant Professor of Biology*
B.S., University of Texas at El Paso; M.S., The Pennsylvania State University

Buller, Henry P. *1961, Assistant Professor of Psychology*
B.A., Bethel College; M.Ed., University of Kansas

Burke, Charles M. *1970, Professor of Elementary Education and Head, Department of Elementary Education*
B.A., Southeastern Louisiana University; M.Ed., Louisiana State University; Ed.D., University of Southern Mississippi

Burkett, William R. *1977, Instructor II of Drafting Technology*
A.A.S., B.S., Lamar University

Burnham, Ronald D. *1981, Lecturer, Assistant Football Coach*
B.S., Samford University; M.A., Livingston University

Bussell, Karen A. *1979, Lecturer of Health and Physical Education for Women, Women's Swim Coach*
B.S., Texas Tech University; M.S., Lamar University

Calhoun, Mary L. *1981, Instructor of Nursing*
B.A., University of Missouri; Registered Nurse

Callicut, James L., Jr. *1981, Adjunct Instructor of English*
B.A., M.A., University of South Carolina; Ph.D., Duke University

Calvert, Patricia H. *1979, Lecturer of Health and Physical Education for Women, Track Coach*
B.S., M.S., Lamar University

Cameron, Margaret D. *1956, Regents' Professor of Chemistry*
B.A., Texas Woman's University; M.S., University of Houston; Ph.D., Tulane University

Campbell, Jerry W. *1976, Instructor II of Diesel Mechanics*
C.C., Lamar University

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, David J. *1975, Catalog Librarian, Instructor*
B.A., Kansas State University; M.L.S., University of Denver

Carroll, John M. *1972, Associate 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., The University of Texas at Arlington; Registered Professional Engineer

Cater, Alice W. *1974, Instructor III of Real Estate*
B.B.A., Southern Methodist University; M.B.A. University of Texas

Chattopadhyay, Tapan K. *1981, Visiting Lecturer in Mechanical Engineering*
B.S.M.E., M.M.E., Ph.D., Jadavpur University

Cherry, Richard T. *1966, Regents' Professor of Finance*
B.A., Texas A&M University; M.A., Ph.D., University of Texas

Chiasson, Sharon D. *1980, Adjunct Instructor of English*
B.A., M.A., Lamar University

Chu, Hsing-wee *1979, Assistant Professor in the Department of Industrial Engineering*
B.S., Tunghai University; M.S., Asian Institute of Technology; Ph.D., University of Texas

Churan, Esther *1961, Acquisitions Librarian, Instructor*
B.A., B.S., Texas Woman's University

Clark, Lynnwood M., Jr. *1972, Instructor II of Business Data Processing*
B.S., Lamar University

Cloud, Patricia Charlene *1980, Instructor of Nursing*
B.S.N., McNeese State University; M.S.N., University of Texas at Galveston; Registered Nurse

Coates, Nita F. *1979, Instructor I of Drafting Technology*
A.A.S., Lamar University

Collier, J. N. *1955, Associate Professor of Music*
B.M., University of Houston; M.M., Southern Methodist 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, Roger W. *1978, Assistant Professor of Geology*
B.A., University of South Dakota; M.S., University of Nebraska; Ph.D., University of Minnesota

Cowan, Russell W. *1966, Professor of Mathematics*
A.B., M.A., Ph.D., University of California, Berkeley

Crawford, Katrinka J. *1981, Lecturer/Head Volleyball Coach*
B.S., Utah State

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

Croley, John S. *1980, Assistant Professor of Accounting*
B.A., Lamar University; J.D., University of Houston; L.L.M., New York University, Graduate College of Law; Certified Public Accountant

Crowder, Vernon Roy *1967, Professor of Health and Physical Education for Men*
B.S., Lamar University; M.S., Ph.D., Louisiana State University

Crum, Floyd M. *1955, Regents' Professor of Electrical Engineering*
B.S., M.S., Louisiana State University; Registered Professional Engineer

Culbertson, Robert M., Jr. *1974, Instructor of Music*
B.M., Northern Illinois University; M.M., University of Wisconsin

Daigle, Tarlton J. *1951, Instructor IV of Industrial Electricity and Electronics Technology*
B.S., University of Southwestern Louisiana

Daigrepont, Lloyd M. *1981, Adjunct Instructor of English and Foreign Languages*
B.A., M.A., Ph.D., Louisiana State University

Daniali, Saeed *1981, Assistant Professor of Civil Engineering*
B.S., Tehran Polytechnique; M.S., School of Engineering of Strasbourg; Ph.D., University of Lille

Danna, John C. *1979, Instructor II of Drafting Technology*
A.A.S., Lamar University

Darsey, Nancy S. *1955, Professor of Office Administration and Head, Department of Administrative Services*
B.B.A., M.B.A., Texas Tech University; Ph.D., Louisiana State University

Davidson, Jane S. *1970, Associate Professor of Home Economics*
B.S., Texas Woman's University; M.S., Sam Houston State University; Ph.D., Texas Woman's University

Davis, Darrell, E. *1957, Assistant Professor of Geology*
B.S., Lamar University; M.S., University of Kansas

Davis, Elvis C. *1956, Associate Professor of Accounting*
B.B.A., Lamar University; M.B.A., University of Arkansas; Certified Public Accountant

Davis, Nancy J. *1980, Instructor I of Child Care Technology*
B.S., Lamar University

de Bittencourt, Julio C. *1974, Instructor of Dance, Health and Physical Education for Women, Moody Lecturer in Dance*

Dennis, Gwendolyn F. *1981, Instructor of Nursing*
B.S.N., Prairie View A&M University; Registered Nurse

De Rose, Peter L. *1975, Assistant Professor of English*
B.A., Fordham University; Ph.D., Indiana University

Dickey, Sandra *1981, Clinical Instructor of Nursing*
B.S.N., Lamar University; Registered Nurse

Die, Ann M. *1977, Assistant Professor of Psychology*
B.S., Lamar University; M.Ed., University of Houston; Ph.D., Texas A&M University

Dietert, Linda *1980, Reference Librarian, Instructor*
B.A., University of Texas at Arlington; M.L.S., North Texas State University

Diltz, Betty J. *1979, Clinical Instructor of Nursing*
B.S.N., Lamar University; Registered Nurse

Dingle, Robert L. *1959, Associate Professor of Mathematics*
B.S., M.Ed., University of Houston; M.S., University of Arkansas

Dorrell, Jean T. *1956, Assistant Professor of Office Administration*
B.S., Northwestern State University; M.S., Louisiana State University

Dorris, Kenneth L. *1965, Associate Professor of Chemistry*
B.S., Ph.D., University of Texas

Drenan, Raymond L. *1962, Associate Professor of Sociology*
B.S., University of Illinois, M.P.S., University of Colorado

Drury, Bruce R. *1971, Associate Professor of Government*
B.A., M.A., University of Nebraska; Ph.D., University of Florida

DuBose, Elbert T., Jr. *1974, Assistant Professor of Government*
B.A., Southwest Texas State University; M.A., Texas Tech University; Ph.D., University of Oklahoma

Dugger, Linda J. *1970, Serials Librarian, Instructor*
B.A., M.L.S., North Texas State University

Dunlap, Helen Laverne *1980, Clinical Instructor of Nursing*
Diploma, Sacred Heart Dominican College; Registered Nurse

Durgin, Thomas R. *1980, Instructor I of Industrial Electricity and Electronics Technology*

Dyess, Wayne J. *1977, Instructor of Music*
B.M., Stephen F. Austin State University; M.M., Catholic University of America

Eads, Ewin A. *1946, Professor of Chemistry, Director of Environmental Science Program*
B.S., M.S., North Texas State University; Ph.D., Tulane University

Eddy, Louise *1978, Instructor of Speech*
B.S., M.S., Lamar University

Elliff, Connie Jo *1976, Instructor of Home Economics*
B.S., Southwest Texas State University; M.S., Kansas State University; Registered Dietitian

Ellis, M. Leroy *1969, Professor of Modern Languages*
B.A., M.A., University of South Carolina; Ph.D., University of Aix-Marseille

Emmons, Winfred S., Jr. *1955, Professor of English*
B.A., Louisiana Tech University; M.A., University of Virginia; Ph.D., Louisiana State University

Esperat, Maria Christina *1979, Assistant Professor of Nursing*
B.S.N., M.S.N., Silliman University; Registered Nurse

Eveland, H. E. *1951, Professor of Geology and Head, Deapartment of Geology, Director of Oceanographic Technology*
B.S., M.S., Ph.D., University of Illinois

Farah, Anis *1981, Visiting Professor of Civil Engineering*
B.Sc., Queen's University, Belfast; M.A.Sc., University of Toronto; Ph.D., University of Waterloo

Fearing, Ruth O. *1980, Clinical Instructor of Dental Hygiene*
B.S., Northeastern University; M.S., Boston University School of Denistry; Registered Dental Hygienist

Fisher, Annette *1979, Adjunct Instructor of Basic Communication*
B.A., Lamar University

Fitzgerald, Meredith K. *1970, Instructor of Elementary Education*
B.A., Bethel College; M.A., George Peabody College for Teachers

Fitzgerald, William T. *1951, Associate Professor of Biology*
B.S., Bethel College; M.A., George Peabody College for Teachers

Fitzpatrick, Phillip M. *1977, Instructor of Art*
B.F.A., M.F.A., Auburn University

Flocke, Otto R. *1954, Associate Professor of Psychology*
B.A., M.A., North Texas State University

Fontenot, Cynthia C. *Adjunct Instructor of Accounting*
B.A., M.B.A., Lamar University

Foster, Pat *1980, Lecturer of Health and Physical Education for Men, Head Basketball Coach*
B.S., University of Arkansas

Francis, Nathan Travis *1962, Associate Professor of Modern Languages*
B.A., Texas Tech University; M.A., Texas Christian University; Ph.D., Texas Tech University

Frankland, L. Ann *1981, Adjunct Instructor of English*
B.A., M.A., East Texas State University

Frazier, Robert L. *1974, Associate Professor of Criminal Justice*
B.S., M.A., Ph.D., Sam Houston State University

Frederick, Bob L. *1965, Assistant Professor of Health and Physical Education for Men*
B.S., Lamar University; M.S., University of Texas

Frissell, Harry L. *1958, Professor of English*
B.A., Southwestern University; M.A., Ph.D., Vanderbilt University

Gardner, Karen L. *1980, Assistant Professor of Nursing*
A.A., St. Petersburg Junior College; B.S.N., Florida State University; M.S.N., Texas Woman's University; Registered Nurse

Gardner, Kathryn A. *1979, Instructor I of Business Data Processing*
B.B.A., M.B.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

Ghezzi, Debby L. *1980, Lecturer of Health and Physical Education for Women, Women's Tennis Coach*
B.S., M.Ed., Ohio University

Gibson, Delbert L. *1959, Professor of Sociology*
B.S., Baylor University; Th.M., Southwestern Baptist Theological Seminary; M.A., Ph.D., University of Texas

Gilligan, James P. *1972, Instructor of Health and Physical Education for Men, Baseball Coach*
B.S., M.S., Lamar University

Gilmore, Patricia *1980, Clinical Instructor of Nursing*
B.S.N., University of Texas at San Antonio; Registered Nurse

Godkin, Roy Lynn *1981, Assistant 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

Godwin, Sharon G. *1981, Clinical Instructor of Allied Health*
B.S., Northwestern State University; Registered Radiographer

Goetz, George R. *1968, Assistant Professor of Management*
B.S., Saint Edward's University; M.B.A., Lamar University

Goines, Oscar T. *1961, Assistant Professor of Physics*
B.S., Stephen F. Austin State University; M.S., Texas A&M University

Goulas, Fara M. *1975, Assistant Professor of Special Education*
Education
B.S., Lamar University; M.S., University of Colorado

Green, Annie Sue *1964, Assistant Professor of Mathematics*
B.A., M.S., Lamar University

Green, Marcia L. *1972, Instructor II of Related Arts*
B.A., Bishop College; M.A., Stephen F. Austin State University; M.Ed., Lamar University

Green, Steve *1981, Lecturer, Assistant Basketball Coach*
B.S.E., Oklahoma Christian College

Greene, Jesse Laurence *1980, Adjunct Instructor of English*
B.A., Prairie View A&M College; M.A., University of Southern California; Ph.D., University of Texas at Austin

Greenockle, Karen M. *1974, Instructor of Health and Physical Education for Women*
B.S., Texas Christian University; M.S., Lamar 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 Health and Physical Education for Women*
B.S., M.S., Northwestern State University of Louisiana

Griffin, Vernon H. *1970, Professor of Elementary Education, Director of Certification and Graduate Studies*
B.S., M.Ed., Sam Houston State University; Ed.D., University of Houston

Grubbs, Donald R. *1974, Instructor II of Welding*
B.S., Lamar University

Grubert, John P. *1981, Associate Professor of Civil Engineering*
B.S., M.Phil., London University; Ph.D., City University

Gwin, Howell H., Jr. *1962, Professor of History and Director of Graduate Studies*
B.A., M.A., Ph.D., Mississippi State University

Gwynn, Robert S. *1976, Assistant Professor of English*
A.B., Davidson College; M.A., M.F.A., University of Arkansas

Hale, Elizabeth Ann *1979, Instructor of Nursing*
B.S.N., University of Texas at Houston; M.S.N., University of Texas at Galveston; Registered Nurse

Hansen, Elizabeth C. *1981, Adjunct Professor of Mathematics*
B.S., M.S., Texas A&M University

Hansen, Keith C. *1967, Professor of Chemistry, Head, Department of Chemistry*
B.S., Lamar University; Ph.D., Tulane University

Hargrove, W. Richard *1964, Professor of Elementary Education, Dean, Division of Academic Services and Assistant to the President*
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 Speech*
B.S., Loyola University; M.F.A., Tulane University; Ph.D., Louisiana State University

Harris, Robert *1979, Instructor I of Machine Tools*
A.A.S., Lamar University

Hartford, William *1947, Instructor III of Job Relations*

Harvill, John F. *1965, Assistant Professor of Mathematics*
B.S., M.S., Northwestern State University of Louisiana

Haven, Sandra L. *1973, Assistant Professor of Secondary Education*
B.S., Lamar University; M.A., Central Michigan University; Ed.D., University of Houston

Hawker, James R. *1967, Professor of Psychology*
B.S., University of Southern Mississippi; Ph.D., University of Texas

Hawkins, Charles F. *1966, Associate Professor of Economics, Regents' Professor*
B.A., Lamar University; M.A., Ph.D, Louisiana State University

Hayes, Karen L. *1977, Clinical Instructor of Dental Hygiene*
B.S., Lamar University; Registered Dental Hygienist

Higgins, James B. *1949, Professor of Health and Physical Education for Men, Head, Department of Health and Physical Education for Men, Athletic Director*
B.A., Trinity University; M.Ed., University of Houston

Hill, Rebecca O. *1965, Assistant Professor of Dance*
B.A., Butler University; M.A., University of Michigan

Hinchey, Jane A. *1968, Assistant Professor of Home Economics*
B.S., Winthrop College; M.S., University of Tennessee

Hogan, Marvin H. *1970, Instructor II and Program Coordinator of Industrial Electricity and Electronics Technology*

Hogue, Bradley B. *1967, Professor of Elementary Education*
B.A., M.Ed., Southern Methodist University; Ed.D., North Texas State University

Holland, DeWitte T. *1971, Professor of Speech and Head, Department of Communication*
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

Holland, Mary M. *1976, Circulation Librarian, Instructor*
A.B., Birmingham Southern College; M.L.S., Drexel University

Hollister, Deborah L. *1979, Adjunct Instructor of Related Arts*
B.A., Lamar University

Holm, Belle Mead *1963, Professor of Health and Physical Education for Women, Head, Department of Health and Physical Education for Women, Director of Intercollegiate Athletics for Women*
B.S., M.S., George Peabody College for Teachers; Ph.D., Texas Woman's University

Holmes, Paul W. *1953, Associate Professor of Music*
B.M., Hardin-Simmons University; M.M., University of Texas

Holt, Marion W. *1960, Associate Professor of History*
B.A., Hendrix College; M.A., Louisiana State University

Holt, Virginia Raye *1975, Associate Professor of Health and Physical Education for Women*
B.S., Georgia State College for Women; M.S., Baylor University; Ed.D., University of Tennessee

Hopper, Jack R. *1969, Professor of Chemical Engineering and Head, Department of Chemical Engineering*
B.S., Texas A&M University; M.Ch.E., University of Delaware; Ph.D., Louisiana State University; Registered Professional Engineer

Hornack, Mary *1981, Adjunct Instructor of Child Care Technology*
B.S., M.Ed., East Texas State University

Huang, Wen-Lee *1979, Adjunct Instructor of Computer Science*
B.S., M.S., Southern Illinois University

Hudson, Jean Marie *1951, Assistant Professor of Accounting*
B.A., Carleton College; M.A., University of Oklahoma; Certified Public Accountant

Hunt, Madelyn D. *1973, Assistant Professor of Biology*
B.S., Lamar University; M.P.H., University of Texas School of Public Health; Registered Medical Technologist (A.S.C.P.)

Hutchings, Henry, III *1964, Assistant Professor of English*
B.A., M.A., Southern Methodist University

Huval, Martha J. *1978, Clinical Instructor of Radiologic Technology*
B.S., Lamar University; Registered Radiographer

Ingalls, Arthur B. *1981, Captain/Assistant Professor of Military Science*
B.A., Stephen F. Austin State University

Isaac, Paul E. *1960, Regents' Professor of History*
B.A., Pepperdine College; M.A., Ph.D., University of Texas

Jack, Meredith M. *1977, Assistant Professor of Art*
B.F.A., University of Kansas; M.F.A., Temple University

James, S. Walker *1965, Professor of Speech, Director of Theater*
B.A., M.A., Baylor University; M.F.A., Case Western Reserve University; Ph.D., University of Denver

Jarrell, Ben M. *1973, Instructor II of Refrigeration and Air Conditioning Technology*

Johnson, Andrew J. *1958, Professor of History, Vice President for Administration and Planning*
B.A., University of Texas; M.A., University of Chicago; M.A., Ph.D., Indiana University

Johnson, Betty S. *1979, Assistant Professor of Office Administration*
B.S.E., M.S.E., Arkansas State University; Ed.D., University of Arkansas

Johnson, John P. *1977, Associate Professor of Communication*
B.A., M.S., Florida State University; Ph.D., Kent State University

Johnston, Maxine *1955, Associate Professor and Director of Library Services*
B.S., Sam Houston State University; M.L.S., University of Texas

Jolly, Sidney W., Jr. *1971, Associate Professor of Health and Physical Education for Men, Head Track Coach*
B.S., M.S., Lamar University, M.Ed., Stephen F. Austin State University; Ed.D., North Texas State University

Jones, Ann D. *1957, Assistant Professor of Marketing*
B.S., M.S., University of Arkansas

Jones, Kirkland C. *1973, Associate Professor of English*
B.A., University of Washington; M.A., Texas Southern University; Ph.D., University of Wisconsin

Jones, Richard W. *1975, Associate Professor of Accounting*
B.S.C., Texas Christian University; M.A., University of Alabama; Ph.D., University of Arkansas; Certified Public Accountant

Jones, Roger W. *1981, Adjunct Instructor of English*
B.A., Kenyon College; M.A., Southern Illinois University

Jordan, Donald L. *1979, Assistant Professor of Computer Science*
B.S., East Texas Baptist College; B.S., Lamar University; M.S., Air Force Institute of Technology

Juarez, Joe I. *1968, Instructor III of Basic Communications, Head, Department of Related Arts*
B.F.A., University of Houston; B.S., Lamar University; M.Ed., University of Houston

Karlin, Andrea *1981, Assistant Professor of Elementary Education*
B.A., Hunter College; M.A., Ph.D., University of New Mexico

Kelly, Patricia A. *1981, Lecturer/Assistant Basketball Coach*
B.S., Slippery Rock State College; M.A.Ed., Carolina University

Kemp, Gay L. *1981, Research Assistant*
B.A.T., Sam Houston State University

Kilpatrick, Ruby *1977, Clinical Instructor of Nursing*
Registered Nurse

Kim, Hi K. *1968, Professor of Economics and Head, Department of Economics*
B.B.A., M.B.A., Southern Methodist University; Ph.D., The University of Houston

King, Jess Freeman *1978, Assistant Professor of Communication*
B.S., McNeese State University; M.S., Eastern New Mexico University; Ed.D., McNeese State College

Kirksey, C. D. *1946, Professor of Business Statistics*
B.S., M.S., North Texas State University; Ph.D., University of Texas

Kjelson, Edna M. *1968, Instructor II of Nursing.*
Diploma, St. Luke's School of Professional Nursing; Registered Nurse

Koh, Hikyoo *1981, Assistant Professor of Computer Science*
B.A., Young-Nam; M.S., University of Hawaii; Ph.D., University of Pittsburgh

Kriegel, Otto A. *1973, Instructor II of Machine Tools*

Kumar, Subodh *1981, Associate Professor of Civil Engineering*
B.Tech, I.I.T., Kharagpur; M.Tech, I.I.T., Bombay; M.S., Iowa State University; Ph.D., University of Oklahoma

Laidacker, Michael A. *1967, Associate Professor of Mathematics*
B.S., M.S., Lamar University; Ph.D., University of Houston

Lambert, Joseph C. *1962, Associate Professor of History*
B.A., Millsaps College; M.A., Louisiana State University

Lane, James E. *1967, Assistant Professor of Special Education*
B.S., Abilene Christian University; M.Ed., Lamar University

Lanier, Boyd L. *1970, Associate Professor of Government*
B.A., M.S., Ph.D., Florida State University

Lauffer, Charles H. *1962, Assistant Professor of Mathematics*
B.S., M.S., Auburn University

Lawrence, Robert J. *1958, Instructor III of Industrial Electricity and Electronics Technology*

LeBlanc, John R. *1971, Associate Professor of Music*
B.M.Ed., McNeese State University; M.S.M., Southwestern Baptist Theological Seminary; M.M., Louisiana State University; Ph.D., University of Southern Mississippi

Lee, Kwan R. *1981, Assistant Professor of Mathematics*
B.S., M.S., Seoul National University; M.S., Ph.D., Southern Methodist University

Lewis, Mahalia B. *1974, Assistant Professor of Nursing*
B.S.N., McNeese State University; M.S.N., Texas Woman's University; Registered Nurse

Li, Ku-Len *1978, Assistant Professor of Chemical Engineering*
B.S., M.S., Cheng King University; Ph.D., Mississippi State University; Registered Professional Engineer

Lindoerfer, Joanne *1980, Counselor Research Analyst, Department of Nursing*
B.S., Loyola University, Chicago; M.S., Ph.D., University of Texas

Lokensgard, Lynne L. *1973, Assistant Professor of Art*
B.A., M.A., University of Minnesota

Love, James J. *1976, Assistant Professor of Criminal Law and Director of Criminal Justice Program*
B.A., Lamar University; J.D., University of Texas

Lowrey, Mildred A. *1974, Associate Professor of Health and Physical Education for Women*
B.S., Howard College; M.S., Alabama College; Ph.D., Florida State University

Lowrey, Norman E. *1967, Supervisor of Adult Training*
B.S., Lamar University

Ma, Li-Chen *1972, Associate Professor of Sociology*
B.S., M.S., National Taiwan University; Ph.D., University of Georgia

MacDonald, William W. *1965, Professor of History*
B.S., Boston University; M.A., Ph.D., New York University

Madden, J. Robert *1959, Associate Professor of Art*
B.A., Centenary College; M.F.A., University of Arkansas

Mades, John W. *1964, Instructor of Mathematics*
B.A., Millikin University; M.A., University of Missouri

Mainord, Robert A., Jr. *1981, Instructor I of Electronics*
A.S.C., B.A., Lamar University

Malnassy, Phillip G. *1973, Associate Professor of Biology*
A.B., Hunter College, New York; Ph.D., Rutgers University

Malone, A. Brenda *1977, Assistant Professor of Nursing*
B.S.N., Northwestern State College; M.S.N., University of Texas at Houston; Registered Nurse

Marble, Ronald I. *1967, Instructor III of Welding*
C.C., Lamar University

Marriott, Richard G. *1976, Assistant Professor of Psychology and Head, Department of Psychology*
B.S., Weber State College; M.A., Ph.D., University of New Mexico

Martin, Jennifer L. *1980, Instructor of Home Economics*
B.S., M.S., Lamar University

Martinez, Eugene P. *1959, Regents' Professor in the Department of Mechanical Engineering*
B.S., Lamar University; M.S., Rice University; Ph.D., University of Houston

Mason, Ruth *1973, Instructor I of Nursing*
Diploma, Western Pennsylvania Hospital School of Nursing; Registered Nurse

Matak, Pete III *1978, Instructor I of Diesel Mechanics*
A.A.S., Lamar University

Matheny, Sarah Sims *1971, Assistant Professor of Elementary Education*
B.S., Lamar University; M.Ed., Sam Houston State University

Mathis, Verbie T. *1978, Instructor I, Department of Related Arts*
B.S., Texas Eastern University; M.B.E., Stephen F. Austin State University

Matthews, William H., III *1955, Regents' Professor of Geology*
B.A., M.A., Texas Christian University

Mauer, William H. *1979, Instructor I of Industrial Electricity and Electronics Technology*
A.A.S., Lamar University

McAdams, LeBland *1967, Associate Professor of Home Economics*
B.S., Sam Houston State University; M.Ed., University of Houston; Ph.D., Texas Woman's University

McCullough, Charles D. *1967, Professor of Marketing, Head, Department of Management-Marketing-Finance*
B.B.A., M.B.A., D.B.A., Texas Tech University

McGee, B. Iwana *1980, Lecturer of Health and Physical Education for Women, Women's Basketball Coach*
B.S., University of Southern Mississippi; M.Ed., Southeastern University

McGraw, J. Leon, Jr. *1967, Professor of Biology*
B.S., Lamar University; M.S., Ph.D., Texas A&M University

McGuire, Sterling W. *1956, Professor of Computer Science*
B.S., M.A., Sam Houston State University; Ph.D., Texas A&M University

McIntosh, Edward R. *1971, Associate Professor of Elementary Education*
B.S., University of Florida; M.S., Florida State University; Ed.D., Michigan State University

McKeithen, James F. *1980, Adjunct Instructor of Computer Science*
B.S., M.S., Lamar University

Meador, Pamela A. *1981, Clinical Instructor of Respiratory Therapy*
A.A.S., Midlands Technical School

Meeks, Elizabeth L. *1966, Professor of English*
B.A., Union University; M.A., George Peabody College for Teachers; Ed.D., University of Houston

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

Melero, Francisco *1980, Assistant Professor of Economics*
B.A., University of the Pacific; M.S., Rensselaer Polytechnic Institute

Mitchell, Terry W. *1981, Instructor of Psychology*
B.S., Arizona State University; M.A., Ohio State University

Mock, Ralph K., Jr. *1966, Instructor IV and Program Coordinator of Drafting Technology*

Monger, George Anne *1971, Associate Library Director, Public Services, Assistant Professor*
B.A., Baylor University; B.S., Western Reserve University

Monroe, Vernice M. *1970, Assistant Professor of Social Work and Director, Social Work Program*
B.S., M.S.W., University of Missouri

Montano, Carl B. *1981, Assistant Professor of Economics*
B.S.A., M.S., University of the Philippines

Morgan, William E. *1972, Associate 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

Morton, Bill *1980, Adjunct Instructor of Communication*
B.S., University of Houston; M.S., Lamar University

Moss, Helen M. *1978, Assistant Professor of Nursing*
B.S., McNeese State University; M.S.N., University of Texas at Austin; Registered Nurse

Moulton, Robert D. *1974, Associate Professor of Speech, Director of Speech Pathology*
B.S., M.S., University of Utah; Ph.D., Michigan State University

Mulford, Virginia Barbara *1979, Instructor of Nursing*
B.S.N., University of North Florida; M.S.N., Medical College of Georgia; Registered Nurse

Murray, M. Kathleen *1973, Instructor and Head, Library Technical Services*
B.A., Bryn Mawr College; M.L.S., University of Texas

Neumann, Edna L. *1976, Professor of Nursing*
B.S., M.S., Ph.D., University of Utah; Registered Nurse

Newberry, Rosario I. *1975, Instructor of Health and Physical Education for Women*
B.S., Lamar University; M.S., Texas Tech University

Newman, Jerry A. *1962, Associate Professor of Art*
B.F.A., University of Texas; M.F.A., University of Southern California; Regents' Professor

Nguyen, Anh-Tri *1981, Assistant Professor of Mechanical Engineering*
B.S., M.S., San Jose State University; Ph.D., Ohio State University

Norton, L. Wesley *1959, Regent's Professor of History*
A.B., Olivet College; M.A., Ph.D., University of Illinois

Nylin, Libbie C. *1976, Instructor I of Related Arts*
B.S., M.S., Lamar University

Nylin, William C. *1975, Professor of Computer Science and Director, Systems, Procedures and Institutional Research*
B.S., Lamar University; M.S., Ph.D., Purdue University

Oates, Edith V. *1980, Adjunct Instructor of English*
B.A., M.A., Stephen F. Austin State University

Oldham, Jeannie *1980, Clinical Instructor of Nursing*
B.S.N., West Texas State University; Registered Nurse

Olson, Robert C. *1962, Regents' Professor of English*
B.S., Northwestern University; M.A., Ph.D., University of Colorado

O'Neil, John M. *1979, Instructor of Economics*
B.A., Central State University; M.A., University of Oklahoma

O'Neill, Robert G. *1962, Associate Professor of Art*
B.F.A., University of Nebraska at Omaha; M.F.A., University of Colorado

Ornelas, Raul S. *1972, Instructor of Music*
B.M., University of Texas; M.A., McNeese State University

Ortego, James Dale *1968, Professor of Chemistry*
B.S., University of Southwestern Louisiana; Ph.D., Louisiana State University

Owens, Howell C. *1981, Assistant Professor of Business Law*
B.B.A., University of Texas; J.D., University of Houston Law School

Pampe, William R. *1966, Professor of Geology*
A.B., M.S., University of Illinois; Ph.D., University of Nebraska

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 Health and Physical Education for Women, Women's Golf Coach*
B.S., University of New Mexico; M.S., Lamar University

Parks, George L. *1947, Professor of Music and Head, Department of Music*
B.S., Northwestern State College; M.A., Colorado State University; Ed.D., University of Houston

Parks, Walter L., Jr. *1981, Instructor of Music*
B.M., M.M., Illinois State University

Parrish, Reta G. *1964, Assistant Professor of Mathematics*
B.A., Southern Methodist University; M.A., Texas Woman's University

Pate, Martha B. *1978, Adjunct Instructor, Department of Mathematics*
B.S., M.S., Lamar University

Payton, John E. *1970, Assistant Professor of Health and Physical Education for Men, Assistant Football Coach*
B.S., M.S., Prairie View A&M University

Pearson, James M. *1962, Associate Professor of Economics*
B.B.A., M.S., Baylor University

Pearson, William M. *1969, Associate Professor of Government*
B.S., Sam Houston State University; M.A., Texas A&M University; Ph.D., Louisiana State University

Pederson, Olen T. *1975, Professor of Communication*
B.S., University of Houston; M.S., East Texas State University; Ph.D., University of Oklahoma

Peebles, Hugh O., Jr. *1963, Associate Professor of Physics*
B.S., University of Texas; M.S., Ph.D., Oklahoma State University

Penny, Phyllis A. *1981, Assistant Professor of Dance*
B.S.E., University of Arkansas; M.S., Louisiana State University

Perkins, Howard *1972, Adjunct Instructor of Communication and Director Student Publications*
B.A., Lamar University; M.A., Louisiana State University

Pineda, Antonio De J. *1965, Assistant Professor of Modern Languages*
B.A., Instituto de Santa Clara; M.A., Ph.D., Universidad de la Habana

Pizzo, Joseph F., Jr. *1964, Professor of Physics and Head, Department of Physics*
B.A., University of Saint Thomas; Ph.D., University of Florida

Platt, Annette E. *1963, Associate Professor of English and Head, Department of English and Foreign Languages*
B.A., M.A., University of Texas; Ed.D., McNeese State University

Poole, Marcia *1977, Assistant Professor of Nursing*
B.S.N., M.S.N., Wayne State University; Registered Nurse

Pope, Kenith *1979, Lecturer of Health and Physical Education for Men, Assistant Football Coach*
B.S., University of Oklahoma

Price, Donald I. *1981, Assistant Professor of Economics*
B.A., Hendrix College; M.A., Ph.D., University of Arkansas

Price, Doris J. *1973, Assistant Professor of Nursing, Director of 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, Assistant 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., Praire View A&M University; M.A., University of Texas; M.A.R., Yale University; Ph.D. Ohio State University

Quebe, Ruth Evelyn *1980, Adjunct Instructor of English*
B.A., Southwest Texas State University; M.A., Ph.D., University of Texas at Austin

Ramke, Henry Herman, Jr., *1981, Instructor I of the Technical Department*

Ramsey, Jed J. *1965, Professor of Biology*
B.S., Kansas State University of Agriculture and Applied Science; M.S., Kansas State Teachers College; Ph.D., Oklahoma State University

Ramsey, Patricia A. *1981, Lecturer in Health, Physical Education for Women and Head Basketball Coach for Women*
B.S.E., Quachita Baptist University; M.S.E., University of Oklahoma

Read, Billy D. *1965, Assistant Professor of Mathematics*
B.S., Lamar University; M.S., North Texas State University

Read, David R. *1965, Professor of Computer Science*
B.S., Lamar University; M.S., North Texas State University; Ph.D., University of Houston

Renfrow, Jack N. *1959, Associate Professor of English*
B.A., Louisiana Tech University; M.A., University of Denver; Ph.D., Louisiana State University

Rettke, Robert C. *1980, Assistant Professor of Geology*
B.A., M.A., State University of New York-Buffalo; Ph.D., Case Western Reserve University

Reynard, Betty Jane *1979, Clinical Instructor of Dental Hygiene*
A.A.S., Lamar University; Registered Dental Hygienist

Reynolds, Richard C. *1978, Assistant Professor of English*
B.A., Trinity University; M.A., University of Arkansas; Ph.D., University of Tulsa

Richard, Connie J. *1979, Clinical Instructor of Nursing*
B.S.N., St. Mary's School of Nursing; Registered Nurse

Richardson, Eda *1976, Clinical Instructor of Nursing*
B.S., Marymount College, M.S., Kansas State College, Pittsburg; Registered Nurse

Rigney, Carl J. *1957, Professor of Physics*
B.S., University of Louisville; M.S., Ph.D., Northwestern University

Riley, John F. *1981, Assistant Professor of Elementary Education*
B.A., M.Ed., Auburn University; Ed.D., University of Georgia

Rivers, Gail P. *1975, Instructor of Dental Hygiene*
B.S., M.Ed., Lamar University; Registered Dental Hygienist

Roberts, Katherine *1976, Clinical Instructor of Nursing*
B.S.N., University of Texas; Registered Nurse

Rogan, Robert C. *1961, Professor of Art and Head, Department of Art*
B.A., Washburn University; M.F.A., University of Iowa; Ed.D., The University of Kansas

Rogas, Dan W. *1955, Assistant Professor of Health and Physical Education for Men, Athletic Business Manager, Golf Coach*
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

Rosetta, Olinda *1975, Clinical Instructor of Nursing*
Diploma, Hotel Dieu School of Nursing; Registered Nurse

Roth, Lane *1978, Assistant Professor of Communication*
B.A., New York University; M.A., Ph.D., Florida State University

Roy, M. Paul *1963, Instructor IV of Machine Tools and Head, Industrial Department*

Rudloff, Virginia *1964, Instructor II of Nursing*
Diploma, Hotel Dieu School of Nursing; Registered Nurse

Ruiz, Daniel, Jr. *1980, Assistant Professor of Military Science*
B.B.A., Texas A&M University; Major, U.S. Army

Rule, Henry B. *1960, Regents' Professor of English*
B.A., University of Texas; M.A., Columbia University; Ph.D., Univeristy of Colorado

Runnels, William C. *1965, Assistant Professor of Biology*
B.S., M.S., Texas A&I University; Ph.D., Texas A&M University

Ryan, John A. *1975, Professor of Marketing, Dean, College of Business*
B.S., University of Southern California; M.B.A., Ph.D., The University of Texas

Ryan, William L. *1978, Assistant Professor, Library*
B.S., Northwest Missouri State University; M.L.S., M.A., Ed., Specialist-Instructional Media, University of Missouri

Sanders, L. Thomas *1974, Assistant Professor of Government*
B.A., Louisiana State University; M.A., University of Michigan; Ph.D., University of Michigan, Ann Arbor

Satterfield, R. Beeler *1963, Professor of History*
B.A., M.A., Vanderbilt University; Ph.D., Johns Hopkins University

Scarber, Tena Carroll *1979, Clinical Instructor of Respiratory Technology*
Certificate in Respiratory Technology, Lamar University; A.A.S., Southwest Texas State University; Certified Respiratory Therapy Technician

Schnur, James O. *1980, Professor of Elementary Education and Dean, College of Education*
B.S., M.S., State University College, Fredonia, New York; Ed.D., State University of New York at Buffalo

Schroeder, James E. *1973, Associate Professor of Psychology*
B.S., University of Iowa; M.A., Ph.D., University of New Mexico

Schroeter, William *1977, Adjunct Instructor of Real Estate*

Seelbach, Wayne C. *1976, Associate Professor of Sociology and Gerontology, Head, Department of Sociology, Social Work and Criminal Justice*
B.A., Lamar University; M.A., Stephen F. Austin State University; Ph.D., The Pennsylvania State University

Self, E. Lee *1959, Professor of Secondary Education, Director, Field Experiences*
B.S., M.Ed., Northwestern State University of Louisiana; Ph.D., Louisiana State University

Senorski, Andrew Peter *1978, Lecturer of Health and Physical Education for Men, Assistant Track Coach*
B.S., M.S., Lamar University

Shaver, O. Roy *1978, Adjunct Assistant Professor of Chemical Engineering*
B.S., M.S., Ph.D., University of Houston

Shepherd, J. G. *1957, Associate Professor of Physics*
B.S., M.A., North Texas State University

Sheppeard, Sallye J. *1980, Adjunct Instructor 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*
B.S., Sam Houston State University; M.A., Ph.D., University of Texas

Shmider, Edward *1980, Assistant Professor of Music*
Bachelor's in Music, Musorgsky Musical College; Master's in Music and Aspirant Degree, Gnessin Music Academy, Moscow

Short, W. David *1974, Instructor of Radiologic Technology and Head, Department of Allied Health*
B.S., Incarnate Word College; M.Ed., University of Houston; Registered Radiographer

Sims, Victor H. *1978, Instructor of Criminal Justice*
B.A., University of Mississippi; M.S., Arizona State University

Singh, Ramchandra S. *1977, Associate Professor in the Department of Civil Engineering*
B.S., Nagpur University; M.S., University of Illinois; Ph.D., University of Wisconsin

Slaydon, Bessie *1980, Instructor of Nursing*
B.S.N., McNeese State University; M.S.N., Univerity of Texas at Galveston; Registered Nurse

Smith, Bobbie L. *1981, Master Sergeant, Military Science*
B.A., Columbia College

Smith, Frances J. *1977, Instructor of Nursing*
B.S., Northwestern State University; M.S.N., Texas Woman's University; Registered Nurse

Smith, Kevin B. *1981, Assistant Professor of Sociology*
B.S., Texas A&M University; M.A., Ph.D., Louisana State University

Smith, W. Russell *1946, Regents' Professor of Biology*
B.S., M.S., North Texas State University; Ph.D., University of Texas

Smith, Wayne S. *1981, Major/Professor of Military Science*
B.A., Troy State University

Snider, Walter D. *1978, Assistant Professor of Business Law*
B.A., L.L.B./J.D., Baylor University

Snyder, Phillip B. *1972, Associate Professor of Secondary Education*
B.S., Trinity University; M.Ed., Ph.D., University of Texas

Sommerfeld, John F. *1978, Instructor of Art*
B.F.A., M.S., University of Wisconsin

Sontag, Monty L. *1972, Professor of Special Education and Head, Department of Special Education*
B.A., University of Denver; M.A., Ed.D., Columbia University

Spradley, Larry W. *1972, Associate 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 III of Technical Mathematics*
B.A., M.S., Lamar University

Standley, Troy *1975, Instructor II of Fire Protection Technology and Coordinator, Fire Training Program*
LL.B., Baylor University

Stanley, William H. *1973, Associate Professor of Secondary Education*
B.S., North Texas State University; M.Ed., Hardin-Simmons University; Ed.D., North Texas State 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 and Director of Advising Center*
B.S., M.B.A., University of Florida

Stevens, James B. *1970, Associate Professor of Geology*
B.S., M.S., University of Michigan; Ph.D., University of Texas

Stevens, Manfred *1960, Professor of Government and Head, Department of Government*
B.A., M.A., University of Oklahoma; Ph.D., University of Michigan

Stidham, Ronald *1970, Assistant Professor of Government*
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, Faye N. *1968, Instructor II of Nursing*
Diploma, Harriet L. Mather School of Nursing, Southern Baptist Hospital; Registered Nurse

Storey, John W. *1968, Professor of History*
B.A., Lamar University; M.A., Baylor University; Ph.D., University of Kentucky

Strickland, Arney, L. *1969, Professor of English and Acting Director, English as Second Language Program*
B.A., M.A., Lamar University; Ed.D., Ball State University

Suiter, Coleta Faye *1980, Adjunct Instructor of Home Economics*
B.S., M.S., Lamar University

Summerlin, Charles T. *1973, Assistant Professor of English, Director of Freshman English*
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

Swerdlow, Robert A. *1978, Associate Professor of Marketing, Graduate Coordinator, MBA Program*
B.B.A., M.B.A., Lamar University; Ph.D., University of Arkansas

Taylor, David G. *1955, Associate Professor of Marketing*
B.A., M.A., Baylor University

Taylor, Ruth *1977, Associate Professor of Nursing*
B.S.N., M.S.N., Hunter College of City University of New York; M.Ed., Fordham University, Registered Nurse

Tennissen, Anthony C. *1963, Regents' Professor of Geology*
B.S., University of Tulsa; M.S., Syracuse University; Ph.D., University of Missouri-Rolla

Thames, Dorothy Faye *1957, Assistant Professor of Mathematics*
A.B., Birmingham-Southern College; M.A., George Peabody College for Teachers

Thibodoux, Francis E. *1978, Instructor I of Industrial Electricity and Electronics Technology*
B.S., Louisiana State 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

Thompson, Ellis *1956, Instructor III of Refrigeration and Air Conditioning Technology*

Thompson, John A. *1981, Instructor I of Related Arts*

Thompson, Lou Ann *1978, Adjunct Instructor of English*
B.A., North Texas State University; M.A., Louisiana State University

Tiedt, Eileen *1981, Professor of Nursing and Head, Department of Nursing*
B.S.N., Marquette State University; M.S.N., Wayne State University; Ph.D., Ohio State University

Tims, George B., Jr. *1951, Professor of Industrial Engineering, Director of Cooperative Education*
B.S., M.S., Oklahoma State University; Registered Professional Engineer

Tritsch, Jon P. *1980, Serials Cataloger, Instructor*
B.S., Peru State College; M.L.S., Emporia State University; M.A., Sam Houston State University

Truncale, Joseph *1954, Associate Professor of Music*
B.M., North Texas State University; M.L., University of Houston

Tucker, Jerry R. *1971, Associate Professor of Secondary Education*
B.S., University of Texas; M.Ed., Trinity University; Ph.D., Texas A&M University

Tucker, William R. *1956, Regents' Professor of Government*
B.A., M.A., University of Oklahoma; Ph.D., University of Geneva

Turco, Charles P. *1965, Professor of Biology, Director of Research and 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, Instructor of Nursing*
B.S.N., University of North Florida; M.S.N., Medical College of Georgia; Registered Nurse

Urbano, Victoria Eugenia *1966, Regents' Professor of Modern Languages*
B.A., Colegio Superior; M.A., Ph.D., Universidad de Madrid

Utter, Glenn H. *1972, Associate Professor of Government*
B.A., State University of New York at Binghamton; M.A., Ph.D., State University of New York at Buffalo

Vanzant, Howard C. *1966, Professor of Mathematics*
B.S., University of Texas at El Paso; M.S., Ph.D., University of Florida

Vaughn, Jeannette W. *1954, Assistant Professor of Office Administration*
B.A., Texas Woman's University; M.B.A., University of Texas

Veuleman, Malcolm W. *1970, Professor of Accounting and Head, Department of Accounting*
B.S., McNeese State University; M.B.A., Ph.D., University of Arkansas; Certified Public Accountant

Vint, Robert Lee, III *1981, Lecturer, Assistant Basketball Coach*
B.S.E., M.S.E., University of Arkansas

Waddell, Henry T. *1963, Professor of Biology*
B.S., M.A., George Peabody College for Teachers; Ph.D., University of Florida

Wakeland, William R. *1978, Professor of Electrical Engineering*
Head, Department of Electrical Engineering
B.S., U.S. Naval Academy; M.S., Naval Postgraduate School; Ph.D., University of Houston; Registered Professional Engineer

Waldron, Bobby R. *1970, Associate Professor of Computer Science*
and Director, Division 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 I of Drafting Technology*
A.A.S., Lamar University

Walker, James L., Jr. *1969, Associate 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

Walker, William S. *1980, Carol Tyrrell Kyle Associate Artist*
B.A., Texas Christian University

Wall, George B. *1965, Professor of Philosophy*
B.A., Occidental College; B.D., Fuller Theological Seminary; Ph.D., University of Southern California

Wallace, Patrick A. *1977, Clinical Instructor of Respiratory Technology*
Certificate in Respiratory Therapy, Southern Community State College; Associate of Science, Denver Community College; Registered Respiratory Therapist; Registered Nurse

Walsh, Dennis M. *1978, Lecturer of Health and Physical Education for Men, Assistant Basketball Coach*
B.A., Providence College; M.S., Lamar University

Warren, Michael E. *1966, Professor of Biology and Head, Department of Biology*
B.A., M.A., Ph.D., University of Texas

Watt, Joseph T., Jr. *1965, Associate Professor of Electrical Engineering*
B.A., B.S., Rice University; M.S., Ph.D., The University of Texas; Registered Professional Engineer

Waugh, Darimell *1979, Assistant Professor of Nursing*
B.S.N., Florida A&M University; M.S.N., Wayne State University; Registered Nurse

Wesbrooks, Ronald L. *1969, Instructor of Health and Physical Education for Men, Tennis Coach*
B.S., Eastern New Mexico University; M.S., Lamar University

Wesley, Carey B. *1966, Instructor IV of Welding*
A.A.S., Lamar University

Wheeler, Marjorie *1970, Head, Library Reference Services, Assistant Professor*
A.B., Smith College; M.A., Johns Hopkins University

White, Charles W. *1980, Associate Professor of Marketing*
B.B.A., M.B.A., Baylor University; D.B.A., Mississippi State University

White, Kathryn *1973, Associate Professor of Office Administration*
B.S., M.S., Oklahoma State University; M.R.E., Southwestern Baptist Theological Seminary; Ed.D., Oklahoma State University

Whittle, John A. *1969, Associate Professor of Chemistry*
B.S., University of Glasgow; Ph.D., University of London, Imperial College

Wiley, Charles A. *1952, Regents' Professor of Music, Director of Bands*
B.S., Texas Tech University; M.M., University of Texas; Ed.D., University of Colorado

Wilkerson, Robert H. *1964, Assistant Professor of Communication*
B.A., M.A., University of Oklahoma

Williams, Donald E. *1952, Associate Professor of Management*
B.A., M.A., Ed.D., North Texas State University

Williams, Harry L. *1968, Vocational Counselor*
B.B.A, Stephen F. Austin State University; M.Ed., Lamar University

Williams, Preston B. *1950, Professor of History, Dean, College of Liberal Arts*
B.A., M.A., North Texas State University; Ph.D., University of Texas

Wills, Curtis E. *1971, Associate Professor of Secondary Education*
B.S., M.Ed., Sam Houston State University; Ed.D., North Texas State University; Licensed Psychologist

Wills, Linda M. *1979, Lecturer of Health and Physical Education for Women, Volleyball Coach*
B.A., Long Beach State University; M.A., Northern Arizona State University

Wilsker, Donna *1977, Assistant Professor of Nursing*
B.S.N., University of Bridgeport; M.S.N., University of Maryland, Registered Nurse

Wilsker, Ira Lee *1977, Instructor II of Mid-Management*
B.S., M.B.A., University of Maryland

Wilson, Jerry L. *1970, Instructor IV of Industrial Electricity and Electronics Technology and Head, Technical Department*
B.S., M.Ed., Lamar University; Ph.D., Texas A&M University

Wohler, Marjorie Lynn *1975, Instructor of Nursing*
B.S.N., McNeese State University; M.S.N., Texas Woman's University; Registered Nurse

Wood, Sam M., Jr. *1958, Associate Professor of Mathematics, Director of Mathematics Instruction, Regents' Professor*
B.A., University of Texas; M.S., Texas A&M University

Woodland, Naaman J., Jr. *1957, Associate Professor of History*
B.A., B.S., Louisiana State University; M.A., Northwestern University

Woodward, George A. *1967, Associate Professor of Sociology*
B.S., M.A., University of Houston; Ph.D., University of Oklahoma

Wooster, Ralph A. *1955, Regents' Professor of History and Dean of Faculties*
B.A., M.A., University of Houston; Ph.D., University of Texas

Wooten, Bobby E. *1975, Associate Professor of Management and Coordinator of Management and Finance Programs*
B.B.A., M.B.A., Lamar University; Ph.D., Louisiana State University; Accredited Personnel Specialist (APS)

Worsham, William L. *1972, Assistant Professor of Health and Physical Education for Men, Director of Intramurals for Men*
B.S., M.Ed., Lamar University

Wu, Wen-Teng *1981, Visiting Professor of Chemical Engineering*
B.S., M.S., Ph.D., National Cheng Kung University

Yates, Leonard A. *1966, Regents' Professor of Health and Physical Education for Men*
B.S., M.S., Louisiana State University; Ed.D., University of Houston

Yaws, Carl L. *1975, Professor of Chemical Engineering*
B.S., Texas A&I University; M.S., Ph.D., University of Houston; Registered Professional Engineer

Yerick, Roger E. *1958, Professor of Chemistry, Dean, College of Sciences, and Dean, College of Graduate Studies*
B.S., Texas A&I University; Ph.D., Iowa State University

Young, Fred M. *1978, Professor of Mechanical Engineering and Dean, College of Engineering*
B.S.M.E., M.S.M.E., Ph.D., Southern Methodist University; Registered Professional Engineer

Young, Ira Lee *1978, Instructor of Radiology Technology*
B.A., McNeese State University; M.Ed., Nicholls State University; Registered Radiographer

Zaloom, Victor A. *1981, Professor of Industrial Engineering and Head, 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 Health and Physical Education for Men, Athletic Trainer*
B.S., University of Texas at El Paso

Zurlo, John A. *1980, Adjunct Instructor of English*
B.A., M.A., University of Texas at Arlington; M.A., State University of New York

Part-Time Faculty

Adams, Frank A. *1975, Adjunct Instructor of Real Estate*
B.A., Vanderbilt University; J.D., University of Texas

Adams, Lucien J., III *1981 Adjunct Instructor of Chemical Engineering*
B.S., University of Southwestern Louisiana

Adams, Marilyn A. *1976, Adjunct Instructor of Business Law*
B.A., University of Texas; J.D., South Texas College of Law

Allen, Jeraldine N. *1981, Clinical Instructor of Radiologic Technology*
A.A.S., Lamar University; Registered Radiographer

Baker, Blanch J. *1980, Adjunct Instructor of Mathematics*
B.A., Lamar University; M.A., Ph.D., University of Texas at Austin

Barnes, Geralann *1981, Adjunct Instructor of Related Arts*

Barrington, Peggy *1981, Adjunct Instructor of Office Administration*
B.B.A., Lamar University; M.B.A., Sam Houston State University

Barry, Gene Norman *D.D.S., Adjunct Instructor of Dental Hygiene*
B.S., University of Houston; D.D.S., Harvard School of Dental Medicine

Bell, M. Katherine *1962, Associate Professor of Mathematics*
B.S., Florida State University; M.A., University of Cincinnati; Regents' Professor

Berwick, John E. *1978, Adjunct Instructor of Refrigeration and Air Conditioning*
A.A.S., Lamar University

Bickings, Jayne *1981, Adjunct Instructor of Communications*
B.S., M.A., Texas Women's University

Black, James W. *1981, Adjunct Instructor of Marketing*
B.S., M.B.A., Lamar University

Black, Robert A. *1981, Adjunct Instructor of Business Law*
B.A., University of Texas at El Paso; J.D., Texas Tech University

Bledsoe, Richard W. *1980, Adjunct Instructor of Industrial Electricity and Electronics Technology*

Bohrer, Lyle E. *1946, Assistant Professor of Electrical Engineering*
B.S., Rice University; M.S., University of Colorado; Registered Professional Engineer

Brown, Gerald *1981, Adjunct Instructor of Fire Technology*

Burris, Barbara Y. *1976, Adjunct Instructor of Related Arts*
B.A., Lamar University

Byram, Betty *1978, Adjunct Instructor of Accounting*
B.A., Louisiana State University; M.B.A., Lamar University; Certified Public Accountant

Calvillo, Colleen *1980, Clinical Instructor of Respiratory Technology*
Respiratory Therapy Technician

Campbell, Vera H. *1966, Assistant Professor of Speech*
B.A., Morningside College; M.A., University of Northern Colorado; Certificate, New York University

Capello, June Marie *1981, Adjunct Instructor of Related Arts*

Cater, Otis E., III *1977, Adjunct Instructor of Real Estate*
B.S., M.Ed., Lamar University

Cavaliere, Jose A., Jr. *1980, Adjunct Instructor of Civil Engineering*
B.S.C.E., M.B.A., M.Egr., Rensselaer Polytechnic Institute

Clark, Dorothy J. *1980, Adjunct Instructor of Business Data Processing*
B.B.A., Lamar University

Cole, Joanne Beth *1981, Clinical Instructor of Dental Hygiene*
Registered Dental Hygienist

Coody, Betty F. *1963, Regents' Professor of Elementary Education*
B.A., East Texas State University; M.Ed., Ph.D., University of Texas

Craigue, William *1980, Adjunct Instructor in the Department of Civil Engineering*

Crutchfield, Joe Wayne *1980, Adjunct Instructor of Criminal Justice*
B.S., Lamar University

Daigle, Elizabeth Farr *1981, Adjunct Instructor of Related Arts*

De Blanc, Michael *1981, Adjunct Instructor, Technical Department*
A.A.S., Lamar University

De Ment, Dack B. *1981, Adjunct Instructor of Mathematics*
B.A., Henderson State Teachers College; M.A., M.E., Louisiana State University

Dowden, Lairon W. *1974, Adjunct Instructor of Refrigeration and Air Conditioning Technology*

Droddy, Volley C. *1978, Adjunct Instructor of Maintenance Pipefitting*

Eddy, Louise *1980, Adjunct Instructor of Communication*
B.S., M.S., Lamar University

Farrar, W. Fred *1967, Associate Professor of Accounting*
B.A., Louisiana Tech University; M.B.A., University of Texas; Certified Public Accountant

Franks, Wanda *1977, Adjunct Instructor of Related Arts*
B.S., M.Ed., Lamar University

Fudicker, Jane *1981, Adjunct Instructor of Speech*
B.S., Louisiana State University; M.S., Lamar University

Gertz, Paul W. *1980, Adjunct Instructor of Business Law*
B.S., Stephen F. Austin State University; J.D., Southern Methodist University Law School

Giglio, Sam C., Jr. *1978, Adjunct Professor of Dental Hygiene*
B.S., Lamar University; D.D.S., University of Texas Dental Branch-Houston

Gipson, Errett D., Jr. *1975, Adjunct Instructor of Drafting Technology*
A.A.S., Lamar University

Gish, James *1979, Adjunct Professor of Radiologic Technology*
B.S., M.D., Indiana University

Gray, Nancy Feeling *1981, Adjunct Instructor of Related Arts*

Griffin, Richard P. *1978, Adjunct Instructor of Occupational Safety and Health*
B.S., Baylor University; M.B.A., Lamar University

Hansen, Elizabeth Claudia *1981, Adjunct Instructor of Mathematics*
B.S., M.C.S., Texas A&M University

Hardy, Thomas J. *1979, Adjunct Instructor in the Department of Electrical Engineering*
B.S., U.S. Naval Academy; M.S., Texas A&M University

Hartford, William H. *1973, Instructor III of Related Arts*

Hassell, David *1981, Adjunct Instructor of Occupational Safety and Health*
B.S., University of Maryland

Hasson, John *1981, Adjunct Instructor of Business Computers*
B.B.A., M.B.A., Lamar University

Hayes, James L. *1974, Adjunct Instructor of Accounting*
B.B.A., University of Texas

Hebert, Lisa *1981, Research Assistant, Department of Communication*
B.S., University of Southern Louisiana

Henry, W. R. *1976, Adjunct Associate Professor in the Department of Civil Engineering*
B.S., M.S., East Texas University

Herbert, Herman G. *1980, Adjunct Instructor of Refrigeration and Air Conditioning Technology*
A.A.S., Lamar University

Herrington, Thomas R. *1978, Adjunct Instructor of Welding*
A.A.S., Lamar University

Hidalgo, Robert A. *1980, Adjunct Instructor of Business Data Processing*
B.S., Lamar University

Hillin, Celeste *1981, Staff Audiologist, Department of Communication*
B.S., M.S., Lamar University

Holmes, John A. *1980, Adjunct Instructor of Plant Maintenance*
A.A.S., Lamar University

Hornack, Mary M. *1979, Adjunct Instructor of Child Care Technology*
B.S., M.Ed., East Texas State University

Houseman, Robert *1978, Adjunct Instructor of Real Estate*

Huckaby, Dennis *1981, Adjunct Instructor of Related Arts*
B.S., Lamar University

Innman, Ben W., Jr. *1980, Adjunct Instructor of Diesel Mechanics*
A.A.S., Lamar 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, Harvey C. *1971, Professor of Secondary Education*
B.A., Texas College; M.A., University of Michigan; Ed.D., University of Southern California

Johnson, James O. *1980, Adjunct Instructor of Marketing*
B.B.A., University of Mississippi; M.A., University of Alabama

Kaszynski, Hubert *1955, Professor of Music*
B.M.Ed., Sherwood Music School; M.M., Chicago Musical College

Kavanaugh, Stephen P. *1980, Adjunct Instructor in the Department of Mechanical Engineering*

Kaye, Lory *1981, Adjunct Instructor of Office Administration*
B.B.A., Lamar University

Kilpatrick, Ruby N. *1977, Clinical Instructor of Nursing*
B.S.N., Lamar University; Registered Nurse

Kinard, Penne *1981, Adjunct Instructor of Child Care Technology*
B.S., Lamar University

Klaus, Mary A. *1977, Adjunct Instructor of Child Care Technology*
B.S., M.S., University of Missouri

Knippel, Jeanette M. *1980, Adjunct Instructor of Child Care Technology*
B.S., North Texas State University; M.Ed., Texas Woman's University

Koehler, Joel *1978, Adjunct Professor of Dental Hygiene*
B.S., Texas A&M University; D.D.S., University of Texas Dental Branch-Houston

Laird, Gary *1975, Adjunct Instructor of Special Education*
B.S., M.A., Lamar University

Landes, J. D. *1946, Professor of Accounting*
B.A., M.S., North Texas State University; Ph.D., University of North Carolina

Landegren, G. F. *1946, Associate Professor of Physics*
B.S., Texas A&I University; M.A., University of Texas

Lee, Jim C. *1978, Adjunct Instructor of Civil Engineering*
B.S., University of New Mexico; M.S., Pennsylvania State University; Ph.D., University of Oklahoma; Registered Professional Engineer

Lee, Kenneth R. *1980, Adjunct Instructor of Computer Science*
B.S., University of Texas at Austin; M.Ed., Lamar University

Leitch, Nora B. *1954, Assistant Professor of English and Director of Retention*
B.A., Meredith College; M.A., Lamar University

Louvier, Sharon K. *1980, Adjunct Instructor of Related Arts*
B.S., M.S., Lamar University

Lovelace, Daryl G. *1979, Adjunct Instructor of Drafting Technology*

Mainord, Robert A., Jr. *1980, Adjunct Instructor of Industrial Electricity and Electronics Technology*
B.S., Lamar University

Mang, Conrad D. *1969, Professor of Elementary Education*
B.S., M.Ed., M.L., University of Houston; Ed.D., University of Texas

Mann, David L. *1976, Adjunct Instructor of Real Estate*
B.B.A., Southern Methodist University

McClendon, Bruce W. *1980, Adjunct Instructor of Real Estate*
B.A., University of Missouri; M.A., University of Oklahoma

McLaughlin, Marvin L. *1946, Professor of Elementary Education*
B.S., Sam Houston State University; M.Ed., University of Texas; Ed.D., University of Houston

Mitterlehner, Walter D. *1978, Adjunct Instructor of Occupational Safety and Health*

Mittra, Kumar T. *1977, Adjunct Assistant Professor in the Department of Civil Engineering*
B.S., Ranchi University; M.S., Indian Institute of Technology; Ph.D., University of Mississippi

Moniz, Bertram J. *1980, Adjunct Instructor of Welding*
B.S., University of Aston, England; M.S., University of London

Montalbano, Gail *1980, Clinical Instructor of Respiratory Technology*
Certificate in Respiratory Technology, Lamar University; Certified Respiratory Therapy Technician

Morgan, Kim Renee *1981, Research Assistant, Department of Communication*
B.S., Lamar University

Nunez, Ronald J. *1979, Adjunct Instructor of Welding*
A.A.S., Lamar University

Partin, Charles A. *1964, Professor of Economics*
B.S., Stephen F. Austin State University; M.A., Ph.D., University of Texas

Peters, William C. *1967, Adjunct Instructor of Business Data Processing*
B.A., University of Louisville

Phair, George Allan *1980, Adjunct Instructor of Criminal Justice*

Pierce, Dorothy *1978, Adjunct Instructor of Real Estate*
A.A.S., Lamar University

Reed, Charles C. *1978, Adjunct Instructor of Accounting*
B.S., Indiana University; Certified Public Accountant

Reger, Gary N. *1980, Adjunct Instructor of Business Law*
B.B.A., Texas A&M University; J.D., University of Texas School of Law

Reynard, Betty Jane *1979, Clinical Instructor of Dental Hygiene*
A.A.S., B.S., Lamar University; Registered Dental Hygienist

Roberts, Katherine A. *1979, Clinical Instructor of Nursing*
B.S.N., University of Texas at Houston; Registered Nurse

Roth, Laura *1980, Adjunct Instructor of Communication*

Satterfield, Gregory L. *1979, Adjunct Instructor of Occupational Safety and Health*
B.A., Fairmont State College; M.S., West Virginia University

Seitz, Kathleen *1981, Research Assistant, Department of Communication*
B.S., University of Connecticut

Seymour, Mark *1980, Adjunct Instructor of Chemistry*

Scarborough, Joanne *1980, Adjunct Instructor of Communication*
B.A., University of Texas; M.A., Mills College

Schexnaider, Craig *1979, Adjunct Instructor of Accounting*
B.B.A., M.B.A., Lamar University

Schroder, John P. *1979, Adjunct Instructor of Drafting Technology*
B.S., University of Southwestern Louisiana

Schroeter, William E. *1977, Adjunct Instructor of Real Estate*

Shanks, James E. *1978, Adjunct Instructor, Related Arts*
B.S., Lamar University

Shaver, O. Roy *1980, Adjunct Professor of Chemical Engineering*
B.S., M.S., Ph.D., University of Houston; Registered Professional Engineer

Shaver, Patricia F. *1980, Adjunct Instructor of Office Administration*
B.B.A., M.B.A., Lamar University

Shaw, Paul B. *1974, Adjunct Professor of Respiratory Technology*
B.S., Mississippi State University; M.D., Tulane University

Sigur, Ronald *1978, Adjunct Instructor of Drafting Technology*

Simmons, James M. *1970, Assistant Professor of Music*
B.S., Memphis State University; M.M., University of Houston; Ed.D. McNeese State University

Smith, Albert E. *1976, Adjunct Instructor of Related Arts*
B.S., M.Ed., Stephen F. Austin State University

Smith, Genevieve Z. *1959, Assistant Professor of Modern Languages*
B.A., Milton College; M.A., Instituto Tecnologico de Monterrey

Standley, Arthur *1981, Adjunct Instructor of Technical Arts*

Stephenson, R. Regan *1980, Adjunct Instructor of Real Estate*
B.B.A., Lamar University

Stevens, Eleanor M. *1977, Adjunct Instructor of Office Administration*
B.B.A., University of Texas; M.B.A., University of Houston

Stevens, Margaret S. *1980, Adjunct Instructor of Geology*

Stidham, Mary Lea *1981, Adjunct Instructor of Related Arts*

Strafau, Robert David *1981, Adjunct Instructor of Related Arts*

Switzer, Fred S., III *1980, Adjunct Instructor of Business Data Processing*
B.A., University of Texas

Terrell, Wade E *1980, Adjunct Instructor of Diesel Mechanics*
A.A.S., Lamar University

Thibodeaux, Linda *1981, Adjunct Instructor of Home Economics*
B.S., M.S., Lamar University

Van Meter, Barbara L. *1981, Adjunct Instructor of Home Economics*
B.S., M.Ed., Lamar University

Venza, Anthony J., Jr. *1978, Adjunct Instructor of Mid-Management*
B.A., B.B.A., M.B.A., Lamar University

Victor, Ann *1980, Adjunct Instructor of Music*
B.M., M.M., Kent State University

Wagner, Kevin E. *1981, Adjunct Instructor of Related Arts*

Walker, Byron P. *1979, Adjunct Instructor of Drafting Technology*
A.A.S., Lamar University

Warren, J. Donald *1980, Adjunct Associate Professor of Accounting*
B.B.A., Lamar University; M.B.A., George Washington University

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

Webb, Clem T. *1976, Adjunct Instructor of Art*
B.S., Lamar University

Webster, Wilbur G. *1972, Adjunct Instructor of Mid-Management*
B.S., University of Southwestern Louisiana

Wheeler, Gary M. *1981, Adjunct Instructor of Related Arts*

White, Dennis P. *1981, Adjunct Instructor of Criminal Justice*

White, James T. *1977, Adjunct Instructor of Drafting Technology*
A.A.S., Lamar University

White, Vicki R. *1981, Adjunct Instructor of Home Economics*
B.S., M.Ed., Texas Christian University

Whitmarsh, Robert H. *1979, Adjunct Instructor of Chemistry*

Wiggins, Sharon A. *1980, Adjunct Instructor of Occupational Safety and Health*

Wilkerson, Joan S. *1969, Assistant Professor of English*
A.B., Duke University; M.A., George Peabody College for Teachers

Williams, Harry L. *1972, Vocational Counselor of Related Arts*

Williams, Roland *1980, Adjunct Professor of Dental Hygiene*
B.S., Lamar University; D.D.S., University of Texas Dental Branch, Houston

Wilson, James C. *1980, Adjunct Instructor of Plant Maintenance and Operations*

Winney, Betty *1967, Assistant Professor of Speech and Hearing Therapy*
B.S., M.S., Lamar University; Certificate in Audiology

Woods, Anita J. *1971, Adjunct Instructor of Related Arts*
B.A., Sam Houston State University

Lamar University at Orange

Faculty 1981-82

The following list reflects the status of the Lamar University at Orange faculty as of November, 1981. The date following each name is the academic year of first service to the University and does not necessarily imply continuous service since that time.

Aims, B. Doug *1981, Assistant Professor and Director, Academic Programs*
B.S., M.S., Washington University M.Ed., Ed.D., Memphis State University

Arnow, Judith Z. *1972, Assistant Professor of Mathematics*
B.A., University of North Dakota; M.S., Lamar University; M.S., Rice University

Brown, M. Ray *1978, Assistant Professor of Sociology*
B.A., M.A., Texas Tech University; Ph.D., Brown University

Campbell, Jesse W. Jr. *1976, Adjunct Instructor of Physical Education*
B.S., M.Ed., Lamar University

Daniel, G. Max *1973, Assistant Professor of Government*
B.A., Lamar University; M.A., Sam Houston State University

Dickey, Sandra Kay *1981, Clinical Vocational Nursing Instructor*
B.S., Lamar University; Registered Nurse

Ferris, Raymond B. *1980, Instructor I of Industrial Electricity and Electronics*
A.A.S. Lamar University

Franklin, Larkin C. *1970, Instructor of English*
B.A., Lamar University; M.A., Brigham Young University

Gardner, John C. *1980, Assistant Professor of Accounting and History*
B.A., Stetson University; M.A., Florida State University M.L.S., Louisiana State University; M.B.A., North Texas State University; Ph.D., Louisiana State University

Horton, Don E. *1974, Instructor II of Mid-Management and Director of Technical Arts*
B.S., Louisiana Tech University; M.B.A., University of West Florida; Certified Professional Secretary

Naughton, Alan J. *1980, Adjunct Instructor of Economics*
B.A., Tarkio College; M.A., Southern Illinois University

Peebles, Robert H. *1970, Assistant Professor of History*
B.S., Lamar University; M.A., Sam Houston State University; Ph.D., North Texas State University

Ronning, James C. *1970, Assistant Professor of Psychology*
B.S., Lamar University; M.Ed., Abilene Christian University; E.Dd., McNeese State University

Talmadge, Geraldine *1976, Adjunct Instructor of Music*
B.S., M.A., Lamar University

Taylor, Hyman K. *1972, Instructor II of Drafting Technology*
A.A.S., B.S., Lamar University

Thiele, Harold *1977, Instructor I of Drafting Technology*
B.S., University of Southwestern Louisiana; M.Ed., Louisiana State University

Thrasher-Smith, Shelley Ann *1971, Assistant Professor of English*
B.A., M.A., North Texas State University; Ph.D., University of Houston

Walley, Leslie G. *1976, Instructor I of Industrial Electricity and Electronics Technology*

Welch, Bonnie F. *1978, Instructor I of Office Occupations*
B.B.A., Lamar University

Wielgus, Cathy J. *1980, Clinical Instructor of Nursing*
B.S.N., West Virginia University; Registered Nurse

Williamson, Annie W. *1979, Instructor I of Office Occupations*
A.A., Rockland Community College; B.A., Michigan State University; M.Ed., Bowling Green State University

Wilmore, Larry R. *1974, Assistant Professor of Biology*
B.S., Lamar University; M.S., Ohio State University

Part-Time Faculty

Ahlgrim, Ronald *1980, Adjunct Instructor of Welding*

Arabic, Robert *1981, Adjunct Instructor of Welding*

Blagburn, Rickey R. *1981, Teaching Assistant*

Branson, Wilma C. *1978, Adjunct Instructor of Technical Mathematics*
B.S., Lamar University

Collier, Helen L. *1980, Adjunct Instructor of Business Communications*
M.Ed., University of Illinois

Daniel, Mary Ann *1979, Adjunct Instructor of Sociology*
B.S., University of Houston

Dupree, Carol S. *1981, Adjunct Instructor of Office Occupations*
B.S., M.S., Emporia State University

Freeman, Brenda L. *1981, Instructor of Office Occupations*
B.B.A., Georgia College; J.D., Walter F. George School of Law-Mercer University

Head, Sandra J. *1981, Adjunct Instructor of Real Estate*

Inman, Anna Carol *1981, Adjunct Instructor of Marketing*
B.B.A., Lamar University

Kirkendall, Steve *1981, Adjunct Instructor of English*
B.A., M.Ed., Lamar University

McLendon, Connie J. *1981, Adjunct Instructor of English*
B.S., Texas A&I University; M.A., North Texas State University

Milton, Summer Gale *1979, Adjunct Instructor of Office Occupations*
J.D., South Texas College of Law

Orlowsky, Edward L. *1981, Instructor of Drafting*

Pate, Martha Joel Brown *1979, Adjunct Instructor of Mathematics*
B.S., M.S., Lamar University

Perkins, Lana *1981, Adjunct Instructor of Drafting Technology*

Reeves, Claudie H., II *1981, Adjunct Instructor of Industrial Supervision*
B.S., University of the State of New York; B.S., University of Maryland; M.A., University of Northern Colorado

Rives, Barbara Sunderland *1980, Adjunct Instructor of Technical Mathematics*
B.A., David Lipscomb College

Robinson, Jeanette H. *1981, Instructor of English*
B.A., University of Texas; M.A., Lamar University

Ryland, Nelda S. *1981, Instructor of Technical English*
B.S., Lamar University

Shipman, Truth L. *1975, Adjunct Instructor of Technical Mathematics*
B.A., M.Ed., Lamar University

Stevens, Margaret S. *1972, Adjunct Instructor of Geology*
B.A., Central Michigan University; M.S., University of Michigan

Thompson, Becky McGlothen *1981, Adjunct Instructor of Office Occupations*
B.B.A., Lamar University

Warner, Jean *1980, Adjunct Instructor of Psychology*
M.A., University of Iowa

Wimberley, Ruby J. *1976, Adjunct Instructor of Real Estate*

Windham, Ben *1981, Adjunct Instructor of Electronics*
A.A.S., Lamar University

Young, Paul Jr. *1981, Adjunct Instructor of Speech*

Lamar University at Port Arthur

Faculty 1982-83

The following list reflects the status of the Lamar University at Port Arthur faculty as of November, 1981. The date following each name is the academic year of first service to the University and does not necessarily imply continuous service since that time.

Barron, Glenda O. *1975, Instructor II of Office Occupations and Head, Office Occupations Department*
B.S., University of Houston; M.Ed., McNeese University

Bell, Rose Mary *1981, Instructor I of Cosmetology*
Registered Cosmetologist

Berthelsen, Rodney *1977, Instructor of Sociology*
B.A., Northwestern College; M.A., University of South Dakota

Burris, Shirley H. *1978, Instructor I of Office Occupations*
B.A., M.B.Ed., Stephen F. Austin State University

Dobbs, Gayle S. *1976, Instructor II of Office Occupations*
B.B.A., M.B.A., Lamar University

Eubanks, Jessie A. *1981, Instructor I of Office Occupations*
B.B.A., Lamar University

Gongre, Charles, *1977, Assistant Professor of English and Director of Academic Programs*
B.A., Lamar University; M.A., Stephen F. Austin State University; Ph.D., North Texas State University

Goodwin, Jo Ann *1976, Instructor of Mathematics*
B.A., M.A., Lamar University

Hachbald, Shirley Sue *1980, Instructor of English*
A.A., Blinn College; B.A., M.A., University of Houston

Hutchins, Janis A. *1980, Instructor I of Office Occupations*
B.B.A., M.B.A., Lamar University

McKay, Robert B. *1980, Instructor I of Automotive Mechanics*

Meyer, Kenneth E. *1981, Instructor I of Automotive Mechanics*
B.S., Mankato State University

Modica, Carolyn J. *1981, Instructor I of Cosmetology*
Registered Cosmetologist

Moore, Inell *1975, Instructor I of Office Occupations*
B.A., M.Ed., Texas Southern University

Parker, Beverly *1975, Instructor of Government*
B.A., Southwestern University; M.A., Lamar University

Pate, W. L., Jr. *1978, Instructor of Mid-Management*
B.B.A., M.B.A. Lamar University

Peeler, Robert W. *1979, Instructor I of Electronics Technology*
B.S., Lamar University

Pinder, Volney *1981, Adjunct Instructor of Technical Mathematics*
B.S., Lamar University

Roberts, Edwin A. *1981, Instructor I of Welding*

Roth, Laura K. *1981, Instructor of Speech*
B.S., M.S., Lamar University

Savage, Franklin C. *1975, Instructor II of Automotive Mechanics, Director of Technical Programs*
B.S.O.E., Southwest Texas State University

Schipplein, Patricia L. *1976, Instructor II of Office Occupations*
B.B.A., Lamar University; M.B.Ed., North Texas State University

Shahan, Michael *1977, Assistant Professor of History*
B.A., University of Oklahoma; M.A., Ph.D., Vanderbilt University

Smith, Oscar C. *1975, Instructor I of Electronics Technology, and Head, Department of Electronics Technology*

Whigham, Virginia *1975, Instructor I of Office Occupations*

Young, Velma *1977, Instructor I of Cosmetology and Program Coordinator of Cosmetology*
Registered Cosmetologist

Part-Time Faculty

Baxter, Benny L. *1977, Instructor of Automotive Mechanics*

Dubose, John C. *1980, Instructor of Accounting*
B.B.A., Lamar University; M.B.A., McNeese State University; Certified Public Accountant

Dumas, Perle W. *1981, Instructor of English*
B.A., Lamar University

Duplantis, Dan *1978, Instructor of Real Estate*
A.A.S., Lamar University

Forse, Leroy *1977, Instructor of Welding*

Gordon, Robert *1981, Instructor of Welding*

Johnson, Paul W. *1978, Instructor of Drafting*
B.E.D., Texas A & M University

King, Maydell *1979, Instructor of Office Occupations*
B.B.A., Lamar University

Murray, Jack *1977, Instructor of Real Estate*
A.A.S., B.B.A., Lamar University

Naughton, Alan J. *1980, Adjunct Instructor of Economics*
B.A., Tarkio College; M.A., Southern Illinois University

Nordstrom, Harold Thomas *1981, Instructor of Real Estate*
Certified Residential Brokerage Manager

Pate, Martha *1981, Instructor of Mathematics*
B.S., M.S., Lamar University

Price, Janell *1981, Instructor of Spanish*
B.A., M.A., Lamar University

Rethke, Helen *1979, Instructor of Office Occupations*
B.A., East Texas State University; M.Ed., University of Houston

Ruff, Patricia *1981, Instructor of English*
B.S., University of Southern California; M.A., Lamar University

Schroeter, William E. *1977, Instructor of Real Estate*

Stevens, Margaret *1979, Instructor of Geology*
B.S., Central Michigan University; M.S., University of Michigan

Suiter, Coleta *1980, Instructor of Home Economics*
B.S., M.S., Lamar University

Taufique, Altah H. *1981, Instructor of Economics*
B.A., University of Karochie; M.A., Central Missouri State University

Teague, Ronald *1979, Instructor of Automotive Mechanics*
B.S. North Texas State University

Trahan, Lee Ray *1975, Instructor of Welding*

Tronstad, Glen *1981, Instructor of Electronics*
A.A.S., Lamar University

Williams, Patricia D. *1977, Instructor of Office Occupations*

Wodall, Terry Glenn *1981, Instructor of Music*
B.S., Lamar University

Principal Administrative Staff

Applegate, Bobbie, *Program Director, Setzer Student Center*
Aylor, Janice, *Buildings Operations Manager, Setzer Student Center*
Beverley, George T., *Director of KVLU-FM Radio*
Bevil, Lamar C., *University Physician*
Brown, Beauregard, *Manager of Affirmative Action Program*
Burney, Dianne D., *Director of Continuing Education*
Carpenter, Eugene W., *Chief of University Police*
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Cozine, James J., *Assistant to the Dean, Division of Public Service*
Dennis, Daniel P., *Auditor*
Fiorenza, Wanda, *Executive Director, Alumni Association*
Fondren, Darrell L., *Director of Veterans' Affairs*
Forristall, Dorothy Z., *Director of Learning Skills Program*
Francis, Clifton N., *Director of Registration and Records*
Galloway, Willie M., *Administrative Assistant for University Reception Center*
Goode, D. Rex, *Director of Campus Planning*
Gwin, Howell H., *Director of Graduate Studies*
Haggard, Alvin L., *Budget Director*
Hayes, Stuart W., *Coordinator, Photographic Services*
Hornack, David A., *Associate Dean of Students*
Hurlbut, Bryan, *Director of Accounting*
Jones, Dolores, *Nurse Practioner*
Juhan, Gerry, *Career Counselor for Special Services*

King, Kathleen, *Assistant to the Dean of Student Development*
Leitch, Nora B., *Director of Retention*
Ling, Billy V., *Purchasing Agent*
Lomonte, Theresa, *Director of Health Center*
Markley, Larry, *Director of Setzer Student Center and Dean of Student Activities*
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Moye, Gene E., *Director of Student Aid Accounting*
Neumann, Richard L., *Director of Admissions*
Nylin, William, *Director of Systems, Procedures and Institutional Research*
Peacock, Howard H., *Director of Development*
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Plotts, Peter B., *Manager of University Bookstore*
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Rice, Ray E., *Director of Operations*
Rogas, Dan W., *Athletic Business Manager*
Rush, James C., *Director of Student Aid*
Schmidt, T. Patrick, *Director for Special Services*
Scoggins, Jill, *Assistant Director of Student Publications*
Shaw, Ann, *Dean of Student Development*
Smith, Joe Lee, *Director of Public Information*
Sparks, Kenneth L., *Director, Physical Plant*
Stegeman, Annie, *Assistant Program Director, Setzer Student Center*
Stracener, Bruce E., *Director of Housing and Food Service*
Turco, Charles P., *Director of Research and Programs*
Wesley, M. Ted, *Director of Extramural Education*
Wood, Rush B., *Sports Information Director*
Woodrick, Charles P., *Psychologist*
Worsham, William, *Director of Recreational Sports*
Wray, Alice, *Reservations Coordinator, Setzer Student Center*

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