1976-77 Bulletin of
LAMAR UNIVERSITY

LAMAR UNIVERSITY

1976 - 77 Bulletin

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With Announcements for 1976-77

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

The courses, tuition and fees and all other conditions and policies set forth in this catalog issue shall be subject to change without notification.

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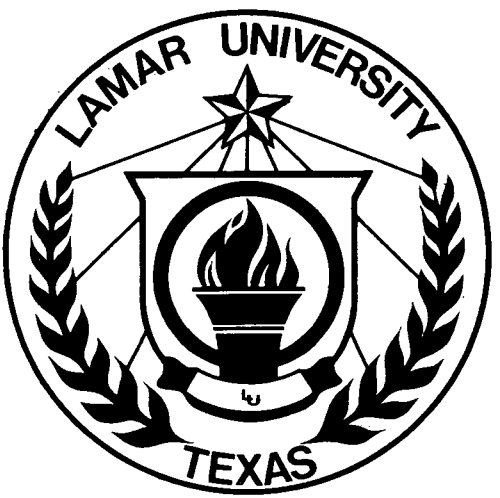
LAMAR UNIVERSITY
TEXAS

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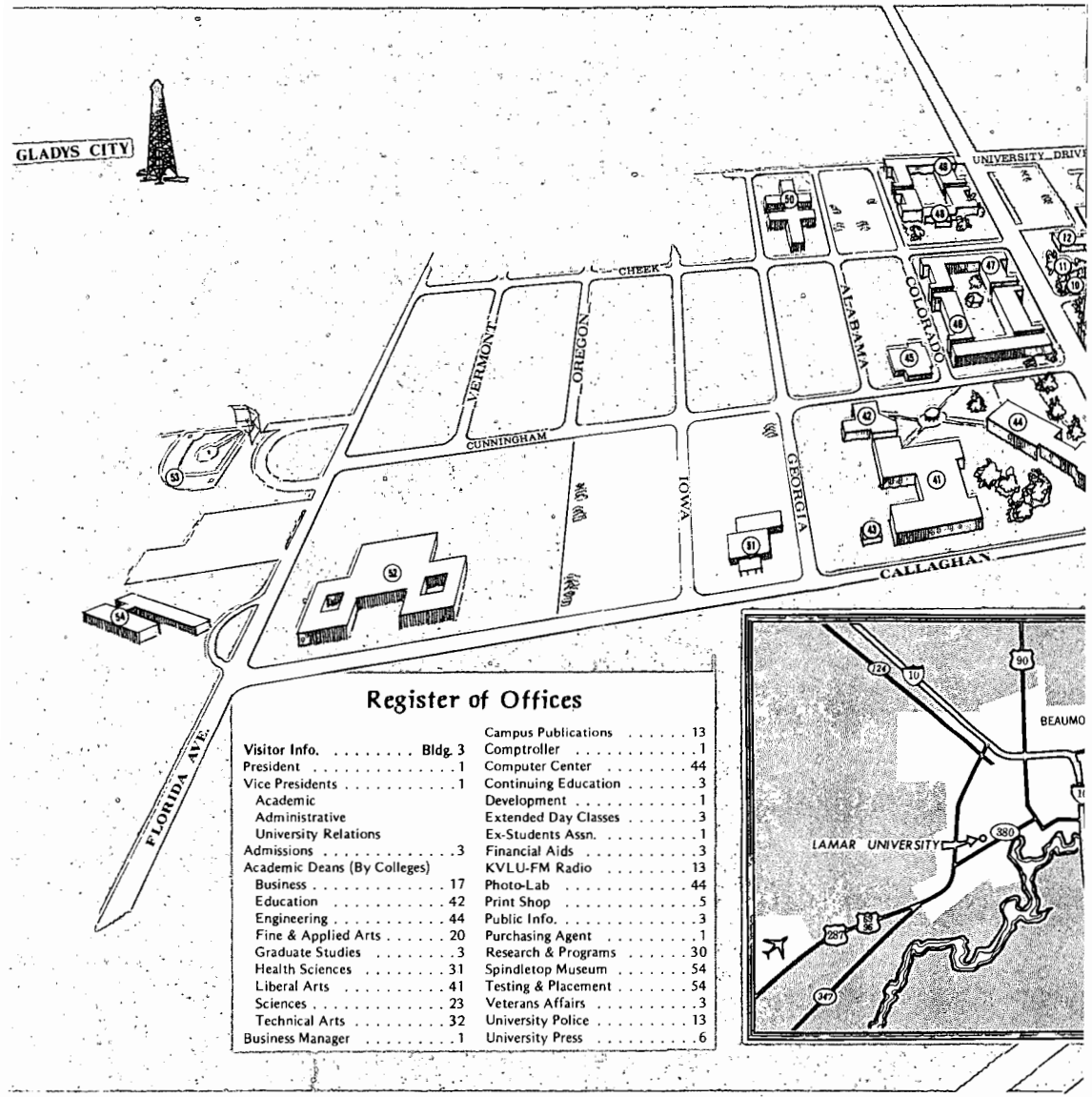

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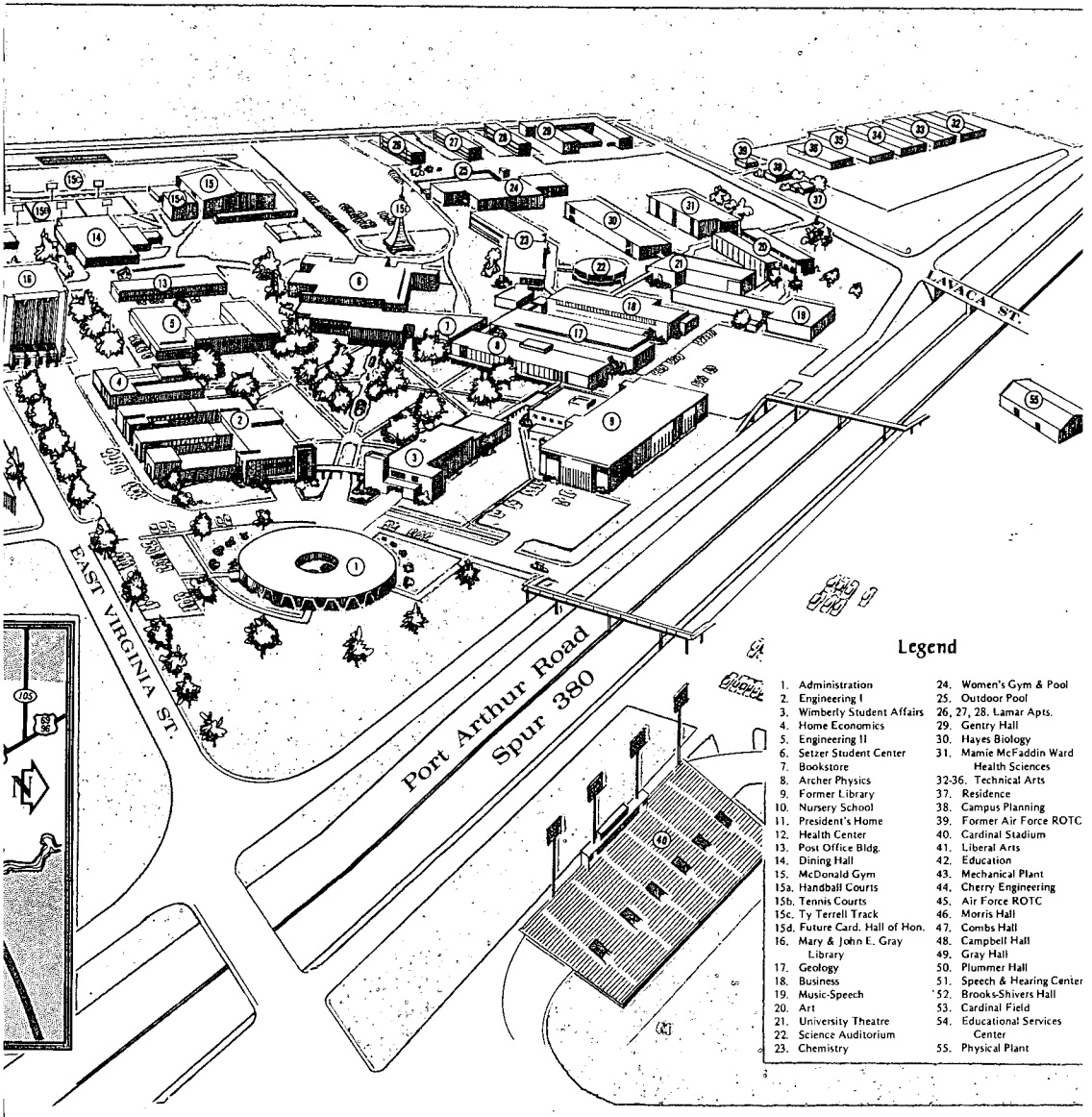
The Campus

Lamar University's campus has expanded rapidly during the past decade and now encompasses some 200 acres. Under construction are the new Mamie McFaddin Ward Health Sciences and ROTC buildings which are expected to be completed in 1976 as is a campus landscaping and beautification project. A new Speech and Hearing Center and the eight-story Mary and John E. Gray Library, were opened during the last year.



Guidelines for future expansion of the 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. A number of high-rise buildings or towers are planned. A 4,500-seat auditorium and a 12,000 coliseum also are under consideration.

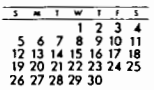
1976-77 Calendar

FALL SEMESTER

AUGUST 1976

22	Dormitories open. Dining halls open.
23	Faculty and staff meetings. Registration begins.
24	Registration.
25	Registration.
26	Classes begin.
26-31	Schedule revisions — late registration.
31	Last day for schedule revision and/or late registration.

SEPTEMBER



6	Labor Day holiday.
13	Twelfth class day.

OCTOBER

11-15	Mid-semester week.
18	Last day to apply for December graduation. Last day to pay for diploma; cap and gown.
20	Unsatisfactory grades due by noon.
29	Last day to drop or withdraw without penalty.

NOVEMBER

24	Thanksgiving holidays begin at 10 p.m. Dining halls and dormitories close.
28	Dining halls and dormitories open.
29	Classes resume at 8 a.m.

DECEMBER

8	Last day to drop or withdraw.
13-17	Final examinations.
17	Grades for graduating seniors due by 4:30 p.m.
18	Commencement.
21	All grades due by noon.

SPRING SEMESTER

JANUARY 1977

9	Dormitories open. Dining halls open.
10	Registration begins.
11	Registration.
12	Registration.
13	Classes begin.
13-18	Schedule revisions — late registration.
18	Last day for schedule revisions and/or late registration.
28	Twelfth class day.

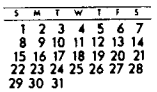
MARCH

7-11	Mid-semester week.
21	Last day to apply for May graduation. Last day to pay for diploma; cap and gown.
23	Unsatisfactory grades due by noon.

APRIL

1	Last day to drop or withdraw without penalty. Spring recess begins at 5 p.m. Dining halls and dormitories close.
10	Dining halls and dormitories open.
11	Classes resume at 8 a.m.

MAY



2 Last day to drop or withdraw.
5-11 Final examinations.
13 Grades for graduating seniors due by 8:30 a.m.
14 Commencement.
All grades due by noon.

SUMMER SESSION
FIRST TERM

MAY

30 Registration.
31 Classes begin.

JUNE

1 Last day for schedule revisions and/or late registration.
3 Fourth class day.
14 Last day to drop or withdraw without penalty.

JULY

1 Last day to apply for August graduation.
Last day to pay for diploma; cap and gown.
Last day to drop or withdraw.
4 Independence Day holiday.
6 Last class day.
8 All grades due by noon.

SUMMER SESSION
SECOND TERM

7 Registration.
8 Classes begin.
11 Last day for schedule revisions and/or late registration.
13 Fourth class day.
28 Last day to drop or withdraw without penalty.

AUGUST

S	M	T	W	T	F	S
		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			

9 Last day to drop or withdraw.
12 Last class day.
Grades for graduating seniors due by 8:30 a.m.
13 Commencement.
All grades due by noon.

Board of Regents

Otho Plummer, Chairman ..... Beaumont
A. H. Montagne, Vice-Chairman ..... Orangefield
Bryan D. Beck, Jr., Secretary ..... Beaumont
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Lloyd L. Hayes ..... Port Arthur
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ROGER E. YERICK, Ph.D., Dean, College of Sciences

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JOE BEN WELCH, Ed.D., Director, Lamar University at Orange

OTHER ADMINISTRATIVE OFFICERS AND STAFF

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RICHARD D. BJERKE, Accountant II
W. T. BLOCK, M.A., Postal Director

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MELVIN BUSBY, Director of Food Services
EUGENE W. CARPENTER, B.S., Director of University Police
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JOHN H. KEY, Head of Computer Operations
KENNETH KOCH, Horticulturist
YSLETA KUDLATY, Ph.D., Director of University Counseling
BILLY LING, B.B.A., Purchasing Agent
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NORMAN E. LOWREY, Supervisor of Adult Training Programs
MARY MALONE, Senior Cashier
LARRY MARKLEY, M.Ed., Assistant Director and Night Manager of Setzer Student Center
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WILLIONEITA PITTMAN, B.S., Associate Program Director, Setzer Student Center
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PETER B. PLOTTS, Manager of University Bookstore
DANA M. RANSOM, M.S., Assistant Dean of Admissions and Records

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RONNIE SHARP, Building Superintendent of Setzer Student Center
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BOBBY R. WALDRON, Ph.D., Director of Computer Center
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JOHN D. WOOLFORD, B.B.A., Research Contracts Supervisor
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B.S., McPherson College
M.A., Ph.D., Wichita State University
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B.A., Wayne State College
M.A., Ed.D., The University of Nebraska

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B.A., The University of Southern Mississippi
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B.S., Alexandria University
M.S., Ph.D., Oklahoma State University
Registered Professional Engineer

JOEL L. ALLEN, Assistant Professor of Economics, 1960, 1963
B.S., Arkansas Agricultural and Mechanical College
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ARNOLD C. ANDERSON, Associate Professor of Speech, 1956, 1962
B.S., Northern State College
M.A., University of South Dakota

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M.Ed., Trinity University

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B.A., Kent State University
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HAROLD T. BAKER, Professor of Chemistry, 1962
B.S., The University of Minnesota
Ph.D., State University of Iowa
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B.S., M.A., The University of Oklahoma
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M.B.A., Louisiana State University
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B.A., M.A., The University of Kansas
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WENDELL C. BEAN, Professor of Electrical Engineering, Head, Department of Electrical Engineering, 1968
B.A., B.S., Lamar University
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WILLIAM E. TANNERT, Adjunct Instructor of Technical Mathematics, 1974
B.S., Stephen F. Austin State University
RALPH A. TOLVE, Adjunct Professor of Public Affairs, 1973
A.B., Oglethorpe University
M.L., J.D., LL.B., John Marshall Law School and University
DENNIS VERCHER III, Adjunct Instructor of Communication, 1975
B.A., Lamar University
MRS. DOROTHY WEATHERLY, Instructor of English, 1961
B.A., M.A., Stephen F. Austin State University
WILBUR O. WEBSTER, Adjunct Instructor of Mid-Management, 1972
B.S., University of Southwestern Louisiana
JAMES WESCOAT, Adjunct Instructor of Plant Maintenance and Operations, 1975
B.S., M.E., University of Virginia
Registered Professional Engineer
THOMAS R. WHIDDON, JR., Adjunct Instructor of Industrial Supervision, 1973
B.B.A., The University of Texas
ELMER H. WHITING III, Adjunct Instructor of Industrial Supervision, 1975
B.S., University of Houston
NEDA E. WILSON, Adjunct Instructor of Public Affairs, 1975
B.A., Lamar University
M.S.W., University of Houston
MRS. ANITA J. WOODS, Adjunct Instructor of Basic Communications, 1971
B.A., Sam Houston State University

Lamar University at Orange

FULL-TIME

MRS. JUDITH Z. ARONOW, Instructor of Mathematics, 1971
B.A., University of North Dakota
M.S., Lamar University
G. MAX DANIEL, Instructor of Government, 1973
B.A., University of Houston
M.A., Sam Houston State University
LARKIN C. FRANKLIN, Instructor of English, 1970
B.A., Lamar University
M.A., Brigham Young University
ROBERT H. PEEBLES, Assistant Professor of History, 1970, 1974
B.S., Lamar University
M.A., Sam Houston State University
JAMES R. RIPLEY, Instructor of Welding, 1975
JAMES C. RONNING, Assistant Professor of Psychology, 1970, 1972
B.S., Lamar University
M.Ed., Abilene Christian College
Ed.D., McNeese State University
HYMAN K. TAYLOR, Instructor I of Drafting Technology, 1972
B.S., Lamar University

SHELLEY ANN THRASHER, Instructor of English, 1971
B.A., M.A., North Texas State University
JOE BEN WELCH, Assistant Professor of Mathematics, Director of Lamar University at Orange, 1969, 1970
B.S., Louisiana Tech University
M.Ed., Lamar University
Ed.D., McNeese State University
LARRY R. WILMORE, Instructor of Biology, 1974
B.S., Lamar University
M.S., Ohio State University

PART-TIME

KENNETH D. ARMSTRONG, Lecturer of Basic Communications, 1975
B.A., Baylor University
M.A., Lamar University
DANIEL BLOXOM, Lecturer of Drafting Technology, 1975
MARGARET A. CLEAVES, Lecturer of Basic Communications and English, 1975
B.A., The University of Texas
M.A., Texas A&I University
CHARLES W. COPELAND, Lecturer of Mid-Management, 1975
MARITA DUESLER, Lecturer of Speech, 1975
B.S., Lamar University
M.A., Baylor University
JIM DUNAWAY, Lecturer of Real Estate, 1975
B.A., The University of Texas at Arlington
J.D., The University of Texas Law School
ROBERT R. FRANK, Lecturer of Health and Physical Education for Men, 1974
B.S., Lamar University
M.Ed., McNeese State University
JOHN HALLBURG, Lecturer of Industrial Supervision, 1974
B.S., University of Pennsylvania
RUTH HARRIS, Lecturer of Music, 1975
B.M., M.M., North Texas State University
JAMES HAYES, Lecturer of Accounting, 1975
M.B.A., Lamar University
Certified Public Accountant
JAMES MORRIS, Lecturer of Criminal Justice, 1975
J.D., The University of Texas Law School
ROBERT A. NELSON, Lecturer of Criminal Justice, 1975
B.S., Lamar University
M.A., Sam Houston State University
RONALD K. PRESTON, Lecturer of Social Welfare, 1975
B.A., Southeastern Louisiana University
M.S.W., Louisiana State University
TRUTH L. SHIPMAN, Lecturer of Technical Mathematics, 1975
B.A., M.A., Lamar University
RICHARD G. SMALL, Lecturer of Technical Mathematics, 1975
B.S.Ch.E., University of Pittsburgh

MRS. MARGARET C. STEVENS, Lecturer of Geology, 1972
B.A., Central Michigan University
M.S., University of Michigan
MILTON A. TURNER, Lecturer of Art, 1974
B.S., Lamar University
M.A., M.F.A., Stephen F. Austin State University
GORDON UNDERWOOD, Instructor of Real Estate, 1973
A.A.S., Lamar University
ROBERT A. YOUNG, Lecturer of Industrial Supervision, 1975
B.S., M.A., Lamar University

Lamar University at Port Arthur

FULL-TIME

MRS. GLENDA O. BARRON, Instructor I of Office Occupations, 1975
B.S., University of Houston
MRS. LETICIA A. BROUSSARD, Adjunct Instructor of Office Occupations, 1975
MRS. JEAN CARUTHERS, Instructor I of Cosmetology, 1975
MRS. O. JEAN COLE, Instructor I of Office Occupations, 1975
B.B.A., Lamar University
HUGH J. FORREST, Instructor I of Automotive Mechanics, 1975
W. SAM MONROE, Director of Lamar University of Port Arthur, 1975
B.B.A., Sam Houston State University
MRS. IDA ROSS, Instructor I of Office Occupations, 1975
B.B.A., Lamar University
FRANKLIN C. SAVAGE, Instructor I of Automotive Mechanics, Head, Department of Mechanical Arts, 1975
OSCAR C. SMITH, Instructor I of Industrial Electricity and Electronics Technology, 1975
LEE RAY TRAHAN, Instructor I of Welding, 1975
EUGENE P. WRANITZKY, Instructor I of Welding, 1975

PART-TIME

MRS. INELL R. MOORE, Adjunct Instructor of Office Occupations, 1975
B.S., M.Ed., Texas Southern University
MRS. BEVERLY S. PARKER, Adjunct Instructor of Office Occupations, 1975
B.A., Southwestern University
PATRICIA WHELESS, Instructor I of Office Occupations, 1975
B.F.A., University of Oklahoma
MRS. VIRGINIA M. WHIGHAM, Adjunct Instructor of Office Occupations, 1975

General Information

LOCATION

Lamar University, a state-supported institution, is located in Beaumont, the center of industrial Southeast Texas. The campus is adjacent to the Port Arthur Highway (Spur 380) in southeastern Beaumont.

The city features modern schools, churches and shopping districts to serve the industrial community of approximately 120,000 persons. Principal industries in the area are oil refining, shipping, shipbuilding, rubber manufacturing and chemical production. Surrounding the urban communities are ranches and rice farms.

Within the metropolitan area are the cities of Port Arthur, Orange, Vidor, Port Neches, Nederland and Groves. All lie within 25 miles of Beaumont and form the heart of the upper Gulf Coast area with a population of more than 350,000.

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 that time, enrollment has increased to more than 11,000 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 regional multi-purpose university serving as an educational, scientific, technical, and cultural resource center. Although the Southeast Texas region constitutes its primary constituency, its unique programs and location attract students from throughout the state and nation as well as from many foreign countries.

The University undertakes to serve the needs of its constituency and understands its mission to include the following:

1. Provide an opportunity for higher education to qualified graduates of accredited high schools, with the understanding that admission to a major or professional field of study requires students to meet the standards of that particular department or college.
2. Develop exceptionally talented students to their full potential.
3. Offer graduate programs in those disciplines where realistic competencies can be achieved and where need exist.
4. Provide post-secondary technical-vocational programs to meet the needs of the people, the businesses, and the industries of Southeast Texas.
5. Offer adult and continuing education and University services to meet the needs of the University's constituency.
6. Contribute to the cultural life of the area by providing cultural and artistic presentations and events.
7. Provide wide-range of student activities and student personnel services.
8. Provide opportunities for research, creativity, and scholarly activity through research grants, within the institutes and centers, and departments of the University.

The University re-affirms its traditional teaching emphasis, and encourages the closest interchange between students and faculty including career guidance and counseling. It recognizes further its obligation to maintain a faculty that is professionally creative and productive in its respective disciplines. The University expects to maintain the standards of a four-year baccalaureate program by providing many diversified major specialties and professional programs. To enhance the total development of its students, Lamar University will continually seek to encourage and sustain necessary and appropriate student services. The University will consider every method for expanding the services of higher education to the people, businesses and industries within the region.

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 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 Engineers' Council for Professional Development. 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.

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, Humanities, Mathematics, Psychology, Sociology, Spanish and Speech.
Bachelor of Business Administration in Accounting, Economics, Finance, General Business, Management, Marketing, Office Administration and Prelaw.
Bachelor of Fine Arts in graphic arts, studio art.
Bachelor of Music
Bachelor of Science in Art, Biology, Chemistry, Criminal Justice, Education, Environmental Science, Geology, Government, Health and Physical Education, Home Economics, Mass Communication, Mathematics, Medical Technology, Music, Nursing, Oceanographic Technology, Physics, Psychology, Speech and the following **Engineering Fields:** Chemical, Civil, Computer Science, Electrical, Industrial, Mechanical and Engineering Technology.
Master of Arts in English, Government and History.
Master of Business Administration (undifferentiated).
Master of Education in Elementary Education, Guidance and Counseling, Public 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, 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, each administered by a dean.

These Colleges are: Business, Education, Engineering, Fine and Applied Arts, Health Sciences, Liberal Arts, Sciences, Technical Arts, and Graduate Studies.

ROTC

The Air Force Reserve Officers Training Corps (AFROTC) conducts a permanent program of instruction on the campus to provide eligible male and female students an opportunity to qualify for a commission in the United States Air Force. Students who successfully complete the program will be commissioned as second lieutenants upon graduation. For additional details, see the Department of Aerospace Studies, page 318.

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 that students may enter Lamar four times each year. The current University Calendar contains information regarding registration periods and exact entering dates.

EXTENDED DAY CLASSES

Classes offered after 5 p.m. are referred to as Extended Day Classes. Both day and extended day 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 work to obtain a degree or to expand their knowledge in a special field of interest.

Courses offered in the evening make possible continued progress toward a degree objective. The program of study outlined in the catalog should be followed and should be approved by the department head in the student's major field.

Facilities

BUILDINGS AND GROUNDS

Lamar University's campus contains approximately 200 acres and the physical plant is valued at $50,000,000. Included among its many buildings are: Administration, Art, Edwin S. Hayes Biology, Bookstore, Business, Chemistry, Dining Hall, Education, Educational Services Center, Lloyd B. Cherry Engineering, Lucas Engineering, Engineering II, Geology, Health Center, Home Economics, Liberal Arts, Mary and John E. Gray Library, McDonald Gymnasium, Music-Speech, O. B. Archer Physics, Post Office, Science Auditorium, Setzer Student Center, Speech and Hearing Center, five College of Technical Arts buildings, University Theatre, G. A. Wimberly, Sr. Student Affairs, and Women's Gymnasium and Pool. The Mamie McFaddin Ward Health Sciences and ROTC Buildings are under construction.

Campus dormitories include Brooks Hall, Gentry Hall and Gray Hall for women; Campbell Hall, Combs Hall, Morris Hall, Plummer Hall and Shivers Hall for men. Three apartment buildings for upperclassmen and married couples are included in the residence hall system. Campbell, Combs, Gray, Morris and the apartments have undergone extensive remodeling in the past year.

Also located on the campus are a football stadium seating 17,150, Cardinal baseball field, athletic practice fields, Olympic-size swimming pool, indoor swimming pool, 14 tennis courts, handball courts, track and field stadium, a four-building maintenance complex, Home Management House, Nursery School, and homes for the president and director of the physical plant.

THE LIBRARY

The new eight-story Mary and John E. Gray Library has a strong collection of over 350,000 volumes in support of continuously expanding academic programs. Approximately 20,000 volumes are added to the collection annually. The library subscribes to over 3,000 periodicals, and as a selective document depository, it has over 50,000 state and federal documents and microforms. Texas academic libraries are linked by teletype for faculty, graduate student and advanced student research.

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.

Beginning with the 1975 Fall Semester, all students will pay a Health Service Fee of $1 per semester hour with a maximum of $10 for each of the Fall and Spring Semesters, and a maximum of $5 for each of the Summer Sessions. This fee will be used only for health services. Added benefits for the student are: (1) vaccines, serums and gamma globulin will be given in the Health Center free of charge. Pre-admission vaccinations are not

included; (2) all drugs prescribed and dispensed in the Health Center are free of charge, and (3) 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.

The Health Center, located on East Virginia St. near Combs Hall, is adequately staffed and equipped for treating most illnesses and injuries. The 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 notify the parents or guardian of the student's needs.

The University assumes no responsibility for continued medical care for students having chronic diseases. These students should arrange for the care of a private physician located in or near Beaumont. 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 Center for medical care.

COUNSELING CENTER

Lamar University maintains a Counseling Center to serve students encountering educational, social or personal difficulties. The center is staffed with fully-trained and qualified counselors 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 center on a no-charge basis. In addition to counseling and testing procedures, the center maintains a library to assist students in making decisions concerning choices of majors and careers.

The Counseling Center is in the Wimberly Student Affairs Building and observes the office hours of the University. A counselor is assigned duty one evening per week for the benefit of students who are attending extended day classes.

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 salvage price. The Bookstore reserves the right to require the seller to prove ownership of books.

DINING HALLS

Dining halls are located on the main campus (see map on page 4) and in Brooks-Shivers Hall. The food service is operated by ARA-Slater, a national catering firm.

Provision is made for special diets and work or class schedules which conflict with serving hours. A schedule of serving hours may be obtained from the Housing Office.

Two snack bars, located in the Setzer Student Center, provide sandwiches, soft drinks and light lunches. Commuter students also may use the snack bars and the main dining hall.

COMPUTER CENTER

The University operates a Computer Center as a service to faculty, administration, students, researchers and others. The computer center has modern, high-speed digital and analog equipment valued in excess of $750,000. It is anticipated that new equipment will be purchased and put into operation within a year.

UNIVERSITY RELATIONS AND DEVELOPMENT OFFICES

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

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.

RESEARCH OFFICE

A Research Office was formally organized in 1956.

It is administered by a director who serves as the chairman of the faculty research committee. All state financed research projects are awarded through the research committee.

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. The charge is $4.50 per semester and $2.25 per Summer Session. 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.

TESTING AND PLACEMENT CENTER

The Testing and Placement Center is located in the Educational Services Center and is open 8 a.m. to 5 p.m. Monday through Friday.

This Center provides testing service for entering students and for others. Non-students desiring this service pay a fee dependent upon the program used.

Placement service also is provided at this Center and is available to all students, faculty and former students.

OFFICE OF CONTINUING EDUCATION

The Office of Continuing Education conducts on-campus and off-campus instructional programs, for credit and noncredit, with emphasis on adult education. The Office of Continuing Education presents a broad spectrum of vocational and academic courses. A special fee may be required for off-campus courses.

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 catalog.

LAMAR UNIVERSITY — ORANGE

Beginning in 1969, the university system 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 Lamar University at Orange catalog.

LAMAR UNIVERSITY — PORT ARTHUR

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

For additional information, see the Lamar University at Port Arthur catalog.

Admissions

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

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

Information on admission to the undergraduate program at Lamar is given in the following sections and applies to Lamar University at Orange and Lamar University at Port Arthur as well as to the main campus in Beaumont. Students seeking admission should study the requirements carefully and follow the procedures outlined for making application for admission. Requests for application forms or admission information should be sent to the Office of Admissions and Records, Lamar University Station, Box 10009, Beaumont, Texas 77710, or may be obtained at either the Orange or Port Arthur campus.

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.

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. 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 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 (see page 60).

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 that 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 the prescribed Health Data Form on first enrollment. Records are considered to be obsolete after five years and must be resubmitted for continued enrollment after that time.

How to Apply for Admission

1. Submit application for admission on the official form. Inclusion of a social security number is required on this form.
2. Submit a completed Health Data Form properly executed by a physician.
3. At the end of the first quarter of the senior year, have the high school send the University a copy of your record. Immediately after graduation, a supplementary transcript covering the final semester and certifying graduation must be sent.
4. 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.

When to Apply

Application should be made well in advance of the proposed enrollment date. 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. Submission of partial transcripts upon the completion of the first quarter of the senior year is requested. Supplementary transcripts should be sent immediately after graduation.

Students entering in June often find that the interval between the completion of high school work and the beginning of the university semester is too short for the transcript to reach the Admissions and Records office. In such cases, temporary admission is granted permitting the student to register pending the receipt of the transcript. Students on temporary admission, who are subsequently found to be ineligible for admission, will be withdrawn.

Acceptance Notices

Letters 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 accepted.

Because of the number of applicants, it is not practical for the Office of Admissions and Records to acknowledge the receipt of test scores, applications, etc. Failure to receive communications prior to the time acceptances normally are issued should not be interpreted as meaning that admission will be denied. Candidates not meeting admission requirements will be notified immediately.

FRESHMAN ORIENTATION AND PREREGISTRATION

A series of two-day freshman orientation and preregistration 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. Courses the student will take during his first semester are determined at this time. All beginning full-time day students are required to attend one of these sessions. Attendance at each session is limited and advance reservations are necessary. Details of the program including available dates, costs and reservation forms, are sent out with acceptance notices. Reservations should be requested early so that a convenient date may be selected. Parents are invited to attend and to participate in programs designed especially for them. Similar programs are required of new students entering in the Spring Semester or summer terms.

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 prior to enrollment. Applicants who have been out of high school for some time may qualify for credit through CLEP (College Level Examination Program). See page 80.

1. Advanced Placement Examinations (Optional)

Applicants who wish to receive credit for college-level work completed in high school may do so by submitting scores 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 3 or above	Eng 1311-1312
	Score of 2	Eng 1311 (Student receiving such credit must enroll in Eng 1316)
Foreign Language	Score of 4 or 5	Six 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 3 or above	Mth 1334, 134, 1381, 1391
BC Test	Score of 3 or above	Mth 1334, 134, 1381, 1391, 2311
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

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.

*State law requires three semester hours of classroom instruction in some phase of American History in addition to credit by examination.

Subject Matter Area	CEEB Test Required	Credit Granted
English	English Composition	Eng 1312 if validated by completion of Eng 1316 with a grade of "C" or better.
Foreign Lang	Spanish French German	0 to six 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	Six to nine 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.

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 on page 89.

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 (see page 58) 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 also should see section on International Student Admission, page 64.

All students are required to submit the prescribed Health Data Form 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 instituions are recorded as received. No grade is changed.

Credit by Examination

Credit by examination also is available through CLEP (College Level Examination Program). See page 80.

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, Beaumont, Texas 77710.

1. Submit application for admission on the official form. Inclusion of a social security number is required on this form.
2. Submit the Health Data Form properly executed by a physician.
3. 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.
4. 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 admission may be granted if the time interval between the end of a semester elsewhere and the beginning of a subsequent semester at this University is too short for the transcript to be submitted prior to 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 on page 62 of this catalog. 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.

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 (see page 58), (2) to submit a record of the high 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 prior to, the registration period.

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 complete at least two regular semesters with at least 18 semester hours of transferable work. English proficiency must be demonstrated by submitting scores of 500 or better on the TOEFL or by the completion of six (6)

semester hours of regular freshman English with grades of C or better in each course. 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 or intent to purchase it. 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 will not be accepted. Application forms, test scores, financial statement and complete educational records must be on file by the dates indicated: term beginning in August, by June 15; January, by November 1; June, by April 15; and July, by May 1.

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 is charged and is payable to Lamar University, c/o International Student Advisor, P.O. Box 10007, Lamar U. Station, Beaumont, Texas 77710, U.S.A. The program is designed to facilitate a smoother, less problematic adjustment to the Lamar campus. Special attention also is placed on English proficiency.

SPECIAL HIGH SCHOOL SENIOR PROGRAM—CREDIT-IN-ESCROW

The Credit-In-Escrow Program enables superior 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 superior 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 for the first five semesters of high school work; (3) submit superior scores 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 eligibile 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 and Records Office.

Fees and Expenses

PAYMENT OF FEES

Lamar University reserves the right to change fees in keeping with acts of the Texas Legislature and the University's Board of Regents.

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 his 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	30
General Use Fee	60
Setzer Student Center Fee	10
Student Health Fee	10
Parking Fee (if desired)	10
Health Insurance (if desired)	36
Books and Incidentals (estimated)	65
	$281
	+lab fees

Part-time Student (Six semester hours):

Tuition	$50
Student Services Fee	15
General Use Fee	24
Setzer Student Center Fee	10
Student Health Fee	5
Parking Fee (if desired)	10
Books and Incidentals (estimated)	25
	$139
	+lab fees

Tuition and general use fees vary with the semester hours carried so that 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.

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 nonresident who is a citizen of another country.*

Each student pays a Student Services Fee of $2.50 per semester hour, with a maximum of $30 in a long session.

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			Student Services Fee	General Use Fee	Setzer Center Fee	Health Center Fee	Total Charge		
		A	B	C					A	B	C
Each	1	$50	$ 40	$200	$ 2.50	$15	$10	$ 1	$ 78.50	$ 68.50	$228.50
Fall	2	50	80	200	5.00	15	10	2	82.00	112.00	232.00
or	3	50	120	200	7.50	15	10	3	85.50	155.50	235.50
Spring	4	50	160	200	10.00	16	10	4	90.00	200.00	240.00
Semester	5	50	200	200	12.50	20	10	5	97.50	247.50	247.50
	6	50	240	200	15.00	24	10	6	105.00	295.00	255.00
	7	50	280	200	17.50	28	10	7	112.50	342.50	262.50
	8	50	320	200	20.00	32	10	8	120.00	390.00	270.00
	9	50	360	200	22.50	36	10	9	127.50	437.50	277.50
	10	50	400	200	25.00	40	10	10	135.00	485.00	285.00
	11	50	440	200	27.50	44	10	10	141.50	531.50	291.50
	12	50	480	200	30.00	48	10	10	148.00	578.00	298.00
	13	52	520	200	30.00	52	10	10	154.00	622.00	302.00
	14	56	560	200	30.00	56	10	10	162.00	666.00	306.00
	15	60	600	210	30.00	60	10	10	170.00	710.00	320.00
	16	64	640	224	30.00	64	10	10	178.00	754.00	338.00
	17	68	680	238	30.00	68	10	10	186.00	798.00	356.00
	18	72	720	252	30.00	72	10	10	194.00	842.00	374.00
	19	76	760	266	30.00	76	10	10	202.00	886.00	392.00
	20	80	800	280	30.00	80	10	10	210.00	930.00	410.00
Each	1	$25	$ 40	$100	$ 2.50	$15	$ 5	1	$48.50	$ 63.50	$123.50
Six-	2	25	80	100	5.00	15	5	2	52.00	107.00	127.00
Week	3	25	120	100	7.50	15	5	3	55.50	150.50	130.50
Summer	4	25	160	100	10.00	16	5	4	60.00	195.00	135.00
Session	5	25	200	100	12.50	20	5	5	67.50	242.50	142.50
	6	25	240	100	15.00	24	5	5	74.00	289.00	149.00
	7	28	280	100	15.00	28	5	5	81.00	333.00	153.00
	8	32	320	112	15.00	32	5	5	89.00	377.00	169.00
	9	36	360	126	15.00	36	5	5	97.00	421.00	187.00
	10	40	400	140	15.00	40	5	5	105.00	465.00	205.00

Code: **A.** Texas residents; **B.** nonresidents; **C.** nonresidents who are citizens of another country and who were enrolled prior to June 16, 1975.

*Determination of legal residence for tuition purposes is made on the basis of statutes of the State of Texas. See page 70.

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

Parking Fee

Charges for parking on campus are made at registration. Automobile registration fees are as follows: Fall Semester, $10; Spring Semester, $6; Summer Session I, $4; Summer Session II, $2. 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 students carrying nine or more semester hours. The fee is estimated at $36. 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 scholarship valued at $100. This scholarship must be used during the long session immediately following graduation. Details may be obtained from the Student Financial 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 honorably 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 veteran's 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 will receive a refund on tuition, Setzer Center, student service, laboratory, building and general use and private lesson fees according to the following schedule:

Long Session

1. During the first two weeks of the semester, 80 per cent.
2. During the third week of the semester, 60 per cent.
3. During the fourth week of the semester, 40 per cent.
4. During the fifth week of the semester, 20 per cent.

Summer Session

1. During the first week of the semester, 60 per cent.
2. After first week no refund.

No refunds are made when dropping courses.

Application for a refund must be made to the Comptroller after the student has officially withdrawn, but not later than the end of the current semester or Summer Session. It takes about 30 days to process these refunds.

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 $2.

Miscellaneous Fees

Associate Diploma	$7.50
Certificate of Completion	7.50
Bachelor's Diploma	7.50
Master's Diploma	7.50
Bachelor's Cap and Gown Rental	7.00
Master's Cap, Gown and Hood Rental	9.50
Late Registration	5.00
Returned Checks	2.00
Re-entry Fee	5.00
Transcript Fee	.50
Advanced Standing Examination (per course)	5.00
Photo Identification	2.00
Swimming Pools (suits and towels)	10.00

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

(For detailed information on both the law and its interpretation, refer to Coordinating Board, Texas College and University System "Rules and Regulations for Determining Residence Status" as revised, July 16, 1974.)

Pursuant to Title 3, Texas Education Code. Effective July 16, 1974

1 — Minors*

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

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

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

2 — Residence of Individuals Over Twenty-One

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

Section 54.052(e) An individual twenty-one 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

*In accordance with provisions of Senate Bill 123, 63rd Texas Legislature, effective August 27, 1973, and with Attorney General's Opinion H-82, August 13, 1973, any reference to age "twenty-one" in these *Rules and Regulations for Determining Residency Status* should be interpreted to mean age "eighteen."

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: Section 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.

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

(e) A Texas institution of higher education may charge to the United States Government the nonresident tuition fee for a veteran enrolled under the provisions

*Subparagraph (d), Section 54.058, has been repealed by House Bill 736, 63rd Legislature, effective August 27, 1973.

of a Federal law or regulation authorizing educational or training benefits for veterans;
(f) The spouse and children of a member of the Armed Forces of the United States who dies or is killed are entitled to pay the resident tuition fee, if the wife and children become residents of Texas within 60 days of the date of death; and
(g) If a member of the Armed Forces of the United States is stationed outside Texas and his spouse and children establish 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 employees of a Texas institution of higher education is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required for Texas residents without regard to the length of time he has resided in Texas. A teacher, professor, or other employee of a Texas institution of higher education is any person employed at least one-half time on a regular monthly salary basis by a state institution of higher education.

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 satisfactorily completed his employment.

7 — Competitive Scholarships

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

8 — Citizens of Any Country Other Than the United States of America

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

9 — Reciprocity Clause Applicable to Junior Colleges

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

10 — Student Responsibilities

A. Student Responsibility to Register Under Proper Classification

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

B. Notification Upon Becoming a Nonresident

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

11 — Official Change of Residence Status

A. Application for Reclassification

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

B. Reclassification as a Nonresident

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

C. Reclassification as a Resident

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

12 — Penalties

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

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

Student Housing

HOUSING

The student housing program at Lamar is designed to supplement the academic program by providing opportunities for social and intellectual development and recreation in a pleasant living environment. The University recently completed a multi-million dollar renovation program, making its residence halls among the most modern in Texas. A variety of living styles designed with most of the conveniences of an apartment and all the advantages of campus living include modern furniture, semi-private rooms, carpet, central heating and air conditioning and various color schemes. Residence halls are well staffed to assist with programs and to serve as advisors and counselors to the residents.

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

It is 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 access to the new library, to contacts with upperclassmen in their major fields and to professional counseling.

Questions concerning the housing system, its policies, room and board rates, should be directed to the Student Housing Office, Lamar University Station, Box 10041, Beaumont, Texas 77710.

RESERVATIONS AND ASSIGNMENTS

To reserve a room in the residence halls or an apartment, write to the Housing Office at the above address. A check or money order for $30 must accompany the reservation request. Reservations may be cancelled with full refund until three weeks prior to the first day of classes. 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 last day of registration unless the student gives the Student Housing Office written instructions 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 prior to the end of a semester.

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. Students may request certain apartments, dormitories and rooms, and all possible consideration will be given each request. Students currently living in university-owned housing units have the first choice of rooms and apartments for the following semester.

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

Financial Aid and Awards

FINANCIAL AID

Financial assistance in the form of scholarships, grants, loans and employment is available to a number of qualified students. Complete information about financial aid is published in the annual Bulletin of Financial Aid and Awards. Copies are available from the Office of Public Information or the Office of Student Financial Aid. A summary of the student aid program at Lamar follows.

When to Apply

Applications should be completed by March 1 for the following academic school year. Announcements of awards usually are mailed in the late summer.

Uniform Applications

Students in need of financial aid submit a single application for assistance. After considering the student's academic record or potential and his need for assistance, the University will determine whether the student will receive assistance, and whether assistance will be in the form of a scholarship, grant, loan, employment (or a combination of these).

Minimum Qualifications

The applicant's record on the Scholastic Aptitude Test (SAT) or American College Testing Program (ACT) and his rank in his high school class are used to determine scholastic eligibility for scholarships for entering freshmen. The student's cumulative grade point average serves as the determinant for upperclassmen. Applicants must have scored 450 or higher on each of the math and verbal sections of the SAT or 20 on the ACT or must have a 2.50 or higher grade point average to be eligible for a scholarship. The applicant's dependent financial need for assistance must be established by submission of a Parents' Confidential Statement (PCS); married and independent applicants use the Student's Financial Statement (SFS), through the College Scholarship Service.

It should be noted that the SAT or ACT and PCS or SFS are required of all applicants for financial assistance. Freshman information and application forms to meet these requirements may be obtained from high school counselors. Students already enrolled in Lamar may contact the Student Financial Aid Office for application information.

Application forms for financial aid may be obtained from the Director of Student Financial Aid. Students must re-apply each year for consideration of continued assistance. An **additional** application is needed for the summer.

Loans

Loans are available for short-term educational emergency borrowing and are repayable within the semester obtained. Long-term loans with repayment after graduation may be obtained under such programs as the National Direct Student Loan Program (NDEA), Federally Insured Loan Program, United Student Aid Funds, Inc. (USA), Law Enforcement Education Program (LEEP) and the Hinson-Hazelwood College

Student Loan Act. A number of students finance university expenses through loans from foundations and private agencies. A complete description of loans, including repayment and interest provisions, is contained in the Bulletin of Financial Aid and Awards.

Scholarships

Scholarships are funds which cover a portion of the student's expenses. There are 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 choose students to receive them. The scholarship program at Lamar is financed solely by public donation. The average award is valued at about $200 per year. Half of the scholarship is disbursed for the fall term and the remaining half of the fund is awarded at spring registration.

Valedictorians

Valedictorians from accredited high schools of Texas are entitled to an exemption from payment of tuition for the two regular semesters immediately 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.

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 aid 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.

Students employed by the University will be selected and assigned by the Office of Student Financial Aid. Applicants for off-campus, part-time employment also should register with this office.

Supplemental Educational Opportunity Grants and Basic Grant

Students with exceptional financial need may qualify for assistance from these "gift" programs. After all self-help and available aid has been committed, the Supplemental Educational Opportunity Grant (SEOG) fills the balance, provided the student has remaining financial need. The Basic Educational Opportunity Grant also is offered to students that fit the federal criteria for that year. The award will be determined at the time of enrollment. This may require adjustments to aid received previously should the total aid award exceed an individual's total budget.

Students with Physical Handicaps (Vocational Rehabilitation)

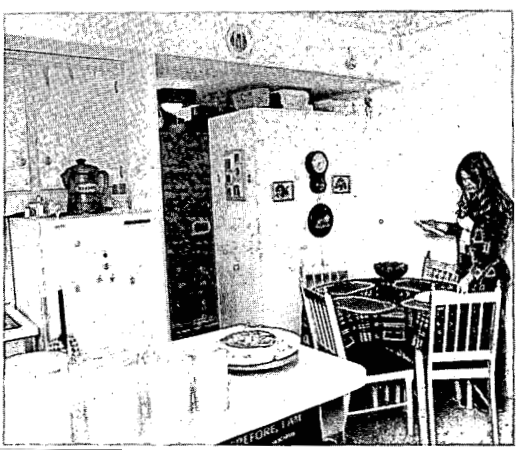
The Texas Rehabilitation Commission offers assistance for tuition and nonrefundable fees to students who have certain disabling conditions, provided their vocational objectives have been approved by a TRC Counselor. Examples of such conditions are orthopedic deformities, emotional disorders, diabetes, epilepsy, heart conditions, etc. Other services also are available to assist the handicapped student to become employ-

able. Application for such service should be made at the Texas Rehabilitation Commission, Beaumont District Office, 1110 Goodhue Building, Beaumont, Texas 77701.

AWARDS

Outstanding students in academic colleges of the University and student leaders who have made significant contributions to the University and to student welfare are recognized by a number of awards annually.

A description of awards, including donors, purpose of the awards and criteria for selection of recipients is published in the Bulletin of Financial Aid and Awards.



Academic Regulations

COURSE NUMBERING

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 that it is for freshmen; 2, for sophomores; 3, for juniors; and 4, for seniors. The second figure indicates the number of semester hours credit. The third figure (or figures) indicates the order in which the course is taken. The letter a, b, c, or d following course numbers indicates partial credit in each case; full credit for such numbered courses will be granted only when the series is complete.

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

Semester Hour

The unit of measure for credit purposes is the semester hour which means one hour of recitation (or equivalent in laboratory work) each week for one semester. 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.

Course

The unit of measure 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. Unless otherwise stated, a course means three semester hours.

REGISTRATION PROCEDURE

Registration is not complete until all tuition and fees have been paid and all necessary transcripts are on file in the Office of Admissions and Records.

No one may register for credit after the last date for registration as shown on the official calendar. The official calendar is maintained by the Vice-President for Administration.

Course Load

In May 1974, the Board of Regents established the following definition of course load for the university system. "The maximum credit hours per semester for which a student may enroll at Lamar University is 12 semester credit hours, without special approval. The President of the University is authorized to designate an officer or officers of the University to approve additional semester hours above the established maximum load."

Maximum Course Loads

1. Full-time students — no student will be allowed to enroll for more than 21 semester hours regardless of the number of grade points earned the preceding

semester.

2. Summer Session — The normal course load for a six-week summer term is six to eight (6-8) semester hours. Overloads must be approved by the student's academic dean.

Admission to Class

The only way to become a member of a class is to register for it through the regular registration procedure.

ABSENCES

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 his particular course. His policy is to be explained in detail to the class at the beginning of the semester.

In the application of his policy to individual cases, the instructor is encouraged to consult with his department head and to seek assistance from the Dean of Student Affairs office.

When absences, other than approved absences, interfere seriously with the student's performance, the instructor may recommend to his department head that the student be dropped from the course.

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.

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. CLEP subject examinations normally will be used if 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. 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. Forms are available in the office of the department head.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Lamar University awards credit on the basis of the Subject Examinations of the College Level Examination Program (CLEP). No credit will be awarded for the General

Examination. The essay section of the English Composition Examination is required, but need not be taken in order to qualify for credit on 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 prior to 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.

REGISTRATION FOR NO GRADE

A student desiring to register for a course to receive a grade of NG must have the written approval of the academic dean and the department head prior to the twelfth class day.

Auditing of Courses by Senior Citizens

Senior citizens may audit courses without the payment of fees on a space-available basis.

REPETITION OF A COURSE

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

When a student repeats a course which may not be repeated for additional credit, his official grade is the last one made and the original grade remains on his record as a course taken.

GRADE POINT AVERAGE

A grade, once earned and entered upon a student's record, cannot be removed. If a student repeats a course which may not be taken for additional credit, the last grade received is the official grade and is the only one used in figuring GPA or a grade point deficiency. This applies only if the course is repeated at the same institution.

It is the responsibility of the student, after repeating a course, to file a special request form in the office of Admissions and Records so that the adjustment in his GPA can be made.

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.

CORRESPONDENCE WORK

Lamar does not offer courses by correspondence. 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 his department head. A permit signed by the department head must be filed in the Office of Admissions and Records prior to registration for the course.

No student may: (1) register for, carry or complete a correspondence course during the last semester or 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 his work by correspondence.

This statement of intent must be approved by his department head and filed in the Office of Admissions and Records no later than the last date for approval 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.

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, a student must maintain his grade points and perform in a manner satisfactory to both his employer and Lamar. Further information may be obtained from the Director of Cooperative Education, Box 10074, LU Station.

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."

TRANSFER STUDENTS

See "Requirements of Students Entering from Other Colleges" under "Admission Requirements."

CHANGING SCHEDULES

No course may be added, changed or dropped without the permission of the department head of the student's major field. Usually, a course may not be added after the first week of the semester (first two days of Summer Session).

DROPPING COURSE

A student may drop a course without penalty during the first weeks of the semester. The last date is published in the official university calendar.

For drops after this penalty-free period, grades are recorded as Q or F indicating that the student was passing or failing at the time of the drop.

A student may not drop a course the last three days prior to the beginning of semester examinations.

WITHDRAWALS

A student wishing to withdraw for the remainder of a semester, or summer term, should fill out a Withdrawal Petition in triplicate in the office of his department head. He 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 Dean of Student Development, 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 catalog. This refund is made only to persons withdrawing and only if requested before the end of the current semester or Summer Session.

If a withdrawal is made before the end of the tenth week (third week of summer term) or if the student is passing at the time of withdrawal, a grade of W is issued for each course so affected. A grade of F is issued for all courses not being passed at time of withdrawal after this penalty-free period.

A student may not withdraw within three days of the beginning of final exam week.

A student who leaves without an official withdrawal 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 Dean of Student Affairs, on the advice of competent medical personnel, may require withdrawal or deny admission of a student for health reasons (mental or physical).

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 prior to graduation. If found unsatisfactory, additional course work may be prescribed.

PHYSICAL ACTIVITY COURSE REQUIREMENT

All full-time students (one taking 12 or more semester hours) must be registered 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 band for four Fall Semesters . . . or AFROTC.
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 take 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.

Degree Requirements

BACHELOR DEGREE — GENERAL

1. Remove all admission conditions.
2. Have the following minimum requirements:
   (a) 30 semester hours in residence at Lamar University. Twenty-four semester hours of this minimum must be earned after attaining senior classification, except for the special degree programs which apply to biology, law and medical technology.
   (b) a grade point average of at least 2.0 on all courses in the major field and a grade point average of at least 2.0 on all work attempted.
   (c) 120 semester hours not including required activity courses in health and physical education, marching band and AFROTC.
   (d) a major of 24 semester hours, 12 of which must be in advanced courses.
   (e) six semester hours in government.
   (f) six semester hours in American history.
   (g) nine semester hours in English, including six semester hours of freshman composition and three semester hours of literature.
   (h) four courses in mathematics, laboratory science, or foreign language with no more than three courses in mathematics, laboratory science or foreign language.
   (i) four semesters of required physical activity and/or marching band and/or AFROTC.
   (j) six semester hours of electives outside the major field.
   (k) 30 semester hours in courses on the 300 and 400 levels completed at Lamar University.

3. Complete the program of study as listed in the catalog.
4. No more than a total of 30 semester hours of correspondence and extension credit may be applied toward the bachelor's degree. Eighteen semester hours is the maximum for correspondence work only.
5. Make final application for graduation exercises and pay the designated fee.
6. Attend the official graduation exercises or receive prior approval from the Dean of Admissions and Records to be excused from them.

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 hours requirement must be completed.

BACHELOR OF ARTS DEGREE

1. Meet the basic requirements of all degree programs.
2. Complete the course numbered 232 in a foreign language.
3. Complete six semester hours of literature.
4. Complete a 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 basic requirements of all degree programs.
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 basic requirements of all degree programs.
2. Meet the specific requirements of the selected program of study as listed in the department concerned.

SPECIAL DEGREE PROGRAMS

Law: In the preparation for the study of law, the student completes three years of work at Lamar and one year at an accredited law school. This plan has been approved by one or more recognized law schools of Texas.

Complete the program for the Bachelor of Business Administration degree as outlined in the program of study shown in the College of Business section of this catalog.

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 at least 30 semester hours in an approved college of dentistry or medicine.
3. Apply for the degree by June 15 preceding the August graduation program.

ASSOCIATE OF ARTS DEGREE — (A.A.)

1. Remove all admission conditions.
2. Have 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 AFROTC.
   (d) six semester hours in government.
   (e) six semester hours in American history.
   (f) nine semester hours of English, including six semester hours of freshman composition and three semester hours of literature.
   (g) four courses in mathematics, laboratory science or foreign language with no more than three courses in mathematics, laboratory science or foreign language.
   (h) two semesters of required physical activity and/or marching band and/or AFROTC.
   (i) Complete the courses numbered 232 in a foreign language.
3. No more than a total of 15 semester hours of correspondence and extension credit may be applied toward the degree.
4. Make application for the Associate of Arts degree and pay all designated fees.

No more than one associate degree may be awarded to a candidate by Lamar University.

ASSOCIATE OF SCIENCE DEGREE — (A.S.)

1. Remove all admission conditions.
2. Have 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 AFROTC.
   (d) six semester hours in government.
   (e) six semester hours in American history.
   (f) nine semester hours of English, including six semester hours of freshman composition and three semester hours of literature.
   (g) four courses in mathematics, laboratory science or foreign language, with no more than three courses in mathematics, laboratory science or foreign language.
   (h) two semesters of required physical activity and/or marching band and/or AFROTC.

3. Complete an Associate of Science program of study as outlined in the catalog.
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 catalog.

ACADEMIC PROGRESS

Classification of Students

Students are classified as freshmen, sophomores, juniors, seniors and special. 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.

Special Student: must meet all entrance requirements.

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.

The instructor may record the grade of **F** for a student who is absent from the final examination 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.

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.

Grade Points

For the purpose of computing grade averages, grade points are assigned as follows: to the grade A, 4 points; to B, 3 points; to C, 2 points; to D, 1 point; and F, 0 points.

A grade, once earned and entered upon a student's record, cannot be removed. If a student repeats a course which may not be taken for additional credit, the last grade received is the official grade and is the only one used in figuring GPA or a grade point deficiency. This applies only if the course is repeated at the same institution.

It is the responsibility of the student, after repeating a course, to file a special request form in the Office of Admissions and Records so that the adjustment in his GPA can be made.

A student's grade point average is obtained by multiplying the number of semester hours credit of each grade by the grade points assigned to the grade and dividing the sum of these by the total number of semester hours of all work taken, whether passed or failed except as provided above.

Credit for a course in which the grade of S is given is not included in computation of the grade point average. A student is not given credit for the grades NG or U nor are the semester hours used in computing the grade point average.

Excess grade points transferred from another college cannot be used to make up a deficiency of grade points on work done at Lamar.

Reports

Reports on grades are mailed at the end of each semester or summer term. Mid-semester reports are made on freshman level courses.

Dean's 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 3.25 or above and junior and senior students who have earned for that semester a grade point average of 3.45 or above. This list is the Dean's List and is announced by the academic dean of each college.

Scholarship Honors

A chapter of Phi Kappa Phi, national honor society, was chartered in the spring of 1965. This honor society elects its membership from students who rank in the top 10 per cent of their class scholastically and are within a year of graduation from an undergraduate college. Membership is open to majors from all academic colleges.

Alpha Lambda Delta, national honor society for freshman women, and Phi Eta Sigma, men's national freshman honor society, select members in the Fall and Spring Semesters. A 3.5 (B+) average is required for membership. A number of departmental and college honor societies also have chapters at the University.

Advisors and Counselors

At or soon after registration, each student is assigned (by his major department) a faculty advisor who is available for academic guidance. All students are expected to make appointments with advisors during each semester. Such arrangements are the responsibility of the student.

Guidance sessions insure that a program of study is pursued in proper sequence and that academic progress is maintained by the student.

A counseling and guidance center for students is located in the Wimberly Student Affairs Building, where services are designed to assist students who may be encountering temporary problems of a personal, social or vocational nature. In addition, the Library maintains an up-to-date occupations section which is available to students undecided about careers.

The Counseling Center is under the supervision of the Dean of Student Affairs.

Scholastic Probation and Suspension

Students are expected to make acceptable scholastic progress toward their degree objective. Students who fail to make such progress and accumulate grade point deficiencies are placed on scholastic probation or suspension.

All students with a grade point deficiency at the end of any regular semester 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 a Spring Semester shall be suspended for the following Fall Semester provided that no beginning student shall be suspended at the end of his first regular semester of attendance.

Students suspended by this action may attend the Summer Session on probation. Students with a grade point deficiency below 25 at the close of the Summer Session may register for the following Fall Semester.

A student returning from an academic suspension must continue to reduce his grade point deficiency every semester of enrollment until the deficiency is eliminated. Should he fail to reduce his deficiency in any one semester, he will be suspended.

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.

Removal of Scholastic Probation and Suspension

1. Students on scholastic probation cannot:
   a. Represent the university in any extracurricular activity, except where eligibility for participation is governed by conference rules.
   b. Hold collegiate or university office.
   c. Participate in trips or tours except when required as class projects.
2. **Warning** — Each student is responsible for knowing his academic status and the regulations which apply. A student who does not abide by the regulations governing his particular status may be required to reduce his academic load or withdraw from the University without special consideration.

GRADUATION

Application for Graduation

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

Before final approval of these applications, the following 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 either over-all or in his 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, he 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 Catalog

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

A catalog more than seven years old shall not be used.

The program of the student who interrupts his enrollment (for reasons other than involuntary military service) for more than one calendar year shall be governed by the catalog in effect at the time of the student's re-entrance to the University. The student who interrupts his 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 his course may petition for a waiver of this provision at the time of withdrawal.

The program of the student who changes his 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 he is enrolled. Deletions and additions of courses will be of approximately equal credit so that 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 catalog in effect when he entered the junior college if he follows the core curriculum provisions of the Coordinating Board. He is subject to the requirement that

if he interrupts his studies for more than one calendar year at the junior college or before transfer to Lamar University, he must qualify for graduation under the catalog in effect when he returns to the junior college or matriculates at Lamar University. This policy became effective for the year 1974-75.

Graduation Honors

Members of the graduating class who have a grade point average of 3.45 or above on all work taken prior to the semester or term of graduation are classified as "honor graduates."

Within this classification, certain qualifying students may be designated as graduating with "highest honors," "high honors" or "honors."

A student must complete 45 or more semester hours at Lamar University prior to the semester or term of graduation to be eligible for graduation with honors.

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. Transcripts are 50 cents per copy.

Copies of transcripts from other institutions, on file in the Office of Admissions and Records for evaluation purposes, will not be released. Copies of these records must be obtained from the issuing college.

General Regulations

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 catalog. It is expected that a listing of these courses will appear in the next catalog issue.

The right to change numbers in order to indicate changes in semester hours also is reserved for the reasons above. Elsewhere in this catalog under "Course Numbering" is a further explanation of this policy.

Minimum Class Enrollment

The University reserves the right not to offer any course listed in this catalog if fewer than 12 students register for the course.

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 Affairs 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.

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.

DISCIPLINE

Students of Lamar University are expected to conduct themselves in a mature manner, conforming to values and moral standards of good society. They are expected to obey the laws of the land and the regulations of the University. They are further expected to assume full responsibility for the consequences of their actions. Students should be aware of these expectations when they choose to enroll at Lamar University.

Disciplinary procedures, specific rules and regulations, and statements of student rights and responsibilities are published each year in the Student Handbook. Copies of the Conduct Code are available in the Office of Student Development.

Disciplinary Probation

A student may be placed on disciplinary probation for unacceptable behavior at any time or place. **The Dean of Student Development may classify behavior as unacceptable and may set the period of probation.** The student has the privilege of appealing the decision to the Disciplinary Committee of the University. This appeal is made through the office of the Dean of Student Development.

Hazing

Lamar University is opposed to hazing in all of its various forms and will discipline all offenders in the spirit of statutes governing this offense, as set forth in Chapter 4-A of Title 15 of **Vernon's Statutes in the State of Texas.**

Penalty for False Statements

A student who makes a false statement to any University official or on an official form submitted to the University is subject to immediate dismissal.

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 officially 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 his 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

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 Southland Conference or the Texas Association for Intercollegiate Athletics for Women, in both of which Lamar University is a charter member.

For additional details on eligibility for intercollegiate athletics, the student is directed to make inquiry of the Director of Men's Athletics or the Director of Women's Athletics.

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 Dean of Student Affairs 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.

TELEPHONE SERVICE

Public telephone pay stations have been installed in all academic classroom buildings, the Library and the Setzer Student Center. Students are expected to use these telephones for their personal calls. Office telephones are for the use of faculty and administrative personnel. **Incoming telephone calls for students are transmitted to the students only in cases of emergency.**

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 RECORDS

The following information concerning student records maintained by Lamar University is published in compliance with the Family Education Rights and Privacy Act of 1975 (PL 93-380).

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 listed below which have been designated by the University as directory information and which will be routinely released. The student may request that 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; major and minor; semester hour load; classification; class schedule; eligibility for and participation 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.

Student Activities

STUDENT GOVERNMENT ASSOCIATION

All full-time students automatically are members of the Student Association at Lamar University. Officers of the Association and representatives are elected annually and make up the Association's executive body known as the Student Government Association. The Association offers the student an opportunity to promote and to participate in self government and to participate in the management of a well-rounded program of student activities. Further information about student government may be found in the Student Handbook.

PUBLICATIONS

The University Press, the official University newspaper, is published weekly by students organized by a staff advisor. The publication serves both as a medium of training and as a source of information. Any student is eligible to become a staff member.

The Cardinal is the official yearbook of Lamar University. Any full-time student is eligible to become a staff member. Those interested are urged to apply.

The Student Handbook — Calendar is published by the Student Government Association for the benefit of all students. It combines information concerning the University, student services and student activities in a calendar format that is useful to the student throughout the entire year. Each new student receives a copy, and copies are available to other students at the start of the school year.

The Student Directory is published annually by the University. It contains a listing of the names, addresses and telephone number of students, faculty and administration.

Pulse, a student literary magazine, is published each semester by a student staff supervised by a faculty sponsor from the English Department. Any currently enrolled student may submit manuscripts for possible publication.

The Lamar Engineer is published quarterly by the undergraduate students of the College of Engineering.

SETZER STUDENT CENTER

The Richard W. Setzer Student Center provides facilities for leisure-time recreation and is the campus center for many extracurricular activities. Completed in 1971 at a cost of $2,800,000, the Center includes a games area, TV rooms, a music listening room, snack areas, Imagery Shop, ballroom, meeting rooms, graphics center and lounges. The Center also houses the Student Government Association, Setzer Student Center Council, Interfraternity Council and the various staff members who work with these organizations.

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 10 committees, each having its own budget and chairman. These committees and their areas of interest are: top name, fine arts, public relations, forum, film, coffeehouse, recreation, social, video tape and University of Man.

STUDENT ORGANIZATIONS

More than 160 student organizations currently active on the campus offer students membership in one or more service, professional, religious, social and mutual interest clubs, societies, fraternities and sororities. Participation in student organizations is designed to enhance the education of students, who are encouraged to enter into the organizations and their programs of activities.

INTRAMURAL SPORTS PROGRAM

Under the supervision of the directors of intramural sports, the Departments of Health and Physical Education for Men and Women offer intramural programs with opportunities for participation in recreational activities. Participation is voluntary and open to all full-time students.

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.

DEVELOPMENTAL LEARNING LABORATORY

Each Fall and Spring Semester, the Dean of Student Affairs' Office sponsors the Developmental Learning Laboratory (DLL). It is designed to concentrate on two primary skill areas: developmental reading and study skills.

The goal of the DLL is to offer assistance to any student who may be having difficulty in study habits or reading skills. Complete individualization is emphasized. Students work through a developmental program at their own speed. Success has been shown in increased vocabulary, reading comprehension, reading rate and a higher degree of proficiency in the basic study skills. The laboratory tries to diagnose deficiencies before they become problem areas. Students who feel they could benefit from this program or who desire more information should contact the Office of Student Development, Room 116, Wimberly Student Affairs Building.

EX-STUDENTS ASSOCIATION

This association of former students of Lamar, including graduates and ex-students, is active on a year-around basis. The Executive Secretary of the Association maintains an office in the Wimberly Student Affairs Building.

Report of the College of Business

The academic year of 1975-76 marked a time of change and challenge for the College of Business. Two college administrators retired after serving at Lamar for a combined total of 63 years. Dr. J. D. Landes, former dean of the college, continues his service as a part-time professor and advisor of graduate students. Mrs. Norma S. Hall elected to take early retirement from her position as head of the Office Administration Department.

The new dean, Dr. John A. Ryan, was nominated by a faculty committee and selected by the university administration for his leadership position in the College of Business. Dr. Nancy Darsey was appointed as the new head of Office Administration.

The college has completed plans to move into the remodeled library in 1977. A faculty committee composed of Charles Hawkins, Dr. Charles McCullough, Dr. Malcolm Veuleman, and Dr. Kathryn White worked closely with architects to design classroom, seminar, office and lounge areas. The library will be renovated and remodeled to provide the best in modern facilities for both students and faculty.

During the Fall Semester, a faculty committee, chaired by J. M. Pearson and Elvis Davis, completed the college's self-study report for the Southern Association of Colleges and Schools. Faculty members from all four departments serve on university-wide committees in preparation for this accreditation agency's visit in 1976-77. The continued accreditation by this agency represents Lamar's commitment for assuring high quality education for its students.

In addition, the College of Business, under the direction of Dean Ryan, pledged itself to the goal of seeking accreditation by the American Assembly of Collegiate Schools of Business. The college plans to meet the rigorous requirements of AACSB by the end of the 1977-78 academic year. Students will benefit from this accreditation because Lamar's College of Business will rank among the top in the nation. In general, one can expect individual counseling, small class sizes and excellent instruction in the diverse specializations leading to BBA degrees. Since two faculty members (Dr. Nancy Darsey and Dr. Bob E. Wooten) completed Ph.D. requirements in 1975, Lamar's College of Business now counts 18 faculty members with terminal degrees. Six additional faculty should complete doctoral requirements during the next year. All faculty members of the College of Business are well qualified from the standpoint of educational background and practical business experience.

To meet community needs, the College of Business plans to establish early in 1976 the J. D. Landes Center for Economic Education. Under the direction of Dr. Mietzl Miller, this center will serve community and public education groups by providing guidance for the instruction about our economic system.

Students in the College of Business can join such groups as Delta Sigma Pi, the Accounting Association, the Economics Association, the Marketing Club and the Office Administration Club. Business majors also can participate in the Students for Free Enterprise. Excellent academic progress also will enable students to be affiliated with Phi Kappa Phi (national honorary fraternity) and Alpha Pi Epsilon (national business education honorary society). Involvement in these student groups will contribute to the student's academic education as well as personal social fulfillment.

Report of the College of Education

Providing training for prospective teachers is a tradition at Lamar University. Since 1959, when the College of Education was established, degree and certification plans for teachers have expanded until a broad range of programs are now offered both at the undergraduate and graduate levels. In addition, nonteaching specialties are now available in home economics and in health and physical education.

Immediate objectives of the college are to develop the human resources and professional competence of its students. This will help them to become educators with specialized skills and divergent abilities needed for effective living and career fulfillment in an ever-changing society. The faculty of the college believes that graduates of its various curricula should be characterized by a well-rounded academic foundation and by professional preparation based upon theory and basic principles which will persist and lend proper perspective to new developments in education.

The array of programs in the College of Education covers a broad part of the societal range of educational need. Current programs, though varied and numerous, are not static or all-inclusive. The college continually evaluates the needs of its constituency for the purpose of modifying current programs and creating new ones. This effort has resulted, periodically, in major curricular additions and revisions. A major indication of program currency and product adequacy is the ready market for those completing degree and certification programs in the College of Education.

Currently, baccalaureate degrees are offered in the following fields: elementary education, secondary education, health and physical education, home economics, and special education. Of these, the degree in special education is the most recent addition. This new program is designed to prepare undergraduate students as generic special education teachers, thus making it possible for students to meet the demands of Comprehensive Special Education in Texas.

In recent years, several programs have been developed in the departments of Health and Physical Education and in Home Economics for persons who do not plan to teach. Notable among these are dance, health, recreation, athletic trainer education, food service and dietetics, family and community service, home economics in business, and fashion merchandising.

The College of Education in the future will continue to prepare personnel to work in varied public education settings. It will, additionally, assist in a continuing renewal of persons already engaged in professional education pursuits. It seems logical to assume that there will be an increased emphasis on graduate programs, possibly including doctoral level preparation in selected areas.

Report of the College of Engineering

The College of Engineering was shocked and saddened by the death of Dean Lloyd B. Cherry on August 11, 1974. The Engineering III building was renamed in his memory by the Board of Regents. Dean Cherry had been a member of the Lamar faculty since 1946. When Dr. Robert A. McAllister was appointed as dean on October 15, 1974, Dr. Jack R. Hopper replaced him as head of the Department of Chemical Engineering. The Department of Chemical Engineering sponsored the first international symposium on the Techniques of Liquid Liquid Separations in October 1974.

In February 1975, George B. Tims, Jr., became the full-time director of Cooperative Education for Lamar University. All cooperative education programs had been in the College of Engineering, but the appointment of a full-time director signaled the beginning of a university-wide co-op effort.

In addition to ongoing teaching and other activities, efforts for this year were directed toward increasing research capability, recruiting of engineering students and beginning a formal academic planning study.

Additional degree programs are not anticipated in the College of Engineering for the next five years. Added emphasis will be directed toward research, minority engineering student recruitment and continuing education programs. Areas of research emphasis will be in energy resources (solar energy, coal gasification, development of drilling technology), biomedical engineering, subsidence research and environmental engineering.

Staffing additions for 1976-77 are planned for personnel whose expertise lies in the areas of engineering graphics and engineering mechanics. The Department of Mathematics also plans to add to its faculty, as does the Civil Engineering Environmental Science area.

An increased emphasis on research will require additional and/or remodeled laboratory space, primarily in the mechanical and chemical engineering areas. The Department of Mathematics is recommending, as a high priority item, a new classroom-office building.

During 1975, the departments, the colleges, and the University were engaged in the self-study report for the Southern Association of Colleges and Universities. This report will be completed during 1975. The Spring Semester 1976 will be devoted to preparing for the reaccreditation visit by representatives from the Engineers' Council for Professional Development which will occur in the fall of 1976. We expect our reaccreditation of the engineering programs to be effective beginning with the Fall Semester 1977.

Report of the College of Fine and Applied Arts

For the College of Fine and Applied Arts, the 1974-75 academic year has been one of program initiation and implementation.

Early in 1974, the Coordinating Board, Texas College and University System, approved the Bachelor of Fine Arts degree and the Bachelor of Music degree. Both degree programs have become well-established and popular among our students. Last spring, the Coordinating Board also approved a new graduate program in music, which was initiated in the fall of 1975. Thirty-seven students responded to the three graduate music courses offered in that semester.

In addition to degree programs, new activities were initiated in the college along several lines of interest related to the curriculum program.

In the Department of Art, graphic design students were active in creating a group called Graphic Directions. Working as a regular academic course, it is a model art service agency for both off and on-campus clients who need designs for brochures, ads and posters. Within this same area, Progressive Communigraphics, a club for graphic design majors, is active in arranging programs, taking field trips and participating in advertising programs within the area.

A new emphasis was added within the Department of Communication as a result of a Moody Foundation grant of $18,000. The grant was used to develop a signs-mime theater, which places Lamar among a small number of institutions in the nation having theater programs for the deaf.

The construction of a new Speech and Hearing Center provides for Lamar one of the largest such training facilities in Texas. The $1 million center was completed in November 1975 and dedicated in January 1976. Since 1968, the speech and hearing program at Lamar has graduated approximately 150 students with bachelor's degrees and 21 with graduate degrees in speech pathology and audiology. In addition, some 7,000 cases with communication handicaps have been treated without charge each year by the student speech and hearing therapists within the program.

While all of these special events were taking place, the "routine" activities of the college continued to operate, for example, the presentation of plays, opera, musicals, orchestral, symphonic and marching band concerts, choral recitals, debate and speech tournaments, a creative arts workshop for children in the summer, faculty and student art shows, and summer workshops in debate, theater, band, twirling and cheerleading.

Report of the College of Health Sciences

The College of Health Sciences was conceived during the academic year 1973-74 and was formally approved by the Coordinating Board, Texas College and University System. It became a new college on the campus of Lamar University on October 18, 1974.

The college brings together under one administrative roof the health career programs that had existed previously in other colleges. These programs are distributed within the college into the Departments of Allied Health and Nursing. Offered in the Department of Allied Health are a one-year certificate program in respiratory technology, Associate of Applied Science degree programs in dental hygiene and radiologic technology and a baccalaureate program in medical technology.

The programs in nursing are a one-year certificate program in vocational nursing and the Associate of Science and Bachelor of Science degree programs in nursing. The Bachelor of Science nursing program is new. It was approved by the Coordinating Board on April 18, 1975, with implementation in the fall 1976.

In addition to organizational changes during 1974-76, a new building to house the college was designed and begun during 1974-75. The facility, known as the Mamie McFaddin Ward Health Sciences Building, is expected to be completed and ready for occupancy prior to the beginning of the Fall Semester 1976.

The newness of the college and physical facilities create much excitement and many challenges. While it is tempting to tackle the tasks attendant to newness all at once, it is essential to promote goal achievement by setting priorities and making considered progress.

During 1976-77, the faculty of the College of Health Sciences will concentrate on implementing the new baccalaureate program in nursing, achieving full national accreditation for the programs in dental hygiene and respiratory technology, redesigning the curriculum of the Bachelor of Science degree program in medical technology, propose the offering of an Associate of Science degree program in medical technology and examine the feasibility of replacing the current Associate of Applied Science programs in dental hygiene and radiologic technology with programs leading to Associate of Science degrees in those fields.

Accompanying activities to accomplish these program goals, of necessity, will be efforts directed toward the acquisition of quality academic and non-academic personnel, environmental, and other educational resources essential to program goal achievement. In the area of nursing, enrollment will increase by virtue of the initiation of the baccalaureate program. In all other programs, however, enrollments are expected to remain stable during 1976-77.

Report of the College of Liberal Arts

The College of Liberal Arts, exceptionally well-housed and well-staffed, is planning for expansion of its curriculum through new programs, new degrees and innovations in existing programs.

Underway are a newly-reinstated Bachelor of Science degree in sociology, a recently-added teacher certification program in sociology, and a new intensive study program in English as a second language. The Regional Law Enforcement Academy, formerly located in the College of Technical Arts, recently was moved to the Department of Public Affairs, thus uniting all of Lamar's law enforcement programs. The Academy is housed in the Educational Services Building on Florida St.

The intensive study program in English as a second language is regarded as a step forward for Lamar, necessitated by the increasing number of international students. The program will enable Lamar to admit in the future many students who would not otherwise qualify for admission because of English deficiency. Four courses of intensive English, running consecutively for four weeks each, provide four levels of instruction. Thus, most international students may, in a relatively brief time, improve their proficiency in English before attempting full-time study in their major field. Also offered are two courses which parallel the freshman English composition courses, and which meet the general degree requirements in English composition.

College of Liberal Arts plans for the coming year center around three new degree programs. For a number of years, an 18 semester hour minor program has been offered in social welfare. The college believes it is time to add a Bachelor of Science degree in social welfare to the curriculum.

Success of the Master of Public Administration degree, and the obvious demand for undergraduate work in public administration, has resulted in plans to develop a Bachelor of Science degree in public administration.

Also planned for the near future is a nontraditional program which will be called a Bachelor of General Studies degree, with a Liberal Arts option.

Report of the College of Sciences

The College of Sciences has undertaken important and significant changes in its degree offerings and programs during the past year. Several courses of study in the health care fields (nursing and medical technology) have been transferred to the College of Health Sciences, which was organized during this time. Increased options for programs of study have been developed in all departments in the College of Sciences and important and current new degree choices for students have been significantly increased.

The college operates on the principles that success in scientific pursuits requires an inquiring mind, thorough grounding in fundamental theory, and manipulative skill. Ultimate success is attained when these qualities are developed against a broad background of liberal education.

The Department of Aerospace Studies (U.S. Air Force ROTC) continues its increasingly successful recruitment program. Since its inception in 1972, the growth of this department has demonstrated it to be an important option for students. The department is anticipating its move into new facilities. This new building represents the first ever designed and built expressly for Air Force ROTC on any college campus in the nation.

Preprofessional programs, particularly in medicine, dentistry, pharmacy, physical therapy, occupational therapy and veterinary medicine continue to occupy much interest and modern curriculum changes and offerings in biology and chemistry reflect this. A new "core" program in biology and a biochemistry option in chemistry are of importance, particularly to students interested in medicine or dentistry. These programs also are particularly suited to students wishing to prepare for graduate school or enter industry. Because of its modern curriculum and its ability to offer unusual training to its students (for example, electron microscopy), the college consistently maintains a high standing within the State of Texas in the success of its students in entering professional programs.

The program in oceanographic technology makes available several options for students interested in the field and in geology. A unique course of study within the Geology Department leads to a degree in energy resources management. This is a joint venture with the College of Business and is the only one of its kind in Texas. It has been received enthusiastically by the petroleum industry, and Lamar's location in a large petrochemical complex makes readily available an important talent pool to draw from for this program.

The Physics Department maintains the high regard held by its students through a top-quality program of modern offerings. Expanded programs for nonmajors are in the near future and the department is looking forward to the acquisition and operation of a planetarium. The Department of Psychology continues to attract many students, both as majors and those who take its courses for electives. A new course developed by this department for the University helps students in the choice of a career. It has been enthusiastically received and promises to be an important part of the guidance and counseling program at Lamar.

The College of Sciences continues its long-standing commitment to its students: to provide a top-quality educational program to prepare students as creative members of a modern and complex society. Excellence in teaching and research by the faculty of the College of Sciences accomplishes this mission.

College of Business

Departments: Accounting, Business Administration, Economics, Office Administration

John A. Ryan, Ph.D., Dean
Charles F. Hawkins,
Director of Research
Services Unit
Elizabeth Magee,
Barbara Smith,
Secretaries

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.

The College of Business is organized into four departments: Accounting, Business Administration, Economics and Office Administration. The Bachelor of Business Administration degree is granted in all areas. A three-year program especially designed for prelaw students is offered in the area of General Business.

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 that the education of the modern businessman 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 theory and not techniques should be the proper concern of the undergraduate student. A selected body of fundamental business theory is presented in the core pattern of business subjects. This theory is 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 consistent relativity 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 situations.

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

Plan I

A. Non-professional education courses:
Eco 231, 232 — Principles of Economics
English Composition — six semester hours
Government 2321 and three hours Sophomore American Government
Sophomore American History — six semester hours
Literature — three semester hours
Mth 134, 1341 — Algebra and Elements of Analysis
Physical Education or Band — four semesters
Science — eight semester hours (in same science)
Soc, Phl, or Ant — three semester hours
Spc 131 — Speech Communication
Approved non-professional education electives — 12 semester hours — not to exceed six semester hours in any subject area.

B. Pre-Professional courses:
CS 133 — Introduction to Computer Programming
BA 220 — Computer Programming (Fortran)

C. Professional core courses*:
Acc 231, 232 — Principles of Accounting
BA 331 — Business Law
BA 332 — Principles of Finance
BA 334 — Principles of Marketing
BA 335 — Principles of Management
BA 3301, 3302 — Business Statistics
Eco 334 — Macro Economics
Eco 339 — Economics of the Firm
OA 334 — Business Communications

D. Professional Specialization (21-24 semester hours):

*Slightly different program of courses required by the Department of Office Administration for students planning to secure teacher certification. See Department of Office Administration in this catalog.

Acc Major (21 sem. hours)

Acc 331, 332 — Inter Acc
Acc 334 — Cost Acc
Acc 338 — Tax Acc
Acc elective — three hours
Acc 430 — Auditing
Acc 431 — Adv Acc

Gen Bus Major (21 sem. hours)

BA 333 — Insurance
BA 336 — Per Management
BA 4314 — Admn Policies
Eco 333 — Inter Theory
Eco 433 — Hist of Eco Tht
Six semester hours of advanced courses in Acc, BA, or Eco

Marketing Major (21 sem. hours)

BA 4303 — Quan Tech in Mkt or
BA 4312 — Intnl Mkt
BA 338 — Prob in Ret-Whlsg
BA 339 — Mkt Promotion or
BA 4313 — Buyer Behavior
BA 4310 — Mkt Mgmt
BA 4314 — Admin Policies
BA 4318 — Mkt Research
BA 4319 — Adv Mkt Prob

Economics Major

See Department of Economics in this catalog for specific requirements in this area of specialization.

Management Major (24 sem. hours)

Acc 334 — Cost Acc
BA 336 — Per Management
BA 3311 — Labor Law or
Eco 336 — Survey of Labor Economics
BA 4310 — Mkt Mgmt
BA 4314 — Admin Policies
BA 4315 — Budgetary Control
BA 436 — Production Mgmt

Office Administration Major (23 sem. hours)

BA 336 — Per Management
BA 437 — Investments
OA 123 — Inter Typing
OA 222 — Prod Typing
OA 332 — Dict & Trans
OA 341 — Sec Off Procedures
OA 363 — Adv Shorthand

Finance Major

See finance program in this catalog for specific requirements in this area of specialization.

E. Approved electives to complete a total of 128 semester hours.

II. A minimum grade point average of 2.00 in all business and economic 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:

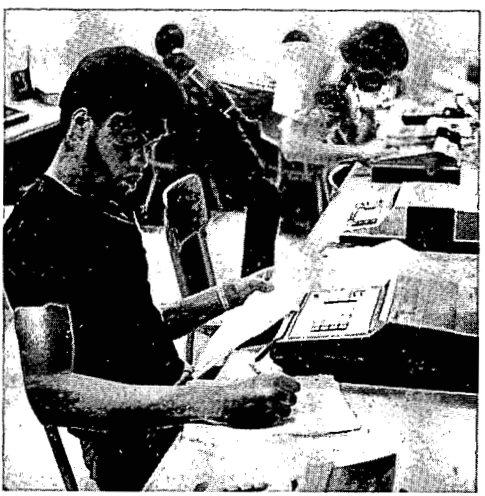
I. The specific course requirements as set forth in the Department of Economics for the degree (see Department of Economics in this catalog.)
II. A minimum grade point average of 2.00 in all economics courses.
III. A minimum grade point average of 2.00 in all work required for the degree.
IV. A minimum of 124 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.



Department of Accounting

Department Head — R. O. Bennett. *Professors* — R. O. Bennett, J. D. Landes. *Associate Professors* — H. A. Barlow, Elvis C. Davis, W. Fred Farrar, Malcolm W. Veuleman. *Assistant Professor* — Jean M. Hudson. *Secretaries* — Cynthia Mercer, Lindy L. Taylor.

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 businesses, 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.

Recommended Program of Study

Bachelor of Business Administration — Accounting Major

First Year

CS 133—Int to Comp Prog	3
Eng—Composition	6
Mth 134,1341	6
Science	8
Soc, Phl, Psy or Ant	3
Spc	3
HPE—Activity	2
	31

Second Year

Acc 231, 232—Prin	6
BA 220—Comp Prog-Fortran	2
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 2321 and Soph Am Gov	6
Soph Am Hist	6
HPE—Activity	2
Electives	3
	34

Third Year

Acc 331, 332—Interm	6
Acc 338—Tax Acc	3
BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 3301, 3302 Bus Ststcs	6
Eco 339—Eco of Firm	3
Electives	9
	33

Fourth Year

Acc 430—Auditing	3
Acc 431—Advanced	3
Acc 334—Elem Cost	3
BA 334—Marketing	3
BA 335—Prin of Mgmt	3
Eco 334—Macro Eco	3
OA 334—Bus Commun	3
Electives	9
	30

ACCOUNTING (Acc)

231 — Principles of Accounting. Conceptual, measurement, and communications aspects of the financial statements; double-entry system and timing of recognition of revenue and expense; fair presentation of the statements in accordance with recent developments in the accounting profession. Class: 3 hours. Credit: 3 semester hours.

232 — Principles of Accounting. Use of accounting information in management decisions; introduction to actual and standard cost accounting systems; present-value

analysis and tax considerations. Prerequisite: Acc 231. Class: 3 hours. Credit: 3 semester hours.

331 — Intermediate Accounting. Analysis of special problems and theories of current assets and corporation accounting. Capital stock; surplus and dividends; treasury stock; cash; receivables; inventories; net income concepts; corrections of prior year's earnings. Prerequisite: Acc 232. Class: 3 hours. Credit: 3 semester hours.

332 — Intermediate Accounting. 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. Class: 3 hours. Credit: 3 semester hours.

334 — Cost Accounting. Job order and process cost approach to the control of manufacturing operation. Material; labor; overhead allocation; departmentalization; budgeting; data presentation. Prerequisite: Acc 232. Class: 3 hours. Credit: 3 semester hours.

338 — Taxation Accounting. 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. Class: 3 hours. Credit: 3 semester hours.

339 — Taxation Accounting. 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. Class: 3 hours. Credit: 3 semester hours.

430 — Auditing. 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. Class: 3 hours. Credit: 3 semester hours.

431 — Advanced Accounting. Analysis of special problems and theories relative to partnership operations; receivership; compound interest and annuities; estates and trusts; branch operations; consolidated statements. Prerequisite: Acc 332. Class 3 hours. Credit: 3 semester hours.

433 — C.P.A. Review. Preparation for candidates for the Certified Public Accountants' examination through review and study of problems and questions relative to the examination. Class: 3 hours. Credit: 3 semester hours.

434 — Advanced Cost Accounting. Standard costs, budgeting and control of manufacturing costs, reporting for managerial evaluation. Prerequisite: Accounting 334. Class: 3 hours. Credit: 3 semester hours.

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

437 — Municipal and Governmental Accounting. 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. Class: 3 hours. Credit: 3 semester hours.

Department of Business Administration

Department Head — C. D. Kirksey. *Professor* — Richard T. Cherry. *Associate Professors* — Charles D. McCullough, Larry W. Spradley, Arthur F. Stelley, David G. Taylor, Donald E. Williams. *Assistant Professors* — William T. Ashley, J. Michael Biggs, George R. Goetz, Ann D. Jones, William B. Olson, Larry T. Patterson*, Alfred F. Steiert. *Instructor* — Paul W. Guy. *Secretaries* — Terri Marino, Patti Manuel.
*on leave

The Department of Business Administration offers the following fields of concentration: finance, general business, management, and marketing.

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 finance departments of business firms.

General Business

The general business curriculum requires the basic core fundamentals of business but does not require any major field of concentration. Students who do not have a specific objective in mind will find that the degree plan gives them ample opportunity to explore a number of professional fields and prepares them for initial employment in a variety of business careers.

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.

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.

Prelaw

The Department of Business Administration offers a three-year program especially designed for prelaw students. Students completing the program may enter directly into the law school of their choice. (The University of Texas requires a bachelor's degree for admission.)

Upon completion of the first year in an approved school of law and upon proper application, a student may receive the Bachelor of Business Administration degree from Lamar University.

Recommended Program of Study

Bachelor of Business Administration — Finance Major

First Year

CS 133—Int to Comp Prog	3
BA 220—Comp Prog-Fortran	2
Eng—Composition	6
Mth 134, 1341	6
Science	8
Soc, Phl, Ant or Psy	3
Spc	3
HPE—Activity	2
	33

Second Year

Acc 231, 232—Prin	6
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 2321 and Soph Am Gov	6
Soph Am His	6
HPE—Activity	4
	31

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 3301, 3302 Bus Ststcs	6
BA 334—Prin of Marketing	3
BA 335—Prin of Management	3
BA 3315—Fin. Analysis	3
BA 437—Investments	3
Eco 332—Money & Banking	3
Eco 339—Eco of the Firm	3
*Elective (non-Business)	3
	33

Fourth Year

BA 333—Insurance	3
BA 4305—Real Estate	3
BA 4306—Financial Mkts	3
BA 4307—Financial Inst	3
OA 334—Bus Commun	3
BA 4315—Bud Control	3
Eco 334—Macro Eco	3
*Elective (non-Business)	6
Elective (business)	5
	32

Bachelor of Business Administration — General Business Major (Plan I)

First Year

CS 133—Intro to Comp Prog	3
BA 220—Comp Prog-Fortran	2
Eng—Composition	6
Mth 134, 1341	6
Science	8
Soc, Phl, Ant or Psy	3
Spc	3
HPE—Activity	2
*Elective	3
	36

Second Year

Acc 231, 232—Prin	6
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 2321 and Soph Am Gov	6
Soph Am His	6
HPE—Activity	4
	31

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 334—Prin of Marketing	3
BA 3301, 3302 Bus Ststcs	6
Eco 333—Interm Theory	3
Eco 334—Macro Econ	3
OA 334—Bus Commun	3
*Electives	6
	30

Fourth Year

BA 333—Insurance	3
BA 335—Prin of Mgmt	3
BA 336—Per Mgmt	3
BA 4314—Admin Policy	3
Eco 339—Eco of Firm	3
Eco 433—His of Eco Tht	3
Electives (Bus or Eco 300 or 400 Level)	14
	32

Bachelor of Business Administration — Management Major

First Year

CS 133—Intro to Comp Prog	3
BA 220—Comp Prog-Fortran	2
Eng—Composition	6
Mth 134, 1341	6
Science	8
Soc, Phl, Ant or Psy	3
Spc	3
HPE—Activity	2
*Electives (non-business)	3
	36

Second Year

Acc 231, 232—Prin	6
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 2321 and Soph Am Gov	6
Soph Am His	6
HPE—Activity	4
	31

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 334—Prin of Marketing	3
BA 335—Prin of Mgmt	3
BA 3301, 3302 Bus Ststcs	6
Eco 334—Macro Eco	3
OA 334—Bus Commun	3
*Electives (non-business)	6
	30

Fourth Year

Acc 334—Cost Acc	3
BA 336—Personnel Mgmt	3
BA 3311—Labor Law or Eco 336	3
BA 436—Production Mgmt	3
BA 4314—Admin Policy	3
BA 4310—Mktg Mgmt	3
BA 4315—Budgetary Control	3
Eco 339—Eco of Firm	3
Electives (Bus or Eco 300 or 400 Level)	8
	32

Recommended Program of Study

Bachelor of Business Administration — Marketing Major

First Year

CS 133—Intro to Comp Prog	3
BA 220—Comp Prog-Fortran	2
Eng—Composition	6
Mth 134, 1341	6
Science	8
Soc, Phl, Psy or Ant	3
Spc	3
HPE—Activity	2
*Elective (non-business)	3
	36

Second Year

Acc 231, 232—Prin	6
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 2321 and Soph Am Gov	6
Soph Am His	6
HPE—Activity	4
	31

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 334—Prin of Marketing	3
BA 335—Prin of Mgmt	3
BA 3301, 3302 Bus Ststcs	6
Eco 334—Macro Eco	3
OA 334—Bus Commun	3
*Electives (non-business)	6
	30

Fourth Year

BA 338—Prob in Ret & Whl	3
BA 4303—Quant Tech in Mkt or BA 4312—International Mkt	3
BA 339—Marketing Promotion or BA 4313—Buyer Behavior	3
BA 4310—Mktg Mgmt	3
BA 4314—Adm Policy	3
BA 4318—Mkt Research	3
BA 4319—Adv Mktg Problems	3
Eco 339—Eco of Firm	3
Electives (Bus or Eco 300 or 400 Level)	8
	32

*HPE—Activity not acceptable.

Recommended Program of Study

Bachelor of Business Administration — Prelaw

Prelaw — Upon completion of the first year in an approved school of law, the B.B.A. degree may be conferred by Lamar University.

Requirements:

1. Complete 97 hours exclusive of HPE and Band.
2. Grade point average of 2.5 on all college work taken.
3. Application for degree at end of first year of law school.

First Year

CS 133—Intro to Comp Prog	3
BA 220—Comp Prog-Fortran	2
Bio 141, 142—General	8
Eng—Composition	6
Mth 134, 1341	6
**Elective (non-business)	3
Soc 131	3
Spc 131	3
HPE—Activity	2
	36

Second Year

Acc 231, 232—Prin	6
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 2321 and Soph Am Gov	6
Soph Am His	6
HPE—Activity	4
	31

Third Year

Acc 331, 332—Interm	6
BA 332—Prin of Finance	3
BA 334—Prin of Marketing	3
BA 335—Prin of Mgmt	3
BA 3301, 3302 Bus Ststcs	6
Eco 339—Eco of Firm	3
Eco 334—Macro Eco	3
OA 334—Bus Commun	3
*Electives (Bus or Eco 300 or 400 Level)	6
	36

*Advanced courses in Business Administration with the exclusion of Business Law.
**HPE—Activity not acceptable.

BUSINESS ADMINISTRATION (BA)

220 — Elementary Fortran Applications to Business. To familiarize business students with elementary applications of Fortran as needed in special business situations. Class: 2 hours. Credit: 2 semester hours.

320 — Computer Applications in Business (Fortran). Emphasis on utilizing the resources of Fortran in statistical and other business applications, such as measures of central tendency and dispersion, amortization schedules, depreciation, correlation analysis. Prerequisite: BA 220. Class: 2 hours. Lab: 1 hour. Credit: 2 semester hours.

330 — Computer Applications in Business (Cobol). 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. Class: 3 hours. Credit: 3 semester hours.

331 — Business Law. Principles of law which form the legal framework for business activity. Applicable statutes; contracts; agency. Class: 3 hours. Credit: 3 semester hours.

332 — Principles of Finance. A survey of the field of business finance. Financial planning; administration and control of financial activities; short-term and long-term

financing; advantages and disadvantages of the various business organizations; security markets; commercial banking systems; Federal Reserve System; financial reorganization. Class: 3 hours. Credit: 3 semester hours.

333 — Insurance. Application of fundamental principles to life, property, and casualty insurance. Contracts; premiums; legal statutes; risk; programming. Class: 3 hours. Credit: 3 semester hours.

334 — Marketing. A description and analysis of business activities designed to plan, price, promote, and distribute products and services to customers. Topics studied include the marketing environment, consumer buying habits and motives, types of middlemen, marketing institutions and channels, governmental regulations, advertising, and current marketing practices. Prerequisite: Eco 232 or 233. Class: 3 hours. Credit: 3 semester hours.

335 — Principles of Management. A general theory of management presented within the framework of the traditional managerial functions. Stress is placed upon the universality and practicality of fundamental propositions in the practice of management in all of business. A basic course for the study of more advanced and specialized aspects of business administration. Prerequisites: Eco 232 and Acc 232. Class: 3 hours. Credit: 3 semester hours.

336 — Personnel Management. 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. Prerequisites: BA 335. Class: 3 hours. Credit: 3 semester hours.

338 — Problems in Retailing and Wholesaling. A study of the concepts and practices in retailing and wholesaling with both small and large scale applications. Prerequisite: BA 334. Class: 3 hours. Credit: 3 semester hours.

339 — Marketing Promotion. The three basic forms of selling are studied: advertising (paid, nonpersonal presentation of goods, services, or ideas through print or electronic media); salesmanship (personal selling through oral presentation with one or more prospective purchasers); and sales appeals (activities other than advertising and salesmanship which stimulate consumer purchasing and dealer effectiveness). Class: 3 hours. Credit: 3 semester hours.

3301 — Business Statistics: Introduction to the quantitative methods of analysis as applied to business problems. Collection of data; charts and tables; analysis; presentation; frequency distribution; averages; dispersion; index numbers; secular trend; seasonal variation; and cyclical fluctuation. Class: 3 hours. Credit: 3 semester hours.

3302 — Business Statistics. Continuation of BA 3301 including the theory and practical application of normal curve, probable error, and sampling. Correlation and regression; probability theory and models; statistical inference, tests of hypotheses; sample survey methods; and statistical quality control. Class: 3 hours. Credit: 3 semester hours.

3311 — Labor Law. Historical interpretations and present provisions of regulations governing labor. Common law; state and federal statutes; Fair Labor Standards Act; workmen's compensation; social security; liability; United States Department of Labor; social legislation. Class: 3 hours. Credit: 3 semester hours.

3315 — Financial Analysis. A professional finance course, building on the broad familiarization with financial management principles and issues covered in BA 332 (Principles of Finance). Class: 3 hours. Credit: 3 semester hours.

4111 — Special Problems in Business. It involves investigation into special areas in business under the direction of a faculty member. Credit: 1 semester hour.

4211 — Special Problems in Business. It involves special areas in business under the direction of a faculty member. Credit: 2 semester hours.

434 — Advanced Legal Principles. Dealing in detail with the applicable statutes governing sales, real property, bank deposits and collections, letters of credit, bulk transfers, documents of title, and secured transactions, with particular emphasis given to the effect of the Uniform Commercial Code. Prerequisite: BA 331. Class: 3 hours. Credit: 3 semester hours.

436 — Production Management. Planning and controlling of industrial production processes. Quantitative and qualitative control; scheduling; dispatching; problems. Prerequisite: BA 335. Class: 3 hours. Credit: 3 semester hours.

437 — Investments. An appraisal of investment, alternatives in financial markets. Markets; securities; methods of analysis; investment programming. Prerequisite: BA 332. Class: 3 hours. Credit: 3 semester hours.

438 — Petroleum Law. 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. Class: 3 hours. Credit: 3 semester hours. Prerequisite: BA 331.

4303 — Quantitative Techniques in Marketing. Continuation of BA 3302. Topics include Bayesian inference, payoff tables, sample design, analysis of variance, and logarithmic and multiple correlation and regression analysis. Prerequisite: BA 3302. Class: 3 hours. Credit: 3 semester hours.

4305 — Real Estate. A survey of real estate principles and practices, including the law of real property, real estate appraisal, marketing, and finance. Class: 3 hours. Credit: 3 semester hours.

4306 — Financial Markets. The course is designed to develop a professional understanding of the nature and operations of financial markets. Class: 3 hours. Credit: 3 semester hours.

4307 — Financial Institutions. A survey of the operating characteristics, sources and uses of funds, and regulatory environment of the major financial institutions in the U.S. economy. Class: 3 hours. Credit: 3 semester hours.

4308 — Organizational Behavior. A survey of organization theory with emphasis on behavioral aspects. Class: 3 hours. Credit: 3 semester hours.

4310 — Marketing Management. 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: BA 334. Class: 3 hours. Credit: 3 semester hours.

4311 — Special Problems in Business. It involves investigation into special areas in business under the direction of a faculty member. Credit: 3 semester hours.

4312 — International Marketing. A survey of international marketing, world markets, political restraints in trade, and international marketing principles. Class: 3 hours. Credit: 3 semester hours.

4313 — Buyer Behavior. Acquaints the student with consumer behavior models and behavior research techniques. Class: 3 hours. Credit: 3 semester hours.

4314 — Administrative Policy. Fundamental considerations and procedures followed in business policy formulation and administration. Managerial structure; company objectives; coordination of departmental policies; organization of personnel; reappraisals. Prerequisites: senior standing in Business Administration. Class: 3 hours. Credit: 3 semester hours.

4315 — Budgetary Control. Theories, problems and techniques of internal financial and budgetary controls. Financial planning; budgetary construction; evaluation; performance rating; replanning. Prerequisite: BA 335. Class: 3 hours. Credit: 3 semester hours.

4316 — Business Simulation, Modeling and Decision Theory. The use of the computer in the solution of problems concerning pricing, inventory control, production scheduling, sales forecasting and related business decisions. Prerequisites: BA 3302 and BA 220. Class: 3 hours. Credit: 3 semester hours.

4317 — Computers in Business Management. 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. Prerequisites: CS 133 and BA 220. Class: 3 hours. Credit: 3 semester hours.

4318 — Marketing Research. The importance and use of marketing research in U.S. business is stressed. A detailed analysis is made of each marketing research step from the formulation of the problem to the preparation of the research report and follow-up. The basic research methods (survey, observational, and experimental) are presented. Prerequisite: BA 334, 3302. Class: 3 hours. Credit: 3 semester hours.

4319 — Advanced Marketing Problems. 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: BA 334, 4310. Class: 3 hours. Credit: 3 semester hours.

4411 — Special Problems in Business. It involves investigation into special areas in business under the direction of a faculty member. Credit: 4 semester hours.

Department of Economics

Department Head — Charles A. Partin. *Professors* — Mietzl Miller, Sam F. Parigi. *Associate Professors* — Hi K. Kim, Claude E. Monroe, James M. Pearson. *Assistant Professors* — Joel L. Allen, Charles F. Hawkins.

The Department of Economics offers both the Bachelor of Arts degree and the Bachelor of Business Administration degree in the field of economics. Students planning to enter graduate work are encouraged to follow the Arts curriculum. For graduate courses offered by the Department of Economics, see the Graduate Bulletin.

Recommended Programs of Study

Bachelor of Arts — Economics Major

Requirements:

1. Complete 124 semester hours exclusive of HPE or Band.
2. Complete 30 semester hours in the field of economics.
3. Complete a minor of at least 18 semester hours, six of which must be in advanced courses.

First Year

Eng—Composition	6
Foreign Language	6
Mth 134, 1341—Alg & Analysis	6
Science	8
HPE—Activity	2
*Electives	3
	31

Second Year

Eco 231, 232 Prin	6
Eng—Literature	3
Foreign Language	6
**Gov—Intro Am Govt	6
His—Soph Am His	6
BA 220—Comp Prog	2
HPE—Activity	2
	31

Third Year

Eco 333—Interm Theory	3
Eco 334—Macro Eco	3
BA 320—Inter Comp	2
Eco 339—Eco of Firm	3
BA 3301, 3302—Ststcs	6
OA 334—Bus Commun	3
Electives	13
	33

Fourth Year

Eco 332—Mon & Bkg	3
Eco 433—Hist of Eco Thot	3
*Electives	27
	33

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

**Requirement: six semester hours of government, consisting of Govt 2321, and one course selected from Govt 2322, 2323, 2324, or 2325.

Bachelor of Business Administration — Economics Major

Requirement: Complete 30 semester hours in the field of Economics.

First Year

Eng—Composition	6
Mth 134, 1341—Alg & Analysis	6
Science	8
CS 133—Intro to Comp Prog	3
Spc	3
HPE—Activity	2
Soc, Phl or Ant	3
	31

Second Year

Eco 231, 232—Prin	6
Acc 231, 232—Prin	6
Eng—Literature	3
*Gov—Intro Am Govt	6
His—Soph Am His	6
HPE—Activity	2
BA 220	2
**Elective	3
	34

Third Year

BA 331 Bus Law	3
BA 332—Prin of Finance	3
BA 334—Marketing	3
BA 3301, 3302—Bus Statcs	6
Eco 333—Interm Theory	3
Eco 334—Macro Eco	3
Eco 339—Eco of Firm	3
**Electives	9
	33

Fourth Year

Eco 332—Mon & Bkg	3
BA 335—Prin of Mgmt	3
BA 336—Per Mgmt	3
OA 334—Bus Commun	3
**Electives	18
	30

*Required: six semester hours government, consisting of Govt 2321 and one course selected from Govt 2322, 2323, 2324 or 2325.

**Electives must include 12 semester hours of advanced courses in economics, and six semester hours of approved, advanced electives.

Teacher Certification — Economics

Students of secondary education wishing to certify in economics as a teaching field, see Department of Secondary Education in this catalog.

ECONOMICS (Eco)

230 — Current Economic Issues. A survey of current economic issues and problems such as those arising from energy exhaustion, environment deterioration, inflation, unemployment, tax structures, organization of industries and markets, consumerism, etc. Issues discussed will vary in order to emphasize topics of greatest current concern. Course may be taken for credit by majors or non-majors. Credit: 3 semester hours. Class: 3 hours.

231 — Principles. Introduction to economic principles. Emphasizes monetary theory; national income analysis; fluctuation and growth; public finance; international trade; and current economic problems. Class: 3 hours. Credit: 3 semester hours.

232 — Principles. Allocation of resources; determination of output and prices; distribution; and managerial economics. Class: 3 hours. Credit: 3 semester hours.

233 — Principles and Policies. Comprehensive introduction to economic principles and problems for non-business students. Resource utilization; price determination; distribution of income; fiscal and monetary problems; economic growth. Class: 3 hours. Credit: 3 semester hours.

332 — Money and Banking. Functions and policies of the American monetary and banking system. Commercial banking; central banking; Federal Reserve System; monetary theories and policies; economic stabilization and growth. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

333 — Intermediate Theory. Economic analysis and methodology. Distribution theory; price theory; pure and imperfect competition. Prerequisites: Eco 232. Class: 3 hours. Credit: 3 semester hours.

334 — Macro Economics. A descriptive-analytical approach to the dynamic forces that influence the aggregate level of economic activity. Income and employment determinants; levels of income and employment, stabilization theory; investment and income relationship; monetary and fiscal policies. Prerequisite: Eco 231. Class: 3 hours. Credit: 3 semester hours.

335 — International Trade. Theories, practices, and problems involved in international commerce between nations. Bases of trade; tariffs; exchange control; international monetary policies; current problems. Prerequisite: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

336 — Survey of Labor Economics. Past development and present organizational structure of the labor movement in America and its impact on the industrial society. Labor market; collective bargaining; wages; economic insecurity; labor legislation; governmental policies. Prerequisite: 3 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

337 — Public Finance I. Investigation of the constitutional, administrative and economic aspects of government fiscal activities, the important trends in intergovernmental fiscal relations, and the nature of government debt. Prerequisite: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

338 — Public Finance II. Study of the administration, fiscal importance, and economic effects of federal, state, and local taxes. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

339 — Economics of the Firm. The application of the techniques of economic analysis of the 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. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

4101, 4201, 4301, 4401, 4501, 4601 — Institute in Economics. 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. Class: 1 to 6 hours. Laboratory: 2 to 4 hours. Credit: 1 to 6 semester hours.

4111, 4211, 4311, 4411 — Special Problems in Economics. 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. Credit: 1-4 semester hours.

430 — Economics of Urban Problems. Applied analysis of the economic aspects of urban problems — revenue and spending, environment, location of firms, employment,

transportation, and housing and population. Prerequisite: Eco 231 and 232, or Eco 233, or the approval of the instructor. Class: 3 hours. Credit: 3 semester hours.

431 — Monetary Theory. An analytical, institutional, historical, and empirical analysis of monetary theory, and its interrelations with the generally accepted economic goals. Prerequisites: Eco 232, 334, or consent of instructor. Class: 3 hours. Credit: 3 semester hours.

433 — History of Economic Thought. Historical development of economic thought from primitive periods to the present. Classical; historical; socialist, neoclassical; institutional thought. Prerequisites: Eco 333 or 334. Class: 3 hours. Credit: 3 semester hours.

434 — Economic Development. 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. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

435 — Comparative Economic Systems. A critical analysis of the basic theories and institutions of economic systems including a comparison of the American system with other existing systems. Capitalism; socialism; communism. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

436 — Business Cycles. The nature and causes of business cycles. Cyclical theories; business fluctuations; forecasting stabilization; current problems. Prerequisites: Eco 334 or consent of instructor. Class: 3 hours. Credit: 3 semester hours.

437 — Applied Economic Analysis. Teaches students to apply analytic techniques to problems of forecasting, production relationships, and cost-output relationship. Class: 3 hours. Credit: 3 semester hours.

439 — Mathematical Economics. A formulation of economic theory in mathematical terms. Special attention is given to general equilibrium analysis, interindustry economics and activity analysis. Prerequisites: Eco 231, 232, Mth 1341 or differential and integral calculus. Class: 3 hours. Credit: 3 semester hours.

4314 — Industrial Organization. An analysis of the U.S. market system relative to structures: competition, oligopoly and monopoly power of U.S. industry and the conduct and performance of firms in relations to the public interest and economic welfare. Prerequisites: 6 hours of Economics. Class: 3 semester hours.

4315 — Social Control of Business. Problems in business-government relations; business and other power group influences on the formation and implementation of public policy; the dynamics of legislative and administrative processes as they relate to business; and the concept of social responsibility. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

Department of Office Administration

Department Head — Nancy S. Darsey. *Associate Professor* — Kathryn White. *Assistant Professors* — Jean Dorrell, Jeannette Vaughn, Bob Wooten. *Secretaries* — Brenda Farris, Peggy Varner.

The Department of Office Administration offers a four-year program leading to the degree of Bachelor of Business Administration. The general and specific requirements of the four-year curricula furnish a broad preparation and a highly specialized proficiency in the professional secretarial field.

A major in Office Administration may be combined with courses in education. This plan will qualify a graduate for a professional teacher's certificate.

The Department also offers a two-year program for students who do not desire to follow any degree plan. The two-year curriculum is designed to develop competence in typewriting, shorthand, computer programming, clerical record keeping and business correspondence. 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.

Typewriting is strongly recommended for all college students regardless of department or vocational preference. Not only has it an immediate return in better college work, but also it builds a skill that is most useful in later-life activities.

Young men will do well to consider the many advantages of office administration. The field is particularly rewarding to them because of its unlimited promotional opportunities. Many successful men in positions of leadership began their business careers as secretaries or business education teachers.

Recommended Program of Study

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

First Year		Second Year	
CS 133—Comp Prog	3	Acc 231, 232—Prin	6
Eng—Composition	6	BA 220—Comp Prog	2
Mth 134, 1341—Algebra & Analysis	6	Eco 231, 232—Prin	6
OA 123—Interm Typing	2	Eng—Literature	3
Science	8	Gov 2321 and Soph Am Gov	6
Spc	3	Soph Am His	6
Elective	3	HPE—Activity	2
HPE—Activity	2		31
	33		

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 334—Marketing	3
BA 3301, 3302—Bus Ststcs	6
OA 363—Adv Shorthand	6
OA 334—Bus Commun	3
Electives	9
	33

Fourth Year

BA 335—Ind Mgmt	3
BA 336—Pers Mgmt	3
BA 437—Investments	3
OA 222—Production Typ	2
Eco 339—Eco of Firm	3
Eco 334—Macro Eco	3
OA 341—Sec Off Proc	4
OA 332—Dict & Trans	3
Electives	7
	31

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 and Second Year: same as Plan I with exception of BA 220

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 334—Marketing	3
BA 3301, 3302—Bus Ststcs	6
Edu 331—Foundations	3
Edu 332—Edu Psy	3
Edu 338—Cur Mat Eval	3
OA 363—Advanced Shorthand	6
Eng—Literature	3
	33

Fourth Year

BA 335—Ind Mgmt	3
Edu 438—Clasrm Mgt	3
Edu 462—Stud Teach	6
OA 222—Prod Typ	2
OA 341—Sec Off Proc	4
OA 332—Dict & Trans	3
OA334—Bus Commun	3
OA 438—Bus Edu	3
Electives	4
	31

Two-Year Terminal Program in Office Administration

First Year

Eng—Composition	6
Mth 134, 1341—Algebra & Analysis	6
OA 123—Interm Typing	2
OA 125—Records	2
OA 222—Prod Typing	2
OA 363—Adv Shorthand	6
Spc 131	3
Elective	2
HPE—Activity	2
	31

Second Year

Acc 231, 232—Prin	6
CS 133—Comp Prog	3
BA 331—Bus Law	3
Eco 231, 232—Prin	6
Eng—Literature	3
OA 231—Sec Prac	3
OA 341—Sec Off Proc	4
OA 332—Dict & Trans	3
Elective	3
	34

OFFICE ADMINISTRATION (OA)

121 — Typewriting (Short Course). Introduction to the touch system on manual and electric machines. Simple letter forms; manuscripts; tabulations. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

122 — Typewriting (Short Course). Continuation of OA 121 with emphasis on speed and accuracy in preparation of production units. Letters; rough drafts; manuscript; tabulations. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

123 — Intermediate Typewriting. High standards of speed and accuracy. Specific letter forms; tabulations; rough drafts; financial and legal forms; manuscripts; business forms and reports. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

125 — Records. Methods and procedures in classifying and storing business records. Filing systems; records management and retention; duplicating equipment; dictating; transcribing; office machines evaluation. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

222 — Production Typewriting. Speed production of office-style material. Business forms; statistical tables; financial statements; legal documents; reports; correspondence. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

231 — Secretarial Practice. Practical secretarial projects emphasizing use of functional English in correspondence; good judgment in office routine. Class: 3 hours. Credit: 3 semester hours.

233 — Beginning Shorthand (Short Course). Introduction of Gregg Diamond Jubilee Shorthand. Reading; writing; theory principles; brief forms. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

234 — Beginning Shorthand (Short Course). Continuation of OA 233 with intensification of shorthand reading and writing skills. (OA 233 with OA 234 equivalent to OA 261.) Brief form review; previewed dictation; pre-transcription practice. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

261 — Beginning Shorthand. Intensive introduction to Gregg Diamond Jubilee Shorthand. Reading; writing; theory principles; brief forms; previewed dictation; pretranscription practice. Class: 4 hours. Laboratory: 4 hours. Credit: 6 semester hours.

332 — Dictation and Transcription. Continuation of OA 363 with stress on building shorthand speed and improving transcription skill. Vocabulary development; sustained dictation; volume production. Class: 3 hours. Credit: 3 semester hours.

334 — Business Communications. Theories, practice, and problems involved in communications in business and industry with emphasis on use of practical psychology, good judgment. Letters; reports; memoranda. Prerequisite: touch system of typewriting. Class: 3 hours. Credit: 3 semester hours.

341 — Secretarial Office Procedures. Analysis of responsibilities and duties of the administrative secretary. Procedure; work simplification; supervision; office etiquette and ethics; sources of information. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

363 — Advanced Shorthand. Continuation of OA 261 with improvement of ability to take dictation and transcribe mailable copy. Theory principles; brief form derivatives; vocabulary development; speed building; mailable transcription; office-style dictation. Class: 4 hours. Laboratory: 4 hours. Credit: 6 semester hours.

438 — Business Education in the Secondary School. Theories, methods, and materials in business education with emphasis on motor-skill subjects. Practices; procedures; evaluation; facilities; literature; research problems. Class: 3 hours. Credit: 3 semester hours.

College of Education

Departments: Elementary Education, Secondary Education, Special Education, Health and Physical Education, Home Economics

M.L. McLaughlin, Ed.D., Dean
Vernon H. Griffin, Ed.D., Director of Certification and Graduate Studies
E. Lee Self, Ph.D., Director of Student Teaching
Mrs. Nelda Castleman, Secretary

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 specialities 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 catalog.

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

DEGREES OFFERED

Bachelor of Science with majors in the following fields:

- Elementary Education
- Secondary Education
- Special Education
- Health and Physical Education
- Home Economics

OBJECTIVES

The faculty of the College of Education plans its curricula to produce 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 base of theory and principles which consider but do not emphasize techniques, so that 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 that is 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/minimally brain injured, emotionally disturbed, 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 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 chairman 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 intends to teach and in all professional education courses completed.

(3) Have completed adequate hours and courses in content areas in which he 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, 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 catalog.

Provisional Certificate requirements and requirements for professional education degrees are identical. Each program is composed of four parts: (1) academic foundations, (2) academic specialization, (3) professional development, and (4) free electives. Programs require the completion of 126 to 132 semester hours.

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

Academic Foundations (54 to 60 semester hours)

The academic foundation program that is 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 ..... 6 hours
   Science — Laboratory (same science) ..... 8 hours
   Gov 2321 ..... 3 hours
   Gov — Sophomore American Government ..... 3 hours
   His — Sophomore American History ..... 6 hours
   HPE 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 catalog.

Athletic Training

Described in the "Department of Health and Physical Education for Men" section of this catalog.

Driver education endorsement

Described in the "Department of Health and Physical Education for Men" section of this catalog.

Kindergarten education endorsement

Described in the "Elementary Education" section of this catalog.

All-levels Music degree and certificate

Described in the "Music" section of this catalog.

Special education certificate endorsements

Described in the "Special Education" section of this catalog.

Education of the deaf and speech and hearing therapy

Described in the "Communication" section of this catalog.

Vocational Home Economics degree and certificate

Described in the "Home Economics" section of this catalog.

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 Dean of the College of Education.
2. Persons with degrees from Texas colleges apply directly to the Dean of the College of Education for certification.
3. Persons with degrees from out-of-state colleges apply to the Texas Education Agency for certification.

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. *Professors* — E. B. Blackburn, Jr., Betty F. Coody, Vernon H. Griffin, W. Richard Hargrove*, Bradley B. Hogue, Conrad D. Mang, Marvin L. McLaughlin. *Associate Professor* — Edward R. McIntosh. *Assistant Professors* — Genevieve Pearce, Sarah E. Sims. *Instructors* — Meredith Fitzgerald, M. Virginia Pipes. *Secretary* — Nancy Davis. *Media Secretary* — Frances Shelton.
*on leave

Bachelor of Science in Education— Elementary

The Bachelor of Science degree in Elementary Education as described below 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 catalog.

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 subject (18 hours, nine advanced, except in Generic Special Education where it is 24). Courses must be in one of the following areas: English, drama, history, mathematics, one science, one foreign language, sociology, speech, art, music, psychology, physical education or generic special education. 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). Specific requirements are:
   Geo 237 — Physical Geography or Geo 238 — Cultural Geography
   Art 3371 — Elementary Art Education
   Spc 333 — Interpretation of Children's Literature or The 336 — Creative Dramatics
   HPE 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.

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—Con Mth	6
MEd 131—Ele of Music	3
His 134—Texas	3
HPE—Activity	2
Acad Found—Elect	3
Geo 237 or 238	3
	34

Second Year

Eng—Literature	6
Sophomore American His	6
Gov 2321	3
Sophomore American Gov	3
Science	3
HPE 339—PE in Elem Sch	3
HPE—Activity	2
Specialization	3
Mth 3313—Mod Ele Geom	3
	32

Third Year

Art 3371—Elem Schl Art	3
Edu 331—Foundations	3
Edu 332—Edu Psy	3
Edu 333—Lang Arts	3
Edu 334—Child Dev & Eval	3
Edu 335—Arith in Elem Sch	3
Edu 339—Read in Elem Sch	3
Edu 434—Clsrm Mgt	3
Spc 333—Interp Child Lit	3
Area of Specialization	9
	36

Fourth Year

Edu 437—Sci & Soc Stud	3
Edu 465—Student Teaching	6
Area of Specialization	6
Acad Found—Elect	9
Free Electives	6
	30

Course descriptions may be found following the section describing the Secondary Education Department.

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 do student teaching 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 catalog 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 — Richard E. Swain, III. *Professors* — Howard W. Adams, David L. Bost, Kenneth R. Briggs, Walter Dezelle, Jr., Harvey C. Johnson, E. Lee Self. *Associate Professors* — D. L. Hybarger, W. H. Stanley. *Assistant Professors* — Sandra Lee Haven, Phillip B. Snyder, Jerry R. Tucker, Curtis E. Wills. *Secretary* — Mrs. Mary Parish. *Secretary for Student Teaching* — Mrs. Diane Gotcher. *Certification Secretary* — Mrs. Lena Francis.

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 in Secondary Education

- Art
- Biology
- Chemistry
- Communication (Journalism)
- Earth Science
- Economics
- English (second field only)
- French
- General Science
- Government
- Health and Physical Education (Men)
- Health and Physical Education (Women)
- Health Education
- History
- Life-Earth Science Middle School
- Mathematics
- Physical Science
- Physics
- Psychology
- Social Studies
- Sociology
- Spanish
- Special Education — Generic (second field only)
- Speech

Bachelor's Degree in a Particular Discipline

- Art (All Levels)
- Business (Office Administration)
- Communication (Journalism)
- English
- French
- Government
- Health and Physical Education (Men)
- Health and Physical Education (Women)
- History
- Home Economics
- Mathematics
- Music (All Levels)
- Physics
- Spanish
- Special Education — Generic
- Speech

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, 3381, 4341, 4371, 4381. (Academic foundation must include Art 235 and Art 236).

Art (All Levels)
Specialization: (48 semester hours) Art 131, 132, 133, 134, 231, 233, 235, 236, 3371, 3381, 4331, 4341, 4371, 4381, plus six hours of Art electives from 300 or 400 level courses).

Biology
Specialization: (24 semester hours) Bio 141, 142, 345 or 4402, 347, plus eight hours to be selected from Bio 245, 346, 440, 441, 442, 443, 444, 445, 446, 447, 449. Also required: Chm 141-142 or 143-144.
(When selected as area of greatest interest program must also include eight additional hours of biology).

Business Education (Plan II — Composite Field)
Specialization: (48 semester hours) Acc 231, 232, BA 210, 331, 332, 334, 335, 3301, CS 133, OA 123, 222, 332, 334, 341, 363, 438.
(Academic Foundations must include Eco 231, 232, Spc 131, plus three hours).

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

Drama (See Theater)

Earth Science
Specialization: (24 semester hours)Geo 141, 142, 237, 335, 336, 337, 338, 418. Physics 137-Astronomy is required in the Foundations Area.

Economics
Specialization: (24 semester hours) Eco 231, 232, 333, 334, 435, plus nine semester

hours selected from any 300 or 400 level Eco course.
(When selected as area of greatest interest program must include BA 3301 and 3302).

English

Specialization: (27 semester hours) Six hours of sophomore literature selected from 2311, 2314, 2315, or 2316; six hours of advanced British Literature; six hours of advanced American Literature; Eng 4331 or 4332; Eng 3321; Eng 334 or 430 or 3312. Foundations program must include a foreign language through 232 for students who had foreign language in high school and a foreign language through 142 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 231, 232, 330, 337, 338, plus nine 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 233 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 catalog for listing of courses.) Also required: Gov 2321 and three hours of sophomore American Government, which are included in core requirements of academic foundations.
(When selected as area of greatest interest, program must include a foreign language through 232).

Health and Physical Education (Men)

Specialization: (24 semester hours) HPE 132, 235, 236, 331 or 332, 333, 336, 436, plus three elective hours in HPE-M from HPE 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).

Health and Physical Education (Women)

Specialization: (24 semester hours) HEd 133, 237; WPE 132 or 235, 236, 333, 336, 432, 433. Foundations program must include Bio 141, Bio 142, WPE 123 and six hours from WPE 223, 224, 220, 2251, 227 or Dan 127, 128, 129.
(When selected as area of greatest interest program must include Bio 330 and three semester hours of Speech).

Health Education

Specialization: (24 semester hours) HPE 131, 133, 234, 237, 331, 337, 434, 437. Foundations program must include Bio 141, 142.

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 page 165 of this catalog for complete description of certification plan in this area.

Journalism (Communication)
Specialization: (24 semester hours) Com 131, 132, 231, 232, 3381, 3383, 431, 432. (When selected as area of greatest interest must include Speech 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, 335, 336, 337, 338, 418. (Foundation electives must include Phy 137).

Mathematics
Specialization: (27 semester hours) Mth 1381, 1391, 2311, 234, 3311, 330 or 338, 333 or 334, 335 or 336 or 337, and Computer Science 131.

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

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 138 and 139 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, 436, 338, 436, 414, 416 and 417.
Foundations program must include Mth 1381, 1391, 2311, 2321, 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 Field)
Specialization: (48 semester hours as follows:)
A. 30 semester hours: six hours economics, six hours geography, six hours sociology, six hours advanced government, six hours advanced American history.
B. 12 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 (advanced).

Sociology
Specialization: (24 semester hours) Soc 131, 132, 438, 439; plus 12 hours (six advanced) from 231 or 431; 233 or 431; 233, 330 or 432; and 332 or 336.

Spanish
Specialization: (24 semester hours) Spa 231, 232, 330, 335, plus 12 hours of advanced Spanish.

Special Education-Generic
Specialization: (24 semester hours) SpEd 3302, 3303, 3304, 3305, 4307, 4308, 4309, 4310. (See Special Education section of this Bulletin for details).

Speech

Specialization: (24 semester hours) Spc 132, 133, 234, 238, 434, 438, 439 plus three hours selected from 332, 337 or 338.
(When selected as area of greatest interest foundations program must include Spc 131 and 233).

Theater (Drama)

Specialization: (24 semester hours) Spc 133, 233, 235, 237, 334, 335, 437, plus three hours selected from 336, 3360, 337 or 436.
(When selected as area of greatest interest foundations program must include Spc 131 and Spc 132).

3. **Professional Development** (18 semester hours)
   Edu 331 — Foundations in 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
Math	6
Science—Laboratory	8
HPE—Activity (2 sem)	2
First Teaching Field	3
Second Teaching Field	3
Acad Found—Elect	6
	34

Second Year

Eng—Literature	6
Six hours of Sophomore American History from: 231, 232, 233, 234, 235, 236	6
Gov 2321 and 3 hours Sophomore American Government from 2322, 2323, 2324, 2335	6
HPE—Activity (2 sem)	2
First Teaching Field	6
Second Teaching Field	6
Acad Found — Elect	3
	35

Third Year

Edu 331—Foundations	3
Edu 332—Edu Psy	3
Edu 338—Cur & Mth	3
First Teaching Field (6 hrs advanced)	9
Second Teaching Field (6 hrs advanced)	9
Acad Found—Elect	6
	33

Fourth Year

Edu 438—Classroom Mgt	3
Edu 462—Student Teaching	6
First Teaching Field—Adv	6
Second Teach Field—Adv	6
Acad Found—Elect	3
Free Electives	6
	30

ELEMENTARY AND SECONDARY EDUCATION (Edu)

331 — Foundations in Education. History, philosophy, and organization of education with particular emphasis on American education. Class: 3 hours. Credit: 3 semester hours.

332 — Educational Psychology. Principles and psychological problems involved in education with emphasis on learning theories and the practical application of psychological principles to teaching. Class: 3 hours. Credit: 3 semester hours.

333 — Language Arts in the Elementary School. The study and use of materials and techniques in the teaching of oral and written communication. Prerequisite: Edu 331. Class: 3 hours. Credit: 3 semester hours.

334 — Child Development and Evaluation. Principles of growth and development. Measurement and evaluation of learning. Class: 3 hours. Credit: 3 semester hours.

335 — Arithmetic in the Elementary School. A study of the content, materials, and methods used in teaching arithmetic. Prerequisite: Edu 331. Class: 3 hours. Credit: 3 semester hours.

336 — Children's Literature. A survey covering the field of literature from the earliest writings for children to current books and magazines for juveniles. Class: 3 hours. Credit: 3 semester hours.

338 — Curriculum, Materials, and Evaluation in the Secondary School. The structure and organization of the curriculum, materials used, and types of evaluation utilized. Prerequisite: Edu 331. Class: 3 hours. Credit: 3 semester hours.

339 — Reading in the Elementary School. Methods and materials for teaching reading in the elementary school. Emphasis upon the placement of materials and lesson planning. Prerequisite: Edu 331. Class: 3 hours. Credit: 3 semester hours.

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

433 — Teaching Media and Audio-Visual Technology. Observation, demonstration and practice in utilizing modern teaching media, including teaching machines, and programming. Class: 3 hours. Credit: 3 semester hours.

434 — Classroom Management—Elementary. A study of problems relating to classroom management and curriculum. Prerequisite: Edu 331 and 332. Class: 3 hours. Credit: 3 semester hours.

435 — Individualized Instruction Through Technology. 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. Class: 3 hours. Credit: 3 semester hours.

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

438 — Classroom Management—Secondary. Organization of subject matter, lesson planning, classroom management, and general methods of teaching. Prerequisite: Edu 338. Class: 3 hours. Credit: 3 semester hours.

462 — Student Teaching in the Secondary School. Supervised observation and teaching in the secondary school. Prerequisite: Edu 438. Class: 3 hours in secondary classroom 5 days per week for 16 weeks. Credit: 6 semester hours.

463 — Student Teaching—Special. 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. Credit: 6 semester hours.

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

4101, 4201, 4301, 4601 — Institute or Workshop in Education. 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. Class: 1 to 6 hours. Credit: 1 to 6 semester hours.

4302 — Early Childhood Development. 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. Class: 3 hours. Credit: 3 semester hours.

4303 — Instruction in Early Childhood. 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. Class: 3 hours. Credit: 3 semester hours.

4304 — History and Philosophy of the Kindergarten. A comparative study of the early childhood educational movements of the past and their impact on present and future programs. Class: 3 hours. Credit: 3 semester hours.

4305 — Seminar in Early Childhood Educational Research. A survey of research studies in learning theory and in instructional practices for young children. Class: 3 hours. Credit: 3 semester hours.

4306 — Special Topics. 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. Class: 3 hours. Credit: 3 semester hours.

4337 — Tests and Measurements. Principles of human measurement and evaluation. Familiarity with most used tests and evaluation procedures in educational settings. Class: 3 hours. Credit: 3 semester hours.

Department of Special Education

Department Head — Monty Sontag. *Assistant Professors* — Milton H. Hyman, Harvey L. Kanter, James E. Lane, Norma Tompkins. *Secretary* — Karen Sanders.

Bachelor of Science in Education— Special Education

Students may secure the Bachelor of Science degree in Generic Special Education and at the same time certify for a Provisional Certificate — Secondary with a teaching field in Generic Special Education.

The program is designed to prepare undergraduate students as Generic Special Education teachers. This 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 Generic Special Education Certificate. With careful planning the student also may obtain an additional Provisional Certificate endorsement in a special education categorical area, e.g., mental retardation, physically handicapped/minimally brain injured, language and/or learning disabilities, and emotionally disturbed.

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

Special Education Generic and Categorical Certification Requirements

A student may complete the requirements for Special Education Certification within the Elementary or Secondary Education undergraduate program. Since the Special Education Certificate is an endorsement, it is also possible to obtain certification in conjunction with an Elementary or Secondary program or following the completion of an Elementary, Secondary, All-Levels, Vocational Homemaking, Deaf Education, or Speech/Hearing Program.

Certification may be obtained in Generic Special Education (as previously described) or in the areas of mental retardation, physically handicapped, minimally brain injured, emotionally disturbed, language and/or learning disabilities, early childhood/exceptional children and educational diagnostician.

To obtain certification in one or more areas of Special Education, students follow the same curriculum that is outlined for elementary or secondary teachers, except that one of the following sequences in Special Education is required.

When certification is obtained following the granting of an acceptable degree, student teaching in Special Education is not a requirement. See section on Student Teaching.

Mental Retardation

SpEd 3301 —Survey in the Education of Exceptional Children
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/Minimal Brain Injury

SpEd 3301 —Survey in the Education of Exceptional Children
SpEd 3312 —Education of the Physically Handicapped

SpEd 431 —Psychology of Exceptional Children
SpEd 439 —Methods and Material for Learning Disabilities
Edu 463 —Student Teaching —Special

Emotionally Disturbed

SpEd 3301 —Survey in the Education of Exceptional Children
SpEd 3313 —Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed
SpEd 4314 —Educational Needs of the Emotionally Disturbed
SpEd 4315 —Practicum Experience with the Emotionally Disturbed
Edu 463 —Student Teaching — Special

Language and/or Learning Disabilities

SpEd 3301 —Survey in the Education of Exceptional Children
SpEd 3316 —Identification of Language and Learning Disorders
SpEd 439 —Methods and Materials for Learning Disabilities
SpEd 4317 —Practicum in the Identification of Language and Learning Disorders
Edu 463 —Student Teaching — Special

NOTE: Six additional semester hours are required for L/LD certification. A three semester hour course with a learning theory component, e.g., Edu 332, Edu 535 or Psy 436 and a course in Child Development and Evaluation, e.g., Edu 334 or Edu 534, must be completed.

Early Childhood/Exceptional Children

Select three hours from one of the following:

SpEd 3301 —Survey in the Education of Exceptional Children
SpEd 5361 —Survey of Learning Potentials of Exceptional Children (graduate level only)
SpEd 5365 —Instructional Processes with Exceptional Children (graduate level only)

Select three hours from one of the following:

SpEd 3311 —Identification and Habilitation of the Mentally Retarded
SpEd 3312 —Education of the Physically Handicapped
SpEd 3313 —Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed
SpEd 3316 —Identification of Language & Learning Disorders
SpEd 439 —Methods and Materials for Learning Disabilities

Select six hours from two of the following:

Edu 4302 —Early Childhood Development
Edu 4303 —Instruction in Early Childhood
Edu 4304 —History and Philosophy of the Kindergarten
Edu 4305 —Seminar in Early Childhood Educational Research
Edu 5351 —Advanced Study in Early Childhood Curriculum (graduate level only)
Edu 5352 —Creative Activities in Early Childhood Education (graduate level only)

Multiple Special Education Certification

With an additional six to 12 hours from certification programs for mental retardation,

physically handicapped/minimally brain injured, 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 or all of the above 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.

Educational Diagnostician

This is a graduate program and fulfills requirements for a Professional Certificate. Additional information may be found in the Graduate Bulletin; however, students may use SpEd 431G, 439G, 4308G and 4309G as a part of this program with prior approval from the Head of the Department of Special Education.

Student Teaching in Special Education

A student may complete the Special Education requirements while an undergraduate by enrolling in Education 463, Student Teaching-Special. The student teaching assignment will then be divided between a regular and a Special Education program in the special education area in which certification is being sought.

Upon graduation the student will be eligible for elementary or secondary certification and certification in that Special Education area in which student teaching was completed. After the receipt of a valid Texas Teacher Certificate the student may then apply for certification in the other area(s) of Special Education without having to do student teaching if appropriate courses were completed. Applications are made in the office of the Director of Certification.

A listing of courses in Special Education may be found in the following section.

Bachelor of Science in Education — Special Education

Recommended Program of Study

First Year

First Semester		Second Semester	
Eng—Composition	3	Eng—Composition	3
Science—Lab	4	Science—Lab	4
Math	3	Math	3
HPE—Activity	1	HPE—Activity	1
Academic Specialization	3	Academic Specialization	3
Foundation Elective	3	Foundation Elective	3
	17		17

Second Year

First Semester		Second Semester	
Eng—Literature	3	Eng—Literature	3
Gov 2321	3	Gov 2322, 2323, 2324, 2325	3
His (Soph American His)	3	His (Soph American His)	3
HPE—Activity	1	HPE—Activity	1
Academic Specialization	3	Academic Specialization	3
Foundation Elective	3	Foundation Elective	3
	16		16

Third Year

First Semester		Second Semester	
Edu 331—Foundations	3	Edu 338—Cur & Mth	3
Edu 332—Edu Psy	3	SpEd 3304—Ed Excp Lrnr	3
SpEd 3302—Foundations-SpEd	3	SpEd 3305—Rdgn/LA-Excp Lrnr	3
SpEd 3302—Ident SpEd	3	Academic Specialization (Adv)	3
Academic Specialization (Adv)	3	Academic Specialization (Adv)	3
Free Elective	3	Free Elective	3
	18		18

Fourth Year

First Semester		Second Semester	
Edu 438—Classroom Mgt.	3	SpEd 4309—Instr Excp Ind	3
SpEd 4307—Practicum Rdgn/LA	3	SpEd 4310—Practicum-SpEd	3
SpEd 4308—Appraisal Processes	3	Edu 463—Student Tchng	6
Academic Specialization (Adv)	3	Free Elective	3
Free Elective	3		15
	15		

Certification in Generic Special Education With a Bachelor of Science Degree in Elementary Education

The Student may select Generic Special Education as an area of specialization (24 semester hours) within the Bachelor of Science degree in Elementary Education. With appropriate planning the student may obtain an additional Special Education categorical certificate endorsement (previously described).

Recommended Program of Study

First Year

Eng—Composition	6
Science—Laboratory	8
Mth 135, 136	6
MEd 131	3
His 134	3
HPE—Activity	2
Acad Found-Elect	3
Geo 237 or 238	3
	34

Second Year

Eng—Literature	6
Soph Amer His	6
Gov 2321	3
Soph Amer Gov	3
Science	3
HPE 339 or 335	3
HPE—Activity	2
Mth 3313	3
Art 3371	3
	32

Third Year

SpEd 3302	3
SpEd 3303	3
SpEd 3304	3
SpEd 3305	3
Edu 331	3
Edu 332	3
Edu 333	3
Edu 334	3
Edu 335	3
Edu 339	3
Edu 434	3
Spc 333	3
	36

Fourth Year

SpEd 4307	3
SpEd 4308	3
SpEd 4309	3
SpEd 4310	3
Edu 437	3
Free Electives	6
Acad Found-Elect	3
Edu 463	6
	30

SPECIAL EDUCATION (SpEd)

3301 — Survey in the Education of Exceptional Children. An orientation to characteristics, programs and problems of children who are exceptional — mentally, physically, or emotionally. Designed as an overview of the field. A first course for those planning to certify in Special Education. Class: 3 hours. Credit: 3 semester hours.

3302 — Foundations of Special Education. An orientation to background, terminology and programs for those who are exceptional. Designed as an overview of Special Education. Class: 3 hours. Credit: 3 semester hours.

3303 — Identification and Characteristics of the Exceptional Individual. Principles of normal and abnormal child growth and development. Nature and causes of behavioral and physical characteristics and basic techniques of management. Class: 3 hours. Credit: 3 semester hours.

3304 — Educational Needs of the Exceptional Individual. Evaluation and application of various techniques for determining educational needs of the exceptional individual and general instructional arrangement considerations. Class: 3 hours. Credit: 3 semester hours.

3305 — Instructional Alternatives for Teaching Reading and Language Arts to the Exceptional Learner. Identification of skill deficiencies, modification of curriculum,

designing and implementation of instructional strategies for pupils evidencing disabilities in reading and language arts. Class: 3 hours. Credit: 3 semester hours.

3311 — Identification and Habilitation of the Mentally Retarded. 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. Class: 3 hours. Credit: 3 semester hours.

3312 — Education of the Physically Handicapped. 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. Class: 3 hours. Credit: 3 semester hours.

3313 — Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed. 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 disturbed. Class: 3 hours. Credit: 3 semester hours.

3316 — Identification of Language and Learning Disorders. 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. Class: 3 hours. Credit: 3 semester hours.

430 — Education of the Mentally Retarded. 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. Class: 3 hours. Credit: 3 semester hours.

431 — Psychology of Exceptional Children. Social and emotional characteristics and adjustment problems of children and youth who are exceptional. Class: 3 hours. Credit: 3 semester hours.

439 — Methods and Materials in Learning Disabilities. Classroom management and teaching procedures for children with language and/or learning disabilities. Various learning theories are presented. Class: 3 hours. Credit: 3 semester hours.

4307 — Practicum in Instructional Alternatives in Reading and Language Arts for the Exceptional Learner. Practicum experience in the identification and instruction of pupils evidencing disabilities in reading and language arts. Class: 3 hours. Credit: 3 semester hours.

4308 — Appraisal Processes in Programming for the Exceptional Individual. 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. Class: 3 hours. Credit: 3 semester hours.

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

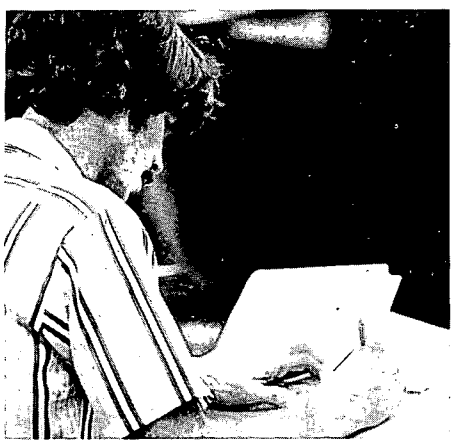
4310 — Practicum in Instructing the Exceptional Individual. Practicum experience with the exceptional learner, includes identification, interpretation of data, development of instructional goals and implementation of instructional objectives.

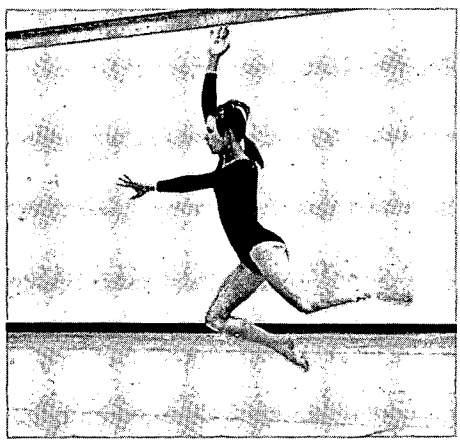
4314 — Educational Needs of the Emotionally Disturbed. Programming possibilities based on the characteristics and severity of the individual's emotional problems. Inte-

gration of knowledge and competencies to provide an instructional program to meet the needs of emotionally disturbed children. Class: 3 hours. Credit: 3 semester hours.

4315 — Practicum Experience With the Emotionally Disturbed. Practicum experiences with emotionally disturbed children to include at least 54 clock hours of work. Utilizes behavioral observation techniques and informal methods of appraising pupils' educational status and progress. Provides opportunities for modifying and supplementing the curriculum on an individual basis and provides experience in evaluating methods and materials in terms of instructional or behavioral objectives. Class: as arranged. Credit: 3 semester hours.

4317 — Practicum in the Identification of Language and Learning Disorders. Includes 45 hours of practicum experience in public and/or private schools, plus group or individual conferences as arranged by the instructor. Class: as arranged. Credit: 3 semester hours.





Department of Health and Physical Education for Men

Department Head — J. B. Higgins. *Director of Academic Programs* — L. A. Yates. *Associate Professors* — Vernon R. Crowder, Jack T. Martin. *Assistant Professors* — Raymond L. Fletcher, Sidney Jolly, John E. Payton, Dan Rogas. *Instructors* — Donald E. Bryson, James P. Gilligan, Dan Ray Hooks, Ronald L. Wesbrooks, William L. Worsham, Paul T. Zeek. *Lecturers* — Jesse Castete, Milas Kennington. *Secretary* — Mrs. Susie Fortenberry.

Recommended Program of Study

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

Bachelor of Science in Health and Physical Education (Men)

First Year

Eng—Composition	6
Bio 141-142—Gen Biology	8
Mth 1311-1313—Finite	6
Spc 131—Spc Comm	3
HPE 132M—Principles	3
HPE 236M—PE Sec Sch	3
HPE—Activity	2
*Electives	3
	34

Second Year

Eng—Literature	6
Gov 2321 and three hrs Soph American Gov from 2322, 2323, 2324, 2325	6
Six hrs Soph American History from 231, 232, 233, 234, 235, 236	6
HPE 235—Health Edu	3
HPE—Activity	4
*Electives	9
	34

Third Year

Bio 330—App Anat and Kinesiol	3
Edu 331—Foundation	3
Edu 332—Edu Psy	3
Edu 338—Curr Mat-Sec Sch	3
HPE 331—Coaching-Major Spt or HPE 332—Coaching-Major Spt	3
HPE 333—Physiology of Exer	3
HPE 336—Tests — Msrments	3
*Electives	12
	33

Fourth Year

Edu 438—Classroom Mgt Sec	3
Edu 462—Stu Tching Sec Sch	6
HPE—M—Advanced Elective	3
HPE 436—Org and Admin	3
*Electives	18
	33

*Electives must include the following:

1. An approved additional teaching field of 24 semester hours (Consult this catalog, Department of Secondary Education, for requirements for additional teaching fields.)
2. Twelve semester hours of electives from the five groups described under "Academic Foundations" (see pages 129-130) with courses included from a minimum of three groups.

PHYSICAL EDUCATION (HPE)

ACTIVITY COURSES FOR MEN

111M — Activity. First activity course required of all men students seeking a degree at Lamar. A basic physical fitness program designed to bring all male students to a level of physical fitness which will allow them to perform their normal daily tasks with ease and have a comfortable reserve of energy. May be repeated for credit. Class: 3 hours. Credit: 1 semester hour.

112M — Activity. Second required activity course. A continuation of the physical fitness program and a brief introduction to the various recreational activities offered in the second year of the required program. Prerequisite: HPE 111M. May be repeated for credit. Class: 3 hours. Credit: 1 semester hour.

129M — Modified Activity. Modified or special exercise programs and selected game fundamentals for those individuals who, for physical limitations, are unable to take regular activity courses. May be repeated for credit. Class: 3 hours. Credit: 2 semester hours.

221M-222M — Activity. Continuation of required physical education activity. Consists of instruction in fundamentals, rules and participation in selected team, dual and individual sports and activities of the student's choice. Prerequisite: HPE 111M and 112M. May be repeated for credit. Class: 3 hours. Credit: 2 semester hours.

PROFESSIONAL COURSES

132M — Principles. 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. Class: 3 hours. Credit: 3 semester hours.

227M — Swimming. Demonstrations, lectures, and practice in the basic techniques of swimming and water safety. Class: 2 hours. Credit: 2 semester hours.

228 — Senior Lifesaving. Lectures, demonstrations, and practice in the technique of lifesaving. Prerequisite: HPE 227 (M). Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

229 — Water Safety Instructor Course. 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. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

235 — Health Education in the Secondary School. Subject matter and grade placement, teaching methods and practice in preparation of teaching units in Health Education at the secondary school level. A study of source materials, planning and organizing included. Prerequisite: HPE 132. Class: 3 hours. Credit: 3 semester hours.

236M — Physical Education in the Secondary School. 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 demonstration and practice included. Prerequisite: HPE 132. Class: 3 hours. Credit: 3 semester hours.

237 — Athletic Training and Conditioning. 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. Class: 3 hours. Credit: 3 semester hours.

330 — Safety and First Aid. 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. Class: 3 hours. Credit: 3 semester hours.

331 — Coaching Major Sports — Football and Basketball. The fundamentals, theory, history, development, and modern techniques of football and basketball. Lectures and demonstrations in coaching methods and techniques. Prerequisite: 9 semester hours in physical education. Class: 3 hours. Credit: 3 semester hours.

332 — Coaching Major Sports — Baseball and Track. 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: 9 semester hours in physical education. Class: 3 hours. Credit: 3 semester hours.

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

334 — Driver Education. 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. Class: 3 hours. Credit: 3 semester hours.

335 — Organization and Administration of Intramural Sports. 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. Class: 3 hours. Credit: 3 semester hours.

336 — Tests and Measurements. Use, interpretation, evaluation and administration of tests peculiar to health and physical education; application of elementary statistical procedures. Prerequisite: junior standing. Class: 3 hours. Credit: 3 semester hours.

339 — Physical Education in the Elementary School. 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. Class: 3 hours. Credit: 3 semester hours.

416 — Student Teaching in Driver Education. Supervised observation and teaching of driver education in actual class and behind-the-wheel training. Prerequisite: HPE 330 and HPE 334. Class: 1 hour. Credit: 1 semester hour.

430 — Problems in Physical and Health Education, Recreation and Safety. 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. Credit: 3 semester hours.

431 — Recreation Leadership. A survey of the field of recreation with stress on playground 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. Class: 3 hours. Credit: 3 semester hours.

432 — Officiating Football. 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. Class: 3 hours. Credit: 3 semester hours.

433 — Officiating Basketball. 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. Class: 3 hours. Credit: 3 semester hours.

435 — Adapted Physical Education. Diagnosis and recognition of remedial cases. Instructional and remedial activities for individuals needing modified or special exercise programs. Prerequisite: 12 hours in physical education, Bio 141-142 and 330. Class: 3 hours. Credit: 3 semester hours.

436 — Organization and Administration of Physical and Health Education and Athletics. 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: 15 hours in physical education. Class: 3 hours. Credit: 3 semester hours.

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:

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

Department of Health and Physical Education for Women

Department Head — Belle M. Holm. *Associate Professors* — Alice C. Bell, Mary J. Haskins, V. Raye Holt, Mildred A. Lowrey. *Assistant Professors* — Rae R. Gremillion, Rebecca O. Hill, Patricia A. Park. *Instructors* — James W. Franklin, Karen Greenockle, Nancy Howe, Rosario Petty. *Lecturer* — Julio de Bittencourt. *Aquatics Director* — Milas Kennington. *Secretaries* — Donna W. Adams, Beverly A. Black, Patricia Ford. *Laundry Supervisor* — Anna M. Sisk.

The department of health and physical education for women provides several career options for students. Two teacher education certification programs are offered; one in health education (coed) and one in combined health 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. All undergraduate programs lead to a Bachelor of Science degree. 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 women students provides a varied selection of activities which include: aquatics, dance and sports. The activity program is designed to enhance the general educational objectives of the University.

Recommended Program of Study

Dance Education (Non-certification)

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

First Year

Bio 141-142—General	8
Dan 1261, 1262, 1263, or 1264—Ballet Technique	2
Dan 127—Folk Dance	2
Dan 128—Modern Dance	2
Eng—Composition	6
Mth	6
MEd 131—Elements of Music	3
WPE 123—Basic Movement	2
	31

Second Year

Psy 131—Introduction to Psychology	3
Dan 129—Tap Dance	2
Dan 2223 or 2260—Dance Ensemble/ Musical Comedy Dance	2
Eng—Literature	6
Gov 2321 and three hours Sophomore American Government	6
His—Sophomore American History	6
Hum 131—Appreciation of Music and Theatre	3
Dan 2221—Ballet Company	2
Dan 2222—Modern-Jazz Company	2
WPE 2251—Tumbling and Gymnastics	2
	34

Third Year

Ant 231—Introduction to Anthropology	3
Bio 330—Anatomy	3
Dan 3301—Theater Dance Forms	3
CA 139 or 235—Art Appreciation/ Art History	3
*Electives	15
WPE 333—Scientific Foundations of Movement	3
WPE 339—Physical Education in the Elementary School	3
	33

Fourth Year

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

Total — 128 semester hours

*Electives should include the following:

1. A related arts minor program of 18 semester hours approved by counselor.
2. A related elective program of 15 semester hours guided by counselor.

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

Health Education

The health education program of study offers two options for a career in Health. A student choosing a teaching career should follow the certification program which leads to certification to teach health plus an approved additional teaching field at the secondary level. A student selecting the non-certification program prepares for a career in health agencies and municipal health departments.

Health Education (Certification Program)

First Year

Activity 111-112	2
Bio 141-142—General	8
Elective	3
Eng—Composition	6
HEd 131—Emergency Care, Safety and Survival	3
HEd 133—Personal Health	3
Mth	6
Spc 131—Speech Communication	3
	34

Second Year

Activity 221-222	4
Acad Found—Elect	6
Eng—Literature	6
Gov 2321 and three hours Sophomore American Government	6
HEd 234—Public and Consumer Health	3
HEd 237—Health Education in the Secondary School	3
His—Sophomore American History	6
	34

Third Year

Bio 330—Anatomy	3
Edu 331—Foundations	3
Edu 332—Educational Psychology	3
Edu 338—Curriculum	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	6
Electives	4
HEd 434—Health and Human Ecology	3
HEd 437—Health Science and Epidemiology	3
Second Teaching Field	12
	31

Total — 132 semester hours

Health Education (Non-certification)

First Year

Activity 111	1
Bio 141-142—General	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 2321 and three hours Sophomore 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—Argumentation and Debate	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:

1. A related minor of 18 semester hours approved by counselor.
2. 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 in secondary schools or for students who plan to continue the study of women's physical education for an advanced degree. A companion program of specialization in elementary health and physical education is available through the Bachelor of Science in Elementary Education (see Department of Elementary Education in this catalog for further information).

Women's Physical Education Teacher Certification Program— Plan I

First Year

Activity selected from Dan 127, 128, 129 or WPE 223, 224, 2201, 2251	2
Bio 141-142—General	8
Electives	3
Eng—Composition	6
HEd 133—Personal Health	3
Mth	6
WPE 123—Basic Movement	2
WPE 132—Intro to PE or WPE 235—Hist and Philos of PE	3
	33

Second Year

Activity selected from Dan 127, 128, 129 or WPE 223, 224, 2201, 2251	4
Electives	3
Eng—Literature	6
Gov 2321 and three hrs from 2322, 2323, 2324 or 2325	6
HEd 237—Hlth Edu—Sec Sch	3
His—Sophomore American History	6
WPE 236—Dir Co-Curr Activities	3
	34

Third Year

Bio 330—Anatomy	3
Edu 331—Foundations	3
Edu 332—Edu Psy	3
Edu 338—Curr Mat	3
Electives	12
Spc 131—Spc Comm or 238—Argu and Debate	3
WPE 333—Sci Found of Movt	3
WPE 336—Tech and Curr PE	3
	33

Fourth Year

Edu 438—Classroom Mgt	3
Edu 462—Stu Teaching	6
Electives	18
WPE 432—Meas and Eval PE	3
WPE 433—Theory and Techniques of Sports	3
	33

Total — 133 semester hours

Women's Physical Education Teacher Certification Program— Plan II

The professional student in health and physical education who chooses health as a second teaching field should adhere to the following curriculum.

First Year

Activity selected from Dan 127, 128, 129 or WPE 223, 224, 2201, 2251	2
Bio 141-142—General	8
Eng—Composition	6
HEd 131—Emergency, Care, Safety and Survival	3
HEd 133—Personal Health	3
Mth	6
WPE 123—Basic Movement	2
WPE 132—Intro to PE	3
	33

Second Year

Activity selected from Dan 127, 128, 129 or WPE 223, 224, 2201, 2251	4
Eng—Literature	6
Gov 2321 and three hrs from 2322, 2323, 2324 or 2325	6
HEd 234—Public and Consumer Hlth	3
HEd 237—Hlth Edu—Sec Sch	3
His—Sophomore American History	6
WPE 235—Hist and Philos of PE	3
WPE 236—Dir Co-Curr Activities	3
	34

Third Year

Bio 330—Anatomy	3
Edu 331—Foundations	3
Edu 332—Edu Psy	3
Edu 338—Curr Mat	3
Electives	6
HEd 331—Meas Eval Hlth Edu	3
HEd 337—Contemporary Health Problems	3
Spc 131—Spc Comm or 238—Argu Debate	3
WPE 333—Sci Found of Movt	3
WPE 336—Tech and Curr PE	3
	33

Fourth Year

Edu 438—Classroom Mgt	3
Edu 462—Stu Teaching	6
Electives	9
HEd 434—Hlth Human Ecology	3
HEd 437—Hlth Science and Epidemiology	3
WPE 432—Meas and Eval PE	3
WPE 433—Theory and Techniques of Sports	3
WPE—Advanced Elective	3
	33

Total — 133 semester hours

Recreation Education

The recreation education program of study offers three options for a career in recreation. The student majoring in recreation may specialize in (1) municipal recreation, (2) private golf and tennis club management and teaching or (3) the professional circuit performer in women's golf or tennis.

Recreation Education (Non-certification)

First Year

Bio 141-142—General	8
CA 130—Appreciation of the Fine Arts	3
Eng—Composition	6
His—Sophomore American History	6
Spc 131—Speech Communication	3
WPE 111—Activity	1
WPE 112—Activity	1
WPE 123—Basic Movement Fundamentals	2
WPE 132—Principles of Physical Education	3
	33

Second Year

Eng—Literature	6
Gov 2321 and three hrs Sophomore American Government	6
Mth	6
MEd 131—Elements of Music	3
WPE 127 or 129—Folk Dance/Tap Dance	2
WPE 221—Activity	2
WPE 222—Activity	2
WPE 223 or 224—Basketball and Volleyball/ Flag Football and Softball	2
WPE 225—Lifesaving	2
WPE 2251—Tumbling and Gymnastics	2
	33

Third Year

Bio 330—Anatomy	3
Eco 233—Principles and Policies	3
*Electives	16
Gov 339—Urban Politics	3
HEd 131 or WPE 333—Emergency Care, Safety and Survival/Physiology of Exercise	3
WPE 227 or 2201—Badminton/Tennis	2
WPE 335 or 339—Physical Education and Recreation for the Atypical Child/Physical Education in the Elementary School	3
	33

Fourth Year

*Electives	18
WPE 236, 336 or 433—Directing Co-Curricular Activities/Techniques and Curriculum in Physical Education/ Theory and Techniques of Sports	3
WPE 430—Individual Study in Physical Education	3
WPE 431—Recreation Leadership for Elementary Age Groups	3
	27

Total — 126 semester hours

*Electives should include the following:

1. A related minor of 18 semester hours approved by counselor.
2. A related elective program of 16 semester hours guided by counselor.

DANCE EDUCATION (Dan)

1261, 1262, 1263, 1264 — Ballet Technique. Instruction and practice in ballet technique. Emphasis is placed upon accurate technique and placement. May be repeated for credit. Class: 3 hours. Credit: 2 semester hours.

127 — Folk Dance. Instruction and practice in beginning folk dance. Emphasis is placed upon the historical and cultural background of the various national dances. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

128 — Modern Dance. Instruction and practice in the techniques of modern dance and beginning work in composition. May be repeated for credit. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

129 — Tap Dance. Instruction and practice in beginning tap dance. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

2221 — Ballet Company. The instruction, rehearsal and production of classical ballets. May be repeated for credit. Class: 3 hours. Credit: 2 semester hours.

2222 — Modern—Jazz Company. The instruction, rehearsal and production of modern dance and jazz works. May be repeated for credit. Class: 3 hours. Credit: 2 semester hours.

2223 — Dance Ensemble. The instruction, rehearsal and production of various and divergent dance forms. May be repeated for credit. Class: 3 hours. Credit: 2 semester hours.

2260 — Musical Comedy Dance. 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. Lab: 3 hours. Credit: 2 semester hours.

3301 — Theater Dance Forms. Instruction, study, and practice of the various dance forms utilized in the theater. Lecture: 1 hour. Laboratory: 2 hours. Credit: 3 semester hours.

336 — Choreography and Dance Production. Principles of the art of choreography and the study of the various facets utilized in dance productions. Lecture: 2 hours. Laboratory: 1 hour. Credit: 3 semester hours.

4101 — Workshop in Dance Education. 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. Lecture: 1 hour. Credit: 1 semester hour.

4201 — Workshop in Dance Education. 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. Lecture: 2 hours. Credit: 2 semester hours.

4301 — Workshop in Dance Education. 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. Lecture: 3 hours. Credit: 3 semester hours.

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

439 — History and Theory of Dance. Chronological summary of characteristics and forms of dance from primitive rites to contemporary art forms; origins and evaluation of classic and contemporary dance forms. Class: 3 hours. Credit: 3 semester hours.

HEALTH EDUCATION (HEd)

131 — Emergency Care, Safety, and Survival. Standard and advanced 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. Class: 3 hours. Credit: 3 semester hours.

133 — Personal Health. 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. Class: 3 hours. Credit: 3 semester hours.

234 — Public and Consumer Health. 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 health services at the local, state, regional, and national levels. Class: 3 hours. Credit: 3 semester hours.

237 — Health Education in the Secondary School. Presentation of health media in conjunction 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. Class: 3 hours. Credit: 3 semester hours.

331 — Measurement and Evaluation in Health Education. 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. Class: 3 hours. Credit: 3 semester hours.

337 — Contemporary Health Problems. 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. Class: 3 hours. Credit: 3 semester hours.

338 — Health Education in the Elementary School. 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. Class: 3 hours. Credit: 3 semester hours.

4101 — Workshop in Health Education. 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. Lecture: 1 hour. Credit: 1 semester hour.

4201 — Workshop in Health Education. 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. Lecture: 2 hours. Credit: 2 semester hours.

4301 — Workshop in Health Education. 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. Lecture: 3 hours. Credit: 3 semester hours.

430 — Individual Study in Health Education. Selected problems in health. Prerequisite: senior standing and consent of department head. May be repeated for credit. Class by consultation. Credit: 3 semester hours.

434 — Health and Human Ecology. 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. Class: 3 hours. Credit: 3 semester hours.

437 — Health Science and Epidemiology. 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. Class: 3 hours. Credit: 3 semester hours.

WOMEN'S PHYSICAL EDUCATION (WPE)

Professional Courses

123 — Basic Movement Fundamentals. Study of joint actions, balance, locomotor forms, rhythm, force production and object projection. Introduction to movement patterns basic to sport or dance with accompanying movement analysis. May be repeated for credit as topic varies. Class: 3 hours. Credit: 2 semester hours.

132 — Introduction to Physical Education. Introduction to modern elementary and secondary physical education and to specialized related areas. Includes definitions, terminology, aims and objectives of physical education. Class: 3 hours. Credit: 3 semester hours.

235 — History and Philosophy of Physical Education. History of Physical Education, sport and dance. Sport and dance as cultural functions; and philosophies and their influence on physical education. Class: 3 hours. Credit: 3 semester hours.

236 — Directing Co-Curricular Activities in the Secondary Schools. Direction of dance-drill teams, cheerleaders, intramural sports programs, and coaching interscholastic sports for girls. Class: 3 hours. Credit: 3 semester hours.

333 — Scientific Foundations of Movement. Exercise physiology, kinesiology and perception with application to related problems in teaching and coaching. Class: 3 hours. Credit: 3 semester hours.

335 — Elementary Physical Education and Recreation for the Atypical Child. 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. Class: 3 hours. Credit: 3 semester hours.

336 — Techniques and Curriculum in Secondary Physical Education. 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. Class: 3 hours. Credit: 3 semester hours.

339 — Physical Education in the Elementary School. 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 purposes of teacher certification. Class: 3 hours. Credit: 3 semester hours.

4101 — Workshop in Physical Education. 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. Lecture: 1 hour. Credit: 1 semester hour.

4201 — Workshop in Physical Education. 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. Lecture: 2 hours. Credit: 2 semester hours.

4301 — Workshop in Physical Education. 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. Lecture: 3 hours. Credit: 3 semester hours.

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

431 — Recreation Leadership for Elementary Age Groups. Discussion and laboratory practice in various forms of skills, crafts, and rhythms for the elementary school teacher, playground leader, and camp counselor. Laboratory: 3 hours. Credit: 3 semester hours.

432 — Measurement and Evaluation Procedures in Physical Education. 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 interpretation and research. Class: 3 hours. Credit: 3 semester hours.

433 — Theory and Techniques of Sports in Secondary Schools. Lectures, demonstrations, and practice in techniques of teaching individual and team sports. Also study of the rules, their interpretation, and techniques of interpretation. Class: 3 hours. Credit: 3 semester hours.

WOMEN'S PHYSICAL EDUCATION GENERAL ACTIVITY PROGRAM

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 developing 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 that 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: The aquatics sections offer swimming at the beginning, intermediate, advanced, and competitive level plus senior lifesaving and water safety instructorship.

Dance: The dance sections offer ballet, jazz and modern dance at the beginning, intermediate, advanced and performance levels; folk dance, soul dance and tap dance at the beginning and intermediate levels; conditioning exercise is available for figure improvement and weight control.

Sports: The sports sections afford various skill levels from beginning to competitive in badminton, basketball and volleyball, fencing, flag football and softball, golf, gymnastics and tumbling, tennis, track and field.

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.

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 is provided by the student. A $10 suit/towel

rental and laundry fee, payable the first week of class, is charged for all swimming classes.

ACTIVITY (WPE)

111,112 — Activity, required activity for women. Physical activities directed toward basic movement skills inherent in conditioning, dance, or sports. May be repeated for credit. Laboratory: 3 hours. Credit: 1 semester hour.

221,222 — Activity, required activity for women. Continuation of WPE 111 and 112. May be repeated for credit. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

228 — Modified Activity. Modified or special exercise programs for individuals with physical limitations. May be repeated for credit. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

AQUATICS (WPE)

120 — Swimming. Demonstrations, lectures and practice in the basic techniques of swimming and water safety skills. May be repeated for credit. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

121 — Swimming and Diving. Demonstrations, lectures, and practice in the techniques and analysis of selected swimming strokes and dives. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

220 — Advanced Aquatic Sports. Lecture, demonstration, and practice in synchronized competitive swimming, water games, springboard and scuba diving. Gulf reef field trip and swimming proficiency test required. May be repeated for credit. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

225 — Lifesaving. Prerequisite: intermediate swimming skills. Development of proficiency in lifesaving and water safety skills and techniques. Completion of course also includes American Red Cross Senior Lifesaving certificate. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

226 — Water Safety Instruction. Prerequisite: current Red Cross certificate in Senior Lifesaving. The theory and study for teaching water safety techniques and procedures. Completion of course also includes meeting the proficiency requirements for American Red Cross Water Safety certification. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

DANCE (Dan)

See dance division this catalog.

SPORTS (WPE)

The following courses are primarily designed for students who plan to major or minor in women's physical education or recreation.

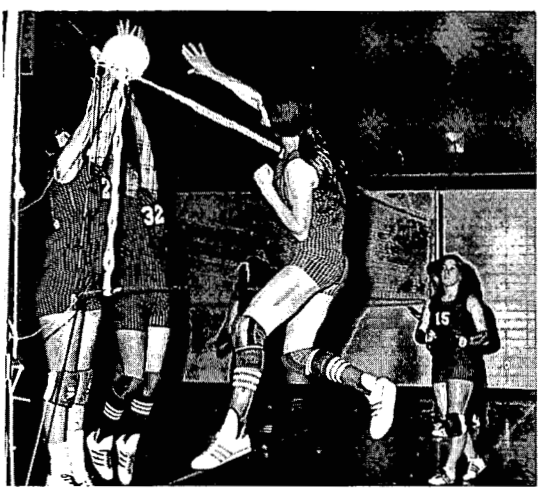
2201 — Tennis. Instruction and practice in beginning through advanced tennis skills with emphasis on teaching technique and progression of skills. May be repeated for credit. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

223 — Basketball and Volleyball. The development of knowledge and skill in individual and team drills and skills. Emphasis on teaching and coaching methods of indoor team sports. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

224 — Flag Football and Softball. Instruction in the skills and knowledge of flag football and softball. Teaching methods and organization of outdoor field sports. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

2251 — Tumbling and Gymnastics. 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. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

227 — Badminton. Instruction and practice of beginning through advanced badminton techniques. Emphasis on organization and teaching methods of indoor racket sports. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.



Department of Home Economics

Department Head — Dorothy W. McAlister. *Associate Professor* — Jane S. Davidson. *Assistant Professors* — Virginia Anderson, Doris Davis, Ferial A. El-Maguid, Jane Hinchey, LeBland McAdams. *Instructors* — Sharon Littlefield, Paula Nichols. *Department Secretary* — Velda Patterson.

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 opportunity for specialized professional preparation. The curriculum includes the areas of home economics education, general home economics, food service and dietetics, family and community service, and home economics in business with a fashion merchandising and retailing or a communication emphasis. Students electing one of these curricula pursue the studies as indicated on the following pages.

Students may minor in home economics by earning 18 hours of credit approved by the department head. Courses may be chosen for electives by students in 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.

First Year

Eng—Composition	6
Science, Math or Foreign Lang	6-8
HEc 131—Food Sel and Prep	3
HEc 132—Cloth Sel and Prep	3
HEc 133—Art in HEc	3
HEc 134—Found in HEc	3
HEc 137—Family Rel	3
HPE—Activity (2 sems)	2
Electives	3
	32-34

Second Year

Eng—Literature	6
Gov 2321	3
Gov—American	3
HEc 231—Textiles	3
HEc 232—Dress Design	3
HEc 235—Meal Mgt	3
Science, Math or Foreign Language	6-8
Elective	3
HPE—Activity (2 sems)	2
	32-34

Third Year

HEc 233--Early Chld Dev	3
HEc 239—Nutrition	3
HEc 330—Consumer Eco	3
HEc 331—Adv Cloth Constr	3
HEc 339—Sem in Fam Rel	3
His—Soph American	6
Electives 300-400 level	12
	33

Fourth Year

HEc 334—Early Chld Lab Sch	3
HEc 335—Housing & Home Furn	3
HEc 433—Household Equip	3
HEc 437—Indiv Prob	3
HEc 439—Home Mgt	3
Electives	12
	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 Biology	8
HEc 131—Food Sel and Prep	3
HEc 132—Cloth Sel and Prep	3
HEc 133—Art in HEc	3
HEc 134—Found in HEc	3
HEc 137—Family Rel	3
Math	3
HPE—Activity (2 sems)	2
	34

Second Year

Eng—Literature	6
Gov—2321	3
Gov—American	3
HEc 231—Textiles	3
HEc 232—Dress Design	3
HEc 233—Early Child Dev	3
HEc 235—Meal Mgt	3
HEc 239—Nutrition	3
Mth	3
Found Elective	3
HPE—Activity (2 sems)	2
	35

Third Year

Edu 331—Found in Edu Cur	3
Edu 332—Edu Psy	3
HEc 330—Consumer Eco	3
HEc 334—Early Chld Lab Sch	3
HEc 335—Housing & Home Furn	3
HEc 338—Phil Prin Voc	3
HEc 339—Sem in Fam Rel	3
His—Soph Amer	6
Found Elective	3
Free Elective	3
	33

Fourth Year

HEc 433—Household Equip	3
HEc 438—Tchng Mthds & Mtls	3
HEc 439—Home Mgt	3
HEc 462—Std Tchng in HEc	6
Found Electives	12
Free Electives	3
	30

Food Service and Dietetics

The Dietetic and Food Service curriculum provides professional preparation which meets the American Dietetic Association requirements for an approved internship.

First Year

Eng—Composition	6
Bio 133-134—Human Physiol	6
Mth 134—College Alg	3
Eco 233—Prin and Policies	3
HEc 131—Food Sel and Prep	3
HEc 132—Cloth Sel and Prep or HEc 432—Fam Cloth	3
HEc 134—Found in HEc	3
HEc 235—Meal Mgt	3
HPE—Activity (2 sems)	2
	32

Second Year

Eng—Literature	3
Eng 4335—Tech Rep W	3
Gov 2321	3
Gov—American	3
Psy 131—Intro	3
Chm 141 & 142	8
Bio 245—Intro Micro	4
HEc 137—Family Rel	3
HEc 239—Nutrition	3
HPE—Activity (2 sems)	2
	35

Third Year

Soc 332—Soc Psy	3
His—Soph American	6
Acc 231-232—Prin of Acc	6
HEc 330—Consumer Eco	3
HEc 332—Adv Nutrition	3
HEc 333—Food Chemistry	3
HEc 336—Inst Food Serv	3
Elective	5
	32

Fourth Year

BA 335—Prin of Mgmt	3
BA 336—Personnel Mgmt	3
Edu 332—Edu Psy	3
CS 133 or Mth 234	3
HEc 337—Social Fund	3
HEc 338—Phil Prin Voc	3
HEc 430—Therapy Nutrition	3
HEc 433—Household Equip	3
Electives	6
	30

Family and Community Service

The Family and Community Service curriculum provides professional preparation to students interested in family service and well being.

First Year

Eng—Composition	6
Math, Science, For Lang	6-8
HEc 131—Food Sel & Prep or HEc 132—Cloth Sel	3
HEc 133—Art in HEc	3
HEc 134—Found in HEc	3
HEc 137—Family Rel	3
Soc 131—Intro	3
HPE—Activity (2 sems)	2
	31

Second Year

Eng—Literature or Com 231	6
Math, Science, For Lang	6-8
His—Soph Amer	6
HEc 231—Textiles	3
HEc 233—Early Child Dev	3
Swf 231	3
Psy 131—Intro	3
HPE—Activity (2 sems)	2
	32

Third Year

Gov 2321	3
Gov-American	3
HEc 239—Nutrition	3
HEc 330—Consumer	3
HEc 334—Early Chld Lab Sch	3
HEc 339—Sem in Fam Rel	3
Swf 332	3
Swf 333	3
Electives	9
	33

Fourth Year

HEc 332—Adv Nutrition or HEc 235	3
HEc 432—Family clothing	3
HEc 439—Home Mgt	3
HEc 435—Consumer Housing	3
Swf 334	3
Swf 461	6
Electives	12
	33

Home Economics in Business — Option I
Fashion Retailing and Merchandising

The Fashion Retailing and Merchandising specialization provides professional training for fashion-related careers.

First Year

Eng—Composition	6
Chm, Bio or Foreign Lang	8
HEc 132—Cloth Sel and Prep	3
HEc 133—Art in HEc	3
HEc 134—Found in HEc	3
HEc 137—Fam Rel	3
Spc 131—Intro	3
Art 237—Graphic Des	3
HPE—Activity (2 sems)	2
	34

Second Year

Math or Science	3
Eng—Literature or Com 3383	6
Eco 231	3
Gov 2321	3
Gov—American	3
HEc 231—Textiles	3
HEc 232—Dress Design	3
HEc 235 or HEc 239	3
Acc 231—Prin of Acc	3
Mth 1313	3
HPE—Activity (2 sems)	2
	35

Third Year

His—Soph Amer	6
HEc 330—Consumer Eco	3
HEc 331—Adv Cloth	3
HEc 335—Housing & Home Furn	3
HEc 337—Social Fund	3
BA 334—Marketing	3
BA 339—Sales Promotion	3
Art 3333	3
Com 131	3
	30

Fourth Year

BA 338—Prob in Retail	3
CS 131—Computer	3
HEc 432—Family Cloth	3
HEc 433 or 439	3
HEc 434—Fash and Prod	3
HEc 436—Home Fash Merch	3
HEc 437—Indiv Prob	3
Electives	9
	30

Home Economics in Business — Option II
Communication

The communication specialization provides professional training for effective oral and written interpretation.

First Year

Eng—Composition	6
Math or Science	6-8
Spc 131-Speech Com	3
Hum 130—Appr of Fine Arts	3
HEc 131—Food Sel and Prep	3
HEc 132—Cloth Sel and Prep	3
HEc 133—Art in HEc	3
HEc 134—Found in HEc	3
HPE—Activity (2 sems)	2
	34

Second Year

Eng—Literature	3
Mth	6
His—Soph Amer	6
Com 131-132—Intro to Com	6
Com 234—Intro to Radio and TV	3
HEc 137—Family Rel	3
HEc 231—Textiles	3
HEc 235 or HEc 332 Adv Nutri	3
HPE—Activity (2 sems)	2
	35

Third Year

Eng 3426—Expos Writing	3
Spc 235	3
Spc 331	3
Com 231—News Reporting	3
Gov 2321	3
Gov—American	3
Art 3333—Adv Design	3
HEc 239—Nutrition	3
HEc 330—Consumer Eco	3
Elective	3
	30

Fourth Year

Com 333—Adv Journ Writ	3
Com 431	3
Com 3383—Intro to Adv Com	3
HEc 335—Housing & Home Furn	3
HEc 337—Social Fund	3
HEc 432—Family Cloth	3
HEc 433 or 439	3
HEc 437—Indiv Prob	3
Elective	3
	27

HOME ECONOMICS (HEc)

131 — Food Selection and Preparation. Basic knowledge of nutrition related to scientific principles of food selection and preparation with application made in the laboratory. Class: 2 hours. Laboratory: 4 hours. Credit: 3 semester hours.

132 — Clothing Selection and Construction. A study of clothing construction principles with consideration given to new fabrics. Includes problems and procedures of consumer buying. Class: 2 hours. Laboratory: 4 hours. Credit: 3 semester hours.

133 — Art in Home Economics. Study and application of the concepts and elements of art as related to the field of home economics. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

134 — Foundations in Home Economics. An overview of the total home economics profession including field experience. Class: 3 hours. Credit: 3 hours.

137 — Marriage and Family Relationships. A study of the individual in the family and the family as the fundamental unit in society. Special emphasis on preparation for and adjustments in marriage, including courtship, sexuality and tasks of beginning marriage with an overview of the entire family life cycle. Class: 3 hours. Credit: 3 semester hours.

138 — Principles of Nutrition. 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 socioeconomic background. Class: 3 hours. Credit: 3 semester hours.

231 — Textiles. Textiles and their chemical properties. Emphasis on problems in the selection and care of fabrics. Class: 3 hours. Credit: 3 semester hours.

232 — Dress Design. Study principles of fashion design and flat pattern making. Commercial pattern provides experiences in fitting and altering. Master pattern is developed to design, draft and construct garments. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

233 — Early Childhood Development. A study of the young child as a basis for understanding the dynamics of child growth and development. Class: 3 hours. Credit: 3 semester hours.

235 — Meal Management. Meal planning based on concepts of nutritional adequacy. Management of money, time, and energy in relation to meals and table appointments. Class: 1 hour. Laboratory: 4 hours. Credit: 3 semester hours.

239 — Nutrition. A survey study of food components and their interaction, the relation of nutrients throughout the life cycle to body requirements. Emphasis on present-day nutritional problems. Class: 3 hours. Credit: 3 semester hours.

330 — Consumer Economics. Consumer information and an analysis of problems in household economics and finance. Class: 3 hours. Credit: 3 semester hours.

331 — Advanced Clothing Construction. A study of specialized techniques in the construction of a tailored garment. Economic, social, and psychological aspects of clothing are considered. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

332 — Advanced Nutrition. A study of development in nutrient metabolism and their application. Concepts of biological values, bioenergetic and nutrition in health and disease. Prerequisite: HEc 239. Class: 3 hours. Credit: 3 semester hours.

333 — Food Chemistry. 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, 142. Class: 3 hours. Credit: 3 semester hours.

334 — Early Childhood Laboratory School. Nursery school organization and procedure with observation and experience through participation with children from two through five years of age. Class: 1 hour. Laboratory: 4 hours arranged. Credit: 3 semester hours.

335 — Housing and Home Furnishings. A study based on an understanding of historical design in architecture and furniture; application of design principles in choice of home and furnishings and wise acquisition of home and furnishings to meet individual needs. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

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

337 — Social Fundamentals. Human behavior in contemporary life. Class: 3 hours. Credit: 3 semester hours.

338 — Philosophy and Principles of Vocational Home Economics. Interpretation of home economics as a discipline concerned with developing student competencies. Class: 3 hours. Credit: 3 semester hours.

339 — Seminar in Family Relations. In depth study of selected family topics focused on professional preparation for work with families. Class: 3 hours. Credit: 3 semester hours.

411, 421, 431 — Special Topics. 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. Class: 1-3 hours. Credit: 1-3 semester hours.

(A) Clothing/Textiles
(B) Family Relations/Child Development
(C) Food/Nutrition
(D) Home Economics Education
(E) Housing/Home Furnishings
(F) Home Management/Equipment/Consumer Economics

430 — Therapeutic Nutrition. 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. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

432 — Family Clothing. 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. Class: 3 hours. Credit: 3 semester hours.

433 — Household Equipment. Selection, arrangement, use, and care of basic equipment. Class: 3 hours. Credit: 3 semester hours.

434 — Fashion and Production. A study of the economic background of the textile and apparel industry with emphasis on the production, distribution, and marketing of products. Includes product displays and their coordination with sales promotion activities. Class: 3 hours. Credit: 3 semester hours.

435 — Consumer Housing. 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. Class: 3 hours. Credit: 3 semester hours.

436 — Home and Fashion Merchandising. A study of home furnishings, household equipment, and apparel retailing techniques. Includes off-campus experiences through field trips to the home furnishing and fashion markets, manufacturers, companies, textile mills, etc. Prerequisite: senior standing, HEc 434. Class: 3 hours. Credit: 3 semester hours.

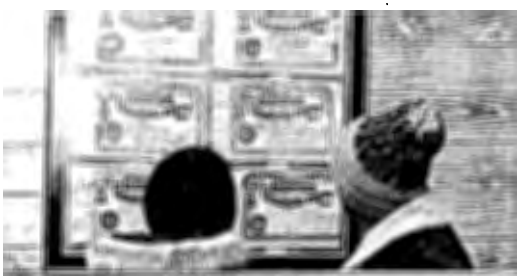
437 — Individual Problems in Home Economics. Designed to afford research opportunities and work experience for senior students. Under supervision, the students pursue individual interests in the profession of home economics. Credit: 3 semester hours.

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

439 — Home Management. A conceptual study of philosophies and principles of home management emphasizing the decision-making process. Practical application through individual and group problems. Prerequisite: HEc 235 and HEc 433. Class: 2 hours. Laboratory: 2 hours. Credit: 3 hours.

462 — Student Teaching in Home Economics. Supervised observation and teaching in the secondary school. Prerequisite: HEc 438. Class: 3 hours in an approved vocational program 5 days per week for 16 weeks. Credit: 6 semester hours.


Lamar University Spindletop Museum
GLADYS CITY
Spindletop Boomtown



College of Engineering

Departments: Chemical, Civil, Electrical, Industrial, Mechanical, Mathematics

Robert A. McAllister, Ph.D.,
Dean
V. J. Wisenbaker, Secretary

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 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 Engineers' Council for Professional Development. 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, Pi Mu Epsilon, Chi Epsilon, Pi Tau Sigma, Eta Kappa Nu, Alpha Pi Mu.

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 Engineers' Council for Professional Development 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 interpret, in realistic terms, the findings of science to society through service.

The first year of study is common for all engineering curricula. Each student in the College of Engineering is assigned to a member of the faculty who serves as his counselor. Through his counselor, the student will be able to determine his ultimate professional interests as well as obtain help and guidance in his academic life. Because of the variety of mathematics programs, all mathematics majors are admitted directly to the mathematics department upon matriculation.

An entering freshman will be assigned a counselor from his 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 catalog 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.

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, development of a technological library, extension activities, provision of a center of technical meetings and activities, and the management of a cooperative 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. To meet the minimum qualifications for the Coop program, a student must have:

1. Completed all the work in the Engineering Core 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 his grade point average equal to or above the minimum qualification level and perform in a manner satisfactory to both 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 his 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.

Core Program — Engineering

First Year

First Semester		Second Semester	
Chm 141—Gen Chem	3-3-4	Chm 142—Gen Chem	3-3-4
Eng Comp	3-0-3	Eng Comp	3-0-3
Mth 138—Anal I	3-0-3	Mth 139—Anal II	3-0-3
Egr 114—Egr Graphics I	0-3-1	Egr 124—Egr Graphics II	1-3-2
Egr 111—Orientation	1-0-1	Egr 132—Mechanics I	3-0-3
Egr 133—Egr Computation I	3-0-3	HPE—Activity	0-3-1
HPE—Activity	0-3-1		
	16		16

Three and one-half units of high school mathematics and the Level I Mathematics Achievement Test are required for registration in Mth 138. Students deficient in algebra or trigonometry should take 1334. Geometry deficiencies must be eliminated in high school or by correspondence from the University of Texas.

One unit of high school physics as well as completion of or enrollment in Mth 139 are

required for enrolling in Egr 132. Students deficient in high school physics are required to take Phy 141.

A student having one unit of high school graphics (or the equivalent) may, with the permission of his department head, register for Egr 114-Egr Graphics I and Egr 124-Egr Graphics II during the same semester.

ENGINEERING (Egr)

111 — Orientation. History of engineering, philosophy of engineering practice, slide rule and analysis of the problems of being an engineering student. Class: 1 hour. Credit: 1 semester hour.

114 — Engineering Graphics I. Principles of orthographic projection combined with descriptive geometry to solve space problems graphically. Lettering and drafting techniques emphasized. Lab: 3 hours. Credit: 1 semester hour.

124 — Engineering Graphics II. Continuation of Egr 114. Descriptive geometry and special problems approved by the instructor. Prerequisite: Egr 114 or concurrent with one year of high school drawing and permission of the department head. Class: 1 hour. Lab: 3 hours. Credit: 2 semester hours.

132 — Mechanics I. Statics of particles and rigid bodies, kinematics of particles. Use is made of basic physics, vectors, and elementary calculus. Prerequisite: Mth 139 or concurrent. Class: 3 hours. Credit: 3 semester hours.

133 — Engineering Computation I. Decision making, flow charting, digital computers, Fortran, Fortran programming. Class: 3 hours. Credit: 3 semester hours.

212 — Production and Fabrication Processes. Machinery, welding, casting, forming and joining operations on materials of engineering importance. Demonstrations, lectures and laboratory exercises. Laboratory: 3 hours. Credit: 1 semester hour.

213 — Engineering Measurements. Science of data collection applied to measurement of horizontal and vertical angles; horizontal and vertical distances; and site adaptation. Field layouts of tangents, simple curves, parabolic curves and clothoid spirals. Computation procedures utilize rotary and digital computers. Class: 3 hours. Credit: 1 semester hour.

215 — Surveying. Applications of measurement principles to civil engineering layout problems. Prerequisite: Egr 213. Lab: 3 hours. Credit: 1 semester hour.

231 — Mechanics II. Kinematics of rigid bodies, kinetics of rigid bodies, work and energy, impulse and momentum. Prerequisite: Egr 132 or equivalent, Mth 231 or concurrent. Class: 3 hours. Credit: 3 semester hours.

232 — Mechanics III. Effect of loads on deformable bodies. Uniaxial and biaxial stress-strain relationships, statically indeterminate systems. Equations developed for torsion, bending and buckling. Prerequisite: Egr 132, Mth 231 or concurrent. Class: 3 hours. Credit: 3 semester hours.

233 — Circuits and Fields. Electrical and magnetic units; heating effects; basic circuit analysis; electric and magnetic fields; ferromagnetic circuits; inductance and capacitance; principles of energy conversion and measurements. Prerequisite: Phy — Electricity; Mth 139 or concurrent. Class: 3 hours. Credit: 3 semester hours.

234 — Thermodynamics. The fundamental laws of thermodynamics; properties of systems — solids, gases and liquids — and thermodynamic tables. Prerequisite: Phy-Heat; Math 232 or concurrent. Class: 3 hours. Credit: 3 semester hours.

235 — Engineering Computation II. Problem theory, flow charting; advanced Fortran programming. Solution of advanced problems from various engineering disciplines. Class: 3 hours. Credit: 3 semester hours.

236 — Career Development I. Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member. Prerequisite: Approval of academic dean. Class: 3 hours. Credit: 3 semester hours.

237 — Career Development II. Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member. Prerequisite: Egr 236. Class: 3 hours. Credit: 3 semester hours.

311 — Mechanics IV. Generalized stress-strain relationships, theories of material failure. Unsymmetrical bending, torsion of non-circular sections, buckling. Elastic and inelastic behavior compared. Laboratory demonstrations to illustrate theory. Prerequisite: Egr 232. Lab: 3 hours. Credit: 1 semester hour.

331 — Momentum Transfer. 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. Class: 3 hours. Credit: 3 semester hours.

333 — Electronics. A study of charged particles; metals and semiconductors; vacuum tube and transistor characteristics; gaseous conduction; rectifiers and power supplies. Prerequisite: Egr 233, or Phy 241. Class: 3 hours. Credit: 3 semester hours.

336 — Career Development III. Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member. Prerequisite: Egr 237. Class: 3 hours. Credit: 3 semester hours.

337 — Career Development IV. Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member. Prerequisite: Egr 336. Class: 3 hours. Credit: 3 semester hours.

339 — Materials Science and Manufacturing Processes. Basic principles underlying the behavior of engineering materials and methods of processing these materials. Prerequisite: Chm 141 and Phy 241. Class: 3 hours. Credit: 3 semester hours.

4101, 4201, 4301, 4401 — Special Topics. 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. Credit: 1-4 semester hours.

421 — Data Processing. 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. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

436 — Career Development V. Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member. Prerequisite: Egr 337. Class: 3 hours. Credit: 3 semester hours.

438 — Introductory Petroleum Engineering. The modern techniques of producing oil will be reviewed. Drilling operations, primary and secondary recovery operations, methods of evaluation, production rate potential and reserve, as well as other aspects of reservior engineering will be studied. Prerequisites: Senior/graduate standing. Class: 3 hours. Credit: 3 semester hours.

Bachelor of Science in 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 tech-

nologists 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 mathematical 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 the Bulletin of Lamar University 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.

Bachelor of Science in Computer Science

The four-year undergraduate program in computer science provides for a strong foundation in mathematics, statistics, industrial engineering and computing.

Computers and information-processing systems pervade our lives. Almost every educational, governmental and industrial organization utilizes the computer to some extent. It has been said that the computer industry is the fastest growing industry 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 areas of data structures, programming languages, information storage and retrieval, operating systems and compiler theory.

The computer science program offers two options: industrial engineering, and mathematical science.

The Industrial Engineering Option emphasizes the use of the computer in the solution of engineering problems involving systems of men, materials and equipment. The Mathematical Science Option lays more emphasis on how mathematical tools can be applied to the solution of problems with the computer.

The first two years of study are identical for both the Industrial Engineering Option and the Mathematical Science Option of the B.S. in Computer Science. The two options differ in required courses in the junior and senior years. Note that the required computer science component of either option is virtually identical.

Recommended Program of Study

Bachelor of Science in Computer Science

Core-Program

First Year

First Semester		Second Semester	
CS 131—Intro Comp & Info Sci	3-0-3	CS 132—Prog Digital Comp	3-0-3
Eng Comp	3-0-3	Eng Comp	3-0-3
Mth 236—Calculus I	3-0-3	Mth 237—Calculus II	3-0-3
His 231—American	3-0-3	His 232—American	3-0-3
Minor/Elective*	3-0-3	Minor/Elective*	3-0-3
HPE/MLb 124/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	15-3-16		15-3-16

Second Year

First Semester		Second Semester	
IE 3302—Funct Char Dig Comp	3-0-3	Egr 235—Egr Computation II	3-0-3
Mth 233—Linear Algebra	3-0-3	CS 3304—Cobol Programming	3-0-3
Gov 2321—Intro Am Gov	3-0-3	Mth 234—Prob & Stat	3-0-3
Minor(s)/Elective(s)	6-0-6	Eng Lit	3-0-3
HPE/MLb 124/AFROTC	0-3-1	Gov 2322-5—Am Gov	3-0-3
	15-3-16	HPE/AFROTC	0-3-1
			15-3-16

Industrial Engineering Option

Third Year

First Semester		Second Semester	
CS 3305—Logic & Algorithms	3-0-3	CS 4305—Intro Info Struct	3-0-3
CS 4315—Numerical Anal	3-0-3	CS 4307—Survey Prog Lang	3-0-3
IE 330—IE-An Introduction	3-0-3	IE 334—Human Relations	3-0-3
IE 432—Stat Decis Making	3-0-3	Mth Elective	3-0-3
Minor(s)/Elective(s)*	6-0-6	Minor/Elective*	3-0-3
	18-0-18		15-0-15

Fourth Year

First Semester		Second Semester	
CS 4306—Tech Info Processes	3-0-3	IE 335—Accounting for Egrs	3-0-3
CS 4308—Intro Complr Theor	3-0-3	IE 4302—Syst Anal & Design	3-0-3
IE 4303—Linear Programming	3-0-3	Lab Sci	3-3-4
IE 4315—Organization & Mgt	3-0-3	(or Foreign Language)	(3-0-3)
Elective/Minor	3-0-3	Elective(s)/Minor(s)	6-0-6
	15-0-15		15-3-16
			(or 15-0-15)

Total 127 Minimum Semester Hours

Mathematical Science Option

Third Year

First Semester		Second Semester	
CS 4315—Numerical Anal	3-0-3	CS 4316—Num Anal II	3-0-3
Lab Science	3-3-4	CS 4305—Intro Info Struct	3-0-3
CS 3305—Logic & Algorithms	3-0-3	CS 4307—Survey Prog Lang	3-0-3
Minor(s)/Elective(s)	6-0-6	Minor(s)/Elective(s)	9-0-9
	15-3-16		18-0-18

Fourth Year

First Semester		Second Semester	
CS 4306—Tech Info Proc	3-0-3	IE 4302—Syst Anal & Design	3-0-3
CS 4308—Intro Compiler Theory	3-0-3	Mth 438—Stat Methods	3-0-3
Minor(s)/Elective(s)	9-0-9	Minor(s)/Elective(s)	9-0-9
	15-0-15		15-0-15

Total 128 Minimum Semester Hours

*Minor Areas and Electives in Computer Science. Students who major in computer science are expected to choose a concentration in a minor area and to complete at the minimum, those courses prescribed by the department granting the minor. Minor areas (and electives) provide supporting courses for work in computer related areas and should be chosen with the approval of the student's advisor. **Examples of minor areas follow:**

Accounting	Hours
Acc 231, 232	6
Acc 331, 332	6
Acc Electives	6
Total	18

Mathematics (IE Option)	Hours
Mth 331	3
Mth 337	3
Mth 338	3
Mth 433	3
Mth 438 (or 4301)	3
Mth 4317	3
Total	18

Biology	Hours
Bio 141, 142	8
Bio 347	4
Bio 443	4
Bio 446	4
Total	20

Industrial Engineering	Hours
IE 311	1
IE 333	3
IE 338	3
IE 430	3
IE 435	3
IE 437	3
Egr 339	3
Total	19

Business Administration	Hours
Acc 231, 232	6
Eco 233	3
BA 3302	3
BA 4303	3
BA 4316	3
BA 4317	3
Total	21

Chemistry	Hours
Chm 141, 142	8
Chm 341, 342	8
Chm 343	4
Total	20

Engineering (Mth Sci Option)	Hours
Engr 114, 124	3
Egr 132	3
Phy 242*	4
Egr 233, 234	6
Egr 331	3
Total	19

*Phy 241 must be required lab science.

Other minor areas may be defined by the student in collaboration with the advisor. Electives also may be in the minor area, but are chosen by the student in consultation with the advisor.

COMPUTER SCIENCE (CS)

131 — Introduction to Computer and Information Science. Structure and operational characteristics of computing systems, survey of computer languages and their usages, software, computer applications, information systems. Class: 3 hours. Credit: 3 semester hours.

132 — Programming of Digital Computers. Utilization of digital computers to solve both numeric and nonnumeric problems by means of procedural and/or conversational

languages. Prerequisite: CS 131 or consent of the instructor. Class: 3 hours. Credit: 3 semester hours.

133 — Introduction to Computers. Introduces the student to historical evolution of computers; internal design; associated hardware including input/output, internal and secondary storage; and their social implications. A familiarity with the Fortran language is gained through the execution of several business-oriented problems. Class: 3 hours. Credit: 3 semester hours.

3304 — Cobol Programming. 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, 132. Class: 3 hours. Credit: 3 semester hours.

3305 — Logic and Algorithms. Boolean algebra and propositional logic algorithmic processes, logical structure of computer components such as adders, registers, counters, switching networks. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

439 — Scientific Computer Applications. An automatic language approach to solving interdisciplinary problems. This is a course primarily for life and earth-science majors. Class: 3 hours. Credit: 3 semester hours.

4305 — Introduction to Information Structures. Data bases and their structures; concepts of functions, arrays, files, records, lists, trees, storage systems and structure; symbol tables and search techniques, multilinked files. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

4306 — Techniques of Information Processing and Retrieval. Continuation of CS 4305. Keyword and descriptive indexing, decision tables, real time information processing and total information systems. Prerequisite: CS 4305. Class: 3 hours. Credit: 3 semester hours.

4307 — Survey of Programming Languages. Study of various programming languages and their use in problem solving. Included are scientific oriented, string processing, and general purpose languages. Class: 3 hours. Credit: 3 semester hours.

4308 — Introduction to Compiler Theory. Formal definition of programming languages, including specifications of syntax, semantics, statements, and notations used in the construction of compilers, structure of translators and compilers. Prerequisites: IE 3302 and CS 4305. Class: 3 hours. Credit: 3 semester hours.

4309 — Introduction to Simulation Techniques. 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 or Egr 235, or ChE 437, or ME 4317; and Mth 234, or 438. Class: 3 hours. Credit: 3 semester hours.

4315 — Numerical Analysis. Approximations, interpolations, finite differences, numerical integration, curve fitting. Class: 3 hours. Credit: 3 semester hours.

4316 — Numerical Analysis II. Linear and non-linear programming, Monte Carlo methods, queuing theory and theory of games. The course will include the programming appropriate problems on a high speed digital computer. Class: 3 hours. Credit: 3 semester hours.

Department of Chemical Engineering

Accredited by Engineers' Council for Professional Development

Department Head — Jack R. Hopper. *Professors* — Frederic C. Jelen, Robert A. McAllister, Richard E. Walker. *Associate Professor* — Carl L. Yaws. *Assistant Professors* — Joseph W. Miller, Jr., Frederick H. Pitts. *Laboratory Technician* — John Read. *Secretary* — Mrs. Katy Rankin.

The work of the chemical engineer is the changing of raw materials into finished products with efficiency and economy. He is 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. There is virtually no field which offers a greater opportunity than chemical engineering.

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.

Recommended Program of Study

Bachelor of Science in Chemical Engineering

First Year

(See Core Program)

Second Year

First Semester		Second Semester	
Phy 241—Heat, Elec Mag	3-3-4	Phy 242—Lt Snd Quant	3-3-4
Mth 231—Anal III	3-0-3	Mth 232—Anal IV	3-0-3
Gov 2321—American	3-0-3	Egr 234—Thermo	3-0-3
Eng—Lit	3-0-3	*ChE 334—Proc Anal	3-0-3
His—American	3-0-3	His—American	3-0-3
HPE/MLb/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	15-6-17		15-6-17

Third Year

First Semester		Second Semester	
**ChE 333—Thermo II	3-0-3	**ChE 332—Heat Transfer	3-0-3
Egr 331—Momen Transfer	3-0-3	**ChE 441—Kinetics	3-3-4
*ChE 437—Computer	3-0-3	Gov—2nd Sem	3-0-3
Chm 343—Quant Anal	3-5-4	Chm 342—Organic	3-4-4
Chm 341—Organic	3-4-4	Mth 331—Diff Eqns	3-0-3
	15-9-17		15-7-17

Fourth Year

First Semester		Second Semester	
ChE 442—Mass Transfer	3-3-4	ChE 433—Proc Control	3-0-3
ChE 431—Lab	1-6-3	Chm 426—Inst Anal	1-4-2
ChE 436—Design I	3-0-3	ChE 434—Design II	1-6-3
ChE 414—Seminar	1-0-1	ChE 435—Adv Anal	3-0-3
Technical Elective	3-0-3	Chm 432—Physical	3-0-3
Eng 4335—Tech Rep Writ	3-0-3	Elective	3-0-3
	14-9-17		14-10-17

*These courses are taught during both the Fall and Spring Semester
**These courses also are taught during the Summer Session

CHEMICAL ENGINEERING (ChE)

332 — Heat Transfer. Principles of conduction, convection and radiation, and their application to the design of heat-transfer equipment and systems. Class: 3 hours. Credit: 3 semester hours.

333 — Thermodynamics. Application of the First and Second Laws to chemical processes. Thermodynamic properties of pure fluids and mixtures. Physical equilibrium. Prerequisite: Egr 234. Class: 3 hours. Credit: 3 semester hours.

334 — Process Analysis. 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. Class: 3 hours. Credit: 3 semester hours.

4111 — Seminar. Oral presentation of advanced topics or research work in chemical engineering. Class: 1 hour. Credit: 1 semester hour.

414 — Seminar. Oral and written presentation of selected topics in chemical engineering from recent technical publications. Class: 1 hour. Credit: 1 semester hour.

422 — Laboratory II. 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. Lab: 6 hours. Credit: 2 semester hours.

431 — Laboratory I. Experiments in heat transfer, mass transfer, fluid flow, reaction kinetics and thermodynamics. Prerequisite: ChE 442 or concurrent. Class: 1 hour. Lab: 6 hours. Credit: 3 semester hours.

4316 — Stagewise Processes. Advanced study of absorption, extraction, distillation and diffusion, with emphasis on multicomponent mixtures. Class: 3 hours. Credit: 3 semester hours.

4318 — Advanced Distillation. Principles of multicomponent distillation, including prediction of equilibrium compositions of multicomponent mixture. Class: 3 hours. Credit: 3 semester hours.

4321 — Process Economics. Calculations involving economic evaluation of processes and equipment. Optimization of plants for least cost or maximum profit. Class: 3 hours. Credit: 3 semester hours.

4322 — Unit Operations. A study of chemical engineering operations not considered in other courses. An advanced study of one or more selected chemical engineering operations. Class: 3 hours. Credit: 3 semester hours.

4323 — Engineering Materials. Engineering properties of solid, liquid and gaseous materials. Selection and deterioration of materials for various industrial applications. Class: 3 hours. Credit: 3 semester hours.

4325 — Introduction to Nuclear Engineering. 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. Class: 3 hours. Credit: 3 semester hours.

433 — Process Control. Selection of equipment to measure and control process variables. Analysis of process response to variations in process parameters. Class: 3 hours. Credit: 3 semester hours.

434 — Plant Design II. A continuation of ChE 436, with emphasis on a major design project. Prerequisite: ChE 436. Class: 1 hour. Lab: 6 hours. Credit: 3 semester hours.

435 — Advanced Analysis. Development of mathematical equations for chemical engineering applications. Solution of ordinary and partial differential equations. Prerequisite: Mth 232. Class: 3 hours. Credit: 3 semester hours.

436 — Plant Design I. 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. Class: 3 hours. Credit: 3 semester hours.

437 — Computer Applications. Use of the digital and analog computers in performing process calculations. Advanced techniques of Fortran programming. Prerequisite: Egr 133, ChE 334, ChE 333 or concurrent. Class: 3 hours. Credit: 3 semester hours.

441 — Reaction Kinetics. Chemical equilibrium. Analysis of experimental data to determine reaction rate parameters in homogeneous, heterogeneous, catalytic, and non-catalytic reactions. Development of equations for batch, stirred-tank, and flow reactors. Application of differential equations to process and reactor design. Prerequisites: ChE 332 or concurrent, ChE 333 or concurrent. Class: 3 hours. Lab: 3 hours. Credit: 4 semester hours.

442 — Mass Transfer. Principles of diffusion. Simultaneous mass, energy and momentum transfer. Analysis of absorption, extraction and distillation processes. Prerequisite: ChE 333. Class: 3 hours. Lab: 3 hours. Credit: 4 semester hours.

Department of Civil Engineering

Accredited by Engineers' Council for Professional Development

Department Head — Luther A. Beale. *Professors* — Andre P. Delflache, Bruce G. Rogers. *Associate Professor* — Spencer L. Brinkerhoff, Jr. *Assistant Professor* — William E. Morgan. *Laboratory Technician* — Charles C. Cowart. *Secretary* — Mrs. Beatriz Fernandez.

Civil Engineering is vital to man'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.

Recommended Program of Study

Bachelor of Science in Civil Engineering

BASIC PROGRAM

First Year
(See Core Program)

Second Year

First Semester		Second Semester	
Egr 231—Mechanics II	3-0-3	Egr 232—Mechanics III	3-0-3
Egr 213—Egr Meas	0-3-1	Egr 215—Surveying	0-3-1
Mth 231—Calculus II	3-0-3	Mth 232—Calculus III	3-0-3
Mth 234—Prob and Stat	3-0-3	Geo 220—Egr Geol	1-3-2
Phy 241—Ht, Elec, Mag	3-3-4	Phy 242—Lt, Snd, Qua	3-3-4
Gov 2321—Government	3-0-3	Gov—Government	3-0-3
HPE/MLb 124/AFROTC	0-3-1	HPE-AFROTC	0-3-1
	18		17

Third Year

First Semester		Second Semester	
CE 331—Env Sci	2-3-3	CE 336—Hydrology	3-0-3
CE 334—Struc Mech	3-0-3	CE 337—Wtr Utl Sys	3-0-3
CE 335—Hydraulics	2-3-3	CE 339—Soil Science	2-3-3
IE 333—Egr Eco	3-0-3	CE 430—Indet Struc	3-0-3
Egr 311—Mechanics IV	0-3-1	CE 439—Struc Stl Des	3-0-3
BA 331—Bus Law	3-0-3	Elective—Speech	3-0-3
	16		18

Fourth Year

First Semester		Second Semester	
CE 410—Thesis Research	1-0-1	CE 411—Seminar	1-0-1
CE 413—Photogrammetry	0-3-1	Elective—CE	3-0-3
CE 434—Soil Egr	3-0-3	Egr 234—Thermo	3-0-3
CE 438—Re Con Des	3-0-3	Elective—Literature	3-0-3
Egr 233—Cir and Flds	3-0-3	*Elective—Technical	3-0-3
His—Soph Am His	3-0-3	His—Soph Am His	3-0-3
Elective—Economics	3-0-3		
	17		16

*Departmental approval required.

Environmental Engineering Option

First Year
(See Core Program)

Second Year

First Semester		Second Semester	
Bio 141—Gen Biology	3-3-4	Bio 142—Gen Biology	3-3-4
Egr 231—Mechanics II	3-0-3	Egr 232—Mechanics III	3-0-3
Mth 234—Prob and Stat	3-0-3	Egr 233—Cir and Fld	3-0-3
Mth 231—Calculus II	3-0-3	Mth 232—Calculus III	3-0-3
Phy 241—Ht, Elec, Mag	3-3-4	Phy 242—Snd, Lt, Quanta	3-3-4
HPE/MLb 124/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	18		18

Third Year

First Semester		Second Semester	
Egr 213—Egr Meas	0-3-1	BA 331—Bus Law	3-0-3
CE 331—Env Egr	2-3-3	CE 336—Hydrology	3-0-3
CE 334—Struc Mech	3-0-3	CE 337—Wtr Utl Sys	2-3-3
CE 335—Hydraulics	2-3-3	Egr 234—Thermo	3-0-3
IE 333—Egr Eco	3-0-3	Gov 2321—Government	3-0-3
Bio 243—Microbiology	3-3-4	Geo 220—Egr Geol	1-3-2
	17		17

Fourth Year

First Semester		Second Semester	
CE 410—Thesis Research	1-0-1	CE 411—Seminar	1-0-1
CE 435—Wtr, Wst Wtr Trt	3-0-3	CE 433—Env Hlth Egr	3-0-3
Chm 334—Air Analysis	2-3-3	Gov—Government	3-0-3
Chm 243—Organic	3-3-4	His—Soph Am His	3-0-3
His—Soph Am His	3-0-3	Elective—Literature	3-0-3
Elective—Speech	3-0-3	Elective	3-0-3
	17		16

Electives:
Bio 433—Limnology
Bio 445—Marine Biology
Chm 241—Quantitative Analysis
Chm 333—Inorganic
Chm 434—Air Pollution Control

CIVIL ENGINEERING (CE)

331 — Environmental Science. 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. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

334 — Structural Mechanics. Analysis of loadings for bridges and buildings. Dynamic effects of moving loads. Influence lines. Shear and moment diagrams. Analysis of indeterminate structures. Model analysis. Introduction to structural design investigation of frames, girders, and bents. Prerequisite: Egr 232. Class: 3 hours. Credit: 3 semester hours.

335 — Hydraulics. 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. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

336 — Hydrology. Precipitation, surface water, infiltration, sub-surface water. Analysis of rainfall and runoff data. Collection studies. Hydraulics of wells. Net storm rain; peak discharge and flood runoff. Prerequisite: Geo 220. Class: 3 hours. Credit: 3 semester hours.

337 — Water Utility Systems. General survey of environmental engineering covering water supply and sanitary sewerage systems. Prerequisite: CE 335. Class: 3 hours. Credit: 3 semester hours.

338 — Engineering Specifications and Law. Specification writing and interpretation for engineering projects. Legal significance of specifications. Economic principles applied to engineering construction. Class: 3 hours. Credit: 3 semester hours.

339 — Soil Science. Basic principles of soil behavior under load. Soil properties and classification. Study of Hydraulics as applied to Soil Mechanics. Prerequisite: Geo 220. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

410 — Thesis Research. Class devoted to discussion of reseach methods and techniques of literature search. Progress reports on thesis work required. Prerequisite: an approved thesis proposal. Class: 1 hour. Credit: 1 semester hour.

411 — Seminar. Discussion of professional topics. Study of technical journals and transactions. Presentation of oral and written reports. Completed thesis required. Prerequisite: CE 410. Class: 1 hour. Credit: 1 semester hour.

413 — Photogrammetry. 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. Laboratory: 3 hours. Credit: 1 semester hour.

430 — Indeterminate Structures. 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. Class: 3 hours. Credit: 3 semester hours.

433 — Environmental Health Engineering. Problems of public health in rural, urban, and industrial centers with water, housing, heating, cooling, ventilation, milk, food, insects and rodents. Bio-statistics and public health laws, ordinances, and regulations. Prerequisite: Bio 243 or CE 331. Class: 3 hours. Credit: 3 semester hours.

434 — Soil Engineering. Compressibility and strength characteristics. Stress distribution. Shallow and deep foundations, earth pressure theories, retaining walls, stability of slopes. Prerequisite: CE 339. Class: 3 hours. Credit: 3 semester hours.

435 — Water and Waste Water Treatment. Principles of physical, chemical, and biological processes employed in water and waste water treatment. Design of selected individual units within water and waste water treatment systems. Prerequisite: CE 337. Class: 3 hours. Credit: 3 semester hours.

437 — Transportation Engineering. Study of highway pavements. History and development of transportation facilities. Drainage requirements. Fundamentals of highway location, design, construction, and maintenance. Class: 3 hours. Credit: 3 semester hours.

438 — Reinforced Concrete Design. The design of structural concrete members based upon elastic and plastic theory. Study of standard specifications. Introduction to prestressed concrete. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

439 — Structural Steel Design. The elastic design of buildings and bridge components according to standard specifications. Plastic design of steel structures. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

4310 — Soil-Structure Interaction. 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. Class: 3 hours. Credit: 3 semester hours.

4312 — Advanced Structural Design. 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. Class: 3 hours. Credit: 3 semester hours.

Department of Electrical Engineering

Accredited by Engineers' Council for Professional Development

Department Head — Wendell C. Bean. *Professors* — James L. Cooke, Floyd M. Crum. *Associate Professors* — Ramon S. Satterwhite, Joseph T. Watt, Jr. *Assistant Professors* — Lyle E. Bohrer, D. Robert Carlin. *Laboratory Technicians* — Nicholas Accardo, George Vivier. *Secretary* — Beverly Sostand.

Electrical engineering is a rapidly changing profession which promises to bring significant changes to our society within the next decade. Electrical engineers are involved in research, development, design, manufacturing and applications in areas as varied as microelectronic devices, information science, power systems, computers, digital systems and communications systems.

In each of the electrical engineering courses, emphasis is placed upon creative thinking and an analytical approach. The specified curriculum lays a broad foundation in the relevant electrical sciences, and electives allow pursuit of the student's special interests. In-depth specialization is possible in graduate school, industry or research.

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 (community) college level. The appropriate list of courses for a particular college can be made available upon request.

Recommended Program of Study

Bachelor of Science in Electrical Engineering

First Year
(See Core Program)

Second Year

First Semester		Second Semester	
Egr 231—Mechanics II	3-0-3	Gov—Government	3-0-3
Gov 2321	3-0-3	Egr 233—Circuits & Fields	3-0-3
Literature	3-0-3	Egr 234—Thermodynamics	3-0-3
Mth 231—Analysis III	3-0-3	Mth 232—Analysis IV	3-0-3
Phy 241—Ht, Elec, Mag	3-3-4	Phy 242—Lt, Snd, Qua	3-3-4
HPE/MLb 124/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	17		17

Third Year

First Semester		Second Semester	
EE 317—Jr EE Lab	0-3-1	EE 318—Jr EE Lab	0-3-1
EE 331—Circuits I	3-0-3	EE 332—Circuits II	3-0-3
EE Elective	3-0-3	EE 336—Energy Convers II	3-0-3
Soph Am Hist	3-0-3	EE 337—Elec & Mag Flds	3-0-3
Egr 333—Electronics	3-0-3	Soph Am Hist	3-0-3
EE 3301—Elec Ana	3-0-3	Phy 335—Modern	3-0-3
	16		16

Fourth Year

First Semester		Second Semester	
EE 411—Seminar	1-0-1	EE 412—Seminar	1-0-1
EE 415—Proj Lab	0-3-1	EE 416—Proj Lab	0-3-1
EE 417—Proj Lab	0-3-1	EE 418—Proj Lab	0-3-1
EE 431—Electronics II	3-0-3	EE 436—Control Egr	3-0-3
EE 433—Net Anal	3-0-3	EE—Elective	3-0-3
EE—Elective	3-0-3	EE—Elective	3-0-3
Spc or Tech Writing	3-0-3	Elective	3-0-3
Elective (Technical)	3-0-3	Human/Soc Sci Elective	3-0-3
	18		18

ELECTRICAL ENGINEERING (EE)

317 — Junior EE Laboratory. To be taken in parallel with EE 331. Laboratory: 3 hours. Credit: 1 semester hour.

318 — Junior EE Laboratory. To be taken in parallel with EE 332 and EE 336. Laboratory: 3 hours. Credit: 1 semester hour.

331 — Circuits I. A study of instantaneous current and voltage, the impedance function, complex algebra in circuit analysis, average power and effective current, equivalent networks, resonance, graphical methods, loop and node network equations, matrix solutions, and network theorems. Prerequisites: Egr 233, Mth 232. Class: 3 hours. Credit: 3 semester hours.

332 — Circuits II. Coupled circuits, balanced and unbalanced polyphase circuits, symmetrical components, nonlinear elements. Fourier series and integral, transient response, complex frequency plane; Laplace transformation. Prerequisite: EE 331. Class: 3 hours. Credit: 3 semester hours.

335 — Energy Conversion I (Direct). 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. Prerequisites: Egr 234; parallel: Egr 333. Class: 3 hours. Credit: 3 semester hours.

336 — Energy Conversion II (Electromechanical). A study of electromechanical energy conversion principles. Lagrange's equations; incremental motion transducers; rotating machines. Prerequisite: EE 331. Class: 3 hours. Credit: 3 semester hours.

337 — Electromagnetic Fields I. 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. Prerequisites: Egr 233, Mth 232. Class: 3 hours. Credit: 3 semester hours.

338 — Electric Circuit Fundamentals. Laws, parameters, and network theory. Laplace transforms, transient and a-c steady state circuit responses (intended for Computer Science majors). Prerequisites: Mth 231 and Phy 142 or 241. Class: 3 hours. Credit: 3 semester hours.

339 — Electronic Fundamentals. Fundamentals of semiconductors; diodes, transistors, and vacuum tubes. Equivalent circuits, biasing methods, and amplifier performance (intended for Computer Science majors). Prerequisite: EE 338. Class: 3 hours. Credit: 3 semester hours.

3301 — Electrical Analysis. Analog computer techniques, matrices, and state variable methods applied to the solution of differential equations which approximate electrical phenomena. Prerequisites: Mth 232, Egr 233. Class: 3 hours. Credit: 3 semester hours.

411 — Electrical Engineering Seminar I. A study of the literature of electrical and related engineering fields; preparation and presentation of papers on electrical subjects. Parallel: EE 431. Class: 1 hour. Credit: 1 semester hour.

412 — Electrical Engineering Seminar II. Preparation, presentation, and discussion of material on the engineering profession, the interface between technology and society, and new areas of engineering involvement. Class: 1 hour. Credit: 1 semester hour.

415-417 — Projects Laboratory. Laboratory studies selected from machines, vacuum-tube and semiconductor electronics, digital logic, and communication theory. Laboratory: 3 hours. Credit: 1 semester hour for each course.

416-418 — Projects Laboratory. Laboratory studies selected from automatic control systems, computers, vacuum-tube and semiconductor electronics, microwave devices. Laboratory: 3 hours. Credit: 1 semester hour for each course.

431 — Electronics II. Vacuum tubes and semiconductors as circuit elements, untuned voltage and power amplifiers, and electronic computing circuits. Prerequisite: Egr 333, EE 331. Class: 3 hours. Credit: 3 semester hours.

432 — Electronics III. A study of bipolar field effect transistor and tunnel diode devices as circuit elements in integrated circuits. Applications to digital systems, high frequency analog systems and measuring instruments are analyzed. Discrete elements in electronic circuits as signal processing devices are also studied. Prerequisite: EE 431. Class 3 hours. Credit: 3 semester hours.

433 — Network Analysis. Properties of linear systems, excitation and response in the time domain, excitation and response in the frequency domain, generalized function, differential equations applied to network analysis, network analysis functions, network analysis domain. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

434 — Network Synthesis. Mathematical foundation needed for synthesis. Driving point synthesis with LC elements. Driving point synthesis with RC and RL elements. Two port synthesis. Filter design. Prerequisite: EE 433. Class: 3 hours. Credit 3 semester hours.

436 — Control Engineering. Transfer functions; state variables; time response; frequency response; stability; observability and controllability; special topics. Prerequisite: EE 332. Class: 3 hours. Credit 3 semester hours.

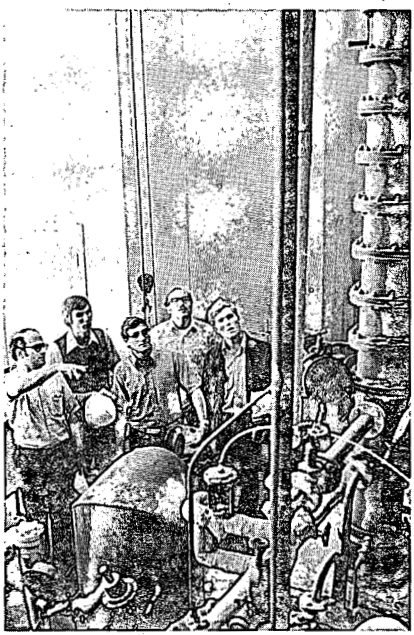
437 — Electromagnetic Fields II. Transmission lines, waveguides, cavities, and antennas. Prerequisite: EE 337. Class: 3 hours. Credit: 3 semester hours.

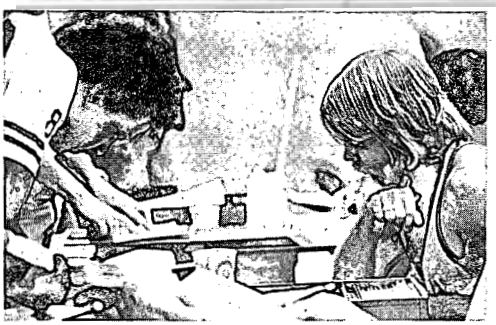
438 — Instrumentation. A study of analog and digital electronic instruments in making measurements. Instruments studied are oscilloscopes, strip recorders, oscillators, frequency counters, PDR's, PGR's, digital (voltmeters, ohmmeters) and transducers. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

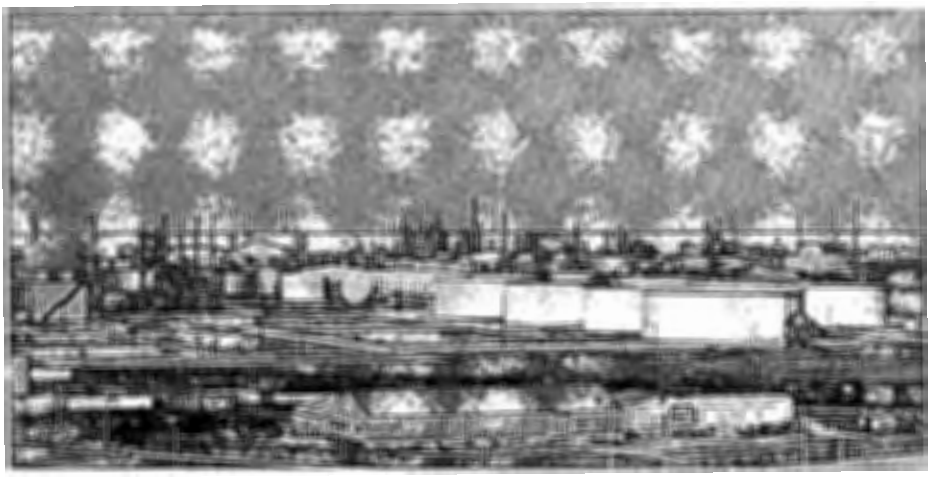
4302 — Communication Theory. Principles of modulation; random signal theory and network analysis; basic information theory; analysis of noise. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

4303 — Logical Design of Switching Systems. Switching algebra necessary for formulating and manipulating switching functions. Circuit realization using relay logic, diode logic, transistor gates and core gates. Derivation and simplification of state tables for sequential circuits. State assignments for the design of computing systems. Asynchronous circuits. Prerequisite: Egr 333. Class: 3 hours. Credit: 3 semester hours.

4304 — Advanced Topics. 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. Class: 3 hours. Credit: 3 semester hours.







Department of Industrial Engineering

Accredited by Engineers' Council for Professional Development

Department Head — David G. Gates. *Professor* — Irvin L. Reis. *Associate Professors* — Ali M. Alli, James J. Brennan. *Assistant Professor* — Carl Carruth. *Instructors* — James R. Comer, Harold D. Camp, Michael L. Fontenot. *Laboratory Technician* — Herbert W. Deaton. *Secretary* — Christine Masters.

The Department of Industrial Engineering offers the Bachelor of Science degree in Industrial Engineering, Industrial Technology, and Computer Science.

Industrial Engineering

The industrial engineer performs vital functions in today's world and has a wide range of career opportunities. A strong preparation in human and economic factors equips the graduate for special application of his excellent engineering background.

Complex organizations need IEs to help them make difficult and important decisions. Industrial engineers use their engineering and mathematical background combined with advanced study in management systems, economics and decision-making techniques to answer such vital 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 traditionally demands many graduates, increasing numbers are finding satisfying employment in other kinds of businesses. Airlines, banks, restaurant chains, department stores and hospitals all use industrial engineers. Many positions are located in governmental agencies involved with police and judicial matters, mass transportation and land use.

At Lamar University, the industrial engineering student has a choice of two options. Either the principal professional curriculum or the systems engineering curriculum may be elected. The principal professional option emphasizes production methods, management skills and human relations. The systems engineering option carries increased emphasis on mathematics and computers for those who have a special interest in applying those tools to technical and managerial problems.

Recommended Program of Study

Bachelor of Science in Industrial Engineering

BASIC PROGRAM

First Year

(See Core Program)

Second Year

First Semester		Second Semester	
Egr 231—Mechanics II	3-0-3	Egr 235—Digital Computation	3-0-3
Gov 2321—Constitutions	3-0-3	English Literature	3-0-3
IE 330—IE-An Introduction	3-0-3	Mth 232—Analysis IV	3-0-3
Mth 231—Analysis III	3-0-3	Phy 242—Lt, Snd, Quanta	3-3-4
Phy 241—Ht, Elec, Mag	3-3-4	Soph Amer History	3-0-3
HPE/MLb 124/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	17		17

Third Year

First Semester		Second Semester	
IE 311—IE Seminar I	1-0-1	IE 334—Human Relations	3-0-3
IE 333—Engineering Economy	3-0-3	IE 335—Accounting for Egrs	3-0-3
Egr 212—Prod & Fab Processes	0-3-1	IE 338—Work Study	2-3-3
Egr 234—Thermodynamics	3-0-3	Egr 233—Circuits & Fields	3-0-3
Egr 339—Mat Sci & Mfg Proc	3-0-3	Soph Amer History	3-0-3
Mth 234—Prob & Statistics	3-0-3	Approved Tech Elective	3-0-3
Gov 2322—25	3-0-3		18
	17		

Fourth Year

First Semester		Second Semester	
IE 411—IE Seminar II	1-0-1	IE 430—Quality Assurance	2-3-3
IE 432—Stat Decis Making	3-0-3	IE 436—Design of Prod Fac	1-6-3
IE 435—Prod & Inv Control	3-0-3	IE 437—Operations Research	3-0-3
IE 4303—Linear Programming	3-0-3	Free Elective	3-0-3
Egr 311—Momentum Trans	3-0-3	IE 4315—Organization & Mgt	3-0-3
Approved Hum—Soc Elective	3-0-3		15
	16		

Total 132 Semester Hours

Systems Engineering Option

First Year
(See Core Program)

Second Year

First Semester		Second Semester	
Egr 231—Mechanics II	3-0-3	Gov 2322—25	3-0-3
Gov 2321—Constitutions	3-0-3	Egr 235—Digital Computation	3-0-3
English Literature	3-0-3	Mth 232—Analysis IV	3-0-3
Mth 231—Analysis III	3-0-3	Phy 242—Lt, Snd, Quanta	3-3-4
Phy 241—Ht, Elec, Mag	3-3-4	Egr 233—Circuits & Fields	3-0-3
HPE/MLb 124/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	17		17

Third Year

First Semester		Second Semester	
IE 311—IE Seminar I	1-0-1	IE 338—Work Study	2-3-3
IE 333—Engineering Economy	3-0-3	Egr 331—Momentum Trans	3-0-3
IE 3302—Funct Char Dig Comp	3-0-3	Mth 331—Diff Equations	3-0-3
Egr 234—Thermodynamics	3-0-3	Soph Amer History	3-0-3
Mth 234—Prob & Statistics	3-0-3	Mth 4315—Numerical Analysis	3-0-3
Soph Amer History	3-0-3	Approved Tech Elective	3-0-3
	16		18

Fourth Year

First Semester		Second Semester	
IE 411—IE Seminar II	1-0-1	CS 4305—Intro Info Struct	3-0-3
IE 4303—Linear Programming	3-0-3	IE 430—Quality Assurance	2-3-3
IE 432—Stat Decis Making	3-0-3	IE 437—Operations Research	3-0-3
IE 435—Prod & Inv Control	3-0-3	IE 4302—System Anal & Des	3-0-3
Approved Hum—Soc Elective	3-0-3	IE 4315—Organization & Mgt	3-0-3
Free Elective	3-0-3		15
	16		

Total 131 Semester Hours

*Bachelor of Science in Industrial Technology — (Industrial Engineering)

The BS in Industrial Technology is especially designed to prepare two year technology graduates to work effectively in the engineer-technologist team and to assume management responsibilities.

First Year

First Semester		Second Semester	
**Technology Courses	12	Technology Courses	12
English Composition	3	English Composition	3
HPE or ROTC	1	HPE or ROTC	1
	16		16

Second Year

First Semester		Second Semester	
Technology Courses	12	Technology Courses	12
Technology Course or Elective	3	Technology Course or Elective	3
HPE or ROTC	1	HPE or ROTC	1
	16		16

Third Year

First Semester		Second Semester	
Mth 134 — College Algebra	3	Mth 1341—Elements of Analysis	3
CS 131—Intro to Computer	3	Spc 331	3
#Humanistic-Social Elect	3	Mth or Lab Science	3-4
English Lit	3	Gov-Second semester	3
Gov 2321	3	#IE Elective	3
IE 311—Seminar	1		15-16
	16		

Fourth Year

First Semester		Second Semester	
BA Elective (Jr level)	3	Lab Science	4
Egr 212—Prod & Fab Processes	1	#IE Electives	6
#Egr Elect	3	#Humanistic—Social Elect	3
American History	3	American History	3
Egr 339—Mat Sci & Mfg Proc	3		
Technology Course (Jr level)	3		
	16		16

Total 128 Semester Hours

*First two years to be administered by Technical Arts, second two years by Industrial Engineering Department. Students entering Lamar as freshmen will be advised as to technology major by College of 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 or equivalent of related and sequential courses. Technology courses beyond those specified in a major field must be approved by the Industrial Engineering Department.

#Chosen to meet general college requirements. Care should be exercised in choosing courses in order to assure meeting the requirement that 30 semester hours of 300 or higher level courses be completed.

INDUSTRIAL ENGINEERING (IE)

311 — Industrial Engineering Seminar I. An introduction to Industrial Engineering as a profession. How IEs analyze and identify problems. Class: 1 hour. Credit: 1 semester hour.

330 — Industrial Engineering—An Introduction. Describes the work of the IE in the many fields of business and government. Introduces some of the tools and techniques of IE. Prerequisite: Mth 234. Class: 3 hours. Credit: 3 semester hours.

333 — Engineering Economy. How economics is applied to the evaluation of engineering proposals. The effects of depreciation, taxation and interest rates are studied. Prerequisite: Mth 139 or Mth 1341. Class: 3 hours. Credit: 3 semester hours.

334 — Human Relations in Industry. The role of individuals and groups in industrial organizations. How to satisfy and use their needs and goals. Class: 3 hours. Credit: 3 semester hours.

335 — Accounting for Engineers. The principles of bookkeeping and cost accounting are introduced. How cost records help the engineer/executive to make decisions. Class: 3 hours. Credit: 3 semester hours.

338 — Work Study. How contents, techniques and times required for various tasks can be determined. How to design jobs and workplaces for maximum productivity. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3302 — Functional Characteristics of Digital Computers. Machine, assembler level and macro languages, data representation, instruction formats, addressing, computer structure. Prerequisite: CS 132 or Egr 235. Class: 3 hours. Credit: 3 semester hours.

411 — Industrial Engineering Seminar II. How to prepare and present engineering reports. Real-life problems are studied and students report findings and recommendations. Class: 1 hour. Credit: 1 semester hour.

430 — Quality Assurance and Control. How industry makes sure that its products perform as intended. How defective pieces are reduced or eliminated. Prerequisite: Mth

234. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

432 — Statistical Decision Making for Engineers. How data can be analyzed to help the engineer/executive make decisions. How performance claims can be evaluated. Prerequisite: Mth 234. Class: 3 hours. Credit: 3 semester hours.

434 — Design of Tools and Processes. How to choose the process and machinery to make various products. How to modify the design and materials of a product so as to perform satisfactorily and be made at the lowest cost. Prerequisites: IE 333, 338. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

435 — Production and Inventory Control. Techniques employed in continuous process and job lot manufacture for planning and controlling production. Procurement, inventory control, scheduling, facilities, loading, routing, dispatching. Prerequisites: Mth 234, IE 330. Class: 3 hours. Credit: 3 semester hours.

436 — Design of Production Facilities. How many of the principles from other IE courses can be used to determine the location, layout, needed equipment and facilities and other factors in facilities design. Prerequisites: Egr 212, 339, IE 330, 333, 338. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

437 — Operations Research. An introduction to the construction of mathematical models of organizational systems to aid executives in making decisions. Prerequisites: Mth 234, IE 333. Class: 3 hours Credit: 3 semester hours.

4302 — System Analysis and Design. Multiprocessing and real time systems, timesharing, core management systems, interfacing, analysis and design of systems to meet specific requirements, management systems, system programming. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

4303 — Linear Programming. Selected topics from Linear Algebra; general linear programming problems; techniques for solving GLP; degeneracy procedures; transportation problems; applications. Prerequisite: CS 132 or Egr 235. Class: 3 hours. Credit: 3 semester hours.

4313 — Human Engineering. The engineering design of tools and equipment to meet the physiological limitations and the psychological needs of human beings. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

4315 — Organization and Management. The theory of organization and management. How the executive functions to achieve the organization's goals. Class: 3 hours. Credit: 3 semester hours.

Department of Mechanical Engineering

Accredited by Engineers' Council for Professional Development

Department Head — Otto G. Brown. *Professors* — Eugene P. Martinez, Harry T. Mei. *Associate Professors* — John A. Bruyere, Thomas J. Greene. *Assistant Professor* — L. Wayne Sanders. *Laboratory Technician* — George E. Hundley, Jr., Nicholas Accardo. *Secretary* — Jennifer Cline.

Mechanical Engineering consists of the analysis, design, synthesis and selection of materials for mechanical and thermal processes and engineering systems. Such a broad field must of necessity require a firm foundation in the fundamental sciences and mathematics as well as in the engineering sciences.

Application of the sciences to the many phases of mechanical engineering is studied 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, management and public services. The end products resulting from the application of their knowledge and professional skills are many and a list would include, for example, all forms of transportation, central power plants, nuclear reactors, energy conversion, space vehicles, computers and complex systems.

Few fields of endeavor offer more to the individual in challenge and opportunity or require better preparation than does mechanical engineering.

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 or community college can be obtained from the Department of Mechanical Engineering.

Recommended Program of Study

Bachelor of Science in Mechanical Engineering

First Year

(See Core Program)

Second Year

First Semester		Second Semester	
Egr 231—Mechanics II	3-0-3	Sophomore History	3-0-3
Gov 2321—American	3-0-3	Egr 234—Thermodynamics	3-0-3
Literature	3-0-3	Mth 232—Analysis IV	3-0-3
Mth 231—Analysis III	3-0-3	Phy 242—Lt, Snd, Qua	3-3-4
Phy 241—Ht, Elec, Mag	3-3-4	Gov—Second Semester	3-0-3
HPE/MLb 124/AFROTC	0-3-1	HPE/AFROTC	0-3-1
	17		17

Third Year

First Semester

Egr 212—Prod Fab Proc	0-3-1
Egr 232—Mech III	3-0-3
Egr 233—Cir Fields	3-0-3
Egr 331—Mom Transfer	3-0-3
Mth 331—Diff Eqns	3-0-3
ME 338—Thermo II	3-0-3
	16

Second Semester

Egr 333—Electronics or Phy 335—Mod Phy	3-0-3
ME 321—Inst Tst Lab	0-6-2
ME 330—Kinematics	3-0-3
ME 331—Trans Theo I	3-0-3
ME 332—Mech Des I	2-3-3
ME 334—Engr Anal I	3-0-3
	17

Fourth Year

First Semester

ME 411—Seminar	1-0-1
ME 4313—Trans Theo II	3-0-3
ME 4317—Eng Anal II	2-3-3
ME 4319—Mat Sci	2-3-3
ME 4323—Mech Des II	2-3-3
Hum—Soc Elec	3-0-3
	16

Second Semester

Tech Writ or Spch	3-0-3
ME 4316—Egr Proj	1-6-3
His-Soph His	3-0-3
Approved Electives	6
Free Elective	3
	18

Total 133 Semester Hours

MECHANICAL ENGINEERING (ME)

321 — Instrumentation and Testing Laboratory. 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. Prerequisites: ME 338, ME 331 in parallel. Laboratory: 6 hours. Credit: 2 semester hours.

330 — Kinematics. Analysis of mechanisms. Centros, velocities and accelerations in plane mechanisms; rolling and sliding contact in belts, chains, and cams; gears in plain and epicyclic trains. Prerequisites: Egr 231 and Mth 232. Class: 3 hours. Credit: 3 semester hours.

331 — Transport Theory I. Theory of conduction and potential flow, radiation, and convection with engineering techniques and applications. Prerequisites: Egr 331, ME 334 in parallel. Class: 3 hours. Credit: 3 semester hours.

332 — Elements of Mechanical Design I. The design of machine components including shafting, columns, springs and frames with regard to static and dynamic forces employing analytical and graphical analysis. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

334 — Engineering Analysis I. 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: Egr 331 in parallel. Class: 3 hours. Credit: 3 semester hours.

338 — Thermodynamics II. A continuation of Egr 234 including vapor and gas cycles, mixtures of gases, thermodynamics of chemical systems and psychrometrics. Prerequisite: Egr 234. Class: 3 hours. Credit: 3 semester hours.

411 — Seminar. Oral and written presentation and discussion of selected topics including those from current literature of fields related to mechanical engineering. Professional activities are encouraged. Class: 1 hour. Credit: 1 semester hour.

431 — Engineering Systems Design. 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. Class: 3 hours. Credit: 3 semester hours.

432 — Mechanical Vibrations. 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. Class: 3 hours. Credit: 3 semester hours.

433 — Aerodynamics. 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 rotation is used. Prerequisite: ME 331. Class: 3 hours. Credit: 3 semester hours.

434 — Internal Combustion Engines. The principles of design and analysis of various types of internal combustion engines. Prerequisites: ME 331 and ME 338. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

435 — Turbomachinery. Flow problems encountered in the design of water, gas and steam turbines, centrifugal and axial-flow pumps and compressors. Prerequisites: ME 331 and ME 338. Class: 3 hours. Credit: 3 semester hours.

436 — Dynamics of Machinery. Kinematics of mechanisms, gears, and epicyclic gear trains. Synthesis of linkages. Calculation of inertia forces and shaking forces on machines. Multicylinder engine balancing. Graphical and analytical methods are employed. Prerequisite: ME 332. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

437 — Advanced Machine Design. The application of machine design principles to an integrated design of a complete machine, including fabrication and economic consideration. Prerequisite: ME 4323. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

438 — Environmental Systems Engineering. Design of refrigeration and air-conditioning systems including selection of mechanical equipment, controls, piping and duct layout. Prerequisites: ME 331 and ME 338. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

439 — Advanced Strength of Materials. 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: Egr 232. Class: 3 hours. Credit: 3 semester hours.

4311 — Controls Engineering. The theory of integrated automatic controls systems with application to combustion, temperature, pressure, flow and humidity control. Industrial control systems are considered. Prerequisites: ME 331, 334. Class: 3 hours. Credit: 3 semester hours.

4312 — Gas Dynamics. Fundamentals of one-dimensional compressible flow. An introduction to multidimensional wave phenomena with various applications. Prerequisite: ME 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

4313 — Transport Theory II. Transport processes in incompressible boundary layers.

Transport with change of phase. Compressible flow in nozzles, ducts, and turbomachines. High-speed compressible boundary layer flow. Slip and free molecule flow. Class: 3 hours. Credit: 3 semester hours.

4314 — Fundamentals of Physical Metallurgy. 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. Class: 3 hours. Credit: 3 semester hours.

4315 — Thermodynamics III. An introduction to the kinetic theory of gases, statistical mechanics, and quantum theory. Prerequisites: ME 334 and ME 338. Class: 3 hours. Credit: 3 semester hours.

4316 — Engineering Project. 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. Prerequisites: ME 321 and senior standing. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

4317 — Engineering Analysis II. A continuation of ME 334 with some emphasis being placed on analog methods and computer techniques in solving engineering problems. Prerequisite: ME 334. Class: 3 hours. Credit: 3 semester hours.

4319 — Materials Science. Properties of materials. Aspects of elastic behavior as well as stress and strain measurement, yield phenomena, tensions, torsion, hardness, and assorted effects are considered. Criteria for selecting proper engineering materials are discussed. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

4320 — Propulsion Systems. Space mission parameters. Basic elements of propulsion systems and propulsion system parameters. Selected problems of thermochemical systems and electro-magneto-thermal systems. Prerequisites: ME 331 and ME 338. Class: 3 hours. Credit: 3 semester hours.

4321 — Space Dynamics. An analytical treatment of the mechanics of orbital motion, with applications to the trajectories of the astronomical objects and space vehicles. Class: 3 hours. Credit: 3 semester hours.

4323 — Elements of Mechanical Design II. The design of power transmission machinery. Completed design of some assigned machine. Prerequisite: ME 332. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

Department Of Mathematics

Acting Department Head — Philip W. Latimer. *Acting Director of Freshman Mathematics* — Sam M. Wood, Jr. *Professors* — Russell W. Cowan, Sterling C. Crim, Sterling W. McGuire, Jeremiah M. Stark, Howard C. Vanzant. *Associate Professors* — Joseph A. Baj, II, Mary Katherine Bell, George Berzsenyi, Ralph J. Brookner, Joan E. Brenizer, Robert L. Dingle, Richard L. Price, David R. Read, Jacob A. Wolkeau. *Associate Professor of Computer Science* — William C. Nylin, Jr. *Assistant Professors* — Dock B. DeMent, Annie Sue Green, John F. Harvill, Michael A. Laidacker, Charles H. Lauffer, Reta G. Parrish, Billy D. Read, Dorothy Faye Thames. *Instructors* — John W. Mades, *Jana McNeill. *Secretary* — Mrs. Alma Baize.

*On leave.

The importance of mathematics to the ambitious scientist and engineer of the present day cannot be overemphasized. Many phenomena of nature can be understood adequately only 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.

Mathematicians with adequate training and background find a variety of opportunities in industry, in government service, in the actuarial profession as statisticians, and of course, as teachers of mathematics on the secondary school, college or university levels. For further information along these lines, the reader is invited to confer with faculty members and is referred to the publication "Professional Opportunities in Mathematics," obtainable from the Mathematical Association of America.

The Mathematics Department offers programs leading to the Bachelor of Science degree, the Bachelor of Arts degree, and the Master of Science degree. The Bachelor of Arts degree is primarily for those who plan to teach mathematics in secondary schools. The Bachelor of Science degree is recommended for those undergraduate students who plan to do industrial work in mathematics or to enter graduate school for an advanced degree in mathematics.

Those wishing to secure the Bachelor of Arts degree in mathematics while fulfilling the requirements for a provisional secondary school certificate with a teaching field in mathematics, will find below the details of such a program. Also given below are programs of study for the Bachelor of Arts degree with major in mathematics and minor unspecified, the Bachelor of Science degree with major in mathematics and minor unspecified, and the Bachelor of Science degree in Mathematical Sciences.

For information concerning the Master of Science and Doctor of Engineering degrees, refer to the Graduate Bulletin.

Recommended Programs of Study

Bachelor of Arts — Mathematics Major

1. General requirements:
   (1) Eng — Composition — six semester hours.
   (2) Eng — Literature — six semester hours.
   (3) Laboratory science — eight semester hours (same science).
   (4) Gov 2321, 2322 or 2323 or 2324 or 2325.

(5) His — Soph Am His — six semester hours.
(6) Foreign Language through 232 (same language).
(7) HPE (Activity) — four semester hours.

2. Major requirements:
   A minimum of 27 semester hours of mathematics including 12 of advanced courses approved by the department.
3. Minor requirements:
   A minor of 18 hours approved by the department.
4. Electives — (approved).

Bachelor of Arts — Mathematics Major

First Year

First Semester		Second Semester	
Mth 138 — Anal I	3	Mth 139 — Anal II	3
Eng — Composition	3	Eng — Composition	3
Science	4	Science	4
Minor	3	Minor	3
*Elective	3	*Elective	3
HPE — Activity	1	HPE — Activity	1
	17		17

Second Year

First Semester		Second Semester	
Mth 231 — Anal III	3	Mth 232 — Anal IV	3
Eng — Literature	3	Eng — Literature	3
His — Soph Am His	3	His — Soph Am His	3
For Lang 141	4	For Lang 142	4
*Elective	3	*Elective	3
HPE — Activity	1	HPE — Activity	1
	17		17

Third Year

First Semester		Second Semester	
Mth 331 — Diff Equa	3	Mth — Adv	3
Mth — Adv	3	Gov	3
Gov 2321 — Intro to Amer Gov	3	For Lang 232	3
Minor	3	*Elective	3
For Lang 231	3	Minor	3
	15		15

Fourth Year

First Semester		Second Semester	
Mth — Adv	3	Mth — Adv	3
Minor	3	Minor	3
*Electives	9	*Electives	9
	15		15

*Approved by the Mathematics Department.

Teacher Certification — Mathematics

Those wishing to secure the Bachelor of Arts degree in mathematics and at the same time certify for a provisional certificate — secondary with a teaching field in mathematics must include in their degree program the following:

(1) 18 hours of professional education as follows:
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 catalog — College of Education.)
(3) CS 131 and Mth 234.
(4) 12 hours of advanced mathematics as follows: Mth 330 or 338, 3311, 333 or 334, 335 or 336 or 337.
(5) Approved electives sufficient to make a total of 132 semester hours.

Bachelor of Science — Mathematics Major

Program I — General

First Year

First Semester		Second Semester	
Eng — Composition	3	Eng — Composition	3
Science	4	Science	4
Mth 138 — Anal I	3	Mth 139 — Anal II	3
*Elective	3	Minor	3
Minor	3	*Elective	3
HPE — Activity	1	HPE — Activity	1
	17		17

Second Year

First Semester		Second Semester	
Mth 231 — Anal III	3	Mth 232 — Anal IV	3
Mth 233 — Linear Alg	3	Mth 3311 — Set Theory	3
Eng — Literature	3	Eng Lit or Eng 3311	3
Minor	3	Minor	3
*Elective	3	*Elective	3
HPE — Activity	1	HPE — Activity	1
	16		16

Third Year

First Semester		Second Semester	
Mth 331—Diff Equa	3	Mth 234—Prob and Stat	3
Mth 338—Adv Cal	3	Mth 335—Modn Alg	3
Gov 2321—Intro to Amer Gov	3	Gov	3
Minor	3	Minor	3
*Electives	6	*Elective	3
	18		15

Fourth Year

First Semester		Second Semester	
Mth 435—Intro Top	3	Mth 431—Com Var	3
Mth Elective (Adv)	3	Mth Elective (Adv)	3
His—Soph Am His	3	His—Soph Am His	3
*Electives	6	*Electives	6
	15		15

*Approved by the Mathematics Department.

Program II — Mathematical Sciences

First Year

First Semester		Second Semester	
Eng—Comp	3	Eng	3
Science	4	Science	4
Mth 138—Anal I	3	Mth 139—Anal II	3
CS 132 Prog Dig Comp.	3	His—Soph Am His	3
His—Soph Am His	3	Elective	3
HPE—Activity	1	HPE—Activity	1
	17		17

Second Year

First Semester		Second Semester	
Mth 231—Anal II	3	Mth 232—Anal IV	3
Mth 233—Linear Alg	3	Mth 234 Prob & Stat	3
Eng—Lit	3	Eng Lit or Eng 3311	3
Gov 2321—Intro to Amer Gov	3	Gov	3
Elective	3	Elective	3
HPE—Activity	2	HPE—Activity	2
	17		17

Third Year

First Semester		Second Semester	
Mth 338 Adv Cal	3	Mth 335—Modn Alg	3
Mth 4315 Numer Anal	3	Mth 433 Vect & Mat	3
Mth 437 Prob & Stat	3	Electives	9
Electives	6		
	15		15

Fourth Year

First Semester		Second Semester	
Mth 438 Prob & Stat	3	Mth 4316—Numer Anal II	3
Mth 4317—Topics in Adv Mth	3	Adv Mth Elective	3
Adv Mth Elective	3	Electives	9
Electives	6		15
	15		

Mth 1334 and 134 may be counted as free electives toward a degree in mathematics provided they are taken before credit is received for Mth 138.

MATHEMATICS (Mth)

1311 — Survey of Mathematics. Mathematics history, problem solving, logic and other selected topics of current interest. Recommended for degrees with undesignated mathematics requirements. Class: 3 hours. Credit: 3 semester hours.

1313 — Self-paced Computational Skills. A study of basic concepts of the operations involved in computations. Includes problems from business, science, metrication, construction and geometry. Class: 3 hours. Credit: 3 semester hours.

1314 — Self-paced Basic Algebra. A review of the skills and concepts of basic algebra. Includes signed numbers, linear equations and systems, quadratics, radicals and logarithms. Recommended for those who need a review before taking Mth 134. Class: 3 hours. Credit: 3 semester hours.

1315 — Self-paced Consumer Mathematics. Provides mathematical experiences in problems pertaining to interest, installment buying, discount and taxes. Class: 3 hours. Credit: 3 semester hours.

1316 — Finite Mathematics. Sets, logic, problem solving, probability and related topics. Class: 3 hours. Credit: 3 semester hours.

1334 — Algebra and Trigonometry. A precalculus course in the fundamentals of algebra and trigonometry. Designed to prepare students for Mth 138. Class: 3 hours. Credit: 3 semester hours.

1335 — Precalculus Mathematics. A precalculus course in the fundamentals of algebra and analytic geometry. Designed to prepare students for Mth 236. Class: 3 hours. Credit: 3 semester hours.

134 — College Algebra. Linear equations, linear systems, linear inequalities, linear programming, vectors, matrices and logarithms. Class: 3 hours. Credit: 3 semester hours.

1341 — Elements of Analysis. Probability, differential and integral calculus. Prerequisite: Mth 134. Class: 3 hours. Credit: 3 semester hours.

135 — Contemporary Mathematics I. Logic and an introduction to mathematical reasoning, sets and relations, the system of whole numbers, numeration systems, system of integers and elementary number theory. Class: 3 hours. Credit: 3 semester hours.

136 — Contemporary Mathematics II. Fractions and rational numbers, decimals and real numbers, concepts of probability, introduction to statistics, some concepts from algebra. Prerequisite: Mth 135. Class: 3 hours. Credit: 3 semester hours.

138 — Analysis I. Rate of change of a function, limits, derivatives of algebraic functions, applications, and integration. Class: 3 hours. Credit: 3 semester hours.

139 — Analysis II. Applications of the definite integral, transcendental functions, and methods of integration. Class: 3 hours. Credit: 3 semester hours.

231 — Analysis III. Plane analytic geometry, polar coordinates, vectors and parametric equations, and partial differentiation. Class: 3 hours. Credit: 3 semester hours.

232 — Analysis IV. Multiple integrals, infinite series, complex numbers, and differential equations. Class: 3 hours. Credit: 3 semester hours.

233 — Linear Algebra. Set notation, number fields, groups, vectors, geometry of space, vector spaces, determinants, linear transformations, matrices. Prerequisite: Mth 139 or concurrently. Class: 3 hours. Credit: 3 semester hours.

234 — Elementary Statistics. An introduction to computational statistics — data, measures of central tendency and variation. The normal distribution, correlation and sampling. Class: 3 hours. Credit: 3 semester hours.

236 — Calculus I. Sets, functions, limits. The derivative and its applications. Introduction to integral calculus. Designed for students majoring in business, social, computer, and life sciences. Class: 3 hours. Credit: 3 semester hours.

237 — Calculus II. 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. Class: 3 hours. Credit: 3 semester hours.

330 — Principles of Mathematics. An introduction to some modern topics in mathematics. Symbolic logic, a development of the number system, groups, fields, sets, and function theory. Prerequisite: Mth 231. Class: 3 hours. Credit: 3 semester hours.

331 — Differential Equations. Analytical solution of ordinary differential equations in terms of elementary and classical functions. Application to problems in geometry, engineering and physics. Introduction to solution by series. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

3311 — Set Theory. 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. Class: 3 hours. Credit: 3 semester hours.

3313 — Modern Elementary Geometry. A study of the structure of geometry with primary emphasis on the needs of the elementary teacher. Prerequisite: Mth 136. Class: 3 hours. Credit: 3 semester hours.

3314 — Topics in Algebra. An advanced course in algebra for elementary education majors whose specialization is mathematics. Class: 3 hours. Credit: 3 semester hours.

3315 — Number Theory. A development of the elementary theory of numbers with emphasis on the needs of teachers. Class: 3 hours. Credit: 3 semester hours.

333 — Higher Geometry. An axiomatic treatment of one or more of the important types of space — projective, metric, Euclidean, or topologic. Emphasis on the method rather than on the content. Class: 3 hours. Credit: 3 semester hours.

334 — Higher Geometry. Advanced topics in Euclidean geometry followed by a brief study of satellites. Constructible elements, problem of Appolonius, geometrical transformations. Euler line, Feuerbach Theorem, geometry of the triangle, Dandelin spheres, conic sections. Class: 3 hours. Credit: 3 semester hours.

335, 336 — Modern Algebra. Postulates for the system of positive integers. Systems of integers, rational numbers, real numbers, and complex numbers by embedding. Dedekind cuts. Groups, rings, fields, Diophantine equations, congruences, matrix theory. Mth 335 is not a prerequisite for Mth 336. Class: 3 hours. Credit: 3 semester hours for each course.

337 — Theory of Equations. Complex numbers, general theorems on algebraic equa-

tions, solution of cubic and quartic equations. Determinants and matrices. Cramer's Rule. Symmetric functions, resultants, discriminants and elimination, the Graeffe method. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

338 — Advanced Calculus. The concept of a function, limits sequences, continuity, differentiability, the Reimann integral, infinite series, Taylor series. Class: 3 hours. Credit: 3 semester hours.

4131, 4231, 4331 — Special Problems. Special advanced problems in mathematics to suit the needs of individual students. Class: 1 to 3 hours. Credit: 1 to 3 semester hours.

4301 — Advanced Calculus for Engineers I. Simultaneous linear differential equations, finite differences, determinants and matrices. Prerequisite: Mth 232. Class: 3 hours. Credit: 3 semester hours.

4302 — Advanced Calculus for Engineers II. Laplace transformation, partial differential equations, vector analysis. Prerequisite: Mth 232. Class: 3 hours. Credit: 3 semester hours.

431 — Complex Variables. Complex numbers, analytic functions, complex line integrals, Cauchy integral formula and applications. Class: 3 hours. Credit: 3 semester hours.

4315 — Numerical Analysis. Approximations, interpolations, finite differences, numerical integration, curve fitting. Class: 3 hours. Credit: 3 semester hours.

4316 — Numerical Analysis II. Linear and non-linear programming, Monte Carlo methods, queuing theory and theory of games. The course will include the programming of appropriate problems on a high speed digital computer. Class: 3 hours. Credit: 3 semester hours.

4317 — Topics in Advanced Mathematics. Special subjects in higher mathematics to meet the needs of individual students. Class: 3 hours. Credit: 3 semester hours.

433 — Vectors and Matrices. Development of the fundamental properties of vector spaces and matrices. Class: 3 hours. Credit: 3 semester hours.

434 — Partial Differential Equations. General and particular solutions, boundary conditions. Fourier series, Bessel functions, harmonic analysis, numerical solutions, conditions of heat, flow of electricity. Prerequisite: Mth 331. Class: 3 hours. Credit: 3 semester hours.

435 — Introductory Topology. Topological spaces, metric spaces, product spaces, connected spaces, and compact spaces. Open sets, closed sets, neighborhoods, limit points, closure, interior, boundary, continuity, homeomorphism, subspaces, components, and open coverings. Some applications to analysis. Prerequisite: Mth 3311. Class: 3 hours. Credit: 3 semester hours.

437 — Probability and Statistics. An introduction to the theory of probability and statistical inference. Study of random variables of a discrete and of a continuous type. Estimation theory, testing hypotheses, regression, and least square theory. Prerequisite: Mth 232. Class: 3 hours. Credit: 3 semester hours.

438 — Statistical Methods. Concepts of random sampling and statistical inference; estimation and testing hypotheses; regression analysis; analysis of variance. Class: 3 hours. Credit: 3 semester hours.

College of Fine and Applied Arts

Departments: Art, Communication, Music

W. Brock Brentlinger, Ph.D., Dean
Kim Carpenter, Secretary

AIMS AND PURPOSES

In Relation to the University: Within the context of a philosophy that suggests that art may improve upon nature, the College of Fine and Applied Arts provides work on a professional level in several creative disciplines. The College also assumes the role of contributing to the education of the "whole" man; 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 — Fine Arts
   c. Plan III — All Level Teacher Certification
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
7. Bachelor of Science — Communication Major

Descriptions of graduate programs leading to the Master of Music or Master of Music Education degree are included in the Graduate Bulletin.

HUMANITIES (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. 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. Class: 3 hours. Credit: 3 semester hours.

131 — Appreciation of Music and Theater. 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 jazz, 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. Class: 3 hours. Credit: 3 semester hours.

132 — Appreciation of Theater and Art. 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. Class: 3 hours. Credit: 3 semester hours.

231 — Studies in Italian Culture. 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. Class: 2 hours. Laboratory: 4 hours. Credit: 3 semester hours. (LU-Rome only.)

Department of Art

Department Head — Robert C. Rogan. *Professor* — William H. Boughton. *Associate Professors* — Joseph R. Madden, Jerry A. Newman, Robert G. O'Neill. *Instructors* — Billie C. Edwards, Lynne Lokensgard, Ken L. Parker, Conn M. Trussell. *Secretary* — Mrs. LaVerne Gilligan.

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.

Nonmajors may be admitted to art courses by consultation.

Students may minor in art by earning 18 hours of credit approved by the department head.

During the senior year, a candidate for a degree in art will be required to prepare a one-man 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 departmental collection.

Recommended Program 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	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
Mth/Lab Sci/For Lang	3-4	Mth/Lab Sci/For Lang	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 I	3	Art 237—Graphic Design I	3
HPE—Activity	2	HPE—Activity	2
Eng—Literature	3	Free Electives	3
Mth/Lab Sci/For Lang	3-4	Mth/Lab Sci/For Lang	3-4
	17-18		17-18

Third Year

First Semester		Second Semester	
Art 239—Photography I	3	Art 3323—Illustration II	3
Art 3313—Illustration I	3	Art 3343—Graphic Design III	3
Art 3333—Graphic Design II	3	Art His Elective	3
Soph Am His	3	Soph Am His	3
Gov 2321	3	Gov	3
	15		15

Fourth Year

First Semester		Second Semester	
Art 3393—Photography II	3	Art—Studio Elective	3
Art 4333—Problems in Graphic Design	3	Art—Studio Elective	3
Art—Studio Elective	3	Art His Elective	3
Art—Studio Elective	3	Free Electives	9
Art His Elective	3		18
Free Elective	3		
	18		

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	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
Mth/Lab Sci/For Lang	3-4	Mth/Lab Sci/For Lang	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 I	3	Art 236—Art History II	3
HPE—Activity	2	Art 238—Painting I	3
Eng—Literature	3	HPE—Activity	2
Mth/Lab Sci/For Lang	3-4	Mth/Lab Sci/For Lang	3-4
	17-18		17-18

Third Year

First Semester		Second Semester	
Art 3315—Drawing V	3	Art 3325—Drawing VI	3
Art 3316—Watercolor I	3	Art 3327—Painting III	3
Art 3355—Printmaking I	3	Art His Elective	3
Soph Am His	3	Soph Am His	3
Gov 2321	3	Gov	3
	15		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—Studio Elective	3	Art His Elective	3
Art His Elective	3	Free Electives	6
	18		18

Recommended Program of Study

Bachelor of Science — Art

Plan I

This program is designed for those students seeking professional careers 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
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
Hum 131	3	Mth	3
Mth	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	Art 237—Graphic Design I	3
Art 235—Art History I	3	Art 239—Photography I	3
Eng—Literature	3	HPE—Activity	2
HPE—Activity	2	Elective	6
Elective	3		17
	17		

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Third Year*

First Semester		Second Semester	
Art 3313—Illustration I	3	Art 3323—Illustration II	3
Art 3333—Graphic Design II	3	Art 3343—Graphic Design III	3
Soph Am History	3	Soph Am History	3
Mth/Lab Sci/For Lang	3-4	Mth/Lab Sci/For Lang	3-4
Elective	3	Elective	3
	15-16		15-16

Fourth Year

First Semester		Second Semester	
Art 4333—Prob Advt Art	3	Art 4363—Spec Prob	3
Art 4353—Spec Prob	3	Government	3
Gov 2321—Intro Amer Govt	3	Electives	12
Electives	9		
	18		18

Plan II

This program is designed for those students seeking careers in Fine 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
Eng—Composition	3	Art 139—Art Appreciation	3
HPE—Activity	1	Eng—Composition	3
Hum 131	3	HPE—Activity	1
Mth	3	Mth	3
	16		16

Second Year

First Semester		Second Semester	
Art 231—Drawing III	3	Art 234—Sculpture I	3
Art 233—Design III	3	Art 236—Art History II	3
Art 235—Art History I	3	Art 238—Painting I	3
HPE—Activity	2	HPE—Activity	2
Eng—Literature	3	Mth/Lab Sci/For Lang	3-4
Mth/Lab Sci/For Lang	3-4	Elective	3
	17-18		17-18

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Third Year*

First Semester		Second Semester	
Art 3316—Watercolor I	3	Art 3327—Painting III	3
Art 3317—Painting II	3	Soph Am History	3
Art 3355—Printmaking I	3	Electives	9
Soph Am History	3		15
Electives	3		
	15		

Fourth Year

First Semester		Second Semester	
Art—History	3	Art—History	3
Gov 2321—Intro Amer Govt	3	Government	3
Electives	12	Electives	12
	18		18

Plan III

All-Level Certification

Fulfilling the requirements for Plan III qualifies a student for teacher certification in art, all levels.

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
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
Hum 131	3	Mth	3
Mth	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	Eng—Literature	3
Art 235—Art History I	3	HPE—Activity	2
Eng—Literature	3	Science (lab)	4
HPE—Activity	2	Elective	6
Science (lab)	4		18
	18		

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Third Year*

First Semester		Second Semester	
Art 3371—Elementary Art	3	Art 3381—Secondary Art	3
Edu 331—Foundations	3	Edu 334—Child Development	3
Edu 332—Psychology	3	Government	3
Gov 2321—Intro Am Gov	3	Soph Am History	3
Soph Am History	3	Elective	6
Elective	3		18
	18		

Fourth Year

First Semester		Second Semester	
Art 4331 —Crafts Elem Edu	3	Art 4341—Crafts Sec Edu	3
Art 4371—Curr & Inst in Art Ed	3	Edu 463—Stu Teaching	6
Edu 438—Classroom Mngt	3	Electives	6
Electives	6		15
	15		

ART

131 — Drawing I. A beginning course investigating a variety of media, techniques and subjects, exploring perceptual and descriptive possibilities with consideration of drawing as a developmental process as well as an end in itself. Class and Studio: 6 hours. Credit: 3 semester hours.

132 — Drawing II. Prerequisite: Drawing I. Expansion of Drawing I stressing the expressive and conceptual aspects of drawing including the human figure within a spatial environment. Class and Studio: 6 hours. Credit: 3 semester hours.

133 — Design I. Emphasis upon 2-dimensional design; includes the fundamentals of line, color, form, texture, shape, space, and arrangement. Class and Studio: 6 hours. Credit: 3 semester hours.

134 — Design II. Prerequisite: Design I. Continuation of Design I with emphasis upon 3-dimensional concept. Class and Studio: 6 hours. Credit: 3 semester hours.

139 — Art Appreciation. A general education course open to all; design principles from the layman's point of view. Critical evaluation of selected works of painting, sculpture, architecture, industrial design related to everyday life. Class: 3 hours. Credit: 3 semester hours.

231 — Drawing III. Prerequisite: Freshman Studio Core. A life drawing course emphasizing structure and action of the human figure. Class and Studio: 6 hours. Credit: 3 semester hours.

232 — Drawing IV. Prerequisite: Drawing III. A continuation of Drawing III with emphasis on individual expression. Class and Studio: 6 hours. Credit: 3 semester hours.

233 — Design III. Prerequisite: Freshman Studio Core. An advanced investigation into the problems of two-dimensional form with emphasis on individual expression. Class and Studio: 6 hours. Credit: 3 semester hours.

234 — Sculpture I. Prerequisite: Freshman Studio Core. An exploration of the various sculptural approaches in a variety of media including additive and subtractive techniques. Class and Studio: 6 hours. Credit: 3 semester hours.

235 — Art History Survey I. A survey of painting, sculpture, architecture, and the minor arts from prehistoric times to the 14th century. Class: 3 hours. Credit: 3 semester hours.

236 — Art History Survey II. A survey of painting, sculpture, architecture, and the minor arts from the 14th century to the present. Class: 3 hours. Credit: 3 semester hours.

237 — Graphic Design I. Prerequisite: Freshman Studio Core. An introduction to the basic processes and techniques of advertising art. Class and Studio: 6 hours. Credit: 3 semester hours.

238 — Painting I. Prerequisite: Freshman Studio Core. Exploring the potentials of painting media with emphasis on color and composition. Class and Studio: 6 hours. Credit: 3 semester hours.

239 — Photography I. Prerequisite: Freshman Studio Core. An introduction to basic photographic processes and techniques used as an art medium. Class: 2 hours. Laboratory: 4 hours. Credit: 3 semester hours.

3313 — Illustration I. A media course. The preparation and execution of graphic material for reproduction. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3315 — Drawing V. Continuation of drawing. Experimentation with various media and their adaptability to drawing principles. Prerequisite: Art 234 and Art 236. Class and Studio: 6 hours. Credit: 3 semester hours.

3316 — Watercolor I. Study and practice in the planning and execution of paintings in transparent and opaque watercolor. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3317 — Painting II. Continuation of Painting I with emphasis on individual expression. Prerequisite: Art 238. Class and Studio: 6 hours. Credit: 3 semester hours.

3323 — Illustration II. Experimentation with various techniques and/or media. Continuation of Art 3313. Class and Studio: 6 hours. Credit: 3 semester hours.

3325 — Drawing VI. Continuation of Art 3315. Prerequisite: Art 3315. Class and Studio: 6 hours. Credit: 3 semester hours.

3326 — Watercolor II. Continuation of 3316. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3327 — Painting III. Continuation of 3317. Prerequisite: Art 3317. Class and Studio: 6 hours. Credit: 3 semester hours.

3333 — Graphic Design II. The study of basic layout, advertising design and commercial reproduction techniques. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3335 — Crafts. Basic processes of textile design, weaving, leather and jewelry. May be repeated for credit. Prerequisite: Art 234 and Art 236. Class and Studio: 6 hours. Credit: 3 semester hours.

3343 — Graphic Design III. Continuation of Art 3333. Prerequisite: Art 3333. Class and Studio: 6 hours. Credit: 3 semester hours.

3355 — Printmaking I. An introduction to printmaking with an emphasis on intaglio and relief processes. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3365 — Printmaking II. A continuation of Art 3355 with emphasis on planographic and serigraphic techniques. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3371 — Elementary Art Education. Contemporary concepts of art in the elementary

school program. Experience with a variety of techniques and media appropriate for the elementary classroom teacher. Class and Studio: 6 hours. Credit: 3 semester hours.

3375 — Sculpture II. Application of the principles of sculpture through experiment in clay, plaster, and various materials. May be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

3376 — Pottery I. Investigation and practice in pottery construction: throwing and hand-building. May be repeated for credit. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3381 — Secondary Art Education. Problems involved in building a significant art program for the contemporary secondary school; studio experience with techniques and media appropriate for the secondary school. Class and studio: 6 hours. Credit: 3 semester hours.

3386 — Pottery II. Opportunities for specialization in ceramic processes. May be repeated for credit. Prerequisite: Art 3376. Class and Studio: 6 hours. Credit: 3 semester hours.

3393 — Photography II. Advanced study of photography as an art medium. Prerequisite: Art 239. Class: 2 hours. Laboratory: 4 hours. Credit: 3 semester hours.

4315 — Drawing VII. Specialized problems in studio area. May be repeated for credit. Prerequisite: Art 232. Class and Studio: 6 hours. Credit: 3 semester hours.

4316 — Painting IV. Specialized problems in studio area. May be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

4325 — Drawing VIII. A continuation of Drawing VII. Prerequisite: Art 3325. Class and Studio: 6 hours. Credit: 3 semester hours.

4326 — Painting V. A continuation of Painting IV. May be repeated for credit. Prerequisite: Art 4316. Class and Studio: 6 hours. Credit: 3 semester hours.

4331 — Crafts Elementary Education. An introduction to various craft materials and techniques used in the elementary school. Prerequisite: Art 3371. Course may be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

4333 — Problems in Graphic Design. Further study of commercial art techniques and typography. Prerequisite: Art 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

4338 — Renaissance Art. Study of fifteenth and sixteenth century art in the western world. Class: 3 hours. Credit: 3 semester hours.

4341 — Crafts Secondary Education. An introduction to the various craft materials and techniques used in the secondary school. Prerequisite: Art 3381. Course may be taken over for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

4353 — Special Problems in Graphic Design I. Investigation of problems, methods and other considerations relevant to designing an advertising campaign. Prerequisite: Art 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

4355 — Printmaking III. Specialized problems in studio area. May be repeated for credit. Prerequisite: Art 3365. Class and Studio: 6 hours. Credit: 3 semester hours.

4358 — American Art. The development of painting, sculpture, and architecture in the United States from Colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

4363 — Special Problems in Graphic Design II. Continuation of 4353. Prerequisite: Art 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

4368 — Contemporary Art. A historical and critical analysis of painting, sculpture and architecture in Europe and the Americas from 1900 to the present. Class: 3 hours. Credit: 3 semester hours.

4371 — Curriculum and Instruction in Art Education. Problems in selecting, evaluation and guiding art activities; reading, discussion and lectures dedicated toward research of past and contemporary art educators. Study of children's development in art as background for teaching. Class: 3 hours. Credit: 3 semester hours.

4373 — Field Study in Graphic Design. Familiarization with the overall commercial art field through actual experience. Students will be placed in various studios, agencies and/or associated business in order to encounter and handle numerous problems, techniques and media involved in the commercial and art field through actual working experience. Time to be arranged, 6 hours per week. Permission of Department Head and Instructor. Credit: 3 semester hours.

4375 — Sculpture III. Specialized problems in studio areas. May be repeated for credit. Prerequisite: Art 3375. Class and Studio: 6 hours. Credit: 3 semester hours.

4376 — Pottery III. Specialized problems in studio area. May be repeated for credit. Prerequisite: Art 3376. Class and Studio: 6 hours. Credit: 3 semester hours.

4378 — Ethnic Art. A study of the development and nature of ethnic art, designed to recognize the formative influences of social backgrounds to present the artistic life of the communities and to analyze the aesthetic forms of their art. Class: 3 hours. Credit: 3 semester hours.

4381 — Problems: Art Education. Individual projects to be completed under faculty supervision. Prerequisite: Art 4371. Class and Studio: 6 hours. Credit: 3 semester hours.

4391 — Directed Individual Study. Directed individual study of a specialized area within the art education field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

4393 — Directed Individual Study. Directed individual study of a specialized area within the commerical art field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

4395 — Directed Individual Study. Directed individual study of a specialized area within the fine arts field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

Department of Communication

Department Head — DeWitte T. Holland. *Professors* — Robert F. Achilles, W. Brock Brentlinger, S. Walker James. *Associate Professors* — Arnold C. Anderson, Jewel D. Blanton, W. Patrick Harrigan, III, Olen Pederson. *Assistant Professors* — Mary Alice Baker, Vera Hays Campbell, White A. Jacob, Robert Moulton, Robert H. Wilkerson. *Instructors* — Jerry Hudson, Betty Winney. *Secretaries* — Margaret Trussell, Olga Nelson.

The Department of Communication has four plans of study under either the B.S. or the B.A. degree. Secondary teacher certification is offered in Speech, Drama, or Journalism under Plan I. All level Speech and Hearing Therapy teacher certification is offered under Plan II. Plan III qualifies one for certification to teach Deaf Education. 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 oral communicative process may be considered for communication credit in a degree of the department.

The Mass 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 Prelaw foundation for special degree programs described earlier under Degree Requirements. See the head of the Communication Department for details.

Elementary Education academic specializations are offered in both speech and drama. Consult the head of the Elementary Education or Communication Department for details.

Recommended Program 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	
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
Lab Science	4	Lab Science	4
Mth	3	Mth	3
Major—Required	6	Major—Required	3
	—	Hum 130	3
	17		—
			17

Second Year

First Semester		Second Semester	
Eng—Literature	3	Eng—Literature	3
His—United States (soph)	3	His—United States (soph)	3
HPE—Activity	1	HPE—Activity	1
Major—Required	6	Major—Required	3
Electives	3	Electives	6
	16		16

Third Year

First Semester		Second Semester	
Edu 331—Foundations	3	Edu 338—Cur and Mat	3
Edu 332—Edu Psy	3	Gov 2322, 2323, 2324, or 2325	3
Gov 2321	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 Mgmt	3	Edu 462—Student Teaching	6
Major—Adv	3	Teaching Field Two and/or Electives	6
Teaching Field Two and/or Electives	12		12
	18	Total	132

Teacher's certificate is available in either Speech, Theater (Drama), and Journalism under Plan I.

Courses included under Public Address specialization are as follows: 132, 133, 235, 238, 434, 438, 439, plus three advanced hours. In addition, 131, 222 and The 233 are degree requirements.

Courses included under Theater specialization are as follows: Spc 133, 233, 235, 237, 334, 335, 437, plus three advanced Theater hours. In addition, Spc 131 and 132 are degree requirements.

Courses included under Journalism specialization are Com 131, 132, 231, 232, 3381, 3383, 431 and 432. In addition, Spc 131 is a degree requirement.

Plan II (For those who wish to qualify for a teacher's certificate in Speech and Hearing Therapy — all levels)

First Year

First Semester		Second Semester	
Bio 141	4	Bio 142	4
Eng—Composition	3	Hum 130, 131 or 132	3
HPE—Activity	1	Eng—Composition	3
Mth	3	HPE—Activity	1
Spc 131	3	Mth	3
Spc 133—Voice and Phonetics	3	Spc 134—Spc Cor A Survey	3
	17		17

Second Year

First Semester		Second Semester	
Eng—Literature	3	Eng—Literature	3
His—U.S. (soph)	3	His—U.S. (soph)	3
HPE—Activity	1	HPE—Activity	1
Spc 230—Articulation: P. and T.	3	Spc 232—Language: P. and T.	3
Spc 231—Audiology	3	Elective	6
Elective	3		16
	16		

Third Year

First Semester		Second Semester	
Edu 331—Foundation	3	Bio 332—Anat and Physical Spc and Hrng	3
Edu 332—Edu Psy	3	Edu 3301—Edu Excpt Child	3
Gov 2321	3	Edu 334—Child Dev & Eval	3
Psy 234—Child	3	Gov 2322, 2323, 2324 or 2325	3
Spc 339—Beg Clinical Practice	3	Spc 3391—Spc Read and Trng	3
Elective	3	Elective	3
	18		18

Fourth Year

First Semester		Second Semester	
Edu 434—Classroom Mgmt	3	Edu 463—Student Teaching	6
Phy 338—Individual Testing	3	Phy 337—Adjustment	3
Spc 435—Spc and Lang Disorders	3	Spc 432—Psy of Spc and Lang	3
Electives	9		12
	18	Total	132

Plan III (For those who desire to qualify for a teacher's certificate in education of the deaf)

First Year

First Semester		Second Semester	
Bio 141	4	Bio 142	4
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
Mth	3	Mth	3
Spc 133	3	Spc 134	3
Psy 131	3	Hum 130, 131 or 132	3
	17		17

Second Year

First Semester		Second Semester	
Eng—Literature	3	Eng—Literature	3
His—United States (soph)	3	His—United States (soph)	3
HPE—Activity	1	HPE—Activity	1
Psy 234—Child	3	Psy 337—Adjustment	3
Spc 136—Norm Lang Dev	3	Spc 239—Lang for Deaf	3
Spc 231—Audiology	3	Electives	3
	16		16

Third Year

First Semester		Second Semester	
Edu 331—Foundations	3	Bio 332—Anat and Physiology Spc and Hrng	3
Edu 332—Edu Psy	3	Edu 3301—Edu Excpt Child	3
Gov 2321	3	Gov 2322, 2323, 2324 or 2325	3
Spc 3392—Spc for Deaf	3	Spc 3391—Spc Read Aud Trng	3
Electives	6	Edu 334—Child Dev and Eval	3
	18	Electives	3
			18

Fourth Year

First Semester		Second Semester	
Edu 434—Classroom Mgmt	3	Edu 463—Student Teaching	6
Edu 334—Arith in Elem	3	Spc 4321—Adv Lang	3
Edu 339—Read in Elem	3	Spc 4332—Adv Spc	3
Edu 437—Sci and Soc Stud	3		12
Edu 433—Media and Audio Visual	3	Total	132
Spc 339—Clinic (Deaf)	3		
	18		

Plan IV (For those not desiring the teacher's certificate)
This degree plan is designed for those wishing to emphasize mass 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, of course, essentially the same as Plan I. Students interested in concentrating in any of these areas of study apart from teacher certification, should contact the departmental chairman for further assistance. This plan requires 124 semester hours. May serve as preprofessional training for the field of law.

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.

Bachelor of Science — Mass 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 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, 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.

First Year

First Semester		Second Semester	
English Composition	3	English Composition	3
Laboratory Science	4	Laboratory Science	4
Speech 131	3	Economics 233	3
Communication 131	3	Communication 132	3
Hum 130, 131 or 132	3	CS 133	3
HPE—Activity	1	HPE—Activity	1
	17		17

Second Year

First Semester		Second Semester	
English Literature	3	Speech 235	3
Mathematics/Science	3-4	Mathematics	3
History (Soph) U.S.	3	Government 2322, 2323, 2324 or 2325	3
Government 2321	3	History Soph (U.S.)	3
Communication 231	3	Major Elective	3
HPE	1	HPE	1
	16-17		16

Third Year

First Semester		Second Semester	
Communication 234	3	Communication 3383	3
Foundation elective	3	Foundation elective	3
Communication 431	3	Major electives	6
English 4326, Com 231 R or Com 333	3	Foundation elective	3
Foundation elective	3		15
	15		

Fourth Year

First Semester		Second Semester	
Foundation elective	6	Major electives	7
Major elective	3	General electives	8
General electives	6		15
	15	Total	124

COMMUNICATION (Com)

131 — Introduction to Mass Communication. A study of mass communication and the media involved in the dissemination of news. Emphasis is given to methods of gathering, writing, and presenting the news by newspapers, magazines, and other media. Class: 3 hours. Credit: 3 semester hours.

132 — Introduction to Mass Communication. A continuation of Communication 131, with detailed study of newspapers, television and radio, magazines, book publishing, motion pictures, advertising, public relations and mass communication research. Class: 3 hours. Credit: 3 semester hours.

231 — News Reporting. 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. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

232 — Editing and Copyreading. The development and use of printing, type recognition, type harmony, preparing editorial material, writing headlines, and correcting copy. Prerequisite: Com 231. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

234 — Introduction to Broadcasting. A general introduction to the field of broadcasting, including a study of station and network organization and control by law and societal forces. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

2341 — Principles of Broadcast Production. 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. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3234 — Practice in Communication. Individually directed laboratory experience in an actual setting demanding the use of the communication techniques. 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. Laboratory: 4 hours. Credit: 2 semester hours.

333 — Advanced Journalism Writing. An advanced journalism writing course focusing on skills required for sports, human interest, feature, editorial and specific subject area columns and programs for mass media. Prerequisite: Com 231 or equivalent. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

338 — Advanced Broadcast Production. Activities in writing, acting, directing, producing, announcing, and engineering various types of broadcast productions. Prerequisite: Com 234 or 2341 or consent of instructor. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3381 — Photo Journalism. The course is designed to provide students with a basic understanding of the principles of photography applied to the specific area of photojournalism. Included is basic photo-theory, darkroom laboratory practices and typical photo-journalistic assignments of the picture story type. No experience is required, but each student must have a 35 mm adjustable camera and a developing tank. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3382 — Cinematography. 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. Offered Spring only. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3383 — Introduction to Advertising. A study of advertising theory and techniques in relation to the economic and social order and the organization and management of advertising and its relationship to the marketing process. Class: 3 hours. Credit: 3 semester hours.

431 — Laws and Ethics of the Mass Media. A study of the responsibilities of the media, including ethical responsibilities to news sources, persons in the news, readers and employers and legal rights and restrictions. Class: 3 hours. Credit: 3 semester hours.

432 — History and Principles of American Journalism. 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. Class: 3 hours. Credit: 3 semester hours.

438 — Broadcast News. Study and practice in developing news for broadcasting. Various types of news material, including the documentary, its procurement and presentation. Practical experience in production of news for broadcast utilizing campus broadcast facilities. Prerequisite: Com 234 or consent of instructor. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

SPEECH (Spc)

131 — Speech Communication. A study of speech communication theory and practice focusing on the intrapersonal and interpersonal models as a basis for application in other settings. Emphasis upon development of the student's skill as a speaker-listener in the speech process. Class: 3 hours. Credit: 3 semester hours.

1311 — Voice, Vocabulary, and Pronunciation. Vocal development, vocabulary building, and pronunciation skills through systematic analysis and drill. Class: 3 hours. Credit: 3 semester hours.

132 — Fundamentals of Public Speaking. A study in the theory, criticism and practice of extemporaneous public speaking. Class: 3 hours. Credit: 3 semester hours.

133 — Voice and Phonetics. Phonetic transcription, regional and foreign dialects, and application of phonetic study to speech correction. Class: 3 hours. Credit: 3 semester hours.

134 — Speech Correction: A Survey. An introduction to the study of speech correction. A survey of the defects of speech with particular emphasis on articulation defects and voice problems. Class: 3 hours. Credit: 3 semester hours.

136 — Normal Language Development. A study of the normal developmental processes in children. Class: 3 hours. Credit: 3 semester hours.

222 — Forensic Activity. 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. Permission of instructor required. Laboratory: 4 hours. Credit: 2 semester hours.

230 — Articulation: Pathology and Therapy. A technical and professional course in the causes, nature, symptoms and rehabilitation of articulatory disorders. Prerequisite: Speech 134. Class: 3 hours. Credit: 3 semester hours.

231 — Audiology. Study of the human ear and its abnormalities. Administration and interpretation of hearing tests, clinical observation. Class: 3 hours. Credit: 3 semester hours.

232 — Language: Pathology and Therapy. A technical and professional course in the causes, nature, symptoms and rehabilitation of language disorders in children. Class: 3 hours. Credit: 3 semester hours.

235 — Oral Interpretation of Literature. Instruction and practice in the principles of speech applied to performance in the interpretation of prose and poetry. Class: 3 hours. Credit: 3 semester hours.

238 — Oral Controversy. A study of evidence and reasoning and a critique of them as reflected in current public affairs. Class: 3 hours. Credit: 3 semester hours.

2381 — Black Rhetoric. Significant oral contributions to the Black quest for full citizenship from Colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

239 — Language for the Deaf. Survey of systems of teaching language development in the nursery and pre-school age child. Class: 3 hours. Credit: 3 semester hours.

331 — Business and Professional Speech. Application of the fundamentals of speech production to the needs of the professional man or woman. Practice in gathering and organizing material for speeches for special occasions. Emphasis is given to extemporaneous speaking, conferences and discussion group speaking, and report presentations. Class: 3 hours. Credit: 3 semester hours.

332 — Discussion. Communication theory of group processes. Practice in group problem solving. Class: 3 hours. Credit: 3 semester hours.

333 — Interpretation of Children's Literature. Study of materials for different ages of children; sources of program material, practice in adapting material into programs; practice in presenting programs in laboratory and in nearby schools, hospitals and homes. Class: 3 hours. Credit: 3 semester hours.

337 — Advanced Oral Interpretation of Literature. Instruction and practice in the principles of speech applied to performance in the interpretation of dramatic literature. Class: 3 hours. Credit: 3 semester hours.

339 — Clinical Practice in Speech and Hearing/or Deaf Therapy. Diagnostic, therapeutic, and directed teaching in both individual and classroom situations. Course may be taken four times with emphasis in Speech and Hearing and/or Deaf Education. One hour of clinical practice per week per credit hour. Prerequisite: Speech Therapy 230 or Deaf Education 239. Credit: 3 semester hours.

3391 — Speech Reading and Auditory Training. Techniques of teaching speech reading to deaf children and deafened persons. Class: 3 hours. Credit: 3 semester hours.

3392 — Speech for the Deaf. Study of various methods of developing speech in the young deaf child. Class: 3 hours. Credit: 3 semester hours.

3393 — Manual Communication. Study of finger spelling and the language of signs in developing total communication in deafened children and adults. Prerequisite: Permission of instructor. Class: 3 hours. Credit: 3 semester hours.

430 — Problems and Projects in Speech. These problems are discussed and analyzed through discussion and research. Each student elects a project or problem on which he does extensive research and presents a report to the department faculty. Credit: 3 semester hours. Course may be repeated once for credit.

432 — Psychology of Speech and Language. A study of factors interfering with speech and language development. Emphasis is on group behavior modification. Class: 3 hours. Credit: 3 semester hours.

4321 — Advanced Language for the Deaf. Principles and techniques for systematic development of language from first through sixth grades. Class: 3 hours. Credit: 3 semester hours.

4322 — Advanced Speech for the Deaf. Designed to study problems of speech development along with maintaining intelligible speech. Class: 3 hours. Credit: 3 semester hours.

4324 — Advanced Audiology. Assessment of the auditory function by special test techniques including speech audiometry. Class: 3 hours. Credit: 3 semester hours.

4325 — Instrumentation. A study of the behavior of sound waves, basic recording and analysis of sound, use and maintenance of equipment used in speech and hearing clinics or for research projects. Credit: 3 semester hours.

4393 — Intermediate Manual Communication. Stresses moderately complex manual communication skills which must be demonstrated by the student in actual situations with manual deaf adults. Class: 3 hours. Credit: 3 semester hours.

434 — Persuasion. 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. Class: 3 hours. Credit: 3 semester hours.

435 — Advanced Speech and Language Disorders. A survey of the causes, nature, symptoms, and rehabilitation of communications disorders other than articulation and language development. Class: 3 hours. Credit: 3 semester hours.

437 — Italian Rhetoric. A study of classical, medieval, and Renaissance principles and practices in Italian Rhetoric as contributing factors to contemporary American rhetoric. Class: 3 hours. Credit: 3 semester hours. (LU-Rome only.)

438 — Directing Secondary School Speech Activities. Principles involved in extracurricular activities such as debate, extemporaneous speaking, radio and television. Practical experience with workshop students constitutes a part of this course. (Offered in Spring terms only). Credit: 3 semester hours.

439 — Rhetoric and Public Address. A study and analysis of some of the world's great speeches with application of the principles of original speeches of special types. Class: 3 hours. Credit: 3 semester hours.

THEATER (The)

135 — Children's Theater. Instruction and practice in the beginning principles of theater as applied to plays for children's audiences. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

2260 — Musical Comedy. 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. Laboratory: 6 hours. Credit: 2 semester hours.

233 — Introduction to Theater. A general survey of the major fields of theater art. For students who have a limited theatrical experience or knowledge. Emphasis on the various types and styles of plays, elementary theory and practice of acting and directing, basic principles of voice development, movement and interpretation for the stage. An introduction of technical production: methods of construction and handling of scenery, elementary problems in scene design, stage lighting, costume and costume design. Participation in major production. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

237 — Acting. Detailed study of characterization and styles of acting through class assignments of individuals and group scenes. Course may be taken twice for credit. Class: 2 hours. Laboratory: 3 hours and participation in department productions. Credit: 3 semester hours.

334 — Stagecraft. To give the student a theoretical and working knowledge of the crafts of the theater; designing, building, and handling of scenery, technical plotting of scenery; lighting the stage; physical requirements of a theater; nomenclature of the crafts of theater. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

335 — Directing. To give the student a background knowledge in directing from the viewpoint of the interpreter, the planner, the organizer, the businessman, the technician, the actor, the psychologist, and the artist with specific problems in directing scenes from plays. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

336 — Creative Dramatics. Instruction in the methods of introducing creative projects related to the development of creative play-making in the home, community, and school. Class: 3 hours. Credit: 3 semester hours.

3360 — Advanced Children's Theater. Instruction and practice in advanced principles of theater as applied to plays for children's audiences. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

431 — Problems and Projects in Theater. Students will perform activities in one of the following areas: acting, directing, producing, designing, and constructing costumes and stage settings for the school theater. Credit: 3 semester hours. Course may be repeated once for credit. By prior permission only.

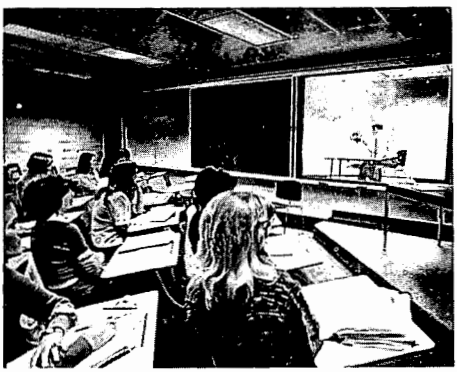
4311 — Theory and Practice of Scenery and Lighting Design. Study and practice of the principles and techniques of stage scenery and lighting design with an emphasis on coordinating the two. Prerequisite: Theater 334. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

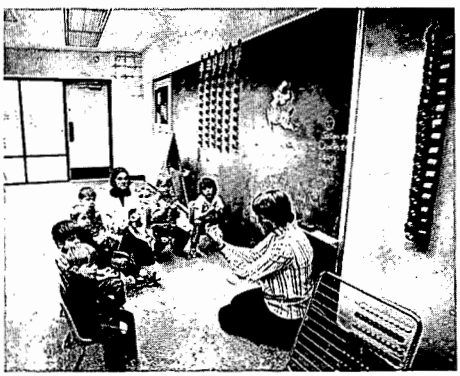
4312 — Costume Design and Construction. Study and practice of the principles and techniques of stage scenery and lighting design with an emphasis on coordinating the two. Prerequisite: Speech 334. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

436 — History of Theater. A survey of theater from 5th Century B.C. to the present day, with emphasis on methods and styles of presentation. Class: 3 hours. Credit: 3 semester hours.

437 — Directing Secondary School Theater Activities. Principles involved in extracurricular theater activities. Practical experience with workshop students constitutes a part of this course. (Offered in Spring terms only.) Credit: 3 semester hours.

438 — History of Theater in Italy. A survey of important contributions which Italy has made to world theater from the third century B.C. to the present, with emphasis on the influence these contributions have had on the theaters of other countries especially English-speaking countries. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours. (LU-Rome only.)





Department of Music

Department Head — George L. Parks. *Professors* — Joseph Carlucci, Hubert Kaszynski, Charles A. Wiley. *Associate Professors* — Edna M. Brooks, Paul W. Holmes, Joseph Truncale. *Assistant Professors* — Mary French Barrett, J. N. Collier, Katherine Elsey, John LeBlanc. *Instructors* — L. Randolph Babin, Robert M. Culbertson, Raul Ornelas, James Simmons, James Swain. *Secretary* - Delores Black. *Accompanist* — George Beverley.

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.
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 Program 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	3	MTy 133	3
MLt 121	2	MLt 122	2
English (Composition)	3	English (Composition)	3
HPE	1	HPE	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, or Foreign Language)	4	Elective (Math, Science, or Foreign Language)	4
	17		17

Second Year

First Semester		Second Semester	
AM 2283	2	AM 2284	2
MLb—Band, Choir, Orchestra	1	MLb—Band, Choir, Orchestra	1
MTy 232	3	MTy 233	3
English (Literature)	3	Elective (non-music)	3
Sophomore American History	3	Sophomore American History	3
Gov 2321	3	Sophomore American Government	3
HPE	1	HPE	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	2	MTy 322	2
MLt 333	3	MLt 334	3
MLb 114—Repertoire & Pedagogy	1	MLb 114—Repertoire & Pedagogy	1
Elective (Math, Science, or Foreign Language)	4	Elective (Math, Science, or Foreign Language)	4
Elective (Humanities 132)	3	Elective (non-music)	3
	18		18

Fourth Year

First Semester		Second Semester	
AM 4483	4	AM 4484	4
MLb—Band, Choir, Orchestra	1	MLb—Band, Choir, Orchestra	1
MTy 421	2	MTy 422	2
MLt 336 or MLt 337	3	MEd 337 or MEd 338	3
MTy 425	2	MLb 114—Repertoire & Pedagogy	1
Music Elective	2	Music Elective	2
MLb 114—Repertoire & Pedagogy	1		13
	15		

Total 132

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	3	MTy 133	3
MLb 122—Orchestra	2	MLb 122—Orchestra	2
MLt 121	2	MLt 122	2
English (Composition)	3	English (Composition)	3
HPE	1	HPE	1
Elective (Math, Science, or Foreign Language)	4	Elective (Math, Science, or Foreign Language)	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
Chamber Music Elective	1	Chamber Music Elective	1
MTy 232	3	MTy 233	3
MLb 122—Orchestra	2	MLb 122—Orchestra	2
Sophomore American History	3	Sophomore American History	3
Elective (non-music)	3	Elective (Humanities 132)	3
HPE	1	HPE	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	3	MLt 334	3
Gov 2321	3	Sophomore American Government	3
Elective (Math, Science, or Foreign Language)	3	Elective (Math, Science, or Foreign Language)	3
MTy 321	2	MTy 322	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	3	MEd 338	3
MTy 421	2	MTy 422	2
Chamber Music Elective	1	Chamber Music Elective	1
Elective (non-music)	2	Elective (non-music)	2
	15		15

Total 132

Instrumental (Wind and Percussion)

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	3	MTy 133	3
MLb 124—Marching Band	2	MLb 125—Symphonic/Concert Band	2
MLt 121	2	MLt 122	2
Music Elective	1	Music Elective	1
English (Composition)	3	English (Composition)	3
Elective (Math, Science, or Foreign Language)	4	Elective (Math, Science, or Foreign Language)	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
MTy 232	3	MTy 233	3
Music Elective	1	Music Elective	1
MLb 124—Marching Band	2	MLb 125—Symphonic/Concert Band	2
Sophomore American History	3	Sophomore American History	3
English (Literature)	3	Elective (non-music)	3
Elective (non-music)	2	Elective (non-music)	2
	17		17

Third Year

First Semester		Second Semester	
AM—Major Instrument	4	AM—Major Instrument	4
MLb 114—Repertoire & Pedagogy	1	MLb 114—Repertoire & Pedagogy	1
MLt 333	3	MLt 334	3
Chamber Music Ensemble	1	Chamber Music Ensemble	1
MTy 321	2	MTy 322	2
MLb 124—Marching Band	2	MLb 125—Symphonic/Concert Band	2
Gov 2321	3	Sophomore American Government	3
Elective (Math, Science, or Foreign Language)	3	Elective (Math, Science, or Foreign Language)	3
	19		19

Fourth Year

First Semester		Second Semester	
AM—Major Instrument	4	AM—Major Instrument	4
MLb 114—Repertoire & Pedagogy	1	MLb 114—Repertoire & Pedagogy	1
MLt 337	3	MEd 338	3
MTy 421	2	MTy 425	2
MLb 124—Marching Band	2	MLb 125—Symphonic/Concert Band	2
Elective (Humanities 132)	3	Elective (non-music)	3
	15		15
		Total	140

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	2	MLt 122	2
MTy 132	3	MTy 133	3
English (Composition)	3	English (Composition)	3
HPE	1	HPE	1
Elective (Math, Science, or Foreign Language)	4	Elective (Math, Science, or Foreign Language)	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
Chamber Music Elective	1	Chamber Music Elective	1
MTy 232	3	MTy 233	3
English (Literature)	3	Elective (non-music)	3
Sophomore American History	3	Sophomore American History	3
Elective (non-music)	3	Elective (non-music)	3
HPE	1	HPE	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
Chamber Music Elective	1	Chamber Music Elective	1
MTy 321	2	MTy 322	2
MLt 333	3	MLt 334	3
Gov 2321	3	Sophomore American Government	3
Elective (Math, Science, or Foreign Language)	4	Elective (Math, Science or Foreign Language)	4
	19		19

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	2	MTy 422	2
MLt 336 or MLt 337	3	MEd 337 or MEd 338	3
Elective (Humanities 132)	3	Elective (non-music)	3
	14		14

Total 138

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—Choir	1	MLb—Choir	1
MTy 132	3	MTy 133	3
MLt 121	2	MLt 122	2
English (Composition)	3	English (Composition)	3
Italian	4	German	4
HPE	1	HPE	1
	18		18

Second Year

First Semester		Second Semester	
AM 2281	2	AM 2282	2
MLb 114—Repertoire & Pedagogy	1	MLb 114—Repertoire & Pedagogy	1
MLb—Choir	1	MLb—Choir	1
MTy 232	3	MTy 233	3
Spc. 133	3	English (Literature)	3
French	4	Elective (Math, Science, or Foreign Language)	4
Sophomore American History	3	Sophomore American History	3
HPE	1	HPE	1
	18		18

Third Year

First Semester		Second Semester	
AM 3481	4	AM 3482	4
MLb 114—Repertoire & Pedagogy	1	MLb 114—Repertoire & Pedagogy	1
MLb—Choir	1	MLb—Choir	1
MLb 210	1	MLb 210	1
MTy 321	2	MTy 322	2
MLt 336	3	MEd 337	3
MLt 333	3	MLt 334	3
	15		15

Fourth Year

First Semester		Second Semester	
AM 4481	4	AM 4482	4
MLb 114—Repertoire & Pedagogy	1	MLb 114—Repertoire & Pedagogy	1
MLb—Choir	1	MLb—Choir	1
MLb 210	1	MLb 210	1
MTy 421	2	MTy 422	2
Gov 2321	3	Sophomore American Government	3
Elective (Humanities 132)	3	Elective (non-music)	3
	15		15

Total 132

Bachelor of Music in Music Education

The Bachelor of Music in Music Education may be earned by following the certification program with the Bachelor of Science degree plus those courses required from the Bachelor of Music.

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 1311	3	Mth 1313	3
AM—Major Instrument	2	AM—Major Instrument	2
AM 1143	1	MLt 122	2
MLt 121	2	MTy 133	3
MTy 132	3	MLb 125	2
HPE or MLb 124	2	Science (Laboratory)	4
Science (Laboratory)	4		19
	20		

Second Year

First Semester		Second Semester	
English (Literature)	3	English (Literature)	3
Sophomore American History	3	Sophomore American History	3
Gov 2321	3	Sophomore American Government	3
AM—Major Instrument	2	AM—Major Instrument	2
MTy 232—Advanced Harmony	3	MTy 233—Advanced Harmony	3
Elective (non-music)	3	Elective (non-music)	3
HPE or MLb 124	2	MLb 125	2
	19		19

Third Year

First Semester		Second Semester	
Edu 331	3	Edu 334	3
Edu 332	3	AM—Major Instrument	2
AM—Major Instrument	2	MEd 312	1
MEd 311	1	MLt 334	3
MLt 333	3	MEd 338	3
MEd 336	3	MEd 315	1
MEd 317	1	MTy 322	2
MTy 321	2	MEd 313-314	2
HPE or MLb 124	2	MLb 125	2
	20		19

Fourth Year

First Semester		Second Semester	
Edu 438	3	Edu 463	6
MTy 421	2	MTy 425 or 422	2
AM—Major Instrument	2	AM—Major Instrument	2
Elective (Music)	1	MLb 125	2
Elective (non-music)	4	MEd 412	1
MEd 411	1		13
HPE or MLb 124	2	Total	144
	15		

The six elective hours must be chosen from the academic foundations groups.

Piano and Organ Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
HPE	1	HPE	1
AM 1183	1	AM 1184	1
AM 1241	2	AM 1242	2
MLb—Choir or Orchestra	1	MLb—Orchestra or Choir	1
MLt 121	2	MLt 122	2
MTy 132	3	MTy 133	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
HPE	1	HPE	1
AM 2241	2	AM 2242	2
MLb—Choir or Orchestra	1	MLb—Choir or Orchestra	1
MLb 210	1	MLt 213	1
Mth 1311	3	Mth 1313	3
MTy 232	3	MTy 233	3
	17		17

Third Year

First Semester		Second Semester	
Edu 331	3	Edu 334	3
Edu 332	3	AM 3242	2
AM 3241	2	MEd 332	3
MEd 331	3	MEd 337	3
MEd 335	3	MLb—Choir or Orchestra	1
MLb—Choir or Orchestra	1	MLt 334	3
MLt 333	3	MTy 322	2
MTy 321	2	Elective (non-music)	3
	20		20

Fourth Year

First Semester		Second Semester	
Edu 438	3	Edu 463	6
Gov 2321	3	Sophomore American Government	3
AM 4241	2	AM 4242	2
MLb—Choir or Orchestra	1	MLb—Choir or Orchestra	1
Elective (non-music)	3		12
	12	Total	132

The six elective hours must be chosen from the academic foundations 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 1311	3	Mth 1313	3
Science (Laboratory)	4	Science (Laboratory)	4
MLt 121	2	MLt 122	2
MTy 132	3	MTy 133	3
AM—Major Instrument	2	AM—Major Instrument	2
MLb 122	2	MLb 122	2
HPE	1	HPE	1
	20		20

Second Year

First Semester		Second Semester	
English (Literature)	3	English (Literature)	3
Sophomore American History	3	Sophomore American History	3
Gov 2321	3	Sophomore American Government	3
MTy 232	3	MTy 233	3
MEd 313 or 314	1	AM—Violin or Cello	2
AM—Major Instrument	2	AM—Major Instrument	2
MLb 122	2	MLb 122	2
HPE	1	HPE	1
	18		19

Third Year

First Semester		Second Semester	
Edu 331	3	Edu 334	3
Edu 332	3	MEd 338	3
MEd 311	1	MLt 334	3
MEd 336	3	MTy 322	2
MLt 333	3	AM—Major Instrument	2
MTy 321	2	MLb 122	2
AM—Major Instrument	2	AM 1143	1
MLb 122	2	Elective (music)	2
	19		18

Fourth Year

First Semester		Second Semester	
Edu 438	3	Edu 463	6
MEd 411	1	MTy 422	2
MEd 332	3	AM—Major Instrument	2
MTy 421	2	MLb 122	2
AM—Major Instrument	2	Elective (non-music)	3
Elective (non-music)	3		
MLb 122	2		15
	16	Total	145

The six elective hours must be chosen from the academic foundations groups.

Theory and Composition Major

First Year

First Semester		Second Semester	
English (Composition)	3	English (Composition)	3
Mth 1311	3	Mth 1313	3
Science (Laboratory)	4	Science (Laboratory)	4
AM—Major Instrument	2	AM—Major Instrument	2
MTy 132	3	MTy 133—Elementary Harmony	3
MLt 121	2	MLt 122—Music Principles	2
MLb—Band, Chorus, Orchestra	1	MLb—Band, Chorus, Orchestra	1
HPE	1	HPE	1
	19		19

Second Year

First Semester		Second Semester	
English (Literature)	3	English (Literature)	3
Sophomore American History	3	Sophomore American History	3
Gov 2321	3	Sophomore American Government	3
AM 1241	2	AM 1242	2
MTy 232	3	MTy 233	3
MLb—Band, Chorus, Orchestra	1	MLb—Band, Chorus, Orchestra	1
HPE	1	HPE	1
	16	Elective (non-music)	3
			19

Third Year

First Semester		Second Semester	
Edu 331	3	Edu 334	3
Edu 332	3	AM 3284	2
AM 3283	2	MTy 322	2
MTy 321	2	MEd 337 or 338	3
MEd 335 or 336	3	MLt 334	3
MLt 333	3	MTy 425	2
MEd 331	3	MLb—Band, Chorus, Orchestra	1
MLb—Band, Chorus, Orchestra	1	Elective (music)	1
	20		17

Fourth Year

First Semester		Second Semester	
Edu 438	3	Edu 463	6
MEd 332	3	MTy 422	2
MTy 421	2	AM 4284	2
AM 4283	2	Elective (non-music)	3
Elective (music)	1	MLb—Band, Chorus, Orchestra	1
MLb—Band, Chorus, Orchestra	1		14
	12	Total	136

The six elective hours must be chosen from the academic foundations 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
HPE	1	HPE	1
AM 1143	1	AM 1143	1
AM 1281	2	AM 1282	2
MLb—Choir	1	MLb—Choir	1
MLt 121	2	MLt 122	2
MTy 132	3	MTy 133	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
HPE	1	HPE	1
AM 2281	2	AM 2282	2
MLb—Choir	1	MLb—Choir	1
MLb 210	1	MLb 210	1
Mth 1311	3	Mth 1313	3
MTy 232	3	MTy 233	3
	17		17

Third Year

First Semester		Second Semester	
Edu 331	3	Edu 334	3
Edu 332	3	AM 3282	2
AM 3281	2	MEd 332	3
MEd 331	3	MEd 337	3
MEd 335	3	MLb—Choir	1
MLb—Choir	1	MLt 334	3
MLt 333	3	MTy 322	2
MTy 321	2	Elective (non-music)	3
	20		20

Fourth Year

First Semester		Second Semester	
Edu 438	3	Edu 463	6
Gov 2321	3	Sophomore American Government	3
AM 4281	2	AM 4284	2
MLb—Choir	1	MLb—Choir	1
MTy 421	2	MTy 422	2
Elective (non-music)	3		14
	14	TOTAL	136

Voice majors will take two semesters of private piano lessons. These may not be waived by a barrier exam.

The six elective hours must be chosen from the academic foundations groups.

APPLIED MUSIC (AM)

1101 — Beginning Band or Orchestral Instruments. Basic fundamentals of articulation and tone production. Scales and arpeggios. Elementary methods and easy solo materials. Freshman students must audition before registering for placement in AM. Class: One half hour lesson per week. Credit: One semester hour per course.

1143 — Secondary Piano. Study of scale systems and application, intervals, chord structure, harmonization of melody, and other elements of keyboard harmony. Two octave scales and cadences. Maximum of four students per class. Class: 1 hour. Credit: 1 semester hour.

1183, 1184 — Secondary Voice. Music majors not majoring in voice will learn to use the singing voice. Study of breathing and vocalization. Songs will be studied. Prerequisite: Ability to read music, and some knowledge of the keyboard. Class: One lesson per week. Credit: One semester hour per course.

1203, 1204, 2203, 2204, 3203, 3204, 4203, 4204 — Bassoon. Practical studies. Weissenborn, scale studies. Pare, Reveirie, Jancourt, Romanze, Klakhardt, The Carnaval, Hume. Class: One 30-minute lesson and one-hour class per week. Credit: 2 semester hours per course.

3403, 3404, 4403, 4404 — Bassoon. Practical studies. Weissenborn, scale studies. Pare, Reveirie, Jancourt, Romanze, Klakhardt. The Carnaval, Hume. Class: One-hour private lesson and one one-hour class per week. Credit: 4 semester hours per course.

1211, 1212, 2211, 2212, 3211, 3212, 4211, 4212 — Cello. An approach to the left and right hand techniques using materials and literature suitable to the level of the individual student. Auditions will determine the level of proficiency of each new student. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3411, 3412, 4411, 4412 — Cello. An approach to the left and right hand techniques using materials and literature suitable to the level of the individual student. Auditions will determine the level of proficiency of each student. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1215, 1216, 2215, 2216, 3215, 3216, 4215, 4216 — Clarinet. Scales and arpeggios from Baermann Langenus Vol. III. Rose Forty Studies Canzonetta, Pierne, Concertino, Tartini-Jacob, Adagio-Tarantella, Cavallini; Fantasy Pieces, Schumann. Last six semesters will include Vooxman, Polastchek, Perier Etudes; Advanced solos and orchestra studies. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3415, 3416, 4415, 4416 — Clarinet. Scales and arpeggios from Baermann Langenus Vol. III. Rose Forty Studies Canzonetta, Pierne, Concertino, Tartini-Jacob, Adagio-Tarantella, Cavallini; Fantasy Pieces, Schumann. Last six semesters will include Vooxman, Polastchek, Perier Estudes; Advanced solos and orchestra studies. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1217, 1218, 2217, 2218, 3217, 3218, 4217, 4218 — Cornet-Trumpet. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition. Methods: Arban, Bitsch, Bousquet, Brandt, Charlier, Colin, Hering, Scholssberg, Small. Representative solos: Ropartz, Andante and Allegro; Balay, Petite Piece Concertante. Performance on student recitals once a semester. Prerequisite: Audition. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3417, 3418, 4417, 4418 — Cornet-Trumpet. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition. Methods: Arban, Bitsch, Bousquet, Brandt, Charlier, Colin, Hering, Scholssberg, Small. Representative solos: Ropartz, Andante and Allegro; Balay, Petite Piece Concertante. Performance on student recitals once a semester. Prerequisite: Audition. Class: One

hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1221, 1222, 2221, 2222, 3221, 3222, 4221, 4222 — Flute. Modern method of Boehm flute, Book; Sonata No. 3, Handel; 24 Caprices, Boehm; Fourth Sonata, Bach; orchestral studies, Minuet in D, Mozart; Concertino, Chaminade. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3421, 3422, 4421, 4422 — Flute. Modern method of Boehm flute Book, Sonata No. 3, Handel; 24 Caprices, Boehm; Fourth Sonata, Bach; orchestral studies, Minuet in D, Mozart; Concertino, Chaminade. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1223, 1224, 2223, 2224, 3223, 3224, 4223, 4224 — French Horn. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition, band and orchestral repertoire. Methods: Alphonse, Koprasch, Sansone. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3423, 3424, 4423, 4424 — French Horn. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition, band and orchestral repertoire. Methods: Alphonse, Koprasch, Sansone. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1231, 1232, 2231, 2232, 3231, 3232, 4231, 4232 — Oboe. Complete method for Oboe, Barrett, scale studies, Pare; three Romances, Schumann; Niemann; 16 daily exercises, Labate; orchestral studies, reed making; Pastorale, Labate; Niedell's Sonata No. 1. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3431, 3432, 4431, 4432 — Oboe. Complete method for Oboe, Barrett, scale studies, Pare; three Romances, Schumann; Niemann; 16 daily exercises, Labate; orchestral studies, reed making; Pastorale, Labate; Niedell's Sonata No. 1. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1233, 1234, 2233, 2234, 3233, 3234, 4233, 4234 — Organ. Organ instruction includes a study of the techniques needed to prepare and project publicly the literature of the keyboard representing organ literature of all periods in both small and large forms. Particular emphasis will be placed on manual and pedal technique, analysis of literature, thorough knowledge of registration, ability to adapt piano accompaniments, hymn playing and proficiency in accompanying, ensemble, chamber music and solo recital playing. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3433, 3434, 4433, 4434 — Organ. Organ instruction includes a study of the techniques needed to prepare and project publicly the literature of the keyboard representing organ literature of all periods in both small and large forms. Particular emphasis will be placed on manual and pedal technique, analysis of literature, thorough knowledge of registration, ability to adapt piano accompaniments, hymn playing and proficiency in accompanying, ensemble, chamber music and solo recital playing. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1241, 1242, 2241, 2242, 3241, 3242, 4241, 4242 — Piano. To develop musicianship, through technical proficiency and ability to assimilate music without guidance. A study of the various techniques needed to prepare and project publicly the literature of the keyboard representing piano literature of all periods in both small and large forms. Particular emphasis will be placed on scale and arpeggio playing, formal exercises, use of the pedals, analysis of the literature, programming, ability to employ and develop creative techniques for individual requirements, and proficiency in accompanying, ensemble, chamber music and solo recital playing. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3441, 3442, 4441, 4442 — Piano. To develop musicianship through technical proficiency and ability to assimilate music without guidance. A study of the various techniques needed to prepare and project publicly the literature of the keyboard representing piano literature of all periods in both small and large forms. Particular emphasis will be placed on scale and arpeggio playing, formal exercises, use of the pedals, analysis of the literature programming, ability to employ and develop creative techniques for individual requirements, and proficiency in accompanying, ensemble, chamber music and solo recital playing. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1251, 1252, 2251, 2252, 3251, 3252, 4251, 4252 — Saxophone. Method for Saxophone by DeVille. Air from Suite in D by Bach-Leeson, Jota by Gurewich. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3451, 3452, 4451, 4452 — Saxophone. Method for Saxophone by DeVille, Air from Suite in D by Bach-Leeson, Jota by Gurewich. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1253, 1254, 2253, 2254, 3253, 3254, 4253, 4254 — Percussion. Garner, Goodman, Harr and Rubank. Methods, standard solos, band and orchestra repertoire. Performance on student recital once a semester. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours.

3453, 3454, 4453, 4454 — Percussion. Garner, Goodman, Harr and Rubank. Methods, standard solos, band and orchestra repertoire. Performance on student recital once a semester. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1257, 1258, 2257, 2258, 3257, 3258, 4257, 4258 — String Bass. Through the use of appropriate methods, e.g., Simandl, the technique of the student will be developed. Scales and arpeggios will also form a vital part of the study. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3457, 3458, 4457, 4458 — String Bass. Through the use of appropriate methods, e.g., Simandl, the technique of the student will be developed. Scales and arpeggios will also form a vital part of the study. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1261, 1262, 2261, 2262, 3261, 3262, 4261, 4262 — Trombone or Baritone. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Methods: Mueller, Rochut, Clarke, Vobaron, Kopprasch. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3461, 3462, 4461, 4462 — Trombone or Baritone. Basic fundamentals of articulation

and tone production. Major and minor scales and arpeggios. Methods: Mueller, Rochut, Clarke, Vobaron, Kopprasch. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1263, 1264, 2263, 2264, 3263, 3264, 4263, 4264 — Tuba. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Band and orchestral repertoire. Methods: Eby, Bell, Slama, Solos. Prerequisite: Audition. Class: One 30-minute private lesson and one-hour class lesson per week. Credit: 2 semester hours per course.

3463, 3464, 4463, 4464 — Tuba. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Band and orchestral repertoire. Methods: Eby, Bell, Slama, Solos. Prerequisite: Audition. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1271, 1272, 2271, 2272, 3271, 3272, 4271, 4272 — Viola. Scales and arpeggios. Studies and exercises selected according to the individual needs of the student. Sonata, concertos and short solo pieces. Minimum practice: two hours daily. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3471, 3472, 4471, 4472 — Viola. Scales and arpeggios. Studies and exercises selected according to the individual needs of the student. Sonata, concertos, and short solo pieces. Minimum practice: two hours daily. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

1273, 1274, 2273, 2274, 3273, 3274, 4273, 4274 — Violin. Scales and arpeggios. Studies and exercises selected according to individual needs of the student. Sonatas and concertos selected for technical and musical advancement. Minimum practice: two hours daily. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3473, 3474, 4473, 4474 — Violin. Scales and arpeggios. Studies and exercises selected according to individual needs of the student. Sonatas and concertos selected for technical and musical advancement. Minimum practice: two hours daily. Class: One hour private lesson and one one-hour class lesson each week. Credit: 4 semester hours per course.

1281, 1282, 2281, 2282, 3281, 3282, 4281, 4282 — Voice. Study of breathing and vocalization. A balanced repertoire of songs will be studied each semester. Course offered to both music and non-music majors. Prerequisite: Ability to read music, and some knowledge of the keyboard. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3481, 3482, 4481, 4482 — Voice. Study of breathing and vocalization. A balanced repertoire of songs will be studied each semester. Course offered to music majors only. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

2283, 2284. Composition. Creative writing ranging from solo and small ensemble works to more extended composition for orchestra, band or chorus. Prerequisite: MTy 133. Class: One 30-minute private lesson and one one-hour class lesson per week. Credit: 2 semester hours per course.

3283, 3284, 4283, 4284 — Composition. Creative writing ranging from solo and small ensemble works to more extended composition for orchestra, band or chorus. Prerequisite: MTy 233. Class: One 30-minute private lesson and one one-hour class lesson per

week. Credit: 2 semester hours per course.

3483, 3484, 4483, 4484 — Composition. Creative writing ranging from solo and small ensemble works to more extended composition for orchestra, band or chorus. Prerequisite: MTy 233. Class: One hour private lesson and one one-hour class lesson per week. Credit: 4 semester hours per course.

MUSIC EDUCATION (MEd)

131 — Elements of Music. Designed to familiarize non-music majors with the meaning of musical notation and the harmonic, melodic, and rhythmic structure of music. Class: 3 hours. Credit: 3 semester hours.

233 — Musical Experiences for the Lower and Middle School. Exploration of general music activities for the elementary and junior high school with emphasis on a study of music literature. Class: 3 hours. Credit: 3 semester hours.

234 — Musical Experiences for the Lower and Middle School. A continuation of general music activities for the elementary and junior high school with emphasis on recorded material and other listening activities. Class: 3 hours. Credit: 3 semester hours.

311 — Brass. Techniques and materials in the teaching of instrumental music in the elementary school. Trumpet and Horn. Class: 1 hour. Credit: 1 semester hour.

312 — Brass. Techniques and materials in the teaching of instrumental music in the elementary school. Trombone, Baritone and Tuba. Class: 1 hour. Credit: 1 semester hour.

313 — Strings. Techniques and materials in the teaching of instrumental music in the elementary school. Violin and Viola. Class: 1 hour. Credit: 1 semester hour.

314 — Strings. Techniques and materials in the teaching of instrumental music in the elementary school. Cello and Bass. Class: 1 hour. Credit: 1 semester hour.

315 — Percussion. Materials for the percussion instruments. Performance on all percussion instruments. Class: 1 hour. Laboratory: 1 hour. Credit: 1 semester hour.

317 — Marching Methods. 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. Class: 2 hours. Credit: 1 semester hour.

331 — Elementary Methods and Materials. 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. Class: 3 hours. Credit: 3 semester hours.

332 — Techniques and Materials in Teaching of Music in the Upper Elementary Grades. Creative music, rhythmic activity, rote singing, reading of notation, and effective use of materials. Class: 3 hours. Credit: 3 semester hours.

333 — The Organization and Development of the High School Stage Band. 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. Class: 3 hours. Credit: 3 semester hours.

335 — Choral Music. 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. Class: 3 hours. Credit: 3 semester hours.

336 — Instrumental Music. 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. Class: 3 hours. Credit: 3 semester hours.

337 — Choral Conducting. 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. Class: 3 hours. Credit: 3 semester hours.

338 — Instrumental Conducting. The rudiments of conducting as applied to high school instrumental groups, phrasing interpretation, etc. of the instrumental field, both band and orchestra. Class: 3 hours. Credit: 3 semester hours.

339 — Choral Conducting. Basic patterns and rudiments of choral conducting; choral techniques as applied to elementary school classroom instruction and choral performances. Limited to non-music majors. Class: 3 hours. Credit: 3 semester hours.

410 — Seminar. A general study of the problems encountered in music. Class: 1 hour. Credit: 1 semester hour.

411 — Woodwinds. Techniques and materials in the teaching of instrumental music in the elementary school. Flute, Clarinet, and Saxophone. Class: 1 hour. Credit: 1 semester hour.

412 — Woodwinds. Techniques and materials in the teaching of instrumental music in the elementary school. Oboe and Bassoon. Class: 1 hour. Credit: 1 semester hour.

MUSIC LABORATORY (MLb)*

111 — Jazz Piano. A study of contemporary jazz piano styles. Class: 1 hour. Credit: 1 semester hour per course.

112 — Fender (Electric) Bass. Basic fundamentals of jazz and pop Fender bass performance. Class: 1 hour. Credit: 1 semester hour per course.

113 — Jazz Improvisation. Designed to provide background in the art of improvisation. Class: 1 hour. Credit: 1 semester hour per course.

114 — Repertoire and Pedagogy. A presentation and study of the literature, its performance, styles and means of presentation for a particular instrument or instruments. Eight semesters required in the same instrument required (AM-Applied) of each major. Class: 1 hour. Credit: 1 semester hour.

117 — Dance Band. Organized to furnish training in all styles of dance band performance. Open to any student who can qualify. Laboratory: 3 hours. Credit: 1 semester hour per course.

122 — Orchestra. A performing ensemble open to all university students who can qualify. Required of any student majoring in a string instrument. Laboratory: 6 hours. Credit: 2 semester hours per course.

124 — Marching Band. The study and performance of march music and military drill. Open to any student who can qualify. Four semesters completes P.E. requirement. Laboratory: 6 hours per week. Credit: 2 semester hours.

125 — Symphonic Band. Performs symphonic wind ensemble and band repertoire. Tryout required for admittance. Laboratory: 6 hours. Credit: 2 semester hours per course.

1101 — Concert Choir. 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. Laboratory: 6 hours. Credit: 1 semester hour per course.

1102 — Cardinal Singers. Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments. Laboratory: 6 hours. Credit: 1 semester hour per course.

1103 — Shades of Cardinal. A performing choral ensemble with piano accompaniment and choreography specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments. Laboratory: 6 hours. Credit: 1 semester hour per course.

1104 — Grand Chorus. A course in choral singing designed to acquaint the student with the larger works in choral literature. A public concert is given each semester. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

210 — Opera. 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. Laboratory: 3 hours. Credit: 1 semester hour per course.

2260 — Musical Comedy. 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. Laboratory: 6 hours. Credit: 2 semester hours.

423 — Chamber Music Ensemble. String ensemble, woodwind ensemble, 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. Laboratory: 5 hours per week. Credit: 2 semester hours.

*Courses in Music Laboratory may be repeated for credit. Total credit not to exceed eight semester hours for any one course.

MUSIC LITERATURE (MLt)

111, 112 — Music Principles. 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. Class: 2 hours. Credit: 1 semester hour per course.

113 — Pop Music Survey. A study of present day pop music. Class: 1 hour. Credit: 1 semester hour.

121-122 — Music Literature. 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. Class: 2 hours. Credit: 2 semester hours per course.

213 — Piano Pedagogy. 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. Class: 2 hours. Credit: 1 semester hour per course.

333 — Music History. 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. Class: 3 hours. Credit: 3 semester hours.

334 — Music History. 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. Class: 3 hours. Credit: 3 semester hours.

335 — Music of the Afro-American. A general study of the present day American Negro music and a study of the Afro-American music historical background. Class: 3 hours. Credit: 3 semester hours.

336 — Choral Literature. A study of music written for combinations of vocal music groups from the 12th century to the present day. Prerequisite: junior status. Class: 3 hours. Credit: 3 semester hours.

337 — Instrumental Literature. An in depth study of the literature and pedagogy of symphonic literature for strings and winds. Prerequisite: junior status. Class: 3 hours. Credit: 3 semester hours.

338 — Chamber Opera. 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. Class: 3 hours. Credit: 3 semester hours. (LU-Rome only.)

339 — Grand Opera. 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. Class: 3 hours. Credit: 3 semester hours. (LU-Rome only.)

MUSIC THEORY (MTy)

131 — Elements of Music. 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. Class: 3 hours. Credit: 3 semester hours.

132, 133 — Elementary Harmony. Elementary keyboard and written harmony, sight singing; ear training. Prerequisite: MTy 131 or by advanced standing exam. Class: 5 hours. Credit: 3 semester hours.

232, 233 — Advanced Harmony. Advanced keyboard and written harmony; sight singing; ear training. Prerequisite: MTy 133. Class: 5 hours. Credit: 3 semester hours.

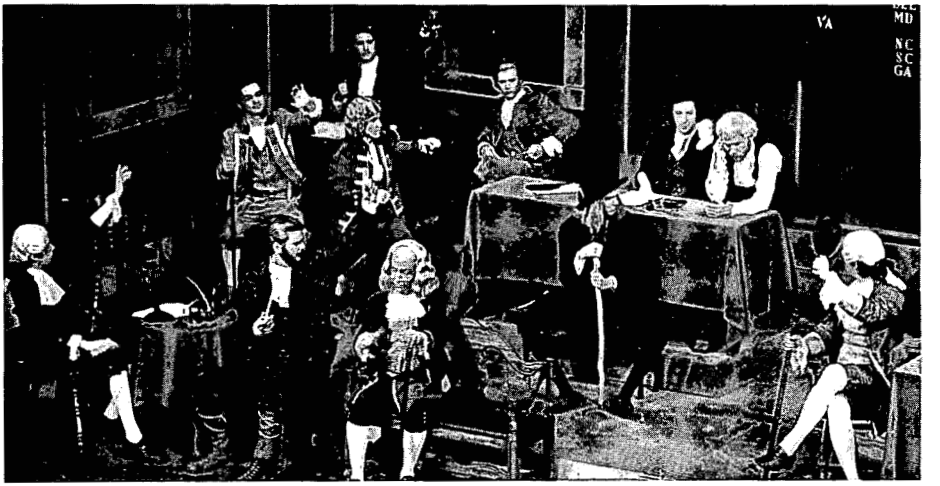
321, 322 — Counterpoint. 16th and 18th century contrapuntal techniques through analysis and creative writing. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

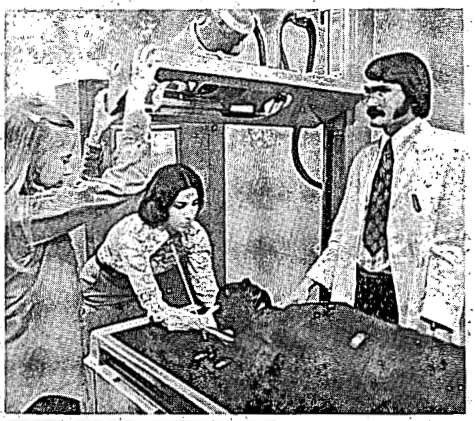
323 — Jazz Arranging. A study and analysis of jazz harmony, melody and rhythm as applied to jazz band instrumentation; a workshop wherein arrangements are written and played. Class: 2 hours. Credit: 2 semester hours.

421 — Form and Analysis. Analytical study of musical forms and styles. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

422 — Orchestration. Techniques of writing and arranging for orchestral instruments in small combinations and for full orchestra. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

425 — Band Arranging. Techniques of writing, transcribing from orchestra score and arranging for the instrumentation of the high school marching and concert bands. Class: 2 hours. Credit: 2 semester hours.





College of Health Sciences

Departments: Allied Health, Nursing

Betty Jo Hadley, R.N., Ph.D., Dean
Mrs. Ruby C. Allen, Secretary

The College of Health Sciences was organized in 1974 and provides programs of instruction in dental hygiene, radiologic technology, respiratory technology, medical technology, associate degree nursing, baccalaureate nursing and vocational nursing. Prior to 1974, the programs existed in other colleges of the University.

Organization of the College of Health Sciences marks the beginning of coordinated programs for the education of health specialists for Southeast Texas, and the potential for expansion of existing programs as well as the addition of new health programs.

DEGREES OFFERED

Bachelor of Science: Medical Technology, Nursing.
Associate of Science: Nursing.
Associate of Applied Science: Dental Hygiene*, Radiologic Technology*.
Certificate of Completion: Respiratory Technology*, Vocational Nursing*.

GOALS OF THE COLLEGE

The over-all goals of the College of Health Sciences are to produce high caliber health specialists for Southeast Texas in specific areas of need and in sufficient numbers to contribute significantly to the improvement of the health care of the citizens of this region of the state.

*These programs are offered with the approval of the Texas Education Agency.

HEALTH SCIENCES (HS)

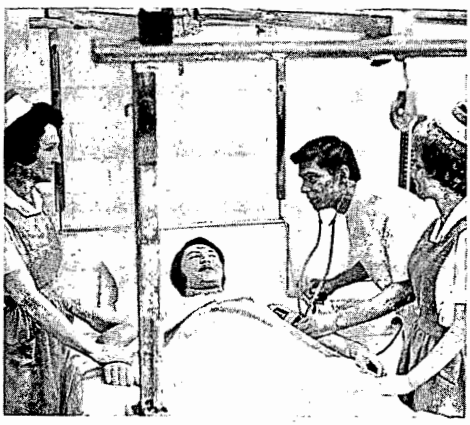
131-132 — Orientation to Clinical Practice. Theory and practice in verbal and non-verbal communication with adults and children in a variety of health care settings and in assisting them to meet their basic needs. Content will include medical terminology and introductory professional ethics. Courses are prerequisites for all freshmen planning to enter programs in the College of Health Sciences. Upon satisfactory completion of both courses, the student will receive certification as a Nursing Assistant. Class: 1 hour. Laboratory: 8 hours. Credit: 3 semester hours per course.

331 — Introduction to Pharmacology. Study of the principles of pharmacologic therapeutics. Current knowledge of drug actions, side effects, toxicity, range of dosage, rate and route of absorption and excretion, individual differences in response, and drug interactions will be studied. Class: 3 hours. Credit: 3 semester hours.

322 — Special Topics in Pharmacology. Study of selected areas of pharmacologic therapeutics which are frequently employed in health care. Class: 2 hours. Credit: 2 semester hours.

431 — Teaching for the Health Sciences. A study of the concepts and principles of teaching applicable to the health sciences. Emphasis will be upon the development of teaching skills and the appropriate utilization of these skills in health settings. Class: 3 hours. Credit: 3 semester hours.

432 — Research Techniques for the Health Sciences. A study of research methods and concepts which are appropriate to utilize in the health sciences. Current research in health related fields will be reviewed. Prerequisite: Psy 241 or its equivalent. Class: 3 hours. Credit: 3 semester hours.



Department of Allied Health

Department Head — Judith K. Caldwell. *Adjunct Professor:* Paul B. Shaw. *Clinical Instructors:* Susan Edwards, Martha Huval, Gail Rivers, William D. Short, Larry Steele, Betty C. Wyble.

The Department of Allied Health in the College of Health Sciences views man as a product of biological, psychological, sociological, cultural and environmental influences. The health occupations found within the department are totally related to providing a variety of health services to people in a variety of health settings. It seeks an interdisciplinary approach in treating, maintaining and preventing conditions affecting the health of individuals and communities.

It is assumed that professionals in the areas of Allied Health will provide services for a patient based upon the assessment of the total patient condition rather than an analysis of a specific part or condition. The goal of developing and maintaining a health delivery system based upon total patient needs and delivered by a team of health specialists working together is essential to providing the quality and quantity of services needed by all people. The Department of Allied Health participates in the achievement of such a goal by providing an academic environment in which students in the several health professions will acquire positive attitudes relative to their united potential and coordinated contribution to patient care as qualified members of the health care team.

Dental Hygiene

Program Director — Judith K. Caldwell

The purpose of the Dental Hygiene Program is to prepare highly competent dental hygienists to assume leadership roles in meeting the oral health care needs of people. 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 the basic education in the dental hygiene program, students should acquire the knowledge and proficiency to become a functioning member of the health care delivery system.

More specifically, the graduates of this program will:

1. Practice dental hygiene, utilizing skills based upon sound principles of scientific knowledge and governed by the highest ethical, legal and moral codes of the dental professions;
2. Assume responsibility, inasmuch as the hygienist legally can, for the quality and quantity of oral health care services;
3. Maintain constant assessment of the preventive, therapeutic and maintenance levels of oral health in their community;
4. Assume responsibility as a member of the health delivery system in obtaining health services for all who seek those services;
5. Maintain practicing concepts of total patient care, utilizing the complete interdisciplinary health services team.

The dental hygiene program accepts students for the fall of each year. Pre-dental hygiene courses are completed in the summer session prior to the beginning of the dental

hygiene program. 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 dental hygiene.

To be considered for admission, the student must submit an application and test results to the Director of the Dental Hygiene Program by April 15 of each year. These forms and the admission procedures are available from the Program Director.

A minimum grade of "C" must be earned in all dental hygiene and science courses for progression in the program. A student who fails to perform satisfactorily in the clinical practice will receive a failing grade in the dental hygiene course regardless of the theory grade. In addition, a grade point average of at least 2.0 must be maintained in all courses required 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 for areas in which they plan to practice.

Recommended Program of Study

Associate of Applied Science — Dental Hygiene

First Year

Summer Session I

Bio 133—Anatomy & Physiology	3
HS 131—Orientation to Clinical Practice	3
	6

Summer Session II

Bio 134—Anatomy & Physiology	3
HS 132—Orientation to Clinical Practice	3
	6

Fall Semester

DH 126—Head & Neck Anatomy	2
DH 127—Dental Morphology & Occlusion	2
DH 132—Dental Radiology	3
DH 145—Pre-Clinic	4
Chm 143—Introductory Chemistry	4
Psy 131—Introduction to Psy	3
	18

Spring Semester

DH 128—Dental Histology	2
DH 137—Dental Materials	3
DH 146—Clinic I	4
Bio 245—Microbiology	4
Chm 144—Introductory Chemistry	4
	17

Second Year

Summer Session I

DH 129—Dental Specialities	2
Eng 131—English Composition	3
HEc 239—Nutrition	3
	8

Summer Session II

DH 221—Diet Analysis	2
DH 231—General & Oral Pathology	3
	5

Fall Semester

DH 223—Periodontology	2
DH 224—Pharmacology	2
DH 233—Community Dentistry I	3
DH 255—Clinic II	5
	12

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

Medical Technology

The objective of the Medical Technology Program is to prepare clinically competent graduates in the field of medical technology. Following the years of academic preparation at Lamar, the student spends 12 consecutive months in training at a hospital laboratory approved for teaching by the Council on Medical Education and Hospitals of the American Medical Association. After satisfactorily completing this training, attested to by a transcript of performance in the clinical laboratory, the student is awarded the degree of Bachelor of Science — Medical Technology. Full details of approved laboratories may be obtained by writing to the American Society of Clinical Pathologists, Board of Schools, 710 South Wolcott, Chicago, Illinois 60612.*

The three years of study shown will fulfill the requirements of the Registrar.

*Curriculum currently under revision and subject to change. Contact the College of Health Sciences for advisement.

Recommended Program of Study
Bachelor of Science — Medical Technology

First Year

Summer Session I

HS 131—Orientation to Clinical Practice	3
Eng 131_—English Composition	3
	6

Summer Session II

HS 132—Orientation to Clinical Practice	3
Eng 131_—English Composition	3
	6

Fall Semester

Bio 141—General	4
Chm 141—General	4
Mth 1334—Algebra & Trig	3
Elective	3
HPE—Activity	1 or 2
	15 or 16

Spring Semester

Eng 131_—English Composition	3
Bio 142—General	4
Chm 142—General	4
Mth 134—Algebra	3
Elective	3
HPE—Activity	1 or 2
	18 or 19

Second Year

Fall Semester

Eng 231_—English Literature	3
Bio 243—Microbiology	4
Chm 341—Organic	4
Phy 141—Mechanics	4
HPE—Activity	1 or 2
	16 or 17

Spring Semester

Eng 231_—English Literature	3
Bio 244—Microbiology	4
Chm 342—Organic	4
Phy 142—Electricity, etc	4
HPE—Activity	1 or 2
	16 or 17

Third Year

Fall Semester		Spring Semester	
Bio 340—Diagnostic Microbiology	4	Bio 344—Advanced Physiology	4
Chm 343—Quantitative	4	Bio 441—Parasitology	4
His 23_—American History	3	His 23_—American History	3
Gov 2321—Intro Am Gov	3	Gov 232—American Gov	3
Elective (approved)	4	Elective (approved)	4
	18		18

Radiologic Technology

Program Director — William D. Short

The purpose of this program is to prepare students for a career in the Allied Health field of Radiologic Technology. Each student will be assisted in the pursuit of technical competence by means of 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 licensure.

Students are accepted into the Radiologic Technology program in the fall of each year. Pre-radiologic technology courses are completed in the summer sessions prior to the beginning of the Radiologic Technology program. 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.

To be considered for admission, the student must submit an application to the Director of the Radiologic Technology program by April 15 of each year. These forms and the admission procedures are available from the Program Director.

A minimum grade of "C" must be earned in all radiologic 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 required to obtain the Associate of Applied Science degree.

Recommended Program of Study
Associate of Applied Science — Radiologic Technology

First Year

Summer Session I		Summer Session II	
Bio 133—Anatomy & Physiology	3	Bio 134—Anatomy & Physiology	3
HS 131—Orientation to Clinical Practice	3	HS 132—Orientation to Clinical Practice	3
Math	3	Psy 131 or Soc 131 — Introduction	3
	9		9

Fall Semester

RA 132—Radiographic Principles	3
RA 143—Radiographic Positioning	4
RA 162—Radiologic Technology Practicum II	6
	13

Spring Semester

RA 134—Advanced Procedures I	3
RA 145—Radiographic Physics	4
RA 164—Radiologic Technology Practicum III	6
Eng 131_—Composition	3
	16

Second Year

Summer Session I & II

RA 281—Radiologic Technology Practicum IV	8
	8

Fall Semester

RA 232—Advanced Procedures II	3
RA 241—Special Procedures I	4
RA 262—Radiologic Technology Practicum V	6
Eng 131_—Composition	3
	16

Spring Semester

RA 226—Radiologic Terminology Seminar	2
RA 243—Special Procedures II	4
RA 264—Radiologic Technology Practicum VI	6
	12

Respiratory Technology (RT)

Program Director — Betty C. Wyble

The purpose of this program is to prepare students in the science, technology, and arts of 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.)

Students are accepted into the respiratory technology program in the fall of each year. Pre-respiratory technology courses are completed in the summer sessions, prior to beginning the respiratory technology program. Admission is based upon evidence of personal, physical, intellectual and emotional characteristics which are assumed to be consonant with a successful career in Respiratory Technology.

To be considered for admission, the student must submit an application 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.

A minimum grade of "C" 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 required to obtain the Certificate of Completion in Respiratory Technology.

Recommended Program of Study
Certificate of Completion — Respiratory Technology

Summer Session I

Bio 133—Anatomy & Physiology 3
Mth 134—College Algebra 3
HS 131—Orientation to Clinical Practice 3
9

Summer Session II

Bio 134—Anatomy & Physiology 3
Eng 1311—English Composition 3
HS 132—Orientation to Clinical Practice 3
9

First Year

Fall Semester

Chm 143—Introductory 4
RT 131—Intro to Resp Ther 3
RT 133—Clinical Practice I 3
RT 135—Pharmacology 3
RT 142—Gas Therapy 4
17

Spring Semester

Bio 245—Introd Micro 4
RT 134—Cardiopulm A & P 3
RT 136—Clinical Medicine 3
RT 167—Clinical Practice II 6
16

Summer Session I & II

RT 139—Chronic Care & Rehab 3
RT 148—Mechanical Ventilation 4
RT 157—Clinical Practice III 5
12

DENTAL HYGIENE (DH)

126 — Head and Neck Anatomy. Detailed study of anatomy and physiology of the head and neck region, with special emphasis placed upon nerves, muscles, blood supply, and bone development of the area. Class: 2 hours. Credit: 2 semester hours.

127 — Dental Morphology and Occlusion. A detailed study of the embryological development of structures of the oral cavity, including eruption, exfoliation and occlusion classification of teeth. Identification of all dentition and developmental factors influencing occlusion development is emphasized. Laboratory requirements: hand drawn to scale reproductions of related structures. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

128 — Dental Histology. A detailed study of the histological characteristics of normal tissues contained in the head and neck region. Class: 2 hours. Credit: 2 semester hours.

129 — Dental Specialties. A study of the need, education required, skills and practice responsibility for the specialty areas in dentistry. Guest lectures will include the areas of orthodontics, oral surgery, prosthodontics, dental public health, periodontics, endodontics, pedodontics, and oral pathology. The potential role and relationship of dental hygiene to each of these areas will be emphasized. Class: 2 hours. Credit: 2 semester hours.

132 — Dental Radiology. Study and clinical techniques covering theories, basic principles and procedures of dental radiographic practice. Included are radiation in dental practice, characteristics of radiation, the components and functions of the dental x-ray machine, technical aspects of radiation production, effects of radiation exposure, radiation monitoring and radiation safety. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

137 — Dental Materials. A general study of the sources, properties, uses, and techniques of manipualtion of the various materials commonly used in dentistry, including the removal of excessive restorative materials and the polishing of restorations and dental appliances. Skills to be evaluated in laboratory practice. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

145 — Pre-Clinic. Theoretical and clinical instruction in oral prophlaxis technique and clinical procedures including: patient education caries process, sterilization, patient-operator positioning, unit and equipment maintenance, vital signs, topical fluoride application procedures, charting, care of hypersensitive teeth, medical and dental histories and emergencies, first aid and oral examination procedures. Transfer to clinic simulation will be made on manikins and class partners. Class: 2 hours. Laboratory: 6 hours. Credit: 4 semester hours.

146 — Clinic I. Continuation and advancement of dental hygiene clinical skills. Emphasis placed on instrument sharpening, plaque control, patient chairside psychology, and patient handling, including the management of special patients. Also included will be clinical application of dental assisting skills learned concurrently in DH 137 and occlusion classification skills learned in DH 127. All oral prophylactic procedures will be done in the dental hygiene clinic on patients. Prerequisite: DH 145 and DH 127. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours.

221 — Dietary Analysis. Theory and application of relation of diet and nutrition to dental disease process. Emphasis placed upon patient consultation methodology, and course evaluation will be made upon student's understanding of consultation techniques and actual consultation skills. Class: 2 hours. Credit: 2 semester hours.

223 — Periodontology. Study of the oral mucosa with emphasis on the gingiva and tooth attachment apparatus, including a comparison of normal and diseased peridontium, and the effects of structural, functional, and environmental agents. Class: 2 hours. Credit: 2 hours.

224 — Pharmacology. Study of the uses and actions of drugs and anesthetics, including drug side-effects, contra-indications, and oral manifestations. Class: 2 hours. Credit: 2 semester hours.

225 — Community Dentistry II. Program planning principles developed in DH 233 applied to a community setting. Program implementation and evaluation will take place on an individual or group basis with instructor and student. Laboratory time provided for necessary community experience. Prerequisite: DH 233. Class: 2 hours. Credit: 2 semester hours.

231 — General and Oral Pathology. A study of the principles of the pathology of common diseases and applied oral pathology. Included will be the principles of biopsy and handling of this material, with emphasis placed on histopathological changes and clinical manifestations of oral lesions of particular significance to dentistry. Class: 3 hours. Credit: 3 semester hours.

233 — Community Dentistry I. Theory and principles of health and dental public health developed around governmental, environmental, cultural, and sociological issues. Course emphasis will include application of basic statistics, and interpretation and

analysis of scientific information, including dental indices and scientific writing. Class: 3 hours. Credit: 3 semester hours.

255 — Clinic II. Continuation and advancement of dental hygiene clinical skills. Emphasis placed on periodontal procedures, including probing, deep-scaling and root planing. Advanced TEAM and expanded function concepts will be explored, including theory and clinical application of vitality testing. Clinical applications of restoration polishing learned in DH 137 will be required. Prerequisite: DH 136 and DH 146. Class: 2 hours. Laboratory: 12 hours. Credit: 5 semester hours.

256 — Clinic III. Continuation and advancement of dental hygiene clinical skills. Emphasis will be placed upon myofunctional therapy, deep-scaling and curretage. Clinical requirements will encompass application of dietary consultation procedures and dental indices procedures learned in DH 221 and DH 233, respectively. Prerequisites: DH 145, 146, 221, 233, 255. Class: 2 hours. Laboratory: 12 hours. Credit: 5 semester hours.

RADIOLOGIC TECHNOLOGY (RA)

132 — Radiographic Principles. This course will be devoted to the study of the basic principles of X-ray production, with emphasis on the relationship between milliamperage, kilovoltage, time and distance as related to density and contrast on a radiograph. Film critique and darkroom technique will be included. Class: 3 hours. Credit: 3 semester hours.

134 — Advanced Procedures I. A detailed analysis of radiation protection for the patient and others in the area of exposure. The role and importance of the technologist in pediatric and intraoral radiography will be covered. Film critique will be continued. Class: 3 hours. Credit: 3 semester hours.

143 — Radiographic Positioning. This course is designed to acquaint the student technologist with procedures in radiology. Basic and advanced contraindications are explored. Topographic anatomy is also included. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

145 — Radiographic Physics. An intensive study of electro-magnetism, electric transformers, electrical rectification, production of X-rays and the preventive maintenance of X-ray machines. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

162 — Radiographic Practicum II. Each student is required to average 25 hours per week in closely supervised practice of basic principles and routine positioning in the clinical area. Laboratory: 25 hours. Credit: 6 semester hours.

164 — Radiographic Practicum III. Students will spend 25 hours per week in practice of both common radiographic procedures and specific procedures described in classroom lecture. Radiographic positioning and technique will be emphasized during this time. Film critique will be an integral part of the study. Prerequisite: RA 142. Laboratory: 25 hours. Credit: 6 semester hours.

226 — Radiologic Technology Seminar. This course is designed to prepare the student for the national registry. It consists of a review of all subjects covered in the course of study. Class: 2 hours. Credit: 2 semester hours.

232 — Advanced Procedures II. Subjects in this course will include a survey of medical and surgical diseases and their relation to radiography. Student technologist will also be introduced to basic departmental administration and equipment maintenance. Prerequisite: RA 231. Class: 3 hours. Credit: 3 semester hours.

241 — Special Procedures I. The course of study will acquaint the student technologist with the highly specialized technical procedures in radiology and the equipment and opaque media used. Case studies will be utilized to make qualitative analysis and evaluation of radiographs. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

243 — Special Procedures II. Included in this course of highly specialized procedures is the study of radiation therapy and the use of nuclear medicine and isotopes. Prerequisite: RA 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

262 — Radiographic Practicum V. This practicum will further emphasize the practice of specific positioning and manipulation of technique factors. Clinical responsibility will be stressed. Laboratory: 25 hours. Credit: 6 semester hours.

264 — Radiographic Practicum VI. The student technologist will begin rotation through the nuclear medicine and radiation therapy aspect of the clinical practice. The student will receive additional training in special procedures and emergency situations. Laboratory: 25 hours. Credit: 6 semester hours.

281 — Radiographic Practicum IV. The student will study clinical application in this course with emphasis on job responsibilities and confidence in skill performance. Laboratory: 40 hours. Credit: 8 semester hours.

RESPIRATORY TECHNOLOGY (RT)

131 — Introduction to Respiratory Therapy. This course encompasses a general history of respiratory therapy, mechanics of breathing, and an introduction to the fundamental principles of respiratory therapy with emphasis on intermittent positive pressure breathing and basic IPPB equipment, their design and assembly, sterilization, and storage. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

133 — Clinical Practice I. Classroom hours are devoted to studying concepts of patient care, observational skills, communication and record keeping. Students will observe demonstrations utilizing basic respiratory therapy equipment and procedures in the clinical setting. Class: 1 hour. Laboratory: 8 hours. Credit: 3 semester hours.

134 — Cardio-Pulmonary Anatomy and Physiology. Emphasizing the importance of the heart and lungs to respiratory therapy, this course presents a detailed outline of the structure and function of the cardio-pulmonary systems. Airway management, chest physiotherapy and cardiopulmonary resuscitation are included. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

135 — Pharmacology for Respiratory Therapy. This course has as its primary aim the familiarization of the student with the general principles of drug action, methods of administration, elements of dispensing and adverse reactions to drugs. The drug groups of importance to respiratory therapy technicians will be discussed in great detail with emphasis being placed on dosage, primary pharmacological effects and toxic side effects. Class: 3 hours. Credit: 3 semester hours.

136 — Clinical Medicine. This course of study is designed to correlate the management of numerous disease conditions to Respiratory Therapy. Respiratory Therapy involvement with the newborn, pediatric, medical-surgical, obstetric and gynecology patients is emphasized. Class: 3 hours. Credit: 3 semester hours.

139 — Chronic Care and Rehabilitation. This course covers measures to improve respiratory performance of the chronic pulmonary patient. Rehabilitation techniques utilizing medical therapy and economic and social adjustments of the patient are included. Class: 3 hours. Credit: 3 semester hours.

142 — Gas Therapy. This course is designed for the student to achieve the techniques, skills and understanding necessary to properly and effectively administer gas, aerosol and humidity therapy. Handling and storage of medical gases and safety codes are included. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

148 — Mechanical Ventilation. This course is designed for the student to acquire the skills, understanding and techniques to operate various ventilators and to give effective assistance to the medical staff in initiating and maintaining continuous ventilation therapy. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

157 — Clinical Practice III. General clinical practice using respiratory therapy in the treatment of lung conditions in newborn, pediatric, surgical, medical, obstetric and gynecology patients. Special emphasis is placed on practice in critical care areas utilizing continuous mechanical ventilation. Blood gas analysis and pulmonary function testing are also included. Prerequisite: RT 167. Laboratory: 20 hours. Credit: 5 semester hours.

167 — Clinical Practice II. General clinical practice utilizing intermittent positive pressure breathing, oxygen and aerosol and humidity therapy in the treatment of various lung diseases and related illnesses. Management of artificial airways and tracheobronchial aspiration will be emphasized. Prerequisite: RT 133. Laboratory: 24 hours. Credit: 6 semester hours.

Department of Nursing

Department Head — Joan Thiele. *Professor* — Betty Jo Hadley. *Adjunct Professor* — Lamar C. Bevil. *Assistant Professors* — Rosalie Caffrey, Doris J. Price, Sherlyn Woodard. *Instructor* — Gloria Strandquist. *Instructor IV* — Dolores Jones. *Instructor I* — Virginia Rudloff. *Instructor II* — Ann Keen, Mary T. Kjelson, Faye Stone, Norma Aycock. *Clinical Instructors* — Delilah Gregory, Geraldine Huch, Mahalia Lewis, Ruth Mason, Angeline Marchetti, Janice Rabalais, Connie Richard, Frances Smith, Emma J. Woodard. *Secretary* — Regina Chaisson Patillo.

The Department of Nursing in the College of Health Sciences subscribes to the goals and philosophy of Lamar University. In addition, the Department of Nursing assumes nursing to be concerned with man as a bio-psycho-social-cultural being and to provide a direct service to individuals and groups. It is a service rendered in the maintenance of health and in the anticipation of, or in the time of, the stresses attendant to the states of health and illness.

The essential components of professional nursing practice are care, cure and coordination. We believe that nursing's primary contribution to health care is to assist the person under stress, to provide comfort, to prevent or reduce tension, to nurture, to minister to the basic human needs of patients, and *to care*. Caring, with the goals of preventing need-frustration and promoting need-satisfaction, assists the person under stress of illness or for whom illness constitutes a threat to mobilize or maintain his strengths in order to move toward his optimum state of health (wellness).

Nursing makes specific contributions to the promotion and maintenance of health as well as to the prevention of and recovery from illness. In the provision of these services, nursing participates in healing, restoration, rehabilitation and prevention in collaboration with other health professions.

In addition, nursing, by virtue of its constance, its primary orientation to care, and its place in the social structure of health care systems, coordinates and synchronizes nursing, medical and other professional and technical services in achieving the goal of exquisite care for all patients.

The practice of nursing rests on a theoretical base which includes knowledge essential to an understanding of man in relation to his physical, biological, cultural and psychosocial environments and of man's behavior and experiences under stresses attendant to the states of health and illness. Technologies which are used in the practice of nursing embrace the utilization of cognitive processes, verbal and non-verbal skills and physical manipulative skills.

Such an approach to the knowledge and technological problems in nursing proceeds from the synthesis and organization to substantive content from the basic physical, biological and social sciences to the study of man and the problems of nursing practice. An inductive or empirical approach of building knowledge and technology from problems and hypotheses arising from the study of nursing practice constitutes the first step.

Essential to the implementation of this philosophy is the creation of an environment in which the sharing and questioning of existing knowledge and technologies and the development of new knowledge and technologies are the joint concerns, responsibilities and efforts of faculty and students.

Vocational Nursing

Vocational nurses provide basic nursing care under the direct supervision of a Registered Nurse. Upon successful completion of the course, graduates receive a certificate of completion and are eligible to write the examination given by the State Board of Vocational Nurse Examiners to become a Licensed Vocational Nurse (L.V.N.).

Vocational nursing classes begin once each year. Applications for admission are accepted until *April 15* of each year. Applicants are selected by the Vocational Nursing Admission Committee. 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 nursing. An SAT score of 550 is required for admission to the L.V.N. program. The forms and the admission procedures are available from the Director of the L.V.N. program.

Recommended Program of Study

Vocational Nursing*

Summer I and Summer II

HS 131, 132—Orientation to Clinical Practice	6
VN 144—Anatomy and Physiology	4
	10

First Semester (Fall)

VN 122—Nutrition and Diet Therapy	2
VN 175—Nursing Skills	7
VN 136—Medical Surgical Nursing I	3
VN 166—Clinical Practice I	6
	18

Second Semester (Spring)

VN 167—Clinical Practice II	6
VN 137—Medical Surgical Nursing II	3
VN 139—Pediatric Nursing	3
	12

Third Semester (Spring)

VN 168—Clinical Practice III	6
VN 169—Clinical Practice IV	6
VN 138—Obstetric Nursing	3
	15

*Offered with the approval of the Texas Education Agency.

Associate of Science Degree — Nursing

Associate Degree Nursing involves the application of principles to specific nursing situations under the supervision and guidance of a professional nurse and/or physician. The Associate Degree nurse, by making assessments of individual nursing needs, plans, implements and skillfully performs nursing care. As a member of the health team, the Associate Degree nurse evaluates nursing actions and modifies nursing care as indicated.

The Associate of Science degree in Nursing program may be completed in two calendar years. This program includes both general education courses (40 hours) and nursing education courses (37 hours). Students receive classroom instruction and coordinated clinical experience in the nursing care of patients at local hospitals and commu-

nity agencies. Upon completion of the course work, students receive the Associate of Science degree and are eligible to write the state licensure examination for registration in order to practice nursing.

Students are accepted into the Associate of Science degree nursing program in the fall of each year. Students eligible for the fall Associate Degree Nursing program must complete the recommended courses for Summer I and Summer II. A grade of C or better must be made in these courses. Pre-nursing courses are completed in the summer sessions prior to beginning the nursing program. 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 nursing.

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. These forms and the admission procedure are available from the program director.

A minimum grade of "C" must be earned in all nursing and science courses for progression in the program. A student who fails to perform satisfactorily in the clinical practice will receive a failing grade in the nursing course regardless of the theory grade. In addition, a grade point average of at least 2.0 must be maintained in all courses required to obtain the Associate of Science degree.

Recommended Program of Study

Associate of Science Degree — Nursing

First Year

Summer Session I

HS 131—Orientation to Clinical Practice	3
Bio 133—Anat & Physiology	3
HPE—Activity	1 or 2
	7 or 8

Summer Session II

HS 132—Orientation to Clinical Practice	3
Bio 134—Anat & Physiology	3
	6

Fall Semester

English Composition	3
Psy 131—Introduction	3
Nur 161—Mental & Physical Health I	6
Gov 2321—Intro Am Gov	3
	15

Spring Semester

Bio 245—Microbiology	4
English Composition	3
Nur 172—Mental & Physical Health II	7
His 231—American History	3
	17

Second Year

Summer Session I & II

Nur 281—Nursing Problems I	8
Soc 131—Introduction	3
	11

Fall Semester		**Spring Semester**	
Nur 282—Nursing Problems II	8	Nur 283—Nursing Problems III	8
Gov 232_—Amer Government	3	His 23_—American History	3
HPE	1 or 2	Eng 231_—English Literature	3
	12 or 13		14

Bachelor of Science in Nursing Program

The purpose of the baccalaureate nursing program is to prepare professional nurse practitioners who are highly competent and who can assume leadership in meeting the health care needs of people. The program is designed to meet the community's and state's needs for nurses prepared at the baccalaureate level. The graduates of this program will be able to assess health needs and to design and evaluate the outcome of plans for meeting the nursing and health care needs of individuals and families in a variety of health care settings. Upon completion of the program the graduate will be prepared to write the examination required for licensure as a nurse.

Students are accepted into the Bachelor of Science Nursing Program in the fall of each year. To be considered for admission, the student must submit an application to the program to the Head of the Department of Nursing by *April 15* of each year. Admission is based upon evidence of personal, physical, intellectual and emotional characteristics which are assumed to be consonant with a successful career in nursing.

A minimum grade point average of 2.50 in all previous college work as well as a minimum grade point average of 2.50 in all required content courses must be obtained for admission. Further information about applying for admission and the application forms may be obtained from the Head of the Department of Nursing. The student will be required to validate his 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. Transfer credits from other institutions will be evaluated on an individual basis.

Credit may be earned in all nursing courses by successfully completing competency examinations. Those students who have had the equivalent content in formal or informal training and who have completed all of the prerequisite courses may complete the competency examinations. Both theoretical and clinical application of content will be tested. A grade of B or better must be obtained on the competency examination to receive course credit. Arrangements for obtaining study materials to review for the examinations may be made at any time with the Head of the Department. A written request to take a competency examination must be submitted to the Department Head *at least* two (2) weeks prior to the date the examination is to be given.

Recommended Program of Study

Bachelor of Science — Nursing

Summer

Summer Session I

*HS 131—Orientation to Clinical Practice	3
Bio 133—Anat & Physiology	3
	6

Summer Session II

*HS 132—Orientation to Clinical Practice	3
Bio 134—Anat & Physiology	3
	6

First Year

Fall Semester

Psy 131—Introduction to Psy	3
Soc 131—Introduction to Soc	3
Eng 131_—Composition	3
His 23_—American History	3
Elective	3
**HPE—Activity	1 or 2
	16 or 17

Spring Semester

Psy 234—Child Psychology	3
Eng 131_—Composition	3
His 23_—American History	3
HEc 138—Nutrition	3
Math or Foreign Language	3 or 4
HPE—Activity	1 or 2
	16 to 19

*May be waived upon recommendation of the academic advisor.
**Check the current University catalog for specific HPE requirements.

Second Year

Fall Semester

Psy 241—Statistics	4
Chm 143—Introductory	4
Gov 2321—Intro Am Gov	3
Elective	3
HPE—Activity	1 or 2
	15 or 16

Spring Semester

Bio 245—Microbiology	4
Chm 144—Introductory	4
Gov 232_—American Government	3
Eng 231_—English Literature	3
HPE—Activity	1 or 2
	15 or 16

Nursing courses cannot be taken until the above prerequisite courses have been completed.

Third Year

Fall Semester

Nur 331—Hum Behavior in Health and Illness	3
Nur 332—Basic Prin of Nur Practice	3
Nur 333—Pathophysiology	3
Nur 334—Psychopathology	3
Soc, Psy, or Bio Sci	3
	15

Spring Semester

Nur 341—Biophys Nur Prob I	4
Nur 342—Biophys Nur Prob II	4
Soc, Psy, or Bio Sci	3
Nur 338—His, Eth and Legal	3
	15

Summer Session I

Nur 343—Biophys Nur Prob III	4
Nur 344—Biophys Nur Prob IV	4
	8

Summer Session II

Nur 441—Psychosoc Nur Prob I	4
Nur 442—Psychosoc Nur Prob II	4
	8

Fourth Year

Fall Semester

Nur 443—Psychosoc Nur Prob III	4
Nur 444—Psychosoc Nur Prob IV	4
Elective	3
Elective	3
	14

Spring Semester

Nur 481—Asses and Man Complex Nur Sit	8
Soc, Psy, or Bio Sci	3
Nur 428—Current Iss and Trends	2
	13

Total required for graduation: 132 Semester Hours.

General Guidelines and Premises:

1. Credit may be earned in all nursing courses by examination. Examinations will cover both theoretical and clinical components. Examinations may not be taken until all prerequisites have been completed.
2. Nursing 341, 342 and 443, 444 may be taken in any order.
3. Nursing 331, 332, 333 and 334 are prerequisite to all other nursing courses.
4. Nursing 343, 344, 441 and 442 are to be taken during the summer between the junior and senior years.
5. Nursing 481 and 428 are to be enrolled in during the last semester of the program.
6. Nursing 338 is recommended during the second semester and prerequisite to Nursing 428.

NURSING (Nur)

161 — Mental and Physical Health I. Provides an introduction to the six nursing concepts which serve as the framework for the nursing theory presented in the program. These six concepts encompass the basic physiological, nutritional, pharmacological, community health, mental health, and growth and development content which the student is expected to apply in assessing the nursing care for all age groups. The student begins to develop the technical, observational and communicative skills necessary to implement effective nursing care which emphasizes wellness in the physical, psychological and social domains. Class: 2 hours. Laboratory: 16 hours. Credit: 6 semester hours.

172 — Mental and Physical Health II. Continues to utilize the six basic concepts presented in the previous course with emphasis upon the maintenance of homeostasis in situations of stress upon the individual and family, such as labor and delivery and the operative process. Increased importance is placed on promoting wellness for the patient and family through teaching and more complete application of the nursing process. Class: 3 hours. Laboratory: 16 hours. Credit: 7 semester hours.

281 — Nursing Problems I. A continuation of the six basic concepts presented in previous courses. The focus in Nursing Problems I is on persons who are experiencing

need imbalance and behavioral patterns involved in maintaining homeostasis. The nursing process will be further emphasized during this course, continuing to consider the patient within his family unit and environment. Class: 3 hours. Laboratory: 15 hours. Credit: 8 semester hours.

282 — Nursing Problems II. The six basic concepts are extended throughout this course with emphasis on need imbalances which inflict more severe stress upon the bio-psycho-social integrity of the individual and the family unit. Increasingly complex manifestations of need imbalances and resultant behavioral changes are considered in expanding the scope and depth of the nursing process. Class: 3 hours. Laboratory: 15 hours. Credit: 8 semester hours.

283 — Nursing Problems III. A continuation of the integrated curriculum of the previous Nursing Problems I and II courses. Major focus will be placed upon the effect of crisis situations in need imbalance, identification of specific stressors and basic rehabilitative processes directed toward self-actualization. Increasing emphasis on the bio-psycho-social man within his family and community will continue. Identification of the responsibilities of the AS graduate, her role as a citizen in the community and career opportunities will be included both in theory and laboratory practice. Class: 2 hours. Laboratory: 24 hours. Credit: 8 semester hours.

NURSING (PNur)

331 — Human Behavior in Health and Illness. Study of man as a bio-psychosocial being and his patterned approaches to meeting his basic needs in health and illness. Class: 3 hours. Credit: 3 semester hours.

332 — Basic Principles of Nursing Practice. Study and practice in the cognitive, interpersonal and technical skills used in the assessment, management and evaluation of nursing problems. Class: 1 hour. Laboratory: 8 hours. Credit: 3 semester hours.

333 — Pathophysiology. Study of the structural and functional changes that occur as a consequence of bio-physical illness. Emphasis will be on current trends in medical diagnosis and management of bio-physical illness. Class: 3 hours. Credit: 3 semester hours.

334 — Psychopathology. Study of the behavioral changes that occur as a consequence of human socio-emotional disturbances. Emphasis will be on current trends in the diagnosis and management of mental illness. Class: 3 hours. Credit: 3 semester hours.

338 — Historical, Ethical and Legal Foundations of Nursing Practice. Study of the ethical and legal principles of nursing practice with special emphasis on their historical bases. Class: 3 hours. Credit: 3 semester hours.

341, 342, 343, 344 — Advanced Bio-Physical Nursing Problems I, II, III, IV. Theory and practice in the assessment, management and evaluation of bio-physical nursing problems as manifested by adults and children in a variety of health care settings and occurring as a consequence of health care activities designed to maintain and promote health, diagnose and recover from illness and/or cope with chronic illness. Emphasis will be on the nurse's role in assisting individual patients and their families in the identification of the solution to these problems. Each course in the series will focus on a different set of bio-physical nursing problems. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours for each semester.

441, 442, 443, 444 — Advanced Psycho-Social Nursing Problems I, II, III, IV. Theory and practice in the assessment, management and evaluation of psycho-social nursing problems as manifested by adults and children in a variety of health care settings and

occurring as a consequence of health care activities designed to maintain and promote health, diagnose and recover from illness and/or cope with chronic illness. Emphasis will be on the nurse's role in assisting individual patients and their families in the identification of and solution of these problems. Each course in the series will focus on a different set of psycho-social nursing problems. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours.

481 — Assessment and Management of Complex Nursing Situations. A systematic analysis of social system factors that affect the quantity and quality of nursing care. Emphasis is on theory and practice in assessment, management and evaluation of the health care systems in which nursing care is delivered. Class: 2 hours. Laboratory: 24 hours. Credit: 8 semester hours.

428 — Current Issues and Trends in Nursing Practice. Study of the political, social and professional issues affecting nursing and current approaches to their resolution. Class: 2 hours. Credit: 2 semester hours.

VOCATIONAL NURSING (VN)

122 — Nutrition and Diet Therapy. This course is designed to acquaint the student with the 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. Class: 2 hours. Credit: 2 semester hours.

133 — Pharmacology. This course is designed to introduce the student to pharmacology and the administration of medicines. Class: 3 hours. Credit: 3 semester hours.

136 — Medical Surgical Nursing I. Specific theory in the disease and conditions of integumentary, special sensory, respiratory, endocrine, muscular, and cardiovascular systems. Class: 3 hours. Credit: 3 semester hours.

137 — Medical Surgical Nursing II. Specific theory in the disease and conditions of gastrointestinal, genitourinary, male and female reproductive, nervous, and skeletal systems. Class: 3 hours. Credit: 3 semester hours.

138 — Obstetrical Nursing. Specific theory on the care of mothers and newborn infants. Class: 3 hours. Credit: 3 semester hours.

139 — Pediatric Nursing. Specific theory on the care of sick children. Class: 3 hours. Credit: 3 semester hours.

144 — Anatomy and Physiology. 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. Class: 4 hours. Credit: 4 semester hours.

166 — Clinical Practice I. General care of medical patients. Hospital practice. Corequisite: VN 136. Laboratory: 16 hours. Credit: 6 semester hours.

167 — Clinical Practice II. General care of surgical patients. Hospital practice. Corequisite: VN 137. Laboratory: 16 hours. Credit: 6 semester hours.

168 — Clinical Practice III. General care of mothers and newborn infants. Hospital practice. Corequisite: VN 138. Laboratory: 16 hours. Credit: 6 semester hours.

169 — Clinical Practice IV. General care of sick children. Hospital practice. Corequisite: VN 139. Laboratory: 16 hours. Credit: 6 semester hours.

175 — Nursing Skills. The skills designed to prepare the student in the techniques of basic nursing procedures including ability to meet emergencies. The operation of hospital equipment will be taught in this course. Class: 2 hours. Laboratory: 10 hours. Credit: 7 semester hours.

College of Liberal Arts

Departments: English, Government, History, Modern Languages, Public Affairs, Sociology

Preston B. Williams, Ph.D.,
Dean
Ms. Judy Ducote
Secretary

DEGREE OFFERINGS

Bachelor of Arts with majors in the following fields:

English	History
French	Sociology
Government	Spanish

Bachelor of Science with majors in the following fields:
Criminal Justice
Sociology

Associate of Science with a major in the following field:
Law Enforcement

Information concerning graduate programs in English, government and history may be obtained in the Graduate Bulletin.

THE LIBERAL ARTS

Lamar University accepts the philosophy that higher education involves the whole mind of man and thus should not be limited to job preparation. Thus, every student in the University takes a substantial portion of his 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 man, his 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.

To increase and strengthen its programs of education for public service, the College of Liberal Arts has established a Department of Public Affairs. In this Department a student may earn a Bachelor of Science in Criminal Justice, an Associate of Science in Law Enforcement, or a minor in Social Welfare which will qualify him for employment in social agencies.

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.

Department of English

Department Head — Arney L. Strickland. *Director of Freshman English* — Kirkland C. Jones. *Professors* — Robert J. Barnes, George W. de Schweinitz, Winfred S. Emmons, Harry L. Frissell, Elizabeth L. Meeks, Robert C. Olson, Henry B. Rule, R. Blaine Thomas, A. W. Yeats, David D. Zink. *Associate Professors* — Marilyn D. Georgas, Olga D. Harvill, Jack N. Renfrow. *Assistant Professors* — Henry Hutchings, III, Nora B. Leitch, Annette E. Platt, Joan B. Wilkerson. *Adjunct Instructors* — Jane Barnett, Betty H. Benesh, Lawrence H. Blum, Peggy J. Curet, Peter L. De Rose, Michael W. Duty, Charles Gongre, Ann E. Longknife, Charles L. Lyday, Helen E. Mendenhall, George R. Murray, Timothy Summerlin, Charles C. Tucker, Cheryl L. Ware, Mary Louise Yokley. *Secretaries* — Audrey Wynn and Janea Blair.

The degree of Bachelor of Arts in English will be awarded upon the completion of the following requirements:

A. General Requirements:
   Freshman composition — six semester hours.
   Mathematics and laboratory science — four semester courses, at least one in mathematics and one in Laboratory Science.
   Completion of the 232 course in a foreign language.
   History 131-132 — World History.
   Sophomore American History — six semester hours.
   Government 2321 and three other hours of sophomore American Government.
   Physical Education — four semesters.

B. Major:
   Sophomore literature — six semester hours, preferably selected from 2311, 2314, 2315 and 2316.
   Six hours of advanced American literature.
   Nine hours of advanced British literature, including either 3331 or 3332.
   English 430.

C. Minor:
   An approved minor of 18 semester hours, including at least six advanced semester hours.

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

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.
2. A 24-hour approved additional teaching field in the place of the minor (consult this catalog, 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

First Year

Eng—Composition	6
His 131-132—World Civilization	6
Foreign Language—141-142	8
*Mth	6
Electives	6
HPE—Activity	2
	34

Second Year

Eng—Sophomore Lit	6
Sophomore Am History	6
Gov 2321 & three other hours of sophomore Am Gov	6
Foreign Languages—231-232	6
Electives	6
HPE—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	9-12
	27-30

*Students may follow general degree requirement in regard to science and mathematics.

ENGLISH (Eng)

1311 — Composition. Detailed study of composition and reading skills. Frequent short themes. Recommended for students who score low on entrance tests or who have completed 1317. Class: 3 hours. Credit: 3 semester hours.

1312 — Composition. Intensive study and practice in the basic forms and principles of expository writing. Frequent themes. Collateral reading in articles and essays of a factual and informative type. Class: 3 hours. Credit: 3 semester hours.

1313 — Composition. Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from wide reading in the area of prose fiction. Class: 3 hours. Credit: 3 semester hours.

1314 — Composition. Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from wide readings in the areas of poetry and drama. Class: 3 hours. Credit: 3 semester hours.

1315 — Composition. Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from a wide survey of the various communications media — films, tapes, radio, television, etc. Class: 3 hours. Credit: 3 semester hours.

(Note: Various colleges and departments may counsel their majors into certain of the courses listed above; otherwise the student may satisfy his freshman English requirement by any combination of the courses above in any sequence, except that if 1311 is indicated, it must be taken first and that a student must not enroll in more than one freshman English course during the same semester.

1316 — Composition and Rhetoric. An accelerated program for those exceptionally well prepared at time of enrollment. Extensive writing; introduction to literary genres. Offered fall semester only. Satisfactory completion of this course meets requirement for freshman English. Class: 3 hours. Credit: 3 semester hours.

1317 — Developmental Reading & Writing. Designed to develop writing skills, broaden reading background, and improve reading comprehension. Emphasis on individualized instruction in composition. This course does not satisfy General Degree requirements for Freshman English. Class: 3 hours. Laboratory: 2 hours. Credit: 3 semester hours.

2311 — Masterworks of World Literature. Critical study of six to ten major monuments of world literature, from classical antiquity to the present century. Class: 3 hours. Credit: 3 semester hours.

2312 — Masterworks of American Literature. Critical study of six to ten major works of American literature, including both the nineteenth and twentieth centuries. Class: 3 hours. Credit: 3 semester hours.

2313 — Masterworks of British Literature. Critical study of six to ten major works of British literature, including writers from most of the important periods. Class: 3 hours. Credit: 3 semester hours.

2314 — Thematic Approaches to Literature. Critical study of significant literature related to a particular theme or concept. Works to be studied will be drawn from various genres and various national literatures. Class: 3 hours. Credit: 3 semester hours.

2315 — The Literature of Africa. Major writers of Africa, including various genres and works translated from languages other than English. Class: 3 hours. Credit: 3 semester hours.

2316 — Black Writers of America. Significant contributions to American literature from Colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

(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 courses above will satisfy a sophomore literature requirement.)

333 — Shakespeare. 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. Class: 3 hours. Credit: 3 semester hours.

334 — Advanced Grammar. Intensive analysis of sentences, the concept of structural meaning. Class: 3 hours. Credit: 3 semester hours.

335 — Creative Writing. 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. Class: 3 hours. Credit: 3 semester hours.

336 — The Short Story. The technique of the short story; its historical development; study and analysis of great short stories. Class: 3 hours. Credit: 3 semester hours.

337 — The Drama. The historical development of the drama from Aeschylus to the present. Intensive study of selected plays. Class: 3 hours. Credit: 3 semester hours.

338 — Studies in the British Novel. 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. Class: 3 hours. Credit: 3 semester hours.

339 — American Novel. A study of the history, growth, and technique of the American novel, with emphasis on the novels of the twentieth century. Class: 3 hours. Credit: 3 semester hours.

3312 — Introduction to Linguistics. 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. Class: 3 hours. Credit: 3 semester hours.

3313 — Mythology. 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. Class: 3 hours. Credit: 3 semester hours.

3316 — Poetic Analysis. A study of the forms and techniques and the critical evaluation of poetry. Class: 3 hours. Credit: 3 semester hours.

3321 — Methods of Teaching English. Methods of teaching reading and composition at the secondary level, with special attention to the assigning and evaluating of written work. Class: 3 hours. Credit: 3 semester hours.

3322 — The American Literary Renaissance: 1820-1860. An intensive study of the major authors of the period from Poe to Melville. Class: 3 hours. Credit: 3 semester hours.

3324 — The Development of American Realism: 1860-1900. An intensive study of the major authors of the period from Whitman to Norris. Class: 3 hours. Credit: 3 semester hours.

3331 — Advanced Survey of British Literature. Intensive survey of British literature from the beginnings to 1800, with wide collateral reading in literary history. Class: 3 hours. Credit: 3 semester hours.

3332 — Advanced Survey of British Literature. Intensive survey of British literature from 1800 to present, with wide collateral reading in literary history. Class: 3 hours. Credit: 3 semester hours.

430 — History of the English Language. Theory and nature of language. Studies in the growth of English and American forms. Prerequisite: foreign language through 232. Class: 3 hours. Credit: 3 semester hours.

432 — Studies in Sixteenth Century Literature. Critical studies in the poetry, prose, and drama of the age. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

434 — Shakespeare. Intensive study of selected major plays. Prerequisite: English 333 or permission of the instructor. Class: 3 hours. Credit: 3 semester hours.

435 — Studies in Seventeenth Century Literature. 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. Class: 3 hours. Credit: 3 semester hours.

438 — Studies in Eighteenth Century Literature. 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. Class: 3 hours. Credit: 3 semester hours.

439 — Studies in Romantic Literature. Critical studies in the poetry, prose, and drama of the Romantic Period. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

4311 — Studies in Victorian Literature. Critical studies in the poetry and prose of the Victorian Period. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

4312 — Studies in Language and Linguistics. Special problems in linguistics, such as the history of American English, regional dialects, new grammars. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

4317 — Contemporary Drama. A study of dramatic trends and representative plays from Ibsen to the present. Class: 3 hours. Credit: 3 semester hours.

4318 — Contemporary Poetry. A study of poetic developments in England and America with emphasis on representative poets from Hardy to the present. Class: 3 hours. Credit: 3 semester hours.

4319 — Contemporary Fiction. A study of prose fiction representative of modern ideas and trends, with emphasis on English and Continental authors. Class: 3 hours. Credit: 3 semester hours.

4322 — Russian Literature. Selected works from nineteenth and twentieth century Russian literature in translation, Pushkin to Sholokov. Class: 3 hours. Credit: 3 semester hours.

4123, 4223, 4323, 4423, 4523, 4623 — Institute in English. The theory and practice of traditional, structural and generative grammar; the theory and practice of composition; and the critical analysis of literature. Class: 1-4 hours. Laboratory: 2-4 hours. Credit: 1-6 semester hours.

4325 — Language: Sound and Meaning. 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. Class: 3 hours. Credit: 3 semester hours.

4326 — Expository Writing. The practical application of the techniques of mature exposition; classification, explanation, evaluation. Class: 3 hours. Credit: 3 semester hours.

4327 — Bibliography and Methods of Research. An introduction to research methods and sources. Recommended for those planning or beginning graduate study. Class: 3 hours. Credit: 3 semester hours.

4328 — Early American Literature. A survey of all significant writers from the beginning of Colonial America to 1828. Class: 3 hours. Credit: 3 semester hours.

4329 — Modern American Literature. A critical survey of major American writers of the twentieth century. Class: 3 hours. Credit: 3 semester hours.

4333 — Studies in a Particular Author. 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. Class: 3 hours. Credit: 3 semester hours.

4334 — Critical Studies in Literature. 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. Class: 3 hours. Credit: 3 semester hours.

4335 — Technical Report Writing. 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. Class: 3 hours. Credit: 3 semester hours.

Department of Government

Department Head — Manfred Stevens. *Professor* — William R. Tucker. *Associate Professor* — William M. Pearson. *Assistant Professors* — Bruce R. Drury, Elbert T. DuBose, Jr., Boyd L. Lanier, Glenn Utter. *Instructors* — Lyttleton Thomas Sanders, Ronald Stidham. *Adjunct Instructors* — Gary P. Dworkin, Stephen I. Frank, James L. Renneker. *Secretary* — Mrs. Agnes Gaines.

Bachelor of Arts — Government Major

A. General Requirements:
Freshman English — six semester hours
Literature — six semester hours
*Mathematics — six semester 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 AFROTC — four semesters

B. Major:
Government 2321 and three hours Sophomore American Government — six semester hours
Government 233 —Contemporary Political Analysis
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.

*For science and mathematics the general degree requirements may be followed.

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 catalog, College of Education).
3. Education 331, 332, 338, 438 and 462.
4. Sufficient electives to complete a total of 132 semester hours.

Recommended Program of Study

First Year

Eng—Composition	6
Foreign Language	8
Mth	6
HPE Activity	2
Electives*	9
	31

Second Year

Eng—Literature	6
Foreign Language	6
HPE Activity	4
Am His	6
Gov 233	3
Gov 2321 and three hrs soph Am Gov	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

*Gov 131 and His 131-132 are recommended

GOVERNMENT (Gov)

131 — Elements of Political Science. History of political institutions and ideas; power and cultural setting of modern governments. Class: 3 hours. Credit: 3 semester hours.

2321 — Introduction to American Government. A one-semester survey of the national and Texas constitutions and the important institutions and processes in American political life. Prerequisite: Sophomore standing. Class: 3 hours. Credit: 3 semester hours.

2322 — Texas Government. A study of the government and politics of Texas. Prerequisite: Gov. 2321. Class: 3 hours. Credit: 3 semester hours.

2323 — The American Political Culture. The study of American politics through the examination of contemporary cultural patterns. Prerequisite: Gov. 2321. Class: 3 hours. Credit: 3 semester hours.

2324 — Issues and Ideologies in American Politics. A study of the dilemmas of policy making in the context of current issues in American political life, both national and state/local. Issues and ideologies to be chosen by the instructor. Prerequisite: Gov. 2321. Class: 3 hours. Credit: 3 semester hours.

2325 — Political Power in the United States. An analysis of pluralism and elitism in American political life with emphasis on empirical data appropriate to both perspectives. Prerequisite: Gov. 2321. Class: 3 hours. Credit: 3 semester hours.

(NOTE: The student may satisfy his six hour government requirement by taking first, Government 2321 (three hours), which satisfies the state requirement concerning the federal and Texas constitutions and which is a prerequisite for all second-semester sophomore courses. Second, any one of the courses 2322-25 may be taken to satisfy the three additional hours of the six hour requirement in Government.

A person who has earned his degree outside of the State of Texas and who seeks Teacher Certification at Lamar University may fulfill the State requirement in Government by taking Government 2321.)

233 — Contemporary Political Analysis. A general introduction to political behavior as a generic concept; designed to equip the student with the theoretical models and methods of analysis appropriate to the various fields of political science. Class: 3 hours. Credit: 3 semester hours.

331 — The Politics of Developed Nations. An analysis of the political culture, political structure and decision-making process of developed nation-states with major emphasis on Western European systems. Class: 3 hours. Credit: 3 semester hours.

332 — Studies in International Politics. A study of the concepts underlying the Western State system; nationalism and imperialism; the techniques and instruments of power politics; and the foreign policies of selected states. Class: 3 hours. Credit: 3 semester hours.

334 — American Political Parties and Pressure Groups. 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. Class: 3 hours. Credit: 3 semester hours.

335 — The American Presidency. The role of the office in political and diplomatic, social and economic terms, as well as in the policy-making aspects. Class: 3 hours. Credit: 3 semester hours.

336 — International Institutions. 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. Class: 3 hours. Credit: 3 semester hours.

337 — The Politics of American Foreign Policy. 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. Class: 3 hours. Credit: 3 semester hours.

339 — Urban Politics. Analysis of the organization and development of urban governments in the United States. Interrelationships among urban problems, political behavior, and policy will be examined. Class: 3 hours. Credit: 3 semester hours.

3301 — The Legislative Process. The structure, functioning, and political control of legislative bodies. Class: 3 hours. Credit: 3 semester hours.

3302 — Classical Political Thought. The chief concepts of outstanding political thinkers from the Greeks to the Renaissance. Class: 3 hours. Credit: 3 semester hours.

3303 — Modern Political Thought. A continuation of Government 3302 from the Renaissance to Karl Marx, including the Reformation leaders, Hobbes, Locke, Rousseau and Hegel. Class: 3 hours. Credit: 3 semester hours.

3312 — American State Politics. A survey of American state political patterns, with special reference to Texas. Class: 3 hours. Credit: 3 semester hours.

3313 — The Judicial Process. The theory and structure of the American court system; its personnel and decision-making processes; the judicial process in the setting of the American criminal justice system. Class: 3 hours. Credit: 3 semester hours.

3315 — Conflict Management in American Politics. 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. Class: 3 hours. Credit: 3 semester hours.

3316 — Introduction to Public Administration. A survey of American public administration, with emphasis upon modern problems and trends. Class: 3 hours. Credit: 3 semester hours.

3317 — Politics of Developing Nations. 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. Class: 3 hours. Credit: 3 semester hours.

3319 — Statistics for Social Scientists. Basic concepts and techniques of statistics employed in social science research including descriptive statistics; measures of central tendency and dispersion, correlation and regression analysis; and inductive statistics: fundamentals of probability and tests of significance. Class: 3 hours. Credit: 3 semester hours.

430 — Organization Theory and Behavior. A study of the structural and management aspects of public administration, theory and practice; policy formation processes and techniques. Class: 3 hours. Credit: 3 semester hours.

433 — Contemporary Political Thought. The significant trends in political thought from Karl Marx to the present, including Lenin, Sorel, Green, Freud and elitist and fascist writers. Class: 3 hours. Credit: 3 semester hours.

434 — Formulation of Public Policy. 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. Class: 3 hours. Credit: 3 semester hours.

435 — The International System. The study of the legal bases of the modern international system and the political and legal characteristics of developing world order. Class: 3 hours. Credit: 3 semester hours.

436 — American Constitutional Law and Development. Development of the American Constitution through judicial interpretations, with particular emphasis on cases dealing with federalism, commerce, Congress, and the executive. Class: 3 hours. Credit: 3 semester hours.

437 — American Constitutional Law and Development. A continuation of Government 436 with particular emphasis upon cases dealing with due process and civil rights. Class: 3 hours Credit: 3 semester hours.

439 — Comparative Public Administration. A study of bureaucratic structures and functions of advanced and developing nations, emphasizing comparison of relationships between environments and administrative processes. Class: 3 hours. Credit: 3 semester hours.

4381 — Government and Politics of the Soviet Union. A study of the origin, development, structures, functions, and behavior of the Soviet decision-making organs. Class: 3 hours. Credit: 3 semester hours.

4382 — Government and Politics of East Asia. An introduction to the political ideas, institutions and processes of China and Japan considered against their social and economic development with special emphasis on contemporary political problems. Class: 3 hours. Credit: 3 semester hours.

4383 — Government and Politics of Latin America. 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. Class: 3 hours. Credit: 3 semester hours.

Department of History

Department Head — Adrian Anderson. *Professors* — Paul E. Isaac, Howard Mackey, Wesley Norton, Preston B. Williams, Ralph A. Wooster. *Associate Professors* — Howell Gwin, Marion Holt, William A. MacDonald, R. Beeler Satterfield, John W. Storey, Walter A. Sutton, Naaman J. Woodland. *Assistant Professors* - John M. Carroll, Joseph C. Lambert. *Instructor* — JoAnn Stiles. *Departmental Secretary* — Laquita Gribnau.

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 — six semester hours
Science — laboratory — eight semester hours
Completion of the 232 course in a foreign language
Sophomore government — six semester hours (including Government 2321)
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. An approved 24 hour additional teaching field (See College of Education section of this catalog 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

First Year

His 131-132—World History	6
Freshman English	6
Foreign Language	8
Mth	6
Electives	6
HPE—Activity	2
	34

Second Year

Sophomore American History	6
Literature (including Eng 2311)	6
Foreign Language	6
Science	8
Sophomore Government (including Government 2321)	6
HPE—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 (His)

131 — History of World Civilization. Survey of world history to 1660. Class: 3 hours. Credit: 3 semester hours.

132 — History of World Civilization. Survey of world history from 1660 to 1965. Class: 3 hours. Credit: 3 semester hours.

134 — History of Texas. Survey of Texas history from the beginning to the present time. Class: 3 hours. Credit: 3 semester hours.

231 — American History: History of the United States, 1763 to 1877. Survey of United States history from the revolutionary period through reconstruction. Class: 3 hours. Credit: 3 semester hours.

232 — American History: History of the United States, 1877 to the present. Survey of United States history from the post-reconstruction period to the present. Class: 3 hours. Credit: 3 semester hours.

233 — American History: The Development of Society in America. A historical survey of social change in the United States. Class: 3 hours. Credit: 3 semester hours.

234 — American History: The Arts in America. A historical survey of cultural life in the United States. Class: 3 hours. Credit: 3 semester hours.

235 — American History: The Americas to 1810. The United States and the Western Hemisphere from the beginning to 1810. Class: 3 hours. Credit: 3 semester hours.

236 — American History: The Americas since 1810. The United States and the Western Hemisphere since 1810. Class: 3 hours. Credit: 3 semester hours.

NOTE: Various colleges and departments may counsel their majors into certain of the courses listed above; otherwise the student may satisfy his American history requirement by taking any two courses selected from History 231, 232, 233, 234, 235 or 236.

330 — History of Ideas. The Judeo-Christian and Greco-Roman elements in the Western intellectual tradition. Class: 3 hours. Credit: 3 semester hours.

331 — Social and Intellectual History of the United States to 1865. Life and thought in the United States prior to 1865. Class: 3 hours. Credit: 3 semester hours.

332 — Social and Intellectual History of the United States Since 1865. Life and thought in the United States since 1865. Class: 3 hours. Credit: 3 semester hours.

333 — History of American Economic Life. Origin and development of American economic institutions. Class: 3 hours. Credit: 3 semester hours.

334 — Military History of the United States. History of American warfare and the development of American military institutions and practices. Class: 3 hours. Credit: 3 semester hours.

337 — Diplomatic History of the United States. Historical development of American diplomacy. Class: 3 hours. Credit: 3 semester hours.

338 — Urban History of the United States. The origin and development of cities in the United States. Class: 3 hours. Credit: 3 semester hours.

339 — Historical Research. Principles and methods of historical research. Class: 3 hours. Credit: 3 semester hours.

430 — Era of the Renaissance and Reformation. Western Europe from 1453 to 1610. Class: 3 hours. Credit: 3 semester hours.

431 — The Old Regime. Western Europe from 1610 to 1783. Class: 3 hours. Credit: 3 semester hours.

432 — The French Revolution and Napoleon. Western Europe from 1783 to 1815. Class: 3 hours. Credit: 3 semester hours.

433 — Russia and Eastern Europe to 1860. Russia, Poland, and the Balkans from the period of the Byzantine Empire to 1860. Class: 3 hours. Credit: 3 semester hours.

434 — Nineteenth Century Europe. Europe from 1815 to 1914. Class: 3 hours. Credit: 3 semester hours.

435 — Twentieth Century Europe. Europe since 1914. Class: 3 hours. Credit: 3 semester hours.

436 — The American West. The American West from colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

437 — The Old South. The American South from colonial times to the Civil War. Class: 3 hours. Credit: 3 semester hours.

438 — The New South. The American South from the Civil War to the present. Class: 3 hours. Credit: 3 semester hours.

439 — Honors Program. A tutorial program for honors seniors. Admission by invitation only. Credit: 3 semester hours.

4311 — Colonial America. Class: 3 hours. Credit: 3 semester hours.

4312 — The American Revolution. Class: 3 hours. Credit: 3 semester hours.

4313 — The Age of Jackson. Class: 3 hours. Credit: 3 semester hours.

4314 — The American Civil War. Class: 3 hours. Credit: 3 semester hours.

4315 — Reconstruction and Industrialization: The United States from 1865 to 1898. Class: 3 hours. Credit: 3 semester hours.

4316 — World Power and Reform: The United States from 1898 to 1920. Class: 3 hours. Credit: 3 semester hours.

4317 — New Deal and World Leadership: The United States from 1920 to 1940. Class: 3 hours. Credit: 3 semester hours.

4318 — Classical Civilization. Greece and Rome from earliest times to the fall of the Roman Empire in the West. Class: 3 hours. Credit: 3 semester hours.

4319 — Medieval Civilization. Western Europe and the Mediterranean area from the late Roman period to 1453. Class: 3 hours. Credit: 3 semester hours.

4321 — The Far East to 1800. Japan, China, Indo-China, and India to 1800. Class: 3 hours. Credit: 3 semester hours.

4322 — The Far East Since 1800. Japan, China, Indo-China and India since 1800. Class: 3 hours. Credit: 3 semester hours.

4323 — Latin America to 1810. Class: 3 hours. Credit: 3 semester hours.

4324 — Latin America Since 1810. Class: 3 hours. Credit: 3 semester hours.

4325 — Tudor and Stuart England. England from 1485 to 1688. Class: 3 hours. Credit: 3 semester hours.

4326 — Eighteenth Century England. England (Great Britain) from 1688 to 1815. Class: 3 hours. Credit: 3 semester hours.

4327 — Victorian England. Great Britain from 1815 to 1914. Class: 3 hours. Credit: 3 semester hours.

4328 — Contemporary America: The United States Since 1940. Class: 3 hours. Credit: 3 semester hours.

4329 — Modern European Intellectual History. An examination of the major European intellectual movements and thinkers from the Renaissance to the present. Class: 3 hours. Credit: 3 semester hours.

4331 — Russia Since 1860. The development of modern Russia, from 1860 to the present. Class: 3 hours. Credit: 3 semester hours.

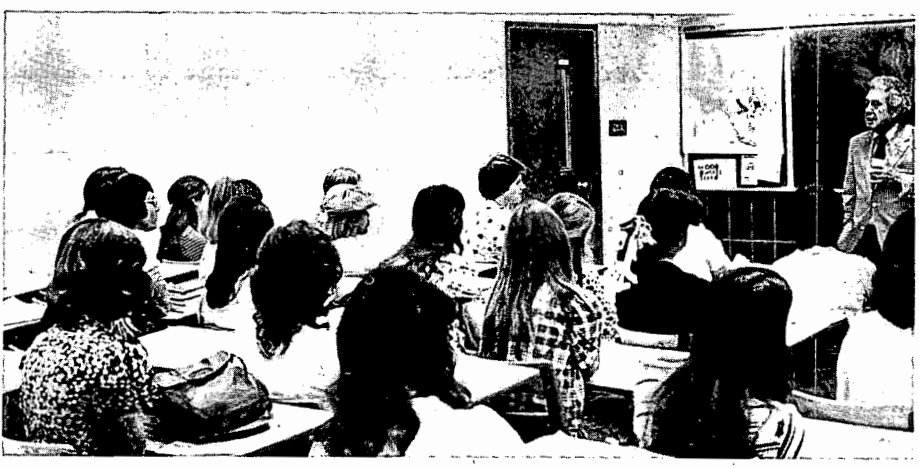
4332 — Afro-American History to 1865. The black experience in Africa and in the Western hemisphere prior to emancipation. Class: 3 hours. Credit: 3 semester hours.

4333 — Afro-American History since 1865. The black experience toward achieving freedom in the United States. Class: 3 hours. Credit: 3 semester hours.

4334 — Early National Period. The United States from 1789 to 1820. Class: 3 hours. Credit: 3 semester hours.

4335 — Topics in History. Selected special topics in major areas of history. Course may be repeated for a maximum of six semester hours credit when the topic varies. Class: 3 hours. Credit: 3 semester hours.

4336 — Ancient Near East. The civilizations of the Near East from the earliest times to the pre-classical period. Class: 3 hours. Credit: 3 semester hours.



Department of Modern Languages

Department Head — M. LeRoy Ellis. *Professor* — Victoria E. Urbano. *Associate Professor* — Nathan Travis Francis. *Assistant Professors* — William F. Adams, Jr., Antonio de J. Pineda, Genevieve Smith. *Instructor* — R. Victoria Price. *Departmental Secretary* — Mrs. Morfydd Timmerman.

The language requirement for a Bachelor of Arts degree is the completion of the 232 course.

Students who plan to do graduate work are advised to study two foreign languages while earning the Bachelor of Arts degree.

Placement and Advanced Status. Students with a background in a foreign language are placed according to CEEB scores submitted. A student not submitting a CEEB test score may take the CEEB Achievement Test (not the Supplementary Achievement Test) in the language either during the summer orientation program or at a designated time just prior to registration. All students are urged to take the CEEB language achievement test in high school as an additional fee will be required if the test is taken after entering Lamar University.

A. Students with one year of language in high school:
   1. CEEB test scores submitted
      a. Advanced placement if score is high enough
      b. Placed in language 141 for credit if score is too low
   2. No CEEB test score submitted
      Placed in language 141 for credit

B. Students with two years or more of language in high school:
   1. CEEB test scores submitted
      a. Advanced placement if score is high enough
      b. Placed in language 143 if score is too low
      c. May choose to take language 141, for credit
   2. No CEEB test score submitted
      a. Placed in language 143 for credit
      b. May choose to take language 141, for credit

C. Foreign students:
   1. Those whose native language is French, German or Spanish and who wish to continue the formal study of the language will be placed according to CEEB test scores submitted.
   2. Those who want to study a language other than native language will be placed as any other student studying a foreign language.

Any student placing in an intermediate or advanced course will receive credit for the 142 course and intermediate courses circumvented, up to a maximum of 10 semester hours, provided that he take the next higher course and earn a grade of "C" or better.

As no advanced German courses are offered, students placing in an *advanced* German course (i.e., beyond Ger 232) should then consult the head of the Department of Modern Languages to get credit for courses skipped by means of the Advanced Standing Examination procedure.

Students who have had previous study of a language, but do not feel they are ready to take a course beyond the elementary level, may resume the study of that language

starting with Language 141. Credit will be given for all courses satisfactorily completed provided that they do not duplicate other courses taken on the college level.

Americans or foreign citizens who speak a foreign language but have had no formal training in the language will be treated as any other student with no formal training in the language.

Advanced Placement Examination

(See *Admissions*, this catalog)

Bachelor of Arts — French Major or Spanish Major

The degrees 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
Government 2321 and three hours Sophomore American Government — six semester hours
Physical Education or Band — four semesters

B. Major:
French
French 231-232 — Reading, Composition, Conversation
French 330 — French Conversation
French 337 — Advanced Grammar and Composition
French 338 — French Phonetics
Advanced French — nine semester hours
Spanish
Spanish 231-232 — Reading, Composition, Conversation
Spanish 330 — Spanish Conversation
Spanish 335 — Advanced Composition
Advanced Spanish — 12 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 requirement in regard to science and mathematics.

Recommended Program of Study

First Year

*Maj Lang 141-142 — Elementary	8
Eng—Composition	6
**Mth	6
HPE—Activity	2
Elec	12
	34

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
Fre (adv)	3
or	
Maj Lang: Spa 330, 335	6
Spa (Adv)	6
Gov 2321 and 3 hrs Soph Amer Gov	6
Elec (incl minor)	12
	30

Fourth Year

Maj Lang (Adv)	6
Elec (incl minor)	24
	30

*Must be included if student has not already had the equivalent.
**Students may follow general degree requirement in regard to Science and Mathematics.

Teacher Certification — French, Spanish

Students 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 catalog 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.

ENGLISH AS A SECOND LANGUAGE (ESL)

131 — English as a Second Language. A beginning course in American pronunciation and usage. Conversation, oral and reading comprehension. Laboratory use of tapes. No previous study of English required. Open to all international students for whom English is a second language. Graded on a Satisfactory-Unsatisfactory basis. Class limited to 15 students. Class: 12 hours a week for approximately four weeks. Laboratory: 3-4 hours per week. Credit: 3 semester hours.

132 — English as a Second Language. Prerequisite: ESL 131, unless exempt by proficiency examination. Emphasis on vocabulary and use of grammatical patterns for conversation; reading and oral comprehension. Written exercises. Laboratory use of tapes. Class: 12 hours a week for approximately four weeks. Laboratory: 3-4 hours per week. Credit: 3 semester hours.

133 — English as a Second Language. Prerequisite: ESL 131 and 132, unless exempt by proficiency examination. Emphasis on vocabulary building, advanced grammar and

usage, idiomatic expression. Written exercises. Oral presentations. Laboratory use of tapes. Class: 12 hours a week for approximately four weeks. Laboratory: 3-4 hours per week. Credit: 3 semester hours.

134 — English as a Second Language. Prerequisite: ESL 131, 132 and 133 unless exempt by proficiency examination. Intensive study of oral and written English with an emphasis on complex structures. Advanced level of vocabulary. Laboratory use of tapes. Class: 12 hours a week for approximately four weeks. Laboratory: 3-4 hours per week. Credit: 3 semester hours.

135 — Composition: English as a Second Language. A detailed study of composition, use of a dictionary, and use of library materials. Frequent short themes. Laboratory assignments as needed. Required of undergraduate students for whom English is a second language. Applies toward freshman English Composition requirement for students for whom English is a second language unless scores on proficiency examination place student in regular English Composition courses. Class: 3 hours. Credit: 3 semester hours.

136 — Composition: English as a Second Language. Intensive study and practice in the basic forms of expository writing. Frequent themes. Laboratory assignments as needed. Satisfactory completion of ESL 135 and this course meets the requirement for freshman English Composition for students for whom English is a second language. Class: 3 hours. Credit: 3 semester hours.

FRENCH (Fre)

141 — Elementary French. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

142 — Elementary French. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Prerequisite: Fre 141 or equivalent determined by examination. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

143 — First Year French. 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. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

231, 232 — Reading, Composition, Conversation. Prerequisite for Fre 231: Fre 142 or equivalent. Prerequisite for Fre 232: Fre 231 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

330 — French Conversation. Required of majors and of students desiring teacher certification in French. With approval of department head, the course may be repeated for credit. (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. Class: 3 hours. Credit: 3 semester hours.

331 — Contemporary French Drama. 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. Class: 3 hours. Credit: 3 semester hours.

332 — Contemporary French Novel. 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. Class: 3 hours. Credit: 3 semester hours.

337 — Advanced Grammar and Composition. A thorough study of French grammar with extensive written composition. Secondary stress on pronunciation. Prerequisite: Fre 232. Class: 3 hours. Laboratory. Credit: 3 semester hours.

338 — French Phonetics. A study of the French sound system. Laboratory exercises to improve pronunciation. Prerequisite: Fre 232. Class: 3 hours. Laboratory. Credit: 3 semester hours.

339 — French Culture and Civilization. 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. Class: 3 hours. Credit: 3 semester hours.

430 — Problems in Teaching Foreign Languages. 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. Class: 3 hours. Credit: 3 semester hours.

431 — The Nineteenth Century French Novel. Prerequisite: 6 hours of advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

433 — 17th Century French Literature. 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. Class: 3 hours. Credit: 3 semester hours.

435 — Survey of French Literature through the 18th Century. Readings from significant works. Lectures, readings, oral and written reports. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

436 — Survey of French Literature Since the 18th Century. Readings from significant works. Lectures, readings, oral and written reports. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

437 — French Poetry. A study of the evolution of French poetry, with primary stress on the poetry of the 19th and 20th centuries. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

GERMAN (Ger)

141 — Elementary German. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

142 — Elementary German. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Prerequisite: Ger 141 or equivalent determined by examination. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

230 — Technical Translation. Translation of technical textbook and selected articles in technical and scientific journals. (Ger 230 with a prerequisite of Ger 142 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 142. Class: 3 hours. Credit: 3 semester hours.

231 — Reading, Composition, Conversation. 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 B.S. degree. Prerequisite: Ger 142 or equivalent, or placement by proficiency test. Class: 3 hours. Credit: 3 semester hours.

232 — Reading, Composition, Conversation. Grammar review as needed. Composition, conversation, and emphasis upon reading and vocabulary building. Prerequisite: Ger 231 or equivalent, or placement by proficiency test. Class: 3 hours. Credit: 3 semester hours.

330 — German Conversation. Required of students desiring teacher certification in German. With approval of department head, the course may be repeated for credit. (This course may not be substituted for German 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Ger 231 or equivalent. Class: 3 hours. Credit: 3 semester hours.

335 — Advanced Composition. Prerequisite: Ger 232. Class: 3 hours. Credit: 3 semester hours.

337 — German Culture and Civilization. A survey of the intellectual, philosophic, political, and social development of Germany. Readings of significant works in these areas. Lectures, readings, oral and written reports. Prerequisite: Ger 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

338 — The German Novelle. A study of the development of the German *Novelle*. Lectures, reading of selected works, oral and written reports. Prerequisite: Ger 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

431 — German Literature to the Mid-eighteenth Century. A study of major literary movements, authors, and works from the ninth to the mid-eighteenth century. Lectures, readings, oral and written reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

432 — German Literature Since the Mid-eighteenth Century. A study of major literary movements, authors, and works from the mid-eighteenth century to the present. Lectures, readings, oral and written reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

434 — The History of the German Language. A study of the development of modern German from its Indo-European sources. Lectures, readings, reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

435 — Directed Readings in German Literature. Intensive readings in the works of an author, a genre, or a literary movement. Discussion, oral and written reports. May be taken more than once for credit when the topic varies. Prerequisite: Ger 232 or equivalent, approval of department head and instructor. Class: 3 hours. Credit: 3 hours.

ITALIAN (Ita)

141 — Elementary Italian. Conversation, reading, dictation, grammar. Use of tapes. Emphasis will be placed on vocabulary and pronunciation. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

142 — Elementary Italian. Conversation, reading, dictation, grammar. Use of tapes. Emphasis will be placed on vocabulary and pronunciation. Prerequisite: Italian 141. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

SPANISH (Spa)

141 — Elementary Spanish. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

142 — Elementary Spanish. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Prerequisite: Spa 141 or equivalent determined by examination. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

143 — First Year Spanish. 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. Class: 4 hours. Laboratory: two 30-minute sessions. Credit: 4 semester hours.

231, 232 — Reading, Composition, Conversation. Prerequisite for Spa 231: Spa 142 or equivalent. Prerequisite for Spa 232: Spa 231 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

330 — Spanish Conversation. Required of majors and of students desiring teacher certification in Spanish. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Spa 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Spa 231 or equivalent. Class: 3 hours. Credit: 3 semester hours.

331 — Culture and Civilization of Spain and Spanish America. 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. Class: 3 hours. Credit: 3 semester hours.

332 — Culture and Civilization of Spanish-American Countries. A study of the geography, history, government, art, economic resources and psychology of South America. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

333 — Survey of Spanish-American Literature. A study of outstanding writers and their works up to the nineteenth century *modernista* movement. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

334 — Survey of Spanish-American Literature. 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. Class: 3 hours. Credit: 3 semester hours.

335 — Advanced Composition. 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. Class: 3 hours. Credit: 3 semester hours.

336 — Advanced Composition. 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. Class: 3 hours. Credit: 3 semester hours.

337 — Contemporary Spanish-American Short Story. 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. Class: 3 hours. Credit: 3 semester hours.

338 — Contemporary Theater of Spain. 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. Class: 3 hours. Credit: 3 semester hours.

431 — Contemporary Spanish Literature. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

432 — Development of Spanish Novel. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

433 — Survey of Spanish Literature Through the 17th Century. 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. Class: 3 hours. Credit: 3 semester hours.

434 — Survey of Spanish Literature Since the 17th Century. 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. Class: 3 hours. Credit: 3 semester hours.

436 — Spanish American Novel. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

LAMAR OVERSEAS STUDY PROGRAM

The Lamar Overseas Study Program was initiated in the summer of 1971. A group of 15 students, accompanied by a director from the Department of Modern Languages, spent six weeks at the University of Strasbourg, France, where the participants studied French and German language and literature on all levels. The program will be offered every other year, that is, 1977, 1979, 1981, as long as there is interest in it. The group is limited to 15 students. College students as well as high school students who receive their high school diplomas before the beginning of the program are eligible to participate. Students interested in registering for the program may obtain details from the office of the Department of Modern Languages.

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 141, 142, 231, and 232, may take those courses abroad.

4371 — French Studies Abroad. A study of the French language, literature, and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. Cultural activities will include visits to famous museums, historic sites, and churches and cathedrals. Credit for this course may be applied toward a major in French. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4372 — French Studies Abroad. 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. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4373 — French Studies Abroad. 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. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4374 — French Studies Abroad. Students may register for this course concurrently with French 4373. The course is designed for students who have completed French 4371 or 4372. It consists of a more advanced study of French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. An in-depth study will be made by the student of one facet of the foreign culture. Credit for this course may be applied toward a major in French. Prerequisite: French 4371 or 4372. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4371 — German Studies Abroad. 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. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4372 — German Studies Abroad. 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. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4373 — German Studies Abroad. 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. Class: 3 hours. Laboratory. Credit: 3 semester hours.

4374 — German Studies Abroad. 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. Class: 3 hours. Laboratory. Credit: 3 semester hours.

Department of Public Affairs

Department Head — John R. Altemose, Jr. *Assistant Professors* — Robert L. Frazier, Vernice M. Monroe. *Adjunct Professors* — George A. Phair, Ralph A. Tolve. *Instructor* — Jerry L. Murphy. *Instructor II* — Edward L. Parker. *Instructor I* — Robert F. Berard. *Secretary* — Virginia A. Hill.

The Department of Public Affairs offers undergraduate instruction leading to the Associate of Science degree in Law Enforcement and the Bachelor of Science degree in Criminal Justice. In addition, an 18 semester hour minor sequence in Social Welfare is offered.

The Law Enforcement Academy offers basic and advanced law enforcement training. Law Enforcement Academy courses are open only to students who have permission of the Coordinator of the Law Enforcement Academy.

The A.S. degree in Law Enforcement, the B.S. degree in Criminal Justice and the training offered by the Law Enforcement Academy are fully accredited by the Texas Commission on Law Enforcement Officer Standards and Education.

Associate of Science in Law Enforcement

The degree of Associate of Science in Law Enforcement will be awarded upon the completion of the following requirements:

A. General Requirements:
   Freshman English Composition — six semester hours
   Literature — three semester hours
   Science — laboratory — eight semester hours
   Government 2321 and three hours Sophomore American Government
   History — Sophomore American — six semester hours
   Physical Education, Band or AFROTC — two semesters

B. Criminal Justice:
   CJ 131 — Police Organization and Administration
   CJ 132 — Introduction to Law Enforcement
   CJ 133 — Police-Community Relations
   CJ 134 — Police Role in Delinquency
   CJ 232 — Criminal Investigation
   CJ 234 — Legal Aspects of Law Enforcement
   CJ 237 — Introduction to Criminal Procedure and Evidence

C. Electives:
   Sufficient approved electives to complete a total of 64 semester hours.

Bachelor of Science in Criminal Justice

The degree of Bachelor of Science in Criminal Justice is offered with five concentrations: law enforcement; police administration and management; security and crime prevention; corrections; and criminal justice theory and research. The degree will be awarded upon the completion of the requirements listed under any one of the five concentrations. Requirements common to all five concentrations are as follows:

A. General Requirements
Freshman English Composition — six semester hours
Literature — three semester hours
Science — laboratory — eight semester hours
Mathematics — six semester hours
(For science and mathematics the general degree requirements may be followed)
Government 2321 and three hours Sophomore American Government
History — Sophomore American — six semester hours
Physical Education, Band or AFROTC — four semesters

B. Criminal Justice — thirty-six semester hours in Criminal Justice as specified under the concentration chosen.

C. Structured Electives — eighteen semester hours as specified under the concentration chosen. Structured electives are as follows:

Group One (Behavioral Science)
Soc 131 — Introduction to Sociology
Soc 132 — Social Problems
Soc 231 — Deviant Behavior
Soc 333 — Urban Sociology
Soc 336 — Race Relations
Swf 231 — Introduction to Social Welfare
Swf 334 — Social Welfare Planning
Swf 432 — Seminar
Psy 131 — Introduction to Psychology
Psy 333 — Psychology of Group Behavior
Psy 432 — Abnormal Behavior
Psy 436 — Learning

Group Two (Criminology and Delinquency)
Soc 338 — Criminology
Soc 339 — Juvenile Delinquency

Group Three (Public Administration)
Gov 339 — Urban Politics
Gov 3316 — Introduction to Public Administration
Gov 430 — Organizational Theory and Behavior

Group Four (Business)
Acc 231 — Principles of Accounting
Acc 232 — Principles of Accounting
Eco 231 — Principles
Eco 232 — Principles
BA 335 — Principles of Management
BA 336 — Personnel Management
BA 4315 — Budgetary Control

Group Five (Methods)
Gov 3319 — Statistics for Social Scientists
Soc 438 — Research Methods
Phl 330 — Philosophy of Science

CS 131 — Introduction to Computer and Information Service
CS 132 — Programming of Digital Computers
Psy 241 — Introduction to Statistical Methods
Psy 242 — Methods in Psychology
Psy 342 — Statistical Methods

D. Electives — sufficient additional electives to complete a total of 126 semester hours.

Concentration in Law Enforcement. (Designed to prepare the student for line operations in law enforcement agencies).

A. General Requirements — as listed above

B. Criminal Justice:
CJ 131 — Police Organization and Administration
CJ 132 — Introduction to Law Enforcement
CJ 133 — Police Community Relations
CJ 134 — Police Role in Crime and Delinquency
CJ 232 — Criminal Investigation
CJ 234 — Legal Aspects of Criminal Justice
CJ 237 — Criminal Procedure and Evidence
CJ 332 — Behavioral Foundations
CJ 333 — Methods of Intervention
CJ 334 — Introduction to Corrections
CJ electives — six semester hours of additional CJ courses, including at least three advanced hours

C. Structured Electives:
Twelve semester hours chosen from Group One
Three semester hours chosen from Group Two
Three semester hours chosen from Group Five

D. Electives — sufficient additional electives to complete a total of 126 semester hours.

Recommended Program of Study

First Year		Second Year	
CJ 132, 234	6	CJ 131, 133, 134, 232	12
Eng—Composition	6	Eng—Literature	3
Mth	6	Gov—Soph (including Gov 2321)	6
Science—Laboratory	8	His—Soph Amer	6
Psy 131 (Group One)	3	Soc—Group Two	3
Soc 131 (Group One)	3	HPE—Activity	4
HPE—Activity	2		—
	—		34
	34		

Third Year	
CJ 237, 332, 333, 334	12
Group One	6
Group Five	3
Electives	9
	30

Fourth Year	
CJ electives	6
Electives	22
	28

Concentration in Police Administration and Management. (Designed to prepare the student for supervisory and administrative positions in law enforcement agencies).

A. General Requirements — as listed above

B. Criminal Justice:
   CJ 131 — Police Organization and Administration
   CJ 132 — Introduction to Law Enforcement
   CJ 133 — Police Community Relations
   CJ 134 — Police Role in Crime and Delinquency
   CJ 232 — Criminal Investigation
   CJ 234 — Legal Aspects of Criminal Justice
   CJ 237 — Criminal Procedure and Evidence
   CJ 433 — Seminar in Police Problems
   CJ 434 — Advanced Police/Security Administration
   CJ 435 — Advanced Management Techniques in Criminal Justice
   CJ electives — six semester hours of additional CJ courses, including at least three advanced hours

C. Structured Electives:
   Three semester hours chosen from Group Two
   Nine semester hours from Group Three
   Six semester hours chosen from Group Five

D. Electives — Sufficient additional electives to complete a total of 126 semester hours.

Recommended Program of Study

First Year	
CJ 132, 234	6
Eng—Composition	6
His—Soph Amer	6
Mth	6
Science—Laboratory	8
HPE—Activity	2
	34

Second Year	
CJ 131, 133, 134, 232	12
Eng—Literature	3
Gov—Soph (including Gov 2321)	6
Soc—Group Two	3
Electives	6
HPE—Activity	4
	34

Third Year

CJ 237	3
CJ electives	6
Gov—Group Three	6
Group Five	6
Electives	9
	30

Fourth Year

CJ 433, 434, 435	9
Gov—Group Three	3
Electives	16
	28

Concentration in Security and Crime Prevention. (Designed to prepare the student for supervisory and administrative positions in public and private security agencies).

A. General Requirements — as listed above

B. Criminal Justice:
   CJ 131 — Police Organization and Administration
   CJ 232 — Criminal Investigation
   CJ 234 — Legal Aspects of Criminal Justice
   CJ 237 — Criminal Procedure and Evidence
   CJ 331 — Introduction to Security
   CJ 431 — Crime Prevention
   CJ 432 — Advanced Commercial/Retail Security
   CJ 434 — Advanced Police/Security Administration
   CJ 435 — Advanced Management Techniques in Criminal Justice
   CJ electives — nine semester hours of additional CJ courses

C. Structured Electives:
   Eighteen semester hours chosen from Group Four

D. Electives — sufficient additional electives to complete a total of 126 semester hours.

Recommended Program of Study

First Year

CJ 131, 234	6
Eng—Composition	6
Mth	6
Science—Laboratory	8
Eco 231, 232 (Group Four)	6
HPE—Activity	2
	34

Second Year

CJ 232, 237, 331	9
Eng—Literature	3
Gov—Soph (including Gov 2321)	6
His—Soph Amer	6
Acc 231, 232 (Group Four)	6
HPE—Activity	4
	34

Third Year

CJ 431, 432	6
CJ electives	9
BA—Group Four	6
Electives	9
	30

Fourth Year

CJ 434, 435	6
Electives	22
	28

Concentration in Corrections. (Designed to prepare the student for treatment and supervisory positions in prisons, jails, probation, parole and other treatment programs).

A. General Requirements — as listed above

B. Criminal Justice:
   - CJ 134 — Police Role in Crime and Delinquency
   - CJ 234 — Legal Aspects of Criminal Justice
   - CJ 332 — Behavioral Foundations
   - CJ 333 — Methods of Intervention
   - CJ 334 — Introduction to Corrections
   - CJ 436 — Seminar in Community-Based Corrections
   - CJ 437 — Seminar in Institutional-Based Corrections
   - CJ 438 — Seminar in Correctional Problems
   - CJ 461 — Correctional Field Experience
   - CJ electives — six semester hours of additional CJ courses

C. Structured Electives:
   - Twelve semester hours chosen from Group One
   - Three semester hours chosen from Group Two
   - Three semester hours chosen from Group Five

D. Electives — sufficient additional electives to complete a total of 126 semester hours.

Recommended Program of Study

First Year

CJ 134, 234	6
Eng—Composition	6
Science—Laboratory	8
Psy 131 (Group One)	3
Soc 131 (Group One)	3
Group One	6
HPE—Activity	2
	34

Second Year

CJ 332, 333, 334	9
Eng—Literature	3
His—Soph Amer	6
Gov 2321	3
Mth	6
Soc—Group Two	3
HPE—Activity	4
	34

Third Year

CJ 436, 437	6
CJ electives	6
Gov—Soph	3
Group Five	3
Electives	12
	30

Fourth Year

CJ 438, 461	9
Electives	19
	28

Concentration in Criminal Justice Theory and Research. (Designed to give the broadest possible background in criminal justice to prepare the student for graduate school or for positions in criminal justice planning and research).

A. General Requirements — as listed above

B. Criminal Justice:
   CJ 132 — Introduction to Law Enforcement
   CJ 134 — Police Role in Crime and Delinquency
   CJ 234 — Legal Aspects of Criminal Justice
   CJ 332 — Behavioral Foundations
   CJ 333 — Methods of Intervention
   CJ 334 — Introduction to Corrections
   CJ 439 — Seminar in Criminal Justice and Theory
   CJ 4311 — Criminal Justice Planning and Research
   CJ 4312 — Contemporary Issues in Criminal Justice
   CJ electives — nine semester hours of additional CJ courses

C. Structured Electives:
   Six semester hours from Group Two
   Twelve semester hours from Group Five

D. Electives — sufficient additional electives to complete a total of 126 semester hours.

Recommended Program of Study

First Year

CJ 134, 234	6
Eng—Composition	6
His—Soph Amer	6
Mth	6
Science—Laboratory	8
HPE—Activity	2
	34

Second Year

CJ 132, 334	6
Eng—Literature	3
Gov—Soph (including Gov 2321)	6
Group Five	6
Soc 338, 339 (Group Two)	6
Elective	3
HPE—Activity	4
	34

Third Year

CJ 332, 333	6
CJ electives	6
Group Five	6
Electives	12
	30

Fourth Year

CJ 439, 4311, 4312	9
CJ elective	3
Electives	16
	28

CRIMINAL JUSTICE (CJ)

131 — Police Organization and Administration. Principles of organization and management as applied to law enforcement agencies; introduction to concepts of organizational behavior. Class: 3 hours. Credit: 3 semester hours.

132 — Introduction to Law Enforcement. History, development and philosophy of law enforcement in a democratic society; introduction to agencies involved in the administration of criminal justice; career orientation. Class: 3 hours. Credit: 3 semester hours.

133 — Police-Community Relations. The role of the individual officer in achieving and maintaining positive public response; inter-group relations and public information. Class: 3 hours. Credit: 3 semester hours.

134 — Police Role in Crime and Delinquency. Study of deviant behavior and current criminological theories, with emphasis on police applications; crime prevention and the phenomena of crime as it relates to juveniles. Class: 3 hours. Credit: 3 semester hours.

1311 — Introduction to Law Enforcement (Academy). A study of history and philosophy of law enforcement: structure of government; criminal justice system; Texas Penal Code; Texas Texas Code of Criminal Procedure; search and seizure; civil procedures; and laws of arrest. Prerequisite: admission to Police Academy and consent of instructor. Class: 3 hours. Credit: 3 semester hours.

1312 — Law Enforcement Related Fields (Academy). 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. Class: 3 hours. Credit: 3 semester hours.

1611 — Law Enforcement Procedures (Academy). A study of patrol procedure; crowd control; communications; case preparation; defensive driving; criminal investigation (all types); detention procedures; disaster operation; handling abnormal people; missing persons; disorderly conduct and minor offenses; and traffic control. Prerequisite: admission to Police Academy and consent of instructor. Laboratory: 10 hours. Class: 1 hour. Credit: 6 semester hours.

232 — Criminal Investigation. Introduction to the fundamentals of criminal investigation, including theory and history, conduct at crime scenes, collection and preservation of evidence. Class: 3 hours. Credit: 3 semester hours.

234 — Legal Aspects of Criminal Justice. History and philosophy of modern criminal law, including the structure, definition and application of statutes and leading case laws; the elements of crimes and penalties; general provisions of the Penal Code. Class: 3 hours. Credit: 3 semester hours.

237 — Criminal Procedures and Evidence. Introduction to the rules governing the admissibility of evidence and types of evidence; criminal procedure in various courts, review of the Texas Code of Criminal Procedure, including laws of arrest, search and seizure, and leading case law on each topic. Prerequisite: CJ 234. Class: 3 hours. Credit: 3 semester hours.

331 — Introduction to Security. Historical, philosophical, and legal basis of security; survey of the administrative, personnel and physical aspects of the security field. Class: 3 hours. Credit: 3 semester hours.

332 — Behavioral Foundations. Analysis of human behavior and development as derived from the social processes and institutions of man. (Credit will not be allowed for both CJ 332 and Swf 332). Class: 3 hours. Credit: 3 semester hours.

333 — Methods of Intervention. Method of intervention for problem solving as employed by the helping professions; interviewing; counseling; case work; group work; community organization. (Credit will not be allowed for both CJ 333 and Swf 333). Class: 3 hours. Credit: 3 semester hours.

334 — Introduction to Corrections. History and philosophy of corrections; survey of correctional process including sentencing, probation, correctional institutions, and parole. Class: 3 hours. Credit: 3 semester hours.

335 — The Juvenile Justice System. History, organization, programs and procedures of the agencies charged with control and prevention of juvenile delinquency, including police juvenile units, the juvenile court, and juvenile correctional agencies. Class: 3 hours. Credit: 3 semester hours.

336 — Victimless Crime. Narcotics, drunkenness, 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. Class: 3 hours. Credit: 3 semester hours.

337 — Organized Crime. Survey of organized crime in America; areas of influence; remedial practices and control. Class: 3 hours. Credit: 3 semester hours.

338 — White-Collar Crime. Survey of crimes committed by persons of high socio-economic status in the course of their occupations; corporate crime; governmental corruption. Class: 3 hours. Credit: 3 semester hours.

431 — Crime Prevention. Theft and risk control; security surveys; loss prevention management. Role of the community in crime prevention. Class: 3 hours. Credit: 3 semester hours.

432 — Advanced Commercial/Retail Security. Operation of commercial security departments; dishonest employees; shoplifters, management and public relations; receiving, shipping and warehousing; special laws and procedures. Prerequisite: CJ 331. Class: 3 hours. Credit: 3 semester hours.

433 — Seminar in Police Problems. Advanced treatment of the major contemporary police problems from the viewpoint of both the administrator and the line operations officer; integration of established scientific knowledge with practical police experience. Prerequisites: CJ 133 and CJ 134. Class: 3 hours. Credit: 3 semester hours.

434 — Advanced Police/Security Adminstration. Advantages and disadvantages of para-military organizational structures; alternative forms of organization; command, control, and accountability problems; effect on organizational structure of innovations such as team policing and lateral entry. Prerequisites: CJ 131 or CJ 331. Class: 3 hours. Credit: 3 semester hours.

435 — Advanced Management Techniques in Criminal Justice. An analysis on advanced management techniques from the viewpoint of the criminal justice administrator; management by objectives; operations analysis, computers and the systems approach; systematic planning. Prerequisites: CJ 131 or CJ 331 or CJ 334. Class: 3 hours. Credit: 3 semester hours.

436 — Seminar in Community-Based Corrections. Techniques and procedures used in the supervision of offenders in the community; treatment methods used in probation, parole, half-way houses, drug treatment programs. Prerequisites: CJ 334 and CJ (Swf) 333. Class: 3 hours. Credit: 3 semester hours.

437 — Seminar in Institutional-Based Corrections. Constructive use of the institutional setting; evaluation of specific programs and experiments in prison and jail treatment programs; conflict between rehabilitation and other institutional goals. Prerequisites: CJ 334 and CJ (Swf) 333. Class: 3 hours. Credit: 3 semester hours.

438 — Seminar in Correctional Problems. Advanced treatment of the major contemporary correctional problems from the viewpoint of both the correctional administrator and the correctional professional; integration of established scientific knowledge with correctional experience. Prerequisite: CJ 334. Class: 3 hours. Credit: 3 semester hours.

439 — Seminar in Criminal Justice Theory. Selected topics such as sociological, psychological, and biological theories of crime causation; philosophy and sociology of law; labeling theory. Prerequisites: CJ 134 or Soc 338. Class: 3 hours. Credit: 3 semester hours.

4311 — Criminal Justice Planning and Research. Criminal Justice applications of the principles of planning; program evaluation; theory testing; funding sources; grantsman-

ship. Prerequisites: a course in statistics and a course in research methods. Class: 3 hours. Credit: 3 semester hours.

4312 — Contemporary Issues in Criminal Justice. Current topics in criminal justice. (May be repeated for credit when the topic is varied). Class: 3 hours. Credit: 3 semester hours.

4321 — Correctional Field Experience. Work experience in a community agency under supervision. Consent of the instructor required for registration. Prerequisites: CJ 333, 334, and either CJ 436 or CJ 437. (Credit will not be allowed for both CJ 4321 and Swf 4321). Laboratory: 4 hours. Class: 1 hour. Credit: 3 semester hours.

4322 — Police Internship. A work experience to increase student understanding of law enforcement administration and operation; the internship is initiated by the school in an agency, and both college and agency supervise and direct the student's program. Prerequisite: consent of instructor. Laboratory: 4 hours. Class: 1 hour. Credit: 3 semester hours.

461 — Correctional Field Experience. Work experience in a community agency under supervision. Consent of the instructor required for registration. Prerequisites: CJ 333, 334, and either CJ 436 or CJ 437. (Credit will not be allowed for both CJ 461 and Swf 461). Laboratory: 10 hours. Class: 1 hour. Credit: 6 semester hours.

462 — Police Internship. Work experience to increase student understanding of law enforcement administration and operation; the internship is initiated by the school in an agency, and both college and agency supervise and direct the student's program. Prerequisite: consent of instructor. Laboratory: 10 hours. Class: 1 hour. Credit: 6 semester hours.

SOCIAL WELFARE (Swf)

231 — Introduction to Social Welfare. History and philosophy of social welfare and social work. Class: 3 hours. Credit: 3 semester hours.

332 — Behavioral Foundations. Analysis of human behavior and development as derived from the social processes and institutions of man. (Credit will not be allowed for both Swf 332 and CJ 332). Class: 3 hours. Credit: 3 semester hours.

333 — Methods of Intervention. Methods of intervention for problem solving as employed by the helping professions: interviewing; counseling; case work; group work; and community organization. (Credit will not be allowed for both Swf 333 and CJ 333). Class: 3 hours. Credit: 3 semester hours.

334 — Social Welfare Planning. Program and process of social welfare within American society. Class: 3 hours. Credit: 3 semester hours.

432 — Seminar. Current topics in social work. (May be repeated for credit when the topic is varied). Class: 3 hours. Credit: 3 semester hours.

4321 — Social Welfare Field Experience. Work experience in a community agency under supervision. Consent of the instructor required for registration. (Credit will not be allowed for both Swf 4321 and CJ 4321). Laboratory: 4 hours. Class: 1 hour. Credit: 3 semester hours.

461 — Advanced Social Welfare Field Experience. Advanced work experience in a community agency under supervision. Consent of the instructor required for registration. (Credit will not be allowed for both Swf 461 and CJ 461). Prerequisites: 6 semester hours of Swf including Swf 333. Class: 8 hours daily for two days a week plus one hour of seminar instruction. Credit: 6 semester hours.

Department of Sociology

Department Head — Delbert L. Gibson. *Professors* — Claude B. Boren, John M. Ellis, George B. Wall. *Associate Professor* — George A. Woodward. *Assistant Professors* — Raymond L. Drenan, Li-chen Ma, George D. Self. *Instructors* — M. Dwayne Smith, Robert J. Stahl. *Secretary* — Nancy Smith.

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:
Freshman English — six semester hours.
Literature — six semester hours.
Math-Science — four courses in math or laboratory science, with no more than three courses in math or three in science.
Completion of the 232 course in a foreign language.
Government 2321 and three semester hours of Sophomore American Government.
History — Sophomore American, six semester hours.
Physical Education or Marching Band — four semesters, but not more than six semester hours.
Liberal Arts Electives — six semester hours in Anthropology, Philosophy or History.

B. Major — 30 semester hours, but not more than 36 semester hours.
Sociology 131 — Introduction to Sociology.
Sociology 438 — Research Methods.
Sociology 439 — Social Theory.

C. Minor — 18 semester hours, but not more than 24 semester hours.
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.

Bachelor of Science — Sociology Major

The Bachelor of Science degree in sociology emphasizes career education rather than a general education. It will be awarded upon completion of the requirements for the Bachelor of Arts degree in sociology with the following modification:

Sufficient approved electives to complete a total of 126 semester hours, including 14 semester hours of career related electives requiring official approval by the assigned adviser as substitution for the foreign language requirement.

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 and eight hours in laboratory science.
2. The approved 24 hour teaching field in sociology. (See list of approved teaching fields in the College of Education section of this catalog.)
3. An approved 24 hour additional teaching field in place of the minor. (See list of approved teaching fields in the College of Education section of this catalog.)
4. Eighteen hours of education: 331, 332, 338, 438 and 462.
5. Sufficient approved electives to complete a total of 126 semester hours.

Recommended Program of Study

First Year

Eng—Composition	6
Liberal Arts Elective	6
Language	8
Mth	6
Soc	3-6
HPE—Activity	2
	31-34

Second Year

Eng—Literature	6
His—Sophomore American	6
Language	6
Science	8
Soc	3
Elective or minor field	3
HPE—Activity	4
	36

Third Year

Gov 2321 and 3 sem hrs of Soph Gov	6
Soc	6-9
Minor field	6-9
Electives	6-9
	24-33

Fourth Year

Soc 438—Research Methods	3
Soc 439—Social Theory	3
Minor field	6-12
Electives	3-9
Soc	6-9
	21-36

Total ..... 126 semester hours

ANTHROPOLOGY (Ant)

231 — Introduction to Anthropology. 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. Class: 3 hours. Credit: 3 semester hours.

232 — Culture Areas. 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. Class: 3 hours. Credit: 3 semester hours. The course may be repeated for credit when the designated topics are varied.

234 — Primitive Religion. The comparative study of myths and belief systems of pre-literate 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. Class: 3 hours. Credit: 3 semester hours.

331 — Culture and Personality. Anthropological contributions to understanding the role of culture in personality development. Coverage is given child rearing, language acquisition, and normative approaches to culturally distinct personality. Prerequisite: Ant 231. Class: 3 hours. Credit: 3 semester hours.

332 — Ecological Anthropology. Treatment of the problems of cultural adaptations of human societies to their environments. Attention is given the systemic relationship of environment, technology, economic exchange and authority in non-industrial societies. Class: 3 hours. Credit: 3 semester hours.

PHILOSOPHY (Phl)

131 — Introduction to Philosophy. General characteristics of philosophy as a field of knowledge and as a method of inquiry. Class: 3 hours. Credit: 3 semester hours.

232 — Logic. Nature and methods of correct reasoning; deductive and inductive proof; logical fallacies. Class: 3 hours. Credit: 3 semester hours.

332 — Ethics. A critical analysis of the concepts, methodology, and theories of ethics. Class: 3 hours. Credit: 3 semester hours.

333 — History of Philosophy I, Ancient and Medieval Philosophy. The development of Western philosophic thought from the inception in Greece to the end of the Medieval period. Class: 3 hours. Credit: 3 semester hours.

334 — History of Philosophy II, Modern Philosophy. The development of philosophic thought from the Renaissance through the nineteenth century; emphasis upon philosophers of the seventeenth and eighteenth centuries. Class: 3 hours. Credit: 3 semester hours.

430 — Topics in Philosophy. Selected topics in philosophy. Course may be repeated for credit when topic changes. Class: 3 hours. Credit: 3 semester hours.

SOCIOLOGY (Soc)

131 — Introduction to Sociology. Sociology as a field of knowledge. Basic terms, concepts, theories of sociology applied to an explanation of human behavior, personality, groups, and society. Class: 3 hours. Credit: 3 semester hours.

132 — Social Problems. Attributes of society and of persons which are subject to disapproval; the causes, extent, and consequences of these problems; programs and prospects of their resolution. Class: 3 hours. Credit: 3 semester hours.

230 — Urban Problems. The study of contemporary urban problems in America. Attention is given to problems of poverty, transportation, disorganization, and city planning and reconstruction. Class: 3 hours. Credit: 3 semester hours.

231 — Deviant Behavior. The study of the major areas of social maladjustment from the standpoint of the processes underlying social and individual disorganization, such as alcoholism, illegitimacy, suicide, drug addiction and other personal deviations. Class: 3 hours. Credit: 3 semester hours.

233 — Marriage and the Family. Characteristics of and problems within courtship, marriage, and family in American society. Class: 3 hours. Credit: 3 semester hours.

330 — American Society. Description and analysis of structural and functional characteristics of American society and culture. Class: 3 hours. Credit: 3 semester hours.

332 — Social Psychology. Social and cultural influences upon individual behavior and personality; interpersonal and intergroup relations and collective behavior. Class: 3 hours. Credit: 3 semester hours.

333 — Urban Sociology. Social and ecological processes in the urbanization movement; characteristics of urban society and culture. Class: 3 hours. Credit: 3 semester hours.

334 — Industrial Sociology. 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. Class: 3 hours. Credit: 3 semester hours.

335 — The Family. Structural and functional characteristics of the family as a basic institution. Class: 3 hours. Credit: 3 semester hours.

336 — Race Relations. Racial and cultural minority groups within society; causes and consequences of prejudice and discrimination and of changes in the relationship between minority and dominant groups. Class: 3 hours. Credit: 3 semester hours.

338 — Criminology. Extent of and explanation for crime in American society; agencies dealing with crime and criminals; programs for control and prevention of crime and delinquency. Class: 3 hours. Credit: 3 semester hours.

339 — Juvenile Delinquency. The nature, incidence, and explanations for juvenile delinquency in American society; agencies and programs for prevention and control of delinquency. Class: 3 hours. Credit: 3 semester hours.

430 — Seminar in Sociology. Basic concepts and general principles of sociology as applied to the study of selected topics. Class: 3 hours. Credit: 3 semester hours. The course may be repeated for credit when the designated topics are varied.

431 — Population Problems. The growth and composition of population with emphasis on social, economic, and political problems. Class: 3 hours. Credit: 3 semester hours.

432 — Sociology of Education. 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. Class: 3 hours. Credit: 3 semester hours.

436 — Social Movements. Historical, structural, and tactical considerations in the development of major systems of belief and practice within society; political movements in American society. Class: 3 hours. Credit: 3 semester hours.

437 — Public Opinion. Factors and processes in formation and change of public opinion; influence of the mass media on communication; analysis and evaluation of propaganda. Class: 3 hours. Credit: 3 semester hours.

438 — Research Methods. Techniques of scientific research in sociology. Class: 3 hours. Credit: 3 semester hours.

439 — Social Theory. A survey of major social and sociological theories. Class: 3 hours. Credit: 3 semester hours.

Courses in Bible and Religious Education

Instructors – Jim Chatham, Joseph Daleo, Ed Jones, Gerald Kieschnick, B. H. McCoy, Earl Sheffield, James A. 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 (Bib)

131 — Survey of the Old Testament. A critical study of the Old Testament and its relevance to Western culture. Class: 3 hours. Credit: 3 semester hours.

132 — Survey of the New Testament. A critical study of the New Testament, its historical context, and the beginnings of the Christian Church. Class: 3 hours. Credit: 3 semester hours.

133 — New Testament: Gospels. A critical study of the Gospels, the person and work of Jesus of Nazareth. Class: 3 hours. Credit 3 semester hours.

134 — New Testament: Paul. A study of the life and ministry of St. Paul and the major portion of the Pauline letters. Class: 3 hours. Credit: 3 semester hours.

135 — Introduction to Christian Thought. 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. Class: 3 hours. Credit: 3 semester hours.

212 — Current Issues in Religion. An interpretation of religious events through the reading of current religious and secular periodicals. Class: 1 hour. Credit: 1 semester hour.

231 — Church History. The history of the Christian Church, including the General Councils, the missionary movements, the Reformation, and the transition to the modern scene. Class: 3 hours. Credit: 3 semester hours.

232 — Christian Ethics. The relation of the Christian Faith to daily living, with particular emphasis on vocation, courtship and marriage, the person, and society. Class: 3 hours. Credit: 3 semester hours.

233 — Old Testament: Prophets. A study of the major and minor prophets and the role they played in the development of the religion of Israel. Class: 3 hours. Credit: 3 semester hours.

314 — Thematic Approach to Religion. A critical study of significant ideas or writings in religion. Class: 1 hour. Credit: 1 semester hour.

324 — Thematic Approach to Religion. A critical study of significant ideas or writings in religion. Class: 2 hours. Credit: 2 semester hours.

331 — Philosophy of Religion. 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. Class: 3 hours. Credit: 3 semester hours.

332 — Major Themes of the Bible. Planned to present Biblical concepts of God, man, history, covenant, prophecy, vocation, and related ideas. Class: 3 hours. Credit: 3 semester hours.

333— Comparative Religion. A comparative study of the world's major religions, e.g. Judaism, Christianity, Islam, Hinduism, Buddaism, Class: 3 hours. Credit: 3 semester hours.

334 — Thematic Approach to Religion. A critical study of significant ideas or writings in religion. Class: 3 hours. Credit: 3 semester hours.

College of Sciences

Departments: Aerospace Studies, Biology, Chemistry, Geology, Physics, Psychology

Roger E. Yerick, Ph.D., Dean
Mrs. Dolores Knapp, Secretary

The College of Sciences, formerly the School of Sciences, was established by the University in 1966 and comprises the departments of Aerospace Studies, Biology, Chemistry, Geology, Physics and Psychology. 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, psychology, oceanographic technology and environmental science. The Bachelor of Arts degree is offered in biology, chemistry, geology and psychology.

Information concerning graduate programs in biology, chemistry, and psychology 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 himself for 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 premedical and predental curricula have been programmed to satisfy requirements for admission to medical and dental schools. Completion of these studies, within the biological sciences curriculum, leads to the Bachelor of Science in Biology degree from Lamar University after successful completion of one year in such a professional college.

Degree Offerings

Bachelor of Arts with majors in the following fields:

- Biology
- Chemistry
- Geology
- Psychology

Bachelor of Science with majors in the following fields:

- Biology
- Chemistry
- Environmental Science
- Geology
- Oceanographic Technology
- Physics
- Psychology

PRE-PROFESSIONAL PROGRAMS

The College of Sciences administers pre-professional programs for students planning careers in medicine, dentistry, pharmacy, physical therapy and veterinary medicine.

The program in physical therapy is administered by the Department of Biology and the specific programs of study are listed in that department.

The premedical, predental, preveterinary medicine and prepharmacy 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. While many students may follow a program of study somewhat closely geared to the biological sciences, 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

Premedical and Predental

First Year		Second Year	
Eng—Composition	6	Eng—Literature	6
Bio 141, 142—General	8	Bio 240—Comp Anatomy	4
Chm 141, 142—General	8	Bio 243, 244—Microbiology	8
Mth (see below)	6	Chm 341, 342—Organic	8
Electives	6	Soph Am His	6
HPE—Activity	2-4	Elective	3
	36-38	HPE—Activity	2-4
			37-39

The third and fourth years of these programs are planned around the student's desired major. Additional courses in biology and chemistry are recommended in all cases. One year of General Physics (Phy 141, 142) is required to satisfy entrance requirements to medical and dental schools. Dental schools have no specific mathematics requirement, but medical schools require mathematics through Calculus I (Mth 236 or equivalent).

Veterinary Medicine

First Year		Second Year	
Eng—Composition	6	Eng—Literature	6
Bio 141, 142—General	8	Bio 347—Genetics	4
Chm 141, 142—General	8	Chm 341, 342—Organic	8
Soph Am His	6	Gov 2321—Intro Am Gov	3
Mth 1335—Precal Mth	3	Soph Am Gov	3
Mth 236—Calculus I	3	Phy 141-142—General	8
HPE—Activity	2-4	HPE—Activity	2-4
	36-38		34-36

*Additionally, six semester hours of Animal Science (including animal nutrition) are required for entrance into the professional curriculum in veterinary medicine.

Pharmacy

First Year

Bio 141, 142—General	8
Chm 141, 142—General	8
Eng—Composition	6
Soph Am His	6
Mth 1334—Algebra & Trig	3
*Mth 134—Algebra	3
HPE—Activity	2-4
	36-38

Second Year

Chm 341, 343—Organic	8
Eco 233—Principles	3
**Eng—Literature	6
Gov 2321—Intro Am Gov	3
Soph Am Gov	3
Phy 141-142—General	8
HPE—Activity	2-4
Electives	3
	36-38

*Students planning to enter the University of Texas College of Pharmacy are required to have math through Calculus I.

**Students planning to enter the University of Texas College of Pharmacy are required to have Technical Report Writing (Eng 4335) and Business and Professional Speech (Spc 331) in lieu of sophomore literature.

All colleges of pharmacy have a five year program, two pre-professional and three professional years. Students following the plan outlined above will be admitted to the first professional year of many colleges of pharmacy, including those at The University of Texas and the University of Houston. Consult the catalog of school of choice for specific requirements.

Department of Aerospace Studies

Department Head — Lt. Col. James V. Berryhill, *Assistant Professors* — Capt. Russell A. Gregory, Capt. Charles M. Thrash. *Detachment Personnel Technician* — S/Sgt. Harold C. Slape, *Noncommissioned Officer-in-Charge of Administration* — S/Sgt. M. P. Woods, *Department Secretary* — Cara Carpenter.

The Air Force Reserve Officers Training Corps (AFROTC), through the Department of Aerospace Studies, conducts a permanent program of instruction on the campus to provide eligible male and female students an opportunity to qualify for a commission in the United States Air Force. Students who successfully complete the program will be commissioned as second lieutenants upon graduation.

There are two different programs in Air Force ROTC. The four-year program is recommended for entering freshmen. The two-year program is available for those students with a minimum of two years remaining of undergraduate or graduate study at the University. The four-year program is divided into two phases: a general military course (GMC) for freshmen and sophomores and a professional officers course (POC) for juniors and seniors. Two-year students take only the professional officers course, but are required to complete successfully a six-week field training program prior to acceptance into the POC.

AFROTC students receive free uniforms and textbooks, and all members of the professional officers course receive $100 per month while participating in the program. Scholarships also are available, and those students interested should consult the head of the Department of Aerospace Studies.

Four semesters of aerospace studies satisfy the requirements for physical education activity courses in all degree programs.

Additional courses in aerospace studies may be used as electives in degree programs.

AEROSPACE STUDIES (Aer)

121 — First Year GMC. A study of the doctrine, mission and organization of the United States Air Force; U.S. strategic offensive and defensive forces: their mission, function and employment of nuclear weapons: civil defense. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

122 — First Year GMC. Aerospace defense; missile defense; U.S. general purpose and aerospace forces; the mission resources, and operation of tactical air forces with special attention to limited war; review of Army, Navy, and Marine general preparation forces. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

221 — Second Year GMC. The beginning of manned flight, the early growth and development of air power (from Kitty Hawk, 1903, to the beginning of WWII, 1941), and the development of concepts and doctrine governing the employment of air power. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

222 — Second Year GMC. The modern development of air power, from the beginning of WWII (1941) through the air war in Southeast Asia (1973), the peaceful employment of U.S. air power, and the changing missions of the defense establishment. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

331 — First Year POC. An integrated management course emphasizing the individual as a manager in an Air Force milieu. The individual motivational and behavioral

processes, leadership, communication, and group dynamics are covered to provide a foundation for the development of the junior officer's professional skills as an Air Force officer. The basic managerial processes involving decision-making, utilization of analytical aids in planning, organizing, and controlling a changing environment are emphasized as necessary professional concepts. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

332 — First Year POC: The Professional Officer. A continuation of Aer 331. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

431 — Second Year POC: The Armed Forces as an integral element of society, with an emphasis on the broad range of American Civil-Military relations and the environmental context in which U.S. defense policy is formulated and implemented. Special themes include: societal attitudes toward the military; the role of the professional military leader-manager in a democratic society; the functional values and socialization processes associated with the Armed Services; requisites for maintaining adequate national defense structure; and the variables involved in the formulation and implementation of national security policy. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

432 — Second Year POC: A continuation of Aer 431 with additional emphasis on preparing the student for initial active duty as a junior officer. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

Department of Biology

Department Head — Michael E. Warren. *Professors* — Russell J. Long, Jed J. Ramsey, W. Russell Smith, Henry T. Waddell. *Associate Professors* — William T. Fitzgerald, J. Leon McGraw, Richard C. Harrel, Charles P. Turco. *Assistant Professors* — George A. Bryan, Jr., Gilbert W. Gatlin, Phillip G. Malnassy, Philip B. Robertson, William C. Runnels. *Instructor* — Mrs. Madelyn D. Hunt. *Secretary* — Mrs. Bobbie Strickland.

Recommended Program of Study

Bachelor of Science — Biology Major

First Year

First Semester

Eng—Composition	3
Bio 141—General	4
Chem 141—General	4
Mth 1334—Algebra & Trig	3
Elective	3
HPE—Activity	1 or 2
	18 or 19

Second Semester

Eng—Composition	3
Bio 142—General	4
Chm 142—General	4
Mth 134—Algebra	3
Elective	3
HPE—Activity	1 or 2
	18 or 19

Second Year

Eng—Literature	6
Bio	8
Chm 341, 342—Organic	8
Phy 141, 142—General	8
HPE—Activity	2 or 4
	32 or 34

Third Year

Bio*	16
Chm 343—Quantitative or Psy 241—Statistics	4
Chm 443—Biological	4
Gov 2321—Intro Am Gov	3
Soph Am Gov	3
Electives	6
	36

Fourth Year

Bio 416, 417—Bio Lit	2
Bio*	8
Electives	20
Soph Am His	6
	36

*The following courses must be included in the Biology Core: Bio 245 or 243-244, Microbiology; Bio 346, Invertebrate Zoology; Bio 345, Botany; Bio 240 or 444, Comparative Anatomy or Vertebrate Natural History; Bio 347, Genetics.

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 1335—Precalculus	3
Psy 131—Intro to Psy	3
Psy 241—Intro to Stat Meth	4
HPE—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 2321—Intro Amer Gov	3
Soph Am Gov	3
HPE—Activity	2-4
Electives	6
	14-16

Third Year

Soph Am His	6
Phy 141, 142—General	8
Bio 347—Genetics	4
Bio 344—Adv Physiology	4
Psy 343—Experimental Psy	4
Psy Electives (Adv)	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 Science in Biology†
Bachelor of Science in Chemistry†

First Year

Bio 141-142—General	8
Chm 141-142—General	8
Eng—Composition	6
Mth 138—Analysis I	3
Mth 139—Analysis II	3
HPE	2-4
Electives	6
	36-38

Second Year

Chm 341-342—Organic	8
Bio 243—Microbiology	4
Bio 244—Microbiology	4
Mth 231—Analysis III	3
Eng—Literature	6
Phy 141-142—General	8
Chm 333—Inorganic	3
	36

Summer

Chm 431—Physical	3
Gov 2321—Intro. Am. Gov.	3
Soph. Am. Gov	3
HPE	2-4
Electives	3
	14-16

Third Year

Bio 240—Comparative	4
Bio 344—Adv Physiology	4
Bio 341—Histology	4
Bio 343—Embryology	4
Soph Am His	6
Chm 413—Physical Lab	1
Chm 343—Quant Anal	4
Phy 335—Modern	3
Electives	6
	36

Fourth Year

Bio 416 or 417—Bio Lit	1
Bio 447—Cellular	4
Bio 347—Genetics	4
Chm 443—Biochem	4
8 semester Hours Chosen from:	
Chm 432—Physical Chm 414—Physical Lab Chm 444—Org Qual Chm 446—Instr Anal	8
Electives	11
	32

†Both degrees must be awarded simultaneously.

Bachelor of Science — Medical Technology

Summer Session
(prior to first year)

HS 131, 132—Orientation to Clinical Practice	6
Eng 131—English Composition	6
	12

First Year

Same as for First Year of B.S. in Biology

Second Year

Eng—Literature	6
Bio 243-244—Microbiology	8
Chm 341-342—Organic	8
Phy 141—Mechanics	4
Phy 142—Electricity, etc	4
HPE—Activity	2-4
	32-34

Third Year

Bio 344—Adv Physiology	4
Bio 340—Diagnostic Microbiology	4
Chm 343—Quantitative	4
Soph Am His	6
Bio 441—Parasitology	4
Electives (Approved)	8
Gov 2321—Intro Am Gov	3
Soph Am Gov	3
	36

Fourth Year

The student spends 12 consecutive months in training at a hospital laboratory approved for teaching by the Council on Medical Education and Hospitals of the American Medical Association. After satisfactorily completing this training, attested to by a transcript of performance in the clinical laboratory, the student is awarded the degree of

Bachelor of Science-Medical Technology. Full details of approved laboratories may be obtained by writing to the American Society of Clinical Pathologists, Board of Schools, 710 South Wolcott, Chicago, Illinois 60612.

The three years of study shown will fulfill the requirements of the Registry.

Note: This program is in a period of transition from the College of Sciences, Department of Biology, to the College of Health Sciences. Anticipated future changes will affect program as described above.

Physical Therapy

First Year

Same as for First Year of B.S. in Biology.

Second Year

Eng — Literature	6
Bio 240 — Comp Anatomy	4
Bio 347 — Genetics	4
Soph Am His	6
Psy 131 — Intro Human Behavior	3
Psy 234 — Child Psy	3
Soc 131 — Introduction	3
HPE — Activity	2-4
	31-33

Third Year

Gov 2321—Intro Am Gov	3
Soph Am Gov	3
Phy 141-142—General	8
Soc 132—Social Problems	3
Electives	15
	32

The program outlined above will prepare the student for admission in a School of Physical Therapy such as that of The University of Texas Medical Branch at Galveston. Upon completion of the fourth year there, the student is awarded by that institution the B.S. in Physical Therapy and a Certificate of Proficiency. Consult the professional school of your choice for specific admission requirements.

BIOLOGY (Bio)

130 — Fundamentals of Modern Biology. Basic biological concepts relevant to human welfare and the quality of life. Emphasis on approach to social problems through environmental and population control, conservation of natural resources, and the genetic basis for human betterment. A student may not receive credit for Bio 130 and Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

133-134 — Human Anatomy and Physiology. Human anatomy and physiology with special emphasis on problems in nursing. Laboratory includes experiments in vertebrate physiology, and the dissection of a mammal. Class: 3 hours. Laboratory: 2 hours. Credit: 3 semester hours for each semester.

141-142 — General Biology. A brief survey of living things; a comparison of structural and functional adaptations for fundamental life processes; principles of reproduction, inheritance, development and phylogenetic relationships; interactions of organisms with the environment. Credit for first semester prerequisite for enrollment in second. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours per semester.

240 — Comparative Anatomy of the Vertebrates. Comparative anatomy presented from systemic viewpoint. Designed primarily for biology majors, pre-medical, and

pre-dental students. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

243-244 — Microbiology. Micro-organisms with emphasis on bacteria in soil, water, milk, and sewage. Laboratory includes the isolation, cultivation, and identification of common bacteria. The last half of the second semester is devoted to the study of bacteria, rickettsiae and viruses in relation to disease; theories of antigen-antibody responses; and the immunization of a laboratory animal. Recommended for biology majors, pre-medical, pre-dental, and medical technology students. Credit for first semester prerequisite for enrollment in second. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours per semester.

245 — Introductory Microbiology. Micro-organisms with emphasis on those of medical significance. Special consideration is given to problems of personal and community health. Laboratory includes the sterilization of culture media and glassware, cultivation and study of common bacteria. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

330 — Applied Anatomy and Kinesiology. Structural organization of the human body and the analysis of human motion. Includes skeletal system, attachments and actions of muscles. Emphasis is placed on the mechanics of support and of motion. Prerequisite: Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

332 — Anatomy and Physiology of Speech and Hearing. Human structure and function with special emphasis on respiration and hearing. Designed for majors in speech and hearing pathology. Prerequisite: Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

340 — Diagnostic Microbiology. Laboratory approaches in the diagnosis, control, and treatment of bacterial diseases in man. Includes lecture and laboratory in recommended public health diagnostic laboratory procedures. Emphasis is placed on the epidemiology of bacterial diseases. Prerequisite: Bio 243-244 and Chm 342 or concurrent enrollment in Chm 342. Class: 2 hours. Laboratory: 6 hours. Credit: 4 semester hours.

341 — Histology and Histological Technique. Study of normal tissues of vertebrates. Technical phase of the course includes fixation and staining of tissues, paraffin sections, conventional mounting. Designed for biology majors, pre-medical, pre-dental, and medical technology students. Prerequisite: Bio 141-142 and 240 or 243-244. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

342 — Embryology. Comparative study of the development of vertebrates, including meiosis, fertilization, cleavage, and early embryology. Detailed organogeny of the chick. Recommended for biology majors, pre-medical and pre-dental students. Prerequisite: Bio 141-142, 240. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

343 — Introduction to Medical Technology. Survey of procedures used in clinical laboratories, including practice in hematology, serology, and urinalysis. Designed for medical technology students. Prerequisite: Bio 141-142, 243-244. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

344 — Advanced Physiology. Principles of general physiology, with special reference to cell metabolism, muscle-nerve relations, digestive, circulatory, respiratory, excretory, nervous, and endocrine systems. Designed primarily for biology majors, pre-medical and pre-dental students. Prerequisite: Bio 141-142, 240 or 243-244 and Chm 243-244 or Chm 341-342. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

345 — General Botany. Introduction to plant structure and functions with emphasis on the seed plants. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

346 — Invertebrate Zoology. Detailed study of the invertebrate phyla. Classification, natural history, phylogenetic relationships, and economic importance. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

347 — Genetics. General principles of heredity, including human inheritance. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

4101, 4201, 4301, 4401 — Special Topics in Biology. Topics in undergraduate physiological, anatomical, taxonomic, and ecological biology and methodology courses such as electron microscopy. Includes laboratory 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. Credit: 1-4 semester hours.

416-417 — Current Biological Literature. Reports by advanced students on research published in current professional periodicals. Required for biology majors. Recommended for pre-medical and pre-dental students. Prerequisite: 16 semester hours of biology. Class: 1 hour. Credit: 1 semester hour per semester.

430 — Undergraduate Problems. Designed to afford opportunity for senior students to pursue individual interests in the investigation of problems in biology. Research to be directed by staff, and approval of department head required. Laboratory: 6 hours. Credit: 3 semester hours.

4302 — Cellular Physiology. An integrated approach to basic processes in physiology, metabolism, transport, energetics, molecular and cellular control mechanisms. Prerequisite: Junior standing and credit for organic chemistry. Class: 3 hours. Credit: 3 semester hours.

440 — Ornithology. Natural history, taxonomy and ecology of birds. Lecture: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

4402 — Taxonomy of Vascular Plants. The classification of vascular plants with emphasis on family characteristics and on specific identification of the local flora and dominant plant species of other, floristically different areas of Texas. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

441 — Parasitology. A study of animal parasites including morphology, life history, and host-parasite relationships. Special emphasis on helminthic parasites of man and other vertebrates. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

442 — Entomology. Physiology, morphology, life history, and control of insects, with emphasis on collection, identification, and classification. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

443 — Limnology. Fauna, flora, ecology and productivity of fresh water. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

444 — Vertebrate Natural History. Fish, amphibians, reptiles, birds, and mammals, with emphasis on collection, identification, and natural history of area forms. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

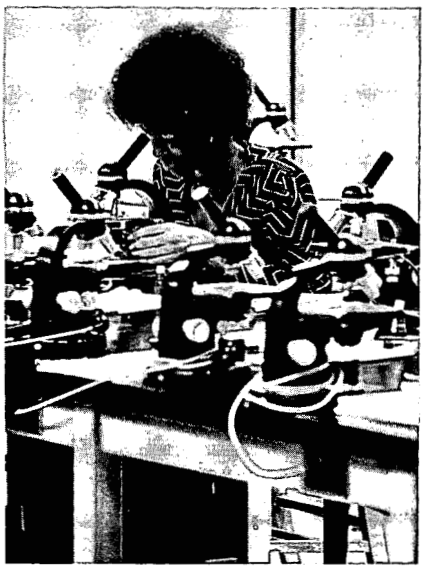
445 — Marine Biology. Ecology of marine plants and animals. Emphasis on habitats and community relationships. Recommended for biology majors. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

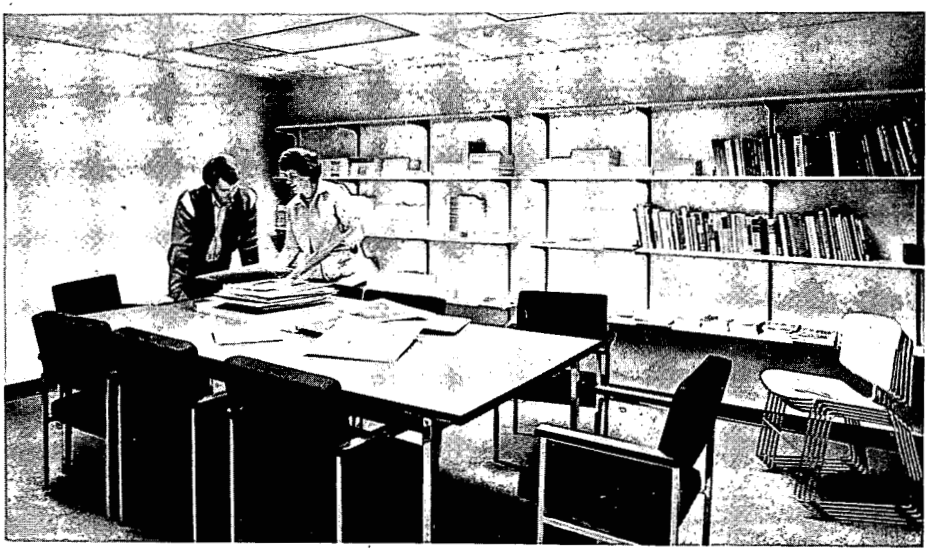
446 — Terrestrial Ecology. A study of the interrelationships of terrestrial organisms and their environment. Laboratory stresses quantitative approach to both field and experimental studies. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

447 — Cellular Biology. Structure and function of the cell and its organelles. Prereq-

uisites: Bio 341, Chm 341-342. Lecture: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

449 — Protistology. Morphology, taxonomy and ecology of protozoa, algae and fungi. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.





Department of Chemistry

Department Head — Margaret D. Cameron. *Director of Environmental Science* — Ewin A. Eads. *Professors* — Harold T. Baker, Joe N. Fields, Roger E. Yerick. *Associate Professors* — Kenneth L. Dorris, Keith C. Hansen, Anne Harmon, Joe M. Mejia, J. Dale Ortego. *Assistant Professor* — John A. Whittle. *Stockroom Supervisor* — Horace L. Grayson. *Secretary* — Mrs. June Braquet.

The Department of Chemistry has been approved by the Committee on Professional Training of the American Chemical Society to offer A.C.S. approved degrees.

Recommended Program of Study

Bachelor of Science — Chemistry Major†

First Year

First Semester		Second Semester	
Chm 141—General	4	Chm 142—General	3
Bio/Geo 141—General	4	Bio/Geo 142—General	4
Mth 138—Analysis I	3	Mth 139—Analysis II	3
Eng 131—Composition	3	Eng 131—Composition	3
CS 131—Introduction	3	CS 132—Programming	3
HPE 111—Activity	1	HPE 112—Activity	1
	18		17

Second Year

First Semester		Second Semester	
Chm 241—Quant Anal	4	Chm 341—Organic	4
Phy 140—Mechanics	4	Phy 241—Elect, Heat, Mag	4
Mth 231—Analysis III	3	Mth 232—Analysis IV	3
Eng 23—Literature	3	Eng 23__, 4345—Literature or Report Writing	3
Ger 141—Elementary	4	Ger 142—Elementary	4
	18		18

Third Year

First Semester		Second Semester	
Chm 342—Organic	4	Chm 333—Inorganic	3
Chm 431—Physical	3	Chm 432—Physical	3
Chm 413—Physical Lab	1	Chm 414—Physical Lab	1
Ger 231/CS 3301—Reading or Comp Tech	3	Gov 2321—Intro Am Gov	3
Phy 242—Sound, Lt, Quant.	4	His 23_—Soph Am His	3
HPE 221—Activity	2	HPE 222—Activity	2
	17		15

†American Chemical Society approved degree plan.

Fourth Year

First Semester		Second Semester	
Chm 411—Chem Lit	1	Chm 412—Chem Seminar	1
Chm 444—Org Qual	4	Chm 446—Instrumental	4
Chm 4__—Chm Elect *min	3	Chm 4__—Chm Elect*min	3
Gov 23__—Soph Am Gov	3	His 23__—Soph Am His	3
Elective—Free Elective	3	Elective—Free Elective	3
	14		14

Minimum: 126 semester hours + HPE

*Chemistry electives to be selected from the following senior chemistry courses: Chm 433, Adv Physical, 436, Adv Inorganic, 437, Intro to Chem Research, 438, Radiochemistry, 441, Biochemistry I, 442, Biochemistry II.

Bachelor of Science — Chemistry (Biochemistry Option)†

First Year

First Semester		Second Semester	
Chm 141—General	4	Chm 142—General	4
Eng 13__—Composition	3	Eng 13__—Composition	3
Elective—Free	3	Mth 236—Calculus I	3
or		or	
Mth 138—Analysis I	3	Mth 139—Analysis II	3
Bio 141—General	4	Bio 142—General	4
HPE 11__—Activity	1	HPE 11x—Activity	1
	15		15

Second Year

First Semester		Second Semester	
Chm 241—Quantitative	4	Chm 341—Organic	4
Mth 237—Calculus II	3	Phy 241 or 142	4
or		Bio 244—Microbiology	4
Mth 231—Analysis III	3	Eng 23__—Literature or	
Phy 140 or 141	4	Eng 4335—Tech Report Writing	3
Bio 243—Microbiology	4	Elective—Free	3
Eng 23__—Literature	3		18
	18		

Third Year

First Semester		Second Semester	
Chm 342—Organic	4	Chm 441—Biochemistry	4
Chm 431—Physical	3	Chm 432—Physical	3
Chm 413—Physical Lab	1	Chm 414—Physical Lab	1
Bio 341—Histology	4	His 23__—Soph Am His	3
Phy 242 or 335	3-4	HPE 22__—Activity	2
HPE 22__—Activity	2	Elective*—See list below	4
	17-18		17

Fourth Year

First Semester		Second Semester	
Chm 442—Biochemistry	4	Chm 412—Senior Seminar	1
Chm 333 or 436—Inorganic	3	Chm 446—Instrumental	4
Gov 2321—Intro Am Gov	3	Gov 23__—Soph Am Gov	3
His 23__—Soph Am His	3	Elective—Free	3
Elective*—See list below	4	Elective*—See list below	6
	17		17

Minimum: 128 hours + HPE

*These electives selected from: Chm 438, Radiochem; Chm 433, Modern Physical — requires Mth 232; Chm 444, Organic Qual; Bio 342, Embryology — requires Bio 240; Bio 344, Physiology; Bio 347, Genetics; Bio 441, Parasitology; Bio 447, Cellular.
†American Chemical Society approved degree plan.

Bachelor of Arts — Chemistry Major††

First Year		Second Year	
Chm 141, 142—General	8	Chm 241—Quantitative	4
Eng—Composition	6	Chm 333—Inorganic	3
Mth 138—Analysis I	3	Eng—Literature	6
Mth 139—Analysis II	3	Mth 231, 232—Analysis III, Analysis IV	6
Language 141, 142	8	Language—Second Year	6
HPE—Activity	2-4	Phy 141, 142—General	8
	30-32		33

††American Chemical Society approved degree plan if Chm 444 and 446 elected.

Third Year

Chm 341, 342—Organic	8
Chm 431, 432—Physical	6
Chm 413, 414—Physical Lab	2
Bio or Geo 141, 142—General	8
Minor or Electives	6
HPE—Activity	2-4
	32-34

Fourth Year

Soph Am His	6
Gov 2321—Intro Am Gov	3
Soph Am Gov	3
Chm 411, 412	2
Minor or Electives*	17
	31

Minimum: 124 semester hours + HPE

*Selected with approval of department.

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 138—Analysis I	3
Mth 139—Analysis II	3
HPE	2-4
Electives	6
	36-38

Second Year

Chm 341, 342—Organic	8
Bio 243—Microbiology	4
Bio 244—Microbiology	4
Mth 231—Analysis III	3
Eng—Literature	6
Phy 141-142—General	8
Chm 333—Inorganic	3
	36

Summer

Chm 431—Physical	3
Gov 2321—Intro Am Gov	3
Soph Am Gov	3
HPE	2-4
Electives	3
	14-16

Third Year

Bio 240—Comparative	4
Bio 344—Adv Physiology	4
Bio 341—Histology	4
Bio 343—Embryology	4
Soph Am His	6
Chm 413—Physical Lab	1
Chm 343—Quant Anal	4
Phy 335—Modern	3
Electives	6
	36

Fourth Year

Bio 416 or 417—Bio Lit	1
Bio 447—Cellular	4
Bio 347—Genetics	4
Chm 443—Biochem	4
8 Semester Hours Chosen from:	
Chm 432—Physical Chm 414—Physical Lab Chm 444—Org Qual Chm 446—Instr Anal	8
Electives	11
	32

†Both degrees must be awarded simultaneously.

Bachelor of Science — Environmental Science

Interdisciplinary — Chemistry, Biology and Civil Engineering

First Year

Bio 141, 142—General	8
Chm 141, 142—General	8
Eng—Composition	6
Mth 1334—Algebra & Trig	3
Mth 138—Analytical Geo	3
Electives	3
HPE—Activity	2-4
	33-35

Second Year

Bio 243, 244—Microbiology	8
Chm 241—Quant Analysis	4
Eng—Literature	6
Mth 1391—Calculus I	3
Phy 141, 142—General	8
HPE—Activity	2-4
	31-33

Third Year

Bio 446—Terres Ecology	4
Chm 341-342	8
Chm 334—Air Analysis	3
Gov 2321—Intro Am Gov	3
Soph Am Gov	3
CE 331—Envi Sci	3
Eng 4335—Tech Writing	3
CE 433—Envir Health Engr	3
Mth 231—Calculus II	3
	33

Fourth Year

Bio 443—Limnology	4
Chm 410—Sem Envi Sci	1
Chm 333—Inorganic	4
Chm 438—Radiochemistry	3
Chm 434—Air Pollu Surv	3
Soph Am His	6
*Chm Electives	6
*Bio or CE Electives	6
	33

*Selected with approval of department

CHEMISTRY (Chm)

130 — Introductory Environmental Science. 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. Class: 3 hours. Credit: 3 semester hours.

141 — General. General principles, problems, fundamental laws and theories. Class: 3 hours. Credit: 4 semester hours.

142 — General. A continuation of Chm 141. Properties of the elements. Elementary qualitative analysis and theories of solutions and equilibrium. Prerequisite: Chm 141. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

143 — Introductory. For non-science majors. A survey course in elementary chemistry. Lecture and laboratory work in inorganic chemistry. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

144 — Introductory. For non-science majors. Continuation of Chm 143. Nuclear science, elementary organic and physiological chemistry. Prerequisite: Chm 143 or 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

241 — Quantitative Analysis. Theory and practice of analytical chemistry, utilizing gravimetric and titrimetric techniques. Prerequisite: Chm 142. Class: 3 hours. Laboratory: 5 hours. Credit: 4 semester hours.

333 — Inorganic. 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. Class: 3 hours. Credit: 3 semester hours.

334 — Air Analysis. Theory and practice of chemistry as required in determination of ambient air quality. Prerequisite: Chm 343, Mth 1381. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

341 — Organic. 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. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

342 — Organic. A continuation of Chm 341. Prerequisite: Chm 341. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

410 — Seminar in Environmental Science. Reports and assigned reading. Prerequisite: senior standing. Class: 1 hour. Credit: 1 semester hour.

411 — Chemical Literature. Lecture and assigned reading in the chemical literature. Chemical literature search on an advanced level. Prerequisite: 20 semester hours of chemistry. Class 1 hour. Credit: 1 semester hour.

412 — Senior Seminar. Reports and assigned reading. Prerequisite: senior standing in Chemistry. Class: 1 hour. Credit: 1 semester hour.

413 — Physical Laboratory. Laboratory applications of modern theory in physical chemistry. Prerequisite: Chm 241, Chm 431 (or parallel). Laboratory: 4 hours. Credit: 1 semester hour.

414 — Physical Laboratory. Continuation of Chm 413. Prerequisite: Chm 241 and Chm 432 (or parallel). Laboratory: 4 hours. Credit: 1 semester hour.

426 — Instrumental Analysis. Modern instrumental techniques in chemistry for engineers. Theory and practice in optical, electrometric, chromatographic, and spectrometric methods. Prerequisite: Chm 241, Chm 432 (or parallel), Mth 2311, Phy 142 or Phy 241. Class: 1 hour. Laboratory: 4 hours. Credit: 2 semester hours.

431 — Physical. Modern chemical theory as applied to gases, liquids, solids, and solutions. Prerequisites: Chm 142, Phy 142 or Phy 241, Mth 2321 (or parallel). Class: 3 hours. Credit: 3 semester hours.

432 — Physical. A continuation of Chm 431. Prerequisite: Chm 431 or equivalent. Class: 3 hours. Credit: 3 semester hours.

433 — Modern Physical. Selected topics in modern physical chemistry. Prerequisite: Chm 432 (or parallel). Class: 3 hours. Credit: 3 semester hours.

434 — Air Pollution Surveys. Chemical, physical, meterological, biological, bacteriological and epidemiological factors as applied to determine the extent of environmental damage from air pollution. Prerequisites: Chm 334 and senior standing. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

436 — Inorganic. Study of the quantized atom, characteristics, of extra-nuclear structure, valency and the chemical bond, complex ions and coordination compounds. Prerequisite: Chm 432 (or parallel). Class: 3 hours. Credit: 3 semester hours.

438 — Radiochemistry. Basic concepts of nuclear science. Principles and use of radiation measuring devices. Prerequisite: Chm 241. Class: 2 hours. laboratory: 3 hours. Credit: 3 semester hours.

441 — Biochemistry I. Structures, chemistry and functions of biological compounds. A survey of the detailed structures, chemistry and functions of the various classes of biologically important compounds. Prerequisite: Chm 241 and Chm 342. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

442 — Biochemistry II. Metabolic pathways. A detailed survey of metabolic pathways and processes. Prerequisite: Chm 441. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

444 — Qualitative Organic Analysis. A systematic study of methods for the identification of organic compounds and mixtures of organic compounds. Prerequisite: Chm 341 and 342. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours.

427, 437, 447 — Introduction to Research. Junior and senior chemistry students. 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 all previous chemistry courses. Credit: 2, 3, or 4 semester hours.

446 — Instrumental Chemical Analysis. Instrumental techniques of chemistry. Theory and practice in optical, electrometric, and chromatographic methods. Prerequisite: Chm 241, Chm 432 (or parallel), Mth 231, Phy 142 or Phy 241. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

4101, 4201, 4301, 4401 — Special Topics in Chemistry. Topics in undergraduate analytical, inorganic, organic, or physical chemistry. Library and/or laboratory work and conferences with a staff member. With the approval of department head, student may repeat the course for credit when the area of study is different. Credit: 1-4 semester hours.

Department of Geology

Department Head — H. E. Eveland. *Professors* — Saul Aronow, William H. Matthews III, Anthony C. Tennissen. *Associate Professors* — William R. Pampe, Robert R. Wheeler. *Assistant Professors* — Darrell E. Davis, Ernest L. Estes, James B. Stevens. *Instructor* — William L. Osburn.

Recommended Program of Study

Bachelor of Science — Geology Major

First Year

First Semester		Second Semester	
Geo 141—Physical	4	Geo 142—Historical	4
Chem 141 or 143	4	Chm 142 or 144	4
Mth 1335—Pre-Calc	3	Mth 236—Calc I	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1-2	HPE—Activity	1-2
	15-16		15-16

Second Year

First Semester		Second Semester	
Geo 241—Mineralogy	4	Geo 242—Petrology	4
Bio 141—General	4	Bio 142—General	4
Mth 237—Calc II	3	CS 131—Computers	3
Eng—Literature	3	Spc 131 or 331	3
HPE—Activity	1-2	Egr 114—Graphics	1
	15-16	HPE—Activity	1-2
			15-16

Third Year

First Semester		Second Semester	
Geo 341—Stat-Data Proc	4	Geo 342—Structure	4
Geo 343—Paleontology	4	Geo 419—Seminar	1
Phy 141—General	4	Phy 142—General	4
Gov 2321—Intro Am Gov	3	Soph Am Gov	3
	15	Elective	3
			15

Summer

Geo 360—Field Camp 6

Fourth Year

First Semester		Second Semester	
Senior Geology	3	Senior Geology	6
Soph Am His	3	Geo 419 — Seminar	1
*Advanced Science	3	Soph Am His	3
Electives	6	Electives	6
	15		16

Minimum Total — 127

*A junior or senior course selected from Bio, Chm, Phy, Mth or Egr.

Bachelor of Arts — Geology Major

First Year

First Semester		Second Semester	
Geo 141—Physical	4	Geo 142—Historical	4
Chm 143—Introductory	4	Bio 141—General	4
Mth 1335—Pre-Calc	3	Phy 137—Astronomy	3
Eng—Composition	3	Eng—Compositon	3
HPE—Activity	1-2	HPE—Activity	1-2
	15-16		15-16

Second Year

First Semester		Second Semester	
Geo 241—Mineralogy	4	Geo 242—Petrology	4
Foreign Language	4	Egr 114—Graphics	1
Gov 2321—Intro Am Gov	3	Foreign Language	4
Eng—Literature	6	Soph Am Gov	3
HPE—Activity	1-2	Eng—Literature	3
	15-16	HPE—Activity	1-2
			16-17

Third Year

First Semester		Second Semester	
Geo 341—Stat-Data Proc	4	Geo 342—Structure	4
Geo 343—Paleontology	4	Geo 419—Seminar	1
Foreign Language	3	Foreign Language	3
Soph Am His	3	Soph Am His	3
Elective	3	Statistics	3
	17	Electives	6
			17

Fourth Year

First Semester		Second Semester	
Senior Geology	3	Senior Geology	6
*Advanced Science	3	Geo 419—Seminar	1
**Advanced Arts	6	**Advanced Arts	3
Elective	3	Electives	6
	15		16

Minimum Total — 126

*A junior or senior course selected from Bio, Chm, Phy, Mth or Egr.
**A junior or senior course selected from Eng, Soc, Gov, His, Phl, Ant, Eco, Spc or Art.

Bachelor of Science — Oceanographic Technology — Generalized Option

First Year

Fall		Spring	
*DM 133—Small Engines	3	*IEE 133—Basic Electricity	3
Mth 1335—Pre-Calc	3	*MT 133—Machine Shop	3
Phy 143—Phys Science	4	Mth 236—Calc I	3
Eng—Composition	3	Phy 144—Phys Science	4
HPE 227—Swimming	2	Eng—Composition	3
	15	HPE 228—Life Saving	2
			18

Second Year

First Semester		Second Semester	
*DM 131—Intro Diesel	3	Brazosport College (Or equiv elsewhere)	
*DM 136—Basic Shop Procd	3	Ocean 104—Seamanship I	4
*WLD 133—Welding	3	Ocean 114—Seamanship II	4
CS 131—Computers	3	Ocean 124—Navigation I	4
Egr 114—Graphics	1	Ocean 134—Navigation II	4
Egr 233—Circs & Fields	3	Ocean 123—Marine Engr Tech I	3
HPE—Activity	1-2		19
	17-18		

Second Summer

Ocean 106 (Brazosport) 6

Third Year

First Semester		Second Semester	
Geo 141—Physical	4	Geo 417—Ocean Seminar	1
Geo 344—General Ocean	4	Chm 144—Introductory	4
Chm 143—Introduction	4	Mth 237—Calc II	3
Eng—Literature	3	Gov 2321—Intro Am Gov	3
	—	Elective	3
	15	HPE—Activity	1-2
			15-16

Third Summer

I		II	
Bio 141—General	4	Bio 142—General	4
Soph Am Hist	3	Soph Am Hist	3
	7		7

*LU Technical Arts courses

Fourth Year

First Semester		Second Semester	
Geo 337—Meteorology	3	Geo 417—Ocean Seminar	1
Geo 341—Stat-Data Proc	4	Geo 421—Physical Ocean	2
Eng 4335—Tech Writing	3	Geo 433—Geophysics	3
Soph Am Gov	3	Bio 445—Marine Biology	4
Elective (advanced)	3	CE 339—Soils Science	3
	—	EE 438—Instrumentation	3
	16		16

Minimum Total — 151

Bachelor of Science — Oceanographic Technology — Marine Biology Option

First Year

First Semester		Second Semester	
Bio 141—General	4	Bio 142—General	4
Chm 141—General	4	Chm 142—General	4
Mth 1335—Pre-Calc	3	Mth 236—Calc I	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1-2	HPE—Activity	1-2
	15-16		15-16

Second Year

First Semester		Second Semester	
Bio 444—Vert Nat Hist	4	Geo 141—Physical	4
Phy 141—General	4	Phy 142—General	4
Mth 237—Calc II	3	Soph Am His	3
Eng—Literature	3	Statistics	3
HPE 227—Swimming	2	HPE 228—Life Saving	2
	16		16

Third Year

First Semester		Second Semester	
Bio 346—Invert Zool	4	Bio 445—Marine Biol	4
Geo 344—Gnrl Oceanography	4	Bio 449—Protistology	4
Chm 243—Organic	4	Chm 244—Organic	4
Soph Am His	3	Elective	3
	15		15

Summer

Geo 361—Field Course 6

Fourth Year

First Semester		Second Semester	
Bio 344—Adv Physiol	4	Bio 443—Limnology	4
Bio 446—Ecology	4	Bio 417—Bio Lit	1
Geo 337—Meteorology	3	Soph Am Gov	3
Eng 4335—Tech Writing	3	Geo 417—Ocean Seminar	1
Gov 2321—Intro Am Gov	3	Geo 421—Phys Ocean	2
	17	EE 438—Instrumentation	3
		Elective	3
			17

Minimum Total — 132

Bachelor of Science — Oceanographic Technology — Marine Geology Option

First Year

First Semester		Second Semester	
Geo 141—Physical	4	Geo 142—Historical	4
Chm 141 or 143	4	Chm 142 or 144	4
Mth 1335—Pre-Calc	3	Mth 236—Calc I	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1-2	HPE—Activity	1-2
	15-16		15-16

Second Year

First Semester		Second Semester	
Geo 241 — Mineralogy	4	Geo 242 — Petrology	4
Bio 141 — General	4	Bio 142 — General	4
Mth 237—Calc II	3	Gov 2321 — Intro Am Gov	3
Eng — Literature	3	Egr 114 — Graphics	1
HPE 227 — Swimming	2	CS 131 — Computers	3
	16	HPE 228 — Life Saving	2
			17

Third Year

First Semester		Second Semester	
Geo 337 — Meteorology	3	Geo 342 — Structure	4
Geo 341 — Stat-Data Proc	4	Geo 419—Seminar	1
Phy 141 — General	4	Phy 142 — General	4
Geo 344 — General Ocean	4	Soph Am His	3
Soph Am Gov	3	CE 339 — Soils Science	3
	18		15

Summer

Geo 361 — Field Course 6

Fourth Year

First Semester		Second Semester	
Soph Am His	3	Bio 445 — Marine Biology	4
Eng 4335 — Tech Writing	3	CS 439 — Comp Appl	3
Senior Geology	3	Geo 417 — Ocean Seminar	1
Electives	6	Geo 421 — Phys Ocean	2
	15	EE 438 — Instrumentation	2
		Geo 433 — Geophysics	3
			16

Minimum Total — 133

Bachelor of Science — Oceanographic Technology — Ocean Engineering Option

First Year

Fall		Spring	
Chm 141 or 143	4	Chm 142 or 144	4
Geo 141 — Physical	4	Phy 241 — Introductory	4
Mth 138 — Analysis I	3	Mth 139 — Analysis II	3
Eng — Composition	3	Eng — Composition	3
HPE — Activity	1-2	HPE — Activity	1-2
	15-16		15-16

Second Year

Fall		Spring	
Phy 242 — Introductory	4	Mth 139 — Analysis IV	3
Mth 231 — Analysis III	3	Egr 231 — Mechanics II	3
Egr 132 — Mechanics I	3	CS 131 — Computers	3
Egr 114 — Graphics	1	CE 314 — Surveying	1
CE 313 — Measurements	1	Soph Am His	3
Eng — Literature	3	HPE 228 — Life Saving	2
HPE 227 — Swimming	2		
	17		15

Third Year

Fall		Spring	
Egr 232 — Mechanics III	3	Egr 234 — Thermodynamics	3
Egr 233 — Circuits & Fields	3	IE 333 — Egr Economics	3
CE 331 — Envi Sci	3	CE 339 — Soils Sciences	3
Gov 2321 — Intro Am Gov	3	Soph Am Gov	3
Geo 344 — Gnrl Oceanography	4	Elective	3
	16		15

Summer

Geo 361 — Field Course 6

Fourth Year

Fall		Spring	
CE 413 — Photogrammetry	1	Egr 331 — Momentum Transfer	3
Geo 337 — Meteorology	3	Egr 4101 — Egr Seminar	1
Eng 4335 — Tech Writing	3	Geo 417 — Ocean Seminar	1
Electives	3	Geo 421 — Phys Oceanography	2
Egr 334 — Mechanics IV	3	EE 438 — Instrumentation	3
Soph Am His	3	Geo 433 — Geophysics	3
	16	CS 439 — Comp Appl	3
			16

Minimum Total — 131

Bachelor Of Science — Energy Resources Management

First Year

First Semester		Second Semester	
Geo 141—Physical	4	Geo 142—Historical	4
Chm 143—Intro	4	Chm 144—Intro	4
Mth 1335—Pre-Calc	3	Mth 236—Calc I	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1-2	HPE—Activity	1-2
	15-16		15-16

Second Year

First Semester		Second Semester	
Phy 141—General Phys	4	Gov 2321—Amer Gov	3
CS 131—Intro Comput	3	BA 220—Fortran	2
Acc 231—Principles	3	Acc 232—Principles	3
Eco 231—Principles	3	Eco 232—Principles	3
Eng—Literature	3	Spc 331—Bus Prof-Speech	3
HPE—Activity	1-2	HPE—Activity	1-2
	17-18		15-16

Third Year

First Semester		Second Semester	
Eco 434—Eco Dev	3	Geo 335—Earth Materials	3
BA 335—Prin Mgmt	3	Geo 419—Seminar	1
BA 3301—Bus Stat	3	Geo 437—Econ Geo	3
BA 331—Bus Law	3	BA 4314—Adm Pol	3
Soph Am Gov	3	BA 3302—Bus Stat	3
Elective	3	BA 438—Petroleum Law	3
	18		16

Fourth Year

First Semester		Second Semester	
Geo 338—Oceanography	3	Geo 433—Geophysics	3
Eco 335—Intl Trade	3	Geo 438—Petrol Geo	3
Soph Am His	3	Geo 419—Seminar	1
Eng 4335—Tech Writing	3	Egr 438—Petrol Egr	3
Elective	6	Soph Am His	3
	18		16

Minimum Total—130

GEOLOGY (Geo)

141 — Physical Geology. Earth materials, structures, land forms, mineral resources, and the processes which formed them. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

142 — Historical Geology. History of the earth and its life. Prerequisite: Geo 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

220 — Geology for Engineers. A survey of physical geology with emphasis on geologic problems in engineering practice. Primarily for engineering students. A student may not receive credit for both Geo 220 and Geo 141. Class: 2 hours. Laboratory: 2 hours. Credit: 2 semester hours.

237 — Physical Geography. The fundamental concepts of local, regional, and global geography. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

238 — Cultural Geography. History and distribution of cultural groups with emphasis upon the interaction between geographic environment and human cultures. Class: 3 hours. Credit 3 semester hours.

239 — History of Life. History of the earth and its inhabitants, with emphasis on the life forms and their development. Includes the study of geologic time, fossils, and prehistoric man. A student may not receive credit for both Geo 239 and Geo 142. Class: 3 hours. Credit: 3 semester hours.

241 — Mineralogy. The classification, properties, occurrence, and identification of minerals. Field trip required. Prerequisite: Geo 141 and Chm 141 or 143. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

242 — Petrology. The classification, properties, occurrence, and identification of igneous, sedimentary and metamorphic rocks. Field trip required. Prerequisite: Geo 241. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

335 — Earth Materials. The identification, classification, occurrence, and economic significance of minerals and rocks. Field trip required. Prerequisite: Geo 142 or Geo 239. Class: 3 hours. Credit: 3 semester hours.

336 — Geology of Texas. The topography, physiography, structure, geologic history and mineral deposits of Texas. Field trip required. Prerequisite: Geo 142 or Geo 239. Class: 3 hours. Credit: 3 semester hours.

337 — Meteorology. The structure, properties, and processes of the atmosphere. The role of climate and weather in the total environment. Prerequisite: 6 hours of elementary science. Class: 3 hours. Credit: 3 semester hours.

338 — Oceanography. The structure, properties, and processes of the hydrosphere. The role of the seas and oceans in the environment. Prerequisite: 6 hours of elementary science. Class: 3 hours. Credit: 3 semester hours.

339 — Environmental Geography. The environmental significance of man's development, abuse and conservation of his atmospheric, aquatic and mineral resources. Field trips required. Prerequisite: Geo 141 or 237. Class: 3 hours. Credit: 3 semester hours.

341 — Statistics and Data Processing. The application of digital computer and statistical techniques to the analysis of earth science data. Basic statistical parameters, analysis of variance, multivariate analysis, some non-parametric techniques. Prerequisites: CS 131 or BA 220 or Egr 133. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

342 — Structural Geology. Rock deformation and the resulting structures. Field trip required. Prerequisite: Geo 142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

343 — Paleontology. The classification, morphology and identification of invertebrate fossils. Field trip required. Prerequisite: Geo 142 or 239. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

344 — General Oceanography. Introduction to principles of oceanography. Geology of ocean basins, near shore processes, chemistry of sea water, physics of the sea, and biological environments of the ocean. Prerequisite: Geo 141, Chm 142 or 144. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

360 — Summer Field Course. Description of stratigraphic sections, preparation of geologic maps and field reports. Duration: 6 weeks. Total cost: $200-$300. Prerequisite: Geo 342 and Egr 114. Class: 5 hours. Laboratory: 40 hours. Credit: 6 semester hours.

361 — Field Course in Estuarine and Coastal Oceanography. Studies in near shore geological processes. The application of standard sampling devices. Field work along

the coast and on shore. Laboratory analysis of samples. Small boat handling. Duration: 6 weeks. Prerequisite: Geo 344. Class: 5 hours. Laboratory: 40 hours. Credit: 6 semester hours.

417 — Oceanographic Technology Seminar. Reports on current literature in oceanography. May be repeated for credit. Prerequisite: Geo 344. Class: 1 hour. Credit: 1 semester hour.

418 — Earth Science Literature. Reports on current source materials. Not open to geology majors. Prerequisite: 12 hours of Geology. Class: 1 hour. Credit: 1 semester hour.

419 — Seminar. Reports on current literature. May be repeated for credit. Prerequisite: 16 semester hours of Geology. Class: 1 hour. Credit: 1 semester hour.

421 — Physical Oceanography. Physical processes and properties of oceans; their relationships to atmosphere and solid earth. Dynamics of oceanic current systems. Wind currents, waves, and tides. Prerequisite: Geo 344, Mth 237. Class: 2 hours. Credit: 2 semester hours.

422 — X-ray Crystallography. Use of X-ray diffraction techniques to identify minerals and other crystalline substances. For advanced science and engineering students. Prerequisite: one year of Chemistry or Physics. Laboratory: 6 hours. Credit: 2 semester hours.

423 — Shipboard Operations. Designed to familiarize students in technical operations undertaken on oceanographic vessels. Concurrent registration in EE 438 required. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

427, 428 — Special Project. An individual library, laboratory, or field project. To receive credit, an acceptable typewritten report is required. Credit: maximum of 4 semester hours.

4309-4609 — Techniques in Archeology. The strategy, methodology, field and laboratory procedures employed in the study of an archeology site. Prerequisite: Ant 231 or Geo 239, or consent of instructor. Class: 2 hours. Field and Laboratory: 4 to 12 hours. Credit: 3 to 6 semester hours.

431 — Sedimentation. The derivation, transportation, and deposition of sediments, with emphasis on environmental factors. Laboratory techniques for the study of sediments. Field trip required. Prerequisite: Geo 242. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

432 — Stratigraphy. The history, distribution, and correlation of sedimentary strata. Field trip required. Prerequisite: Geo 343. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

433 — Geophysics. Application of the principles of physics to geologic problems. Use of geophysical techniques in petroleum exploration. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

434 — Geology of the United States. A regional study of the geomorphology, structural geology, and geologic history of the United States. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

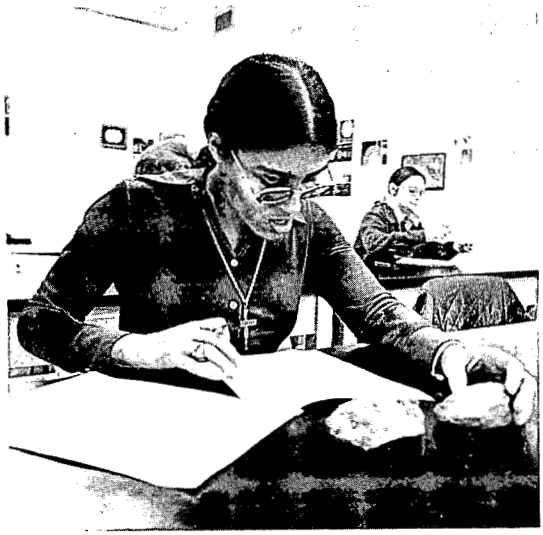
435 — Geomorphology. The development and classification of land forms. Field trip required. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

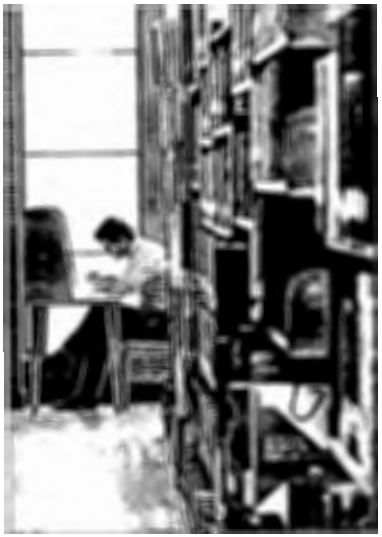
436 — Optical Mineralogy. Optical properties of minerals. Use of the polarizing microscope in the identification of minerals and rocks. Prerequisite: Geo 242. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

437 — Economic Geology. Origin and occurrence of commercially valuable metallic

and non-metallic minerals and rocks. Exploration for and development of deposits. Field trip required. Prerequisite: Geo 242 or 335. Class: 3 hours. Credit: 3 semester hours.

438 — Petroleum Geology. Origin and occurrence of oil and gas deposits. Exploration for and development of commercially valuable deposits. Field trip required. Prerequisite: Geo 242 or 335. Class: 3 hours. Credit: 3 semester hours.





Department of Physics

Department Head — Carl J. Rigney. *Professors* — Roy H. Biser, Joseph F. Pizzo. *Associate Professors* — G. F. Landegren, Hugh O. Peebles, J. G. Shepherd. *Assistant Professor* — Oscar T. Goines. *Stockroom Supervisor* — Joseph Accardo. *Departmental Secretary* — Mrs. Jo Carol Doyle.

High school preparation for the physics major must include 2 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 catalog 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 335 and one of the three laboratory courses (324, 346 or 448); and 15 semester hours of mathematics including 331. 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. Premedical
3. Life Science
4. Oceanography
5. Teaching
6. Chemistry
7. Liberal Arts
8. Environmental Science
9. Engineering
10. Geology

Recommended Program of Study

First Year

Fall Semester		Spring Semester	
Eng Composition	3	Eng Composition	3
Mth 138—Analysis I	3	Mth 139—Analysis II	3
Chm 141—General	4	Chm 142—General	4
Phy 110—Phy Today	1	Phy 140—Introductory	4
Electives	3-6	Elective	3
HPE—Activity	1-2	HPE—Activity	1-2
	15-19		18-19

Second Year

Fall Semester		Spring Semester	
Eng Literature	3	Eng Literature	3
Mth 231—Analysis III	3	Mth 232—Analysis IV	3
Phy 241—Introductory	4	Phy 242—Introductory	4
Bio 141—General	4	Bio 142—General	4
Soph Am His	3	Soph Am His	3
HPE—Activity	1-2	HPE—Activity	1-2
	18-19		18-19

Third Year

Fall Semester		Spring Semester	
Phy 335—Modern Physics	3	Physics	3-4
Mth 331—Diff Equations	3	Option	6-9
Option	6-9	Elective	3
Gov 2321—Intro Am Gov	3	Soph Am Gov	3
	15-18		15-19

Fourth Year

Fall Semester		Spring Semester	
Physics	3-5	Physics	3-4
Option	6-9	Option	6-9
Electives	3-6	Electives	3-6
	15-19		15-19

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.

Premedical: 16-20 additional semester hours of biology, 8-16 additional semester hours of Chemistry. 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 semester 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, three-nine semester hours of electronics. Electives unrestricted.

PHYSICS (Phy)

110 — Physics Today. A descriptive introduction to recent developments and noteworthy current problems, such as gravitational collapse. Class: 1 hour. Credit: 1 semester hour.

111 — Astronomy Laboratory. 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. Laboratory: 2 hours. Credit: 1 semester hour.

137 — Descriptive Astronomy. A survey of facts and an introduction to important astronomical theories. The solar system, stars, nebulae, and star systems. Class: 3 hours. Credit: 3 semester hours.

140 — Introductory Mechanics. Emphasis is placed on derivation, units, and problem solving. Prerequisite: credit for or registration in Mth 139. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

141 — General Physics-Mechanics and Heat. Designed for majors in the physical or natural sciences. Emphasis placed upon understanding and application of basic physical laws. Prerequisite: Mth 1334. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

142 — General Physics — Sound, Light, Electricity and Magnetism. A continuation of Phy 141. Prerequisite: Phy 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

143, 144 — Physical Science. Designed for non-science majors. Appropriate topics from physics and chemistry are covered using the inquiry approach. A student with acceptable credit for Phy 140, 141, 142, 241, or 242 may not receive credit for Phy 143. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours per semester.

233 — Modern General Physics. Content will include 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 233. Prerequisite: Phy 142. Class: 3 hours. Credit: 3 semester hours.

241 — Introductory Physics — Heat, Electricity and Magnetism. Emphasis is placed on derivations, units, and problem solving. Prerequisite: Phy 140 or Egr 132 and credit for or registration in Mth 231. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

242 — Introductory Physics — Sound, Light, and Quanta. Emphasis is placed on derivations, units, and problem solving. Prerequisite: Phy 241. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

245 — Introductory Acoustics. 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. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

324 — Modern Physics Laboratory. 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. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

333 — Analytical Mechanics. 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. Class: 3 hours. Credit: 3 semester hours.

335 — Modern Physics. Conservation laws; special relativity; quantum effects; atomic structure; X-rays, nuclear and solid state physics. Prerequisites: Phy 241-242 or Phy 141-142 and Mth 231. Class: 3 hours. Credit: 3 semester hours.

338 — Electricity and Magnetism. Electrostatic fields; magnetic fields; potential; capacitance; dielectrics; electromagnetic waves. Maxwell's equations; conduction in gases; thermoelectricity. Prerequisites: Phy 241-242 or 141-142 and credit for or registration in Mth 331. Class: 3 hours. Credit: 3 semester hours.

339 — Thermal Physics. 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. Prerequisites: Phy 241-242 or Phy 141-142 and Mth 232. Class: 3 hours. Credit: 3 semester hours.

346 — Electrical Measurements. Theoretical and practical definitions of electrical units; data handling and analysis; precision D.C. measurement of resistance, potential difference, and current; galvanometer characteristics; A.C. bridge measurement of self and mutual inductance, capacitance, and frequency; magnetic measurements. Prerequisites: Phy 241-242 or 141-142 and Mth 231. Class: 2 hours. Laboratory: 4 hours. Credit: 4 semester hours.

414, 415 — Experimental Projects. Building of experimental apparatus under the supervision of a faculty member. Prerequisite: 6 hours of physics numbered above 300. Laboratory: 3 hours. Credit: 1 semester hour per course.

416, 417 — Seminar. Reports on current publications and on topics not treated in other physics courses. Prerequisite: 6 hours of physics numbered above 300. Class: 1 hour. Credit: 1 semester hour per course.

431 — Classical Mechanics. Variational principles and Lagrange's equations; the kinematics of rigid body motion; the Hamilton equations of motion; small oscillations. Prerequisite: Mth 331 and Phy 333 or Egr 231. Class: 3 hours. Credit: 3 semester hours.

432 — Introductory Quantum Mechanics. Basic concepts of quantum mechanics. Schrödinger's equation; wave functions. Prerequisites: Phy 333 or 431, Phy 335, and Mth 331. Class: 3 hours. Credit: 3 semester hours.

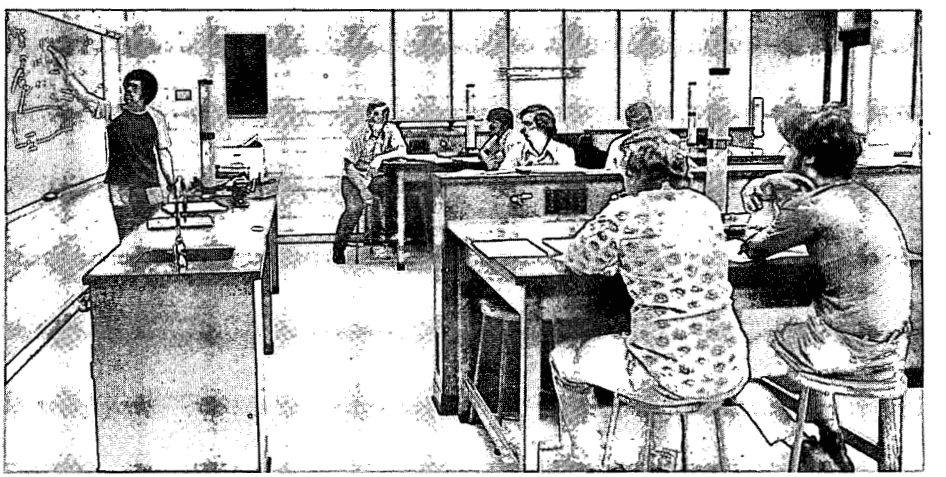
433 — Solid State Physics. Crystal structure; binding forces; mechanical and thermal properties; electrical conductivity; semiconductors; dielectric properties; magnetic properties; surface effects; phosphors and photoconductivity. Prerequisite: Phy 335. Class: 3 hours. Credit: 3 semester hours.

436 — Nuclear Physics. Natural radioactivity; the positron; the neutron; artificial disintegration; central forces; nuclear scattering of alpha particles; charged particle accelerators; nuclear fission; isotope separation; cosmic rays; the meson; particles and waves. Prerequisite: Phy 335. Class: 3 hours. Credit: 3 semester hours.

437 — Astrophysics. 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. Class: 3 hours. Credit: 3 semester hours.

448 — Optics. Physical and Quantum Optics. Propagation of light; interference; diffraction; optics of solids; thermal radiation and light quanta; optical spectra; lasers. Prerequisite: Phy 241-242 or Phy 141-142 and Mth 231. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.



Department of Psychology

Department Head — Myrtle L. Bell. *Professors* — Billy R. Barrington, James R. Hawker. *Associate Professor* — Otto R. Flocke. *Assistant Professors* — Henry P. Buller, Robert A. Gay, Oliver H. London, James E. Schroeder, James L. Walker, Jr. *Instructor* — Mary C. Welsh. *Secretary* — Judith C. Penny.

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
   Biology 141-142 — General — eight semester hours
   Foreign Language — 14 semester hours (completion of the 232 course in a foreign language)
   Government 2321 and three semester hours of Sophomore American Government
   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		Second Year	
Bio 141, 142—General	8	Eng—Literature	6
Eng—Composition	6	Foreign Language	6
Foreign Language	8	Soph Am His	6
Mth	6	Psy 241—Intro Stat Methods	4
Psy 131	3	Electives	8
HPE—Activity	2-4	HPE—Activity	2-4
	33-35		32-34

Third Year

Gov 2321—Intro Am Gov	3
Soph Am Gov	3
Psy 242—Methods in Psychology	4
Psy (Advanced)	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 requirements for the Bachelor of Arts in Psychology with the following modifications:

1. Eight semester hours in a physical science and Math 236-237 (six hours) in lieu of the foreign language requirement.
2. 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. Electives:
   A sufficient number of approved electives to complete a total of 128 semester hours.

Recommended Program of Study

First Year

Bio 141-142	8
Eng—Composition	6
Mth 1335—Precalculus	3
Mth 134—Algebra	3
Physical Science	4
Psy 131—Intro to Psy	3
Psy 241—Intro Stat Methods	4
HPE—Activity	2-4
	33-35

Second Year

Eng—Literature	6
Mth 236, 237	6
Physical Science	4
Psy 242—Methods in Psychology	4
Minor	6
Electives	3
HPE—Activity	2-4
	31-33

Third Year

Gov 2321—Intro Am Gov	3
Soph Am Gov	3
Psy 343—Experimental Psy	4
Psy (Advanced)	6
Minor	6
Electives	9
	31

Fourth Year

Soph Am His	6
Psy (Advanced)	9
Minor	6
Electives	12
	33

Total 128 Hours

*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 1335—Precalculus	3
Psy 131—Intro to Psy	3
Psy 241—Intro to Stat Meth	4
HPE 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 2321—Intro Amer Gov	3
Soph Am Gov	3
HPE Activity	2-4
Electives	6
	14-16

Third Year

Soph Am His	6
Phy 141, 142—General	8
Bio 347—Genetics	4
Bio 344—Adv Physiology	4
Psy 343—Experimental Psy	4
Psy Electives (Adv)	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.

PSYCHOLOGY (Psy)

120 — Psychological Processes in Career Selection. 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, and observation in employment settings. Prerequisite: undeclared major or consent of instructor. Class: 2 hours. Credit: 2 semester hours.

131 — Introduction to Psychology. 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. Class: 3 hours. Credit: 3 semester hours.

234 — Child Psychology. A study of the growth and development of behavior patterns in children. Class: 3 hours. Credit: 3 semester hours.

235 — Adolescent Psychology. A study of the growth and development of behavior patterns in adolescents. Class: 3 hours. Credit: 3 semester hours.

241 — Introduction to Statistical Methods. Statistical concepts and techniques used in psychological research. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

242 — Methods in Psychology. 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. Prerequisites: Psy 131 and 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

330 — Psychology of Communication. A study of the theory, structure, and function of communication patterns in various group settings. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

331 — Systems and History of Psychology. Historical development of psychology. Emphasis on the evolution of major systems of psychology. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

332 — Psychology of Personality. A study of several of the major theories of personality organization and adjustment processes. Prerequisite: Psy 131. Class: 3 hours. Credit 3 semester hours.

333 — Psychology of Group Behavior. Investigation of psychological basis of group 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. Class: 3 hours. Credit: 3 semester hours.

334 — Industrial Psychology. An introduction to the application of psychological tools and techniques in industrial settings. Stress will be placed on selecting, training, and evaluating workers. Prerequisite: Psy 241. Class: 3 hours. Credit: 3 semester hours.

335 — Motivation. A study of contemporary concepts theories, and research in motivation. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

336 — Psychological Tests and Measurements. Theory and use of instruments for measurements of intelligence, interests, aptitude, and attitudes. Prerequisite: Psy 131 and 241. Class: 3 hours. Credit: 3 semester hours.

337 — Psychology of Adjustment. A study of normal adjustment and commonly used defenses against anxieties. Class: 3 hours. Credit: 3 semester hours.

338 — Individual Psychological Testing. An introduction to individual psychological testing for speech therapy students only. Stress will be placed on administering and interpreting the WISC, the Binet and the Vineland. Class: 3 hours. Credit: 3 semester hours.

342 — Statistical Methods. 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. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

343 — Experimental Psychology. Techniques to demonstrate and investigate concepts in psychology. Prerequisite: Psy 242. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

410, 420, 430 — Undergraduate Research. 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. Credit: 1, 2, or 3 semester hours.

4101, 4201, 4301 — Special Topics in Psychology. Topics in developmental, physiological, social, differential, experimental, quantitative, cognitive, or clinical psychology. Includes a 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. Credit: 1, 2, or 3 semester hours.

431 — Sensation and Perception. A review of research and theory regarding the structure and function of the basic sensory processes, and sensory perception. Prerequisite: 9 hours in Psy. Class: 3 hours. Credit: 3 semester hours.

432 — Abnormal Psychology. A study of abnormal behavior. Special emphasis on the symptomatology, etiology, and therapeutic approaches. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

433 — Differential Psychology. Individual and group behavior differences and similarities. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

434 — An Introduction to Group Psychotherapy. 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. Class: 3 hours. Credit: 3 semester hours.

435 — Leadership and Group Dynamics. A study of the nature, evaluation, and utilization of intra and inter-personal forces producing behavior in various group structures. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

436 — Learning. Theories and research concerning learning processes, with a consideration of practical implications. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

437 — Quantitative Psychology. Theory and application of psychophysical and psychological scaling methods. Prerequisite: Psy 241. Class: 3 hours. Credit: 3 semester hours.

438 — Physiological Psychology. Survey of the physiological bases of behavior with emphasis on the mechanisms in the central nervous system. Prerequisite: 9 hours in Psychology. Class: 3 hours. Credit: 3 semester hours.

439 — Contemporary Problems in Psychology. A critical and comprehensive examination of current problems in selected areas of psychology. Topics will vary from semester to semester. Prerequisite: 12 hours in Psychology. Class: 3 hours. Credit: 3 semester hours. May be repeated for credit when topics vary.

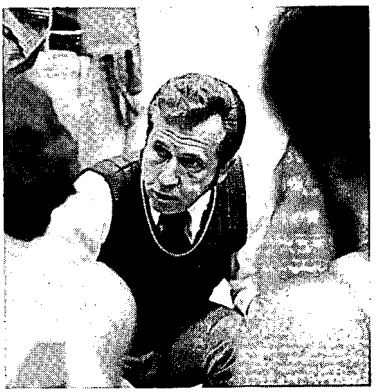
College of Technical Arts

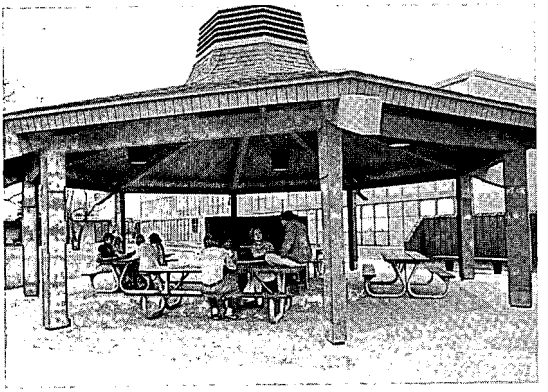
Departments: Industrial, Related Arts, Technical

Kenneth E. Shipper, Ph.D., Dean
Mrs. Willa V. Newton, Secretary

The College of Technical Arts offers two-year Associate of Applied Science degrees in automotive mechanics, business data processing, diesel mechanics, drafting technology, electronics technology, fire protection technology, general secretary, industrial electricity and electronics technology, legal secretary, machine tools, medical secretary, mid-management, real estate, refrigeration and air conditioning technology and welding. Diploma programs include accounting clerk, automotive mechanics, clerical, cosmetology, general secretary, legal secretary, marine construction, medical secretary. Certificates of Completion are offered in four Adult Training Programs.

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

E.B. Blackburn, Jr., Ed.D., Dean
Mrs. Louise Mullin, Secretary

The Graduate Council

The Graduate Program is administered by the Graduate Council. The membership of the Council consists of representatives from each College offering graduate degrees, with the Dean of the College of Graduate Studies acting as chairman. The Council determines the academic policies of the College of Graduate Studies.

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

Applicants seeking admission to the College of Graduate Studies must present evidence that their academic record and personal attributes indicate the ability to pursue graduate work successfully. Admission to the College of Graduate Studies is administered by the Graduate Dean. In general, the policies set forth by the Graduate Council for admission are as follows:

1. An applicant must hold a bachelor's degree from an institution approved by a recognized accrediting agency.
2. The following official credentials should be filed with the Dean of Graduate Studies at least four weeks before registration.
   A. Two official transcripts sent directly from each college previously attended.
   B. Two completed copies of the application for admission to the College of Graduate Studies, and one copy of computer data sheet.
   C. Scores on the aptitude section of the Graduate Record Examination (sent directly to the Dean of the College of Graduate Studies by the Educational Testing Service). The University Testing and Placement Center, located in the Educational Services Building, administers the Graduate Record Examination. Application forms and information about the Graduate Record Examination are available at this Center.
3. The applicant's undergraduate grade point average and Graduate Record Examination scores must be above the minimum standard established by the College of Graduate Studies.
   A. For regular admission **both** of the following requirements must be met:
      1. A minimum overall grade point average of 2.5 on a four-point scale.
      2. A minimum composite score (verbal + quantitative) of 720 on the aptitude section of the Graduate Record Examination and a minimum verbal score of 350.
   B. For admission on probation **one** of the following requirements must be met:
      1. A minimum grade point average of 2.5 on junior and senior work and acceptable scores on the Graduate Record Examination — a composite score (V + Q) of 720 and a verbal score of 350.
      2. A grade point average lower than 2.5, but with a score of at least 540 on an appropriate section of the GRE aptitude test. (Some departments use the verbal score; some use the quantitative score; and some use either.)
      3. A minimum overall grade point of 3.0 and a minimum verbal score of 350 on the GRE.

      NOTE: Probation is removed automatically without notification after the student completes nine consecutive semester hours of graduate work with grades of B or better.
   C. Admission Requirements for Foreign Students:
      Applications of foreign students are evaluated on an individual basis after the following information is received: (1) Official transcripts from colleges previously attended, (2) scores on the aptitude section of the Graduate Record Examination, and (3) scores on the Test of English as a Foreign Language. In general, a foreign student whose native language is not English is expected to score over 500 on the TOEFL and fulfill the composite requirement (V + Q=720) on the GRE.

Special Students

An applicant who wishes to register for graduate work without enrolling in a degree program may do so under the following conditions:

1. He must hold a bachelor's degree.
2. He must be approved for admission by the Dean of the College of Graduate Studies.
3. With departmental approval, courses taken by a Special Student may be used for graduate degree credit under the following conditions:

Special Students by Choice

If application for admission to a degree program is received in a subsequent semester and requirements for admission are complete and acceptable, a maximum of 12 semester hours previously completed may be approved for degree credit.

Degree Students who have not met Admission Requirements

If initial application is for admission to a degree program and the student fails to meet admission requirements upon completion of 12 semester credit hours, the student may not continue to take courses for degree credit and must have the approval of the Graduate Dean to re-enroll.

Undergraduates Taking Graduate Courses

With the approval of the head of the major department and the Graduate Dean, an undergraduate student within 12 semester hours of graduation, may take not more than six semester hours of graduate courses to be applied toward the master's degree, provided the total academic load does not exceed 15 semester hours.

Registration

A student who has been admitted to the College of Graduate Studies may register in August or January for the long session, or in June or July for the summer terms.

DIRECTORY FOR CORRESPONDENCE

Numbers for all campus stations may be obtained through the central switchboard, Area Code 713, 838-7011. All correspondence should be directed to Lamar University Station, Beaumont, Texas 77710.

To obtain prompt attention, address inquiries to the following persons or agencies.

Academic Program ..... David D. Geddes, Vice-President, P.O. Box 10002
Administration ..... Andrew J. Johnson, Vice-President, P.O. Box 10014
Admissions and Records ..... Norris H. Kelton, Dean, P.O. Box 10009
Athletics ..... J. B. Higgins, Director, P.O. Box 10038
Books/Supplies ..... P. B. Plotts, Bookstore Manager, P.O. Box 10019
Continuing Education/
Extended Day Classes ..... Joseph D. Reho, Director, P.O. Box 10008
Cooperative Education ..... George B. Tims, Jr., Director, P.O. Box 10074
Development ..... Charles L. Schmucker, Director, P.O. Box 10568
Financial Affairs ..... Oscar K. Baxley, Comptroller, P.O. Box 10003
Financial Aid/Awards ..... Jess R. Davis, Director, P.O. Box 10042
Information/Publications ..... Russell DeVillier, Director, P.O. Box 10011
Library ..... R. B. Thomas, Director, P.O. Box 10021
Research ..... Charles P. Turco, Director, P.O. Box 10078
Student Affairs ..... George E. McLaughlin, Dean, P.O. Box 10006
Student Health ..... Lamar C. Bevil, M.D., P.O. Box 10015
Student Housing ..... Bruce E. Stracener, Director, P.O. Box 10041
Teacher Certification ..... Vernon H. Griffin, Director, P.O. Box 10034
Traffic/Security ..... Gene Carpenter, Director, P.O. Box 10013
Tuition/Fees/Expenses ..... Finance Office, P.O. Box 10003
Testing/Placement ..... Joe B. Thrash, Director, P.O. Box 10012
Veterans' Affairs ..... Darrell L. Fondren, Director, P.O. Box 10017
College of Business ..... John A. Ryan, Dean, P.O. Box 10059
College of Education ..... M. L. McLaughlin, Dean, P.O. Box 10034
College of Engineering ..... Robert A. McAllister, Dean, P.O. Box 10057
College of Fine/Applied Arts ..... W. Brock Brentlinger, Dean, P.O. Box 10197
College of Health Sciences ..... Betty Jo Hadley, Dean, P.O. Box 10062
College of Liberal Arts ..... Preston B. Williams, Dean, P.O. Box 10058
College of Sciences ..... Roger E. Yerick, Dean, P.O. Box 10022
College of Graduate Studies ..... E. B. Blackburn, Jr., Dean, P.O. Box 10004
College of Technical Arts ..... Kenneth E. Shipper, Dean, P.O. Box 10043
LU at Orange ..... J. B. Welch, Director, 410 Front St., Orange, Texas 77630
LU at Port Arthur ..... W. Sam Monroe, Director, 1500 Procter, Port Arthur, Texas 77640

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