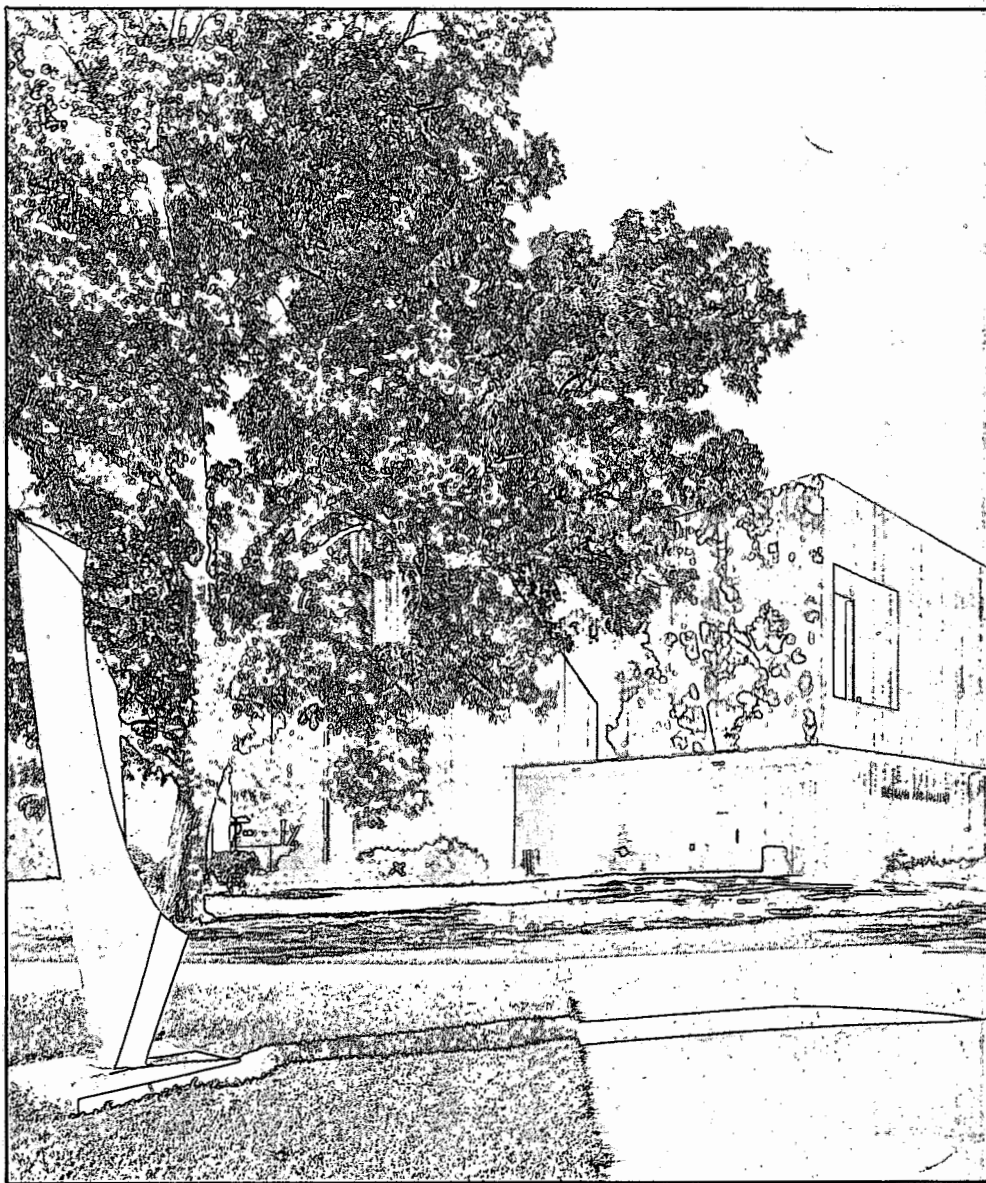


Shaping Minds to Shape the Future

LAMAR UNIVERSITY • BEAUMONT



GENERAL CATALOG — 1986-1987

Lamar University — Beaumont

1986-87 Bulletin

Vol. 35 No. 1

Thirty-fifth annual catalog issue with announcements for 1986-87.

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

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

Lamar University is an equal opportunity/affirmative action educational institution and employer. Students, faculty and staff members are selected without regard to their race, color, creed, sex, or national origin, consistent with the Assurance of Compliance with Title VI of the Civil Rights Act of 1964; Executive Order 11246 as issued and amended; Title IX of the Education Amendments of 1972, as amended; Section 504 of the Rehabilitation Act of 1973. Inquiries concerning application of these regulations may be referred to the Vice President for Administration, Personnel and Student Services.

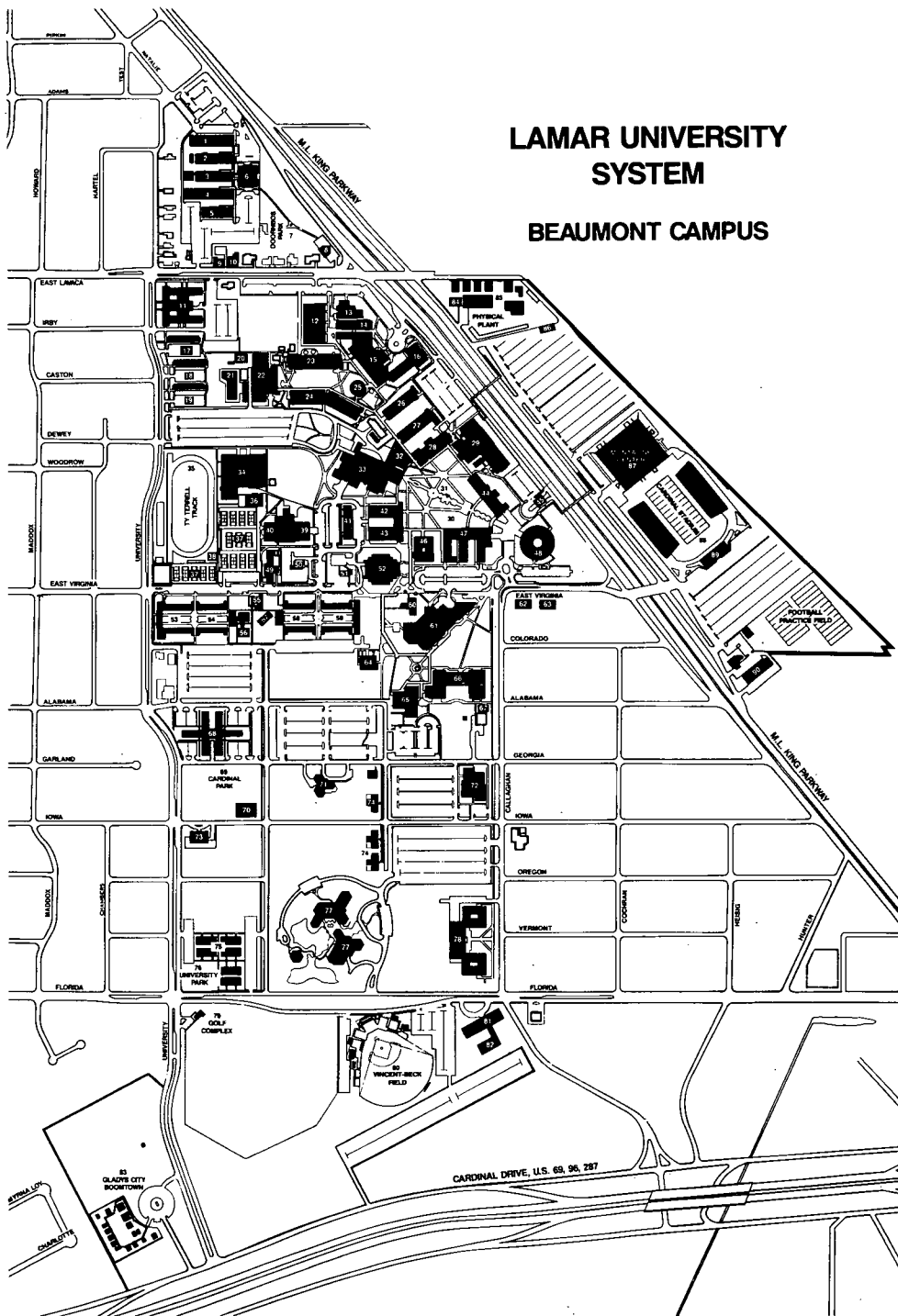
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LAMAR UNIVERSITY SYSTEM

BEAUMONT CAMPUS



LEGEND TO MAP OF LAMAR UNIVERSITY · BEAUMONT

Administration (Plummer Bldg.)	48	Newman Catholic Center	62
Alumni House	50	Wesley Foundation Methodist Center	56
Army ROTC	64		
Art Building	14	Residences:	
Baby Red Bird Day School	81	Unit I	19
Biology (Hayes Bldg.)	23	Unit II	18
Bookstore	32	Unit III	17
Business (Galloway Bldg.)	29	University Drive Apartments	75
Campus Planning	84	(Men's residence halls)	
Cardinal Park	69	Combs	58
Cardinal Stadium	88	Morris	59
Chancellor's Home	71	Plummer	68
Chemistry Bldg.	24	Shivers	78
Child Development Center	81	Stadium Hall (football)	90
Communication Bldg.	15	(Women's residence halls)	
Computer Energy Management Facility	67	Brooks	78
Continuing Education	87	Campbell	54
Custodial Services	41	Gentry (sorority)	11
Dental Hygiene Clinic	12	Gray	53
Dining Hall	39	Resource Management Center	10
Dishman Art Gallery	13	Science Auditorium	25
Doornbos Park	7	Setzer Student Center	33
Education Bldg.	65	Shipping and Receiving	86
Employment Office	9	Speech and Hearing Center	72
Engineering I (Lucas Bldg.)	47	Spindletop Museum	82
Engineering II	43	Student Services (Wimberly Bldg.)	44
Engineering III (Cherry Bldg.)	61	Supply Center	42
Faculty-Staff Dining Room	40	System Offices	52
Fraternity Row	74	Technical Arts Main Bldg. (Beeson)	6
Geology Bldg.	27	Technical Arts 1	1
Gladys City Boomtown	83	Technical Arts 2	2
Golf Complex	79	Technical Arts 3	3
Gray Institute	77	Technical Arts 4	4
Gray Library	52	Technical Arts 5	5
Gym Annex	20	Theatre	15
Health Sciences		Tennis Courts	37
(Mamie McFaddin Ward Bldg.)	12	Tennis Pro Shop	38
Health Center	49	Ty Terrell Track	35
Home Economics Bldg.	46	University Park	76
Housing Office	51	University Press	33
Information Center	45	Vincent-Beck Stadium	80
J. B. Higgins Fieldhouse	89	Women's Gym	22
KVLU Radio Station	15		
Liberal Arts Bldg.	66		
McDonald Gym	34		
Mirabeau B. Lamar Statue	31		
Montagne Center	87		
Music Bldg.	16		
Parking Office	8		
Physical Plant	85		
Physics (Archer Bldg.)	28		
Placement Center	29		
Police Department	41		
Pool (indoor)	22		
Pool (outdoor)	21		
Post Office	41		
President's Home	73		
Print Shop	42		
Psychology Bldg.	26		
Public Affairs Bldg.	60		
Quadrangle	30		
Quick Copy Center	42		
Racquetball-Handball Court	36		
Recreational Pavilion	70		
Religious Centers			
Baptist Student Center	57		
Church of Christ Center	63		
Episcopal Center	55		

REGISTER OF OFFICES

Office	Building Number
Academic deans (by college)	
Arts and Sciences	24
Business	29
Education	65
Engineering	61
Fine Arts and Communication	13
Graduate Studies and Research	44
Health and Behavioral Sciences	12
Technical Arts	6
Admissions and Records	44
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1986-87 Calendar

Published dates of this calendar are subject to revision by published notice from the Assistant Vice President for Academic Affairs.

Fall Semester—1986

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						

SEPTEMBER

S	M	T	W	T	F	S
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28	29	30				

OCTOBER

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NOVEMBER

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DECEMBER

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21	22	23	24	25	26	27
28	29	30	31			

August 1986

- 22 International Student Orientation
- 23 New Student Orientation (for fall entrants and transfer students)
- 24 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
- 25 Registration begins
- 26 Registration
- 28 Classes begin—late registration—schedule revisions
- 29 Last day for schedule revisions and/or late registration

September 1986

- 1 Labor Day—no classes
- 15 Twelfth Class Day

October 1986

- 9 Last day to petition for no grade
Last day to drop or withdraw without penalty
- 17 Last day to apply for December graduation
Last day to pay for diploma; cap and gown

November 1986

- 14 Last day to drop or withdraw
- 26 Thanksgiving recess begins at 10 p.m.
Dining halls close at 6 p.m.
Dormitories close at 10 p.m.
- 30 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.

December 1986

- 1 Classes resume at 8 a.m.
- 10-16 Final examinations
- 17 Dining halls close at 10 a.m.
Dormitories close at 12 noon
- 18 Grades for Graduating seniors due by 8:30 a.m.
All grades due by 4 p.m.
- 20 Commencement

Spring Semester—1987

JANUARY

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

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
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15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

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29	30	31				

APRIL

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MAY

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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

January 1987

- 11 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
- 12 Registration begins
- 13 Registration
- 15 Classes begin—late registration—schedule revisions
- 16 Last day for schedule revisions and/or late registration
- 30 Twelfth Class Day

February 1987

- 25 Last day to petition for no grade
Last day to drop or withdraw without penalty

March 1987

- 6 Last day to apply for May graduation
Last day to pay for diploma; cap and gown
- 13 Spring recess begins at 5 p.m.
Dining halls and dormitories close at 6 p.m.
- 22 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.
- 23 Classes resume at 8 a.m.

April 1987

- 13 Last day to drop or withdraw
- 17 Good Friday—No Classes

May 1987

- 6-12 Final examinations
- 13 Dining halls close at 10 a.m.
Dormitories close at 12 noon
- 14 Grades for graduating students due by 8:30 a.m.
All grades due by 4 p.m.
- 16 Commencement

Summer Session 1987—First Term

JUNE

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				

May 1987

- 31 Dormitories open at 1 p.m.
Dining halls open at 4:30 p.m.

June 1987

- 1 Registration
Deadline to apply for Orientation Session I
- 2 Classes begin—Schedule revisions and/or late registration
- 3 Last day for schedule revisions and/or late registration
- 5 Fourth Class Day
- 15 Last day to petition for no grade
Last day to drop or withdraw without penalty
- 26 Last day to apply for August graduation
Last day to pay for diploma; cap and gown

July 1987

- 2 Last day to drop or withdraw
- 8 Last class day
- 10 All grades due by noon

Summer Session 1987—Second Term

JULY

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	

July 1987

- 9 Registration
- 10 Classes begin—Schedule revisions and/or late registration
- 13 Last day for schedule revisions and/or late registration
- 15 Fourth Class Day
- 23 Last day to petition for no grade
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					

August 1987

- 7 Last day to drop or withdraw
- 14 Last class day
Grades for graduating students due by 8:30 a.m.
Dining halls and dormitories close at 6 p.m.
- 15 Commencement
All grades due by 8:30 a.m.



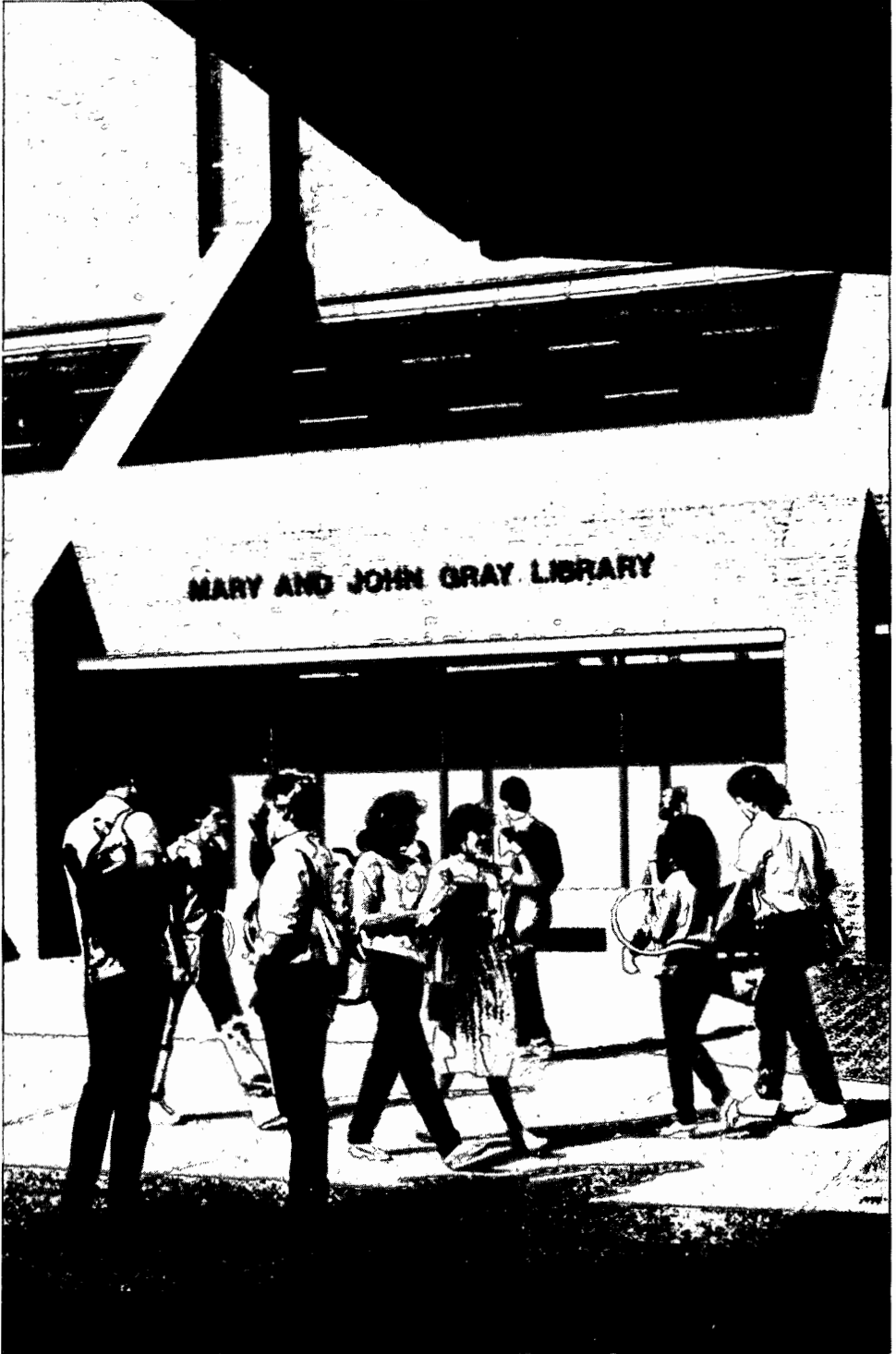
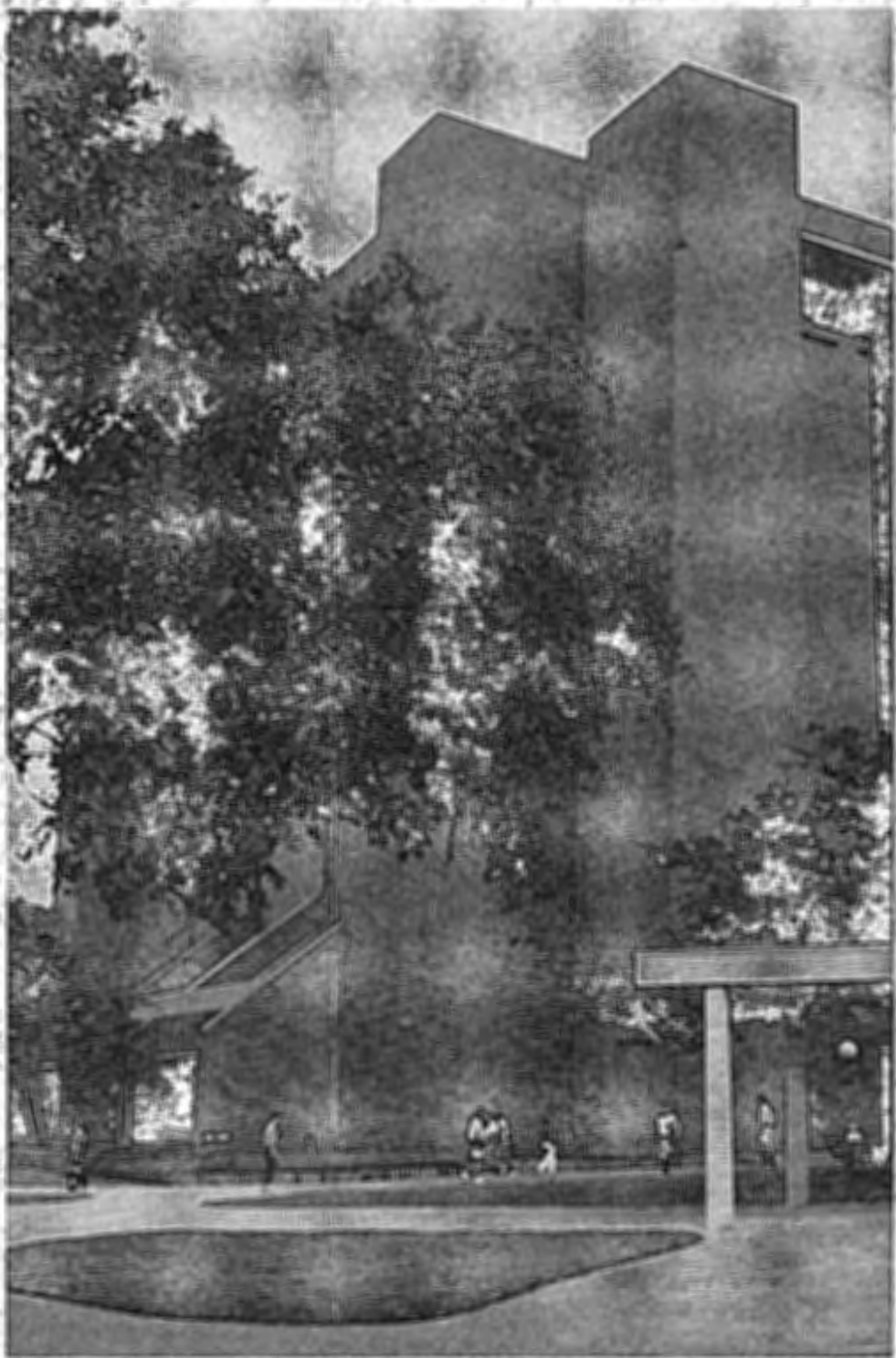


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General Information

Lamar University - Beaumont

Location

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

Other campuses of the Lamar University System are situated in Port Arthur and Orange.

History

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

On June 8, 1942, as a result of a public campaign, a new campus was purchased and classes were held for the first time on the present day campus in Beaumont. Following World War II, the College grew to 1,079, and a bill to make Lamar University a state-supported senior college was introduced in the House of Representatives. The legislature approved the Lamar bill (House Bill-52) on June 4, 1949, creating Lamar State College of Technology effective September 1, 1951. Lamar was the first junior college in Texas to become a four-year state-supported college. Uniquely, Lamar retained much of its traditional community college mission, particularly in vocational programs, while continuing to grow with strong programs in engineering, sciences, business, and education.

In 1962, a graduate school was established offering Master's degrees in several fields. The Doctorate in Engineering was established in 1971. In the same year, House Bill-590 became law changing the institution's status to university. Lamar State College of Technology, with an enrollment of 10,874, officially became Lamar University on August 23, 1971.

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

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

Government

A board of nine regents, appointed by the Governor and approved by the State Senate for terms of six years, governs the University. The Board of Regents delegates the direction

of university affairs to the chancellor, presidents, campus administrative officers and faculty.

Mission Statement

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

Teaching Mission

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

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

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

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

Research Mission

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

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

Service Mission

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

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

Accreditation

Lamar is accredited by the Association of Texas Colleges and Universities, (or a candidate for accreditation) by the Commission on Colleges of the Southern Association of Colleges and Schools and is approved by the Texas Education Agency.

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

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

Other accreditations include the Department of Chemistry by the American Chemical Society; Department of Music by the National Association of Schools of Music; and the Departments of Elementary and Secondary Education by the National Council for the Accreditation of Teacher Education; and Council on Social Work Education; and programs in Speech Pathology by the American Speech-Language-Hearing Association and in Deaf Education by the Council for Education of the Deaf.

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

Degree Offerings

Associate of Arts

Associate of Science

Associate of Applied Science

Bachelor of Arts in Chemistry, Dance, Deaf Education/Habilitation, Economics, English, French, Geology, History, Mathematics, Political Science, Psychology, Sociology, Spanish, Speech, Speech Pathology/Audiology, and Theatre

Bachelor of Business Administration in Accounting, Economics, Finance, General Business, Management, Marketing, Office Administration, and Personnel Administration

Bachelor of General Studies in Liberal Arts and in Fine Arts

Bachelor of Fine Arts in Graphic Design, Studio Art

Bachelor of Music

Bachelor of Music in Music Education

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

Bachelor of Social Work

Master of Arts in English, History and Political Science

Master of Business Administration (undifferentiated)

Master of Education in Elementary Education, Guidance and Counseling, School Administration, Secondary Education, Special Education and Supervision

Master of Engineering

Master of Engineering Management

Master of Engineering Science

Master of Music

Master of Music Education

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

Master of Public Administration

Doctor of Engineering

Organization

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

ROTC

The Army Reserve Officers Training Corps (ROTC) conducts a permanent program of instruction on campus to provide eligible male and female students an opportunity to qualify for a commission in the United States Army. Students who successfully complete the program will be commissioned as second lieutenants upon graduation.

A complete listing of course descriptions and requirements can be found in the College of Arts and Sciences under the Department of Military Science.

The ROTC Department provides financial assistance through four main sources:

1. Scholarships.
2. Payment of \$100.00 each month for each long semester of Junior and Senior Year ROTC participation.
3. Payment for attendance at advanced camp, between Junior and Senior Year of ROTC.
4. Payment for participation in the Simultaneous Membership Program (simultaneous participation as an Advanced Course ROTC Cadet and an Army Reserve or National Guard member).

Specific information concerning ROTC financial assistance may be obtained by writing: Professor of Military Science, Lamar University, Box 10060, Beaumont, Texas 77710. Phone calls may be made collect to: (409)880-8560.

Teacher Certification

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

Entering Dates

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

Evening Classes

Classes offered after 4:45 p.m. are considered Evening Classes, sometimes called "Extended Day" Classes. Both day and evening classes, with few exceptions, are taught by the regular faculty, and educational facilities are the same. Persons employed during the day may attend classes in the evening and study to obtain a degree or to expand their knowledge in a special field of interest as an adult non-degree student. Enrollment forms are

available through the Office of Evening Services, Room 105 Wimberly Student Services Building.

Bookstore

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

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

Brown Center

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

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

Campus Post Office

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

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

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

Computer Center

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

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

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

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

The Gray Institute

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

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

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

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

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

Sam Houston Regional Library and Research Center

The Sam Houston Regional Library and Research Center, a part of the Texas State Library's Local Records Division, has been affiliated with Lamar University since 1977. The Center is the Regional Historical Resource Depository for local government records, archives and other items which document the history of Southeast Texas which is geographically defined as the counties of San Jacinto, Polk, Tyler, Jasper, Newton, Hardin, Chambers, Orange, Liberty and Jefferson. The Center houses maps, photographs, rare books, a large Texana Collection, over 6,000 cubic feet of county records and over 500 manuscript collections from the area.

Lamar University utilizes the Center's classrooms and resources for research and field centered courses, graduate seminars and workshops. Other facilities located on the 114 acre site are the Price Daniel House and the 1848 Gillard-Duncan House.

Located in Liberty, the Center is open Monday through Friday, 8:00 a.m. to 5:00 p.m. and by special appointment. Telephone 409-336-7097 or write to P.O. Box 989, Liberty, Texas 77575 for further information.

Services for Handicapped Students

Services for handicapped students are designed to help the student be as successful as possible on the Lamar campus. Students who have certain disabilities qualify for registration assistance, tutoring, adaptive equipment and other personalized services. For additional information contact the Coordinator of Services for Handicapped Students, 106B Wimberly Student Services Building, P.O. Box 10043, Lamar University Station, Beaumont, Texas 77710, telephone (409) 880-8026.

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

Prior to registration in any university program, physically handicapped students are requested to notify the Coordinator for Handicapped Services regarding assistance and/or accommodation they anticipate will be needed during the course of instruction for

which they plan to register. This notification, and preferably a conference appointment, should be completed from one to two months before the actual date of registration.

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

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

In certain instances the university assumes the obligation to provide signers as third-party assistance to students with impaired hearing. When authorized signers are hired by the instructional department as student assistant the rate is \$5.00 per class hour. Signers as student assistants are authorized when the handicapped student is not otherwise provided with third-party assistance by the Texas Rehabilitation Commission and when the signer has been certified as qualified by the University Speech and Hearing Clinic.

Instructional departments are reimbursed for signers as student assistant expenditures by the Vice President for Finance in response to procedures detailed in "Registration Assistance Program" dated 10-18-83.

Lamar University at Orange

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

Lamar University at Port Arthur

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

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

Library

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

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

The seventh and eighth floors offer expansion space for the future, but are presently shared with other University services. Library special collections and a lecture room share the seventh floor with the Lamar University System Administration. The spacious and elegant eighth floor, furnished by community donors, serves as a University Reception Center for meetings and conferences.

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

Division of Public Service

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

Office of Research and Programs

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

Spindletop Museum and Gladys City

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

Public Affairs and Development

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

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

Alumni Association

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

Veterans' Affairs Office

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

Admissions

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

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

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

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

Requirements for Students Entering From High Schools

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

Effective June 1, 1986, Lamar University admissions requirements are as follows:

- 1. Students admitted on a regular admissions basis must meet the following prerequisites:**
 - a. attainment of a high school diploma from an accredited high school and successful completion of 14 college preparatory courses in high school with a minimum of 2.3 grade-point average including:**
 - (1) 4 college preparatory English courses.**
 - (2) 3 college preparatory mathematics courses.**
 - (3) 2 laboratory science courses.**
 - (4) 2-1/2 social studies courses.**
 - OR**
 - b. attainment of a high school diploma from an accredited high school and achievement of a score of at least 700 on the SAT (Scholastic Aptitude Test) or 15 on the ACT (American College Test).**
- 2. Students failing to meet the above prerequisites may be permitted to attend Lamar University for one probationary semester but must pass with a satisfactory grade any standard English and standard mathematics courses during that probationary semester in order to continue as a regular student.**
- 3. These general admissions standards do not apply to students entering vocational-technical programs.**
- 4. In addition to these general admissions standards, Lamar's pre-professional and professional programs will continue to require separate, more rigorous, standards commensurate with the fields for students beginning their sophomore year.**

Effective with the Fall, 1987, semester the admissions requirements into Four-Year Baccalaureate Programs are:

I. Regular (Unconditional) Admission

- A. Regular Admission will be granted to students who meet the following prerequisites:**

- 1. Attainment of a high school diploma from an accredited high school AND**

2. Successful completion of 14 high school units in college preparatory courses including:
 - a) 4 units in college preparatory English courses (English I, II, III, and English IV or English IV-academic or higher level English courses).
 - b) 3 units of college preparatory mathematics courses (Algebra I, II, Geometry, or higher level mathematics courses).
 - c) 2 units of laboratory science courses (any 2 units from Biology I, II, Chemistry I, II, Physics I, II, or Geology).
 - d) 2-1/2 units of social science courses (U.S. History - 1 unit and U.S. Government - 1/2 unit and World History Studies - 1 unit or World Geography Studies - 1 unit).
 - e) 2-1/2 units of approved college preparatory course electives.
- B. In addition, students must graduate in the top half of their high school class OR achieve a composite score on the SAT as follows:

Rank in High School Class by Quarter	1987	1988	1989	1990	1991
1st Quarter	—	—	—	—	—
2nd Quarter	—	—	—	—	—
3rd Quarter	700	750	800	850	900
4th Quarter	800	850	900	950	1000

II. Provisional Admission

- A. Students who attain a high school diploma from an accredited high school or who hold a G.E.D. but who fail to meet the requirements for Regular Admission will be permitted to attend Lamar University-Beaumont on a Provisional Admission basis.
- B. Students admitted on a Provisional basis will be granted Regular Admission status at the end of the semester in which they complete 24 or more hours if they have earned:
 1. A 2.0 grade point average in courses taken at Lamar University-Beaumont (not including required activity courses in physical education, marching band, or ROTC) AND
 2. Satisfactory grades in English 131 and Math 1314 (or a higher level math course).
- C. Students who do not satisfactorily complete the terms of Provisional Admission will be denied readmission to Lamar University-Beaumont for one full year.

III. Exceptions

- A. These general admission standards do not apply to students entering associate degree, vocational, or technical programs. However, students will still be required to meet the internal standards within individual associate, vocational, or technical programs.
- B. Any applicant over 25 years of age will be granted full admission with proof of high school graduation or G.E.D. completion.

IV. Additional Requirements

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

Entrance Examination Requirement

Applicants may submit either SAT or ACT scores in fulfillment of the entrance examination requirement. These examinations are required for entrance purposes. Both tests are given several times each year at test centers throughout the United States and in many foreign countries. It is recommended that summer and fall applicants take one of the tests

early in the senior year and if possible, no later than February. Location of test centers, test dates, fees, test application forms, sample question booklets and similar information may be obtained without charge from high school counselors or by writing to the testing agency. SAT inquiries should be directed to the College Entrance Examination Board, Box 1025, Berkeley, California 94702. ACT inquiries should be directed to the American College Testing Program, Box 168, Iowa City, 0828 Iowa 52240.

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

Recommended High School Preparation

Although specific high school credits are not required for admission for students having 700 SAT/or 15 ACT scores at this time, the University expects each applicant to be adequately prepared to do academic work above the high school level. It is strongly recommended the following credits be included in the high school program:

English	4
Laboratory Sciences	2
Algebra	2
Geometry	1
Social Sciences.	2-1/2

In some fields, a 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.

How To Apply

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

When To Apply

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

Acceptance Notices

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

Change of Address or Name

Students are responsible for all communications addressed to them at the address on file in the Student Affairs Office and in the Office of Admissions and Records. Any stu-

dent who moves during a semester must immediately register his change of address in the office of the dean of student development and in the Office of Admissions and Records. Change of address forms are available in the Office of Admissions and Records.

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

Graduates of Non-Accredited High Schools

Applicants who have not graduated from an accredited high school may be admitted if they (1) have graduated in the upper 2/3 of their class, (2) score 700 or above on the Scholastic Aptitude Test, and (3) have the recommended high school preparation credits.

Freshman Orientation and Registration

A series of freshman orientation and registration programs are held during the summer months. These small group sessions are designed to acquaint the new student with campus facilities and services, and to give the individual student an opportunity to confer with University departmental advisors about an academic program. **Registration for the Fall Semester is completed at this time and tuition and fees are paid. Books may be purchased or reserved. 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 following issuance of 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 available to new students entering the Spring Semester.**

Academic Advising

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

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

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

Advanced Placement

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

1. Advanced Placement Examinations (Optional)

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

Subject Area	Required Score	Credit Granted
Chemistry	Score of 3 or above	Chemistry 141
Computer Science	Score of 3 Score of 4 Score of 5	Variable Exemption CS 131 CS 131 & 2 Sem. Hrs. Special Topics
English	Score of 4 or 5 Score of 3	Eng 131-132 Eng 131 (Student receiving such credit must complete Eng 136)
Foreign Language	Score of 4 or 5 Score of 3	12 semester hours of foreign language 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 1341 or Mth 148 or Mth 236
BC Test	Score of 3 or above	Mth 1335, 148, 149
Physics B	Score of 3 or above	Physics 141-142
Physics C (Mechanics)	Score of 3 or above	Physics 247
Physics C (E & M)	Score of 3 or above	Physics 248
Art	Score of 3 or above	Art 131, 133
Music	Score of 3 or above	MLt 121,122

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

2. Achievement Tests (Optional)

Students who have outstanding high school records or who have participated in accelerated programs are encouraged to take the College Entrance Examination Board's Achievement Tests in the corresponding subject matter areas. Students may enter advanced courses provided test results indicate they are qualified. Minimum scores are set by the University and students who qualify are notified. Upon the completion of the advanced course with a grade of "C" or better, college credit is granted as indicated in the following table.

Achievement Tests are given on all regularly scheduled test dates other than October. Application is made directly to CEEB.

Subject Matter Area	CEEB Test Required	Credit Granted
English Composition	English by completion of Eng 136 with a grade of "C" or better.	Eng 131 if validated
Foreign Lang	Spanish French	0 to 12 semester hours depending on placement and validation.
Chemistry	Chemistry	Chem 141 if validated by completion of Chem 142 with a grade of "C" or better.
Mathematics	Level I	Up to 12 semester hours depending on placement and validation.
Physics	Physics	Physics 141 if validated by completion of Physics 142 or 248 with a grade of "C" or better.

3. College Level Examination Program (Optional)

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

Admission Requirements for College Transfers

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

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

Transfer Credit Evaluation

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

1. All courses, whether passed, failed or repeated are used in calculating the cumulative grade point average.
2. "D" grades are transferred but departments may refuse to count them toward a degree. (Effective Fall 1987 "D" grades earned at other institutions will not count toward degrees at Lamar University-Beaumont.)
3. Transfers from a junior college are limited to 66 semester hours or the number of hours required by the University during the freshman and sophomore years in the chronological order in which the student plans to enroll. No junior college credits will be considered for transfer as upper level (Junior-Senior) credits.
4. Acceptance to the University does not constitute acceptance to a particular degree program.

How To Apply for Admission

The following procedure should be followed in making application for admission. All credentials should be sent to the Office of Admissions and Records, Lamar University, Box 10010, Beaumont, TX 77710.

1. Submit application for admission on the official form. Inclusion of a social security number is required on this form.
2. Submit official transcripts from each college previously attended. This requirement applies regardless of the length of time in attendance and regardless of whether credit was earned or is desired. Students will not be allowed to register until all college transcripts are on file in the Admissions Office.
3. Take the prescribed entrance tests and/or have a record of test scores sent to the Office of Admissions 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 before registration. However, all credentials must be on file within one week after the first day of class or the student will be withdrawn. Students on temporary admission, who are subsequently found to be ineligible for admission, will be withdrawn.

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

Former Students Returning From Another Institution

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

Students who left on suspension and had accumulated twenty-five (25) or more grade point deficiencies must receive written clearance from the Dean of that college to be eligible for re-admission.

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

Summer Transients

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

Adult Nondegree Students

A high school graduate who has not attended high school during the past three years and who is at least 21 years of age may enter Lamar University as an adult nondegree student by submitting his/her high school transcript and application for admission. However, if the student desires to take an English or Math course, the SAT examination is required.

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 pursue a college course of study successfully.

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

Educational Records and Student Rights

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

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

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

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

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

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

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

International Students

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

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

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

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

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

International Student Admission

Applicants who attended foreign secondary schools, colleges or universities must furnish certified translations of their academic records. These records must show the ability to do above average work in an academic program. Freshman admission will be based on the completion of 12 years of schooling, be 18 years of age, and eligibility for admission to a recognized university in the student's own country. Marks or grades must be well above average. Advanced standing credit will be granted for college level work completed at a recognized college or university if marks are above average. A complete record of secondary school training and university training must be submitted. Complete and official translations must be furnished along with certified true copies of the original records. Records must show all subjects taken and grades or marks earned in each, both from the school and tests given by the Ministry of Education. The grading system should be clearly shown on each record. **UNCERTIFIED PHOTOGRAPHIC COPIES OR OTHER DUPLICATIONS ARE NOT ACCEPTABLE.** Translations must be certified true and correct. Applicants applying as freshmen (first year students) should submit acceptable scores on the Scholastic Aptitude Test (SAT). For information about this test, write to College Entrance Examination Board, Box 592, Princeton, New Jersey 08540. 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 grades.

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

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

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

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

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

Applicants accepted by Lamar University are required to attend a special orientation program for internationals new to the Lamar campus. Dates for the program will be indicated upon acceptance and noted on form I-20, "date of arrival." **Failure to attend the program will delay registration for one semester.** An orientation fee of \$20 is charged and is payable to Lamar University, c/o Director of International Orientation, P.O. Box 10006, Beaumont, Texas 77710, U.S.A. The program is designed to facilitate a smoother, less problematic adjustment to the Lamar campus. Students whose native language is not English will be tested for English language proficiency. On the basis of these test scores, appropriate courses in English will be required.

Early Admission Program

Early admission is possible at Lamar University for the academically superior student. For further information, contact the Director of Admissions, Box 10010, Beaumont, Texas 7710.

Pre-College Honors Program

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

To be considered for selection for the Beaumont Campus Program, an applicant must (1) have completed the junior year in an accredited high school; (2) have at least a B+ average through the second quarter of the junior year of high school; (3) submit scores of 1000 or equivalent on the PSAT, SAT or ACT; a score of 500 or equivalent on the verbal section of the PSAT, SAT, or ACT is necessary for acceptance to the program; and (4) be recommended by the high school counselor or principal. Only a limited number of applicants are taken into the program each year. Selection is made on an individual basis by the University. An eligible senior who lacks no more than three required academic credits for graduation may enroll during the regular school year with joint approval of high school official and the Lamar Director of Admissions.

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

Lamar Early Access Program (LEAP)

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

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

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

Student Financial Aid and Awards

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

When To Apply

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

How To Apply

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

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

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

Minimum Qualifications

Scholarship awards to entering freshmen are determined by the applicant's scores on the Scholastic Aptitude Test (SAT) or American College Testing Program (ACT), leadership and high school class rank. Scholarship awards for upperclassmen are determined by their cumulative grade point average at the college level. Scholarship applicants must have a combined score of 900 on the SAT or composite score of 20 on the ACT plus a grade point average in excess of 2.5 to be eligible for a university administered scholarship.

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

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

Grants

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

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

Scholarships

Scholarships are funds which cover a portion of the student's expenses. Scholarships at Lamar University are of two types: those administered solely by the University, including the selection of recipients, and those administered by the university at the request of donors who select the recipients themselves. The scholarship program at Lamar University is financed solely by public donation. Half of the scholarship is disbursed for the fall term and the remaining half for the spring semester.

Loans

Lamar University provides both short-term and long-term loans. Short-term loans for 30 days are designed to cover emergency situations and must be repaid within the semester in which the loan is made. Long-term loans with repayment after graduation may be obtained under such programs as the National Direct Student Loan Program, the Federally Insured Student Loan Program, and the Hinson-Hazelwood College Student Loan Act. Those interested in one of these loan programs should contact the Student Aid Office for information and application forms.

Employment

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

Valedictorians

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

Students with Physical Handicaps (Vocational Rehabilitation)

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

Fees and Expenses

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

Payment of Fees

A student is not registered until all fees are paid in full or has paid the down payment on the installment plan and signed the agreement. Payment may be made by check, 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).

Summary of Registration Expenses

Each student must plan a budget carefully. It is possible to attend Lamar on a modest sum and yet participate in most phases of the University program. To assist in planning registration expenses, the following estimate is furnished as a guide.

Texas residents taking a 15 hour academic work load*:

Tuition	\$240
Student Services Fee	75
General Use Fee	90
Setzer Student Center Fee	20
Student Health Fee	15
Parking Fee (if desired)	15
Health Insurance (if desired)	53
Books (estimated)	<u>180</u>
	\$688
	+ lab fees

Part-time Student (Six semester hours):

Tuition	\$100
Student Services Fee	61
General Use Fee	36
Setzer Student Center Fee	20
Student Health Fee	6
Parking Fee (if desired)	15
Health Insurance (if desired)	53
Books (estimated)	<u>72</u>
	\$363
	+ lab fees

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

*Tuition for Texas residents taking 12 hours or less is \$100 per semester. Each additional semester hour is \$16 per hour. A full-time student is one who takes 12 or more semester hours of course work. Non-Texas U.S. rate for tuition is \$120 per hour with no minimum.

Summary of Fees (Subject to Change by Legislative Action)

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

Fall 1986

No. of Semester Hours	Tuition		Student Service Fee	General Use Fee	Setzer Center Fee	Health Center Fee	Total Charge	
	Texas Resident	Non-Texas Resident					Texas Resident	Non-Texas Resident
1	\$100	\$120	\$26	\$20	\$20	\$ 5	\$171	\$ 191
2	100	240	33	20	20	5	178	318
3	100	360	40	20	20	5	185	445
4	100	480	47	24	20	5	196	576
5	100	600	54	30	20	5	209	709
6	100	720	61	36	20	6	223	843
7	112	840	68	42	20	7	249	977
8	128	960	75	48	20	8	279	1111
9	144	1080	75	54	20	9	302	1238
10	160	1200	75	60	20	10	325	1365
11	176	1320	75	66	20	11	348	1492
12	192	1440	75	72	20	12	371	1619
13	208	1560	75	78	20	13	394	1746
14	224	1680	75	84	20	14	417	1873
15	240	1800	75	90	20	15	440	2000
16	256	1920	75	90	20	15	456	2120
17	272	2040	75	90	20	15	472	2240
18	288	2160	75	90	20	15	488	2360
19	304	2280	75	90	20	15	504	2480
20	320	2400	75	90	20	15	520	2600

Summer 1986

1	\$ 50	\$120	\$26	\$20	\$10	\$ 5	\$111	\$181
2	50	240	33	20	10	5	118	308
3	50	360	37	20	10	5	122	432
4	50	480	37	24	10	5	126	556
5	60	600	37	30	10	5	142	682
6	72	720	37	36	10	6	161	809
7	84	840	37	42	10	7	180	936
8	96	960	37	48	10	8	199	1063
9	108	1080	37	54	10	9	218	1190
10	120	1200	37	60	10	10	237	1317

Tuition and Fees

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

Laboratory Fees

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

Private Lessons in Voice and Instrumental Music

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

Late Registration Fee

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

Parking Fee

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

Health and Accident Insurance

Health and accident insurance coverage is available at registration for regularly enrolled students. The fee is estimated at \$53 per long semester. This or similar insurance is required of all international students. Additional information may be obtained from the Dean of Students' office, Room 109, Wimberly Student Services Building.

Special Fees

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

Exemption 1: Scholarships to High School Honor Graduates

The highest ranking student in the graduating class of a fully accredited Texas high school will be entitled to a tuition and laboratory fee waiver valued at approximately \$200. Details may be obtained from the Student Aid Office.

Exemption 2: Veterans (Hazelwood)

Persons who were citizens of Texas at the time of entry into the Armed Forces, and who are no longer eligible for federal educational benefits, are exempt from tuition, laboratory fees, Setzer Student Center fees, and general use fee. This applies to those who served in World War I, World War II, the Korean Conflict or the Vietnam War and were honorable discharged. This exemption also applies to those veterans who entered service after Jan. 1, 1977, and did not contribute under the VEAP program. To obtain this exemption, necessary papers must be presented prior to registration and approval obtained from the Office of Veterans' Affairs. The above exemption also extends to wives, children and dependents of members of the Armed Forces who were killed in action or died while in the service in World War II, the Korean Conflict or Vietnam War.

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

Students who expect to attend under some veterans' benefit plan should contact the Office of Veterans' Affairs 60 to 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 Services Building.

Policy on Waiving Fees

Off Campus Classes

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

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

Example of the above where fees are waived are:

- (a) Field Center Courses
- (b) Summer trips for credit
- (c) Vocational Nursing courses which conduct all their classes at the hospital.

- (d) COOP students, for semester when they are not taking classes on campus. (Only pay tuition because Board of Regents have waived student service and general use fee.)

Example where fees are not waived:

- (a) Student enrolled only for thesis course (pays only \$25 for tuition) plus all other normal fees.
 (b) Student enrolled only for a special project course.

Faculty and Staff with Activity Cards

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

Refund of Fees-Withdraw Refunds

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

Fall or Spring Semester

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

Summer Session

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

Drop Course Refunds

All students who drop courses during the first 12 class days of the Fall or Spring Semester, or within the first four days of a Summer Session, and remain enrolled for the semester or term, will receive a refund on tuition and fees at semester's end for that particular course or courses.

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

Returned Check Fees

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

Miscellaneous Fees

Associate Diploma	\$12.00*
Certificate of Completion	12.00*
Bachelor's Diploma	12.00*
Master's Diploma	12.00*
Doctor's Diploma	12.00*
Bachelor's Cap and Gown (disposable)	15.50*
Master's Cap, Gown and Hood Rental	25.50*
Doctor's Cap, Gown and Hood Rental	27.50*
Returned Checks (Bookstore)	10.00
Re-entry Fee	10.00
Transcript Fee	2.00

Financial Aid Transcript Fee	2.00
Advanced Standing Examination (per course)	25.00
GED Examination	15.00
Photo Identification	2.00
Lost Photo I.D.	5.00
Swimming Pools (suits and towels) Per Semester	15.00
Copy of Fee Receipt50
Driver Education Certification Fee	50.00

*Subject to Sales Tax

Fine and Breakage Loss

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

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

Determining Residence Status

Texas law specifies that if there is any question as to the student's right to classification as a resident of Texas, it is the student's responsibility to (1) have his classification officially determined and (2) to register under the proper classification. Classification will follow the guidelines in Title 3, Texas Education Code. Students with question should contact the Dean of Admission and Registrar, P.O. Box 14010, Beaumont, Texas 77710.

Academic Policies and Procedures

Course Numbering

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

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

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

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

New Courses

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

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

Semester Hour

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

Twelve semester hours is the minimum full-time load (9 for graduate students) in Fall and Spring, four semester hours in Summer (3 for graduate students).

Maximum Course Loads

The normal course load in a regular semester is 15-18 semester hours; for a six week summer term 6-8 semester hours. Overloads must be approved by the student's academic dean. No student will be allowed to enroll for more than 21 semester hours regardless of the number of grade points earned the preceding semester.

Registration for Classes

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

Minimum Class Enrollment

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

Course Auditing by Senior Citizens

Senior citizens, 65 years of age or older, may audit courses without the payment of fees on a space-available basis.

Class Attendance

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

Postponed Final Examinations

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

Course Repetition

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

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

English Requirement

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

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

Remedial English Course

All new freshmen who score 35 or less on the Test for Standard Written English (TSWE) are required to complete satisfactorily English 137 - Developmental Reading and Writing before being permitted to enroll in English 131 - Composition.

A new freshman student who scores 35 or below on the TSWE and wishes to appeal the score may request a written examination administered by the Director of Freshman English. If the written examination is judged satisfactory, the student will be permitted to enroll in English 131. If the written examination is judged unsatisfactory the student shall enroll in English 137 or may appeal the decision through normal academic administrative channels.

University policy requiring that all full-time students register for freshman English until credit for six semester hours has been earned also applies to students who are not eligible to enroll in English 131 because of their TSWE scores; therefore, such full-time students must enroll in English 137. The student who does not successfully complete English 137 must repeat the course until a satisfactory grade "S" is received. Only students validly enrolled in English 137 may take the post-test (TWSE and paragraph) to determine their eligibility for English 131.

Students enrolled in English 137 shall receive grades as follows.

- a. "S" if they score 36 or more on a post-test using TSWE and write a satisfactory paragraph.
- b. "F" if they score 35 or less on a post-test using the TSWE and/or do not write a satisfactory paragraph.
- c. "I" if they obtain approval of the instructor when the course requirements will not be completed.
- d. "Q" if they drop the course prior to the penalty date or if they are passing at the time of the drop.
- e. "W" if they withdraw prior to the penalty date or if they are passing at the time of the withdrawal.

Physical Activity Course Registration Requirement

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

1. Those who are unable to participate in a regular or modified activity course because of physical handicaps (must have written exemption from the University physician).
2. Those who choose active participation in the marching band or ROTC for four semesters.
3. Students who are 25 or more years of age may be exempted from this requirement at their option.
4. Veterans who have completed basic training as a part of their military service are exempt from the required freshman year courses in physical education, but must take two semesters of physical education at the sophomore level to complete the requirements for graduation.

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

Bible Courses

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

Engineering Cooperative Programs

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

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

Changing Schedules

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

Dropping Courses

After consultation with their advisor and/or department head, students may drop a course and receive a grade of "Q" during the first six weeks, (two weeks in the summer session) of the semester. For drops after this penalty-free period, grades are recorded as "Q" or "F" indicating the student was passing or failing at the time of the drop. A grade of "Q" may not be assigned unless an official drop has been processed through the Office of

Admissions and Records. A student may not drop a course within fifteen class days of the beginning of final examinations or five class days before the end of the summer term. Students should check published schedule for specific dates.

Instructor Initiated Drop

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

Reinstatement to Class

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

Withdrawals

Students wishing to withdraw during a semester or summer term should fill out a Withdrawal Petition in triplicate in the office of their department head. Students must clear all financial obligations, and return all uniforms, books, laboratory equipment and other materials to the point of original issue. Copies of the withdrawal form signed by the department head and the director of library services are presented to the Office of Admissions and Records by the student.

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

A student may not withdraw within fifteen class days of the beginning of final examinations or five class days before the end of a summer term. A student who leaves without withdrawing officially will receive a grade of "F" in all courses and forfeit all returnable fees. Students should check the published schedule for specific dates.

Enforced Withdrawal Due to Illness

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

Transfer from One Department to Another

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

Interchange and Recognition of Credits

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

Simultaneous Enrollment

Students who desire to enroll simultaneously on more than one campus or more than one institution must have written approval of their Lamar University academic advisor for all classes to be taken. Such approval can be granted only if all Lamar University

academic policies are adhered to by the coursework taken as a whole. For example, academic load restrictions due to probation would apply to the total course hours taken at all institutions or campuses. The written approval is to be retained in the student's permanent file.

Transfer Credit for Correspondence Courses

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

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

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

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

Seniors must file correspondence transcripts 14 days before graduation.

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

Credit by Examination

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

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 and associate's degree requirements as defined in this Catalog under "Degree Requirements."

Advanced Standing Examinations

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

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

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

College Level Examination Program (CLEP)

Lamar University awards credit on the basis of most of the Subject Examinations of the College Level Examination Program (CLEP). A complete list is available from the Admissions and Records Office. No credit will be awarded for the General Examinations.

The essay section of the College Composition Examination is required, but need not be taken in order to qualify for credit on most of the other subject examinations.

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

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

Academic Progress

Classification of Students

Students are classified as freshmen, sophomores, juniors, seniors, post baccalaureate and graduate students. For the purpose of determining eligibility to hold certain offices and for other reasons, officially enrolled students are classified as follows:

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

Sophomore: has completed a minimum of 30 semester hours with 60 grade points.

Junior: has completed a minimum of 60 semester hours with 120 grade points.

Senior: has completed a minimum of 90 semester hours with 180 grade points.

Post baccalaureate: holds a bachelor's degree, but is not pursuing a degree program.

Graduate: has been accepted for and is pursuing a graduate degree (see graduate studies catalogue).

Full-Time Student: an undergraduate student taking 12 or more semester hours in Fall/Spring (four or more in a summer term) is classified as a full-time student. A full-time graduate student is one who takes 9 or more semester hours in Fall/Spring (3 or more in a summer term). Some sources of student financing reduce payments to students dropping below full-time status.

Grading System

A – Excellent

B – Good

C – Satisfactory

D – Passing

F – Failure

I – Incomplete

W – Withdrawn

Q – Course was dropped

S – Credit

U – Unsatisfactory, no credit

NG – No grade

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

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

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

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

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

Semester grades are filed with the Office of Admissions and Records. A grade may not be recorded for a student not officially enrolled in a course during the semester covered. A

grade may not be corrected or changed without the written authorization of the instructor giving the grade. The written instruction for a grade change should be accompanied by a statement explaining the reason for the change.

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

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

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

Grade Point Average Computation

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

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

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

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

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

Academic Records and Transcripts

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

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

Chapter 675, Acts of the 61st Legislature, 1969 Regular Session, provides that “no person may buy, sell, create, duplicate, alter, give, or obtain a diploma, certificate, academic record, certificate of enrollment or other instrument which purports to signify merit, or achievement conferred by an institution of education in this state with the intent to use fraudulently such document or to allow the fraudulent use of such document.”

“A person who violates this Act or who aids another in violating this Act is guilty of a misdemeanor and upon conviction, is punishable by a fine of not more than \$1,000 and/or confinement in the county jail for a period not to exceed one year.”

Final Grade Report

Reports on grades are mailed at the end of each semester or summer term. These reports include the semester grades and the grade point average for the semester, and for all work attempted at the University.

Deans' List

At the end of each semester the Office of Admissions and Records prepares a list of all full-time (those who complete 12 or more semester hours) freshman and sophomore students who have earned for that semester a grade point average of 3.40 or above and junior and senior students who have earned for that semester a grade point average of 3.60 or above. This list is the Dean's List and is announced by the academic dean of each college.

Scholastic Probation and Suspension

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

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

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

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

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

Academic Appeals Procedures

After an enrollment lapse of seven or more years from Lamar University and after completing successfully (2.2 average) thirty semester hours of work at Lamar, a student may petition to disregard a maximum of two entire successive semesters of work taken previously at Lamar University. The petition shall be filed with the department head and shall follow regular channels to the Provost for a final decision. Endorsements and/or recommendations shall be required at each academic level. When approved by the Provost, disregarded work shall not count in determining the student's grade point average

for academic progress or for graduation; however, it shall remain on the transcript with an appropriate notation, and it shall be used in determining honors.

Degree Requirements

General Education Requirements—Bachelor Degrees

1. Satisfy all admission conditions.
2. Meet the following minimum requirements:
 - a. A grade point average of at least 2.0 on all courses in the major field and on all courses attempted.
 - b. 120 semester hours not including required activity courses in physical education, marching band, and/or ROTC.
 - (1) 30 semester hours in residence at Lamar University with at least 24 semester hours earned after attaining senior classification, except for special degree programs in biology and medical technology.
 - (2) 30 semester hours on the junior and senior levels, of which 18 hours must be completed at Lamar University.
 - (3) 24 semester hours in a major field with at least 12 in upper division courses.
 - (4) 6 semester hours in political science. (see note 1)
 - (5) 6 semester hours in American history. (see note 2)
 - (6) 12 semester hours in English (not to include English 137) including 6 semester hours in freshman composition and 6 semester hours in literature. Three semester hours of technical report writing or 3 semester hours of speech communication or 3 semester hours of foreign language may be substituted for 3 hours of literature. (see note 3)
 - (7) Four courses in laboratory science or mathematics, to include at least one course in laboratory science and at least one course in mathematics which may be satisfied by satisfactorily completing one of the following courses:
 - (a) Mth 1334, College Algebra
Mth 1335, Precalculus Mathematics
Mth 1336, Survey of Mathematics
Mth 134, Mathematics for Business Applications
Mth 1341, Elements of Analysis for Business Applications
Mth 1362, Mathematics II for Elementary School Teachers
Mth 148, Calculus and Analytic Geometry I
Mth 149, Calculus and Analytic Geometry II
 - (b) Any course at the sophomore level or higher; namely, any course beginning with a digit of 2 or greater.
 - (8) 4 semesters of physical activity and/or marching band and/or ROTC. (see note 4).
 - (9) 6 semester hours of electives from disciplines outside the major field.
 - (10) No more than 18 semester hours of correspondence work and no more than 30 semester hours of correspondence and extension work and/or credit by examination combined may be applied to the bachelor's degree.
3. Complete the program of study as listed in the bulletin.
4. Make application for the Bachelor Degree and pay all designated fees.
5. Attend the official graduation exercises or receive prior approval from the Dean of Admissions and Registrar to be absent.

Second Bachelor Degree

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

Bachelor of Arts Degree

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

Bachelor of Science Degree

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

Bachelor of Business Administration Degree

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

Bachelor of General Studies Degree

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

Special Degree Programs

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

The following minimums are required:

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

Associate of Arts Degree (A.A.)

1. Satisfy all admission conditions.
2. Meet the following minimum requirements:
 - a. 30 semester hours in residence at Lamar University. Twelve semester hours of this minimum must be earned after May 1972, and after reaching sophomore classification.
 - b. A grade point average of at least 2.0 on all work attempted.
 - c. 60 semester hours not including required activity courses in health and physical education, marching band and/or ROTC.
 - d. Six semester hours in political science.(see note 1)
 - e. Six semester hours in American history.(see note 2)
 - f. Nine semester hours in English (not to include English 137), including six semester hours of freshman composition and three semester hours of literature.(see note 3)
 - g. Two courses in laboratory science or mathematics.
 - h. Two semesters of physical education activity and/or marching band and/or ROTC.(see note 4)
3. Complete the course numbered 232 in a foreign language.

4. Complete an Associate of Arts program of study as outlined in the bulletin.
5. No more than a total of 15 semester hours of correspondence and extension credit and/or credit by examination combined may be applied toward the degree.
6. Make application for the Associate of Arts degree and pay all designated fees.

Associate of Science Degree (A.S.)

1. Satisfy all admission conditions.
2. Meet the following minimum requirements:
 - a. 30 semester hours in residence at Lamar University. Twelve semester hours of this minimum must be earned after May 1972, and after reaching sophomore classification.
 - b. A grade point average of at least 2.0 on all work attempted.
 - c. 60 semester hours not including required activity courses in health and physical education, marching band and/or ROTC.
 - d. Six semester hours in political science.(see note 1)
 - e. Six semester hours in American history.(see note 2)
 - f. Nine semester hours in English (not to include English 137), including six semester hours of freshman composition and three semester hours of literature.(see note 3)
 - g. Two courses in laboratory science or mathematics.
 - h. Two semesters of physical education activity and/or marching band and/or ROTC.(see note 4)
3. Complete an Associate of Science program of study as outlined in the bulletin.
4. No more than a total of 15 semester hours of correspondence and extension credit and/or credit by examination combined may be applied toward the degree.
5. Make application for the Associate of Science degree and pay all designated fees.

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

1. Satisfy all admission requirements.
2. 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. No more than a 15 semester hours of correspondence and/or extension credit may be applied toward the degree.
6. Make final application for graduation and pay all fees by the deadline date as stated in the current bulletin.

Second Associate Degree

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

Degree Requirement Notes:

1. Texas law requires six hours in political science, which includes consideration of the U.S. Constitution and that of Texas. This shall normally be satisfied by completing Political Science 231 and 232 or other appropriate political science courses approved by the head of the Political Science Department. Three semester hours may be satisfied by an advanced standing examination.
2. Texas law requires six hours in American History. This normally shall be satisfied by completing two courses in the History 231-236 sequence or other appropriate American history courses approved by the head of the History

Department. Three semester hours may be satisfied by a course in Texas History or by an advanced standing examination.

3. A score of 36 on the Test for Standard Written English or satisfactory completion of the developmental English course (English 137) is a prerequisite to admission to English 131. Students who do not qualify for enrollment to English 131 classes through the application of these standards may petition the Board of Regents through the Office of the President for exemption from enrollment qualifications.
4. All full-time students must register for physical activity courses until they have met the requirement except as follows:
 - a. Those with physical handicaps who have written exemptions from the University physician.
 - b. Those who enroll in marching band and/or ROTC for four semesters.
 - c. Those who are 25 or more years of age, at their option.
 - d. Those veterans who have completed basic training in military service may be exempted from the freshman courses in physical education. Two semester courses at the sophomore level must be completed to meet graduation requirements.

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

Graduation

Application for Graduation

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

Before final approval of these applications, the 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 on either overall or in the student's major field will be removed from the graduation list at the beginning of the semester.

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

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

Graduation Under a Particular Bulletin

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

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

The program of the student who interrupts enrollment (for reasons other than involuntary military service) for more than one calendar year shall be governed by the bulletin in effect at the time of the student's re-entrance to the University. The student who interrupts enrollment for involuntary military service must re-enroll within one year from the

date of separation from military service in order for this provision to apply. For these purposes, enrollment shall be defined as registration for and successful completion of at least one course during an academic term. A student forced to withdraw for adequate cause before completion of a course may petition for a waiver of this provision at the time of withdrawal.

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

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

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

Graduation Honors

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

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

Student Services

The student services of Lamar University are administered by the Vice President for Student and University Affairs as the chief student personnel officer of the campus. Four principal service areas are organized in student development services; student activities and organizations; student conduct and discipline; and the auxiliary services. The primary mission of this university division is to support a learning environment on the university campus in the interest of all students in an academic community.

Student Development

Services and programs focusing on the development of leadership skills are directed by the Dean of Student Development. Students interested in leadership development programming should contact the Office of Student Development in 107 Wimberly Student Services Building.

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

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

Certain directory information on currently enrolled students is available in this office.

Counseling Center

Lamar University maintains a Counseling Center located in 116 Wimberly Student Services Building that offers a full range of services to students. In this central resource location, professional staff are available to provide educational, diagnostic and career testing; instruction for and access to individual computer-assisted career exploration; educational, personal, social, career counseling; and assessment and referral to student development programs including those of Special Services and Learning Skills.

The center is staffed with a licensed psychologist and licensed and certified counselors to assist in the resolution of student problems and questions. The Counseling Center does not address problems of a long-term therapeutic nature. Students encountering difficulties are encouraged to consult the office on a no-charge basis. All contacts are confidential.

In order to assist students in making decisions concerning choices of majors and careers, the Counseling Center maintains two computerized career information systems, SIGI, and Discover, as well as a career library.

The Center coordinates testing required by Lamar University and provides individual testing services for students. These services include the administration and interpretation of career interest and personality tests.

The office also acts as a national test center for administration of Graduate Record Examination, Law School Admission Test, Graduate Management Admission Test, Scholastic Aptitude Test (SAT), American College Testing Program (ACT), College Level Examination Program (CLEP), General Educational Development Test (High School Equivalency Test), the Miller Analogies Test, and the Pre-Professional Skills Test. Information and application forms concerning these tests may be obtained from the Counseling Center.

Health

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

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

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

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

Placement

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

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

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

Learning Skills Programs

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

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

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

Students who desire more information should contact the Director of Learning Skills.

Special Services Program

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

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

The program operates in close cooperation with the Counseling Center, the Office of Student Development, and the Director of Learning Skills.

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, non-credit study and counseling to aid the student in developing a meaningful context for his university years.

Activities and Organizations

Student Government Association

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

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

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

Residence Hall Association

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

Special Interest Organizations

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

Setzer Student Center

The Richard W. Setzer Center provides facilities for leisure-time recreation and is the campus center for many extracurricular activities. The Center includes an information center, two games areas, TV Rooms, check cashing/ticket sales, locker rental, music listening room, snack bar, graphics operations, reservations office, video lounge, a ballroom, a reading room, various meeting rooms and lounges, and The Redbird Perch, a pizza parlor and delicatessen operation. The Center houses the office of the Setzer Student Center Council, Student Government Association, Student Organizations, Alpha Phi Omega, Student Publications and various staff members who work with these organizations and many others. Commercial businesses housed in the Center include the Lamar University Bookstore, the Roost Ice Cream Shop and a campus hair styling shop.

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

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

Montagne Center

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

Publications

University student publications include the *University Press*, a campus student newspaper published twice a week during the long semesters.

The *University Press*, with offices at 200 Setzer Student Center, serves as a training opportunity for students interested in journalism.

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

Eligibility for Extracurricular Activities

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

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

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

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

Conduct and Discipline

Student Conduct

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

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

Hazing

Hazing is prohibited in state educational institutions by the Texas Education Code, Section 4.19. Students of Lamar University are forbidden to engage in, encourage, aid, or

assist any person(s) participating in what is commonly known and recognized as hazing. Any student who does so will be subject to university disciplinary action and might also expect to be dealt with by civil authority. Refer to the **Student Handbook** for more specific definitions and information relative to the legal implications of hazing.

Penalty

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

Summons

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

Debts

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

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

Failure to pay all University fees by the specified date will result in suspension through the 12th week in the long semester and the 4th week in the summer term. After the 12th week in the long semester and the 4th week in the summer term failure to pay all fees by the specified date will result in suspension at the end of the current semester and may include: a) denial of readmission; b) withholding of grades and transcripts; c) withholding of degree.

Disciplinary Action

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

Parking

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

Auxiliary Services

Intercollegiate Athletics

A founding member of the Southland Conference in 1963, Lamar University holds I-AA status in the National Collegiate Athletic Association for football and I-A status for fourteen other sports. Programs and policies for intercollegiate athletics are administered under the advise of the university athletic committee and the athletic director.

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

Eligibility

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

Regulations for the Southland Conference, the Southland Women's Conference, and the National Collegiate Athletic Association, each of which Lamar University is a member, require the following for eligibility in years subsequent to the first academic year in residence: (1) satisfactory completion of a minimum 24 semester hours of the academic credit required for a baccalaureate degree in a designated program of studies since the beginning of the student athlete's last season of completion; or (2) satisfactory completion of degree credit which averages at least 12 semester hours during each of the previous semesters enrolled; (3) a minimum 1.6 G.P.A. must be maintained; hours earned in summer school may be utilized to satisfy requirements in sub-paragraph (1).

For additional details on eligibility for intercollegiate athletics for men and women the student should contact the Director of Athletics.

Recreational Sports

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

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

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

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

Housing

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

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

Applications

To apply for a room in a University residence hall, contact the Housing Office. A check or money order for \$50 must accompany the application. Contracts will be sent to applicants as rooms become available. The contract must be signed and returned with a \$150

payment to be applied to the Fall semester room rent. Failure to do so by July 15 will result in a cancellation of the room reservation by the university housing office. If the student cancels the reservation on or before July 15, the \$150 pre-payment will be refunded. No refunds will be issued on cancellations received after this date.

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

Assignments

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

Dining Halls

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

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

Fees

Room and Board fees may be paid in one, two or three installments as outlined on the schedule furnished by the Housing Office. Statements will not be mailed to students or parents and a \$10 late fine plus \$1.00 per day will be charged for failure to comply with the established schedule. Failure to pay all University fees by the specified date will result in suspension through the 12th week in the long semester and the 4th week in the summer term. After the 12th week in the long semester and the 4th week in the summer term failure to pay all fees by the specified date will result in suspension at the end of the current semester and may include; a) denial of readmission; b) withholding of grades and transcripts; c) withholding of degree.

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



College of Arts and Sciences

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

John P. Idoux, Ph.D. Dean 101 Chemistry Building, Phone 880-8508

Joseph C. Lambert, Director of Honors Program 90 Liberal Arts Building,
Phone 880-8511/8512

Christopher P. Baker, Director of Advising Center 3 Liberal Arts Building,
Phone 880-8555

Jeanne Beard, Adjunct Advisor, Advising Center 124 Liberal Arts Building,
Phone 880-8907

Dana Grayson, Adjunct Advisor, Advising Center 124 Liberal Arts Building,
Phone 880-8907

Organization and Function

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

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

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

The Liberal Arts and Sciences

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

Degree Offerings

Bachelor of Arts with majors in the following fields:

Chemistry	Political Science
English	Sociology
French	Spanish
History	

Bachelor of General Studies—Liberal Arts

Bachelor of Science with majors in the following fields:

Biology	Medical Technology
Chemistry	Oceanographic Technology
Criminal Justice	Physics
Energy Resources Management	Political Science
Environmental Science	Sociology
Geology	

Bachelor of Social Work

Associate of Science in Law Enforcement

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

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

A student enrolled as a major in the College of Arts and Sciences (including undecided majors) must fulfill all University degree requirements, including those for general education, as well as the particular requirements set forth by the department for an area of specialization. Students are expected to make acceptable progress toward their degree objectives and are expected to work closely and carefully with their academic advisor. Students who initially enter the College as an undecided major will generally be required to select a major before the beginning of their third semester in the College.

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

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

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

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

Honors Program

Director: Joseph C. Lambert

90 Liberal Arts Building, Phone 880-8511/8512

The Lamar University Honors Program is an enriched program offering a variety of courses designed specifically for qualified and highly motivated students. Honors courses are not necessarily more difficult than regular courses, but they are more challenging and more creative. The classes are always small, and the instructor has ample opportunity to present course material to a select group of good students in a very interpretive and analytical fashion. Honors courses make learning a genuine pleasure. Although the program is administered through the Dean's office of the College of Arts and Sciences, qualified students working toward an approved baccalaureate degree in any of the colleges may participate. Normally, some scholarships are available to qualified students who enroll in the program. In order to be admitted to the Honors Program, entering freshmen must have a score of at least 1000 on the SAT. College students participating in the program must maintain a 3.1 overall grade point average. The benefits of participating in the Honors Program are several: there is the prestige of having been selected for an accelerated academic program; there is the possibility of winning a commencement award given to the graduating senior with the highest grade point average who participated in the Honors Program; and, most importantly, there are the additional learning opportunities afforded those enrolled in Honors courses.

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

Honors Courses (Hon)

- | | | |
|------------|---|--------------|
| 331 | Honors Seminar I
An interdisciplinary course designed for the Honors Program. The content depends upon the combination of disciplines involved.
<i>May be repeated for credit when topic varies.</i> | 3:3:0 |
| 431 | Honors Seminar
An interdisciplinary course designed for the Honors Program. The content depends upon the combination of disciplines involved.
<i>May be repeated for credit when topic varies.</i> | 3:3:0 |

Bachelor of General Studies - Liberal Arts

Advisor: Christopher P. Baker

3 Liberal Arts Building, Phone 880-8555

The Bachelor of General Studies-Liberal Arts degree is designed for those students who have already established careers and who wish to earn credit toward a degree while learning for the pleasure of learning.

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

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

Pre-Professional Programs

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

Pre-Law

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

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

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

Advisor: Michael E. Warren

101 Hayes Building, Phone 880-8262

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

Pre-Dental and Pre-Medical Programs

Advisor: Keith C. Hansen

217 Chemistry Building, Phone 880-8267

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

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

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

Pre-Medical and Pre-Dental

Recommended Program of Study

First Year	Second Year
Eng 131, 132 Composition 6	Bio 243 Microbiology 4
Bio 141, 142 General 8	Bio 347 Genetics 4
Chm 141, 142 General 8	Chm 341-342 Organic 8
*Mth 1335 Precalculus 3	Phy 141, 142 General 8
*Mth 236 Calculus I 3	His 231, 232 American 6
PE/ROTC/MLb 2-4	PE/ROTC/MLb 2-4
30-32	32-34

Third and Fourth Years

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

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

**Dental schools have no specific mathematic requirements, but do require 6 semester hours of credit.*

Pre-Veterinary Medicine

Recommended Program of Study

First Year	Second Year
Eng 131, 132 Composition 6	Bio 243 Microbiology 4
Bio 141, 142 General 8	Bio 347 Genetics 4
Chm 141, 142 General 8	Chm 341,342 Organic 8
Mth 1335 Precalculus 3	Phy 141, 142 General 8
Mth 236 Calculus I 3	His 231, 232 American 6
CS 131 3	PE/ROTC/MLb 2-4
PE/ROTC/MLb 2-4	
33-35	32-34

Third Year
Bio 442 Entomology 6
Chm 441, 442 Biochemistry 8
POLS 231, 232 6
Eng 4335, Tech. Report Writing 3
or Spc 131 Public Speaking 9
*Animal Science 9
33

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

Pre-Pharmacy

Advisor: Anne Harmon

217 Chemistry Building, Phone 880-8267

Professional training in pharmacy is offered at three institutions in Texas—the University of Houston, the University of Texas and Texas Southern University. All require a minimum of two years of pre-pharmacy training; however, the minimum entrance requirements differ among the institutions and exceptions are seldom granted. Thus, students should work closely and carefully with the pre-pharmacy advisor in planning their curricula.

All Colleges of Pharmacy in Texas require submission of test scores on the Pharmacy College Admissions Test (PCAT).

Professional Programs

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

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

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

Career Counseling - Liberal Arts

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

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

Cooperative Education Program

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

Courses in Bible and Religious Education

Instructors: Chatham, Eckstein, Maness

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

Bible Courses (Bib)

131	Survey of the Old Testament	3:3:0
	A critical study of the Old Testament and its relevance to Western culture.	
132	Survey of the New Testament	3:3:0
	A critical study of the New Testament, its historical context and the beginnings of the Christian Church.	
133	New Testament: Gospels	3:3:0
	A critical study of the Gospels, the person and work of Jesus of Nazareth.	
134	New Testament: Paul	3:3:0
	A study of the life and ministry of St. Paul and the major portion of the Pauline letters.	
135	Introduction to Christian Thought	3:3:0
	A course designed to acquaint the student with the major concepts of the Christian faith: to explore their Biblical basis and their relevance for the present day.	

212	Current Issues in Religion An interpretation of religious events through the reading of current religious and secular periodicals.	1:1:0
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.	3:3:0
232	Christian Ethics The relation of the Christian Faith to daily living, with particular emphasis on vocation, courtship and marriage, the person and society.	3:3:0
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.	3:3:0
314	Thematic Approach to Religion A critical study of significant ideas or writings in religion.	1:1:0
324	Thematic Approach to Religion A critical study of significant ideas or writings in religion.	2:2:0
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.	3:3:0
332	Major Themes of the Bible Planned to present Biblical concepts of God, man, history, covenant, prophecy, vocation and related ideas.	3:3:0
333	Comparative Religion A comparative study of the world's major religions, e.g. Judaism, Christianity, Islam, Hinduism, Buddhism.	3:3:0
334	Thematic Approach to Religion A critical study of significant ideas or writings in religion.	3:3:0

Department of Biology

Department Head: Michael E. Warren **101 Hayes Building, Phone 880-8262**

Professors: Harrel, McGraw, Ramsey, Turco, Warren

Associate Professors: Malnassy, Runnels

Assistant Professors: Bechler, Bryan, Carley, Haiduk, Hunt, Sullivan

Adjunct Professor: Johnson

A student majoring in one of the three Baccalaureate degrees offered by the department of Biology (Biology, Medical Technology, Oceanographic Technology) quickly understands that the biological sciences have foundations in the supporting sciences of chemistry, physics and mathematics.

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

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

Bachelor of Science - Biology Major

As the study of life, Biology requires a thorough understanding of the underlying chemical and physical principles governing all life processes. Lamar students attracted to this field are well equipped to enter the professions of medicine, dentistry, etc., or one of the other areas listed below in this section. Students are equally prepared for environmen-

tally related careers in various governmental agencies or private companies. A career file is maintained in 101 Hayes Biology building to acquaint students with the far ranging career possibilities. Students interested in further education leading to an advanced degree in biology are also well prepared. Those interested in teaching should consult that section below.

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

- A. General Requirements:
 English Composition—six semester hours
 Sophomore English Literature—six semester hours
 Mathematics—two courses to include calculus
 Sophomore American History—six semester hours
 Political Science-American Government—six semester hours
 Physical Activity, Marching Band, or ROTC—four semesters
 Laboratory Science-Biology 141-142—eight semester hours
- B. Major:
 Core courses, see list below—twenty semester hours
 Biology electives—twelve semester hours
 Biology 416, 417 Literature—two semester hours
- C. Supporting Sciences:
 General Chemistry—eight semester hours
 Organic Chemistry—eight semester hours
 General Physics—eight semester hours
 Biochemistry or Cell Physiology—three or four semester hours
 Statistics—four semester hours
- D. Electives:
 Sufficient electives to complete a total of 140 semester hours. (134 academic hours plus 6 hours in PE, ROTC, or MLB)

Recommended Program of Study

First Year	Second Year
Eng 131..... 3	Soph Eng Literature..... 6
Eng Composition..... 3	Chm 341, 342 Organic..... 8
Bio 141, 142 General..... 8	Phy 141, 142 General..... 8
Chm 141, 142 General..... 8	**Bio selected from core..... 12
Mth 1335 Precalculus or 236..... 3	PE/MLb 124***/ROTC 2 sem..... 2-4
Mth 236 Calculus or 237..... 3	
Electives..... 4	
PE/MLb 124***/ROTC 2 sem..... 2-4	
34-36	34-36
Third Year	Fourth Year
POLS 231, 232 American Government I, II..... 6	Bio 416, 417 Bio Lit..... 2
Electives..... 7	Bio Electives..... 4
Psy 241 Statistics..... 4	Electives..... 18
**Bio selected from core..... 8	Soph Am His..... 6
Bio Elective..... 8	
Chm 441 or Bio 4302..... 3-4	
36-37	30

Teacher Certification - Biology

Students wishing to obtain the Bachelor of Science degree in Biology and simultaneously certify in Biology for a provisional certificate-Secondary, must include the following in their degree plan:

1. See the Listing of Teacher Education and Biology courses in the College of Education section in this bulletin.

2. Obtain 24 semester hours in additional teaching field (see College of Education section in this Bulletin).

***The following courses must be included in the Biology Core: Bio 243 or 245, Microbiology; Bio 346, Invertebrate Zoology; Bio 345, Botany; Bio 240 or 444, Comparative Anatomy or Vertebrate Natural History; Bio 347, Genetics.*

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

* Bachelor of 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 Math	4
PE Activity	2-4

34-36

Summer	
POLS 231, 232 American Government I, II	6
PE Activity	2-4
Electives	6

14-16

Third Year	
Soph Am His	6
Phy 141, 142 General	8
Bio 347 Genetics	4
Bio 345 Botany	4
Psy 443 Experimental Psy	4
***Psy Advanced	9

35

Second Year	
Chm 341, 342 Organic	8
Bio 240 Comparative Anatomy or 444 Vert Nat Hist	4
Bio 245 or 243 Microbiology	4
Psy 342 Methods	4
Eng Soph Literature	6
Mth 236 Calculus I	3
Mth 237 Calculus II or CS 131	3
***Psy Advanced	3

35

Fourth Year	
Bio 346 Invert Zool	4
Bio 416-417 Bio Literature	2
**Bio Electives	12
***Psy Advanced	6
Electives	13

37

**Both degrees must be awarded simultaneously.*

Biology Electives chosen from Bio 342, 344, 446, 447.

****Advanced Psychology Electives: Group I (choose any three): Psy 331, 332, 333, 432; Group II (choose any three): Psy 336, 431, 436, 438.*

Bachelor of Science in Biology

Bachelor of Science in Chemistry

First Year	
Bio 141-142 General	8
Chm 141-142 General	8
Eng Composition	6
Mth 1335 Precalculus	3
Mth 236 Calculus	3
PE/MLb 124**/ROTC	2-4
Electives	6

36-38

Summer	
Phy 335 Modern	3
***Bio Elective from Core	4
Chm 241 Quantitative	4
Electives	3

14

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

37-39

Third Year	
Bio selected from core***	16
Soph Am His	4
Chm 413, 414 Physical Lab	2
Chm 333 Inorganic	3
Chm 431, 432 Physical	6
Electives	3
	<hr/> 36

Fourth Year	
Bio 416 and 417 Bio Lit.	2
Bio Electives	8
Chm 441 Biochem	4
Chm Electives* min	8
Electives	10
	<hr/> 32

Both degrees must be awarded simultaneously.

Biology electives to be chosen from Bio 244, 341, 342, 344, 447.

*Chemistry electives to be selected from Chm 430, 436, 442, 444, 446.

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

***The following courses must be included in the Biology Core: Bio 245 or 243, Microbiology; Bio 346, Invertebrate Zoology; Bio 345, Botany; Bio 240 or 444, Comparative Anatomy or Vertebrate Natural History; Bio 347, Genetics.

Bachelor of Science - Medical Technology

Major Advisor: M.D. Hunt

205-12 Hayes, Phone 880-8254

J:T. Sullivan

205-5 Hayes, Phone 880-8257

The medical technologist performs the laboratory tests required by physicians in order to properly diagnose and treat patients; most technologists find employment in hospitals, clinics, or blood banks. Medical product manufacturers and medical technical sales account for an increasing percent of career opportunities for Medical Technologists.

A. General Requirements:

English Composition—six semester hours

English Literature—six semester hours

Mathematics—six semester hours to include Mth 1334 & 1335

Sophomore American History—six semester hours

Sophomore Political Science-American Government—six semester hours

Physical Activity, Marching Band, or ROTC—four semesters

Laboratory Science-Biology 141-142—eight semester hours

B. Multidisciplinary Major:

Biology: 141-142 General, 243 Microbiology, 224 Disease & Immunity; 344 Advanced Physiology, 441 Parasitology, 340 Diagnostic Microbiology

Chemistry: 141-142 General, 341-342 Organic, 241 Quantitative

Physics: 141-142 General

C. Electives:

14 semester hours to total 104-106 semester hours, plus one year internship. See below:

Recommended Program of Study

First Year	
Eng 131	3
Eng Composition	3
Bio 141, 142 General	8
Chm 141, 142 General	8
Mth 1334 Algebra	3
Mth 1335 Precalculus	3
Electives	4
PE/MLb 124***/ROTC 2 sem	2-4
	<hr/> 34-36

Second Year	
Eng Literature	6
Bio 243-244 Microbiology	8
Chm 341-342 Organic	8
Phy 141-142 General	8
PE/MLb 124*/ROTC	2-4
	<hr/> 32-34

Third Year	
Bio 344 Adv Physiology	4
Bio 340 Diagnostic Microbiology	4
Chm 241 Quantitative	4
Soph Am His	6
Bio 441 Parasitology	4
**Electives	8
POLS 231, 232 American Government I, II	6
	<hr/> 36

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

**Suggested Electives: Statistics, Genetics, Psychology, Epidemiology, Computer Science, in order of preference.

Fourth Year Clinical Training

All the above requirements for the degree must be met before a student may be admitted to clinical training, 12 consecutive months at a hospital laboratory approved for teaching by the Council on Medical Education and Hospitals of the AMA. After satisfactorily completing this training, the student is awarded the degree of Bachelor of Science Medical Technology.

The Program shown will fulfill Registry requirements.

Physical Therapy

Major Advisor: M.E. Warren

101 Hayes

Physical therapists aid in testing and evaluation of patients, then lead the patient through activities to restore health to various impaired bodily functions of the nervous, muscular, bone and joint systems, restore the range of muscle strength, endurance and improve joint motion. Physical therapists are employed by hospitals, physicians and clinics, or may be self-employed.

First Year	
Eng 131.....	3
Eng Composition.....	3
Bio 141-142 General.....	8
Chm 141-142 General.....	8
Mth 1335 Precalc (or Mth 1333-Trig).....	3
Psy 131 Introduction.....	3
Electives*.....	6
	34

Second Year	
Physics 141-142.....	8
Sociology 131.....	3
Speech.....	3
Bio 344 Adv Physiology.....	4
Psy 241 Statistics.....	4
His 231-232.....	6
POLS 231, 232 American Government I, II.....	6
	34

Third Year	
Bio 240 Comparative Anatomy.....	4
Eng Literature.....	3
Psy 234 Child.....	3
Psy 337 Adjustment.....	3
Psy 432 Abnormal.....	3
Electives minimum*.....	10
	26

*Electives should be chosen from Sociology, Psychology, Economics, etc.

The first two years of the program above will satisfy the minimum requirements for the University of Texas Medical Branch at Galveston. Their program calls for an additional two years of clinical work for the BS degree. The three years of preparatory work will meet the requirement of the University of Texas Health Science Center at Dallas. Their program requires one year of clinical work for the BS degree. PE, etc., does not count toward the semester hour requirement. Acceptance to the clinical program is on a competitive basis. Clinical experience is required for the Galveston program.

Occupational Therapy

Major Advisor: M.E. Warren

101 Hayes

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

First Year	Second Year
Eng 131.....	Eng Lit.....
Eng Composition.....	Speech.....
Bio 141-142 General.....	His 231-232 United States.....
Chm 141 General.....	POLS 231, 232 American Government I, II.....
Psy 131.....	Soc.....
Psychology 241 statistics.....	Electives.....
Psychology.....	Bio 143 Anatomy & Physiology.....
Electives.....	
32	31

Plus two years clinical affiliation

*Social Psychology recommended.

Physician's Assistant

Major Advisor: M.E. Warren

101 Hayes

The physician's assistant is under the supervision and responsibility of a physician, performing duties which extend the ability of the physician to provide adequate health care. Such duties include taking a medical history, routine physical exams, and other such duties which the physician may assign.

First year same as first year Physical Therapy.

Second year same as second year Occupational Therapy.

Plus two years clinical affiliation

Note: Lamar University provides only the pre-clinical years for the above three programs, changes in program requirements are under the control of the schools offering the clinical programs. For detailed course requirements contact the faculty advisor in Hayes 101.

Bachelor of Science - Oceanographic Technology

Major Advisor: W.C. Runnels

205-8 Hayes, Phone 880-8256

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

- A. General Requirements:
 - English Composition—six semester hours
 - Sophomore English Literature—six semester hours
 - Mathematics: see particular emphasis below
 - Sophomore American History—six semester hours
 - Political Science-American Government—six semester hours
 - Physical Activity—two semesters swimming and life saving; two semesters physical activity, marching band, ROTC
- B. Multidisciplinary Sciences:
 - General Chemistry—eight semester hours
 - Geology—Meteorology three semester hours
 - Biology-General Oceanography—four semester hours
 - Bio-Field Oceanography—six semester hours
 - Bio-Ocean Seminar—one semester hour
- C. Electives:
 - Sufficient to total 132 semester hours
- D. Options:
 - BIOLOGY EMPHASIS:**
 - Biology 141-142, 243, 346, 443, 444, 445, 446, 417
 - Geology 141-142
 - Chemistry 341-342

Mathematics 1335, 234, 236, 237

Physics 141-142

GEOLOGY EMPHASIS:

Geology 141-142, 241, 243, 341, 342, 345, 346 (or CE 339), 433, 419

Engineering 114, 1121, 1221

Biology 141-142, 443, 445

Mathematics 1335, 236, 237

Physics 141-142, 430

ENGINEERING EMPHASIS:

Engineering 114, 1121, 1221, 230, 231, 233, 234

Chemical Engineering 3311

Civil Engineering 211, 212, 213, 232, 331, 339, 413

Industrial Engineering 333

Electrical Engineering 3305, 333, 438

Mathematics 148, 149, 241

Geology 220, 342, 433

Physics 140, 222, 241

Marine Biology Option

First Year

Bio 141-142 General	8
Chm 141-142 General	8
Mth 1335 Pre-Calculus	3
Mth 236 Calculus I	3
Eng Composition	6
PE Activity	2-4

30-32

Third Year

Bio 349 General Ocean	4
Bio 346 Invert Zool	4
Bio 444 Vert Nat His	4
Bio 445 Marine Bio	4
Chm 341-342 Organic	8
His Soph Am His	6
Elective	3

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Third or Fourth Summer

Bio 361 Field Course	6
Minimum Total 137	

Second Year

Geo 141-142 Phys, His	8
Phy 141-142 General	8
Mth 237 Calc II	3
Bio 243 Microbiology	4
Statistics	3
Soph Eng Literature	6
PE 227-228 Swim, Life	4

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Fourth Year

Geo 4370 Meteorology	3
Bio 418 Ocean Seminar	1
Bio 417 Bio Lit	1
Bio 446 Ecology	4
Bio 443 Limnology	4
POLS 231, 232 American Government I, II	6
Approved Electives	3-4
Free Electives	9

32

Bachelor of Science - Oceanographic Technology

Marine Geology Option

First Year

Geo 141-142 Phys, Hist	8
Chm 141-142 General	8
Mth 1335 Pre-Calculus	3
Mth 236 Calculus I	3
Eng Composition	6
PE Activity	2-4

30-32

Second Year

Geo 241-242 Min, Opt Min	8
Bio 141-142 General	8
Mth 237 Calculus II	3
Egr 1121 Intro Computer I	1
Egr 1221 Intro Computer II	2
Egr 114 Graphics	1
Eng Literature	6
PE 227-228 Swim, Life	4

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Third Year	
Geo 345 Petrology	4
Geo 4370 Meteorology	3
Geo 341 Stat, Data Proc	4
Geo 342 Structural Geo.	4
Bio 349 General Ocean	4
Geo 419 Seminar	1
Phy 141-142 General	8
CE 339 Soils Sci.	3
or	
Geo 346 Sed Stat	4
Bio 443 Limnology	4

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Third or Fourth Summer	
Bio 361 Field Course	6
Minimum Total 139	

*Selected from the sequence Geo 431 thru Geo 438.

Bachelor of Science - Oceanographic Technology

Ocean Engineering Option

First Year	
Geo 220 Geo for Eng.	2
Chm 141-142 General	8
Mth 148-149 Anal I & II	8
CE 211 Measurement	2
Eng Composition	6
Egr 114 Graphics I	2
PE Activity	2-4
Elective	3

31-33

Third Year	
CE 331 Environ Sci.	3
CE 339 Soils Sci.	3
IE 333 Egr Economy	3
Bio 349 General Ocean	4
CE 232 Mech of Solids	3
Egr 233 Circuits	3
Egr 234 Thermodynamics	3
EE 333 Electronics I	3
EE 3305 Switch System	3
His Soph Am His.	6

34

Third or Fourth Summer	
Bio 361 Field Course	6
Minimum Total 138	

Biology Courses (Bio)

1400	Introductory Biology	4:3:2
	A human centered non-chemically based course for non-science majors, includes function and problems of the human circulation, respiration, digestion, reproductive, and sensory systems.	
1401	Introductory Biology	4:3:2
	A companion course to Biology 1400, which is not prerequisite. Includes human heredity and a consideration of the diversity and impact of the plant kingdom on human life and history as food and medicine as well as their aesthetic value.	
141	General Biology	4:3:2
	A survey of organisms, molecules, cells, tissues, photosynthesis and genetics.	
142	General Biology	4:3:2
	Structure and function, development, reproduction ecology and evolution.	

Fourth Year	
Geo 433 Geophysics	3
Geo elective-Senior level	3
Bio 418 Ocean Seminar	1
Bio 445 Marine Bio	4
POLS 231, 232 American Government I, II	6
His Soph Am His.	6
Approved elective	3-4
Free Electives	9

32

34

33

4:3:2

143	Human Anatomy and Physiology Structure and function of cells, tissues, muscle, skeletal and nervous system.	4:3:2
144	Human Anatomy and Physiology Structure and function of the circulatory, digestive, excretory and reproductive systems. Prerequisite: Bio 143.	4:3:2
240	Comparative Anatomy of the Vertebrates Comparative anatomy presented from systemic viewpoint. Two 3-hour labs per week. Prerequisite: Bio 141-142. (Offered Fall Semester.)	4:2:6
243	Microbiology Classification, morphology, reproduction and physiology of microorganisms. Prerequisite: Bio 141-142.	4:3:3
244	Disease and Immunity Antigen-antibody responses and life cycles of disease-causing micro-organisms. Prerequisite: Bio 243.	4:3:3
245	Introductory Microbiology Micro-organisms with emphasis on those of medical significance and problems of personal and community health.	4:3:2
339	Biology and Psychology of Sexuality Understanding of human sexuality through the progressive study of conception and birth, through the development of sex roles, to the acquisition of sexual maturity and functioning in society. Credit may not be received for both Bio 339 and Psy 339.	3:3:0
340	Diagnostic Microbiology Public health diagnostic procedures, epidemiology, control and treatment of human bacterial diseases. Prerequisite: Bio 243-244; Chm 342 or concurrent enrollment.	4:2:6
341	Histology Study of normal tissues of vertebrates including human tissue. Prerequisite: Bio 141-142 and 240 or 243-244. (Offered Spring Semester.)	4:3:3
342	Embryology Comparative study of meiosis, fertilization, cleavage and early embryology as it relates to human development of vertebrates. Prerequisite: Bio 141-142, 240. (Offered Spring Semester.)	4:3:3
344	Advanced Physiology General physiology, muscle-nerve relations, digestive, circulatory, respiratory, excretory, nervous and endocrine systems. Prerequisite: Bio 141-142 and Chm 141-142. (Recommended: Chm 341-342.)	4:3:3
345	General Botany Introduction to plant structure and function with emphasis on the seed plants. Prerequisite: Bio 141-142.	4:3:3
346	Invertebrate Zoology Classification, natural history, phylogenetic relationships and economic importance of the invertebrate phyla. Prerequisite: Bio 141-142. (Offered Fall Semester.)	4:3:3
347	Genetics General principles of heredity, including human inheritance. Prerequisite: Bio 141-142.	4:3:3
348	Epidemiology A study of the distribution and determinants of diseases and injuries in human populations. Laboratory utilizes a case history approach. Prerequisite: Microbiology, statistics recommended.	4:3:3
349	General Oceanography Principles of oceanography. Geological, chemical, physical and biological environments of the ocean. Prerequisite: Geo 141, Chm 141. (Offered Fall Semester.)	3:3:3
361	Field Course in Estuarine and Coastal Oceanography Near shore processes. The application of sampling devices. Laboratory analysis of samples. Small boat handling. Duration: six weeks. Field trip required and special fee assessed. Prerequisite: Bio 349, PE 228. (Offered Summer Semester.)	6:5:40
4101, 4201, 4301, 4401	Special Topics in Biology Physiological, anatomical, taxonomic and ecological biology. Laboratory and/or library work and conferences with a faculty member. May be repeated for credit when the area of study differs.	1-4:A:0

416	Classical Biological Literature	1:1:0
	A survey of major written works in biology. Prerequisite: Senior standing in biology.	
417	Current Biological Literature	1:1:0
	A survey of modern biological works published in recent journals. Prerequisite: Senior standing in biology.	
418	Oceanographic Technology Seminar	1:1:0
	Reports on current literature in oceanography for Oceanographic Technology majors. Prerequisite: Bio 349.	
430	Undergraduate Problems	3:0:6
	Individual investigation of a problem in biology. Formal report of research to be approved by two faculty members. Prerequisite: Written permission of instructor.	
4302	Cellular Physiology	3:3:0
	Basic processes in physiology, metabolism, transport, energetics, molecular and cellular mechanisms. Prerequisite: Junior standing, credit for organic chemistry. (Offered Spring Semester.)	
4303	Principles of Electron Microscopy	3:3:0
	Principles of operation, adjustment and elementary maintenance of the electron microscope. Preparation of specimens, sectioning and grids	
4304	Electron Microscope Techniques	3:1:6
	Practical experience in application of electron microscopy procedures from living tissue to finished photographic plate. Prerequisite: Bio 4303 and consent of instructor. Supplementary lab fee.	
440	Ornithology	4:3:3
	Natural history, taxonomy and ecology of birds.	
4402	Taxonomy of Vascular Plants	4:3:3
	The classification of vascular plants; family characteristics, specific identification of the local flora and dominant plants of floristically different areas of Texas.	
441	Parasitology	4:3:3
	A study of the morphology, life history and host-parasite relationships of parasites of man and other animals. Prerequisite: Bio 141-142.	
442	Entomology	4:3:3
	Physiology, morphology, life history, collection, classification and control of insects. Prerequisite: Bio 141-142.	
443	Limnology	4:3:3
	Fauna, flora, ecology and productivity of fresh water. Prerequisite: Bio 141-142.	
444	Vertebrate Natural History	4:3:3
	Collection, identification and natural history of area fish, amphibians, reptiles, birds and mammals. Prerequisite: Bio 141-142. (Offered Spring Semester.)	
445	Marine Biology	4:3:3
	Habitats and community relationships of marine plants and animals. Prerequisite: Bio 141-142.	
446	Ecology	4:3:3
	Quantitative approach to both field and experimental studies. Interrelationships of organisms and their environment. Prerequisite: Bio 141-142.	
447	Cellular Biology	4:3:3
	Structure and function of the cell and its organelles. Prerequisite: Bio 141-142.	
448	Cytological-Histological Technique	4:1:6
	Principles and techniques of fixation, dehydration, embedment, sectioning and the use of selective stains on various plant and animal tissues for observation and study with the light microscope.	
449	Protistology	4:3:3
	Morphology, taxonomy and ecology of protozoa, algae and fungi. Prerequisite: Bio 141-142.	
460	Field Biology	6:A:0
	Environmental relationships and natural history of plants, invertebrates and vertebrates. Extensive field trips for study and collection of organisms in their natural habitat. Prerequisite: Bio 345, 20 hours credit in biology and consent of instructor. Field trip required and special fee assessed. Summers only.	

Department of Chemistry

Department Head: Keith C. Hansen **217 Chemistry Building, Phone 880-8267**

Professors: Cameron, Hansen, Idoux, Ortego, Yerick, Whittle

Associate Professors: Akers, Dorris, Harmon, Mejia

Assistant Professors: Shukla

Laboratory Manager: Grayson

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

Bachelor of Science - Chemistry Major*

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

- A. General Requirements:
Meet the University's requirements for a B.S. degree which are described earlier in this bulletin under degree requirements.
- B. Science and Mathematics:
Bio 141, 142 or Geo 141, 142
Phy 247, 248, 335
Mth 148, 149, 241
CS 131, 132
- C. Chemistry Core:
Chm 141, 142 General
Chm 333, 436 Inorganic
Chm 341, 342, 444 Organic
Chm 241, 446 Analytical
Chm 431, 432, 413, 414 Physical
Chm 411 Chemical Literature
Chm 412 Senior Seminar
- D. Electives:
6-8 semester hours Advanced Chemistry electives
15 semester hours general electives

Recommended Programs of Study

First Year	
Chm 141, 142 General	8
Bio/Geo 141, 142 General	8
Mth 148, 149 Calc An Geo I, II	8
Eng Composition	6
HPE/MLb**/ROTC	2-4

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

Third Year	Fourth Year
Chm 341, 342 Organic 8	Chm 444 Organic Qual 4
Chm 431, 432 Physical 6	Chm 446 Instrumental 4
Chm 413, 414 Physical Lab. 2	Chm 411 Chemical Lit 1
Phy 335 Modern 3	Chm 412 Senior Seminar 1
CS 131, 132 Intro 6	Chm 436 Inorganic 3
His 231, 232 Amer. His 6	Chm Electives*** 6-8
	POLS 231, 232 American Government I, II 6
	Electives (outside of major) 9
31	34-36

Minimum 126 semester hours + HPE/MLb/ROTC

*American Chemical Society approved degree plan. A grade of "C" or better is required in core chemistry courses (Chm 141, 142, 241, 333, 341, 342, 431, 432)

**Offered Fall Semester only. If MLb 124 option is desired it should be added to third and fourth years, as four semesters are required.

***To be selected from Chm 430, 433, 437, 438, 441, 442.

****Eng 4335, Report Writing may be substituted for 3 hours literature.

Bachelor of Science - Chemistry (Biochemistry Option) *

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

- A. General Requirements:
Meet the University's requirements for a B.S. degree which are described earlier in this Bulletin under-degree requirements.
- B. Science and Mathematics:
Bio 141, 142, 243, 244, 341 or 347
Phy 141, 142, 335
Mth 236, 237
- C. Chemistry Core:
Chm 141, 142 General
Chm 241, 446 Analytical
Chm 333, 436 Inorganic
Chm 341, 342 Organic
Chm 441, 442 Biochemistry
Chm 431, 432, 413, 414 Physical
Chm 411 Chemical Literature
Chm 412 Seminar
- D. Electives:
10-12 semester hours advanced chemistry or biology electives
6 semester hours general electives

Recommended Program of Study

First Year	Second Year
Chm 141, 142 General 8	Chm 241 Quantitative 4
Bio 141, 142 General 8	Chm 333 Inorganic 3
Mth 236, 237 Calculus I, II. 6	Bio 243, 244 Microbio. 8
Eng Composition 6	POLS 231, 232 American Government I, II 6
HPE/MLb**/ROTC. 2-4	Phy 141, 142
	or
	Phy 247, 248 8
	Eng Literature 3
	HPE/MLb**/ROTC. 2-4
30-32	34-36

Third Year	
Chm 341, 342 Organic	8
Chm 431, 432 Physical	6
Chm 413, 414 Physical Lab.	2
Bio 341 Histology	
or	
Bio 347 Genetics	4
Phy 335	3
His 231, 232 Amer. His.	6
Chm/Bio Electives***	3-4
	32-33

Fourth Year	
Chm 441, 442 Biochem	8
Chm 446 Instrumental	4
Chm 436 Inorganic	3
Chm 411 Chm Literature	1
Chm 412 Sr. Seminar	1
Eng Literature	
or	
Eng 4335 Report Writing	3
Bio/Chm Electives***	7-8
Electives	6
	33-34

Minimum 125 hours + HPE/MLb ROTC

*American Chemical Society approved degree plan. A grade of "C" or better is required in core chemistry courses (Chm 141, 142, 241, 333, 342, 431, 432)

**Offered Fall Semester only. If MLb option is desired it should be added to third and fourth years, as four semesters are required.

***To be selected from Chm 430, Chm 433, Chm 437, Chm 438, Chm 444, Bio 341, Bio 342, Bio 344, Bio 347, Bio 441 and Bio 447.

Bachelor of Arts - Chemistry Major

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

- A. General Requirements:
Meet the University's requirements for a B.A. degree which are described earlier in this bulletin under degree requirements.
- B. Science and Mathematics:
Bio 141, 142 or Geo 141, 142
Phy 141, 142, 335
Mth 236, 237
CS 131, 132
- C. Chemistry
Chm 141-142 General
Chm 241 Analytical
Chm 333 Inorganic
Chm 341, 342 Organic
Chm 431, 432, 413, 414 Physical
Chm 411 Chemical Literature
Chm 412 Seminar
- D. Electives and Minor
23 semester hours of electives. Complete degree must include a minor of at least 18 semester hours of which 6 semester hours must be in advanced courses.

Recommended Program of Study

First Year	
Chm 141, 142 General	8
Bio/Geo 141, 142 General	8
Mth 236, 237 Calculus I, II.	6
Eng Composition	6
HPE/MLb*/ROTC	2-4
	30-32

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

Third Year	
Chm 341, 342 Organic	8
Phy 335	3
Fre 231, 232 Reading.	6
POLS 231, 232 American Government I, II	6
CS 131, 132.	6
Minor/Electives	3
	32

Fourth Year	
Chm 431, 432 Physical	6
Chm 413, 414 Physical Lab.	2
Chm 411 Literature	1
Chm 412 Seminar	1
Minor/Electives	20
	30

Minimum 123 + PE/MLb/ROTC

*Offered Fall Semester only. If MLb option is desired, it should be added to third and fourth year, as four semesters are required.

Bachelor of Science in Biology

Bachelor of Science in Chemistry

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

- A. General Requirements:
Meet the University's requirements for two (2) B.S. degrees which are described earlier in this bulletin under degree requirements.
- B. Science and Mathematics
Mth 1335, 236, 237
Phy 141, 142, 335
- C. Biology:
Bio 141, 142, 240, 243, 244, 341, 342, 344, 416, 347, 447
- D. Chemistry:
Chm 141, 142, 241, 333, 431, 432, 413, 414, 441
8 additional semester hours of advanced chemistry
- E. Electives
23 semester hours general electives

Recommended Program of Study

First Year	Second Year
Bio 141-142 General 8	Chm 341-342 Organic 8
Chm 141-142 General 8	Mth 237 Calculus 3
Eng Composition 6	Eng Literature 6
Mth 1335 Precalculus 3	Phy 141-142 General 8
Mth 236 Calculus 3	Bio Elective 4
PE/MLb 124**/ROTC 2-4	POLS 231, 232 American Government I, II 6
Electives 6	PE/MLb 124**/ROTC 2-4
36-38	37-39
Summer	
Phy 335 Modern 3	
Bio 243 4	
Chm 241 4	
Electives 3	
14	
Third Year	Fourth Year
Bio 240 Comparative 4	Bio 416 or 417 Bio Lit 1
Bio 344 Adv Physiology 4	Bio 447 Cellular 4
Bio 341 Histology 4	Bio 347 Genetics 4
Bio 342 Embryology 4	Chm 441 Biochem 4
His 231, 232 Am His 6	Chm Electives* min 8
Chm 413, 414 Physical Lab. 2	Electives 11
Chm 333 Inorganic 3	
Chm 431, 432 Physical 6	
Electives 3	
36	32

*Chm electives to be selected from Chm 430, 438, 442, 444, 446.

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

Bachelor of Science - Environmental Science

Environmental Science is an interdisciplinary program concerned with protecting, monitoring, and improving the environment. The degree program combines study in Biology, Chemistry, and Engineering in preparing the student for a career in either industry or government. This degree program combines fundamental training in the basic sciences as well as a broad training across several of the traditional disciplines to prepare a student to be able to both monitor and protect water and air quality, as well as other aspects of the environment.

Program Director: Shyam S. Shukla

The degree of Bachelor of Science in Environmental Science will be awarded upon completion of the following requirements.

A. General Requirements:

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

B. Science and Mathematics:

Mth 1335, 236, 237

Phy 141, 142

CE 331

C. Biology:

Bio 141, 142, 243, 244, 446, 443

8 semester hours of biology electives

D. Chemistry:

Chm 141, 142, 241, 334, 341, 342, 434, 333, 410, 438

6-8 semester hours of chemistry electives

E. Health Education

HED 434, 437

First Year

Bio 141, 142 General	8
Chm 141, 142 General	8
Eng Composition	6
Mth 1335 Precalculus	3
Mth 236 Calculus I	3
Elective	3
HPE/MLb*/ROTC	2-4
	<hr/>

33-35

Third Year

Bio 446 Ecology	4
Chm 341, 342 Organic	8
Chm 434 Air Pollu Surv	3
CE 331 Envir Sci	3
Eng 4335 Report Writing	3
HED 434 Hlth/Human Eco	3
HED 437 Hlth/Epid	3
Chm 333 Inorganic	3
POLS 231 American Government I	3
	<hr/>

33

Second Year

Bio 243, 244 Microbio	8
Chm 241 Quantitative	4
Chm 334 Air Anal	3
Eng Literature	6
Mth 237 Calculus II	3
Phy 141, 142 General	8
HPE/MLb*/ROTC	2-4
	<hr/>

34-36

Fourth Year

Bio 443 Limnology	4
Chm 410 Sem Envi Sci	1
Chm 438 Radiochem	3
Chm Electives**	6-8
His 231, 232 Amer His	6
POLS 232 American Government II	3
Bio Electives	8
	<hr/>

31-33

Minimum 127 semester hours + HPE/MLb/ROTC

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

**Selected with approval of department.

Cooperative Education Program

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

Chemistry Courses (Chm)

130	Introductory Environmental Science	3:3:0
	Fundamental concepts of environmental systems as related to urban affairs and man's environment. Air, water and soil pollution with control methods related to the modern technological society.	
135	Chemical Principles	3:3:0
	An introduction to the fundamentals of chemical structure, reactions, periodicity and the mathematical manipulations used in chemistry. May not be substituted for required chemistry courses in any degree program.	
	NOTE: It is strongly recommended that students enrolling have mathematics competency at or above the level of Mth 1334	
141	General	4:3:3
	General practices, problems, fundamental laws and theories.	
	Prerequisite: Chm 135 with a grade of "C" or better or satisfactory performance on diagnostic test.	
142	General	4:3:3
	A continuation of Chm 141. Properties of the elements. Elementary qualitative analysis and theories of solutions and equilibrium.	
	Prerequisite: Chm 141.	
143	Introductory	4:3:2
	For nonscience majors. A survey course in elementary inorganic chemistry.	
144	Introductory	4:3:2
	For nonscience majors. Continuation of Chm 143. Nuclear science, elementary organic and physiological chemistry.	
	Prerequisite: Chm 143 or 141.	
241	Quantitative Analysis	4:3:5
	Theory and practice of analytical chemistry utilizing gravimetric and titrimetric techniques.	
	Prerequisite: Chm 142 with a grade of "C" or better.	
333	Inorganic	3:3:0
	Generalization involving atomic and nuclear theory; properties of the elements with emphasis on periodicity; non-aqueous solvents, acids, bases, oxidation-reduction, etc.	
	Prerequisite: Chm 142 with grade of "C" or better.	
334	Air Analysis	3:3:3
	Theory and practice of chemistry as required in determination of ambient air quality.	
	Prerequisite: Chm 241, Mth 236 or parallel.	
341	Organic	4:3:4
	Current theories and chemical principles as they relate to the field of structure and reaction of the various types of organic compounds.	
	Prerequisite: Chm 142.	
342	Organic	4:3:4
	A continuation of Chm 341.	
	Prerequisite: Chm 341.	
410	Seminar in Environmental Science	1:1:0
	Reports and assigned reading.	
	Prerequisite: Senior standing in Environmental Science.	
411	Chemical Literature	1:1:0
	Lecture and assigned reading in the chemical literature. Chemical literature search on an advanced level.	
	Prerequisite: 20 semester hours of chemistry.	
412	Senior Seminar	1:1:0
	Reports and assigned reading.	
	Prerequisite: Senior standing in chemistry.	
413	Physical Laboratory	1:0:4
	Laboratory applications of modern theory in physical chemistry.	
	Prerequisite: Chm 241, 431 or parallel.	
414	Physical Laboratory	1:0:4
	Continuation of Chm 413.	
	Prerequisite: Chm 413, Chm 432 or parallel.	
430	Organic Polymers	3:3:0
	Chemistry of industrial polymerization of organic compounds, petro-chemistry of organic monomer preparation and chemical characteristics of organic polymers. Industrial field trip(s).	
	Prerequisite: Chm 342, Chm 431 or CHE 441 or parallel.	

431	Physical Modern chemical theory as applied to gases, liquids, solids and solutions. <i>Prerequisite:</i> Chm 142, Phy 142 or 248, Mth 241 or 237 or parallel.	3:3:0
432	Physical A continuation of Chm 431. <i>Prerequisite:</i> Chm 431 or equivalent.	3:3:0
433	Modern Physical Selected topics in modern physical chemistry. <i>Prerequisite:</i> Chm 432	3:3:0
434	Air Pollution Surveys Chemical, physical, meteorological, biological, bacteriological and epidemiological factors as applied to determine the extent of environmental damage from air pollution. <i>Prerequisite:</i> Chm 334 and senior standing.	3:3:3
436	Inorganic Study of the quantized atom, valency and the chemical bond, and coordination chemistry with applications to biological systems. <i>Prerequisite:</i> Chm 431.	3:3:0
438	Radiochemistry Basic concepts of nuclear science. Principles and use of radiation measuring devices. <i>Prerequisite:</i> Chm 241, Chm 333, Chm 431.	3:2:3
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. <i>Prerequisite:</i> Chm 342.	4:3:4
442	Biochemistry II A detailed survey of metabolic pathways and processes. <i>Prerequisite:</i> Chm 441.	4:3:4
444	Qualitative Organic Analysis A study of systematic methods for the identification of organic compounds and mixtures of organic compounds. <i>Prerequisite:</i> Chm 241 and 342.	4:2:8
446	Instrumental Chemical Analysis Instrumental techniques of chemistry. Theory and practice in optical, electrometric and chromatographic methods. <i>Prerequisite:</i> Chm 241, 342, 431.	4:3:4
427, 437, 447	Introduction to Research Problems are on the undergraduate level and emphasize research techniques. With approval of the department head, these courses may be repeated for credit. <i>Prerequisite:</i> Minimum of 8 semester hours of chemistry above the freshman level and permission of instructor.	2-4:A:0
4101, 4201, 4301, 4401	Special Topics in Chemistry Topics in under-graduate analytical, inorganic, organic and physical chemistry or biochemistry. Library and/or laboratory work and conferences with a staff member. With permission of the department head, student may repeat the course for credit when the area of study is different. <i>Prerequisite:</i> Approval of instructor and department head.	1-4:A:0

Department of English and Foreign Languages

Department Head: Charles Timothy Summerlin

**4 Liberal Arts Building,
Phone 880-8558**

Director of Freshman English: Christopher P. Baker

3 Liberal Arts Building, Phone 880-8555

Director of English as a Second Language: R. Victoria Price

1 Liberal Arts Building, Phone 880-8586

Professors: Barnes, Ellis, Georgas, Strickland, Thomas, Wall

Associate Professors: Baker, Francis, Gwynn, K. Jones, Platt, Price, Renfrow, Summerlin

Assistant Professors: Dairepont, Heumann, Hutchings, Pineda, Reynolds, Sheppard, G. Smith

Adjunct Instructors: Amberg, Black, Chen, De Ste. Croix, Dutt, Hamby, R. Jones, LeBar, J.G. Smith, Spitz, Stelly

The Department of English and Foreign Languages offers opportunities to study a variety of languages and literatures. The Bachelor's and Master's degrees are available in English. Scholarly interests of members of the department include old and middle English, the Renaissance, Shakespeare, eighteenth century studies, English and American romanticism, the Victorian age, and contemporary English and American literature. In addition to the study of English and American literature through courses organized by genre, period, and individual author, the student may explore the history and structure of language and the crafts of both creative and technical writing. The Bachelor's degree is available in both French and Spanish, enabling the student to acquire competence in conversation and composition in these languages as well as familiarity with their literature and culture.

Bachelor of Arts - English

The degree of Bachelor of Arts in English will be awarded upon the completion of the following requirements:

A. **General Requirements:**

Foreign Language through the course numbered 232.

Freshman composition: six semester hours.

Mathematics and laboratory science: four courses, at least one in mathematics and one in a laboratory science. No courses less advanced than college algebra will fulfill the mathematics requirement (except as indicated under Teacher Certification below).

History 131 and 132 (not required for persons who earn a teacher's certificate).

Sophomore American history: six semester hours.

Sophomore American political science: 231 and 232.

Physical activity courses, marching band or ROTC: four courses.

B. **Major:**

Two options are available, one emphasizing literature, the other emphasizing writing

Sophomore literature six semester hours

Advanced American literature six semester hours

Advanced British literature nine semester hours

English 430 (except as indicated under Teacher Certification below).

One may substitute nine hours of advanced writing courses (drawn from English 331, 335, 4326, 4345, and 4355) for nine of the fifteen required advanced literature hours. Students choosing this option may substitute English 4312 for 430.

C. **Minor:**

An approved minor of 18 semester hours, including at least six semester hours in advanced courses. A student electing the literature option for the English major may also select a writing minor and vice-versa.

D. **Sufficient approved electives to complete a total of 126 semester hours (except as indicated under Teacher Certification below).**

Teacher Certification - English

Students wishing to secure the Bachelor of Arts degree in English and at the same time certify for a provisional certificate-secondary with a teaching field in English may choose one of three options: Option 1 requires 36 hours of English and a minor but no second teaching field; Option 2 requires 27 hours of English and an approved 24-hour

second teaching field; Option 3 requires 48 hours of English and Communications and no second teaching field (English Language Arts).

For details concerning requirements for teaching certification and information on professional education courses consult this bulletin, College of Education, or the Head of the Department of English and Foreign Languages.

Recommended Program of Study - English

First Year	Second Year
Eng Composition..... 6	Eng Sophomore Lit..... 6
His 131-132 World Civilization..... 6	Sophomore Am. History..... 6
Foreign Language 131-132..... 6	POLS 231, 232 American Government I, II..... 6
Mth..... 6	Foreign Languages 231-232..... 6
Electives..... 6	Electives..... 6
PE Activity..... 2	PE Activity..... 2
32	32
Third Year	Fourth Year
Eng..... 9	Eng 430 History of the English Language..... 3
Laboratory Science..... 8	Eng..... 6
Minor..... 9	Minor..... 9
Electives..... 6	Electives..... 12
32	30

Bachelor of Arts - French or Spanish

The degree of Bachelor of Arts in French and Bachelor of Arts in Spanish will be awarded upon the completion of the following requirements:

- A. General Requirements:
 - Freshman English: six semester hours
 - Literature: six semester hours
 - *Mathematics: six semester hours
 - *Laboratory Science: eight semester hours
 - Sophomore American History: six semester hours
 - Sophomore American Political Science: six semester hours
 - Physical Education, Marching band or ROTC: four semesters
- B. Major:
 - French
 - French 131-132: Elementary French
 - French 231-232: Reading, Composition, Conversation
 - French 330: French Conversation
 - French 337: Advanced Grammar and Composition
 - French 338: French Phonetics
 - Advanced French: three semester hours
 - Spanish
 - Spanish 131-132: Elementary Spanish
 - Spanish 231-232: Reading, Composition, Conversation
 - Spanish 330: Spanish Conversation
 - Spanish 335: Advanced Composition
 - Advanced Spanish: six semester hours
- C. Minor in French or Spanish:
 - An approved minor of 18 semester hours, including at least six advanced semester hours
- D. Electives:
 - Sufficient approved electives to complete a total of 126 semester hours.

*Students may follow general degree requirements in regard to science and mathematics.

Teacher Certification - French, Spanish

Students wishing to secure 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 should consult this bulletin, College of Education, or the Head of the Department of English and Foreign Languages.

Recommended Program of Study - French or Spanish

First Year	Second Year
*Maj Lang 131-132 Elementary 6	Maj Lang 231, 232 Intermediate 6
Eng Composition..... 6	Eng Literature 6
**Mth 6	Sophomore American His 6
HPE Activity 2	**Sci 8
Elec 12	HPE 4
32	Elec 2
	32
Third Year	Fourth Year
Maj. Lang: Fre 330, 337, 338 9	Maj Lang Adv. 3
or	Elec incl minor 30
Maj Lang: Spa 330, 335. 6	
Spa Adv. 3	
Elec incl minor 15	
30	33

*Must be included if student has not already had the equivalent.

**Students may follow general degree requirement in regard to Science and Mathematics

English Courses (Eng)

- 131 **Composition** 3:3:0
Intensive study and practice in basic forms of expository writing. Frequent themes. Collateral reading in articles and essays of a factual and informative type. This course is prerequisite to English 132, 134 and 135.
- 132 **Composition** 3:3:0
Further study and practice in the forms of expository and analytical writing. Topics for composition suggested from wide reading in at least two of the three genres: prose fiction, poetry, and drama. Research paper required.
Prerequisite: Eng 131.
- 134 **Composition** 3:3:0
Further study and practice in the forms of expository and analytical writing. Topics for composition suggested from a wide survey of various communications media films, tapes, radio, television, periodicals, books, etc. Requires attendance at specific instructor-specified events in addition to class attendance. Research paper required.
Prerequisite: English 131.
- 135 **Composition** 3:3:0
Intensive study and practice in the forms of persuasive writing. Topics for composition suggested by the study of rhetoric and collateral readings. Research paper required.
Prerequisite: English 131.
- 136 **Composition and Rhetoric** 3:3:0
An accelerated program for those exceptionally well prepared at time of enrollment. Extensive writing; introduction to literary genres. Research paper required.
Prerequisite: Approval of head of the English and Foreign Languages Department.
Offered Fall semesters and on main campus only. Must be taken the first long semester the student is enrolled. Upon completion of this course with the grade of "C" or better, the student receives credit for both English 131 and 136. This course meets the general degree requirement for freshman English.
(Note: The student can satisfy the general degree requirements for freshman English by completing successfully English 131 and any other course from English 132, 134 and 135. However, a student is not permitted to receive credit for more than one freshman English course a semester.)
- 137 **Developmental Reading and Writing** 3:3:0
Development of writing skills, broadening reading background and improvement of reading comprehension. Emphasis on individualized instruction in composition. This course does not satisfy general degree requirements for Freshman English.

(**Note:** Satisfactory completion of this course for those who score 35 or below on the SAT Test of Standard Written English is prerequisite to Eng 131.

(**NOTE:** Satisfactory completion of six hours of freshman composition is prerequisite to sophomore literature courses. Unless specified by a particular department, any combination of the seven sophomore courses below will satisfy a sophomore literature requirement.)

2311	Masterworks of World Literature	3:3:0
	Critical study of six to ten major monuments of world literature, from classical antiquity to the present century.	
2312	Masterworks of American Literature	3:3:0
	Critical study of six to ten major works of American literature, including both the nineteenth and twentieth centuries.	
2313	Masterworks of British Literature	3:3:0
	Critical study of six to ten major works of British literature, including writers from most of the important periods.	
2315	The Literature of Africa	3:3:0
	Major writers of Africa, including various genres and works translated from languages other than English.	
2316	Afro-American Literature	3:3:0
	Significant contributions to American literature from Colonial times to the present.	
2318	Sophomore Literature Honors Course	3:3:0
	Critical studies of several major works of British and World Literature from classical antiquity to the present century, designed especially for honors students.	
2319	Sophomore Literature Honors Course	3:3:0
	Critical studies of several major works of British, American and World Literature from classical antiquity to the present century, designed especially for honors students.	
331	Technical Report Writing	3:3:0
	Supervised preparation of technical and scientific reports according to standard usage recommended by scientific and engineering societies.	
	<i>Prerequisite: Completion of six hours of freshman English or permission of the instructor.</i>	
333	Shakespeare	3:3:0
	Rapid reading of the histories, comedies and tragedies. The development of Shakespeare as a dramatist; his relationship to the Elizabethan theater; his social, political and literary background in the Tudor-Stuart era.	
335	Creative Writing	3:3:0
	A workshop approach to the writing of poetry, fiction and drama.	
336	The Short Story	3:3:0
	The technique of the short story; its historical development; study and analysis of great short stories.	
337	The Drama	3:3:0
	The historical development of the drama from Aeschylus to the present. Intensive study of selected plays.	
338	Studies in the British Novel	3:3:0
	Wide reading and critical study in some particular aspect or period of the British novel. May be taken for credit more than once if the topic varies.	
339	American Novel	3:3:0
	A study of the history, growth and technique of the American novel, with emphasis on the novels of the twentieth century.	
3316	Poetic Analysis	3:3:0
	A study of the forms and techniques and the critical evaluation of poetry.	
3321	Methods of Teaching English	3:3:0
	Methods of teaching reading and composition at the secondary level, with special attention to the assigning and evaluating of written work.	
3322	The American Literary Renaissance: 1820-1860	3:3:0
	An intensive study of the major authors of the period from Poe to Melville.	
3324	The Development of American Realism: 1860 to 1900	3:3:0
	An intensive study of the major authors of the period from Whitman to Norris.	
430	History of the English Language	3:3:0
	Theory and nature of language. Studies in the growth of English and American forms.	
432	Studies in Sixteenth-Century Literature	3:3:0
	Critical studies in the poetry, prose and drama of the age. May be taken for credit more than once if the topic varies.	
434	Shakespeare	3:3:0
	Intensive study of selected major plays.	

- 435 Studies in Seventeenth-Century Literature** 3:3:0
Critical studies in the poetry, prose and drama of the period 1600-1660. May be taken for credit more than once if the topic varies.
- 438 Studies in Eighteenth-Century Literature** 3:3:0
Critical studies in the poetry, prose and drama of the period 1660-1800. May be taken for credit more than once if the topic varies.
- 439 Studies in Romantic Literature** 3:3:0
Critical studies in the poetry, prose and drama of the Romantic period. May be taken for credit more than once if the topic varies.
- 4311 Studies in Victorian Literature** 3:3:0
Critical studies in the poetry and prose of the Victorian period. May be taken for credit more than once if the topic varies.
- 4312 Studies in Language and Linguistics** 3:3:0
Special problems in linguistics, such as the history of American English, regional dialects, new grammars. May be taken for credit more than once if the topic varies.
- 4317 Contemporary Drama** 3:3:0
A study of dramatic trends and representative plays from Ibsen to the present.
- 4318 Contemporary Poetry** 3:3:0
A study of poetry developments in England and America with emphasis on representative poets from Hardy to the present.
- 4319 Contemporary Fiction** 3:3:0
A study of prose fiction representative of modern ideas and trends, with emphasis on English and Continental authors.
- 4322 Russian Literature** 3:3:0
Selected works from nineteenth- and twentieth-century Russian literature in translation. Pushkin to Sholokov.
- 4326 Expository Writing** 3:3:0
The practical application of the techniques of mature exposition; classification, explanation, evaluation. With permission of the instructor, this course may be repeated one time for credit.
- 4327 Bibliography and Methods of Research** 3:3:0
An introduction to research methods and sources. Recommended for those planning or beginning graduate study.
- 4328 Early American Literature** 3:3:0
A survey of all significant writers from the beginning of Colonial America to 1828.
- 4329 Modern American Literature** 3:3:0
A critical survey of major American writers of the twentieth century.
- 4333 Studies in a Particular Author** 3:3:0
Intensive critical study of a major writer such as Chaucer, Milton, Hawthorne, Faulkner. May be taken for credit more than once when the topic varies.
- 4334 Critical Studies in Literature** 3:3:0
Intensive critical study of a particular genre or theme in comparative literature or criticism. May be taken more than once for credit when the topic varies.
- 4336 Directed Studies in American Literature** 3:3:0
Study in American literature in an area of mutual interest. May be taken for credit more than once if topic varies.
Prerequisite: Junior standing.
- 4337 Directed Studies in British Literature** 3:3:0
Study in British literature in an area of mutual interest. May be taken for credit more than once if the topic varies.
Prerequisite: Junior standing.
- 4345 Writing Seminar**
Intensive study in writing, focusing on specific topics, with either a technical or creative emphasis. May be taken more than once for credit if the topic varies.
Prerequisite: English 335 or permission of the instructor (for any creative writing seminar).
- 4355 Editing Technical Communications**
Editing technical communications for clarity, conciseness, and form. Emphasis on affective communications within and between organizations and organizational levels including reports, proposals, manuals, memoranda, and news releases.
Prerequisite: Either English 4326, 4335, or 4345 (when technically oriented).

Philosophy Courses (Phi)

Advisor: George D. Wall

18 Liberal Arts Building, Phone 880-8592

The overall aim of philosophy is the pursuit of truth. The methods of philosophy are conceptual analysis and sound reasoning. The objective of philosophy courses is to stimulate and train students to think critically, so that they will enthusiastically engage in the pursuit of truth.

131	Introduction to Philosophy General characteristics of philosophy as a field of knowledge and as a method of inquiry.	3:3:0
232	Logic Nature and methods of correct reasoning; deductive and inductive proof; logical fallacies.	3:3:0
332	Ethics A critical analysis of the concepts, methodology and theories of ethics.	3:3:0
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.	3:3:0
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.	3:3:0
430	Topics in Philosophy Selected topics in philosophy. Course may be repeated for credit when topic changes.	3:3:0

English as a Second Language (ESL)

Advisor: Victoria Price

1 Liberal Arts Building, Phone 880-8586

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

A student placed in ESL 134 must enroll for the course, *and the section* in which he is placed, during the semester in which he is tested; the course may not be dropped by the student.

134	Developmental Skills in ESL Students for whom English is a second language are placed in the course when English proficiency scores fall below the required minimum. Does not satisfy degree requirements in English. Graded on Unsatisfactory-Satisfactory-No Grade (retain) basis.	3:3:0
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After the satisfactory level of proficiency is attained, the student may satisfy degree requirements in English by completing the following courses:

Freshman Composition:

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

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

135	Composition: English as a Second Language Intensive grammar review followed by study and practice in basic forms of expository writing needed for writing essay examinations, themes and term papers.	3:3:0
136	Composition: English as a Second Language Further study in basic forms of expository writing. The primary aim of the course is to assist the student to prepare for writing required research papers. Practice in library research. <i>Prerequisite: ESL 135.</i>	3:3:0

Literature:

ESL 231, ESL 232 or ESL 233 satisfy the degree requirement in literature for the student for whom English is not a native language. ESL 135 or ESL 136 are prerequisite to all the literature courses. The literature courses may not be taken concurrently with ESL 134, 135 or 136.

- 231 Masterpieces in British Literature 3:3:0**
 Critical study of six to ten major works in British literature, including representative works from most of the major periods. Applies toward the sophomore literature requirement for students for whom English is a second language.
Prerequisite: ESL 135 and 136.
- 232 World Masterpieces in English Translation**
 Critical study of six to ten major works of world literature in various genres, from classical antiquity to the present century. Applies toward the sophomore literature requirement for students for whom English is a second language.
Prerequisite: ESL 135 and 136.
- 233 Masterpieces in American Literature**
 Critical study of six to ten major works in American literature, including representative works from most of the major periods. Applies toward the sophomore literature requirements for students for whom English is a second language.
Prerequisite: ESL 135 and 136.

ESL Endorsement:

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

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

French Courses (Fre)

- 131 Elementary French 3:3:0**
 Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
- 132 Elementary French 3:3:0**
 Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
Prerequisite: Fre 131 or equivalent determined by examination.
- 231 Reading, Composition, Conversation 3:3:0**
Prerequisite: Fre 132 or equivalent.
- 232 Reading, Composition, Conversation 3:3:0**
Prerequisite: Fre 231 or equivalent.
- 330 French Conversation 3:3:0**
 Required of majors and of students desiring teacher certification in French. (This course may not be substituted for Fre 232 to meet the language requirement for the Bachelor of Arts degree.)
Prerequisite: Fre 231 or equivalent.
- 331 Contemporary French Drama 3:3:0**
 A study of representative plays of the twentieth century with emphasis on the theater of post World War II. Dramatists studied include Giraudoux, Sartre, Camus, Ionesco, Beckett, Arrabal.
Prerequisite: Fre 232.

- 332 Contemporary French Novel** 3:3:0
A study of representative novels of the twentieth century, including such writers as Gide, Mauriac, Sartre, Camus and the masters of the New Novel.
Prerequisite: Fre 232.
- 337 Advanced Grammar and Composition** 3:3:A
A thorough study of French grammar with extensive written composition. Secondary stress on pronunciation.
Prerequisite: Fre 232.
- 338 French Phonetics** 3:3:A
A study of the French sound system. Laboratory exercises to improve pronunciation.
Prerequisite: Fre 232.
- 339 French Culture and Civilization** 3:3:0
A survey of the intellectual, philosophic, political and social development of France. Readings of significant works in these areas. Lectures, readings, oral and written reports.
Prerequisite: French 232 or equivalent.
- 435 Survey of French Literature through the 18th Century** 3:3:0
Readings from significant works. Lectures, readings, oral and written reports. May be repeated for credit when the topic varies.
Prerequisite: Six hours advanced courses in French.
- 436 Survey of French Literature Since the 18th Century** 3:3:0
Readings from significant works. Lectures, readings, oral and written reports. May be repeated for credit when the topic varies.
Prerequisite: Six hours advanced courses in French.

German Courses (Ger)

- 131 Elementary German** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
- 132 Elementary German** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
Prerequisite: Ger 131 or equivalent determined by examination.

Italian Courses (Ita)

- 131 Elementary Italian** 3:3:0
Conversation, reading, dictation, grammar. Use of tapes. Emphasis will be placed on vocabulary and pronunciation.
- 132 Elementary Italian** 3:3:0
Conversation, reading, dictation, grammar. Use of tapes. Emphasis will be placed on vocabulary and pronunciation.
Prerequisite: Italian 131.

Spanish Courses (Spa)

- 131 Elementary Spanish** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
- 132 Elementary Spanish** 3:3:0
Pronunciation, conversation, reading, dictation, grammar. Use of tapes.
Prerequisite: Spa 131 or equivalent determined by examination.
- 231 Reading, Composition, Conversation** 3:3:0
Prerequisite: Spa 132 or equivalent.
- 232 Reading, Composition, Conversation** 3:3:0
Prerequisite: Spa 231 or equivalent.
- 330 Spanish Conversation** 3:3:0
Required of majors and of students desiring teacher certification in Spanish.
Prerequisite: Spa 231 or equivalent.
(NOTE: This course may not be substituted for Spa 232 to meet the language requirement for the Bachelor of Arts degree.)

- 331 Culture and Civilization of Spain and Spanish America** 3:3:0
A study of the geography, history, government, art, economic resources and psychology of Spain, Cuba, Santo Domingo, Mexico and Central America. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.
- 333 Survey of Spanish-American Literature** 3:3:0
A study of outstanding writers and their works up to the nineteenth century *modernista* movement. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.
- 335 Advanced Grammar and Composition** 3:3:0
Vocabulary building, intensive review of grammar as needed for sentence structure. The development of the paragraph in written composition. Frequent written reports.
Prerequisite: Spa 232.
- 337 Contemporary Spanish-American Short Story** 3:3:0
The authors chosen are among the best interpreters of the spiritual and intellectual climate of Spanish America. Lectures, readings, oral and written reports.
Prerequisite: Spa 232.
- 338 Contemporary Theater of Spain** 3:3:0
Emphasis will be given to the theater of Lorca, Casona, Buero Vallejo, Calvo Sotelo, Alfonso Sastre and other major authors of today.
Prerequisite: Spa 232.
- 431 Contemporary Spanish Literature** 3:3:0
Prerequisite: 6 hours of advanced Spanish.
- 432 Development of Spanish Novel** 3:3:0
Prerequisite: 6 hours of advanced Spanish.
- 433 Survey of Spanish Literature Through the 17th Century** 3:3:0
A study of the most significant works of Spanish literature through the seventeenth century. Readings from *El Cid*, *El Conde Lucanor*, *La Celestina*, poetry of the Renaissance, Cervantes' prose and the Golden Age drama. Lectures, readings, oral and written reports.
Prerequisite: 6 hours of advanced Spanish.
- 434 Survey of Spanish Literature Since the 17th Century** 3:3:0
A study of the most significant works of Spanish literature from the eighteenth century through the twentieth century. Readings with emphasis on the drama and the novel. Lectures, readings, oral and written reports.
Prerequisite: 6 hours of advanced Spanish.
- 436 Spanish American Novel** 3:3:0
Prerequisite: 6 hours of advanced Spanish.

Lamar Overseas Study Program

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

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

Courses listed below may be taken by students who have finished elementary and intermediate language courses through language 232. The French courses listed are accepted toward a major or teaching field in French but may not be substituted for a required advanced course.

- 4371 French Studies Abroad** 3:3:A
A study of the French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. Cultural activities will include visits to famous museums, historic sites and churches and cathedrals. Credit for this course may be applied toward a major in French.

- 4372 French Studies Abroad** **3:3:A**
 Students may register for this course concurrently with French 4371. A study of the French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. Cultural activities will include visits to famous museums, historic sites and churches and cathedrals. Credit for this course may be applied toward a major in French.
- 4373 French Studies Abroad** **3:3:A**
 This course is designed for students who have completed French 4371 or 4372. It consists of a more advanced study of French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. An in-depth study will be made by the student of one facet of the foreign culture. Credit for this course may be applied toward a major in French.
Prerequisite: French 4371 or 4372.
- 4374 French Studies Abroad** **3:3:A**
 Students may register for this course concurrently with French 4373. The course is designed for students who have completed French 4371 or 4372. It consists of a more advanced study of French language, literature and culture on a campus abroad. Students will be placed in language groups according to their proficiency in the language. An in-depth study will be made by the student of one facet of the foreign culture. Credit for this course may be applied toward a major in French.
Prerequisite: French 4371 or 4372.

Department of Geology

Department Head: Donald E. Owen, **214 Geology Building, Phone 880-8236**
Professors: Aronow, Owen, Pampe, Stevens
Associate Professor: Cooper
Assistant Professor: Jordan
Energy Resources Management Coordinator: William R. Pampe
208 Geology Building, Phone 880-8236

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

Geology faculty have a broad range of research and scholarly interests. These include sedimentation, petroleum geology, soils and Pleistocene geology of the Gulf Coast, computer applications to geologic problems, geochemistry, mineralogy, and secondary school Earth Science education.

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

Bachelor of Science - Geology Major

The Bachelor of Science in Geology will be awarded upon completion of the following requirements:

- A. Required Courses—58 semester hours:
 Freshman English—six semester hours
 English Literature—three semester hours
 Speech or technical report writing—three semester hours
 Political Science (state and national government)—six semester hours
 History—six semester hours
 Physical Education or Band—four semesters
 Mathematics—eleven semester hours
 Chemistry—eight semester hours

- Physics—eight semester hours
 - Introduction to computers—three semester hours
 - B. Geology Requirements—56 semester hours. NOTE: A grade of "C" or better is necessary in a required geology course.
 - Physical and Historical Geology—eight semester hours
 - Mineralogy—four semester hours
 - Optical Mineralogy—four semester hours
 - Statistics and Data Processing—four semester hours
 - Structural Geology—four semester hours
 - Petrology—four semester hours
 - Sedimentation-Stratigraphy—four semester hours
 - Summer Field Course—six semester hours
 - Seminar—one semester hour
 - Geophysics—three semester hours
 - Geomorphology—four semester hours
 - Economic Mineral Deposits or Fossil Fuels—three semester hours
 - Stratigraphic Paleontology—four semester hours
 - Elective senior-level geology course—three semester hours
 - C. Electives—15 semester hours
- Minimum Total: 131 semester hours

First Year

Geo 141-142 Phys, Hist	8
Chm 141-142 General	8
Mth 1335 Pre-Calculus	3
Mth 148 Analyt Calculus I	4
Eng Composition	6
PE Activity	2

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Third Year

Geo 341 Stat-Data Proc	4
Geo 342 Structural Geo	4
Geo 345 Petrology	4
Geo 346 Sed Strat	4
Phy 141-142 General*	8
**Elective	6

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Third or Fourth Summer

Geo 360 Field Camp	6
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Minimum Total 131

Second Year

Geo 241 Mineralogy	4
Geo 243 Optical Min	4
Mth 149 Analyt Calculus II	4
CS 133 Intro Computers	3
Eng Literature	3
Spc 331 or OAS 335 or Eng 4326	3
POLS 231, 232 American Government I, II	6
PE Activity	4

31

Fourth Year

Geo 419 Seminar	1
Geo 433 Geophysics	3
Geo 436 or Geo 439	3
Geo 445 Geomorphology	4
Geo 437 or Geo 438	3
Geo 442 Strat Paleo	4
His Soph Am His	6
**Electives	9

33

*Those planning to specialize in Geophysics should substitute the sequence Phy 247, 248.
 **At least 6 semester hours of electives must be other than Geology courses.

Bachelor of Science - Energy Resources Management

Major Advisor: W.R. Pampe 208 Geology Building, Phone 880-8236

The Bachelor of Science in Energy Resources Management (ERMA) will be awarded upon completion of the following requirements:

- A. Required Courses—53 semester hours:
 - Freshman English—six semester hours
 - English Literature—three semester hours
 - Speech—three semester hours
 - Political Science (state and national government)—six semester hours
 - History—six semester hours

- Physical Education or Band—four semesters
 Mathematics—seven semester hours
 Chemistry—eight semester hours
 Introduction to computers—three semester hours
 Physics—four semester hours
 Chemical Engineering—three semester hours
- B. Geology Requirements—34 semester hours:
 Physical and Historical Geology—eight semester hours
 Mineralogy—four semester hours
 Optical Mineralogy—four semester hours
 Structural Geology—four semester hours
 Petrology—four semester hours
 Sedimentation-Stratigraphy—four semester hours
 Economic Mineral Deposits—three semester hours
 Fossil Fuels—three semester hours
- C. Business Requirements—33 semester hours:
 Principles of Accounting—six semester hours
 Business Analysis and Computers—three semester hours
 Business Law and Legal Principles—six semester hours
 Petroleum Law—three semester hours
 Principles of Economics—six semester hours
 Economics of International Trade—three semester hours
 Economics of World Resources—three semester hours
 Principles of Management—three semester hours
- D. Electives—fourteen semester hours
 Minimum Total: 134 hours

Recommended Program of Study

First Year	Second Year
Geo 141-142 Phys, Hist. 8	Geo 241-243 Mineralogy, Optical. 8
Chm 141-142 General 8	Phy 141 General. 4
Mth 1335 Pre-Calculus 3	Acc 231-232 Principles 6
Mth 148 Analyt Calculus I. 4	Eco 131-132 Principles 6
Eng Composition. 6	Eng Literature 3
PE Activity. 2	CS 1311 Computers. 3
31	POLS 231 American Government I. 3
	PE Activity 2-4
	35
Third Year	Fourth Year
Geo 345 Petrology 4	Geo 438 Fossil Fuels 3
Geo 342 Structural Geo. 4	Geo 346 Sed-Strat 4
Geo 437 Econ Min. Deposits 3	Che 438 Petroleum Egr. 3
BAC 331 3	Mgt 331 Management. 3
HIS 231 American His. 3	BLW 434 Adv. Legal Princ. 3
BLW 331 Bus. Law 3	BLW 438 Petroleum Law 3
Eco 335 Intern'l Trade. 3	POLS 232 American Government II. 3
Spc 331 3	His 232 Am Hist 3
****Elective. 6	Eco 438 Economic of World Resources 3
32	****Electives 8
	34

Minimum Total 134

****At least 6 semester hours of electives must be other than Geology courses, and no electives can be taken in business courses.

Teacher Education in Earth Science

Students pursuing a Bachelor of Science degree in Secondary Education with a specialization in earth science must comply with the revised teacher education standards as established by the Texas State Board of Education. It will be necessary to consult with your

department head or the College of Education Advising Center concerning the specifics of these requirements.

Geology Courses (Geo)

141	Physical Geology Earth materials, structures, land forms, mineral resources, and the processes which formed them.	4:3:2
142	Historical Geology History of the earth and its inhabitants during geologic time. Prerequisite: Geo 141	4:3:2
220	Geology for Engineers A survey of physical geology for engineering students. A student may not receive credit for both Geo 220 and Geo 141. Students must enroll in a Geo 141 (Physical Geology) laboratory section.	2:2:2
237	Physical Geography The fundamental concepts of local, regional, and global geography. Prerequisite: Sophomore standing.	3:3:0
238	Cultural Geography History and distribution of cultural groups, with emphasis upon the interaction between geographic environment and human cultures.	3:3:0
239	History of Life History of the earth and its life forms. Includes the study of geologic time, fossils, and prehistoric people. A student may not receive credit for both Geo 239 and Geo 142.	3:3:0
241	Mineralogy The classification, properties, occurrence, and identification of minerals. Field trip and special fee required. Prerequisite: Geo 141 and Chm 141 or 143.	4:3:3
243	Optical Mineralogy Optical properties of minerals. Use of the polarizing microscope in the identification of minerals. Prerequisite: Geo 241.	4:3:3
336	Geology of Texas The topography, physiography, structure, geologic history, and mineral deposits of Texas. Field trip and special fee required. Prerequisite: Geo 141 or Geo 239.	3:3:0
339	Environmental Geography The environmental significance of human development as related to atmospheric, aquatic, and mineral resources. Field trips and special fee required. Prerequisite: Geo 141 or 237.	3:3:0
341	Statistics and Data Processing The application of digital computer and statistical techniques to the analysis of earth science data. Prerequisite: Egr 1221, CS 235, Geo 345.	4:3:3
342	Structural Geology Rock deformation and geologic structures. Field trip and special fee required. Prerequisite: Geo 241, Mth 148.	4:3:3
345	Petrology The classification, properties, and occurrence of rocks. Macro and micro techniques for the identification of rocks. Field trip and special fee required. Prerequisite: Geo 243.	4:3:3
346	Sedimentation-Stratigraphy The derivation and deposition of sediments. The environmental interpretation and physical correlation of sedimentary strata. Field trip and special fee required. Prerequisite: Geo 345.	4:3:3
360	Summer Field Course Description of stratigraphic sections, preparation of geologic maps and field reports. Conducted off-campus at various field locations. Special field trip fees required. Prerequisite: Geo 342, 345.	6:5:40
418	Earth Science Literature Reports on current source materials for earth science education majors. Not open to geology majors. Prerequisite: 8 hours of Geology and consent of instructor.	1:1:0
419	Seminar Written and oral reports on current geological literature. May be repeated for credit. Prerequisite: 20 semester hours of Geology.	1:1:0

422	X-ray Crystallography	2:0:6
	X-ray techniques to identify crystalline substances. For advanced science and engineering students. <i>Prerequisite: One year of Chemistry or Physics and consent of instructor.</i>	
427, 428	Special Project	4:A:0
	An individual library, laboratory, or field project. To receive credit, an acceptable typewritten report is required. <i>Prerequisite: Consent of instructor</i>	
433	Geophysics	3:3:0
	Application of the principles of physics to geologic problems. Use of geophysical techniques in petroleum exploration. <i>Prerequisite: Geo 342, Phy 142, Mth 149.</i>	
436	Geochemistry	3:3:0
	The application of the science of chemistry to the solution of geological problems. <i>Prerequisite: Chem 142, Geo 243</i>	
437	Economic Mineral Deposits	3:3:0
	Origin and occurrence of commercially valuable minerals and rocks. Field trip and special fee required. <i>Prerequisite: Geo 345 and 4350</i>	
438	Fossil Fuels	3:3:0
	Origin and occurrence of coal, oil, and gas deposits. Field trip and special fee required. <i>Prerequisite: Geo 345 or 4350.</i>	
439	Tectonics of North America	3:3:0
	The development of tectonic theory as evidenced by and applied to the North American continent. <i>Prerequisite: Geo 342, 345.</i>	
442	Stratigraphic Paleontology	4:3:3
	The classification, morphology, and identification of invertebrate fossils. The application of paleontology to stratigraphic correlation. Field trip and special fee required. <i>Prerequisite: Geo 142.</i>	
445	Geomorphology	4:3:3
	The development and classification of land forms. Field trip and special fee required. <i>Prerequisite: Geo 342.</i>	
4101, 4201, 4301, 4401	Special Topics in Earth Science	4:A:0
	Topics in the earth sciences. May be repeated for credit when the area of study is different. <i>Prerequisite: Consent of instructor.</i>	
4350	Earth Materials	3:3:0
	The study of minerals and rocks. Field trip and special fee required. A student may not receive credit for both Geo 4350 and Geo 241-243, 345. <i>Prerequisite: Geo 141, 237 or 239.</i>	
4370	Meteorology	3:3:0
	The composition and processes of the atmosphere. Weather and climate and their effect on human activities. <i>Prerequisite: 8 hours of science.</i>	
4380	Oceanography	3:3:0
	The structure, properties, and processes of the hydrosphere. The role of the seas and oceans in the total environment. <i>Prerequisite: 8 hours of science.</i>	

Department of History

Department Head: Adrian N. Anderson 57 Liberal Arts Building, Phone 880-8511

Professors: Anderson, Carroll, Gwin, Isaac, Mackey, Satterfield, Storey, Sutton, Wooster

Associate Professors: Holt, Lambert, Woodland

Assistant Professors: Fritze, Stiles

It is the purpose of the Department of History to impart a knowledge and understanding of the past to the students enrolled in the University. This objective is based upon the belief that such knowledge and understanding improves the quality of life of individuals and contributes to the welfare of our society. The Department seeks to accomplish this objective through a program of continued study and research by its members and its students. Research interests of the Department focus on both American and European history.

Bachelor of Arts - History Major

The degree of Bachelor of Arts in History will be awarded upon the completion of the following requirements:

- A. General Requirements:
 - Freshman English—six semester hours
 - Literature—six semester hours including English 2311
 - Mathematics and laboratory science—four semester courses, at least one in mathematics and one in laboratory science. Mathematics and science courses must be selected from a list of approved courses, and must include at least one course in mathematics at or above the level of Math 1334.
 - Completion of the 232 course in a foreign language
 - Sophomore political science—six semester hours
 - Physical Education or Band—four semesters
- B. Major:
 - History 131-132—World History
 - Sophomore American History—six semester hours
 - History 339—Historical Research
 - Advanced United States History—six semester hours
 - Advanced World (Non-United States) History—six semester hours
- C. Minor:
 - An approved minor of 18 semester hours, including at least six advanced semester hours.
- D. Electives:
 - Sufficient approved electives to complete a total of 126 semester hours.

Teacher Certification - History

Students wishing to secure the Bachelor of Arts degree in history and at the same time certify for a provisional certificate—secondary with a teaching field in history may select one of two options: Option 1 requires 36 hours of history and a minor but not an additional teaching field; Option 2 requires 30 hours of history and an additional approved 24 hour teaching field.

Students must fulfill all requirements for a Bachelor of Arts in History and include in their degree program one of the following:

Option 1

1. Six hours of mathematics and eight hours of science. Must be selected from list of approved courses.
2. C&I 2101, 331, 332, 3225, 3226, 338, 438, 482.
3. Spc 131 or 331, CS 130, Geo 237 or 238, Eco 233.
4. Additional requirements in History: History 134; Advanced United States History—three semester hours (a total of nine semester hours of Advanced United States History); Advanced World History (Non-United States)—three semester hours (a total of nine semester hours of Advanced World History).
5. Sufficient approved electives to complete a total of 133 semester hours.

Option 2

1. Six hours of mathematics and eight hours of science. Must be selected from list of approved courses.
2. C&I 2101, 331, 332, 3225, 3226, 338, 438, 482.
3. Spc 131 or 331, CS 130, Geo 237 or 238, Eco 233.
4. Additional requirement in History: History 134.
5. An approved teaching field of at least 24 hours (in addition to a teaching field in history of 30 hours).
6. Sufficient approved electives to complete a total of 133 semester hours.

Recommended Program of Study

First Year		Second Year	
His 131-132—World History	6	Sophomore American History	6
Freshman English	6	Literature (including Eng 2311)	6
Foreign Language	6	Foreign Language	6
Mth	6	Science	8
Electives	6	Sophomore POLS	6
PE—Activity	2	PE—Activity	4
	32		36
Third Year		Fourth Year	
His 339	3	His (Adv.)	6
His (Adv.)	6	Edu 438 and 462 or Minor (or other Teaching Field)	
Electives	9	and Electives	15-17
Minor (or other Teaching Field) and Electives	12-14		
	30-32		30-32

History Courses (His)

131	History of World Civilization	3:3:0
	Survey of world history to 1660.	
132	History of World Civilization	3:3:0
	Survey of world history from 1660 to 1965.	
134	History of Texas	3:3:0
	Survey of Texas history from the beginning to the present time.	
231	American History: History of the United States, 1763 to 1877	3:3:0
	Survey of United States history from the revolutionary period through reconstruction.	
231H	American History: History of the United States, 1763 to 1877	3:3:0
	Survey of United States from the revolutionary period through reconstruction, designed especially for honors students.	
	<i>Prerequisite: Departmental approval.</i>	
232	American History: History of the United States, 1877 to the Present	3:3:0
	Survey of United States history from the post-reconstruction period to the present.	
232H	American History: History of the United States, 1877 to the Present	3:3:0
	Survey of United States history from the post-reconstruction period to the present, designed especially for honors students.	
	<i>Prerequisite: departmental approval.</i>	
233	American History: The Development of Society in America	3:3:0
	A historical survey of social change in the United States.	
234	American History: The Arts in America	3:3:0
	A historical survey of cultural life in the United States.	
235	American History: The Americas to 1810	3:3:0
	The United States and the Western Hemisphere from the beginning to 1810.	
236	American History: The Americas since 1810	3:3:0
	The United States and the Western Hemisphere since 1810.	
237	Military History of the United States	3:3:0
	History of American warfare and the development of American military institutions and practices.	
	NOTE: Various colleges and departments may counsel their majors into certain of the American history courses listed above; otherwise the student may satisfy his/her American history requirement by taking any two courses selected from History 231, 232, 233, 234, 235, 236 or 237.	
330	History of Ideas	3:3:0
	The Judeo-Christian and Greco-Roman elements in the Western intellectual tradition.	
331	Social and Intellectual History of the United States to 1865	3:3:0
	Life and thought in the United States prior to 1865.	
332	American Thought Since Darwin	3:3:0
	Life and thought in the United States since 1865.	
333	History of American Economic Life	3:3:0
	A study of economic change in the context of institutional development in the United States.	
337	Diplomatic History of the United States	3:3:0
	Historical development of American diplomacy.	
338	Urban History of the United States	3:3:0
	The origin and development of cities in the United States.	

339	Historical Research	3:3:0
	Principles and methods of historical research.	
430	Era of the Renaissance and Reformation	3:3:0
	Western Europe from 1453 to 1610.	
431	The Old Regime	3:3:0
	Western Europe from 1610 to 1783.	
432	The French Revolution and Napoleon	3:3:0
	Western Europe from 1783 to 1815.	
433	Russia and Eastern Europe to 1860	3:3:0
	Russia, Poland, and the Balkans from the period of the Byzantine Empire to 1860.	
434	Nineteenth Century Europe	3:3:0
	Europe from 1815 to 1914.	
435	Twentieth Century Europe	3:3:0
	Europe since 1914.	
438	The American West	3:3:0
	The American West from colonial times to the present.	
437	The Old South	3:3:0
	The American South from colonial times to the Civil War.	
438	The New South	3:3:0
	The American South from the Civil War to the present.	
439	Honors Program	3:A:0
	A tutorial program for honors seniors. Admission by invitation only.	
4311	Colonial America	3:3:0
4312	The American Revolution	3:3:0
4313	The Age of Jackson	3:3:0
4314	The American Civil War	3:3:0
4315	Reconstruction and Industrialization: The United States from 1865 to 1898	3:3:0
4318	World Power and Reform: The United States from 1898 to 1920	3:3:0
4317	New Deal and World Leadership: The United States from 1920 to 1940	3:3:0
4318	Classical Civilization	3:3:0
	Greece and Rome from earliest times to the fall of the Roman Empire in the West.	
4319	Medieval Civilization	3:3:0
	Western Europe and the Mediterranean area from the late Roman period to 1453.	
4321	The Far East to 1800	3:3:0
	Japan, China, Indo-China and India to 1800.	
4322	The Far East since 1800	3:3:0
	Japan, China, Indo-China and India since 1800.	
4323	Latin America to 1810	3:3:0
4324	Latin America Since 1810	3:3:0
4325	Tudor and Stuart England	3:3:0
	England from 1485 to 1688.	
4326	Eighteenth Century England	3:3:0
	England Great Britain from 1688 to 1815.	
4327	Victorian England	3:3:0
	Great Britain from 1815 to 1914.	
4328	Contemporary America: The United States Since 1940	3:3:0
4329	Modern European Intellectual History	3:3:0
	An examination of the major European intellectual movements and thinkers from the Renaissance to the present.	
4331	Russia Since 1860	3:3:0
	The development of modern Russia, from 1860 to the present.	
4332	Afro-American History to 1865	3:3:0
	The black experience in Africa and in the Western Hemisphere prior to emancipation.	
4333	Afro-American History since 1865	3:3:0
	The black experience toward achieving freedom in the United States.	
4334	Early National Period	3:3:0
	The United States from 1789 to 1820.	
4335	Topics in History	3:3:0
	Selected special topics in major areas of history. Course may be repeated for a maximum of six semester hours credit when the topic varies.	
4336	Ancient Near East	3:3:0
	The civilizations of the Near East from the earliest times to the pre-classical period.	

4337	Directed Studies in European History Individual study with an instructor in an area of mutual interest. May be repeated for a maximum of six semester hours credit when topic varies. <i>Prerequisite: Departmental permission.</i>	3:A:0
4338	Directed Studies in American History Individual study with an instructor in an area of mutual interest. May be repeated for a maximum of six semester hours credit when topic varies. <i>Prerequisite: Departmental permission.</i>	3:A:0
4339	Directed Studies in Historical Research Individual study with an instructor on historiography and historical research methods. <i>Prerequisite: Departmental permission.</i>	3:A:0
4341	World War II A military, political and social history of World War II.	3:3:0
4342	Nazi Germany A military, political, and social history of Nazi Germany.	3:3:0

Department of Military Science

Department Head: Major Michael W. Simpson ROTC Building, Phone 880-8560

Assistant Professor: Captain Peterson, Captain Gentry, Captain Lewis

ROTC Program

The Department of the Army has established a four-year Reserve Officers' Training Corps program at Lamar University. The ROTC program has as its primary objective the commissioning of junior officers who by their education, training, and inherent qualities are capable of filling positions of leadership in the active or reserve components of the United States Army. The program is open to both male and female students.

The Department of Military Science course offerings consist of the basic course (100-200 level) and the advanced course (300-400 level). No military service obligation is incurred for students enrolled in the basic course. Students in all courses are furnished textbooks and instructional material at no cost.

Requirements for Admission

Basic Course: All courses offered as part of the basic course are treated the same as other electives in the curricula. All physically fit, male and female, freshman and sophomore students, may qualify to enroll. Students desiring to participate need only to register for basic military science courses. These courses may be taken in lieu of required Health and Physical Education courses.

Advanced Course: The two year advanced course is elective in that any qualified students may apply for admission, and selective in that the application requires the approval of the Professor of Military Science. Students who have at least two years of college remaining, maintain a 2.5 or better quality point average, complete the basic course or who qualify by prior military training, and are physically qualified are eligible for enrollment in the advanced course. The advanced course leads to an officer's commission in the United States Army Reserve or regular Army and is pursued under a written agreement with the Department of the Army. Advanced course contract students are paid approximately \$2,500.00 for the two-year course which includes attendance at the ROTC summer camp.

Two-Year Program: Students transferring or currently enrolled at Lamar who cannot complete the basic course prior to becoming academic juniors, or graduate students with at least two years remaining may qualify to enter the advanced course by successfully completing a five and one-half week Leadership Seminar course, conducted each summer at Fort Knox, Kentucky. Academic credit and pay are granted to students attending the course. Applications should be submitted to the Department of Military Science by April 15.

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

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

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

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

ROTC Scholarships: Competitive 3 and 2-year scholarships which pay for all tuition fees, laboratory fees, textbooks, and other required academic expenses, except room and board, are available. In addition, the scholarship holder receives \$100.00 per month for the duration of the scholarship, except for the six-week advanced summer camp, during which the student is paid one-half the basic monthly pay of a second lieutenant plus travel expenses to and from camp.

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

Military Science Courses (MS)

- 121 Learn What It Takes to Lead**
An introduction course designed to emphasize confidence building activities such as mountaineering, rifle marksmanship, and orienteering—all of which are inherent in learning what it takes to lead.
- 122 Woodland Skills/Survival**
Instruction includes basic skills required to survive in the wilderness. Survival techniques taught include shelter construction, food preparation, first aid, water procurement, and directional finding techniques.
- 221 Small Unit Operations**
Course consists of basic skills necessary for a small unit to perform in a military environment. Skills covered in the course include: Weapons, tactics, map reading and the enemy threat. Students plan and participate in a small unit operation in a field training exercise during the semester.
Prerequisite: MS 121, 122 or permission of the PMS.
- 222 Military Management**
The functions of management, planning, organizing, directing, staffing, and controlling are introduced. Human behavior is examined and leadership is studied as it relates to accomplishment of objectives. Practical exercises, classroom discussions, and films are used to illustrate current management philosophies and techniques.
Prerequisite: MS 121, 122 or permission of the PMS.

Advanced Courses

Note: Prerequisites for enrollment in the advanced courses are as determined by the Professor of Military Science.

- 331 Military Roles** **3:3:1**
Development of the student's ability to express himself clearly and accurately in the process of analysis and evaluation of military problems and the projection of solutions. Discussion of the military environment in the field and in garrison. Introduction to the employment of the infantry platoon through map and practical exercises.
- 332 Tactical Concepts** **3:3:1**
Analysis of the platoon leader's role in directing and coordinating the efforts of individuals, small units, and the combined arms team in the execution of military operations. Related aspects include communications, tactics, weaponry, patrolling and map exercises designed for advanced camp preparation.
- 333 ROTC Advanced Camp**
Practical application of tactics; leadership training and practice; and arms qualification. Six weeks during the summer at a military reservation designated by the Department of the Army (no fee).
Prerequisite: Military Science III courses and/or permission of PMS.

- 431 Staff Organization and Management** 3:3:1
Methods of organization, administrative management, and personnel management are examined through conferences and practical exercises. Staff operation of the cadet corps and practical exercises in leadership are conducted during a leadership laboratory.
- 432 Military Ethics** 3:3:1
The organization, capabilities, and mission of military units are examined through lectures and conferences. A block of instruction emphasizes the military law system. World changes and military implications related to the role of the Army are considered. Active duty career planning is studied. Staff operation of the cadet corps and practical exercises are conducted during a leadership laboratory.
- MS—Leadership Laboratory**
Practical application of classroom instruction emphasizing physical fitness, drill and ceremonies, and basic military skills. Participating students are provided all uniforms and equipment. Participation is required of all MS II, III, and IV students. Participation by MS I students is at their option.

Special Courses

U.S. Army ROTC Basic Camp

(Maximum of 8 credit hours) The ROTC Basic Camp is a six-week summer course conducted at Fort Knox, Kentucky for students who cannot complete the Basic Course (4 electives) prior to becoming academic juniors. In addition to free room, board, and transportation, students are paid approximately \$600.00. Training includes practical exercises to enhance confidence, physical fitness and leadership qualities.

Prerequisite: Approval of the PMS.

Rangers

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

Competition Rifle Team

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

Orienteering Team

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

Rifle Drill Team

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

Department of Physics

Department Head: Joe Pizzo

230 Archer Building, Phone 880-8241

Professors: Pizzo, Rigney

Associate Professors: Peebles, Shepherd

Assistant Professor: Goines

Stockroom Supervisor: Scott

High school preparation for the physics major must include two units of algebra and one 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.

Emphasis is on quality education at the undergraduate level. Several faculty members are carrying out research involving innovative ways of presenting concepts in physics.

Bachelor of Science - Physics Major

A total of 128 semester hours are required for this degree. In addition to general University requirements for the bachelor's degree listed in this bulletin under Academic Regulations, the degree requirements in physics are 26 semester hours in physics with at least 13 semester hours at the junior-senior level, including 333 and 335 and one of the three laboratory courses 324, 346 or 448; 15 semester hours of mathematics including 331 or 4301; and chemistry 142. Physics 110 is required of all freshman physics majors.

Although the preparation for some careers requires study in graduate school or professional school, at least the following options are available to the physics major:

1. Physics (Graduate School)
2. Pre-medical
3. Life Science
4. Oceanography
5. Teaching
6. Chemistry
7. Liberal Arts
8. Environmental Science
9. Engineering
10. Geology/Geophysics

Recommended Program of Study

First Year	Second Year
Chm 141 or 143/142 or 144 8	Option 8
Eng Composition 6	Eng Literature 6
Mth 148-149 Cal & An G I & II 8	Mth 241 Cal & An G III 4
Phy 3-8	Phy 247, 248 8
Phy 110 Phy Today 1	Electives 4-8
Electives 3	PE/MLb*/ROTC 2 sem 2 or 4
PE/MLb*/ROTC 2 sem 2 or 4	
31-38	32-37
Third Year	Fourth Year
POLS 231, 232 American Government I, II 6	Phy 448 Optics
His Soph American 6	or
Mth: Diff Eq 3	Phy 346 Electrical Measmnts
Phy 335 Modern Phy 3	or
Phy Electives 3-4	Phy 324 Modern Phy Lab 2-4
Option 12-15	Phy Electives 6-8
	Option 12-18
	Electives 10-15
33-36	30-35

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

List of options:

Preparation for graduate school in physics: nine additional semester hours of mathematics and 12-16 additional semester hours of advanced physics. Suggested electives: two years of German.

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

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

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

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

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

Liberal Arts: 24-36 semester hours from English, history, government, sociology or philosophy. Electives unrestricted.

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

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

Geology: 20 semester hours of geology, 3-9 semester hours of electronics. Electives unrestricted.

Cooperative Education Program

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

Physics Courses (Phy)

110	Physics Today A descriptive introduction to recent developments and noteworthy current problems, such as gravitational collapse.	1:1:0
111	Astronomy Laboratory Measurements with astronomical instruments such as telescopes and spectrometers. Use of photographs from astronomical observatories to identify variable stars and classify individual stars according to spectra and magnitudes. <i>Prerequisite: Credit for or registration in Phy 137.</i>	1:0:2
130	Mathematical Method in Physics Graphical analysis, vector operations, trigonometric operations for elementary physics problems; field and potentials.	3:0:3
132	Basics of Photography, Light and Optics Light, cameras, lenses, film, filters, intensity, exposure, development, enlargement, color, infrared photography, Kirlian photography.	3:2:1
137	Descriptive Astronomy A survey of facts and an introduction to important astronomical theories. The solar system, stars, nebulae and star systems.	3:3:0
141	General Physics Mechanics and Heat Designed for majors in the physical or natural sciences. Emphasis is placed upon understanding and application of basic physical laws. <i>Prerequisite: Mth 1212 or 1335 or high school trigonometry.</i>	4:3:2
142	General Physics, Sound, Light, Electricity and Magnetism A continuation of Phy 141. <i>Prerequisite: Phy 141.</i>	4:3:2
143	Conceptual Physics Designed for non-science/non-engineering majors. The basic interactions in nature are studied: How things move and why. The approach is conceptual as opposed to mathematical. A student majoring in Science or the College of Engineering may not receive credit for Phy 143.	4:3:2
144	Conceptual Physics Designed for non-science/non-engineering majors. Topics covered are: Heat, Vibrations and Waves, Sound, Light. The approach is conceptual as opposed to mathematical. A student majoring in Science or the College of Engineering may not receive credit. Phy 143 is NOT a pre-requisite for Phy 144.	4:3:2
234	Career Development I Career related special projects, with detailed written report evaluated by a faculty member in physics. <i>Prerequisite: Permission of department head.</i>	3:A:0
235	Career Development II Career related special projects, with detailed written report evaluated by faculty member in physics. <i>Prerequisite: Phy 234.</i>	3:A:0

- 245 Introductory Acoustics** 4:3:2
Vibrations, waves, intensity and loudness, pitch and frequency, quality, intervals and scales, room acoustics, musical instruments, the human voice, electronic production of sound.
Prerequisite: Knowledge of scales and some ability to identify intervals.
- 247 Calculus Based Physics I** 3:1:4
Mechanics, vibrations, heat.
Prerequisite: Registration in or credit for Mth 149 and permission of department head.
- 248 Calculus Based Physics II** 3:1:4
Electricity, magnetism, sound waves, optics.
Prerequisite: Phy 247
- 324 Modern Physics Laboratory** 2:1:3
Selected experiments such as determination of the electronic charge and mass, and of Planck's constant; blackbody radiation; gamma ray spectroscopy; specific heats of crystalline solids, mobility of electrons in semiconductors.
Prerequisite: Registration in or credit for Phy 335.
- 330 Modern General Physics** 3:3:0
Electronics, the photoelectric effect, atomic structure, X-rays, molecular and crystal structure, radioactivity and nuclear reactions. A student may not receive credit for both Phy 335 and Phy 330.
Prerequisite: Physics 142 and a year of chemistry.
- 333 Analytical Mechanics** 3:3:0
Use of vector notation in formulating and applying Newton's laws and the principles of momentum and energy. Dynamics of particles and rigid bodies emphasized. Statics treated briefly.
Prerequisite: Phy 247 or 141-142 and credit for or registration in Differential Equations.
- 334 Career Development III** 3:A:0
Career related special projects, with detailed written report evaluated by a faculty member in physics.
Prerequisite: Physics 235.
- 335 Modern Physics** 3:3:0
Conservation laws; special relativity; quantum effects; atomic structure; X-rays, nuclear and solid state physics.
Prerequisite: Phy 248 or Phy 141-142 and Mth 241.
- 338 Electricity and Magnetism** 3:3:0
Electrostatic fields; potential; capacitance; dielectrics; electromagnetic waves. Maxwell's equations; conduction in gases; thermoelectricity.
Prerequisite: Phy 248 or 141-142 and credit for or registration in Differential Equations.
- 339 Thermal Physics** 3:3:0
Temperature and thermometry; internal energy, entropy and thermodynamic potentials; introduction to the kinetic theory of gases and the Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac statistics.
Prerequisite: Phy 248 or Phy 141-142 and Mth 241.
- 346 Electrical Measurements** 4:2:4
Theoretical and practical definitions of electrical units; data handling and analysis; precision DC measurement of resistance, potential difference and current; galvanometer characteristics; AC bridge measurement of self and mutual inductance, capacitance and frequency; magnetic measurements.
Prerequisite: Phy 248 or 141-142 and Mth 241.
- 4101, 4201, 4301 Special Topics in Physics** 1-3:A:0
Topics in undergraduate mechanics, electromagnetism, energy conversion or particle physics. Library work and conferences with a staff member. Student may repeat the course for credit when the area of study is different.
- 414, 415 Experimental Projects** 1:0:3
Building or assembly of experimental apparatus, and its use, under the supervision of a faculty member.
Prerequisite: 6 hours of physics numbered above 300.
- 416, 417 Seminar** 1:1:0
Reports on current publications and on topics not treated in other physics courses.
Prerequisite: 6 hours of physics numbered above 300.
- 430 Physical Oceanography** 3:0:3
Mathematical methods necessary to understand properties and dynamics of oceans.
- 431 Classical Mechanics** 3:3:0
Variational principles and Lagrange's equations; the kinematics of rigid body motion; the Hamilton equations of motion; small oscillations.
Prerequisite: Differential Equations and Phy 333 or M.E. 231.
- 432 Introductory Quantum Mechanics** 3:3:0
Basic concepts of quantum mechanics. Schrodinger's equation; wave functions.
Prerequisite: Phy 333 or 431, Phy 335 and Mth 331 or 4301.

433	Solid State Physics Crystal structure; binding forces; mechanical and thermal properties; electrical conductivity; semiconductors; dielectric properties; magnetic properties; surface effects, phosphors and photoconductivity. <i>Prerequisite:</i> Phy 335.	3:3:0
434	Career Development IV Career related special projects, with detailed written report evaluated by a faculty member in physics. <i>Prerequisite:</i> Physics 334.	3:A:0
436	Nuclear Physics Elementary particles; nuclear scattering of particles; reactions and nuclear structure. <i>Prerequisite:</i> Phy 335.	3:3:0
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. <i>Prerequisite:</i> Phy 335.	3:3:0
448	Optics Physical and Quantum Optics. Propagation of light; interference; diffraction; optics of solids; thermal radiation and light quanta; optical spectra; lasers. <i>Prerequisite:</i> Phy 248 or Phy 141-142 and Mth 241.	4:3:3

Department of Political Science

Department Head: William M. Pearson 56 Liberal Arts Building, Phone 880-8526

Professors: Drury, Pearson, Stevens

Associate Professors: Lanier, Sanders, Stidham, Utter

Assistant Professors: Castle, Dubose, Loewenstein

Political Science is the study of political power, who has it, and how those who have it behave. The Political Science curriculum encourages students to acquire a broad understanding of the political system and the policymaking process in order to become effective participants in it and prepare for careers in law, government service, teaching, journalism, and business.

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

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

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

Political Science - Pre-Law

One of the traditional routes to law school is a four-year undergraduate degree in Political Science. Students may pursue either the Bachelor of Arts degree in Political

Science or Bachelor of Science degree in Political Science as candidates for admission to a school of law. Both degrees retain the values of a liberal education (such as history, English, and foreign language) and the enhancement of technical skills (including computer science, accounting and mathematics). With a large number of free electives and 18 hour minors, the Bachelor of Arts or Bachelor of Science in Political Science afford considerable flexibility in meeting each students' unique educational and career needs.

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

Legal Internships - Pre-Law

Exceptional students may qualify for a cooperative education program available in the legal profession. They earn up to 12 semester hours of elective internship credit in their junior and senior years while working half-days in local law firms. Law office experience is combined with academic assignments to develop skills useful to the potential lawyer. Admission to the program is by permission of the head of the Department of Political Science.

Bachelor of Arts - Political Science Major

The Bachelor of Arts degree in Political Science emphasizes a traditional liberal arts or humanities curriculum and includes the following requirements:

A. General Requirements:

Freshman English—six semester hours

Literature—six semester hours

*Mathematics— 1334 and three additional hours

*Science—laboratory—eight semester hours

Completion of the 232 course in a foreign language

Sophomore American History—six semester hours

Physical activity courses, Band or ROTC—four semesters

B. Major:

Political Science 231-232—Introduction to American Government I and II

Political Science 131—Introduction to Political Science

Political Science 3319—Statistics for Social Scientists

Advanced Political Science (at least one course from each of five fields)—15 semester hours. The fields are American politics (POLS 334, 335, 339, 437, 3301, 4312, 3313); political philosophy (POLS 432, 433); international relations (POLS 332, 337, 435); comparative politics (POLS 331, 3317, 4381, 4383); public administration (POLS 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.

Recommended Program of Study - Bachelor of Arts

First Year	Second Year
POLS 131	Eng—Literature
Eng—Composition	Foreign Language
Foreign Language	PE Activity
Mth (incl 1334)	AM His.
PE Activity	POLS 231-232
Electives	POLS 3319
29	31

Third Year	Fourth Year
POLS (Adv)..... 9	POLS (Adv)..... 6
Electives..... 9	Electives..... 9
Laboratory Science..... 8	Minor and Electives..... 15-18
Minor and Electives..... 5-8	
31-34	30-33

Bachelor of Science - Political Science Major

The Bachelor of Science degree in Political Science emphasizes career education. It will be awarded upon completion of the requirements for the Bachelor of Arts degree in Political Science with the following substitutions for foreign language: Computer Science 131 or 133; POLS 4319 and nine additional hours to be selected from two of the following areas: Accounting 231-232; Computer Science—Adv; Economics 131-132, 233 or Adv; Mathematics—Adv; Psychology—Adv.

Recommended Program of Study - Bachelor of Science

First Year	Second Year
POLS 131..... 3	Eng—Literature..... 6
Eng—Composition..... 6	Am History..... 6
Math (incl 1334)..... 6	POLS 231-232..... 6
PE Activity..... 2	POLS 3319..... 3
Computer Science 131 or 133..... 3	PE Activity..... 4
Electives..... 12	Approved Electives..... 6
32	31
Third Year	Fourth Year
POLS (Adv)..... 9	POLS (Adv)..... 6
Laboratory Science..... 8	Minor and Electives..... 21-24
POLS 4319..... 3	
Minor and Electives..... 12-14	
30-34	27-30

Bachelor of Arts - Teacher Certification Political Science

Students wishing to secure the Bachelor of Arts in Political Science and at the same time certify for a provisional certificate with Political Science as a teaching field must meet the following requirements:

- A. General Requirements:
 - Freshman English—six semester hours
 - Literature—six semester hours
 - Mathematics—1334 and three additional hours
 - Laboratory science—eight semester hours in same science
 - Sophomore American History—six semester hours
 - Speech 131 or 331
 - Computer Science 130
 - Physical activity courses, Band, or ROTC—four semesters
- B. Teaching Field I—twenty-four hours in Political Science:
 - POLS 131—Introduction to Political Science
 - POLS 231-232—Introduction to American Government I and II
 - Advanced Political Science (at least one course in each of five fields)—fifteen semester hours. The fields are American politics (POLS 334, 335, 339, 437, 3301, 4312, 3313); political philosophy (POLS 432, 433); international relations (POLS 332, 337, 435) comparative politics (POLS 331, 3317, 4381, 4383); public administration (POLS 3316, 430, 434, 439).
- C. Teaching Field II—an approved twenty-four additional teaching field in place of the minor. Consult this catalog, College of Education.

- D. Curriculum and Instruction—twenty-five semester hours
C&I 2101, 3225, 3226, 331, 332, 338, 438, 482.
- E. Foundation and Degree Requirements—completion of 232 in a foreign language, POLS 3319 or Mth 234, and sufficient electives (with at least one three-hour course chosen from Anthropology, Psychology, Sociology, Economics, Art, Music, Theater, Dance, or Philosophy) to complete a total of 133 semester hours.
- F. Total Semester Hours: 133

Recommended Program of Study - Bachelor of Arts Teacher Certification - Political Science

First Year	Second Year
POLS 131 3	Eng Literature 6
Eng Composition 6	Foreign Language 6
Foreign Language 6	POLS 231-232 6
Mathematics (including 1334) 6	POLS 3319 or Mth 234 3
American History 6	Lab Science 8
Activity 2	Second Teaching Field 3
C&I 2101 1	Activity 2
Computer Science 130 3	
<u>33</u>	<u>34</u>
Third Year	Fourth Year
POLS-Advanced 9	Elective 3
Second Teaching Field 9	POLS-Advanced 6
C&I 3225, 3226, 331, 332, 338 13	Second Teaching Field 12
Speech 131 or 331 3	C&I 438, 482 11
<u>34</u>	<u>32</u>

Bachelor of Science - Teacher Certification Political Science

Students wishing to secure the Bachelor of Science in Political Science and at the same time certify for a provisional certificate with Political Science as a teaching field must meet the following requirements:

- A. General Requirements:
 - Freshman English—six semester hours
 - Literature—six semester hours
 - Mathematics—1334 and three additional hours
 - Laboratory science—eight semester hours in same science
 - Sophomore American History—six semester hours
 - Speech 131 or 331
 - Computer Science 130
 - Physical activity, Band, or ROTC—four semesters
- B. Teaching Field I—twenty-four hours in Political Science:
 - POLS 131—Introduction to Political Science
 - POLS 231-232—Introduction to American Government I and II
 - Advanced Political Science (at least one course in each of five fields)—fifteen semester hours. The fields are American politics (POLS 334, 335, 339, 437, 3301, 4312, 3313); political philosophy (POLS 432, 433); international relations (POLS 332, 337, 435); comparative politics (POLS 331, 3317, 4381, 4383); public administration (POLS 3316, 430, 434, 439).
- C. Teaching Field II—an approved twenty-four hour additional teaching field in place of the minor. Consult this catalog, College of Education.
- D. Curriculum and Instruction—twenty-five semester hours
C&I 2101, 3225, 3226, 331, 332, 338, 438, 482.

- E. Foundation and Degree Requirements—eighteen semester hours: Psychology 131, Computer Science 131 or 133, Economics 131-132, Political Science 4319, and Political Science 3319 or Mth 234.
- F. Total semester hours: 133

Recommended Program of Study - Bachelor of Science - Teacher Certification - Political Science

First Year	Second Year
POLS 131 3	Eng Literature 6
Eng composition 6	POLS 231-232 6
Mathematics (including 1334) 6	Lab Science 8
Psychology 131 3	Eco 131, 132 6
American History 6	POLS 3319 or Mth 234 3
Computer Science 130 and 131 or 133 6	Second Teaching Field 3
Activity 2	Activity 2
C&I 2101 1	
33	34
Third Year	Fourth Year
POLS 4319 3	POLS-Advanced 6
POLS-Advanced 9	Second Teaching Field 12
C&I 3225, 3226, 331, 332, 338 13	C&I 438, 482 11
Second Teaching Field 9	Speech 131 or 331 3
34	32

Political Science Courses (POLS)

- 231 Introduction to American Government I**

A study of the national and Texas constitutions; federalism; political socialization and participation; public opinion and interest groups; parties, voting and elections.

Prerequisite: Sophomore standing.

3:3:0
- 231H Introduction to American Government I Honors**

A study of the national and Texas constitutions; federalism; political socialization and participation; public opinion and interest groups; parties, voting and elections. Designed especially for honors students.

Prerequisite: Sophomore standing and departmental approval.

3:3:0
- 232 Introduction to American Government II**

A study of the legislative, executive and judicial branches and the bureaucracy; policy formulation and implementation including civil rights and civil liberties, domestic and foreign policies.

Prerequisite: POLS 231.

3:3:0
- 232H Introduction to American Government II Honors**

A study of the legislative, executive and judicial branches and the bureaucracy; policy formulation and implementation including civil rights and civil liberties; domestic and foreign policies. Designed especially for honors students.

Prerequisite: Sophomore standing and departmental approval.

NOTE: POLS 231-232 fulfills the six-hour requirement in Political Science.

3:3:0
- 131 Introduction to Political Science**

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

3:3:0
- 321 Legal Internship I**

Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.

Prerequisite: Approval of department head.

2:2:0
- 322 Legal Internship II**

Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.

Prerequisite: Approval of department head, POLS 321.

2:2:0
- 323 Legal Internship III**

Practical experience in law office procedures and operation with career related assignments and projects under the guidance of a faculty member.

Prerequisite: Approval of department head, POLS 322.

2:2:0
- 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.

3:3:0

- 332 Studies in International Politics 3:3:0**
A study of the concepts underlying the Western State system; nationalism and imperialism; the techniques and instruments of power politics and the foreign policies of selected states.
- 334 American Political Parties and Pressure Groups 3:3:0**
A study of political parties in terms of their theory, their history and their place in contemporary American politics; analysis of the role of economic and other groups in American politics; group organization and techniques of political influence.
- 335 The American Presidency 3:3:0**
The role of the office in political and diplomatic, social and economic terms, as well as in the policy-making aspects.
- 337 The Politics of American Foreign Policy 3:3:0**
An analytical and historical view of United States foreign policy; its domestic sources; the instruments of American diplomacy; United States involvement in world politics and the limitations and potentials of American foreign policy.
- 339 Urban Politics 3:3:0**
Analysis of the organization and development of urban governments in the United States. Interrelationships among urban problems, political behavior and policy will be examined.
- 3301 The Legislative Process 3:3:0**
The structure, functioning and political control of legislative bodies.
- 3313 The Judicial Process 3:3:0**
The theory and structure of the American court system; its personnel and decision-making processes; the judicial process in the setting of the American criminal justice system.
- 3316 Introduction to Public Administration 3:3:0**
A survey of American public administration, with emphasis upon modern problems and trends.
- 3317 Politics of Developing Nations 3:3:0**
An analysis of the political systems of Latin America, Africa, the Middle East and Asia, focusing on ideologies, interest groups, political parties, elites and problems in political development.
- 3319 Statistics for Social Scientists 3:3:0**
Basic concepts and techniques of statistics employed in social science research including descriptive statistics; measures of central tendency and dispersion; correlation and regression analysis; inductive statistics; fundamentals of probability and tests of significance.
- 421 Legal Internship IV 2:2:0**
Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, POLS 323.
- 422 Legal Internship V 2:2:0**
Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, POLS 421.
- 423 Legal Internship VI 2:2:0**
Practical experience in law office procedure and operation with career related assignments and projects under the guidance of a faculty member.
Prerequisite: Approval of department head, POLS 422.
- 430 Organization Theory and Behavior 3:3:0**
A study of the structural and management aspects of public administration, theory and practice; policy formation processes and techniques.
- 432 Political Thought I 3:3:0**
Topics in western political thought from the Greeks to the Nineteenth Century.
- 433 Political Thought II 3:3:0**
Topics in political philosophy from Marx to the present with emphasis on contemporary theorists.
- 434 Formulation of Public Policy 3:3:0**
The demands for public action on policy issues; organization and nature of political support; processes and problems of decision making in the formulation of public policy at the national, state and local levels. The issues studied will vary from semester to semester.
- 435 International Law and Institutions 3:3:0**
An analysis of the political, legal and institutional foundations of the modern international system, including the United Nations. Emphasis include peaceful settlement of international disputes and the developing global system.
- 437 American Constitutional Law and Development 3:3:0**
Development of the American Constitution through judicial interpretations. Particular emphasis on cases dealing with federalism, commerce, the three branches of government, due process, civil rights, and civil liberties.

439	Special Topics in Public Administration This course is designed to cover fiscal administration, public personnel administration, comparative development administration, administrative regulation and related areas. Course may be repeated for credit when the topic varies.	3:3:0
4310	Directed Study Students may study individually with an instructor in an area of mutual interest to the student and the instructor. <i>Prerequisite: Approval of head of Department of Political Science.</i>	3:3:0
4312	American State Politics A survey of American state political systems from a comparative basis with emphasis on Texas.	3:3:0
4319	Advanced Research Methods Analysis or study of special problems, topics, cases, models and theories in political science research.	3:3:0
4381	The Politics and Government of the Communist Nations A study of the origin, development, structures, functions and behavior of the Communist political system with emphasis on the Soviet Union and China.	3:3:0
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.	3:3:0

Department of Sociology, Social Work and Criminal Justice

Department Head: Kevin B. Smith

55 Liberal Arts Building, Phone 880-8538

Professors: Altemose, Frazier

Associate Professors: Drenan, Ma, Monroe, Seelbach, Smith

Assistant Professors: Birdwell-Pheasant, Fatino, Love, Sims, Stone, Wright

Sociology, social work, and criminal justice share some common knowledge bases and are similar in many of their approaches to human behavior. The department strongly emphasizes personal academic counseling for all of its majors and encourages career oriented education. Courses in anthropology are also offered through this department.

The degrees offered by the department are: Bachelor of Science in Sociology, Bachelor of Arts in Sociology, Bachelor of Social Work, Bachelor of Science in Criminal Justice, and Associate of Science in Law Enforcement. Each bachelor's degree offered by this department requires 120 semester hours excluding 4 semesters of required physical activity and/or marching band and/or ROTC. Students exempted from the physical education requirement must submit elective hours approved by the major department in lieu of this requirement. Thus, the minimal total for a degree is 124 semester hours. The Associate of Science in Law Enforcement degree requires 60 semester hours excluding 2 required physical activity courses for a minimal total of 62 semester hours. The Social Work Program is fully accredited by the Council on Social Work Education. A major or an 18 semester hour minor in social work will entitle the graduate to apply for Texas certification as a social worker.

Departmental Academic Policies

1. A grade of "C" or higher for each course in the major field (including transfer courses) and a 2.0 grade point average in the major are required for graduation.
2. English 137 is not an approved elective.
3. Each student's use of English is subject to review up to and including the semester in which s/he is scheduled to graduate. Any faculty member who identifies a departmental major having poor English skills will notify the student and the department head in writing. The department head will then review writing samples and consult with the Director of Freshman English. Based on the recommendations of the Director of Freshman English and the department head, additional

diagnostic procedures and course work may be required before the student is recommended for graduation.

4. The departmental academic probation and suspension policy is identical to that of the College of Arts and Sciences and is available from the office of the Dean or department head.
5. Students who are majoring in this department and who are on academic probation or returning from academic suspension may not enroll in more than 12 semester hours (13-15 hours if a laboratory course and P.E. are taken) in any semester.

Pre-Law

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

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

Sociology

Program Director: Kevin B. Smith

55 Liberal Arts Building, Phone 880-8538

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

Teacher Certification - Sociology

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

Bachelor of Science - Sociology Major

The degree of Bachelor of Science in Sociology will be awarded upon completion of the following requirements:

A. General Requirements:

Meet the University's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements" and satisfy all departmental requirements.

- B. Major—30 semester hours to include:
 Sociology 131—Introduction to Sociology
 Sociology 438—Research Methods
 Sociology 439—Social Theory
- C. Departmental Requirements—12 semester hours
 Social Work—3 hours
 Criminal Justice—3 hours
 Anthropology—3 hours
 Philosophy or Psychology—3 hours
- D. Minor—an approved minor of 18 semester hours, 6 of which must be advanced.
- E. Electives:
 Sufficient approved electives to complete a minimum of 124 semester hours.

Recommended Program of Study

First Year

First Semester	Second Semester
Eng 131 or 136 3	Eng 132, 134, or 135 3
Mth 1334 3	Mth 234 3
Lab Science 4	Lab Science 4
Swk 3	CJ 3
Soc 131 3	Soc 3
PE Activity 1-2	PE Activity 1-2
17-18	17-18

Second Year

First Semester	Second Semester
Eng Literature 3	Eng Lit, Eng 331, Spc or Lang 3
His Soph Amer 3	His Soph Amer 3
Ant 3	Phl or Psy 3
Soc 3	Soc 3
Minor/Elective 3	Minor/Elective 3
PE Activity 1-2	PE Activity 1-2
16-17	16-17

Third Year

First Semester	Second Semester
POLS 231 American Government I 3	POLS 232 American Government II 3
Soc 6	Soc 6
Minor/Electives 6	Minor/Electives 6
15	15

Fourth Year

First Semester	Second Semester
Soc 438 3	Soc 439 3
Minor/Electives 9-11	Minor/Electives 9-11
12-14	12-14

Bachelor of Arts - Sociology Major

The degree of Bachelor of Arts in Sociology will be awarded upon completion of the following requirements:

- A. General Requirements:
 Meet the University's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements" and satisfy all departmental requirements.
 Completion of the 232 course in a foreign language.
 Literature—6 semester hours

B. Departmental requirements:

The requirements concerning major, departmental requirements, minor, and electives are the same as for the Bachelor of Science degree listed above.

Recommended Program of Study**First Year**

First Semester		Second Semester	
Eng 131 or 136	3	Eng 132, 134, or 135	3
Mth 1334	3	Mth 234	3
Lab Science	4	Lab Science	4
Foreign Lang 131	3	Foreign Lang 132	3
Soc 131	3	Soc	3
PE Activity	1-2	PE Activity	1-2
	17-18		17-18

Second Year

First Semester		Second Semester	
Eng Literature	3	Eng Literature	3
His Soph Amer	3	His Soph Amer	3
Ant	3	Phl or Psy	3
Foreign Lang 231	3	Foreign Lang 232	3
Soc	3	Soc	3
PE Activity	1-2	PE Activity	1-2
	16-17		16-17

Third Year

First Semester		Second Semester	
POLS 231 American Government I	3	POLS 232 American Government II	3
Swk	3	Cj	3
Soc	6	Soc	6
Minor/Electives	3	Minor/Electives	3
	15		15

Fourth Year

First Semester		Second Semester	
Soc 438	3	Soc 439	3
Minor/Electives	9-11	Minor/Electives	9-11
	12-14		12-14

Social Work

Program Director: Vernice M. Monroe

53 Liberal Arts Building, Phone 880-8538

Social Work is a profession that helps people improve their social functioning. Problems of personal and social adjustment are brought to the social worker whose work is devoted to helping individuals, groups and communities face difficulties and find solutions to problems. Social work practice involves more than a desire to "do good"; it involves the synthesis of knowing, doing, feeling and understanding. Lamar University's Social Work Program is fully accredited by the Council on Social Work Education. A major or 18 semester hour minor in social work will entitle the graduate to apply for Texas certification as a social worker. The eighteen semester hour minor should include SWK 331, 333 and 335 or 4321. The research interests of Lamar's social work faculty are in the areas of family violence, sexual abuse, counseling techniques, social work education, and social policy.

Bachelor of Social Work

The Bachelor of Social Work will be awarded upon completion of the following requirements:

- A. General Requirements:
Meet the University's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements" and satisfy all departmental requirements. The lab science course must be biology.
- B. Major—33 semester hours to include:
Social Work 131, 231, 331, 332, 333, 334, 335, 432, 4321, 4324, plus 3 hours of electives in Social Work.
- C. Departmental Requirements—24 semester hours
Sociology 131, 132, 336, 438
Psychology 131, and 234 or 235
Criminal Justice—3 hours
Anthropology—3 hours
- D. Minor: An approved minor of 18 semester hours, 6 of which must be advanced. Students normally minor in either psychology or sociology unless they select one of the optional concentrations described below:
 - 1. Concentration in Corrections—18 hours
The Corrections concentration prepares the prospective social worker for practice in community corrections, probation and parole departments, prisons, and jails. For this concentration, the following courses are required: Criminal Justice 1302, 1303 or 1305, 235, 236, 335, and 432.
 - 2. Concentration in Family and Children's Services—18 hours
The Family and Children's Services concentration prepares the prospective social worker for specialized practice involving families and children. For this concentration, the following courses are required: Home Economics 137, 233, 239, 330 or 435, 334, and 339.
- E. Electives—Sufficient approved electives to complete a minimum of 124 semester hours.

Recommended Program of Study

First Year

First Semester		Second Semester	
Eng 131 or 136	3	Eng 132, 134, or 135	3
Mth	3	Mth 1334 or higher	3
Bio 1400	4	Bio 1401	4
Soc 131	3	Soc 132	3
Swk 131	3	SWK 231	3
PE Activity	1-2	PE Activity	1-2
	17-18		17-18

Second Year

First Semester		Second Semester	
Eng Literature	3	Eng Lit, Eng 331, Spc or Lang	3
His Soph Amer	3	His Soph Amer	3
Ant	3	CJ	3
Psy 131	3	Psy 234 or 235	3
Minor/Electives	3	Swk 331	3
PE Activity	1-2	PE Activity	1-2
	16-17		16-17

Third Year

First Semester		Second Semester	
POLS 231 American Government I	3	POLS 232 American Government II	3
Soc 336	3	Soc 438	3
Swk 332, 333	6	Swk 334, 335	6
Minor/Electives	3	Minor/Electives	3
	15		15

Fourth Year

First Semester	Second Semester
Swk 432, 4321 6	Swk 4324, Swk 6
Minor/Electives 6-8	Minor/Electives 6-8
12-14	12-14

Criminal Justice**Program Director:** James J. Love

58 Liberal Arts Building, Phone 880-8538

The Bachelor of Science degree in criminal justice prepares students for employment in a variety of criminal justice professions such as in corrections, law enforcement and court administration or for further study in either law or graduate school. The Associate of Science degree in law enforcement is designed for persons desiring employment in active law enforcement.

Bachelor of Science - Criminal Justice Major

The Bachelor of Science in Criminal Justice will be awarded upon completion of the following requirements:

- A. General Requirements:
Meet the University's general requirements for a bachelor's degree which are described earlier in this bulletin under "Degree Requirements" and satisfy all departmental requirements.
- B. Criminal Justice Core—21 semester hours
12 semester hours required: CJ 1301, 1302, 1303, and 1305.
9 semester hours to be selected from: CJ 231, 232, 234, 235, and 236.
- C. Criminal Justice Advanced Electives—12 semester hours
- D. Departmental Requirements—12-18 semester hours
Sociology 131, 438
Social Work—3 hours
Anthropology—3 hours
Criminal Justice 434—(CJ majors without field experience must complete 6 hours of CJ 434.)
- E. Minor or Approved Electives—an approved minor of 18 semester hours, 6 of which must be advanced. The minor with a concentration in corrections should consist of: CJ 1302, 1303 or 1305, 235, 236, 335, and 432 or 434. Students without field experience must take CJ 434.
- F. Electives—Sufficient approved electives to complete a minimum of 124 semester hours.

Recommended Program of Study**First Year**

First Semester	Second Semester
Eng 131 or 136 3	Eng 132, 134, or 135 3
Mth 3	Mth 1334 or higher 3
Lab Science 4	Lab Science 4
Soc 131 3	Swk 3
CJ 1301 3	CJ 1302 3
PE Activity 1-2	PE Activity 1-2
17-18	17-18

Second Year

First Semester	Second Semester
Eng Literature 3	Eng Lit, Eng 4335, Spc or Lang 3
His Soph Amer 3	His Soph Amer 3
Ant 3	CJ Soph Electives 3
CJ Soph Elective 3	CJ 1305 3
CJ 1303 3	PE Activity 1-2
PE Activity 1-2	
16-17	16-17

Third Year

First Semester	Second Semester
POLS 231 American Government I 3	POLS 232 American Government II 3
CJ Advanced 3	CJ Advanced 3
Minor/Electives 9	Minor/Electives 9
15	15

Fourth Year

First Semester	Second Semester
Soc 438 3	CJ 434, 434 6
CJ Advanced 3	Minor Electives 6-8
Minor/Electives 6-8	
12-14	12-14

Associate of Science - Law Enforcement Major

The Associate of Science in Law Enforcement will be awarded upon the completion of the following requirements:

- A. General Requirements:
Meet the University's general requirements for the associate of science degree which are described earlier in this bulletin under "Degree Requirements" except that all grade point averages for the Associate of Science in Law Enforcement shall be calculated in exactly the same manner as for the Bachelor's Degree. All departmental requirements described herein apply in the same manner as for the Bachelor's Degree.
- B. Criminal Justice Core—21 semester hours
12 semester hours required: CJ 1301, 1302, 1303 and 1305
9 semester hours to be selected from: CJ 231, 232, 234, 235, and 236
- C. Electives:
Sufficient approved electives to complete a minimum of 62 semester hours. (60 academic hours plus 2 semesters of P.E.).

Recommended Program of Study

First Year

First Semester	Second Semester
Eng 131 or 136 3	Eng 132, 134, or 135 3
Mth or Lab Science 3-4	Mth or Lab Science 3-4
His Soph Amer 3	His Soph Amer 3
CJ 1301 3	CJ 1302 3
PE Activity 1-2	PE Activity 1-2
13-15	13-15

Second Year

First Semester	Second Semester
Eng Literature 3	POLS 232 American Government II 3
POLS 231 American Government I 3	CJ Soph Electives 6
CJ Soph Elective 3	CJ 1305 3
CJ 1303 3	Electives 6
Electives 6	
18	18

Anthropology

Faculty Advisor: Donna Birdwell-Pheasant 61 Liberal Arts Building, Phone 880-8541

Anthropology is the study of mankind at its most inclusive. The human experience in all parts of the world and throughout the millennia of human existence serves as the subject matter of anthropology. The discipline maintains an appreciation of humans as biological creatures as well as social beings and bearers of culture. Course offerings encourage a fuller appreciation of human diversity while allowing students to compare our way of life with lifeways in other times and places.

A minor in anthropology is a useful complement to majors in sociology, social work, criminal justice, history and psychology. Selected courses in Anthropology are useful electives for majors in a variety of fields, including biology, geology, business and economics. Students interested in pursuing careers in anthropology should consult with the faculty advisor in anthropology.

Sociology Courses (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.	3:3:0
132	Social Problems Attributes of society and of persons which are subject to disapproval; the causes, extent and consequences of problems; programs and prospects of their resolution.	3:3:0
231	Deviant Behavior The study of the major areas of social maladjustment from the standpoint of the processes underlying social and individual disorganizations, such as alcoholism, illegitimacy, suicide, drug addiction and other personal deviations.	3:3:0
233	Marriage and the Family Characteristics of and problems within courtship, marriage and family in American society.	3:3:0
234	Social Gerontology A general survey of the social phenomenon of aging in American society, attention given to the interrelationship among biological, individual, group and social variables.	3:3:0
330	American Society Description and analysis of structural and functional characteristics of American society and culture.	3:3:0
331	Sociology of Gender Analysis of the origin and social development of gender roles. Examination of changing roles for males and females and their impact on interpersonal relationships and societal institutions.	3:3:0
332	Social Psychology Social and cultural influences upon individual behavior and personality; interpersonal and intergroup relations and collective behavior.	3:3:0
333	Urban Sociology Social and ecological processes in the urbanization movement; characteristics of urban society and culture.	3:3:0
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.	3:3:0
335	The Family Structural and functional characteristics of the family as a basic institution.	3:3:0
336	Race and Ethnic Relations Racial and ethnic minority groups within the society; causes, distinctions and changes in the relationship between minority and dominant groups.	3:3:0
337	Sociology of Sport Examination of the social aspects of sport and how sport is a microcosm of American society. Major issues to be studied include racial and sexual discrimination, violence, and sport as big business.	0:0:0
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.	3:3:0
339	Juvenile Delinquency The nature, incidence and explanations for juvenile delinquency in American society; agencies and programs for prevention and control of juvenile delinquency.	3:3:0

430	Seminar in Sociology Basic concepts and general principles of sociology as applied to the study of selected topics. The course may be repeated for credit when the designated topics are varied.	3:3:0
4301	Directed Studies in Sociology Individual study with an instructor in an area of mutual interest. May be repeated for credit when topic varies.	3:A:0
431	Population Problems The growth and composition of population with emphasis on social, economic and political problems.	3:3:0
4311	Medical Sociology A study of social organization in the medical field with emphasis on the social interaction between persons involved.	3:3:0
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.	3:3:0
4331	Seminar in Gerontology Pre-professional seminar examining current theories, research, issues and career opportunities in the field of aging.	3:3:0
434	Social Change and Futurology Analysis of the nature, sources, and effects of contemporary social changes with emphasis given to future types of social organization and functioning. Science and technology as stimulators of change.	3:3:0
435	Sociology of Religion Religion as a social institution in contemporary America; development of religious systems; cultural, social and individual functions of religion.	3:3:0
436	Social Movements Historical, structural and tactical consideration in the development of major systems of belief and practice within society; political movements in American society.	3:3:0
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.	3:3:0
438	Research Methods Study of the logic, design, techniques and problems involved in social scientific research.	3:3:0
439	Social Theory A survey of major sociological theorists and theories.	3:3:0

Social Work Courses (Swk)

131	Introduction to Social Work An overview of the history, philosophy, field of practice and services of the social work profession. A field experience to introduce students to the social work profession is required.	3:3:0
231	Survey of the Social Welfare Institution Study of the growth and development of the social welfare institution; with emphasis on selected pieces of social welfare legislation and the effect on social welfare services.	3:3:0
331	Social Work Practice I Course designed to help students acquire basic skills for social work practice: basic helping skills; engagement skills; observation skills; and communication skills.	3:3:0
332	Human Behavior in the Social Environment Life cycle approach to the study of growth and development as impacted upon by the social environment.	3:3:0
333	Social Work Practice II Theories, concepts, principles and modalities generic to social work practice. Emphasis on the use of inter-ventive skills with client systems.	3:3:0
334	Social Policy and Administration Analysis of social policies as related to selected social problems at all governmental levels. Emphasis placed on integrating policy into the administering of human service programs.	3:3:0
335	Social Work Practice With Target Groups Acquisition of knowledge, skills and techniques for practice with multiproblem families, low income families, racial or ethnic minorities, and other client groups using a crisis intervention model. <i>Prerequisite: Swk 331 and 333.</i>	3:3:0
410, 420, 430	Special Topics in Social Work Topics in various areas in social services. Includes field and/or library work and conferences with a staff member. A student may repeat the course for credit when the area of study is different. <i>Prerequisite: Consent of the instructor.</i>	1-3:A:0
432	Seminar Current topics in social work. May be repeated for credit when the topic is varied.	3:3:0

- 4321 Field Experience I** **3:A:0**
 Integration of theory into practice through placement in community social service agencies. Course includes a weekly 4-hour seminar. Placement to be arranged.
Prerequisite: Consent of field placement coordinator, Swk 333, 335, plus three additional hours in Swk.
- 4324 Field Experience II** **3:A:0**
 Continuation of Swk 4321. Placement to be arranged.
Prerequisite: Consent of the instructor.

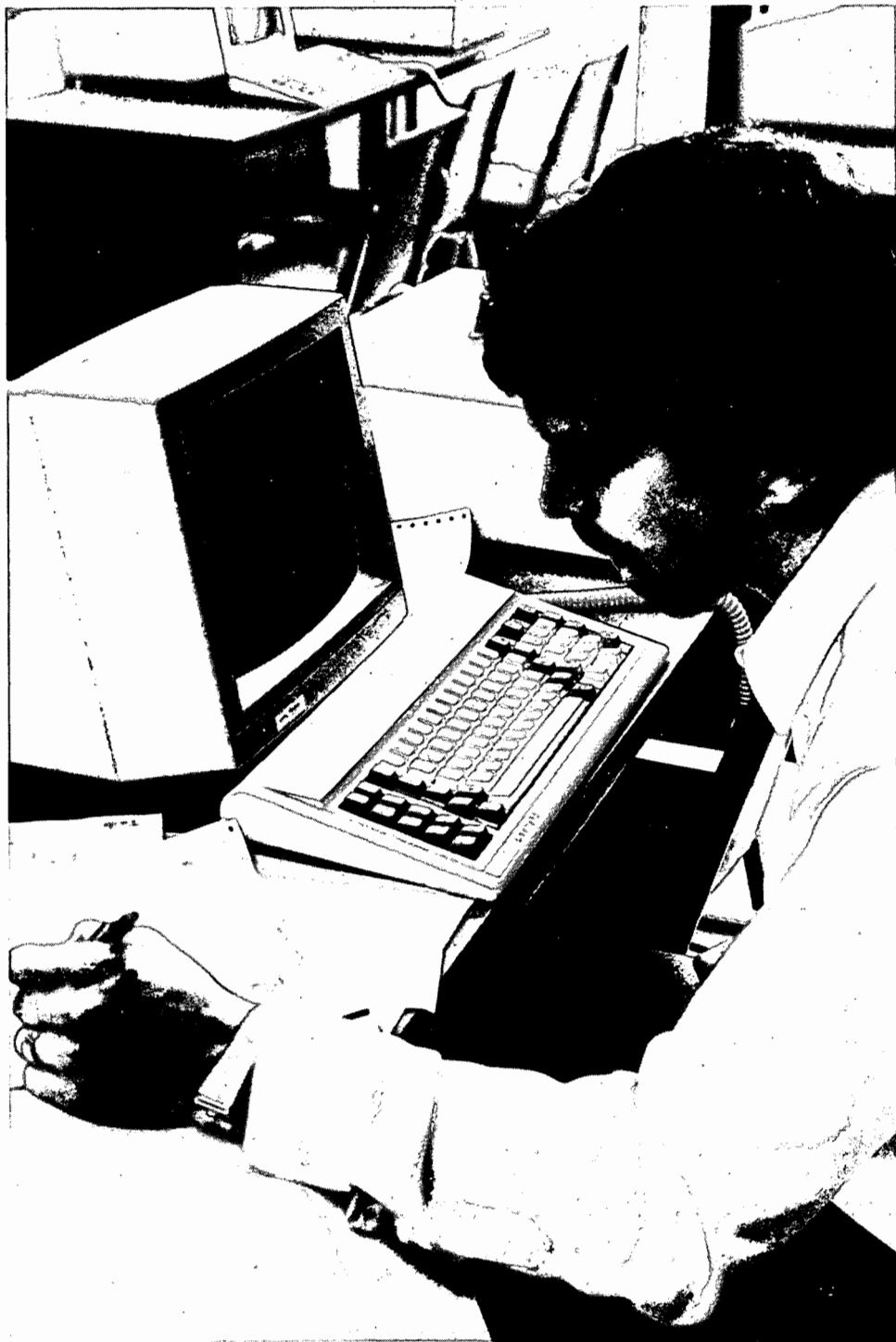
Criminal Justice Courses (CJ)

- 1301 Crime in America** **3:3:0**
 American crime problems in historical perspective; social and public policy factors affecting crime; impact and crime trends; social characteristics of specific crimes; prevention of crime.
- 1302 Introduction to Criminal Justice** **3:3:0**
 History and philosophy of criminal justice and ethical considerations; crime defined: its nature and impact; overview of criminal justice system; law enforcement; court system; prosecution and defense; trial process; corrections.
- 1303 Fundamentals of Criminal Law** **3:3:0**
 A study of the nature of criminal law; philosophical and historical development; major definitions and concepts; classification of crime; elements of crimes and penalties using Texas statutes as illustrations; criminal responsibility.
- 1305 Courts and Criminal Procedure** **3:3:0**
 The judiciary in the criminal justice system; structure of the American court system; prosecution; right to counsel; pre-trial release; grand juries; adjudication process; types and rules of evidence; sentencing.
- 1311 Introduction to Law Enforcement (Academy)** **3:3:0**
 A study of history and philosophy of law enforcement: structure of government; criminal justice system; Texas Penal Code of Criminal Procedure; search and seizure; civil procedures and laws of arrest.
Prerequisite: Admission to Police Academy and consent of instructor.
- 1312 Law Enforcement Related Fields (Academy)** **3:3:0**
 A study of juvenile procedures; written and oral reports; interviews and interrogations; practical problems; first aid; courtroom demeanor and testimony; Texas liquor laws; speech; defensive tactics and firearms training.
Prerequisite: Admission to Police Academy and consent of instructor.
- 231 Police Systems and Practices** **3:3:0**
 The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues.
- 232 Criminal Investigation** **3:3:0**
 Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.
- 234 Legal Aspects of Law Enforcement** **3:3:0**
 Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability.
- 235 Correctional Systems and Practices** **3:3:0**
 Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues.
- 236 Community Resources in Corrections** **3:3:0**
 An introductory study of the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment.
- 332 Counseling** **3:3:0**
 Basic counseling techniques for dealing with troubled individuals. Communication skills; crisis intervention.
- 335 Police/Juvenile Relations** **3:3:0**
 An exploration of the different approaches to policing young people. Consideration of states' laws and landmark cases influencing policing the young.
- 336 Narcotics and Vice** **3:3:0**
 Narcotics, alcohol abuse, sex and gambling offenses and offenders; legal, philosophical and sociological aspects of the role of the criminal justice system in controlling these offenses; methods of diversion.
- 337 Organized Crime** **3:3:0**
 Survey of organized crime in America, past and present; areas and extent of influence; agencies and groups involved in prevention and control.

- 432 Seminar in Correctional Programs** **3:3:0**
Overview of programs in institutional and noninstitutional agencies; examination of such programs based upon various correctional theories.
- 434 Applications** **3:A:0**
Application of principles learned in the classroom to a non-classroom setting. Requirements for this course may be satisfied through a special project, internship, or other work experience. May be repeated for credit. Prerequisite: Consent of the instructor.
- 435 Management and Organization in Criminal Justice** **3:3:0**
Principles of organizational behavior and management as applied to criminal justice organizations. Survey of managerial techniques.
- 4310 Ethical Issues in Criminal Justice** **3:3:0**
An examination of selected ethical issues and problems confronting criminal justice professionals.
- 4312 Contemporary Issues in Criminal Justice** **3:3:0**
Current topics in criminal justice. May be repeated for credit when the topic is varied.

Anthropology Courses (Ant)

- 231 Introduction to Cultural Anthropology** **3:3:0**
A holistic approach to the study of recent and contemporary human societies, including hunter-gatherers, primitive horticultural peoples, pastoral nomads, peasants and city-dwellers. Course will include cross-cultural comparisons of economic systems, sex roles, marriage patterns, political organization, religion and the arts.
- 232 Culture Areas** **3:3:0**
Peoples of Africa/Peoples of the Americas/Peoples of Asia. A series of area survey courses designed to introduce the student to the cultural diversity present in each area. Attention is given to cultural origins and pre-contact civilizations as well as to the impact of Western technology and colonization. The course may be repeated for credit when the designated topics are varied.
- 233 Introduction to Physical Anthropology** **3:3:0**
The physical nature of human beings is explored using evidence from primate studies, fossils and contemporary populations. Basic concepts of genetics, evolution and adaptation will be introduced.
- 235 Introduction to Archaeology** **3:3:0**
An overview of the human story before history, tracing human social and cultural development and movement throughout the world. Basic techniques and methods used by modern archaeologists will also be introduced.
- 333 Applied Anthropology** **3:3:0**
An examination of the use of anthropology in the modern world. Special attention is given to third-world development programs, urban anthropology, medical anthropology, and the anthropology of education.
- 335 Crime and Deviance in Primitive Society** **3:3:0**
An exploration of crime, deviant behavior and institutions of social control among primitive hunter-gatherers, horticultural peoples, and pastoral nomads. Questions of aggression, acquisitiveness and human nature will also be examined.
- 431 Topics in Anthropology** **3:3:0**
Topics will be selected on basis of need and interest. Course may be repeated for credit, when the designated topics are varied.



College of Business

Departments: Accounting; Administrative Services; Economics; Management, Marketing, and Finance

John A. Ryan, Ph.D., Dean

Bob E. Wooten, Assistant Dean for External Services and Director, Lamar University Center for the Application of Advanced Technology

Robert A. Swerdlow, Graduate Coordinator

Joel L. Allen, Director of J. D. Landes Center for Economic Education

Eleanor M. Stevens, Director of Advising Center

The College of Business was established by the University in 1972. Prior to this time, degrees in business and economics were granted by the Division of Business which was established in 1951 and the School of Business established in 1954. All undergraduate programs of the College of Business are accredited by the American Assembly of Collegiate Schools of Business.

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

The Master of Business Administration degree program also is offered. Details may be found in the Graduate Bulletin.

Objectives

As a professional school within a university environment, the College of Business has set objectives which complement and expand the educational objectives of Lamar University. The fundamental objective of the College of Business is to educate men and women who can function effectively and responsibly in managerial and/or professional roles in both private and public organizations. To provide this education, the College maintains a highly qualified faculty committed to teaching excellence and keeping abreast of new developments through research and professional involvement.

Degrees

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

The general educational requirements are patterned to develop an understanding the business graduate needs of the manner American industries strive to meet their responsibilities in a changing social and industrial order and knowledge of the social, legal, governmental and economic frameworks within which the American industrial organizations exist and operate.

The professional programs offered reflect the belief that application as well as theory should be the proper concern of the undergraduate student. A common body of fundamental business and economics theory, principles and techniques is presented in the core pattern of business subjects. These theories and principles are developed along with certain basic quantitative tools of analysis and communication as preparation for the specialized professional courses. The development of understanding of the interaction of all areas and functions of business operations is the objective of the core courses in business and economics required of all business graduates.

The specialized professional preparation of the student provides opportunities for study in a particular field of interest. This specialized study should enable a graduate to assume a position of responsibility in business, public service, or education.

Finally, the student may choose electives which complement and supplement the specialization area.

The Bachelor of Business Administration degree will be awarded upon completion of the following:

I. Curriculum Requirements:

A. Non-professional education courses:

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

B. Pre-professional courses:

- Acc/AS/Eco/Mgt 130 Business Environment and Public Policy*
- CS 1311 Micro-Computers I*

C. Professional core courses:*

- Acc 231, 232 Principles of Accounting
- BAC 331, 332 Business Analysis I & II
- BLW 331 Business Law
- Eco 334 Macro Economics or Eco 339 Economics of the Firm
- Fin 331 Principles of Finance
- Mgt 331 Principles of Management
- Mgt 332 Production Management
- Mgt 437 Administrative Policy
- Mkt 331 Principles of Marketing
- OAS 335 Business Communications

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

*Slightly different program of courses required by the Department of Administrative Services for students planning to secure teacher certification and for general business computer science and information systems management majors as well as by the Department of Economics for economics majors. See Department of Administrative Services and Department of Economics in this bulletin.

Accounting Major (21 semester hours)

- Acc 331, 332 Inter Acc.
- Acc 334 Cost Acc
- Acc 338 Tax Acc
- Acc 430 Auditing
- Acc 431 Adv Acc
- Acc 435 Acc Systems

Economics Major (24 semester hours)

- Eco 333 Inter Theory
- Eco 332 Money & Banking
- Eco electives 9 sem. hours
- Eco 334 Macro
- Eco 339 Economics of the Firm.
- Eco 4315 Gov & Business

Finance Major (21 semester hours)

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

General Business Major (18-24 semester hours)**Business Concentration I**

- Acc 334 Cost Accounting or Acc 338 Taxation Accounting
- Fin 333 Insurance or Fin 332 Financial Analysis
- Mgt 333 Personnel Management
- Mkt 431 Marketing Management
- Mkt 438 Small Business Enterprise
- OAS 431 Office Management

Advertising Communication Concentration II

- Art 237 Graphic Design I
- Art 3333 Graphic Design II
- Art 3353 Fashion Layout and Illustration
- Com 3383 Broadcast Advertising
- Com 4383 Print Advertising
- Mkt 333 Marketing Promotion

Industrial Engineering Concentration III

- IE 3301 Survey of Industrial Engineering
- IE 333 Engineering Economy

IE 339 Materials Science and Manufacturing Processes
 IE 4301 Quality Control Applications
 IE 438 Methods Engineering
 IE 4316 Industrial and Product Safety

**Computer Science
 Concentration IV**

CS 1413 Principles of Computer Science II
 CS 2411 COBOL Programing
 CS 3307 Data Base Systems
 CS 4311 Information Systems I
 CS 4312 Information Systems II
 BAC 330 Micro Software for Business

**Retail Merchandising
 Concentration V**

HEc 231 Textiles
 HEc 331 Advanced Clothing
 Construction
 HEc 432 Family Clothing
 HEc 434 Fashion Production and Distribution
 HEc 436 Home and Fashion
 Merchandising
 Mkt 332 Principles of Retailing

**Information Systems Management
 Concentration VI**

CS 1413 Principles of Computer Science II
 Acc 334 Cost Accounting or Mgt 431 Budgetary Control
 BAC 330 Micro Software for Business
 BAC 437 Management Database Appl
 Mgt 438 Mgt Computer Systems
 OAS 331 Records Management
 OAS 336 Office Information Systems
 OAS 436 Bus Decision Support Systems

Pre-law Recommended Courses

BLW 332 Labor Law
 BLW 434 Advanced Legal Principles
 BLW 438 Petroleum Law
 OAS 336 Office Information Systems or
 OAS 431 Office Management
 Com 431 Laws and Ethics of the Mass Media or
 Spc 434 Persuasion
 His 339 Historical Research or
 Eng 4326 Expository Writing

Management Major (18 semester hours)

Acc 334 Cost Accounting
 Mkt 431 Marketing Management

Mgt 333 Personnel Management
 Mgt 431 Budgetary Control
 Mgt 432 Organ Behav and Adm or
 Mkt 435 Quant Tech in Mkt
 BLW 332 Labor Law or
 Eco 336 Survey of Labor Economics

Marketing Major (18 semester hours)

Mkt 332 Principles of Retailing
 Mkt 333 Mkt Promotion or
 Mkt 432 Buyer Behavior
 Mkt 431 Marketing Management
 Mkt 435 Quant Tech in Mkt or
 Mkt 433 International Mkt
 Mkt 436 Marketing Research
 Mkt 437 Adv Marketing Problems

**Office Administration Major – Plan I
 (21 semester hours)**

OAS 233 Advanced Typewriting
 OAS 336 Word Proc Con & Admin
 OAS 337 Elec Word Proc Sys
 OAS 338 Sec Office Procedures
 OAS 363 Advanced Shorthand & Transcription or
 OAS 332 Advanced Dictation and
 OAS 333 Advanced Transcription
 OAS 431 Office Management

**Office Administration Major – Plan II
 (21 semester hours)**

OAS 233 Advanced Typewriting
 OAS 336 Word Proc Con & Admin
 OAS 338 Sec Office Procedures
 OAS 363 Advanced Shorthand & Transcription or
 OAS 332 Advanced Dictation and
 OAS 333 Advanced Transcription
 OAS 431 Office Management
 OAS 438 Business Edu Methods

**Personnel Administration
 (Accreditation) (21 semester hours)**

Mgt 333 Personnel Management
 Mgt 432 Organ Behav and Adm
 Psy 335 Motivation
 Psy 336 Psy Tests and Measure
 BLW 332 Labor Law or
 Eco 336 Survey of Labor Economics
 Mgt 433 Personnel Accred Review
 OAS 431 Office Management

E. Approved electives to complete a total of 129 semester hours.

- II. A minimum grade point average of 2.00 in all business and economics subjects.
- III. A minimum grade point average of 2.00 on all courses attempted.
- IV. Application for the degree must be made through the Office of the Dean of Business.

The **Bachelor of Science** degree in economics will be awarded upon completion of the following requirements:

- I. The specific course requirements as set forth in the Department of Economics for the degree (see Department of Economics in this bulletin).
- II. A minimum grade point average of 2.00 in all economics courses.
- III. A minimum grade point average of 2.00 on all courses attempted.
- IV. A minimum of 122 semester hours exclusive of physical education and band.
- V. A minimum of 30 semester hours in the field of economics.
- VI. A minor of 18 semester hours, six of which must be 300 or 400 level courses.

Requirements for the **Master of Business Administration** degree are given in detail in the Graduate Bulletin.

Admission to the College of Business

1. All newly entering freshmen who meet the University's general entrance requirements will be admitted to the College of Business.
2. All newly entering freshmen will be admitted to a "Pre-Business" classification only. No major will be declared until the following conditions are met:
 - a. completion of 45 semester hours with a 2.0 or higher grade point average
 - b. included in the 45 hours will be
 - 1) Eco 131
 - 2) Eco 132
 - 3) AS/Eco/Mgt 130 (not required of students who plan to pursue a major in Economics or in Office Administration, Plan II - Teacher Certification)
 - 4) Acc 231
 - 5) English Composition (6 hours)
 - 6) Mth 134 and Mth 1341 or Mth 236 and Mth 237
3. Transfer students with a grade point deficiency and/or those with fewer than 45 hours of credit as specified above will be classified as "Pre-Business."
4. After exiting the "Pre-Business" classification and declaring a major leading to a bachelor's degree in business, a student who incurs a grade point deficiency should make up that deficiency within the following semester.
5. No student will be allowed to enroll in 400-level business courses until his/her grade point average is 2.0 or higher.
6. Items 2 through 5 above do not apply to students pursuing a one- or two-year certificate program.

Minor Program in Business

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

Students registering for business courses must meet all course prerequisites, including the implicit prerequisite indicated by the course level. Any exception must be approved by the head of the department offering the course.

Department of Accounting

Department Head: R. W. Jones

235 Galloway Business Building

Professors: Bennett, Jones, Veuleman

Associate Professors: Barlow, Davis, Harris, Hudson, McGillivray

Objectives

The principal objective of the accounting department is to develop in the student the knowledge, intellectual abilities, values, attitudes, skills, and leadership qualities needed:

1. To perform effectively in an entry-level position on an accounting track in business, government, education, or other fields and to advance to levels of increasing responsibility.
2. To grow and to develop as an individual both professionally and personally.
3. To become a contributing member of society.

The attainment of this objective requires successful teaching, research and service from the accounting faculty.

Requirements for Becoming an Accounting Major

1. Present an SAT Score.
2. Completion of curriculum presented for prebusiness program and ACC 232 with

a grade point average of 2.5 (a grade of "B" is required in both ACC 231 and ACC 232). Transfer students must meet the equivalent of the above requirements.

Requirements for Graduation

In addition to the College of Business degree requirements, the accounting major must have a GPA of 2.0 for all accounting courses attempted. Students pursuing this degree program must take all professional courses at Lamar University.

Bachelor of Business Administration - Accounting Major

Recommended Program of Study

First Year	Second Year
Acc/AS/Eco/Mgt 130 Bus Envir & Pub Policy 3	Acc 231, 232 Principles 6
CS 1311 Micro-Computers I 3	Eng Literature 3
Eco 131, 132 Principles 6	POLS 231, 232 American Government I, II 6
Eng Composition 6	His Sophomore American History 6
Mth 134, 1341 Mathematics for Business Applications and Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II 6	Soc, Phil, Ant or Psy 3
Laboratory Science 8	Spc 131 or 331 3
PE Activity (2 semesters) 2	PE Activity (2 semesters) 2
34	3
Third Year	Fourth Year
Acc 331, 332 Intermediate 6	Acc 430 Auditing 3
Acc 338 Taxation Accounting 3	Acc 431 Advanced Accounting 3
Acc 334 Cost Accounting 3	Acc 435 Accounting Systems 3
BAC 331, 332 Business Analysis 6	Eco 339 Economics of the Firm 3
BLW 331 Business Law 3	Mgt 332 Production Management 3
Fin 331 Principles of Finance 3	Mgt 437 Administrative Policy 3
Mgt 331 Principles of Management 3	OAS 335 Business Communications 3
Mkt 331 Principles of Marketing 3	Accounting Elective 3
Electives 3	Electives (College of Business) 6
33	30

Accounting Courses (Acc)

- 231 Principles of Accounting 3:3:0**
Concepts and procedures of financial accounting. First, the information gathering, analysis, recording and reporting functions inherent in the complete accounting cycle. Second, the balance sheet areas of asset measurement and liability. Third, accounting for partnerships.
- 232 Principles of Accounting 3:3:0**
A continuation of Acc 231 with additional financial accounting and concepts, procedures and uses of managerial accounting. First, accounting for corporate owner's equity and specialized accounting topics. Second, cost and managerial accounting with basic cost systems, budgeting and special analyses for management.
Prerequisite: Acc 231 with grade of "C."
- 331 Intermediate Accounting 3:3:0**
Analysis of theory and its applications in the areas of cash, temporary investments, receivables, inventories, plant and intangible assets, long-term investments, short-term liabilities and present value concepts.
Prerequisite: Acc 231 with a grade of "B" and Acc 232 with a grade of "B."
- 332 Intermediate Accounting 3:3:0**
Continuation of Acc 331 with emphasis on long-term debt, leases, pensions, owners' equity, revenue recognition, income tax accounting, earnings per share, changes in financial position and accounting for inflation.
Prerequisite: Acc 331 with grade of "C."
- 334 Cost Accounting 3:3:0**
Cost accounting with a managerial emphasis: Job order and process cost; standard cost and variance analysis; budgetary control; relevant costing for decision making; capital budgeting.
Prerequisite: Acc 232.

- 337 Municipal and Governmental Accounting 3:3:0**
Special procedures for enterprises operating under appropriated budgets with attention given to federal, state, municipal governmental units; bond funds; special assessment funds; general funds; budgets; financial statements.
Prerequisite: *Acc 232.*
- 338 Taxation Accounting 3:3:0**
Provisions of the income tax code as applied to individuals: taxable income; gains and losses; capital gains; dividends; expenses; itemized deductions; depreciation; losses; zero bracket amounts; and credits.
Prerequisite: *Acc 232.*
- 339 Taxation Accounting 3:3:0**
Provisions of the income tax code as applied to proprietorships, partnerships, estates, trusts and corporations; reorganizations; filing returns; refunds; social security taxes; estate taxes; gift taxes.
Prerequisite: *Acc 338.*
- 430 Auditing 3:3:0**
Principles and procedures applied by public accountants and auditors in the examination of financial statements and accounts; verification of data; audit working papers; reports; types of audits; procedures.
Prerequisite: *Acc 332 with grade of "C."*
- 431 Advanced Accounting 3:3:0**
Analysis of special problems and theories relative to partnership formation and operations: fund accounting; corporate mergers and acquisitions; consolidated statements; accounting for foreign operations.
Prerequisite: *Acc 332 with a grade of "C."*
- 433 C.P.A. Review 3:3:0**
Preparation of candidates for the Certified Public Accountants' examination through review and study of problems and questions relative to the examination.
Prerequisite: *Consent of the instructor.*
- 434 Advanced Cost Accounting 3:3:0**
In-depth study of process cost accounting; spoilage; overhead allocation; departmentalization; quantitative methods for planning and control.
Prerequisite: *Acc 334.*
- 435 Accounting Systems 3:3:0**
Analysis of theoretical models illustrating structure, design and installation of specific accounting systems with emphasis on computer applications.
Prerequisite: *Acc 331 and Acc 334.*
- 439 Special Topics in Accounting 3:3:0**
Intensive investigation of accounting topics. Research and conferences with supervising faculty member. May be repeated when area of study differs.
Prerequisite: *Senior standing; approval of department head and instructor.*

Department of Administrative Services

Department Head: Nancy S. Darsey

237 Galloway Business Building

Professors: Darsey, Kirksey, Spradley, White

Associate Professor: Johnson

Assistant Professors: Barnes, Burke, Cavaliere, Dorrell, Drapeau, Stevens, M. Swerdlow, Vaughn

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

General Business

The general business curriculum enables a student to receive an education in the fundamentals of business and at the same time diversify into a secondary field of concentration. Four of the six fields of concentration available to a student are outside the College of Business. The six fields of concentration include: Business Concentration, Advertising Communication Concentration, Industrial Engineering Concentration, Information Systems Management Concentration, Computer Science Concentration and Retail Merchandising Concentration.

The general business pre-law program prepares students for admission to and completion of law school, as well as the successful management of a law practice. Advanced coursework in composition, communication, office practice, and the law complements the student's general business education. After completion of the program, students may apply directly to the law schools of their choice.

Office Administration

For the Bachelor of Business Administration degree in Office Administration, the general and specific requirements of the four-year curricula furnish a broad preparation and a highly specialized proficiency for the professional secretarial field, including word processing.

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

The department also offers a two-year program for students in Office Administration. Offered only on the Beaumont campus, the two-year curriculum is designed to develop competence in typewriting, shorthand, computer concepts, accounting, business correspondence, and word processing concepts and techniques. Successful students are prepared to pass civil service examinations and the employment tests given by large business and industrial offices. A Certificate of Completion is awarded. One-year stenographic and clerical options are also offered on the Beaumont campus.

Students should consider the many advantages of Office Administration. This field can be particularly rewarding because of its unlimited promotional opportunities, especially in the area of office management. Many successful persons in positions of leadership began their business careers as secretaries, business education teachers, or assistants to office managers.

Recommended Programs of Study

Bachelor of Business Administration

General Business Major—Business Concentration—Plan I

First Year	Second Year
Acc/As/Eco/Mgt 130 Business Environment and Public Policy 3	Acc 231, 232 Principles 6
CS 1311 Micro-Computers I 3	Eng Literature 3
Eco 131, 132 Principles 6	POLS 231, 232 American Government I, II 6
Eng Composition 6	His Sophomore American History 6
Mth 134, 1341 Mathematics for Business Applications and Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II 6	Soc, Phil, Ant or Psy 3
Laboratory Science 8	Spc 131 Public Speaking or Spc 331 Business and Professional Speech 3
PE Activity 2	PE Activity 2
34	Electives (non-business) 3
	32
Third Year	Fourth Year
BAC 331, 332 Business Analysis 6	Acc 334 Cost Accounting or Acc 338 Tax Acc 3
BLW 331 Business Law 3	Eco 334 Macro Economics or Eco 339 Economics of the Firm 3
Fin 331 Principles of Finance 3	Fin 333 Insurance or Fin 332 Financial Analysis 3
Mgt 331 Principles of Management 3	Mgt 333 Personnel Management 3
Mgt 332 Production Management 3	Mgt 437 Administrative Policy 3
Mkt 331 Principles of Marketing 3	Mkt 431 Marketing Management 3
OAS 335 Business Communications 3	Mkt 438 Small Business Ent. 3
Electives (non-business) 3	OAS 431 Office Management 3
Electives (College of Business 300 or 400 Level) 6	Electives (College of Business 300 or 400 Level) 6
33	30

Advertising Communication Concentration—Plan II

First Year	
Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
CS 1311 Micro-Computers I	3
Eco 131, 132 Principles	6
Eng Composition	6
Mth 134, 1341 Mathematics for Business Applications and Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II	6
Laboratory Science	8
PE Activity	2
	<hr/> 34

Third Year	
BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Art 237 Graphic Design	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mgt 332 Production Management	3
Mkt 331 Principles of Marketing	3
OAS 335 Business Communications	3
Electives (College of Business 300 or 400 Level)	6
	<hr/> 33

Industrial Engineering Concentration—Plan III

First Year	
Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
CS 1311 Micro-Computers I	3
Eco 131, 132 Principles	6
Eng Composition	6
Mth 134, 1341 Mathematics for Business Applications and Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II	6
Laboratory Science	8
PE Activity	2
	<hr/> 34

Third Year	
BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
IE 3301 Survey of Industrial Engineering	3
Mgt 331 Principles of Management	3
Mkt 331 Principles of Marketing	3
OAS 335 Business Communications	3
Elective (non-business)	3
Electives (College of Business 300 or 400 Level)	6
	<hr/> 33

Second Year	
Acc 231, 232 Principles	6
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Soc, Phl, Ant or Psy	3
Spc 131 Public Speaking or Spc 331 Business and Professional Speech	3
PE Activity	2
Electives (non-business)	3
	<hr/> 32

Fourth Year	
Art 3333 Graphic Design II	3
Art 3353 Fashion Layout and Illustration	3
Com 3383 Broadcast Advertising	3
Com 4383 Print Advertising	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
Mgt 437 Administrative Policy	3
Mkt 333 Marketing Promotion	3
Elective (non-business)	3
Electives (College of Business 300 or 400 Level)	6
	<hr/> 30

Second Year	
Acc 231, 232 Principles	6
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Soc, Phl, Ant or Psy	3
Spc 131 Public Speaking or Spc 331 Business and Professional Speech	3
PE Activity	2
Elective (non-business)	3
	<hr/> 32

Fourth Year	
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
IE 333 Engineering Economy	3
IE 339 Materials Science and Manufacturing Processes	3
IE 4301 Quality Control	3
IE 438 Methods Engineering	3
IE 4316 Industrial and Product Safety	3
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
Electives (College of Business 300 or 400 Level)	6
	<hr/> 30

Computer Science Concentration - Plan IV

First Year	
Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
CS 1411 Principles of Computer Science I	4
Eco 131, 132 Principles	6
Eng Composition	6
Mth 1345 Discrete Mathematics and Mth 1341 Elements of Analysis for Business Applications or Other Approved Mathematics Courses	6
Laboratory Science	8
PE Activity	2
	35

Third Year	
BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
CS 2411 COBOL Programing	4
CS 3307 Data Base Systems	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mkt 331 Principles of Marketing	3
OAS 335 Business Communications	3
Electives (non-business)	3
	31

Second Year	
Acc 231, 232 Principles	6
CS 1413 Principles of Computer Science II	4
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Soc, Phl, Ant or Psy	3
Spc 131 Public Speaking or Spc 331 Business and Professional Speech	3
PE Activity	2
	33

Fourth Year	
CS 4311 Information Systems I	3
CS 4312 Information Systems II	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
BAC 330 Micro Software for Business	3
Elective (non-business)	3
Electives (College of Business 300 or 400 Level)	9
	30

Retail Merchandising Concentration - Plan V

First Year	
Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
CS 1311 Micro-Computers I	3
Eco 131, 132 Principles	6
Eng Composition	6
Mth 134, 1341 Mathematics for Business Applications and Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II	6
Laboratory Science	8
PE Activity	2
	34

Third Year	
BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
HEc 231 Textiles	3
HEc 331 Advanced Clothing Construction	3
Mgt 331 Principles of Management	3
Mkt 331 Principles of Marketing	3
OAS 335 Business Communications	3
Electives (College of Business 300 or 400 Level)	6
	33

Second Year	
Acc 231, 232 Principles	6
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Soc, Phl, Ant or Psy	3
Spc 131 Public Speaking or Spc 331 Business and Professional Speaking	3
PE Activity	2
Elective (non-business)	3
	32

Fourth Year	
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
HEc 432 Family Clothing	3
HEc 434 Fashion Production and Distribution	3
HEc 436 Home and Fashion Merchandising	3
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
Mkt 332 Retailing	3
Elective (non-business)	3
Electives (College of Business 300 or 400 Level)	6
	30

Information Systems Management Concentration Plan VI

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
CS 1411 Principles of Computer Science I	4
Eco 131, 132 Principles	6
Eng Comp	6
Mth 1345 Discrete Mathematics and Mth 1341 Elements of Analysis for Business Applications or Other Approved Mathematics Course	6
Laboratory Science	8
PE Activity	2
	<hr/> 35

Third Year

BAC 330 Micro Software for Business	3
BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mkt 331 Principles of Marketing	3
OAS 331 Records Management	3
OAS 335 Business Communications	3
OAS 336 Office Information Systems	3
	<hr/> 30

Pre-Law Recommended Courses

First Year

Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
CS 1311 Micro-Computers I	3
Eco 131, 132 Principles	6
Eng Composition	6
Mth 134, 1341 Mathematics for Business Applications and Elements of Analysis for Business Applications or Mth 236, 237 Calculus I & II	6
Laboratory Science	8
PE Activity	2
	<hr/> 34

Third Year

BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mgt 332 Production Management	3
Mkt 331 Principles of Marketing	3
OAS 335 Business Communications	3
*Electives (non-business)	6
*Electives (College of Business 300 or 400 Level)	3
	<hr/> 33

Second Year

Acc 231, 232 Principles	6
CS 1413 Principles of Computer Science II	4
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Soc, Phil, Ant, or Psy	3
Spc 131 Public Speaking or Spc 331 Business and Professional Speech	3
PE Activity	2
	<hr/> 33

Fourth Year

Acc 334 Cost Accounting or Mgt 431 Budgetary Control	3
BAC 437 Management Database Appl	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
Mgt 438 Management of Computer Systems	3
OAS 436 Bus Decision Support Systems	3
Elective (non-business)	4
Electives (College of Business 300 or 400 level)	6
	<hr/> 31

Second Year

Acc 231, 232 Principles	6
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Soc, Phil, Ant or Psy	3
Spc 131 Public Speaking or Spc 331 Business & Professional Speech	3
PE Activity	2
*Elective (non-business)	3
	<hr/> 32

Fourth Year

BLW 332 Labor Law	3
BLW 434 Advanced Legal Principles	3
BLW 438 Petroleum Law	3
Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
OAS 336 Office Information Systems or OAS 431 Office Management	3
Com 431 Laws and Ethics of the Mass Media or Spc 434 Persuasion	3
His 339 Historical Research or Eng 4326 Expository Writing	3
Mgt 437 Administrative Policy	3
*Electives (College of Business 300 or 400 Level)	6
	<hr/> 30

Bachelor of Business Administration Office Administration Major

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

First Year

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

Third Year

BAC 331, 332 Business Analysis	6
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mgt 332 Production Management	3
Mkt 331 Principles of Marketing	3
OAS 363 Advanced Shorthand & Transcription or OAS 332 Advanced Dictation and OAS 333 Advanced Transcription	6
Electives	3
	30

Plan II—This program is designed for those who wish to qualify for a provisional teacher's certificate—secondary—with a teaching field in business education.

First Year

CS 1311 Micro-Computers I	3
Eco 131, 132 Principles	6
Eng Composition	6
Laboratory Science (same science)	8
Mth 134 & 1341 Mathematics for Business Applications & Elements of Analysis for Business Applications or Mth 236 & 237 Calculus I & II	6
OAS 233 Advanced Typewriting	3
PE (2 semesters)	2
	34

Third Year

BAC 331 Business Analysis	3
BLW 331 Business Law	3
C&I 331 Foundations	3
C&I 332 Educational Psychology	3
C&I 3325 Needs of Special Learners	3
C&I 338 Curriculum, Materials and Evaluation	3
Fin 331 Principles of Finance	3
Mgt 331 Principles of Management	3
Mkt 331 Principles of Marketing	3
OAS 363 Advanced Shorthand & Transcription or OAS 332 Advanced Dictation and OAS 333 Advanced Transcription	6
Elective (Restricted)	3
	36

Second Year

Acc 231, 232 Principles	6
CS 1311 Micro-Computers I	3
Eng Literature	3
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Spc 131 Public Speaking or Spc 331 Business and Professional Speech	3
PE (2 semesters)	2
Elective	3
	32

Fourth Year

Eco 334 Macro Economics or Eco 339 Economics of the Firm	3
Mgt 437 Administrative Policy	3
OAS 335 Business Communications	3
OAS 336 Office Information Systems	3
OAS 337 Electronic Word Processing Systems	3
OAS 338 Secretarial Office Procedures	3
OAS 431 Office Management	3
Soc, Phl or Ant	3
Electives (College of Business 300 or 400 Level)	9
	33

Second Year

Acc 231, 232 Principles	6
C&I 2101 Intro to Education	1
Eng Literature	6
POLS 231, 232 American Government I, II	6
His Sophomore American History	6
Spc 131 Public Speaking or Spc 331 Business & Professional Speech	3
PE (2 semesters)	2
Elective	3
	33

Fourth Year

C&I 3326 Reading Strategies	3
C&I 438 Classroom Management	3
C&I 462 Student Teaching	6
Mgt 332 Production Management	3
Mgt 437 Administrative Policy	3
OAS 335 Business Communications	3
OAS 336 Office Information Systems	3
OAS 338 Secretarial Office Procedures	3
OAS 431 Office Management	3
OAS 438 Business Education Methods	3
Elective	3
	36

Two-Year Certificate of Completion in Office Administration

First Year	Second Year
Eco 131, 132 Principles 6	Acc 231, 232 Principles 6
Eng Composition 6	BLW 331 Business Law 3
Mth 134 Mathematics for Business Applications . . 3	CS 1311 Micro-Computers I 3
OAS 131 Secretarial Communications 3	Eng Literature 3
OAS 134 Office Machines 3	OAS 336 Office Information Systems 3
OAS 135 Records Management 3	OAS 337 Electronic Word Processing Systems . . . 3
OAS 233 Advanced Typewriting 3	OAS 338 Secretarial Office Procedures 3
Spc 131 Public Speaking 3	OAS 363 Advanced Shorthand & Transcription or OAS 332 Advanced Dictation and OAS 333 Advanced Transcription 6
PE (Activity) 2	Elective 3
32	33

One-Year Certificates

Stenographic Option	Clerical Option
CS 1311 Micro-Computers I 3	Acc 231 Prin. 3
Eng Composition 6	CS 1311 Micro-Computers I 3
OAS 131 Secretarial Communications 3	Eco 131 Principles 3
OAS 134 Business Machines 3	Eng Composition 6
OAS 135 Records Management 3	OAS 131 Secretarial Communications 3
OAS Shorthand (2 courses) 6	OAS 134 Business Machines 3
OAS Typewriting (2 courses) 6	OAS 135 Records Management 3
PE (Activity) 2	OAS Typewriting (2 courses) 6
32	32

Administrative Services Courses (AS)

- 130 Business Environment and Public Policy** 3:3:0
Survey course emphasizing interaction of business with its external and internal environments. Introduction to public policy process and issues with focus on ethical and moral considerations. Recommended for freshman, especially business majors.
- 431-434 Special Topics in Administrative Services** 3:A:0
Intensive investigation of topics in business analysis, business computers, law, or office administration. Library and/or laboratory and conferences with supervising faculty member. May be repeated when area of study differs.
Prerequisite: Approval of department head and instructor.

Business Analysis and Computers Courses (BAC)

- 330 Microcomputer Software Applications for Business** 3:2:2
An introductory course to microcomputer software packages for business applications. Basic microcomputer operation; electronic spread sheets; database programs; word processing programs; interface among various software programs; specific business applications.
Prerequisite: CS 131 or CS 133.
- 331 Business Analysis I** 3:3:0
Introduction to the quantitative methods of analysis as applied to business problems. Topics of study include collection of data, statistical description, business forecasting through time series analysis, index numbers, and probability in business decision making. Computer package programs may be used throughout the course in analyzing realistic business problems.
Prerequisite: 6 hours of approved math.
- 332 Business Analysis II** 3:3:0
A continuation of BAC 331. Emphasis on use of statistics in business decision making. Topics of study include probability distribution sampling and estimation, hypothesis testing in business research, business forecasting through regression analysis, Bayesian and chi-square analyses. Computer package programs may be used throughout the course in analyzing realistic business problems.
Prerequisite: BAC 331.

- 437 Management Database Applications for Business** **3:3:0**
 The application, logical sequence, and implementation of databases to aid in managerial decision making. Definition of data; survey of information needs in business organizations; concepts of management databases; integration of needs of functional departments through database applications for report generation.
Prerequisite: OAS 436.

Business Law Courses (BLW)

- 331 Business Law** **3:3:0**
 A survey of the legal environment and its impact upon business. Nature and sources of law, administrative and enforcement agencies, and governmental regulations. Students become aware of the legal framework of common business transactions.
- 332 Labor Law** **3:3:0**
 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.
- 434 Advanced Legal Principles** **3:3:0**
 Detailed study of applicable statutes governing sales, real property, bankruptcy, forms of business enterprise (corporations and partnerships), bulk transfers, documents of title and secured transactions, with particular emphasis given to the effect of the Uniform Commercial Code.
Prerequisite: BLW 331.
- 438 Petroleum Law** **3:3:0**
 Survey of the legal factors involved in oil and gas ownership and production. Topics include rights and duties of the landowner; rights and duties of the producer and other parties to a lease; oil and gas leases; types of property interests in oil and gas leases; basics of pooling and unitization and problems commonly encountered in conveying of rights and ownership.
Prerequisite: BLW 331.

Office Administration Courses (OAS)

- 131 Secretarial Communications** **3:3:0**
 Practical secretarial projects emphasizing use of functional English in correspondence; good judgement in other secretarial communications.
Limited to students pursuing one- or two-year certificate programs.
- 132 Intermediate Typewriting** **3:2:2**
 Emphasis on speed and accuracy development and the transfer of typewriting skills to office production problems. Includes business letter styles, manuscript formats, and tabulation applications.
Prerequisite: Beginning typewriting or equivalent.
- 134 Business Machines** **3:3:0**
 Practical projects emphasizing knowledge and skills necessary to operate adding and calculating machines, duplicating machines, transcription machines, key punch and automatic typewriter.
Prerequisite: OAS 230 or comparable typewriting skill.
- 135 Filing Systems** **3:3:0**
 Methods and procedures in classifying, storing, and retrieving business records. Filing systems; records management; mechanical retrieval; microrecords and retrieval; equipment; records control.
- 230 Keyboarding** **3:2:2**
 Introduction to touch typing system of keyboarding. Development of keyboarding techniques as a foundation for skill development and transfer to electronic keyboarding equipment, computer terminals, text editing equipment, etc. Simple letter forms and manuscripts for students' personal use.
- 231 Beginning Shorthand** **3:2:2**
 Introduction of either Gregg Diamond Jubilee or Century 21 Shorthand. Reading; writing; theory principles; brief or speed forms; previewed dictation.
- 232 Intermediate Shorthand** **3:2:2**
 Intensification of shorthand reading and writing skills. Brief form or speed form and theory review; speed-building dictation; pretranscription practice.
Prerequisite: OAS 231 or equivalent.
- 233 Advanced Typewriting** **3:2:2**
 Application of acquired typewriting skills and knowledge to planning, organizing, and typewriting a variety of production problems with professional speed and efficiency. Includes business forms, statistical tables, financial statements, legal documents, reports, and correspondence.
Prerequisite: OAS 132 or equivalent.

- 262 Beginning-Intermediate Shorthand** 6:4:4
Intensive introduction to either Gregg Diamond Jubilee Shorthand or Century 21 Shorthand. (OAS 262 equivalent to OAS 231 and OAS 232). Reading; writing; theory principles; brief or speed forms and theory; previewed dictation; pretranscription practice.
- 331 Records Management** 3:3:0
The systematic approach to the management of business records for executive problem-solving and decision-making activities. Record cycle from creation to disposition; forms management; correspondence and reports control; auditing record programs; automated systems.
- 332 Advanced Dictation** 3:2:2
Development of dictation speed, knowledge of nonshorthand elements of transcription, and ability to transcribe dictation into mailable form. Vocabulary development, theory reinforcement.
Prerequisite: OAS 232 or equivalent.
- 333 Advanced Transcription** 3:2:2
Emphasis on refinement of shorthand skill—developing dictation speed and rapid, accurate transcription ability. Vocabulary development; office-style dictation; mailable letter production.
Prerequisite: OAS 332.
- 334 Dictation and Transcription** 3:3:0
Stress on building shorthand speed and improving mailable-letter transcription skill. Vocabulary development; sustained dictation; volume production.
Prerequisite: OAS 363 or equivalent.
- 335 Business Communications** 3:3:0
Theories, practices and problems involved in communications in business and industry with emphasis on use of practical psychology, good judgment. Letters; reports; memoranda.
Prerequisite: Junior standing preferable; practical knowledge of touch typewriting helpful.
- 336 Office Information Systems** 3:3:0
An examination of office information and decision support systems. Information processing systems; analysis and management of support activities; electronic storage systems; reprographics; communications distribution; person/machine interfaces; appraisal of current and future technological trends.
- 337 Electronic Word Processing Systems** 3:3:0
Basic operation of magnetic media automated typewriters in conjunction with transcription machines. Emphasis on recording, formatting, editing, temporary and permanent revising, merging, proof reading, and logging.
Prerequisite: OAS 132 and 336.
- 338 Secretarial Office Procedures** 3:3:0
Capstone office administration course. Analysis of responsibilities and duties of the administrative secretary. Procedures; work simplification; supervision; office etiquette and ethics; sources of information.
- 363 Advanced Shorthand and Transcription** 6:4:4
Improvement of ability to take dictation and transcribe mailable copy. (OAS 363 equivalent to OAS 332 and OAS 333) Theory principles; brief or speed form derivatives; vocabulary development; speed building; mailable transcription; office-style dictation.
Prerequisite: OAS 232 or equivalent.
- 431 Office Management** 3:3:0
Administrative management of business offices; social, legal, and ethical considerations in office management; employee recruitment, training, supervision, and motivation; information systems; office location and layout; selection of equipment and supplies; office cost control.
- 432 CPS Review** 3:3:0
A comprehensive review of the six subject matter areas covered by the Certified Professional Secretary examination. Individual research; group projects; discussion; sample examinations. Recommended for candidates sitting for CPS examination.
- 434 Women in Business** 3:3:0
A reading-discussion course concerned with the issues the businesswoman of today encounters. Students survey the literature and discuss available opportunities for women as well as existing problems of the woman in business.
- 436 Business Decision Support Systems** 3:3:0
An analysis of the role of support systems in business organizations. Fundamental concepts of systems; information flows; nature of information support systems; computer applications in decision systems; uses of output; decision support system design and application.
Prerequisites: BAC 330, BAC 331, and MGT 331.
- 438 Business Education in the Secondary School** 3:3:0
Teaching theories, materials, methods, and evaluation in business education with emphasis on motor-skill subjects. Other topics include history and trends, course planning, teaching aids and resources, and ethics and professional growth.

Department of Economics

Department Head: Charles F. Hawkins

240 Galloway Business Building

Professors: Hawkins, Parigi

Associate Professors: C. Allen, Montano, Pearson, Price

Assistant Professors: J. Allen, Choi, Chudzinski

Instructor: Elliott

The Department of Economics offers two degrees:

Bachelor of Business Administration: Recommended to the student who desires a thorough grounding in business courses to augment the Economics knowledge which is necessary for understanding the complexities of modern business, government and non-profit organizations.

Bachelor of Science: Recommended to the student particularly interested in working abroad, seeking the Doctor of Philosophy degree or desiring a supportive minor in another interest area such as mathematics, sociology, government, education, or computer science.

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

Teacher Certification - Economics

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

J. D. Landes Center for Economic Education

Director: Joel L. Allen

The Center for Economic Education, established in January 1976, offers programs in economic education for elementary, secondary and college teachers, and business, professional and civic groups. The purpose of the Center is to institute, develop and promote programs which will increase economic understanding in cooperation with teacher education, other university or community programs.

Center services include: community and consultant services for workshops, institutes, conferences; materials and teaching aids development, curriculum design and integration; economics courses for prospective and in-service teachers, university students and other interested adults, area business, professional and civic groups.

The Lamar University Center for Economic Education is a division of the Department of Economics, College of Business and is affiliated with the Joint Council and the Texas Council on Economics Education.

Recommended Program of Study

Bachelor of Business Administration - Economics Major

First Year	Second Year
Eco 131, 132 Principles..... 6	Acc 231, 232 Principles 6
Eng Composition..... 6	Eng Literature 3
Mth 134 & 1341 Math for Bus. Analysis & Applications..... 6	POLS 231, 232 American Government I, II 6
Mth 236 & 237 Calculus I & II 6	His Sophomore American History 6
Laboratory Science..... 8	PE Activity..... 2
CS 1311 Micro-Computers 3	Soc, Phil or Ant..... 3
PE Activity..... 2	Spc 131 Public Speaking..... 3
31	32

Third Year

BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mkt 331 Principles	3
BAC 331, 332 Business Analysis	6
Eco 333 Intermediate Theory	3
Eco 334 Macro Economics	3
Eco 339 Economics of the Firm	3
*Electives	9
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	33

Fourth Year

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

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

Bachelor of Science - Economics Major**First Year**

Eco 131, 132 Principles	6
Eng Composition	6
Mth 134 & 1341 Math for Bus Analysis and Applications	
Mth 236 & 237 Calculus I & II	6
Laboratory Science	8
PE Activity	2
CS 1311 Micro-Computers I	3
	<hr/>
	31

Second Year

Acc 231, 232 Principles	6
Eng Literature	3
His Sophomore American History	6
POLS 231, 232 American Government I, II	6
Electives	9
PE Activity	2
	<hr/>
	32

Third Year

BAC 330 Micro Software for Business	3
Eco 333 Intern Theory	3
Eco 334 Macro Economics	3
BAC 331, 332 Business Analysis	6
Spc 331 Business and Professional Speech	3
Minor Courses	6
Advanced Electives (300 or 400 Level)	7
	<hr/>
	31

Fourth Year

Economics Courses (Advanced Level)	18
Minor Courses (Advanced Level)	12
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	30

Economics Courses (Eco)

131 Principles (Micro)	3:3:0
Introduction to economic principles; allocation of resources; determination of output and prices; distribution; and managerial economics.	
132 Principles (Macro)	3:3:0
Emphasizes monetary theory; national income analysis; fluctuation and growth; public finance; international trade; and current economic problems.	
230 Current Economic Issues	3:3:0
A survey of current economic issues and problems: energy, environment, inflation, unemployment, tax structures, organization of industries and markets, and consumerism. Issues discussed will vary in order to emphasize topics of greatest concern. Course may be taken for credit by majors or non-majors.	
233 Principles and Policies	3:3:0
Comprehensive introduction to economic principles and problems for non-business students. Resource utilization; price determination; distribution of income; fiscal and monetary problems; economic growth.	
331 Economics of Entrepreneurship	3:3:0
Comprehensive analysis and practice exercises in entrepreneurship. Studies include demand analysis; pragmatic economic feasibility studies; identification and use of resources; function and use of profits. Prerequisite: 6 hours of Economics.	
332 Money and Banking	3:3:0
Functions and policies of the American monetary and banking system. Commercial banking; Federal Reserve System; monetary theories and policies; economic stabilization and growth. Prerequisite: 6 hours of Economics.	
333 Intermediate Theory	3:3:0
Economic analysis and methodology. Distribution theory; price theory; pure and imperfect competition. Prerequisite: Eco 131.	

- 334 Macro Economics** **3:3:0**
 A descriptive-analytical approach to the dynamic forces that influence the aggregate level of economic activity. Income and employment determinants; levels of income and employment, stabilization theory; investment and income relationship; monetary and fiscal policies.
Prerequisite: Eco 132.
- 335 International Trade** **3:3:0**
 Theories, practices and problems involved in international commerce between nations. Bases of trade; tariffs; exchange controls; international monetary policies; current problems.
Prerequisite: Six hours of Economics.
- 336 Survey of Labor Economics** **3:3:0**
 Past development and present organizational structure of the labor movement in America and its impact on the industrial society. Labor markets; collective bargaining; wages; economic insecurity; labor legislation; governmental policies.
Prerequisite: Three hours of Economics or approval of the instructor.
- 337 Public Finance** **3:3:0**
 Study of the constitutional, administrative and economic aspects of governmental fiscal activities; government debt; intergovernmental fiscal relations; federal, state and local taxes.
Prerequisite: 6 hours of Economics.
- 339 Economics of the Firm** **3:3:0**
 The application of the techniques of economic analysis to managerial problems of business enterprises utilizing a problem solving or case study approach. Goals of the firm; business forecasting; demand analyses; cost analyses; game theory; pricing policies; governmental relations.
Prerequisite: Eco 131.
- 4301, 4601 Institute in Economics** **3-6:-6:0**
 Institutes are designed to advance the professional competence of participants. When courses are conducted in sufficiently different areas and with the approval of the department head, a participant may repeat the course for credit.
- 4311, 4611 Problems in Economics** **3-6:A:0**
 Investigation into special areas in economics under the direction of a faculty member. This course may be repeated for credit when topics of investigation differ.
- 430 Regional and Urban Economics** **3:3:0**
 Analysis of regional development and industrial location; economic problems of urban areas in financing and supplying goods and services at adequate levels.
Prerequisite: Six hours of Economics.
- 431 Monetary Theory** **3:3:0**
 An analytical, institutional, historical and empirical analysis of monetary theory, and its interrelations with the generally accepted economic goals.
Prerequisite: Eco 132, 332, or 334 or approval of instructor.
- 4315 Government and Business** **3:3:0**
 Promotion, regulation and restriction of business enterprises by government. Regulatory agencies; antitrust laws; consumerism; transportation; industrial organization and concentration and the eco-legal environment.
- 433 History of Economic Thought** **3:3:0**
 Historical development of economic thought from primitive periods to the present. Classical; historical; socialist; neoclassical; institutional thought.
- 434 Economic Development** **3:3:0**
 Introduction to the theories and history of economic growth and development applicable to advanced and emerging economies; analysis of processes of growth including cultural, technological and economic factors; identification of problem areas with policy implications.
Prerequisite: 3 hours of Economics.
- 435 Comparative Economic Systems** **3:3:0**
 A critical analysis of the basic theories and institutions of economic systems including a comparison of the American system with other existing systems. Capitalism; socialism; communism.
Prerequisite: 3 hours of Economics.
- 436 Business Cycles** **3:3:0**
 The nature and causes of business cycles. Cyclical theories; business fluctuations; forecasting stabilization; current problems. *Prerequisite: 6 hours of Economics.*
- 438 Economics of World Resources** **3:3:0**
 The world's physical and economic resources and their relationship to man's well being. Interrelationships between resources and industries, commerce and investments at the national and international level. Implications of government regulations on resource use and economic development.

Department of Management - Marketing - Finance

Department Head: Richard T. Cherry

236 Galloway Business Building

Professors: Cherry, Ryan, Wooten

Associate Professors: Brust, Brunson, Cyrson, Godkin, R. Swerdlow, Taylor

Assistant Professors: Caples, Corrigan, Jones, Kare, Steiert

Degree Programs

Finance

The finance program provides the student with a broad education in financial markets and institutions, in investments, and in the financial management of organizations. Electives can be selected to provide an emphasis in insurance, in real estate, in financial planning, or in financial management. Finance graduates are qualified for careers in banking or other financial institutions, stock brokerage firms, in the growing financial services industry, and in the financial division of major organizations.

Management

Management involves the coordination of resources – both human resources (people) and non-human resources (machine, materials, etc.) – so as to achieve organizational objectives efficiently. The curriculum in management, therefore, provides the student with an understanding of the specialized functional areas and with a broad, integrated view of the firm as a whole. Men and women with university degrees in management are equipped to advance more rapidly into positions of increasing responsibility in private business firms, in not-for-profit organizations, and in government.

Personnel Administration

Personnel administration involves the recruitment, selection, maintenance, and development of human resources by organizations. It includes such diverse functional areas as interviewing, training, compensation and benefits, health and safety, and labor relations. After passing an examination in one of the functional areas and meeting minimum experience requirements, a successful candidate will be awarded Accredited Personnel Specialist (APS) status. University graduates in personnel administration are found in all types of business firms, larger service organizations, and governmental agencies.

Marketing

Marketing, as a professional field, is concerned with the whole range of activities that facilitate the movement of goods and services from the producer to the ultimate consumer. The marketing curriculum provides the student with a fundamental understanding of each of the specialties involved in the process as well as with the management of the marketing function generally. Typical kinds of careers open to marketing graduates include advertising, market research, sales and sales management, purchasing, retail merchandising, and retail management.

Academic Counseling

During the first two years of academic work in the College of Business, a finance, management, personnel administration or marketing major will be advised by a freshman and sophomore advisor located in room 120 of the Galloway Business Building. During the student's junior and senior years, he or she should maintain close contact with the faculty advisor and department head in selecting courses to achieve career objectives.

Non-Professional Core Program

The Non-Professional Core Program consists of the courses in which a business major enrolls during the freshman and sophomore years of study. Students should satisfactorily complete all of the Non-Professional Core courses (except non-business electives) before advancing to junior (300 level) courses. This will insure completion of junior level course prerequisites.

First Year

First Semester	
Acc/AS/Eco/Mgt 130 Business Environment and Public Policy	3
Eng Composition	3
Eco 131 Principles	3
Mth 134 Mathematics for Business or Mth 236 Calculus I	3
Laboratory Science	4
PE/MLb/ROTC	1-2
	17-18

Second Semester	
Eng Composition	3
Eco 132 Principles	3
CS 1311 Micro-Computers I	3
Mth 1341 Elements of Analysis for Business or Mth 237 Calculus II	3
Laboratory Science	4
PE/MLb/ROTC	1-2
	17-18

Second Year

First Semester	
Eng Literature	3
His Sophomore American History	3
Acc 231 Principles	3
POLS 231 American Government I	3
Soc or Psy	3
PE/MLb/ROTC	1-2
	16-17

Second Semester	
*Spc 131 or 331	3
His Sophomore American History	3
Acc 232 Principles	3
POLS 232 American Government II	3
** Elective (non-business)	3
PE/MLb/ROTC	1-2
	16-17

*Personnel Administration majors should take Spc 334.
 **PE Activity not acceptable.

Recommended Programs of Study

Bachelor of Business Administration - Finance Major

(See Core Program of First and Second Year)

In the last two years, the student majoring in Finance must select one of two tracks: Financial Management or Financial Services. Professional electives selected with the approval of the department head provide preparation in one of the two tracks.

Third Year

First Semester	
BAC 331 Business Analysis I	3
BLW 331 Business Law	3
Fin 331 Principles of Finance	3
Mkt 331 Principles of Marketing	3
*Professional track elective	3
**Elective (non-business)	3
	18

Second Semester	
BAC 332 Business Analysis II	3
Fin 332 Financial Analysis	3
Fin 431 Investments	3
Mgt 331 Principles of Management	3
*Professional track elective	3
	15

Fourth Year

First Semester	Second Semester
Eco 334 Macroeconomics 3	Fin 433 Commercial Banking 3
Fin 432 Financial Markets and Institutions 3	Mgt 437 Administrative Policy 3
Mgt 332 Production Management 3	OAS 335 Business Communications 3
*Professional track elective 3	***Elective (College of Business
***Elective (College of Business	300 or 400 Level) 6
300 or 400 Level) 3	
15	15

*Requires approval of the department head.
 **PE Activity not acceptable.
 ***The student should consult with his or her faculty advisor to select electives that will be most beneficial in terms of career goals.

**Bachelor of Business Administration
 Personnel Administration (Accreditation)**
 (See Core Program for First and Second Year)

Third Year

First Semester	Second Semester
BLW 331 Business Law 3	Fin 331 Principles of Finance 3
Mkt 331 Principles of Marketing 3	Mgt 331 Principles of Management 3
BAC 331 Business Analysis I 3	BAC 332 Business Analysis II 3
Eco 334 Macro Economics or	OAS 335 Business Communications 3
Eco 339 Economics of the Firm 3	Mgt 434 Productivity Management 3
* Elective (non-business) 3	
15	15

Fourth Year

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

*PE Activity not acceptable.

**Bachelor of Business Administration
 Management Major**
 (See Core Program for First and Second Year)

Third Year

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

Fourth Year

First Semester	Second Semester
Mgt 434 Productivity Management 3	Mgt 437 Administrative Policy 3
Mgt 431 Budgetary Control 3	Mkt 431 Marketing Management 3
Mgt 435 Quantitative Techniques in Marketing or Mgt 432 Organizational Behavior and Administration 3	* Elective (non-business) 3
OAS 335 Business Communications 3	Mgt 438 Management of Computer Systems or Mkt 438 Small Business Enterprise 3
Elective (Bus. 300 or 400 Level) 3	Elective (College of Business 300 or 400 Level) 3
15	15

*PE Activity not acceptable.

Bachelor of Business Administration

Marketing Major

(See Core Program for First and Second Year)

Third Year

First Semester	Second Semester
BAC 331 Business Analysis I 3	BAC 332 Business Analysis II 3
Fin 331 Principles of Finance 3	BLW 331 Business Law 3
Eco 334 Macro Economics or Eco 339 Economics of the Firm 3	Mgt 332 Production Management 3
Mgt 331 Principles of Management 3	Mkt 332 Principles of Retailing 3
Mkt 331 Principles of Marketing 3	Mkt 333 Marketing Promotion or Mkt 432 Buyer Behavior 3
* Elective (non-business) 3	
18	15

Fourth Year

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

*PE Activity not acceptable.

Management Courses (MGT)

130	Business Environment and Public Policy	3:3:0
	A survey course emphasizing interaction of business with its external and internal environments. Introduction to public policy processes and issues with focus on ethical and moral considerations. <i>Recommended for freshmen who have an interest in business.</i>	
331	Principles of Management	3:3:0
	Introduces and emphasizes the application of behavioral disciplines and principles of management to promote fundamental understanding of operating systems. Demonstrates the awareness of what managers should do or be aware of in the pursuit of good organizational performance. <i>Prerequisite: Eco 233 or Eco 131 and 132, Acc 232 and junior standing</i>	
332	Production Management	3:3:0
	A survey of the production function and the analytical tools used to solve problems associated with the development and operation of a production system. Analytical tools include: linear programming, critical path scheduling, waiting line, statistical quality control and forecasting. <i>Prerequisite: Bac 331 and Mgt 331.</i>	
333	Personnel Management	3:3:0
	A behavioral approach to the management of the human resource in business enterprise. The fundamentals of human relations and organizational behavior will be used to structure an understanding of the managerial problems of recruitment, selection, training, promotion and termination of personnel. Supervision of the work force will be considered as an examination of theories of motivation, communication and leadership. <i>Prerequisite: Mgt 331.</i>	

- 431 Budgetary Control** 3:3:0
Theories, problems and techniques of internal financial and budgetary controls. Financial planning, budgetary construction, evaluation, performance rating, replanning.
Prerequisite: Mgt 331 and Fin 331.
- 432 Organizational Behavior and Administration** 3:3:0
A survey of organization theory with emphasis on behavioral issues in both the private and public sectors.
Prerequisite: Mgt 331 and senior standing.
- 433 Contemporary Issues in Personnel Management** 3:3:0
An analysis of current issues in the field of personnel and industrial relations, including fair employment and compensation practices, human utilization and motivation, individual rights, collective bargaining, and personnel related laws, decisions, guidelines and executive orders.
Prerequisite: Mgt 333.
- 434 Productivity Management** 3:3:0
A survey course emphasizing the need for improved productivity in profit and non-profit organizations. The course will focus on the historical and current aspects of productivity as well as problems and methods of measuring, planning, and implementing productivity programs.
Prerequisite: Mgt 331
- 437 Administrative Policy** 3:3:0
Fundamental considerations and procedures followed in business policy formulation and administration. Managerial structure; company objectives; coordination of departmental policies; organization of personnel; reappraisals.
Prerequisite: Fin 331, Mgt 331, 332, and senior standing.
- 438 Management of Computer Systems** 3:3:0
Concepts of computers, information systems, capabilities and limitation, managerial implications in the introduction and use of computers, feasibility study and evaluation of computer systems. Methods of data storage, display and retrieval.
Prerequisite: CS 133.
- 439 Special Problems in Business** 3:A:0
Investigation into special areas in business under the direction of a faculty member.

Marketing Courses (MKT)

- 331 Principles of Marketing** 3:3:0
A description and analysis of business activities designed to plan, price, promote and distribute products and services to customers. Topics studied include the marketing environment, consumer buying habits and motives, types of middlemen, marketing institutions and channels, governmental regulations, advertising and current marketing practices.
Prerequisite: Eco 233 or Eco 131 and 132, Acc 231 and junior standing.
- 332 Principles of Retailing** 3:3:0
A comprehensive introduction to large scale retailing with emphasis on layout, merchandise management, pricing, inventory control and retail promotion.
Prerequisite: Mkt 331.
- 333 Marketing Promotion** 3:3:0
An overview of the broad field of advertising. Creation of primary and selective demand, promotional program selection, media selection and determination of advertising effectiveness and coordination of the promotional mix.
Prerequisite: Mkt 331.
- 334 Professional Salesmanship** 3:3:0
A survey of modern salesmanship as applied to selling of tangibles and intangibles. The salesman in relation to his/her firm, goods and customers, sales psychology, classroom sales demonstrations.
- 431 Marketing Management** 3:3:0
The planning and execution of various marketing activities from the managerial viewpoint are presented, viz: determining the basic product or service market analysis, price policies, product promotion, management of the sales force and sales analysis and physical distribution with the logistics system concept.
Prerequisite: Mkt 331.
- 432 Buyer Behavior** 3:3:0
Acquaints the student with consumer behavior models and behavior research techniques.
Prerequisite: Mkt 331.
- 433 International Marketing** 3:3:0
A survey of international marketing, world markets, political restraints in trade and international marketing principles.
Prerequisite: Mkt 331.

- 434 Industrial Marketing** **3:3:0**
A comprehensive analysis of problems involved in marketing industrial goods with emphasis on market characteristics, purchasing and distribution systems, promotion mix and marketing strategy.
Prerequisite: Mkt 331.
- 435 Quantitative Techniques in Marketing** **3:3:0.**
Topics include Bayesian inference, payoff tables, sample design, analysis of variance, and multiple correlation and regression analysis.
Prerequisite: Bac 332.
- 436 Marketing Research** **3:3:0**
The importance and use of marketing research in U.S. business is stressed. A detailed analysis is made of each marketing research step from the formulation of the problem to the preparation of the research report and follow-up. The basic research methods (survey, observational and experimental) are presented.
Prerequisite: Mkt 331 and Bac 332.
- 437 Advanced Marketing Problems** **3:3:0**
Oral and written cases in the area of marketing management and marketing strategy are utilized (organization, product lines, pricing, channels of distribution, selling, etc). Emphasis is placed on simulated problem solving and decision making in the marketing environment.
Prerequisite: Mkt 431.
- 438 Small Business Enterprise** **3:3:0**
Designed to give the student actual experience in the management of a small business. The student is assigned to a local business as a "student-consultant." The student is required to submit a report outlining the problems of the business and recommended solutions.
Prerequisite: Bac 332 and senior standing in the College of Business.

Finance Courses (Fin)

- 331 Principles of Finance** **3:3:0**
An introductory survey of the principal issues, decision areas, and analytical procedures relevant to the financial management of private business firms including capital budgeting, cost of capital, short and long-term financing, dividend policy and valuation.
Prerequisite: Eco 233 or Eco 131 and 132, Acc 232 and junior standing.
- 332 Financial Analysis** **3:3:0**
Analytical techniques used in financial decision making, including ratio analysis, funds analysis, capital structure, dividend policy, financial forecasting, and valuation models.
Prerequisite: Fin 331.
- 333 Insurance** **3:3:0**
Application of fundamental principles to life, property and casualty insurance. Contracts, premiums, legal statutes, risk, programming.
Prerequisite: Junior standing.
- 336 Personal Finance** **3:3:0**
Introduction to financial problems of the consumer. Emphasis is placed on problems concerning financial planning, investments in real estate, personal property, insurance, and securities.
Prerequisite: Non-finance majors only.
- 430 Life and Health Insurance** **3:3:0**
The nature of life and health insurance, various ways of utilizing the protection it offers. Principal features of insurance and annuity contracts. Group insurance, hospitalization and disability, rating, reserving, and financial statement analysis.
Prerequisite: Fin 333.
- 431 Investments** **3:3:0**
An appraisal of investment alternatives in financial markets. Markets, securities, methods of analysis, investment programming.
Prerequisite: Fin 331.
- 432 Financial Markets and Institutions** **3:3:0**
A study of the supply of and demand for funds in financial markets; analysis of sectoral supply and demand in various submarkets; the role of financial intermediaries; interest rate forecasting.
Prerequisite: Fin 331.
- 433 Commercial Banking** **3:3:0**
An overview of the regulation, operation, and management of the commercial bank; asset and liability management policy; loan policy, investment policy, capital adequacy, liquidity management.
Prerequisite: Fin 331.

- 434 Real Estate** 3:3:0
A survey of real estate principles and practices, including the law of real property, real estate appraisal, marketing and finance.
Prerequisite: Junior standing.
- 435 Property and Casualty Insurance** 3:3:0
The nature of property and casualty insurance, coverages offered by property and casualty insurers with emphasis on the development, basic concepts, and legal basis of the various lines of property and casualty insurance.
Prerequisite: Fin 333.
- 436 Security Analysis and Portfolio Management** 3:3:0
Analysis of investment alternatives in a portfolio context, recent theoretical developments in portfolio management, construction of portfolios to achieve specific investment objectives, investment portfolio monitoring and performance evaluation.
Prerequisite: Fin 431.
- 437 Valuation of Real Property** 3:3:0
Economic theory of value with application to real estate. Real estate appraisal methods as applied to both residential and income properties.
Prerequisite: Fin 434.
- 439 Mortgage Lending** 3:3:0
Methods of real estate financing, sources of funds from financial institutions and governmental agencies. Financial instruments available to the investor, mortgage risk analysis, and loan principles.
Prerequisite: Fin 434.



College of Education

Departments: Curriculum and Instruction; Health, Physical Education, and Dance; Home Economics; and, Professional Development and Graduate Studies.

Dennis P. McCabe, Ph.D., Dean

James Lane, Ed.D., Director of Certification and Admissions

E. Lee Self, Ph.D., Director of Field Experiences and Advisement

Providing education for prospective teachers is a tradition of the University. Non-teaching specialties in dance, food service management, interior design, fashion merchandising, home economics, health and physical education are more recent offerings representing diversification and growth of the College of Education since its establishment in 1959.

Graduate programs in the College of Education are described in the Graduate Studies Catalog of the University.

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

Degrees Offered

Bachelor of Science Degree in Education with majors in the following fields:

Elementary Education

Health Education

Secondary Education

Home Economics

Special Education

Physical Education

Dance

Bachelor of Arts with a major in Dance

Associate of Applied Science-Food Service Management

Associate of Science-Education

Objectives

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

Professional education programs have been built on a base of theory, principles, and techniques determined to be useful in the field of practice.

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

Teacher Education - A Shared Responsibility

The preparation of teachers is a responsibility shared by virtually 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 colleges 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 teacher education programs which fulfill the curriculum requirements for the following Provisional Certificates in the State of Texas: elementary education, secondary education, generic special education, education of the deaf, driver education, all-levels music, all-levels art, all-levels physical education, kindergarten education, vocational home economics, and English as a second language.

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

Admission to Teacher Education

Application for admission to the teacher education program is made upon enrollment in C&I 331 or 332.

Admission requirements.

1. An overall grade point average 2.0, "C".
2. Successful completion of 60 semester hours.
3. Successful completion of the required 100 level courses in English.
4. Successful completion of the required mathematics courses listed in Academic Foundations.
5. Completion of all sections of the Pre-Professional Skills Test in accordance with the state policy.
6. Successful completion of C&I 2101.

It is your responsibility to meet the above listed requirements before you request admission to the Lamar Teacher education program. If you enroll in C&I 300 or 400 level professional development courses and it is discovered that you do not have prerequisites, you will be dropped from the course (s). The drop may come at a time which will be too late to add other courses.

*Students enrolled in a 4-year degree program leading to certification who have met all admissions standards for acceptance into teacher education except the PPST requirements will be allowed to register for up to 6 hours (C&I 331 and C&I 332) in the Department of Curriculum & Instruction.

Admission to Student Teaching and the Professional Semester

Student teaching shall be scheduled for the final spring or fall semester prior to graduation from Lamar University together with two other C&I courses. This 12 semester hour blocking of courses, (6 hours for student teaching and two, three semester hour C&I courses) constitutes a "professional semester."

The first three weeks of this semester will be devoted to the campus courses. For elementary degree/certification programs, these courses are C&I 434 and 3325. For all-levels certification programs these courses are C&I 434 and 3325.

Students are reminded that during this "professional semester" it is possible to schedule only 12 hours of course work.

Students who are eligible and who desire to enroll in the "professional semester" must apply to the Director of Field Experiences by May 1, prior to the academic year for which student teaching is planned.

In order to qualify for the professional semester students must meet the following standards:

1. Be admitted to Teacher Education.
2. Be of senior standing.
3. Possess a grade point average of 2.0 in:
 - a. All work taken
 - b. All teaching fields (areas of specialization for elementary).
 - c. All professional education courses completed.

4. Completed all prerequisite courses in professional education as follows:
 - a. For elementary majors, Options I, II and III, all professional education courses except C&I 3325, 434 and 463 or 465.
 - b. For elementary major, options IV, all professional education courses except C&I 3325 and 463.
 - c. For secondary education students except Home Economics majors, all professional education courses except C&I 3325, 438 and 462.
 - d. For Home Economics majors, C&I 331, 332, 3326, HEc 338 a and 438, C&I 3325 will be taken in block fashion during the professional semester.
 - e. For all-levels students (Art, Hearing Impaired, Music and Physical Education) all professional education courses except C&I 3325, 434 and 463.
5. Completed prerequisites in academic content area as follows:
 - a. For elementary education majors, all courses in academic area of specialization except six hours.
 - b. For the kindergarten and ESL endorsements, 9 hours of required courses.
 - c. For the Driver education endorsement all seven hours.
 - d. For secondary education Option I all-levels, Hearing Impaired, and all-levels Art and Music students, 42 hours in the composite teaching field.
6. Must have written approval of the Director of Field Experiences.

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 twelve hours in residence at Lamar University in professional education courses.
3. A minimum of six hours in residence at Lamar University.
 - a. In each teaching field for secondary education.
 - b. In the area of specialization for elementary education.
4. Evidence of successfully completing student teaching requirements in the area of certification sought.
5. Successful completion of all sections of the pre-professional skills test and successful completion of the appropriate professional exit examinations.

Provisional Certificate and Degree Requirements

Provisional Certificate programs are offered in elementary education, secondary education, special education-generic, vocational home economics, all-levels art, all-levels music, all-levels physical education, and all-levels hearing impaired. Provisional Certificate endorsements are available in driver education, kindergarten education, and English as a second language. Information concerning these programs may be found in the following paragraphs or in departmental sections of this bulletin.

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

Current academic foundation requirements for certificate programs are described below. Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for provisional certificate with a teaching field will be required to meet a revised set of teacher education standards. **All teacher education programs are subject to these new standards beginning in the fall of 1985.** It will be necessary to consult with your department head or the College of Education Advising Center concerning the specifics of these requirements. Other requirements are outlined under the departmental sections of the bulletin.

Academic Foundations

(54 to 60 semester hours)

The academic foundation program outlined below is required of all students working toward Provisional Certificates at this University. Within the general framework shown, some course selections may be governed by the type of certification or degree obtained. Where appropriate, a maximum of six semester hours eight in science, taken in academic foundations may be included in any one teaching field.

- | | |
|--|----------|
| 1. Required core courses | 42 hours |
| English Composition | 6 hours |
| Eng Literature | 6 hours |
| Mth (to include at least one course at or above the level of Mth 1334) | 6 hours |
| Science Laboratory (same science) | 8 hours |
| POLS 231 Am Gov I | 3 hours |
| POLS 232 Am Gov II | 3 hours |
| His Sophomore American History | 6 hours |
| PE Activity (four semesters) | 4 hours |
| | 42 hours |
| 2. Foundations electives and degree requirements | 10 hours |
- C&I 2101 and nine hours to be selected from approved courses in the following groups with courses included from a minimum of three groups:
- Group I: Anthropology, Psychology, Sociology, Child & Family Development, Health.
 - Group II: Economics.
 - Group III: Foreign Language, Manual Communication.
 - Group IV: Art, Drama, Music, Dance.
 - Group V: Philosophy, Bible, Humanities.

Special Certificates and Endorsements

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

Driver education endorsement. Described in the "Division of Health, Physical Education and Dance" section of this bulletin.

Kindergarten education endorsement. Described in the "Elementary Education" section of this bulletin.

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

Education of the hearing impaired. Described in the "Communication" section of this bulletin.

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

English as a second language endorsement. Described in the English as a second language section of this bulletin. This endorsement may be added to any provisional teaching certificate.

Certification for Persons with Bachelor's Degree (or higher) Who Are Not Certified To Teach in Texas

- Information concerning these certification plans is available in the College of Education Certification Office
- Persons with degrees from Texas colleges and persons with degrees from out-of-state colleges apply in the College of Education, Certification Office for certification in Texas.

Certification for Persons With Texas Teaching Certificates Who Desire Additional Endorsements

Those persons with elementary certificates who desire secondary certification, those with secondary certificates who desire elementary certification, and those with elementary or secondary certificates who desire additional endorsements obtain information from the College of Education Certification Office.

Professional Certificates

Requirements for Professional Certificates are described in the Graduate Bulletin.

Department of Curriculum and Instruction

Accredited by the National Council for the Accreditation of Teacher Education

Department Head: Dr. Doyle Watts

202 Education Building

Professors: Burke, Hargrove, Hogue, Self, Snyder, Sontag

Assistant Professor: Cooper, Goulas, Karlin, Lane, Matheny

Bachelor of Science Degree in Elementary Education

The Bachelor of Science degree in Elementary Education is designed to meet the requirements for a Provisional Elementary Teaching Certificate in the State of Texas. The persons who major in elementary education also may receive a certificate endorsement to teach kindergarten and driver education by meeting the additional curriculum requirements as described in other sections of this bulletin.

In addition to completing the required academic foundations program (previously described), students must fulfill the requirements in the area of specialization, professional education and elective courses. This plan allows an overlap of six semester hours between academic foundations and the area of specialization, thus allowing 9 to 15 semester hours of free electives. If the area of specialization is in a discipline other than English, mathematics, science or history, the free electives may be reduced.

Academic Foundations (58-61 Semester Hours)

Described in prior section.

Academic Specialization (36 Hours)

A. Elementary Options

Option II—18 hours

Art—Art 131 or 132, 133, 135, 4331; 6 hours from: 3316, 3335, 3355, 3376, 4358, 4368.

Biology—141, 142; Three courses selected from: 245, 345, 347, 446 (nine hours must be advanced).

Earth Science—Geo 141, 142, 336, 418, 4350, 4370, 4380, and Phy 137.

English—Three semester hours of composition and six semester hours of literature are in the general education courses. Eng 4312 or ESL 434, 2 courses from Eng 339, 332, 3324, 4328, 4329, 4336, 333, 338, 3316, 432, 434, 435, 438, 439, or equivalent.

French—Fre 131, 132, 231, 232, 330, 337, 338.

Health—HEd 131, 133, 234, 331, 339, 434.

History—His 131 or 132, 231, 232, one course Advanced U.S. History, Non U.S. History and History.

Math—Mth 1360, 1362, twelve hours (nine advanced) selected from: Mth 1334, 330, 3313, 3315, 3317, 4331.

Music—*AM 1143, *AM 1183, 1184, MTY 132, 133, MED 331, 337, 332, 337.

Physical Education (required)—PEPT 335, 337 or 443, 438, PEPA 2201; Dan 127; six hours selected from: PEPT 231, 343, 436.

Reading—C&I 232, 336, 337, 339, 431, 439.

Spanish—Spa 131, 132, 231, 232, 330, 331, and 335.

Speech—Spc 1302, 232, 235, 331, or Spc 332, 334, 434, or 433.

Option III—24 hours

Life-Earth Science—Bio 141, 142, 345, Geo 237, 238, 4380, Biology (three hours advanced); Geology 141, 142 **required in Academic Foundations**, and Phy 137.

Physical Science—Chm 141, 142; Phy 141 or 143, 142, 144, and nine hours upper division Chemistry or Physics courses.

Social Studies—Geo 237, 238; Eco 131, 132; POLS (six hours-three hours advanced); His 131, and advanced, U.S. History.

Special Education—C&I 2301, 2302, 3304, 3305, 4307, 4308, 4309, and 4310.

Option IV—24 hours

Early Childhood—C&I 333, 336, 4312, 4313, 4314; HEc 334, 339 or 4327; PEPT 337 and a combination of subjects (12 or 18 hours).

B. Work in a combination of subjects (18 semester hours).

Option II—18 hours

Art 3371, Geo 237, or 238, C&I 337, C&I 339, MEd 131, PEPT 339.

Option II—18 hours

Reading—Art 3371, Geo 237 or 238, His 134, MEd 131, HPE 339, The 430 or 336.

Option III—12 hours

C&I 337, C&I 339, MEd 131, PEPT 339 or 335.

Option IV—12 hours

Art 3371, MEd 131, HEc 233, PEPT 339.

Professional Development (30 semester hours)

C&I 331 Foundations in Education

C&I 332 Educational Psychology

C&I 333 Language Arts in the Elementary School

C&I 334 Child Development and Evaluation

C&I 335 Arithmetic in the Elementary School

C&I 3325 Need of the Special Learner

C&I 434 Classroom Management

C&I 437 Science & Social Studies in the Elementary School

C&I 465 Student Teaching in the Elementary School

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

Bachelor of Science Degree in Education - Elementary

Recommended Program of Study - Option II (except reading)

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 1360, 1362 Contemporary Mathematics	6
MEd 131 Elements of Music	3
His 134 History of Texas	3
PE Activity	2
Academic Foundations Electives	3
Geo 237 or 238 Physical, Cultural Geology	3

34

Third Year	
Art 3371 Elementary Art Education	3
C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
C&I 333 Language Arts in the Elementary School	3
C&I 334 Child Development and Evaluation	3
C&I 335 Arithmetic in the Elementary School	3
C&I 339 Reading in the Elementary School	3
C&I 434 Classroom Management	3
C&I 337 Materials & Resources for Teaching	3
Reading	3
Area of Specialization	9

36

Second Year	
Eng Literature	6
His Sophomore American History	6
POLS 231 American Government I	3
POLS 232 American Government II	3
Speech 131/331	3
PEPT 339 Physical Education in the Elementary School	3
C&I 2101	1
PE Activity	2
Area of Specialization	3
CS 130	3

33

Fourth Year	
C&I 3325 Need of the Special Learner	3
C&I 437 Science and Social Studies	3
C&I 434 Classroom Management Elementary	3
C&I 465 Student Teaching in the Elementary School	6
Area of Specialization	6
Academic Foundations Electives	6
Free Electives	3

30

Bachelor of Science Degree in Education - Elementary

(Reading Specialization)

The elementary education degree with a specialization in Reading is shown in outline form below, comprising a desirable sequence of courses.

First Year	
Eng Composition	6
Science Laboratory	8
Mth 1360, 1362 Contemporary Mathematics	6
MEd 131 Elements of Music	3
His 134 History of Texas	3
PE Activity	2
Academic Foundations Electives	3
Geo 237 or 238 Physical, Cultural Geology	3

34

Third Year	
Art 3371 Elementary Art Education	3
C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
C&I 333 Language Arts in the Elementary School	3
C&I 334 Child Development and Evaluation	3
C&I 335 Arithmetic in the Elementary School	3
C&I 339 Reading in the Elementary School	3
C&I 437	3
C&I 337 Materials and Resources	3
The 430	3
Free Electives	3

33

Second Year	
Eng Literature	6
His Sophomore American History	6
POLS 231 American Government I	3
POLS 232 American Government II	3
Speech 131/331	3
PEPT 339 Physical Education in the Elementary School	3
CS 130	3
C&I 2101 Seminar for Teacher Education	1
C&I 232 Foundations of Reading Instruction	3
C&I 336 Children's Literature	3
PE Activity	2

36

Fourth Year	
C&I 434	3
C&I 3325	3
C&I 465 Student Teaching in the Elementary School	6
C&I 431 Diagnostic-Prescriptive Techniques	3
C&I 439 Reading Practicum	3
Academic Foundations Electives	6
Free Electives	6

30

Bachelor of Science Degree in Education - Elementary

Option III

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

First Year	
Eng Composition	6
Science-Laboratory	8
Mth 1360, 1362 Contemporary Mathematics	6
MEd 131 Elements of Music	3
His 134 History of Texas	3
PE Activity (1 per semester)	2
Academic Foundations Electives	6
	34

Third Year	
C&I 3304 SpEd Needs Excp Ind	3
C&I 3305 Rdng/L.A. Excp Lrn	3
C&I 4307 Prctm Rdng/L.A. Excp	3
PEPT 335 or 339 Atypical/Elem Schl	3
Art 3371 Elementary Art Education	3
C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
C&I 333 Language Arts in the Elementary School	3
C&I 334 Child Development and Evaluation	3
C&I 335 Arithmetic in the Elementary School	3
C&I 339 Reading in the Elementary School	3
C&I 437 Science and Social Studies in the Elementary School	3
	36

Second Year	
Eng Literature	6
His Sophomore American History	6
POLS 231 American Government I	3
POLS 232 American Government II	3
PE Activity (1 per semester)	2
C&I 2301 Foundations of Special Education	3
C&I 2302 Identification of Exceptional Individual	3
CS 130	3
C&I 2101	3
	33

Fourth Year	
C&I 4308 Apprsl Proc Excp	3
C&I 4309 Instruction of Exceptional Learner	3
C&I 4310 Practicum Instructing Exceptional Learner	3
C&I 337 Materials and Resources for Teaching Reading	3
C&I 3325 Need of the Special Learner	3
C&I 434 Classroom Management	3
C&I 463 Student Teaching-Special	6
Academic Foundations Electives	3
Free Electives	3
	30

Bachelor of Science Degree in Education - Option IV

First Year	Second Year
English Composition..... 6	English Literature..... 6
Science Laboratory..... 3	His Sophomore American History..... 6
Mth 1360, 1362 Contemporary Mathematics..... 6	POLS 231 Intro to American Government I..... 3
MEd 131 Elements of Music..... 3	POLS 232 Intro to American Government II..... 3
His 134 History of Texas..... 3	Spc 131 or 331..... 3
CS..... 3	PEPT 339 Physical Edu Prog: Elem. Schl..... 3
PE Activity..... 2	PE Activity..... 2
Academic Foundations Electives..... 3	HEc 233 Early Childhood Development..... 3
	Art 3371 Elementary Art Education..... 3
	C&I 2101 Seminar in Teacher Education..... 1
34	33
Third Year	Fourth Year
C&I 331 Foundation of Education..... 3	C&I Instructional Strategies for Early Childhood/Elementary Edu..... 3
C&I 332 Educational Psychology..... 3	C&I 4304 Survey of the History of Early Education..... 3
C&I 333 Language Arts in the Elem Schl..... 3	C&I 437 Science and Social Studies..... 3
C&I 335 Arithmetic in the Elem Schl..... 3	C&I 3325 Needs of the Special Learner..... 3
C&I 336 Children's Literature..... 3	C&I 4300 Behavioral Management and Classroom Procedures..... 3
C&I 337 Materials & Resources for Teaching Reading..... 3	C&I 463 Student Teaching in the Elementary School..... 6
C&I 339 Reading in the Elem Schl..... 3	Academic Foundation Electives..... 3
HEc Seminar in Family & Human Relations or HEc 4327 Family Life & Parenting Behavior..... 3	Free Electives..... 5
PEPT 337 Motor Development..... 3	
C&I 4302 Early Childhood Development..... 3	
HEc 334 Environments & Programs for Young Children..... 3	
Academic Foundations Electives..... 3	
36	30

Kindergarten Certificate Endorsement Requirements

Kindergarten education may be added as an additional endorsement to the Provisional Elementary Certificate and is based on the successful completion of the courses listed below.

C&I 4300..... 3
C&I 4303 Instruction in Early Childhood..... 3
C&I 4304 History and Philosophy of Kindergarten..... 3
C&I 463 Student Teaching (three hours Elementary, three hours Kindergarten)..... 6
Total..... 15

Students who do not plan to student teach in kindergarten can certify after taking 12 hours of Kindergarten Education and after teaching one year in an accredited kindergarten.

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

Bachelor of Science Degree 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. Attention is called to the fact that students may qualify for a certificate to teach in secondary education or by fulfilling certification requirements while obtaining a degree in a specific discipline. Some programs are available through only one of the above avenues, as shown below:

Bachelor of Science
 Secondary Education
 Art—Opt II
 Biology—Opt I & II
 Chemistry—Opt II
 Communication (Journalism)—Opt II
 Computer Information
 Systems—Opt II
 Earth Science—Opt II
 Economics—Opt II
 English—Opt II
 French—Opt II
 General Science—Opt IV
 History—Opt II
 Life-Earth Science Middle
 School—Opt II
 Mathematics—Opt II
 Physical Education—Opt I & II
 Physical Education (all levels)
 Physical Science—Opt II
 Physics—Opt II
 Political Science—Opt II
 Psychology—Opt II
 Reading—Opt II
 Social Studies—Opt IV
 Sociology—Opt II
 Spanish—Opt II
 Special Education
 Generic—Opt II (second field only)
 Speech—Opt II
 Theater—Opt II

Bachelor's Degree in a Particular
 Discipline
 Art (all levels)
 Business (Office Administration)—Opt
 III
 Communication (Journalism)—Opt II
 Dance—Opt II
 English—Opt I & II
 English Language Arts—Opt IV
 Health Education—Opt II
 Hearing Impaired (all levels)
 History—Opt I & II
 Home Economics—Opt
 Mathematics—Opt I & II
 Music (all levels)
 Physics—Opt II
 Political Science—Opt II
 Spanish—Opt II
 Special Education
 Generic—Opt I & II
 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—Opt II Specialization: (24 semester hours) Art 131, 133, 134, 239, 3316, 3381, 4341 and 3376 (Academic foundation must include Art 235 & 236).

Art (All Levels) Specialization: (48 semester hours) Art 131, 132, 133, 134, 231, 233, 237, 239 3316, 3355, 3371, 3376, 3381, 4331, 4341, (plus three hours of advanced electives). Academic foundation must include Art 235 and 236.

Biology—Opt I Bio 141, 142, 240, 245, 344, 345, 347, 446, Chm 142 (Chm 141 must be taken as Academic Foundations).

Biology—Opt II Specialization: (24 semester hours) completion of Biology core which includes Bio 245, 344, 345, 446, 347, 240. Bio 141 and 142 must be included in Foundation Core. Chm 141 and 142 required as foundation electives.

Business Composite—Opt III Office Administration (Plan II Composite Field), Specialization: (51 semester hours) Acc 231, 232, BAC 331, BLW 331, Fin 331, MGT 331, 332, 437, MKT 331, OAS 233, 332, 333, 335, 336, 338, 431, 438. (Academic Foundations must include Eco 131, 132, Spc 131, plus three hours from a third group).

Chemistry—Opt II Specialization: (24 semester hours) Chm 141, 142, 241, 333, 341, 342, 412.

Computer Information Systems—Opt II Specialization: (24 semester hours) CS 131, 132, 3301, 4305, 4321, plus nine hours to be selected from: CS 3302, 3304, 3305, 4302, 4306, 4308, 4309, 4311, 4312

Dance Education—Opt II See Division of Health, Physical Education and Dance in this bulletin.

Drama (See Theater).

Earth Science—Opt II Specialization: (27 semester hours) Geo 141, 142, 237, 336, 4350, 4370, 4380, 418. Physics 137 Astronomy.

Economics—Opt II Specialization: (24 semester hours) Eco 131, 132, 230, 336, 337, 4315, 435, plus three semester hours from Eco 332, 333, 334.

English—Opt I (36 semester hours) Six semester hours or composition and six semester hours of literature in educational foundations. One course from English 430, 4312, ESL 434, Eng 3321; two courses from English 339, 3322, 3324, 4328, 4329, 4336, or equivalent; four courses from English 333, 336, 338, 3316, 432, 434, 435, 438, 439, 4311, 4317, 4318, 4319, 4322, 4333, 4334, and 4337 or equivalent.

English—Opt II Specialization: (27 semester hours) Six hours of sophomore literature; nine hours of advanced British Literature from Eng 333, 336, 338, 3316, 432, 434, 435, 438, 439, 4311, 4317, 4318, 4319, 4322, 4333, 434, and 4337, six hours of advanced American Literature from: Eng 339, 3322, 3324, 4328, 4329, 4336. Foundation programs must include a foreign language through 232 for students who had foreign language in high school and a foreign language through 132 for students who had no foreign language in high school. (When selected as area of greatest interest, program must include a foreign language through 232).

English Language Arts (48 semester hours) Nine hours of advanced literature; three hours of speech 131 or 331 are in the General Education courses. Speech 235, Communications 133, 231. C&I 339, 333; twelve hours of English (six hours of composition and six hours of literature) in the General Education course sequence.

French—Opt II Specialization: (24 semester hours) Required: Fre 131, 132, 231, 232, 330, 337, 338, plus three hours from Fre 331, 332, 339, 435, 436, 4371, 4372, 4373, 4374.

General Science—Opt IV (Plan II Composite Field) Specialization: (48 semester hours) Bio 141, 142; Chm 141, 143, Chm 142, 144; Geo 141, 142; Phy 141, 143, Phy 142, 144, plus 16 hours (12 advanced) in a single area (Bio, Chm, Phy, Geo).

Health Education—Opt II Specialization: (27 semester hours) HEd 131, 133, 234, 237, 331, 337, 434, 437, HEc 138. Foundations program must include Bio 141, 142, 330.

History—Opt I Specialization: (36 semester hours) His 131, 132, 134, 339. 24 additional hours—15 hours advanced (nine hours U.S., nine hours Non U.S. History).

Note: Bio 143-144 are not prerequisite to advanced Biology courses as Foundation electives.

History—Opt II Specialization: (24 semester hours) His 131, 132, six hours advanced American History, six hours advanced World History, plus His 134 and 339. (When selected as area of greatest interest program must include Foreign Language through 232).

Vocational Home Economics Specialization: (52 semester hours) HEc 111, 112, 131, 132, 133, 137, 231, 232, 233, 239, 330, 334, 335, 336, 339, 411, 4308, 423, 439, 4101. See Home Economics section of this bulletin for complete description of certification plan in this area.

Journalism Communication—Opt II Specialization: (24 semester hours) Com 133, 231, 232, 234, 333, 3381, 431, 4383.

Life-Earth Science Middle School—Opt II Specialization: (27 semester hours) Bio 141, 142; Geo 237, 238; Bio 345, 4380; Phy 137; Bio (three hours advanced). Geo 141, 142 must be included in academic foundations.

Mathematics—Opt I Specialization: (36 semester hours) Mth 148, 149, 241, 3370, 233, 3311, 333, 335, 331 or Mth 3301, Mth 338. At least one course selected from the following list: Mth 3321, 4331, 431, 4315, 4316, 433, 438, 4321.

Mathematics—Opt II Specialization: (26 semester hours) Mth 148, 149, 233, 234 or 3370, 335, 333 or 338, and any two courses from the following group: Mth 331, 3311, 3321, 4315, 4316, 4321, 433.

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

Physical Education—Opt I Specialization: (38 semester hours) PEPT 132, 231, 332, 335, 343, 436, 443, 438. Twelve hours selected from PEPT 232, 233, 234, 336, 337, 339, 431.

Physical Education—Opt II See Division of Health, Physical Education and Dance in this Bulletin.

Physical Science—Opt II Specialization: (28-30 semester hours) Chm 141, 142; Phy 141 or 143, 142 or 144; plus 12 hours to be selected from: Chm 333, 341, 342, 4401, 438; Phy 330, 335, 324, 414 or 415, 416 or 417. (Foundation electives must include Mth 148 and 149 if not taken in required core.)

Physics—Opt II Specialization: (24 semester hours) Phy 141, 142, or 247, 248, 333, 335; one course selected from 324, 346, 448; plus 6 to 8 hours selected from 324, 338, 416, 417, 436, 448.

Political Science—Opt II Specialization: (24 semester hours) POLS 131, 231, 231H, 232, 232H, 334, 335, 339, 437, 3301, 3313, 3315, 4312, 432, 433, 332, 337, 435, 331, 3317, 4381, 4383, 3316, 430, 434, 439. Foreign Language proficiency through 232 for B.A.

Psychology—Opt II Specialization: (24 semester hours) Psy 131, 234, 241, 332, 333, 336, 432, 436.

Reading—Opt II Specialization: (24 semester hours) C&I 232, 337, 3346, 3326, 431, 439; C&I 3305, 339.

Social Studies—Opt IV (Plan II Composite Field) Specialization: (49 semester hours)

- A. Thirty semester hours: Eco 131, 132; Geo 141, 237, 238; six hours POLS; His 131, 132, 134.
- B. Eighteen semester hours (12 advanced) selected from the following: History, political science, geography, or Economics.

Sociology—Opt II Specialization: (24 semester hours) Soc 131, 132; one course from Soc 231, 336, 338 or 339; one course from Soc 233, 330, 335, 432, or 435; four courses from Soc 332, 432, 333, 434, 436, 438, or 439.

Spanish—Opt II Specialization: (24 semester hours) Spa 131, 132, 231, 232, 330, 335, plus six hours from Spa 331, 333, 337, 338, 431, 432, 433, 434, or 436.

Special Education—Generic—Opt II Specialization: (24 semester hours) C&I 2301, 2302, 3304, 3305, 4307, 4308, 4309, 4310. (See Special Education section of this bulletin).

Speech—Opt II Specialization: (24 semester hours) Spc 232, 233, 235, 238, 332, 334, 4324, 434.

Theater (Drama)—Opt II Specialization: (25 semester hours) The 132, 135, 137, 210, 232, 332, 338, 435, 4371. (Departmental participation in productions also required each semester.)

3. Professional Development (24 semester hours)

- C&I 331 Foundations of Education
- C&I 332 Educational Psychology
- C&I 3325 Need of the Special Learner
- C&I 3326 Reading Strategies the Content Areas
- C&I 338 Curriculum, Materials and Evaluation in the Secondary School
- C&I 438 Classroom Management
- C&I 462 Student Teaching in the Secondary School

4. Free Electives (3-six semester hours)

A minimum of three semester hours are to be chosen by the student as free electives.

Below are listed the required Curriculum and Instruction courses and the year that they should be taken.

A. Secondary Certification Sequence

- Year I
- Year II: C&I 2101
- Year III: C&I 331, 332, 3326
- Year IV: C&I 338, *3325, *438, *462

B. All-Level Certification Sequence (Phys Edu, Music, Art, Hearing Impaired)

- Year I
- Year II: C&I 2101
- Year III: C&I 331, 332, 3326
- Year IV: C&I 338, *3325, *434, *463

*These courses will be taken concurrently and will comprise a professional semester.

Recommended Program of Study

The secondary education degree and certification requirements are shown in outline below.

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate with a teaching field will be required to meet teacher education standards. It will be necessary to consult with your department head of the College of Education Advising Center concerning the specifics of these requirements.

Many variations are possible based upon the choice of teaching fields, overlaps of teaching field and academic foundation requirements, free electives. The outline does provide a desirable sequence of courses:

First Year	Second Year
Eng Composition..... 6	Eng Literature..... 6
Mth..... 6	Six hours of Sophomore
Science Laboratory..... 8	American History from:
PE Activity (2 semesters)..... 2	231, 232, 233, 234, 235, 236..... 6
First Teaching Field..... 3	POLS 231, 232 American Government I, II..... 6
Second Teaching Field..... 3	PE Activity (2 semesters)..... 2
Spc 131/ 331..... 3	First Teaching Field..... 6
CS 130..... 3	Second Teaching Field..... 6
	Academic Foundations Electives..... 3
	C&I Seminar in Teacher Education..... 1

Third Year

C&I 331 Foundations of Education 3
 C&I 332 Educational Psychology 3
 C&I 3326 Reading Strategies the Content Areas ... 3
 C&I 338 Curriculum and Materials 3
 First Teaching Field (6 hours advanced) 9
 Second Teaching Field (6 hours advanced) 9
 Academic Foundations Electives 6

Fourth Year

C&I 3325 Need of the Special Learner 3
 C&I 438 Classroom Management 3
 C&I 462 Student Teaching in the Secondary
 School 6
 First Teaching Field (Advanced) 6
 Second Teaching Field (Advanced) 6
 Free Electives 2

Bachelor of Science Degree in Education - Special Education

Students may secure the Bachelor of Science degree in Special Education-Generic and at the same time certify for a Provisional Certificate—Secondary with a teaching field in Special Education-Generic. Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate with a teaching field will be required to meet teacher education standards. It will be necessary to consult with your department head or the College of Education Advising Center concerning the specifics of these requirements. The Generic Program will train special educators who can meet the demands of Comprehensive Special Education in the State of Texas. The preparation is broader and more flexible than for those whose training is based on disability categories.

With successful completion of the degree requirements, the student may apply for a Special Education-Generic Certificate.

Specific information concerning the program may be obtained from the Department of Curriculum and Instruction or from the Advisement Office.

Special Education-Generic Requirements

A student may complete the requirements for Special Education Certification within the Elementary or Secondary Education undergraduate program. It is also possible to obtain certification in conjunction with or following the completion of any other valid Texas teaching certificate.

Recommended Program of Study

The Bachelor of Science in Education-Special Education degree, with Generic certification requirements, is shown below.

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate with a teaching field will be required to meet teacher education standards. Specific information may be obtained from the Department of Curriculum and Instruction.

First Year

Eng-Composition 6
 Mth 6
 Science Laboratory 8
 PE Activity (1 per sem) 2
 Second Teaching Field 6
 Spc 131/331 3
 CS 130 3
 Academic Foundations Electives 6

Second Year

Eng Literature 6
 His Sophomore American History 6
 POLS 231, 232 American Government I, II 6
 PE Activity (1 per semester) 2
 C&I 2301 Foundations of Special Education 3
 C&I 2302 Identification of the Exceptional
 Individual 3
 C&I 2101 Seminar in Teacher Education 1
 Second Teaching Field 6
 Academic Foundations Elective 3

Third Year

C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
C&I 338 Curriculum and Materials	3
C&I 3304 Educational Needs of Exceptional Individual	3
C&I 3305 Rdng/L.A. Excp Lnr	3
C&I 4307 Prctm Rdng/L.A. Excp	3
C&I 3326 Reading Strategies the Content Areas	3
Second Teaching Field (Advanced)	6
Academic Foundations Elective	6
Free Electives	2

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Fourth Year

C&I 3325 Need of the Special Learner	3
C&I 438 Classroom Management	3
C&I 4308 Appraisal Processes for Exceptional Individuals	3
C&I 4309 Instruction of the Exceptional Learner ..	3
C&I 4310 Practicum Instructing Exceptional Individual	3
C&I 463 Student Teaching-Special	6
Second Teaching Field (Advanced)	6

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Bachelor of Science in Education - Elementary With Special Education - Generic

Students desiring the degree in Elementary Education with Special Education-Generic can do so by following the prescribed Elementary Education plan along with the 24 semester hour Special Education-Generic Area of Specialization inclusion. Specific information may be obtained from either the Department of Curriculum and Instruction or the Advisement Office.

Associate of Science - Education

The Associate of Science in Education is administered by the Department of Curriculum and Instruction.

Students completing this program will be prepared to function as instructional aides in a variety of public school and other programs directly concerned with the education of children. The total hours completed in this degree are acceptable toward a Bachelor of Science in Education Degree if that is the student's objective.

Recommended Program of Study

The Associate of Science Degree in Education is shown below. Variations to meet individual student needs in the program of study are possible. Specific information must be obtained from the Department of Curriculum and Instruction or the Advisement Office.

First Year

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

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Second Year

Eng Literature	3
Mth/Laboratory Science	3-4
POLS 231 American Government I	3
POLS 232 American Government II	3
C&I 231 Instructional Media in Classroom	3
C&I 2302 Identification of Exceptional Individual	3
C&I 3305 Rdng/L.A. Excp Lnr	3
Free Electives	9

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Curriculum and Instruction Courses (C&I)

*Note: To enroll in pre-professional education courses, it is not necessary for students to be admitted to the teacher education program. Pre-professional education courses: C&I 1201, 2101, 2310, 231, 232, 233, 2301, 2302

1201 College Reading and Writing Skills	2:1:2
Provide procedures, practices, and individual help with reading assignments, writing papers, taking essay examinations, and taking lecture notes. Not applicable to TEA certification plans.	
2101 Seminar in Teacher Education	0:0:0
Designed to introduce students at the pre-professional level to career choices and acquaint them with procedures for entering teacher education.	

- 2310 Peer Advisor-Counselor Training** 3:2:2
Designed primarily for those who will be learning about systematic helping and interpersonal relating by practicing the skills that constitute the helping process. Content based on learning theory, social-influence theory, behavior-modification principles and practice, and skills-training and problem-solving methodologies. Not applicable to TEA certification plans.
Prerequisite: Permission of the instructor.
- 2301 Foundations of Special Education** 3:3:0
An orientation to background, terminology and programs for those who are exceptional. Designed as an overview of Special Education. A first course for those planning to certify in Special Education.
- 2302 Identification and Characteristics of the Exceptional Individual** 3:3:0
Principles of normal and abnormal child growth and development. Nature and causes of behavioral and physical characteristics and basic techniques of management.
- 2310 Peer Advisor-Counselor Training** 3:2:2
Designed primarily for those who will be learning about systematic helping and interpersonal relating by practicing the skills that constitute the helping process. Content based on learning theory, social-influence theory, behavior-modification principles and practice, and skills-training and problem-solving methodologies. Not applicable to TEA certification plans.
Prerequisite: Permission of the instructor.
- 231 Instructional Media in the Classroom** 3:3:0
The course is designed to familiarize students with the many types of instructional media and teaching machines found in modern classrooms, including development and construction of typical teacher-made materials.
- 232 Foundations of Reading Instruction** 3:3:0
An orientation to background, terminology and programs for the teaching of reading. Designed to give an overview of the history of the English language, the reading process and the psychology of reading instruction.
Prerequisite: Sophomore standing.
- 3304 Educational Needs of the Exceptional Individual** 3:3:0
Evaluation and application of various techniques for determining educational needs of the exceptional individual and general instructional arrangement considerations.
- 3305 Instructional Alternatives for Teaching Reading and Language Arts to the Exceptional Learner** 3:3:0
Identification of skill deficiencies, modification of curriculum, designing and implementation of instructional strategies for pupils evidencing disabilities in reading and language arts.
- 331 Foundations of Education** 3:3:0
Focuses on the historical, philosophical, organizational, professional and cultural-ethnic components of American education with particular emphasis on awareness and understanding of specific needs of children and youth of various cultural-ethnic components. Selective field experiences required.
Prerequisite: Junior standing, C&I 2101.
- 3311 Identification and Habilitation of the Mentally Retarded** 3:3:0
Nature and causes of mental retardation, physical and mental characteristics; the organization and administration of classes; evaluation, integration and adaptation of the program to meet socio-economic needs. Includes experience in observing the behavior of mentally retarded children.
- 3312 Education of the Physically Handicapped** 3:3:0
Description and characteristics of children with physical disabilities. Consideration of etiological factors and limitations in regular and special classes, hospital and homebound instruction. Includes experience in observing the behavior of physically handicapped children.
- 3313 Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed** 3:3:0
The principles of normal and abnormal child growth and development, including biological and socio-cultural determinants of growth; classification and description of relevant psychological terminology as related to the behavior of the emotionally disturbed.
- 3316 Identification of Language and Learning Disorders** 3:3:0
The identification of specific behavioral characteristics that interfere with adequate learning, with special emphasis on techniques to alter behavior. Discussion and presentation of theories of perception and cognition.
- 3317 Learning Potentials in the Severely and Profoundly Handicapped** 3:3:0
Determining the degree of modifiability of pupil behaviors. Identifying functional levels, individual project.

- 3318 Practicum in Learning Potentials** 3:3:0
Application of assessment procedures to be used with the severely and profoundly handicapped. Emphasis on both formal and informal measures. Formulation of educational programs from assessment. Individual projects.
- 332 Educational Psychology** 3:3:0
Principles and psychological problems involved in education with emphasis on learning theories and the practical application of psychological principles to teaching.
Prerequisite: Junior standing, C&I 2101.
- 3325 Need of the Special Learner** 0:0:0
An orientation to knowledge and skills concerning the unique needs of multicultural and special education students.
- 3326 Reading Strategies for the Content Areas** 0:0:0
This course is designed to provide the basic principles, concepts and procedures of reading and to enable prospective teachers to incorporate reading instructional techniques effectively into the content areas. Emphasis will be placed on the sound teaching practices within the confines of the content area classroom.
- 333 Language Arts in the Elementary School** 3:3:0
The study and use of materials and techniques in the teaching of oral and written communication.
Prerequisite: C&I 331.
- 334 Child Development and Evaluation** 3:3:0
Principles of growth and development. Measurement and evaluation of learning.
- 335 Arithmetic in the Elementary School** 3:3:0
A study of the content, materials and methods used in teaching arithmetic.
Prerequisite: C&I 331.
- 336 Children's Literature** 3:3:0
A study designed to provide students with information about children's books, periodicals and related media and their use with children. Techniques and materials for motivating children to develop a continuing interest in reading.
Prerequisite: Junior standing.
- 337 Materials and Resources for Teaching Reading** 3:3:0
A concentration on planning, producing, selecting, organizing and evaluating instructional materials and equipment to be used in teaching reading.
Prerequisite: C&I 233 or C&I 339.
- 338 Curriculum, Materials and Evaluation in the Secondary School** 3:3:0
The structure and organization of the curriculum, materials used and types of evaluation utilized.
Prerequisite: C&I 331.
- 339 Reading in the Elementary School** 3:3:0
Methods and materials for teaching reading in the elementary school. Emphasis upon the placement of materials and lesson planning.
Prerequisite: C&I 331.
- 4101, 4201, 4301, 4601 Institute or Workshop in Education** 1-6:1-6:0
A number of institutes or workshops are designed to advance the professional competence of teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop or institute differs sufficiently from one previously taken.
- 4111, 4211, 4311 Individual Study in Special Education** 1-3:A:0
Investigation into special areas in special education under the direction of a faculty member. This course may be repeated for credit when topics of investigation differ.
Prerequisite: Consent of the department head.
- 430 Education of the Mentally Retarded** 3:3:0
Problems of the selection, preparation, development and use of curriculum materials. Use of resources, selection of equipment, employment opportunities and a review of recent research. Includes experience in observing and modifying the behavior of mentally retarded children.
- 4300 Behavioral Management & Classroom Procedures** 0:0:0
A comprehensive study of behavioral management in early childhood/elementary school environments. A developmental perspective will be presented and related to a discipline management system.
- 4302 Early Childhood Development** 3:3:0
A study of the psychological development of children from birth to age six, with recognition given to their basic needs. Includes some of the appropriate educational experiences for the early years.
- 4303 Instruction in Early Childhood** 3:3:0
A comprehensive study of methods and materials for preschool and kindergarten-age children. Focus on oral language experiences, science and mathematics concepts and creative expression.

- 4304 History and Philosophy of the Kindergarten** 3:3:0
A comparative study of the early childhood educational movements of the past and their impact on present and future programs.
- 4305 Seminar in Early Childhood Educational Research** 3:3:0
A survey of research studies in learning theory and in instructional practices for young children.
- 4306 Special Topics** 3:3:0
Significant topics in Elementary, Secondary and Special Education. The description of the particular area of study will appear on the printed semester schedule. A student may repeat for a maximum of six semester hours when the area of study is different.
- 4307 Practicum in Instructional Alternatives in Reading and Language Arts for the Exceptional Learner** 3:A:0
Practicum experience in the identification and instruction of pupils evidencing disabilities in reading and language arts.
Prerequisite: C&I 3305 or instructor's approval.
- 4308 Appraisal Processes in Programming for the Exceptional Individual** 3:3:0
Formal and informal methods of appraising the educational needs of the exceptional learner and the use of interpretative data to prescribe appropriate curriculum modification, instructional materials, teaching strategies and classroom management.
- 4309 Instruction of the Exceptional Learner** 3:3:0
Classroom management, teaching strategies, instructional materials for the exceptional learner. Various approaches and rationales are presented.
- 4310 Practicum in Instructing the Exceptional Individual** 3:A:0
Practicum experience with the exceptional learner. Includes identification, interpretation of data, development of instructional goals and implementation of instructional objectives. When experience is with emotionally disturbed it includes at least 54 contact clock hours of work.
- 431 Diagnostic-Prescriptive Techniques in the Teaching of Reading** 3:3:0
Techniques for ascertaining reading strengths and weaknesses. Planning and implementing instruction to meet individual needs.
Prerequisite: Junior standing, 3 hours from C&I 233, 337, 339.
- 4314 Educational Needs of the Emotionally Disturbed** 3:3:0
Programming possibilities based on the characteristics and severity of the individual's emotional problems. Integration of knowledge and competencies to provide an instructional program to meet the needs of emotionally disturbed children.
- 4315 Education of Gifted Children** 3:3:0
Identification, programs, guidance and administrative structure for gifted children.
- 4316 Instructional Processes with the Severely and Profoundly Handicapped** 3:3:0
Translating the behaviors of the severely handicapped into developmental categories and applied instructional modification processes.
- 432 Educating the Culturally Different** 3:3:0
Delineates personal characteristics and the affective domain of the culturally different and identifies educational strategies applicable to the teaching process.
- 433 Teaching Media and Audio-Visual Technology** 3:3:0
Observation, demonstration and practice in utilizing modern teaching media, including teaching machines and programming.
- 4336 Methods of Teaching Secondary School Science** 3:3:0
A study of modern inquiry methods common to the separate secondary science disciplines. Emphasis is placed upon the investigative or discovery approach to science instruction.
- 4337 Tests and Measurements** 3:3:0
Principles of human measurement and evaluation. Familiarity with most used tests and evaluation procedures in educational settings.
- 434 Classroom Management Elementary** 3:3:0
A study of problems relating to classroom management and curriculum.
Prerequisite: C&I 331 and 332.
- 435 Individualized Instruction Through Technology** 3:3:0
Individualized instruction as the basic conceptual tool for the study, personalization and production of actual materials and modules useful in traditional and performance based instruction. The course will be conducted as a practicum in the theory and practice of individualized instruction.
- 436 Student Teaching in the Kindergarten** 3:A:0
Supervised observation and teaching in the kindergarten. Three hours in kindergarten classrooms five days per week for eight weeks.

437	Science and Social Studies in the Elementary School Content, methods and materials for teaching science and social studies in the elementary school. <i>Prerequisite: 331 and 332.</i>	3:3:0
438	Classroom Management Secondary Organization of subject matter, lesson planning, classroom management and general methods of teaching. <i>Prerequisite: C&I 338.</i>	3:3:0
439	Reading Practicum Participation in a directed field experience. The students will work with typical class, groups and individuals in the application of concepts, skills and techniques. <i>Prerequisite: Twelve semester hours of reading including C&I 337 or by special permission of the department head.</i>	3:3:0
462	Student Teaching in the Secondary School Supervised observation and teaching in the secondary school. <i>Prerequisite: See Admission in this catalogue. All day in secondary professional semester classroom 5 days per week for 12 weeks.</i>	6:A:0
463	Student Teaching—Special Special student teaching situations designed for students working toward all-level certificates, special education, kindergarten education and speech and hearing. <i>Prerequisite: See Admission to Student Teaching in this catalogue. Class: the number of hours equivalent to 15 hours per week for 16 weeks.</i>	6:A:0
465	Student Teaching in the Elementary School Supervised observation and teaching in the elementary school. <i>Prerequisite: See Admission to Student Teaching in this catalogue. Class: 3 hours in elementary classrooms 5 days per week for 16 weeks.</i>	6:A:0

Department of Health, Physical Education and Dance

Department Head: Alice C. Bell

102 McDonald Gym

Director of Academic Programs: Mildred A. Lowrey

Activity Program Director: Bob L. Frederick

Dance Coordinator: Rebecca O. Hill

Graduate, Health and Physical Education Coordinator: Virginia Raye Holt

Professors: Bell, Crowder, Higgins, Holm, Holt, Yates

Associate Professor: Jolly, Lowrey

Assistant Professors: Frederick, Gremillion, Hill, Park, Payton, Rogas, Stivers, Worsham

Instructors: Gilligan, Kindl, Lihs, Newberry, Sullivan, Treadway, Wesbrooks, Zeek

Lecturers: Barbre, Brooks, Bussell, Calvert, Crawford, Foster, Ghezzi, Horne, Mason, Perkins, Senorski

The Department of Health, Physical Education and Dance provides several career options for students. Three teacher education certification programs are offered: dance education, health education and physical education. Two programs of study are available which do not lead to teacher certification: dance education and health education. Undergraduate programs lead to a Bachelor of Science degree in Health Education or Physical Education or Dance Education or a Bachelor of Arts degree in Dance. Graduate programs leading to a Master of Science degree are described in the Graduate Bulletin.

The general physical activity four semester program for all university students provides a varied selection of activities which include aquatics, dance, fitness and sports. The activity program is designed to enhance the general education objectives of the University.

Recommended Programs of Study

Dance

The dance division offers two programs of study. A student choosing a public school teaching career should follow the certification program which leads to certification to teach dance plus an approved additional teaching field at the secondary level. A student selecting the non-certification program prepares for a career in private studio teaching, administration, choreography, professional performance and other dance related fields.

Bachelor of Science - Dance

Teacher Certification Program

First Year	
Eng. Composition	6
Mth	3
Mth 1334 College Algebra	3
Bio 143-144 Human A&P	8
Dan 132 Intro to Dance	3
Dance Tech. Ballet or Modern	4
Dan 127 Folk Dance	2
CS 130 Computers and Society	3
	32

Third Year	
C&I 331 Foundations of Edu.	3
C&I 332 Educational Psychology	3
C&I 3325 Exceptional Child	3
C&I 3326 Reading	3
Dan 235 Composition	3
Dan 335 Prin. of Creative Dance	3
Dan Tech. Ballet or Modern	2
Electives	7
Second Teaching Field	9
	36

Total 132 hours

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

Bachelor of Science - Dance Non-Certification Program

First Year	
Eng. Composition	6
Mth 1334	3
Mth or Lab Science	3
Bio 143-144 Human A&P	8
Dan 132 Intro. to Dance	3
Dan 127 Folk Dance	2
Dance Studio Courses	8
	33

Second Year	
Eng. Literature	6
His.-Soph. Am. History	6
POLS 231-232 Am. Govt.	6
Dance Tech. Ballet or Modern	2
Dan 233 Rhythmic Analysis of Dance	3
Elective	2
Dan 2221 or 2222 Dance Co.	2
C&I 2101	1
Spc 131	3
Second Teaching Field	3
	34

Fourth Year	
C&I 338 Curriculum & Materials	3
C&I 438 Classroom Management	3
C&I 462 Student Teaching in the Secondary School	6
Dan 434 Methods & Materials in Dance Education	3
Dan 438 or 439 Dance History	3
Second Teaching Field	12
	30

Second Year	
Eng. Literature	6
His. Soph. Am. History	6
POLS 231-232 Am. Govt.	6
Dan 231 Dance Production	3
Electives	6
Dance Studio Courses	4
PEPT 231 Anat. & Physiology	3
	34

Third Year	
Dan 336 Choreography	3
Dance Theory Courses	6
Dan 1263 Ballet Tech.	2
Dan 1283 Modern Dan. Tech.	2
Dan 129 Tap Dance	2
Minor	9
Electives	9
	33

Fourth Year	
Dan 438-439 Dance History	6
Dance Theory Courses	9
Dance Studio Courses	3
Minor	9
Electives	6

Total 133 semester hours

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

Bachelor of Art - Dance Major Non-Certification Program

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

Health

The health 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.

Bachelor of Science - Health Education Teacher Certification Program

First Year	
Eng Composition	6
Mth 1334 (or above)	3
Mth (or laboratory science)	3
Bio 143-144 A&P	8
Spc 131 or 331	3
Physical Activity	2
Academic Foundation Elective	3
HEd 131 Emergency Care, Safety & Surv.	3
HEd 133 Personal Health	3
	34

Second Year	
Eng Literature	6
POLS 231-232 American Government	6
His Soph. Am. History	6
Academic Foundation Elective	3
CS 130 or Equivalent	3
Physical Activity	2
HEC 138 Nutrition	3
HEd 234 Public and Consumer Health	3
HEd 237 Health Education in the Secondary School	3

Third Year	
Academic Foundation Elective	3
HEd 331 Measurement and Evaluation	3
HEd 337 Contemporary Health Problems	3
C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
C&I 3325 Needs of the Spec. Learner	3
C&I 3326 Reading Strategies	3
C&I 338 Curriculum, Materials & Eval.	3
Second Teaching Field	12
	36

Fourth Year	
HEd 434 Health and Human Ecology	3
HEd 437 Health Science & Epidemiology	3
C&I 438 Classroom Management	3
C&I 462 Student Teaching/Secondary	6
Second Teaching Field	12

Total 132 semester hours

33

35

27

Bachelor of Science - Health Education Non-Certification Program

First Year	
Eng Composition	6
Mth 1334 (or above)	3
Mth (or laboratory science)	3
Bio 143-144 A&P	8
Academic Foundation Elective	3
Physical Activity	2
Psy 131 Introduction to Psychology	3
HED 131 Emergency Care, Safety & Surv.	3
HED 133 Personal Health	3
	34

Third Year	
HED 331 Measurement and Evaluation	3
HED 337 Contemporary Health Problems	3
POLS 3316 Introduction to Public Admin.	3
Spc 334 Interviewing	3
*Electives	21
	33

Total 131 semester hours

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

Second Year	
Eng Literature	6
POLS 231-232 American Government	6
His Soph. American History	6
Academic Foundation Elective	3
Physical Activity	2
Eco 233 Principles and Policies	3
HEc 138 Nutrition	3
HED 234 Public and Consumer Health	3
HED 237 Health Education in the Sec. Sch	3
	35

Fourth Year	
HED 434 Health and Human Ecology	3
HED 437 Health Science & Epidemiology	3
HED 438 Practicum	3
HED 446 Internship	4
Soc 437 Public Opinion	3
*Electives	13
	29

Physical Education

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

The physical education teaching certification program offers the following:

- Secondary Option I (one teaching field)
- Secondary Option II (two teaching fields)
- All-Level Option II (one teaching field)

The course of study leading to a baccalaureate degree and teacher certification in physical education encompasses three areas of work: (1) the required block of professional theory courses; (2) the required block of professional education courses; and (3) the required block of professional activity courses.

The required block of professional theory courses will vary contingent upon the degree option selected. An overall "C" average must be earned in professional theory courses.

The required block of professional education courses are C&I 331, 332, 3325, 3326, 338, 438 and 462. A student must be admitted to the College of Education's teacher education program before enrolling in professional education courses. An overall "C" average must be earned in professional education courses.

The required block of professional activity courses are PEPA 129, Dance 127 or 128, and PEPA 2201. Fourteen additional hours must be selected from Dan 127 or 128, PEPA 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 3201, 3202, 3203, 3204, 3205, 3206. A minimum of six hours must be selected from the advanced level courses. A "B" average must be earned in each of the physical education professional activity courses.

Bachelor of Science - Physical Education Teacher Certification Program - Secondary Option I

First Year	
Eng Composition	6
Mth 1334 (or above)	3
Mth (or laboratory science)	3
Bio 143-144 Anat and Physiology	8
Spc 131 or 331	3
PEPT 132 Found of Phys. Ed	3
Dan 127 or 128 Folk or Square Dan	2
PEPA 129 Swimming	2
PEPA Electives	4

34

Third Year	
PEPT 332 Management Skills	3
PEPT 335 Adapted Phys Ed	3
PEPT 343 Exercise Physiology	4
PEPT Elective	3
HEd 334 Care & Prevention of Sports	3
PEPA Electives	4
C&I 331 Foundations of Education	3
C&I 332 Education Psychology	3
C&I 3325 Needs of the Spec. Learner	3
C&I 3326 Reading Strategies	3
C&I 338 Curriculum and Materials	3

35

Total 135 semester hours

Second Year	
Eng Literature	6
POLS 231-232 American Government I-II	6
His Sophomore American History	6
CS 130 or Equivalent	3
PEPT 231 Functional Anat. & Physio	3
PEPA 2201 Gymnastics Techniques	2
PEPA Electives	6
Academic Foundation Elective	3

35

Fourth Year	
PEPT 436 Measurement & Evaluation	3
C&I 438 Classroom Management	3
PEPT 443 Motor Learning	4
PEPT Electives	9
Academic Foundation Elective	3
C&I 438 Classroom Management	3
C&I 462 Student Teaching Secondary	6

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Bachelor of Science - Physical Education Teacher Certification Program - Secondary Option II

First Year	
Eng Composition	6
Mth 1334 (or above)	3
Mth (or laboratory science)	3
Bio 143-144 Anat and Physiology	8
CS 130 or Equivalent	3
Spc 131 or 331	3
PEPT 132 Found of Phys. Ed	3
Dan 127 or 128 Folk or Square Dan	2
PEPA 129 Swimming	2
PEPA Electives	4

37

Third Year	
PEPT 332 Management Skills	3
PEPT 335 Adapted Phys. Ed	3
PEPT 343 Exercise Physiology	4
PEPT Elective	3
Second Teaching Field	9
PEPA Elective	2
C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
C&I 3325 Needs of the Spec. Learner	3
C&I 3326 Reading Strategies	3
C&I 338 Curriculum, Materials & Eval.	3

39

Total 150 semester hours

Second Year	
Eng Literature	6
POLS 231-232 American Government	6
His Sophomore American History	6
HEd 334 Care & Prevention of Sports	3
PEPT 231 Functional Anat. & Physiology	3
PEPT Electives	6
PEPA 2201 Gymnastics Techniques	2
PEPA Electives	6

38

Fourth Year	
PEPT 436 Measurement & Evaluation	3
PEPT 443 Motor Learning	4
PEPT Electives	3
Second Teaching Field	15
PEPA Elective	2
C&I 438 Classroom Management	3
C&I 462 Student Teaching Secondary	6

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Bachelor of Science - Physical Education Teacher Certification Program - All Level Option II

First Year	Second Year
Eng Composition 6	Eng Literature 6
Mth 1334 (or above) 3	POLS 231-232 American Government 6
Mth (or laboratory science) 3	His Sophmore American History 6
Bio 143-144 Anat and Physiology 8	HEd 334 Care & Prevention of Sports 3
Spc 131 or 331 3	CS 130 or Equivalent 3
PEPT 132 Found of Phys Ed 3	PEPT 231 Functional Anat & Physiology 3
Dan 127 or 128 Folk or Square Dan. 2	PEPA 2201 Gymnastics Techniques 2
PEPA 129 Swimming 2	PEPA Electives 6
PEPA Electives 4	<hr style="width: 100%;"/>
34	35
Third Year	Fourth Year
PEPT 332 Management Skills 3	PEPT 436 Measurement & Evaluation 3
PEPT 335 Adapted Physical Education 3	PEPT 438 The Tch. of Physical Edu 3
PEPT 336 Phys. Edu. Programs Secondary 3	PEPT 443 Motor Learning 4
PEPT 337 Motor Development 3	PEPT Elective 3
PEPT 339 Phy. Edu. Programs Ele 3	C&I 434 Classroom Management Ele 3
PEPT 343 Exercise Physiology 4	C&I 463 Student Teaching/Special. 6
PEPA Electives 4	Academic Foundation Electives 6
C&I 331 Found. of Education. 3	<hr style="width: 100%;"/>
C&I 332 Educational Psychology. 3	28
C&I 3325 Needs of the Spec. Learner 3	
C&I 3326 Reading Strategies 3	
C&I 338 Curriculum, Materials & Eval. 3	
<hr style="width: 100%;"/>	
38	

Total 135 semester hours

Dance Studio Courses (Dan)

Dance studio courses (except 2110) will fulfill the physical activity requirements.

1240	Selected Dance Techniques	2:1:2
	Instruction and practice in selected dance techniques. May be repeated for credit.	
1251, 1252, 1253	Jazz I, II, III	2:1:2
	Instruction and practice in jazz dance. May be repeated for credit.	
1261, 1262, 1263, 1264	Ballet Technique I, II, III, IV	2:1:2
	Instruction and practice in ballet technique. Emphasis is placed on accurate technique and placement. May be repeated for credit.	
127	Folk Dance Techniques	2:1:2
	Instruction practice in beginning folk dance. Emphasis is placed upon the historical and cultural background of the various national dances.	
128	Square Dance Techniques	2:1:2
	Instruction and practice in square dance. Emphasis on class organization and teaching methods.	
1281, 1282, 1283, 1284	Modern Dance Technique I, II, III, IV	2:1:2
	Instruction and practice in the techniques of modern dance and composition. May be repeated for credit.	
129	Tap Dance	2:1:2
	Instruction and practice in beginning tap dance.	
2110	Dance Production Workshop	1:1:2
	Practical application of the technical skills utilized in dance production including lighting, scenery and costuming. May be repeated for credit.	
2221	Ballet Company	2:1:5
	The instruction, rehearsal and production of classical ballets. May be repeated for credit.	
2222	Modern Dance Company	2:1:5
	The instruction, rehearsal and production of modern dance and jazz works. May be repeated for credit.	
2223	Dance Ensemble	2:1:5
	The instruction, rehearsal and production of various and divergent dance forms. May be repeated for credit.	
2250	Improvisation	2:1:2
	Exploration of human movement potential through imagery and/or movement manipulation.	

- 2260 Musical Comedy Dance** 2:1:5
A laboratory course providing both background study and practical work in the specialized field of musical comedy including participation in the presentation of a full production. Open by audition or by consent of the instructor to students from all departments who are interested in dance as applied to musical comedy. May be repeated for credit.
- 2280 Social Dance** 2:1:2
An introduction to partner, line and round dance forms of the 20th century.

Dance Theory Courses (Dan)

- 132 Introduction to Dance** 3:3:0
An introductory survey of basic theoretical areas of dance. Emphasis is placed on basic terminology, history, music fundamentals and injury prevention.
- 231 Dance Production** 3:2:1
The study and practical application of the various elements utilized in dance production including lighting, scene design, costuming and publicity.
- 233 Rhythmic Analysis of Dance** 3:2:1
The analysis of movement in relationship to rhythmic patterns, meter, tempo, metric pulse, accents and melodic phrasing.
- 235 Composition** 3:2:1
The analysis of the basic elements of dance and the craft of composing dances.
- 3301 Theater Dance Forms** 3:1:2
Instruction, study and practice of the various dance forms utilized in the theater.
- 331 Dance Notation** 3:2:1
The study of the primary forms of dance notation including Labanotation and Benesh notation and its application to various dance forms.
- 333 Ballet Pedagogy** 3:2:1
The study of teaching ballet to various age groups and levels of technique. Methods of teaching are included as well as organization and administration.
- 335 Principles of Creative Dance** 3:3:0
Theory and practice of instructing creative dance. Emphasis is placed on positive reinforcement of the student as an individual and leading the student to gather self-expression in a dance/movement activity.
- 336 Choreography** 3:2:1
Analysis of the elements of choreography; development and evaluation of compositions.
Prerequisite: Dan 235
- 4101 Workshop in Dance Education** 1:1:0
A number of workshops are designed to advance the professional competence of dance teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.
- 4201 Workshop in Dance Education** 2:2:0
A number of workshops are designed to advance the professional competence of dance teacher. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.
- 4301 Workshop in Dance Education** 3:3:0
A number of workshops are designed to advance the professional competence of dance teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.
- 430 Individual Study in Dance Education** 3:A:0
Selected problems in Dance Education.
Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.
- 434 Methods and Materials in Dance Education** 3:3:0
Objectives, methods and techniques of teaching dance: Classroom instruction and field laboratory assignments are included for demonstration and practice.
- 438 Dance History: Primitive through 18th Century** 3:3:0
The evolution of dance from prehistoric times to the social and theatrical forms of the 18th century.
- 439 Dance History: 19th and 20th Centuries** 3:3:0
The development of dance from the early romantic period of ballet to current social and theatrical forms.

Health Education Courses (HEd)

- 131 Emergency Care, Safety and Survival** **3:3:0**
Standard American Red Cross First Aid certification course, plus the Public Health Service Office of Civil Defense Medical Self-Help course and Safety Education. Among specific course requirements is one field trip.
- 133 Personal Health** **3:3:0**
A study of body organs and diseases, systems, physical and mental health concepts, knowledges and appraisal of individual health. Designed to extend the students' skills in using facts to arrive at well informed decisions concerning their own personal health.
- 234 Public and Consumer Health** **3:3:0**
Traditional and modern methods of meeting public and consumer health needs; investigation and analysis of public and consumer health problems; functions and organization of consumer services at the local, state, regional and national levels.
- 237 Health Education in the Secondary School** **3:3:0**
Presentation of health media in 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.
- 331 Measurement and Evaluation in Health Education** **3:3:0**
Designed to provide the student with the understandings and tools needed to evaluate the secondary students' health status and progress within the school health program. Special emphasis placed upon competencies in detection and referral procedures for individual health appraisal. Evaluative measures and resources within schools and communities will be studied.
- 334 Care and Prevention of Sports Injuries** **3:3:0**
A study of the treatment and prevention of specific sport injuries. The injuries may be a result of activity in the home, recreational, intramural, or extramural settings.
- 337 Contemporary Health Problems** **3:3:0**
The course deals with problems associated with current health issues which are related to individual and social adjustment in society. Emphasis will be placed upon social and psychological factors which promote successful interpersonal and family relationships.
- 338 Health Education in the Elementary School** **3:3:0**
Includes health problems and interests of elementary school children, the promotion of the healthful school environment, understanding of health appraisal of school children and the conceptual approach to curriculum construction.
- 4101 Workshop in Health Education** **1:1:0**
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.
- 4201 Workshop in Health Education** **2:2:0**
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.
- 4301 Workshop in Health Education** **3:3:0**
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken.
- 430 Individual Study in Health Education** **3:A:0**
Selected problems in health. Not to be used in lieu of a required course.
Prerequisite: Senior standing and consent of department head. May be repeated for credit. Class by consultation.
- 434 Health and Human Ecology** **3:3:0**
Emphasis on the human organism with the many aspects of environment and the implications in each area with regard to health. The course will cover aspects of air, land and water pollution with major sources of pollution being designated and categorized into the areas of transportation, industry, power plants, refuse disposal and recreational contributions.
- 437 Health Science and Epidemiology** **3:3:0**
A study of infectious and non-infectious diseases. The course treats epidemiology as a basic science of preventive medicine as well as the study of occurrence of disease in human populations.
- 438 Practicum in Health Education** **3:3:0**
Observation and study of health education programs; practicum with an allied health organization.
Prerequisite: Approval of department head.

- 446 Health Education Internship** 4:3:2
Supervised internship at selected community, public or private health agencies and/or organizations.
Prerequisite: Approval of department head.

Physical Education Courses

Professional Theory Courses (PEPT)

- 132 Foundations of Physical Education** 3:3:0
Introduction to elementary and secondary physical education and to specialized related areas. Includes, history, principles and philosophy of physical education; professional qualifications of leadership; and analysis of the place of physical education in modern day society.
- 231 Functional Anatomy and Physiology** 3:3:0
A study of human movement from the perspectives of anatomy, physiology and kinesiology. Emphasis on the analysis of sport-skill performance.
Prerequisite: Bio. 143-144.
- 232 Sport In Contemporary American Society** 3:3:0
A study of various sociocultural factors in American society and their relationship to the sport experience.
- 233 Biomechanics of Exercise and Sport** 3:3:0
A study of basic principles of human mechanics with application to motor performance and sport.
- 234 Psychosocial Aspects of Teaching and Coaching** 3:3:0
Psychological and sociological perspectives of sport; social psychology as it relates to physical activity, social processes, personalities of sports participants, and current literature related to psychosocial aspects of sport.
- 332 Management Skills in the Teaching of Physical Education** 3:3:0
A study of the organization and administration of programs in physical education and athletics. Understanding and application of management skills.
- 335 Adapted Physical Education** 3:3:0
A study of the special programs of physical education appropriate to individuals with specific handicaps. Emphasis on developing personalized developmental programs. Field experience required.
- 336 Physical Education Programs: Secondary Schools** 3:3:0
A study of curriculum methods and materials for physical education at the secondary level.
- 337 Motor Development** 3:3:0
Principles of motor development in children, including developmental stages and the understanding of motoric trends in human growth and development from birth throughout life.
- 338 Driver Education** 3:3:0
Traffic rules and regulations and the basic facts concerning the cause and prevention of accidents. The course includes behind-the-wheel training in the use of training automobile while instructing students. For teaching professional students how to teach driver education.
- 339 Physical Education Program: Elementary Schools** 3:3:0
The theory of teaching physical education activities in the elementary grades. Classroom instruction and field laboratory assignments are included for demonstration and practice.
- 343 Exercise Physiology** 4:3:2
A study of the functions of the physiological systems during and after exercise.
Prerequisite: Bio 143-144, PEPT 231.
- 416 Student Teaching in Driver Education** 1:1:0
Supervised observation and teaching of driver education in actual class behind-the-wheel training.
Prerequisite: HED 131 and PEPT 338.
- 4101 Workshop in Physical Education** 1:1:0
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken. Not to be used in lieu of a required course.
- 4201 Workshop in Physical Education** 2:2:0
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken. Not to be used in lieu of a required course.
- 4301 Workshop in Physical Education** 3:3:0
A number of workshops are designed to advance the professional competence of teachers. For each description, the particular area of study will be indicated. May be repeated for credit when nature of workshop differs from one previously taken. Not to be used in lieu of a class.

- 430 Individual Study in Physical Education** **3:A:0**
Selected problems in physical education; not to be used in lieu of a class. May be repeated for credit. Class by consultation.
Prerequisite: Senior standing and consent of department head.
- 431 Scientific Principles of Athletic Coaching** **3:3:0**
Anatomical and physiological factors that influence optimal athletic performance.
- 443 Motor Learning** **4:3:2**
Principles of neuromuscular control mechanisms and correlates of movement behavior and motor learning. Presentation of materials dealing with the learning process, aspects of the learner, variables influencing the state of the performer and application of these concepts to the teaching of motor skills.
- 436 Measurement and Evaluation in Physical Education** **3:3:0**
A study of practical measurement and evaluation procedures used in physical education. Includes construction of evaluation instruments, experience in test administration and the use of elementary statistical procedures in test score interpretations.
- 438 The Teaching of Physical Education** **3:3:0**
A study of programs, lesson planning, class organization and control, teaching styles, nature and needs of students and teaching problems.

Professional Activity Courses (PEPA)

- 129 Swimming Techniques** **2:1:2**
Demonstrations, lectures and practice in the basic techniques of swimming and water safety skills. Students who wish to major or seek an emphasis in physical education must demonstrate basic swimming skills.
- 2201 Gymnastics Techniques: Tumbling & Gymnastics** **2:1:2**
Development of tumbling skills with knowledge of movement principles, spotting techniques and class organization. Includes instruction and practice of floor exercise. Emphasis on spotting techniques and teaching methods.
- 2202 Gymnastics Techniques: Apparatus** **2:1:2**
Instruction and practice on gymnastics apparatus. Emphasis on class organization, spotting techniques and teaching methods.
Prerequisite: PEPA 2201
- 2203 Golf Techniques** **2:1:2**
Instruction and practice in the sport of golf. Emphasis on class organization and teaching methods.
- 2204 Soccer/Softball Techniques** **2:1:2**
Instruction and practice in the field sports of soccer and softball. Emphasis on class organization and teaching methods.
- 2205 Aerobic Techniques** **2:1:2**
Instruction and practice in aerobic programs. Emphasis on class organization and teaching methods.
- 2206 Water Safety Instruction** **2:1:2**
The theory and study for teaching water safety techniques and procedures. Completion of course includes American Red Cross certification.
- 2207 Archery/Badminton Techniques** **2:1:2**
Instruction and practice in the sports of archery and badminton. Emphasis on class organization and teaching methods.
- 2208 Tennis Techniques** **2:1:2**
Instruction and practice in the sport of tennis. Emphasis on class organization and teaching methods.
- 2209 Sports Officiating** **2:1:2**
Rules interpretation and techniques of officiating basketball, football and volleyball. The course is designed to develop skill and knowledge required to officiate.
- 3201 Baseball: Teaching and Coaching** **2:1:2**
Teaching and coaching techniques in baseball including trends in strategies and tactics.
- 3202 Basketball: Teaching and Coaching** **2:1:2**
Teaching and coaching techniques in basketball including current trends and offensive and defensive systems.
- 3203 Football: Teaching and Coaching** **2:1:2**
Teaching and coaching techniques in football including fundamental techniques of playing and game theory.
- 3204 Tennis: Teaching and Coaching** **2:1:2**
Teaching and coaching techniques in tennis including strategies and tactics.
- 3205 Track/Field: Teaching and Coaching** **2:1:2**
Teaching and coaching techniques in track and field. Emphasis on instructional methods and varsity coaching.

3206 Volleyball: Teaching and Coaching

2:1:2

Teaching and coaching techniques in volleyball including trends in strategies and tactics.

Physical Education General Activity (PEGA)

The activity courses from which four semesters are to be selected for graduation are listed below. The activity requirement is met during both semesters of the freshman and sophomore years. The classes are designed to enlarge the educational experience of the student by development of skills and understandings associated with aquatics, dance and sports. The activities available provide for individual student interests and personal exercise needs at various experience levels. Many students take more than four semesters of activity.

Aquatics: PEGA The aquatic sections offer beginning swimming through advanced synchronized and competitive swimming, lifesaving and water safety instruction; diving from beginning through scuba and advanced springboard.

Dance: DAN The dance sections offer ballet, jazz, and modern dance at the beginning, intermediate, advanced and performance levels; folk dance and tap dance at the beginning and intermediate levels.

Fitness: PEGA The fitness sections offer general and individualized aerobics, conditioning, jogging, strength training and field sports designed to provide conditioning and sports skill development.

Sports: PEGA The sports sections offer instruction from beginning to competitive in badminton, baseball, basketball, fencing, golf, gymnastics, handball, martial arts, racketball, tennis, track and field, soccer, softball, and volleyball.

Aquatics Courses (PEGA)

- | | | |
|------------|--|--------------|
| 120 | Swimming | 2:1:2 |
| | Demonstrations, lectures and practice in the basic techniques of swimming and water safety skills. May be repeated for credit. | |
| 121 | Swimming and Diving | 2:1:2 |
| | Demonstrations, lectures and practice in the techniques and analysis of selected swimming strokes and dives. | |
| 220 | Advanced Aquatic Sports | 2:1:2 |
| | Lecture, demonstration and practice in synchronized or competitive swimming, scuba or springboard diving. Swimming proficiency test required. May be repeated for credit as topic varies. | |
| 225 | Small Craft | 2:1:2 |
| | The course is designed to create an interest in sailing and canoeing and to develop sufficient knowledge and skill to safely enjoy the sport as a recreational activity. Swimming proficiency test required. | |
| 226 | Lifesaving | 2:1:2 |
| | Development of proficiency in lifesaving. Completion of course includes American Red Cross certification. Prerequisite: Intermediate Swimming Skills. | |

Dance Courses (DAN)

See Department of Dance Education in this bulletin for further information.

Activity Courses (PEGA)

Several types of activities are listed under PEGA 111, 112, 113, 114, 221, 222, 223, or 224. Students should review the activities schedule for appropriate selection of activities.

- | | | |
|---------------------------|--|--------------|
| 111, 112, 113, 114 | Activity | 1:1:2 |
| | Physical activities directed toward concepts of fitness and basic movement skills inherent in conditioning and sports. May be repeated for credit. | |
| 221, 222, 223, 224 | Activity | 2:1:2 |
| | Physical activities directed toward development of lifetime skills in sports. May be repeated for credit. | |

Students enrolled in physical education activity classes are required to wear regulation costumes suggested by the instructor. These may be purchased at the University Bookstore. Equipment for class may be provided by the student. A suit/towel rental and laundry fee, payable the first week of class, is charged for all swimming classes.

Athletic Training Specialization

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

1. Teacher certification with choice of teaching fields.
2. N.A.T.A. Certification upon passing certification examination.
3. Licensed Athletic Trainer by State of Texas upon passing state board examination.

Application must be made through athletic trainer as the number of students is limited.

Driver Education Certification Requirements

Certification to teach driver education is available as a special designation on an existing Texas Teaching Certificate. Specific course requirements are HED 131, PEPT 338 and PEPT 416.

Department of Home Economics

Department Head: Fern Rennebohm

115 Home Economics Building

Professor: Rennebohm, Davidson

Associate Professors: Anderson, McAdams

Assistant Professors: Hinchey, Camp

Instructor: Elliff, Pemberton, Suiter

Bachelor of Science in Home Economics

The Department of Home Economics offers undergraduate instruction leading to the Bachelor of Science degree in Home Economics. The program is designed to prepare students for a professional career, for personal development and for the responsibilities of a contributing family member and citizen.

The home economics program offers opportunities for specialized professional preparation in the areas of home economics education, food service and dietetics, family and community service, fashion retailing and merchandising and interior design. Each of these areas of study is described on the following pages.

Students may minor in home economics by earning 18 semester hours of credit approved by the department head. Students majoring in elementary education may use home economics as an area of specialization by completing 24 semester hours of approved courses. Some home economics courses may be taken as electives by students with other majors.

The degree of Bachelor of Science in Home Economics will be awarded upon the completion of the following requirements:

A. General Requirements

English Composition	6 hours
Literature	3 hours
Eng 4335, Lit, Spc 300/400 or For Lang	3 hours
Math 1334 (or above)	3 hours
Lab Science	4-8 hours
Math or Lab Science	3-4 hours
Soph Am History	6 hours
POLS 231-232	6 hours
Physical Ed or Band	4 semesters

B. Professional Core Courses

HEc 111 Foundations of Home Economics	1
HEc 112 Orientation to Home Economics as a Profession	1
HEc 133 Visual Design	3

HEc 137 Intimate Relationships: Marriage and the Family	3
HEc 231 Textiles	3
HEc 239 Nutrition	3
HEc 330 Consumer Economics	3
HEc 411 Senior Seminar	1
C. Professional Specialization as described in the following Home Economics programs.	

Recommended Programs of Study

General Home Economics

The General Home Economics Program provides a broad background of preparation for the student who wishes to work as a Home Economist in one of many varied career options. A 36 hour prescribed Home Economics curriculum provides a strong base in each of the areas of Home Economics. An 18 hour specialization in Home Economics provides for specialization in one area or further strengthening of the general program. An 18 hour to 24 hour minor of the student's choice is required. Some popular minor programs are Communication, Business, Art, political science or one of the natural or behavioral sciences.

First Year	
Eng Composition	6
Mth 1334 College Algebra	3
Lab Science	4
Mth or Lab Science	3-4
HEc 111 Foundations of Home Economics	1
HEc 112 Orientation to Home Economics as a Profession	1
HEc 133 Visual Design	3
HEc 137 Intimate Relationships: Marriage & the Family	3
PE Activity (2 semesters)	2-4
General HEc lower level Electives	6
	32-33

Second Year	
Literature	3
Mth or Lab Science	3-4
POLS 231, 232 American Government I, II	6
HEc 231 Textiles	3
HEc 239 Nutrition	3
HEc lower level	6
American History	6
PE Activity (2 semesters)	2-4
	32-34

Third Year	
Eng 4335 Technical Report Writing, Lit, Spc 300/400, or For Language	3
HEc 330 Consumer Economics	3
HEc upper level	12
Minor	9
Elective	6
	36

Fourth Year	
HEc 411 Senior Seminar	1
HEc 439 Resource Mgt Systems	3
HEc Internship	3
HEc Emphasis	12
Minor	9
Electives or Minor	6
	28

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. Students wishing to secure the Bachelor of Science degree in Home Economics and at the same time to certify for a provisional certificate for teaching vocational home economics will be required to meet a revised set of teacher education standards. All teacher education programs are subject to comply beginning in the Fall of 1985. It will be necessary to consult with the department head in the Department of Home Economics concerning the specifics or these requirements.

First Year

Eng Composition 6
 Chm or Bio 8
 HEc 111 Foundations of Home Economics 1
 HEc 112 Orientation to Home Economics as
 a Profession 1
 HEc 131 Food Selection and Preparation 3
 HEc 133 Visual Design 3
 HEc 137 Intimate Relationships: Marriage
 and the Family 3
 Mth 1334 or above 6
 PEGA/DAN 2
 Supportive Elective 3

36

Third Year

Eng 4335 Technical Report Writing 3
 C&I 433 Teaching Media and Audio Visual
 Techniques 3
 C&I 331 Foundations of Education 3
 C&I 332 Educational Psychology 3
 HEc 330 Consumer Economics 3
 HEc 339 Seminar in Family and Human
 Relations 3
 HEc 435 Consumer Housing 3
 His (soph) 6
 Spc 131 Public Speaking 3
 Supportive Elective 3
 Free Elective 3

36

Second Year

Eng Literature 3
 POLS 231, 232 American Government I, II 6
 HEc 231 Textiles 3
 HEc 232 Dress Design 3
 HEc 233 Early Childhood Development 3
 HEc 336 Institutional Food Service 3
 HEc 239 Nutrition 3
 HEc 334 Environments and Programs for
 Young Children 3
 PEGA/DAN 2
 Supportive Elective 3

32

Fourth Year

C&I 4309 Instruction of the Exceptional Child 3
 C&I 4308 Occupational Home Economics 3
 HEc 338 Philosophy and Principles of
 Vocational Home Economics 3
 HEc 411 Senior Seminar 1
 HEc 422 Demonstration Techniques 2
 HEc 433 Household Equipment 3
 HEc 438 Methods and Materials for Teaching
 Home Economics 3
 HEc 439 Resource Management Systems 3
 HEc 462 Student Teaching in Home Economics 6
 Free Elective 3

30

Foods, Nutrition and Dietetics

The Foods, Nutrition and Dietetics curriculum provides professional preparation which meets the academic requirement of Plan IV of the American Dietetic Association. Graduates of this program are eligible for an accredited dietetic internship.

First Year

Eng Composition 6
 Bio 143-144 Human Physiology 8
 Mth 1334 College Algebra 3
 Eco 233 Principles and Policies 3
 HEc 111 Foundations of Home Economics 1
 HEc 112 Orientation to Home Economics as
 a Profession 1
 HEc 131 Food Selection and Preparation 3
 HEc 231 Textiles 3
 HEc 133 Visual Design 3
 PE Activity (2 semesters) 2

33

Third Year

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

36

Second Year

Eng Literature 3
 Eng 4335 Technical Report Writing 3
 POLS 231 American Government I 3
 POLS 232 American Government II 3
 Psy 131 Introduction to Psychology 3
 Chm 143 & 144 General 8
 Bio 245 Introductory Microbiology 4
 HEc 137 Intimate Relationships: Marriage and
 the Family 3
 HEc 239 Nutrition 3
 PE Activity (2 semesters) 2

35

Fourth Year

Mgt 331 Principles of Management 3
 Mgt 333 Personnel Management 3
 CS 133 Introduction to Computers or
 Mth 234 Elementary Statistics 3
 HEc 337 Professional Image 3
 HEc 338 Philosophy & Principles of Vocational
 Home Economics 3
 HEc 411 Senior Seminar 1
 HEc 430 Therapeutic Nutrition 3
 HEc 433 Household Equipment 3
 Electives 6

28

Family and Community Service

The Family and Community Service curriculum prepares the student for a career in government and private agencies which serve families. A broad based knowledge of home economics equips the student to aid families in personal relationships, homemaking and consumer skills. A choice of two minors is provided.

A minor in Social Work, including field experience in a social agency, meets the requirements for Texas certification as a social worker.

A minor in Applied Child Development including field experience with infant and early childhood program prepares the student to work with pre-school age children.

First Year	Second Year
Eng Composition 6	Literature 3
Mth 1334 College Algebra 3	Lab Science or Mth 3-4
Lab Science 4	POLS 231, 232 American Government I, II 6
Lab Science or Mth 3-4	HEc 330 Consumer Economics 3
HEc 111 Foundations of Home Economics 1	HEc 231 Textiles 3
HEc 112 Orientation to Home Economics as a Profession 1	HEc 233 Early Childhood Development 3
HEc 133 Visual Design 3	HEc 2314 Child Nutr. 3
HEc 137 Intimate Relationships: Marriage & the Family 3	HEc 239 Nutrition 3
Psy 131 Introduction to Psychology 3	PE Activity (2 semester) 2-4
Soc 131 Introduction to Sociology 3	MINOR:
PE Activity (2 semesters) 2-4	C&I 2301 Foundations of Special Education 3
32 or 35	OR
	Swk 231 Survey of the Social Welfare Institution . . . 3
	32-35
Third Year	Fourth Year
Eng 4335 Technical Report Writing, Spc 300/400, Lit or For Lang 3	HEc 411 Senior Seminar 1
Am History 3	HEc 432 Family Clothing 3
Psychology of Sociology elective 3	HEc 435 Consumer Housing 3
Home Economics 300 level 3	HEc 4327 Family Life and Parenting Behavior 3
HEc 334 Environments & Programs for Young Children 3	HEc 439 Resource Management Systems 3
HEc 339 Seminar in Family and Human Relations 3	Sociology-Psychology Elective 3
MINOR:	Electives 9
HEc 4313 Prenatal & Infant Development 3	MINOR:
Spc 3302 Language Development & Language Disorders 3	HEc 4367 Internship in Home Economics 6
OR	PEPT 433 Motor Learning 3
Swk 331 Social Work Practice I 3	OR
Swk 333 Social Work Practice II 3	Swk 4321 Field Experience I 3
Swk 335 Social Work Practice with Target Groups . 3	Swk 4324 Field Experience II 3
30-33	31-34

Fashion Retailing and Merchandising

The Fashion Retailing and Merchandising specialization provides professional training for positions in fashion coordination, visual merchandising, buying and retail management. The curriculum includes on-the-job training through an internship program. Students may elect to study at the Fashion Institute of Technology in New York during their junior year.

First Year	
Eng Composition	6
Mth 1334 College Algebra	3
Lab Science	4
Mth or Lab Science	3-4
Spc 131 Public Speaking	3
HEC 111 Foundations of Home Economics	1
HEC 112 Orientation to Home Economics as a Profession	1
HEC 133 Visual Design	3
HEC 137 Intimate Relationships: Marriage & the Family	3
HEC 132 Clothing Selection and Preparation	3
PE/DAN Activity	2
<hr/>	
32	

Third Year	
Sophomore History	3
His 234 American History: The Arts in America	3
HEC 330 Consumer Economics	3
HEC 232 Dress Design	3
HEC 337 Professional Image	3
HEC 3306 Merchandising Products	3
Mkt 331 Principles of Mgt	3
Mkt 333 Marketing Promotion	3
Mkt 432 Buyer Behavior	3
MM 136, MM 231, or MM 232	3
Free Elective	3
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33	

Second Year	
Eng Literature	3
POLS 231, 232 American Government I, II	6
Mth or Lab Science	3-4
HEC 130 Social and Psychological Aspects of Clothing	3
HEC 231 Textiles	3
HEC 239 Nutrition	3
HEC 234 Introduction to Retailing	3
CS 130 Computers & Society	3
Eco 233 Principles & Policies	3
Acc 231 Principles of Accounting	3
PEGA/DAN Activity	2
<hr/>	
35	

Fourth Year	
Spc 334 Interviewing	3
HEC 411 Senior Seminar	1
HEC 432 Family Clothing	3
HEC 434 Fashion Production and Distribution	3
HEC 436 Retail Management	3
HEC 4337 Advanced Textiles	3
HEC 4317 Internship in Fashion Merchandising	6
HEC 439 Resource Mgt Systems	3
Business elective 300/400	6
Free elective	3
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34	

Interior Design

The Interior Design specialization provides professional training for a wide range of design problems extending from personal to public environments. The program requires a 24 hour minor in Art.

First Year	
Eng Composition	6
Phy 144	4
Lab Science	3-4
HEC 111 Foundations of Home Economics	1
HEC 112 Orientation to Home Economics as a Profession	1
HEC 133 Visual Design	3
HEC 137 Intimate Relationships: Marriage & the Family	3
Art 131 Drawing I	3
Art 132 Drawing II	3
Egr 135 Arch Graphics	3
PE Activity (2 semesters)	2
<hr/>	
32-33	

Third Year	
Acc 231 Principles of Accounting	3
Eco 233 Principles and Policies	3
His 233 Am His-Dev of Society	3
His 234 Am His-Arts in America	3
Spc 331 or 334 or For Lang	3
Lab Science or Mth	3-4
HEC 239 Nutrition	3
HEC 3304 Res Space Plan	3
HEC 3305 Comp & Systems	3
HEC 3327 Contemp Arch & ID	3
Art 3313 Illustration I	3
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33-34	

Second Year	
Eng Literature	3
POLS 231 American Government I	3
POLS 232 American Government II	3
Mth 1334 College Algebra	3
HEC 330 Consumer Economics	3
HEC 231 Textiles	3
HEC 2307 Hist of Arch & ID	3
HEC 2327 Treat. of ID	3
HEC 237 Fund of ID	3
Art 134 Design II	3
PE Activity (2 semester)	2
<hr/>	
32	

Fourth Year	
HEC 411 Senior Seminar	1
HEC 4305 Adv Int Design	3
HEC 4307 Prof Prin & Prac	3
HEC 433 Equip & Layout	3
HEC 4347 Intern in ID	3
Art 3323 Illustration II	3
Art His Elec: 235 or 236 or 4358, 4368, or 4388	6
Art Elective 300/400	3
Electives	6
<hr/>	
31	

Associate of Applied Science Degree in Food Service Management

This program is designed to prepare students to be effective food service managers in the three basic segments of the food service industry: 1. Commercial food service operations; 2. Health care facilities food service operations; and 3. School food service operations.

First Year

Semester 1	Semester 2
HEc 131 Food Selection and Preparation 3	HEc 235 Meal Management 3
HEc 1301 Sanitation and Safety in Food Service . . 3	HEc 1304 Food Service Equipment and Layout . . . 3
HEc 239 Nutrition 3	MM 138 Fundamentals of Supervision & Leadership 3
HEc 1302 Orientation to Food Service Management Systems 3	HEc 1205 Supervised Field Experience I 2
HEc 1303 Food Purchasing, Handling and Storage 3	TM 134 Business Mathematics 3
BC 132 Business Communication or ENG 131 Composition 3	HEc 137 Intimate Relationships: Marriage and the Family 3
18	17

Second Year

Semester 1	Semester 2
HEc 2301 Quantity Food Preparation and Work Simplification 3	HEc 2304 Advanced Quantity Food Preparation and Service 3
HEc 2302 Food Service Financial Management . . . 3	MM 132 Free Enterprise I 3
HEc 2305 Supervised Field Experience II 3	HEc 2415 Supervised Field Experience III 4
HEc 2103 Food Service Management Seminar I . . . 1	MM 232 Human Resources Management 3
JR 231 Job Relations 3	HEc 2103 Food Service Management Seminar II . . 1
13	14

One of the following courses according to concentration 3	
Conc. 1: HEc 2310 Garde-Manger, HEc 2311 Bakery Training, HEc 2312 Saucier Training	
Conc. 2: HEc 2313 Clinical Nutrition	
Conc. 3: HEc 2314 Child Nutrition and Menu Planning	
	16

One of the following courses according to concentration 3	
Conc. 1: HEc 2322 Beverage and Dining Room Operations and Service or MM 133 Principles of Selling	
Conc. 2: HEc 2323 Community Nutrition	
Conc. 3: HEc 2324 School Food Programs and Government Commodities	
	17

Home Economics Courses (HEc)

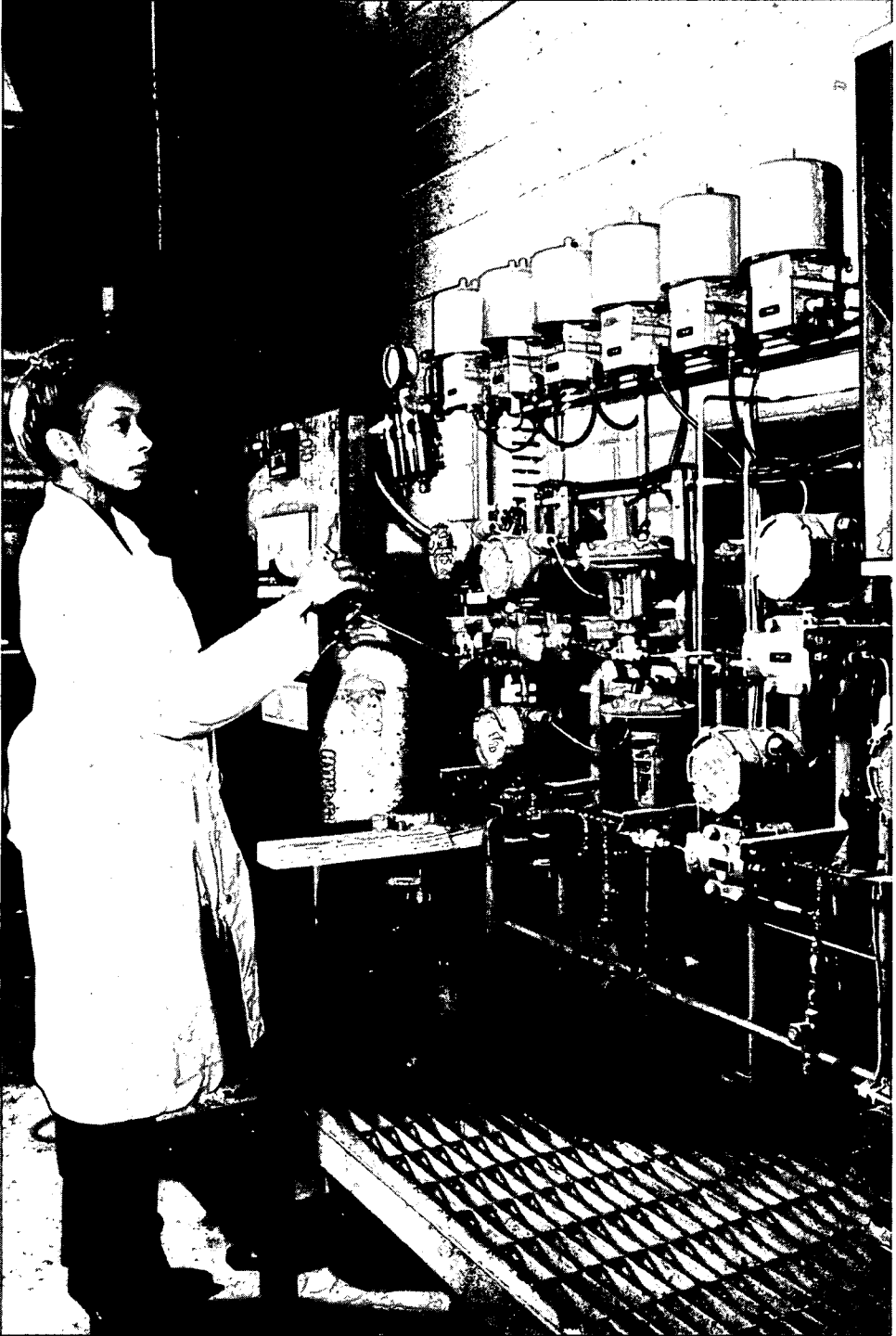
111 Foundations of Home Economics	1:1:0
Introduction to Home Economics as a discipline. History, root disciplines and philosophy will be explored. Registration required the first Fall semester of enrollment in a home economics program.	
112 Orientation to Home Economics as a Profession	1:1:0
An overview of the home economics profession which includes contact with professionals in varied careers. Registration required the first Spring semester of enrollment in a home economics program.	
1303 Food Purchasing, Handling, and Storage	3:3:0
Study of procedures for purchasing, handling and storing food in quantity.	
1205 Supervised Field Experience I	2:A:0
Minimum of 100 hours supervised field experience in food service; emphasis on food service organization, equipment, and layout.	
130 Social and Psychological Aspects of Clothing	3:3:0
An interdisciplinary approach to clothing emphasizing the cultural, psychological, sociological and economical aspects of wearing apparel.	
1301 Sanitation and Safety in Food Service	3:3:0
Study of sanitation and safety standards and procedures in food service.	
1302 Orientation to Food Service Management Systems	3:3:0
Emphasis on the economics of the food service industry: organization, marketing, production, personnel, cost control.	

1304	Food Service Equipment and Layout	3:3:0
	Study of selection, use and care of food service equipment: design and layout of food service facility is emphasized.	
131	Food Selection and Preparation	3:2:4
	Study of food science principles and their application in the preparation of foods and food products.	
132	Clothing Selection and Construction	3:2:4
	A study of clothing construction principles with consideration given to new fabrics. Includes problems and procedures of consumer buying.	
133	Visual Design	3:2:3
	Study of art elements with experiences in applying the principles of design. Develops an appreciation of natural and man-made designs in the daily environment.	
137	Intimate Relationships: Marriage and the Family	3:3:0
	A study of the individual and the family. Special emphasis on individual development, sexuality, tasks of marriage and parenting skills in relation to the family life cycle.	
138	Principles of Nutrition	3:3:0
	Basic principles of nutrition in health and disease. Food selection and quality of nutrients in normal and therapeutic diets related to physiological and psychological needs of individuals considering socio-economic background.	
2103	Food Service Management Seminar	1:1:0
	Study of current topics of interest in food service. May be repeated for credit.	
230	Computers for Home Economics	3:3:0
	Emphasis given to effect of computers on family, community, school and business community. Designed to introduce students to skills necessary for computer literacy.	
2301	Quantity Food Preparation and Work Simplification	3:2:4
	Study of quantity food preparation techniques with emphasis on efficiency and quality control.	
2302	Food Service Financial Management	3:3:0
	Study of principles and procedures in the financial management of food service.	
2304	Advanced Quantity Food Preparation and Service	3:2:4
	Planning and management of quantity food production.	
2305	Supervised Field Experience II	3:A:0
	Minimum of 150 hours supervised field experience in food service; emphasis on food cost control and quantity food production problems.	
2307	History of Architecture and Interior Design	3:3:0
	A study of period design in architecture, interiors and furnishings from antiquity to World War II.	
2310	Garde-Manger	3:2:4
	Principles of preparation of the cold buffet.	
2311	Bakery Training	3:2:4
	Principles of preparation of doughs, breads, pastries, cookies, and cakes.	
2312	Saucier Training	3:2:4
	Principles of preparation of soups, sauces, vegetables, meats, fish, poultry and game.	
2313	Clinical Nutrition	3:3:0
	Study of nutritional needs during illness and for special problems.	
2314	Child Nutrition and Menu Planning	3:3:0
	Study of nutritional needs from birth through adolescence; emphasis on menu planning for groups of children.	
231	Textiles	3:3:0
	A study of the physical and chemical properties of textiles. Emphasis on consumer selection and care of fabrics.	
2322	Beverage and Dining Room Operations and Service	3:2:4
	Emphasis on basic bar operations and dining room service.	
2323	Community Nutrition	3:3:0
	Ethnic, cultural, socioeconomic, and psychological aspects of food; the techniques of evaluating nutritional care systems in the community.	
2324	School Food Programs and Government Commodities	3:2:4
	Administration of school food program; efficient use of government commodities.	
2327	Treatments of Interior Design	3:3:3
	A study of the elements, principles and objectives of design as applied to residential and commercial interiors: Planning furnishings to meet human needs; introduction to practices and procedures in interior design. Prerequisites: HEC 133, Art 132, Phy 144	

- 232 Dress Design** 3:2:3
Study principles of fashion design and flat pattern making. Master pattern is developed to design, draft and construct garments.
Prerequisite: HEC 132.
- 233 Early Childhood Development** 3:3:0
A study of the young child as a basis for understanding the dynamics of child growth and development with emphasis on education for parenthood.
- 234 Introduction to Home and Fashion Retailing** 3:3:0
An introductory study of the contemporary aspects of retailing. A broad view of retailing and its diverse operation with emphasis on home and fashion retailing.
- 235 Meal Management** 3:1:4
Emphasis on management of time, money and energy in planning menus and purchasing, preparing and serving food. Includes study of laws and regulations that affect food supply.
- 237 Fundamentals of Interior Design** 3:0:6
Visual and verbal communication as related to the interior design profession. Emphasis on presentation analysis and techniques, use of media, design development, individual and/or group creative design problem solving.
Prerequisites: HEC 2327, Egr 135
- 239 Nutrition** 3:3:0
Study of the nutritional needs of the body and proper selection of foods to meet these needs throughout the life cycle.
- 2415 Supervised Field Experience III** 4:A:0
Minimum of 200 hours supervised field experience in food service management.
- 330 Consumer Economics** 3:3:0
Consumer principles and rational decision-making skills for coping with consumer issues affecting families and individuals.
- 3304 Residential Space Planning: Studio I** 3:0:6
Studio experiences in the analysis, development and evaluation of residential interior environments. (Individual creative problem solving.)
Prerequisites: HEC 2307, HEC 231, HEC 237, Art 134
- 3305 Components of Interior Design: Studio II** 3:0:6
Studio experiences dealing with small to medium commercial building construction, materials, environmental controls, and interior furnishings. Group creative problem solving.
Prerequisites: HEC 3304, HEC 3327, Art 3313
- 3306 Merchandising Products** 3:3:0
A study of textile and non-textile products. Special emphasis on housewares, furniture, accessories, home furnishings, and appliances.
- 331 Advanced Clothing Construction** 3:3:2
A study of specialized techniques in the construction of a tailored garment. Emphasis is given to new technological advancement in fabric.
- 332 Advanced Nutrition** 3:3:0
A study of nutrient metabolism. Concepts of biological values, bioenergetics and nutrition in health and disease.
Prerequisite: HEC 239.
- 3327 Contemporary Architecture and Interior Design** 3:3:0
A study of the classical, organic and post modern designs in architecture, interiors, and furnishings from World War II to the present.
Prerequisite: HEC 2307
- 333 Food Chemistry** 3:3:0
An introduction to the properties and metabolism of amino acids, enzymes, hormones, proteins, nucleic acids, carbohydrates, lipids, vitamins and minerals with an emphasis on their metabolic interrelationships in health and disease.
Prerequisite: Chm 143 and 144.
- 334 Environments and Programs for Young Children** 3:2:3
Parenting skills and Nursery School organization and procedures developed through observation and participation experience with children under five.
Prerequisite: HEC 233.
- 335 Housing and Home Furnishings** 3:2:3
A study based on an understanding of historical design in architecture and furniture; application of design principles in choice of home and furnishings to meet individual needs.
Prerequisite: HEC 133.

- 336 Institutional Food Service** 3:2:3
A study of institutional equipment, maintenance and organization. Special emphasis on institutional food purchasing, quantity preparation, storage, inventory and cost control.
Prerequisite: HEc 131 and 235.
- 337 Professional Image** 3:3:0
Basic management concepts as applied to individual and professional development.
- 338 Philosophy and Principles of Vocational Home Economics** 3:3:0
Interpretation of home economics as a discipline concerned with quality of life for families and individuals. Provides experiential foundation for developing sound educational programs in varied settings.
- 339 Seminar in Family and Human Relations** 3:3:0
In-depth study of selected topics. The family and the larger society; family structure and function; cultural patterns and life styles; community resources; and family life education.
- 411 Senior Seminar** 1:1:0
A reading-discussion course concerned with the issues the home economics graduate of today encounters.
- 421, 431 Special Topics** 1-3-1-3:0
Special topics including workshops and institutes in home economics. A description of the particular area of study will appear on the printed semester schedule. May be repeated for a maximum of six semester hours when the area of study is different.
A. Clothing/Textiles/Merchandising
B. Family Relations/Child Development
C. Food/Nutrition
D. Home Economics Education
E. Housing/Home Furnishings/Interior Design
F. Home Management/Equipment/Consumer Economics
- 422 Demonstration Techniques** 2:2:0
A study of demonstration as an instructional method. Students will research, write and present a variety of demonstrations.
- 430 Therapeutic Nutrition** 3:3:2
Biochemical changes in diseases, particularly those of nutritional origin; prevention, and the dietary modifications for their correction. Special emphasis on patient care, rehabilitation and nutritional education.
Prerequisite: HEc 332, 333, 336.
- 4305 Advanced Interior Design: Studio III** 3:0:6
Studio experiences analyzing, developing and evaluation of complex commercial interior environments. Individual and/or group creative problem solving.
Prerequisites: HEc 3305, Art 3323
- 4307 Professional Practices & Procedures in Interior Design** 3:3:0
Study of objectives, practices, procedures, and ethics for the professional residential or non-residential interior designer. Preparation of a resume and portfolio of professional expression and illustration. Emphasis on client and designer relations.
Prerequisite: HEc 4305, Senior standing or consent of the instructor.
- 4308 The World of Work Seminar** 3:2:1
A comprehensive study of competencies related to home economics related occupations and careers. Supervised field experiences of at least 15 hours in selected vocational home economics education settings.
- 4313 Prenatal and Infant Development** 3:3:0
Study of physical, social, emotional and cognitive development from conception to age two.
- 4317 Internship in Fashion Merchandising** 3:A:0
Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent in sales experience and management training in a retail firm. Weekly conference and/or seminar will be required.
Prerequisite: Senior standing and consent of instructor. Advanced registration required. May be repeated with varied experiences for a maximum of 6 hours credit.
- 432 Family Clothing** 3:3:0
A study of cultural, functional and technological aspects of textiles and clothing with emphasis on clothing consumption needs during various stages of the family life cycle.
Prerequisite: Junior or senior standing.
- 4327 Family Life and Parenting Behavior** 3:A:0
A study of the importance of family relationships in the development of the child and individual behavior. Specific study of parenting skills, interaction between parent and child, interrelationships between family and larger community.
- 433 Equipment** 3:3:0
Selection, use and care of basic residential and commercial equipment; adapting work centers to individual needs and demonstration techniques.
Prerequisite: HEc 237 or 335

- 4337 Advanced Textiles** **3:A:0**
 A study of consumer merchandising aspects of textiles. Includes selecting appropriate fabrics for apparel and home furnishings, testing fabrics, textile specifications, and the textile industry.
- 434 Fashion Production and Distribution** **3:3:0**
 A Study of the textile and apparel industry with emphasis on the production, distribution and marketing of products. Includes off campus experiences through field trips.
- 4347 Internship in Interior Design** **3:A:0**
 Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent with interior designer, architect, home or office furnishings firm, speciality shop, research and restoration. Weekly conference and/or seminar will be required.
Prerequisite: HEc 4307, Senior standing and consent of the instructor. Advanced registration required. May be repeated with varied experiences for a maximum of 6 hours credit.
- 435 Consumer Housing** **3:3:0**
 A study of the home as the environment that shapes human lives. Designed to create an awareness of the social responsibilities related to housing and to provide experiences associated with planning and selecting suitable homes.
- 4357 Internship in Food Service** **3:A:0**
 Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent in hospital, nursing home, school, or commercial food service organizations. Weekly conference and/or seminar will be required.
Prerequisite: Senior standing and consent of instructor. Advanced registration required. May be repeated with varied experiences for a maximum of 6 hours credit.
- 436 Retail Management** **3:3:0**
 Principles and methods; problems of store location and layout, sales promotion, buying, pricing, selling, personnel management, credit, and stock control.
- 4367 Internship in Home Economics** **3:A:0**
 Supervised work experience of at least 20 hours a week for 8 weeks or its equivalent in a Home Economics related occupation. Weekly conference and/or seminar will be required.
Prerequisite: Senior standing and consent of instructor. Advanced registration required. May be repeated with varied experiences for a maximum of 6 hours credit.
- 437 Individual Problems in Home Economics** **3:A:0**
 Designed to afford research opportunities and work experience for senior students. Under supervision, the students pursue individual interests in the profession of home economics.
Advance registration required. May be repeated with varied experience for up to 6 hours credit.
- 438 Methods and Materials for Teaching Home Economics** **3:3:0**
 Curriculum development and implementation processes for effective management of the vocational home economics classroom.
Prerequisite: C&I 331 and 332; and HEc 338.
- 439 Resource Mgt. Systems** **3:2:3**
 A conceptual study of philosophies and principles of resource management. Practical application through individual and group problems.
Prerequisite: 24 hours in Home Economics or permission of instructor.
- 462 Student Teaching in Home Economics** **6:A:0**
 Supervised observation and teaching in a vocational home economics education classroom.
Prerequisite: HEc 438. Class: 6 hours in an approved vocational program 5 days per week for 8 weeks. Advanced registration required.



College of Engineering

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

Degrees

Computer Science

B.S., Bachelor of Science, Computer Science
M.S., Master of Science, Computer Science

Engineering

B.S., Bachelor of Science, Chemical Engineering
B.S., Bachelor of Science, Civil Engineering
B.S., Bachelor of Science, Electrical Engineering
B.S., Bachelor of Science, Industrial Engineering
B.S., Bachelor of Science, Mechanical Engineering
B.S., Bachelor of Science, Industrial Technology
M.S., Master of Engineering Science
M.E., Master of Engineering
M.E.M., Master of Engineering Management
D.E., Doctor of Engineering

Mathematics

B.A., Bachelor of Arts
B.S., Bachelor of Science
B.S., Bachelor of Science, Mathematical Sciences
M.S., Master of Science, Mathematics

Each department in the College of Engineering is associated with the chapter of its national honor society which include: Alpha Pi Mu, Chi Epsilon, Eta Kappa Nu, Omega Chi Epsilon, Pi Mu Epsilon, Pi Tau Sigma, Tau Beta Pi, and Upsilon Pi Epsilon.

Cooperative Education Program

A Cooperative (Co-op) Education Program, in which the student spends alternate terms at work and at study, is offered to qualified students in the College of Engineering. Programs are available for computer science, engineering, industrial technology, and mathematics students.

To meet the minimum qualifications for the Coop program a student must have:

1. Completed all the work in the first two semesters of the degree program.
2. At least a 2.5 over-all grade point average for engineering and mathematics or 3.0 over-all G.P.A. for computer science.

To remain in the program, the student must maintain a grade point average above a 2.5 and perform in a manner satisfactory to the employer and Lamar University.

A student may participate in the Coop program through the regular sophomore and junior years. By participating in the Coop program throughout the sophomore and junior years a student extends the time required to obtain a degree to five years. However, in doing so, he gains the equivalent of almost two years experience in industry.

A student may apply for admission to the Coop program through the Engineering Cooperative Education Office.

Engineering Programs

The five undergraduate curricula in engineering are accredited by the Accreditation Board for Engineering and Technology. The Accreditation Board for Engineering and Technology defines engineering as “the profession in which a knowledge of the mathematical and natural sciences gained by study, experience and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind.” Clearly, from this definition, engineers are to form the interface between science and society as they apply, in realistic terms, the findings of science.

Entrance Requirements

Entering freshmen and new transfer students are considered provisional majors. The College of Engineering Advisement Center is responsible for the academic advisement of provisional engineering majors.

The entrance requirements from high school for engineering degree programs are:

1. English	4 units
2. Mathematics	
Algebra	2 units
Trigonometry	1/2 unit
3. Natural Sciences	
Chemistry	1 unit
Physics	1 unit
4. Social Sciences	2 units
5. Electives	4-1/2 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 approval of the dean, be permitted to enroll in the College of Engineering; however, all deficiencies must be removed before the end of the second academic year. Students having entrance deficiencies or weaknesses are urged to use the summer terms preceding the freshman year in college to remove them. In addition, each person desiring to enter the College of Engineering must take the Level I Mathematics Test, a mathematics placement test, and chemistry placement exam. Students attaining a sufficiently high grade in the CEEB Mathematics Level I exam may be eligible for advanced placement in the Calculus and Analytic Geometry sequence. These tests are administered during the freshmen orientation periods and during the regular registration periods.

Transfer students are required to have a minimum 2.0 GPA on all work attempted before entering the College of Engineering. Normally transfer credit is considered for course work with a grade of “C” or better.

Standards

In addition to the University requirements, the College of Engineering enforces the following standards:

1. Students are required to take courses in the sequence shown in the University Bulletin for each degree program.
2. Engineering students are expected to maintain a GPA of 2.25 to remain in a program. Students who drop below 2.25 GPA will be placed on probation (maximum load of 13 semester hours). Students who drop below a 2.0 GPA will be suspended from the College of Engineering for one long term. Students returning from suspension must prepare a performance contract in consultation with their academic advisor. A minimum term of the contract requires the student to remove deficiencies every semester of which he or she is enrolled. Students who fail to meet the terms of their contract will be permanently suspended.

3. Engineering students are expected to maintain a minimum GPA of 2.0 in their major courses (Any course with an Engineering prefix.) A performance contract with the student's department head is required for continued enrollment.
4. Degree credit is normally allowed only for courses in which a grade of "C" or better is earned. A course may be repeated for additional credit toward a degree only as specified by the official course description in the University Bulletin. Excluding courses which may be taken for additional credit toward a degree, a student may not register for any course more than four times. Any student who wishes to repeat a course must do so before completing a more advanced course in the same subject matter field.
5. Upon the completion of at least 51 semester hours of the Common Program with a GPA of 2.25 or more on all required courses, a student will be considered for admission to an engineering program. For all engineering programs, it is required that forty-five semester hours (at least twenty-five semester hours in engineering at the 300 and 400 level) be earned after admission to the professional program.
6. All electives must be approved by the student's advisor.

The Dean of Engineering may require students to meet the current degree requirements or program standards.

Common Program for Engineering

First Year

First Semester	Second Semester
Chm 141 Gen Chm	Chm 142 Gen Chem
English Composition	English Composition
Mth 148 Calc & Anal Geom I	Mth 149 Calc & Anal Geom II
Egr 111 Introduction to Engineering	Egr 1221 Introduction to Computers II
Egr 114 Egr Graphics I	Phy 247 Mechanics and Heat
Egr 1121 Introduction to Computers I	PE (1)
American History	
PE (1)	
17	17

Second Year

First Semester	Second Semester
Phy 248 Elec Mag	Egr 233 Circuits
Mth 241 Calc & Anal Geom III	Egr 231 Dynamics
Egr 230 Statics	Egr 210 Introduction to Computer Aided Design ..
Egr 234 Thermo	*Mth 3301 Diff Equ
Egr 215 Egr Graphics II	PE (1)
Egr 223 Egr Econ	Specified by Major (2)
PE (1)	
17	16-17

*Mth 331 for EE students.

Note:

(1) All students must meet the University's requirement for Physical Education, Marching Band or Military Science. However, neither the credit hours nor the grade points will count toward an Engineering Degree or GPA requirements.

(2) The following courses are specified for each engineering major:

Chemical Engineering: Chm 241, ChE 334

Civil Engineering: CE 232, American History Elective

Electrical Engineering: His 232, EE 217, Mth 233

Industrial Engineering: Mth 233, IE 330

Mechanical Engineering: CE 232, Approved Science Electives (3), IE 212

Engineering Courses (Egr)

111 Introduction to Engineering **1:1:0**
 History of engineering, philosophy of engineering practice, the electronic calculator and analysis of the problems of being an engineering student.

- 1121 Introduction to Computers I** 1:1:0
Flow charting, digital computers, BASIC, BASIC programming.
- 114 Engineering Graphics I** 1:0:3
Principles of orthographic projection combined with descriptive geometry to solve space problems graphically. Lettering and drafting techniques emphasized.
- 1221 Introduction to Computers II** 2:2:0
Flow charting, digital computers, FORTRAN, FORTRAN programming.
Prerequisite: Egr 1121
- 135 Architectural Graphics for Interior Design** 3:2:2
Designed to provide students with the basics of architecture necessary to prepare layouts, general specifications, traffic patterns, plans and elevations, and other subjects required to design modern homes, townhouses, condominiums, and general commercial facilities. Modular design will be stressed to take advantage of the standardization within the building industry.
- 210 Introduction to Computer Aided Design** 1:0:3
An introduction to computer aided design, elementary graphics, display, data input and output.
Prerequisite: Mth 241 or concurrent, Egr 1121, Egr 230.
- 215 Engineering Graphics II** 1:0:3
Descriptive geometry, an introduction to computer graphics, and special problems approved by the instructor.
Prerequisite: Egr 114 and Egr 1121
- 223 Engineering Economics** 2:3:0
The time value of economic resources, engineering project investment analysis, effect of taxes on engineering project decisions.
Prerequisite: Mth 148, Egr 1121 or Egr 1221.
- 230 Statics** 3:3:0
Statics of particles and rigid bodies. Use is made of basic physics, calculus and vector algebra.
Prerequisite: Physics 247.
- 231 Dynamics** 3:3:0
Kinematics of rigid bodies, kinetics of rigid bodies, work and energy, impulse and momentum.
Prerequisite: Egr 230 or equivalent, Mth 241 or concurrent.
- 233 Circuits I** 3:3:0
Linear network analysis. Fundamental network laws and methods. Transient response. Sinusoidal steady state analysis and response.
Prerequisite: Mth 149, Phy 248, Egr 1221, Eng Composition (6 hrs).
- 234 Thermodynamics** 3:3:0
The fundamental laws of thermodynamics; properties of systems solids, gases and liquids and thermodynamic tables.
Prerequisite: Phy 247; Mth 241 or concurrent.
- 236 Career Development I** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Approval of academic dean.
- 237 Career Development II** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Egr 236.
- 330 Energy and Society** 3:3:0
Principles and practices of energy engineering are surveyed and used as background for understanding how energy and the environment are related to the industrial, business, economic, political and public sectors of society. Designed for students not enrolled in engineering, the course may not be used for credit toward any engineering degree.
Prerequisite: Junior standing.
- 335 Computer Aided Design** 3:3:0
Course stresses two- and three-dimensional applications on the CAD system. Elementary two-dimensional geometric design: Advanced two-dimensional geometric design and application. Three-dimensional curve, surface and solid design with three-dimensional geometric analysis: Design optimization and interfacing computer aided design and computer aided manufacturing.
Prerequisite: Junior standing (admitted into a professional engineering program).
- 336 Career Development III** 3:3:0
Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
Prerequisite: Egr 237.

- 337 Career Development IV** **3:3:0**
 Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
 Prerequisite: Egr 336.
- 4101, 4201, 4301, 4401 Special Topics** **1-4:A:0**
 An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.
- 421 Data Processing** **3:1:3**
 A study of AM, FM and pulse width modulation for telemetry of data and use of analog and digital computers for storing and analyzing the data.
- 436 Career Development V** **3:3:0**
 Comprehensive treatment of career-related special assignments and projects, specialization areas under guidance of a faculty member.
 Prerequisite: Egr 337.

Department of Computer Science

Department Head: Bobby R. Waldron

106 Liberal Arts Building

Professor: McGuire, Nylin, Read, Waldron

Associate Professor: Harvill, Koh

Assistant Professor: Jordan, Foreman

Adjunct Instructors: Chan, Logan, Wiemers

Bachelor of Science — Computer Science

The Computer Science program at Lamar is a broad-based program in Computer Science emphasizing the areas of programming languages, data structures, information systems theory of programming languages, compiler theory, applications of Computer Science and computer architecture. The program requires 42 hours in Computer Science, 18 hours in an area of specialization, 18 to 20 hours in mathematics, 6 hours in business, 6 to 8 hours in free electives as well as the general University requirements for a bachelor's degree. The student who completes this four-year (4) academic program is awarded a Bachelor of Science degree in Computer Science and is well prepared to pursue a professional career in his/her area of specialization.

Computer Science Academic Policy

1. No course can be counted towards the Bachelor of Science degree in computer science if a grade of less than a "C" is made in the course.
2. Students must make a grade of "C" or better in all prerequisite courses for a given course before that course may be taken. This applies to both computer science majors and non-computer science majors who desire to enroll in a computer science course.
3. Students whose grade point average falls below 2.3 will be placed on departmental probation and will be suspended from the Computer Science Department, if they do not regain an overall grade point average of 2.3 within one long semester.
4. Students on departmental probation may not take more than 12 academic hours or 13 academic hours provided a laboratory course is included per long semester.

Computing Laboratories

Students who are majoring or minoring in Computer Science have access to a wide variety of the latest computing hardware and software. The Computer Science Department maintains computing laboratories which include the following.

1. A VAX 11/750, a 32-bit "super mini" computer, system currently equipped with 40 terminals, 3.5 mega-bytes of memory, line-printer, tape drive and 150 mega-bytes of on-line disk storage.

2. A micro laboratory equipped with 12 micro-computers. A terminal room in the computing labs with 20 terminals connected to the University's mainframe computer.

The Computer Science laboratories are totally operated by computer science majors. This includes operations, system software development, planning, procuring and installation of both new hardware and software.

In addition, students in the department have access to the University's computing system which is a medium size mainframe with a large variety of terminals and other peripheral equipment.

Requirements for becoming a Computer Science Major

First semester students must have a combined score of 850 or greater on the SAT test or equivalent ACT test score, or rank in the upper one third of their graduating class.

Students who have already earned academic credit from another college or university must have a combined score of 850 or greater on the SAT test or rank in the upper one third of their graduating class and have at least an overall grade point average of 2.3 on all academic work, or must have completed at least 30 academic semester hours with an overall grade point average of 2.3 or better.

Requirements for a minor in Computer Science

CS 1411, CS 1413, CS 2313, CS 2411, plus nine (9) additional hours taken from 300/3000 and/or 400/4000 level courses.

Bachelor of Science—Computer Science

Recommended Program of Study

First Year

First Semester	Second Semester
CS 1411 Principles of Computer Science I 4	CS 1413 Principles of Computer Science II 4
English Composition 3	English Composition 5
Mth 1345 3	Mth 148/236 4-3
His 231 3	His 232 3
Academic Elective 3	Eco 131 3
PE 1	PE 1
<u>17</u>	<u>18-17</u>

Second Year

First Semester	Second Semester
CS 2313 Digital Computer Systems 3	CS 2411 COBOL Programming 4
Mth 149/237 4-3	Mth 233 3
Lab Science 4	Lab Science 3
POLS 231 3	English Literature 3
Acc 231 3	PE 1
PE 1	
<u>18-17</u>	<u>15</u>

Third Year

First Semester	Second Semester
CS Elective 3	CS Elective 3
CS Elective 3	CS Elective 3
Mth 234/3370 3	Mth 4315/331 3
Specialization 3	Specialization 3
LIT/SPC/TW 3	Specialization 3
<u>15</u>	<u>15</u>

Fourth Year

First Semester		Second Semester	
CS Elective	3	CS Elective	3
CS Elective	3	CS Elective	3
CS 431	3	Specialization	3
Specialization	3	POLS 232	3
Specialization	3	Academic Elective	3-5
	15		15-17

Total Hours 128

Comments:

1. An area of specialization is chosen by the student and consists of at least 18 semester credit hours which must be approved by his or her advisor.
2. Students whose area of specialization is Math, Engineering, or Physics must take Mth 148 and Mth 149.
3. Students whose area of specialization is Engineering must take Phy 247 and Phy 248 as their lab science.
4. CS electives must be chosen from the following groups with at least 6 hours taken from each group:
 - Group 1: CS 3307, CS 4306, CS 4309, CS 4311, CS 4312, CS 4321
 - Group 2: CS 3305, CS 4302, CS 4305, CS 4310
 - Group 3: CS 3301, CS 4307, CS 4308, CS 4317, CS 4319
5. No more than 4 semester hours of PE activities will count toward the degree in Computer Science.
6. CS 1311 is a deficiency course for entering freshman who are not familiar with computers.

Bachelor of Science - Computer Science with Teacher Certifications in Computer Science and Mathematics

Students who wish to earn a Computer Science degree and to be certified to teach Computer Science and Mathematics at the secondary level in public schools may obtain this goal by completing an additional fifteen (15) hours beyond those required for a Bachelor of Science degree in Computer Science. Students who desire further information on this program should contact the undergraduate advisor in the Computer Science department.

Dual Programs - Bachelor of Science in Computer Science and Bachelor of Science in Electrical Engineering

The departments of Computer Science and Electrical Engineering offer qualified highly motivated students the opportunity to earn both a Bachelor of Science degree in Computer Science and a Bachelor of Science degree in Electrical Engineering in four academic years including six summer sessions. Students may obtain additional information about this intensive program by contacting either the department of Electrical Engineering or the department of Computer Science. This program of study consists of 176 semester credit hours as described in the following outline.

Bachelor of Science in Computer Science and Bachelor of Science in Electrical Engineering

First Year

Fall Semester	
Egr 111	1
Egr 114	1
CS 1411	4
Eng 131	3
Mth 148	4
Mth 1345	3
PE	1
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	17

Spring Semester	
CS 1413	4
His 231	3
Eng 132	3
Mth 149	4
Phy 247	4
PE	1
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	19

Summer Semester I	
Chm 141	4
Egr 230	3
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	7

Summer Semester II	
Chm 142	4
Mth 3370	3
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	7

Second Year

Fall Semester	
Egr 234	3
Egr 215	1
Egr 223	2
CS 2411	4
Phy 248	4
Mth 233	3
PE	1
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	18

Spring Semester	
Egr 233	3
Egr 210	1
Egr 231	3
EE 217	1
Mth 241	4
Mth 331	3
CS 2313	3
PE	1
<hr/>	
	19

Summer Semester I	
CS/EE 3305	3
EE 331	3
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	6

Summer Semester II	
Phy 335	3
CS 4305	3
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	6

Third Year

Fall Semester	
EE 318	1
EE 333	3
EE 3301	3
CS 4306	3
CS 3307	3
Eng Lit	3
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	16

Spring Semester	
EE 319	1
EE 336	3
EE 3201	2
EE 332	3
EE 431	3
CS 4302	3
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	15

Summer Semester I	
EE 337	3
HUM/COC	3
<hr/>	
	6

Summer Semester II	
Spc 131	3
POLS 231	3
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	6

Fourth Year

Fall Semester	
EE 411	1
EE 416	1
EE 436	3
EE Elective	3
EE/CS 4310	3
CS 4307	3
His 232	3
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	17

Spring Semester	
EE 412	1
EE 417	1
EE Elective	3
EE Elective	3
CS 4317/4319	3
CS 431	3
POLS 232	3
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	17

Total Hours 176

Computer Science Courses (CS)

- 130 Computers and Society** 3:3:0
Introduction to computers, their history, their uses in society and the consequences of their applications to society and man. Interaction with computers will be accomplished by using the BASIC programming language.
- 131 Computer Programming I** 3:3:0
Introduction to problem solving methods; algorithm development; and how to design, code, debug, and document programs using good programming style and a high level language.
- 1311 Micro-Computers I** 3:2:3
Functional hardware components of micro-computers and networks of micro-computer system software, high level compilers/interpreters, text editors, data base management system, query systems, impact of micro-computers on society, and techniques for applications of micro-computers to appropriate real world problems.
- 132 Computer Programming II** 3:3:0
Continuation of the development of discipline in program design, in style, in debugging and testing; algorithmic analysis; and basic aspects of string processing, recursion, internal search/sort methods and simple data structure.
Prerequisite: CS 131 and Mth 1334 or concurrent enrollment in Mth 1334.
- 133 Introduction to Computers** 3:3:0
Utilization of digital computers using the FORTRAN higher level language to solve business oriented problems.
- 1411 Principles of Computer Science I** 4:3:3
Major hardware components, problem solving and algorithmic development, program structures, data types, method and styles of program development, data structures and solution of significant problems using a block structured language such as ADA and Pascal.
- 1413 Principles of Computer Science II** 4:3:3
Continuation of CS 1411, algorithm analysis, program verification, advanced data structures and their implementations, run time behavior of programs, program efficiency, data verification and solution of complex real world problems using these concepts.
Prerequisite: CS 1411 and Mth 1345
- 230 RPG Programming** 3:3:0
An introduction to RPG programming RPG techniques, specifications and routines.
Prerequisite: CS 131 or CS 133.
- 2313 Digital Computer Systems** 3:2:2
Basic computer architecture and assembly language programming. System software, including loaders and assemblers. Input-output devices and programming.
Prerequisite: CS 1413.
- 235 Engineering Computation II** 3:3:0
Problem theory, flow charting, advanced FORTRAN programming. Solution of advanced problems from various engineering disciplines.
Prerequisite: CS 132 and Mth 149 or Mth 237
- 2411 COBOL Programming** 4:3:3
Extensive coverage of the COBOL language and its variations, flexibility and power of COBOL, emphasis on structured programming, processes for management of secondary storage, large scale computing and access methods.
Prerequisite: CS 1411
- 3101 Special Language Topics** 1:1:0
The study of the theory and applications of specialized computer languages and language packages. This course may be repeated for different languages and language packages.
Prerequisite: Consent of instructor.
- 3201 Special Language Topics** 2:2:0
The study of the theory and applications of specialized computer languages and language packages. This course may be repeated for different languages and language packages.
Prerequisite: Consent of instructor.
- 3301 Special Languages Topics** 3:3:0
The study of the theory and applications of specialized computer languages and language packages. This course may be repeated for different languages and language packages.
Prerequisite: Consent of instructor.
- 3302 Introduction to Computer Systems** 3:3:0
Introduction to computer architecture; basic concepts of computer systems; and machine, assembler level and micro languages.
Prerequisite: CS 132.

- 3304 COBOL Programming** **3:3:0**
 A thorough coverage of the COBOL language and some of its variations is presented in this course. The emphasis is placed on the language, its flexibility and power as well as on applications.
Prerequisite: CS 131.
- 3305 Introduction to Computer Organization** **3:3:0**
 The introduction and the structure of the major hardware components; the mechanics of information transfer and control within a digital computer system; and the fundamentals of logic design.
Prerequisite: CS 3302.
- 3307 Data Base Systems** **3:3:0**
 Introduction to data base systems, includes relational, hierarchical, and network data base models; methods of controlling concurrent accesses, backup and recovery techniques; and distributed data base systems.
Prerequisite: CS 2411
- 331 Mini-computer Laboratory** **3:1:6**
 Study of hardware, software, peripherals and their interfacing of mini-computers in a laboratory environment.
Prerequisite: CS 3302 and consent of instructor.
- 4104, 4201, 4301, 4401 Special Topics** **1-4:A:0**
 An investigation into specialized areas of computer science under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.
- 4302 Operating Systems and Computer Architecture I** **3:3:0**
 To introduce the major concept areas of operating systems principles; develop an understanding of the organization and architecture of computer systems at the register-transfer and programming levels of system description; and the inter-relationships between the operating system and the architecture of computer systems.
Prerequisite: CS 3302 and CS 4305.
- 4305 Data Structures and Algorithm Analysis** **3:3:0**
 Data structure; analysis and design techniques for non-numeric algorithms which act on data structures; and utilization of algorithmic analysis and design criteria in the selection of methods for data manipulation.
Prerequisite: CS 132 and CS 3301
- 4306 Techniques of Information Processing and Retrieval** **3:3:0**
 Continuation of CS 4305. Keyword and descriptive indexing, decision tables, real time information processing and total information systems.
Prerequisite: CS 4305 and CS 3304
- 4307 Organization of Programming Languages** **3:3:0**
 The organization of programming languages, especially run-time behavior of programs; the formal study of programming language specification and analysis; and the continued development of problem solution and programming skills.
Prerequisite: CS 3302, 4305.
- 4308 Theory of Programming Languages** **3:3:0**
 Formal definition of programming languages, including specifications of syntax, semantics, statements and notations used in the construction of compilers, structure of translators and compilers.
Prerequisite: CS 4307.
- 4309 Introduction to Simulation Techniques** **3:3:0**
 External properties of multivariate functions with and without constraints, convex functions, linear programming. Computer simulation utilizing logical, numerical and Monte Carlo modeling. The generation, termination and flow of entities through storage and processing facilities.
Prerequisite: CS 132, EGR 1221 and Mth 234 or 438.
- 431 Project Laboratory** **3:2:3**
 Senior projects with hardware/software implementation and testing.
Prerequisite: CS 4302 and senior standing.
- 4310 Computer Architecture** **3:3:0**
 Representation of information, calculators, storage, addressing, input, output, memory and control. Credit will not be given for both CS 4310 and EE 4310.
Prerequisite: EE 4303 or CS 3305. Assembly language desirable.
- 4311 Information Systems I** **3:3:0**
 The analysis, design, installation documentation, maintenance, and modifications of information systems including both hardware and software.
Prerequisite: CS 3301.
- 4312 Information Systems II** **3:3:0**
 A continuation of CS 4311 with special emphasis on using state of the art computer technology in maintenance and modification of information systems.

- 4317 Artificial Intelligence** 3:2:2
Fundamentals of Artificial Intelligence, problem solving techniques, search methods, heuristic methods; knowledge representation, natural languages, learning and programming projects drawn from selected areas of artificial intelligence.
Prerequisite: CS 1413.
- 4319 Computer Graphics** 3:2:3
History of computer graphics, graphics hardware, fundamental graphic operations, graphic packages, interaction techniques, user/computer dialogue, 3 (and greater) dimensional viewing, graphics algorithms, and different media for graphic output.
Prerequisite: CS 4305.
- 4321 Micro-Computers**
Hardware components, languages, operating systems, data file systems, utilities and software development for micro-computers.

Department of Chemical Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Jack R. Hopper

100 Lucas Building

Professors: Hopper, Walker, Yaws

Associate Professor: Li

Assistant Professors: Chen, Ho

Adjunct Professor: Wei, Wing

Laboratory Technician: Stauffer

Chemical engineering is the profession in which a knowledge of mathematics, chemistry and other natural sciences gained by study, experience and practice is applied with judgement to develop economic ways of using materials and energy for the benefit of mankind. The chemical engineer enters into almost every modern industry. From petroleum to synthetic rubber, from steel to medicines, the chemical engineer engages in design, research, development, production, sales and management. Among the fields in which the chemical engineer is of prime importance are petroleum, petrochemicals, metals, plastics, paints, foods, paper, glass, dyes, synthetic fibers and a host of others.

The Department of Chemical Engineering will permit transfer of up to 78 semester hours from a junior college or a community college, if appropriate courses were taken at the junior (community) college level. The appropriate list of courses for a particular college can be made available upon request.

Bachelor of Science - Chemical Engineering

Recommended Program of Study

First and Second Year

(See Common Program)

Third Year

First Semester

**ChE 333 Thermodynamics	3
**ChE/ME 3311 Momentum Transfer	3
*ChE 437 Computer Applications	3
POLS 231 American Government I	3
Chm 341 Organic I	4
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	16

Second Semester

**ChE 332 Heat Transfer	3
**ChE 441 Reaction Kinetics	4
POLS 232 American Government II	3
Chm 432 Physical Chm II	3
Chm 342 Organic II	4
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	17

Fourth Year

First Semester	Second Semester
ChE 442 Mass Transfer..... 4	ChE 433 Process Control 3
ChE 431 Laboratory I 3	American Hist 3
ChE 436 Plant Design I..... 3	ChE 434 Plant Design II 3
ChE 414 Seminar..... 1	ChE 435 Advanced Analysis 3
Elective..... 3	***Chm Elective 2
English Literature 3	English Lit/Tech Rpt Writ..... 3
17	17

Total Semester Hours 135

Notes:

* These courses are offered during both Fall & Spring Semester.

** These courses are also offered during the Summer Session.

*** Requires approval of Department Head for 300-400 level chemistry course

Chemical Engineering Courses (ChE)

3311 Momentum Transfer	3:3:0
Fluid-flow concepts are presented through the derivation of the basic equations of continuity, energy and momentum. Engineering aspects of flow measurement, pressure-drop calculations and pumping requirements are considered. Same as ME 3311. Che 3311 and ME 3311 may not both be counted for credit.	
Prerequisite: Egr 234, ChE 334	
332 Heat Transfer	3:3:0
Principles of conduction, convection and radiation, and their application to the design of heat transfer equipment and systems.	
Prerequisite: ChE 3311, ChE 333	
333 Thermodynamics	3:3:0
Application of the First and Second Laws to chemical processes. Thermodynamic properties of pure fluids and mixtures. Physical equilibrium.	
Prerequisite: ChE 334, Egr 234, Chm 341 or concurrent, Chm 241 or concurrent.	
334 Process Analysis	3:3:0
Application of mathematics, physics and chemistry to the solution of problems in industrial chemistry. Material and energy balance calculations on processes undergoing physical and chemical changes.	
Prerequisite: Egr 234 or concurrent.	
411 Seminar	1:1:0
Oral presentation of advanced topics or research work in chemical engineering.	
414 Seminar	1:1:0
Oral and written presentation of selected topics in chemical engineering from recent technical publications.	
Prerequisite: Senior standing in Chemical Engineering.	
422 Laboratory II	2:0:6
A continuation of ChE 431. Intensive experimental work in one or more areas studied in ChE 431. May be taken on an individual instruction basis.	
Prerequisite: ChE 431.	
431 Laboratory I	3:1:6
Experiments in heat transfer, mass transfer, fluid flow, reaction kinetics and thermodynamics.	
Prerequisite: ChE 442 or concurrent.	
4316 Stagewise Processes	3:3:0
Advanced study of absorption, extraction, distillation and diffusion, with emphasis on multicomponent mixtures.	
4318 Advanced Distillation	3:3:0
Principles of multicomponent distillation, including prediction of equilibrium compositions of multicomponent mixture.	
4321 Process Economics	3:3:0
Calculations involving economic evaluation of processes and equipment. Optimization of plants for least cost or maximum profit.	
4322 Unit Operations	3:3:0
A study of chemical engineering operations not considered in other courses. An advanced study of one or more selected chemical engineering operations.	
4323 Engineering Materials	3:3:0
Engineering properties of solid, liquid and gaseous materials. Selection and deterioration of materials for various industrial applications.	

- 4325 Introduction to Nuclear Engineering** 3:3:0
Interaction of neutrons with matter, nuclear properties of materials, shielding and control of reactors, production of neutrons by nuclear fission, discussion of the various types of reactors and introduction to reactor theory and design.
- 433 Process Control** 3:3:0
Selection of equipment to measure and control process variables. Analysis of process response to variations in process parameters.
Prerequisite: ChE 437, 441, 442, Mth 3301.
- 434 Plant Design II** 3:1:6
A continuation of ChE 436, with emphasis on a major design project.
Prerequisite: ChE 436.
- 435 Advanced Analysis** 3:3:0
Development of mathematical equations for chemical engineering applications. Solution of ordinary and partial differential equations.
Prerequisite: ChE 333, 3311, 332, 437, 441, Mth 3301.
- 436 Plant Design I** 3:3:0
Application of chemical engineering principles to the design of chemical processes and plants. Equipment design and specifications. Economic evaluation of processes and equipment.
Prerequisite: ChE 441; ChE 442 or concurrent.
- 437 Computer Applications** 3:3:0
Use of the digital computer in performing process calculations. Advanced techniques of FORTRAN programming.
Prerequisite: Egr 1121, 1221, ChE 334, ChE 333 or concurrent.
- 438 Introductory Petroleum Engineering** 3:3:0
The modern techniques of producing oil will be reviewed. Drilling operations, primarily and secondary recovery operations, methods of evaluation, production rate potential and reserve, as well as other aspects of reservoir engineering will be studied.
Prerequisite: Senior/graduate standing.
- 441 Reaction Kinetics** 4:3:3
Chemical equilibrium. Analysis of experimental data to determine reaction rate parameters in homogeneous, heterogeneous, catalytic and non-catalytic reactions. Development of equations for batch, stirred-tank and tubular flow reactors. Application of differential equations to process and reactor design.
Prerequisite: Mth 3301, Chm 241, ChE 332 or concurrent, ChE 333 or concurrent, Chm 342 or concurrent, Chm 432 or concurrent.
- 442 Mass Transfer** 4:3:3
Principles of diffusion. Simultaneous mass, energy and momentum transfer. Analysis of absorption, extraction and distillation processes.
Prerequisite: ChE 333, 332, Chm 241, 341, 342, 432.

Department of Civil Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Enno Koehn

2010 Cherry Engineering Building

Professors: Beale, Koehn, Morgan, Rogers

Associate Professors: Kumar, Mantz

Assistant Professor: Daniali

Instructor: Ramel

Adjunct: Fischer, Mittra

Laboratory Technician: Mohtashami

Civil Engineering is a people serving profession and as such is vital to the world's economic, political, and social well-being. The many areas to which civil engineers make substantial contributions include bridges, dams and levees, harbors, waterways and irrigation facilities, buildings, airports, highways, pipelines, railroads, power lines, water supply systems and waste treatment facilities. They engage in a wide range of activities such as research, design, development, management, and the control of engineering systems and their components. With today's fast-paced technological changes, civil engi-

neering provides for unique and unlimited career opportunities that can only be met by professionally trained people.

The civil engineering program is designed with a broad base to prepare men and women for careers in all phases of civil engineering and to enable them to perform other managerial and technical functions which require scientific and engineering backgrounds. The curriculum embraces a sound core of physics, chemistry and mathematics. To this is added a substructure of engineering sciences. Areas of study include geotechnical, structural, hydraulic, environmental, transportation, surveying, and construction engineering. Options are provided to fit the individual interest of the civil engineering student.

Because of the wide scope of activities in which the civil engineer is engaged, and because of the broad spectrum of student interest, civil engineering graduates may choose either to enter the profession immediately after receiving their bachelor's degree or go directly to graduate school. No matter what the student chooses, the curriculum provides a firm foundation for today's world.

To encourage and assist scholars in civil engineering, the Katherine E. and William C. Mundt endowment was established in 1983. This fund provides scholarships (\$10,000/4 years) for qualified students. Application forms are available in the civil engineering department office.

Bachelor of Science - Civil Engineering

Additional Degree Requirements:

Candidates for degrees in this program are strongly encouraged to consider sitting for the National Council of Engineering Examiners Examination on "Fundamentals of Engineering" as administered by the State Board of Registration for Professional Engineers.

Recommended Program of Study

First and Second Years (See Common Program)

Third Year

First Semester	3	Second Semester	2
Elective Statistics	3	CE 320 Materials Engineering	2
CE 220 Surveying	2	CE 336 Hydrology	3
CE 331 Environmental Science	3	CE 337 Water Utility Systems	3
CE 334 Structural Mechanics	3	CE 339 Geotechnical Engineering I	3
CE 335 Hydraulics I	3	Elective Political Science	3
Elective Political Science	3	Elective Approved CE Elective(1)	3
	17		17

Fourth Year

First Semester	3	Second Semester	3
CE 434 Geotechnical Engineering II	3	CE 439 Structural Steel Design	3
CE 438 Reinforced Concrete Design	3	CE 411 Seminar	1
CE 432 Management, Planning, Scheduling and Estimating	3	CE 420 Photogrammetry and Mapping	2
Elective Literature	3	CE 431 Hydraulics II	3
Elective Approved Math, Science, or Technical Elective(1)	2	Elective Literature (2)	3
Elective Approved CE Elective(1)	3	Elective Approved Eco, BLW, or Tech Elective(1) (2)	3
	17	Approved CE Elective (1)	3
			18

Total Semester Hours 136

Notes:

1. All Electives must be approved by the Head of the Civil Engineering Department.
2. Speech or Technical Writing may be substituted if a course in Economics is elected.

Civil Engineering Courses (CE)

- 220 Surveying** **2:0:6**
 Introduction to basic principles of surveying. Use of equipment for measurement of horizontal and vertical distances and angles. Field practice and calculations associated with design and layout of highway curves including vertical and horizontal alignments. Transition spirals. Computer utilized in calculations.
Prerequisite: Egr 1221.
Corequisite: Egr 215.
- 232 Mechanics of Solids** **3:3:0**
 Effect of loads on deformable bodies, uniaxial and biaxial stress-strain relationships, indeterminate systems. Study of stresses due to axial, torsional and bending effects. Buckling of columns.
Prerequisite: Egr 230.
- 320 Materials Engineering** **2:0:6**
 Principles/Techniques for investigating properties and behavior of engineering members and materials using experimental methods.
Prerequisite: CE 232.
- 331 Environmental Science** **3:2:3**
 Introduction to the hydrologic cycle and the chemistry and microbiology of the natural aquatic environment, with emphasis on the physical, chemical and biological aspects of water and waste water systems in relation to man's environment. Laboratory work in the physical, chemical and biological analysis of water and waste water.
Prerequisite: Chm 142.
- 334 Structural Mechanics** **3:2:3**
 Analysis of loadings for bridges and buildings. Dynamic effects of moving loads. Influence lines. Shear and moment diagrams, analysis of indeterminate structures. Introduction to structural design investigation of frames, girders and bents.
Prerequisite: CE 232.
- 335 Hydraulics I** **3:2:3**
 Basic principles of fluid flow. Friction and drag studies. Calibration of flow measuring devices. Flow characteristics of open channels and closed conduits Boundary Layer Theory.
Prerequisite: Egr 231.
- 336 Hydrology** **3:3:0**
 Precipitation, surface water, infiltration, sub-surface water. Analysis of rainfall and runoff data. Collection studies. Hydraulics of wells. Net storm rain; peak discharge and flood runoff.
Prerequisite: EGR 231.
- 337 Water Utility Systems** **3:3:0**
 General survey of environmental engineering covering water supply and sanitary sewerage systems. Design of water distribution and wastewater collection systems.
Prerequisite: CE 331, CE 335.
- 339 Geotechnical Engineering I** **3:2:3**
 Basic principles of soil behavior under load. Soil properties and classification. Study of hydraulics as applied to soil mechanics.
Prerequisite: CE 232.
Corequisite: Egr 231.
- 3390 Civil Engineering Systems I** **3:3:0**
 Probability and its application to civil engineering problems. Random processes in engineering, distributions, and regression analysis related to typical models utilized in the design process.
Prerequisite: Mth 241.
Corequisite: CE 232.
- 411 Seminar** **1:0:3**
 Discussion of professional topics. Study of technical journals and transactions. Presentation of oral and written reports. Completed thesis required.
Prerequisite: Senior standing.
- 420 Photogrammetry and Mapping** **2:0:6**
 Principles of aerial photography applied to map making, route locations and ground control. Introduction to use of photogrammetry equipment, including stereoscopes and plotters.
Prerequisite: CE 220
- 430 Indeterminate Structures** **3:2:3**
 Basic principles of structural analysis and design based upon the requirements of equilibrium and continuity. Matrix methods and the application of strain energy, slope deflection and moment distribution procedures for the analysis of frames, trusses and beams. Digital computer methods utilized.
Prerequisite: CE 334.

- 431 Hydraulics II** 3:2:3
Continuation of CE 335-Hydraulics I emphasizing practical applications of basic fluid mechanics principles in fluid measurement, machinery, closed conduit flow, open channel flow and hydraulic transients.
Prerequisite: CE 335.
- 4310 Soil-Structure Interaction** 3:2:3
Analysis of the mechanical behavior of soil-structure systems under the effect of static and dynamic loading, impact and stress wave propagation. Applications to structures supported by shallow and deep substructure and underground structures. Computer techniques are employed.
Prerequisite: CE 434.
- 4312 Structural Systems Design** 3:2:3
Planning, design, and analysis of a comprehensive civil engineering project including the principles associated with elastic and plastic design of steel, pre-stressed concrete, and composite structures. Hybrid girders and thin shell concrete facilities may also be considered. Computer methods of analysis utilized.
Prerequisite: CE 334.
Corequisite: CE 438, CE 439.
- 432 Management, Planning, Scheduling, and Estimating** 3:2:3
Principles governing the effective and efficient management of engineering projects including the application of comprehensive planning, scheduling, and cost estimation procedures.
Prerequisite: Senior Standing.
- 433 Environmental Health Engineering** 3:3:0
Problems of public health in rural, urban and industrial centers with water, housing, heating, cooling, ventilation, milk, food, insects and rodents. Biostatistics and public health laws, ordinances and regulations.
Prerequisite: Bio 243 or CE 331.
- 434 Geotechnical Engineering II** 3:2:3
Compressibility and strength characteristics. Stress distribution. Shallow and deep foundations, earth pressure theories, retaining walls, stability of slopes.
Prerequisite: CE 339.
Corequisite: CE 335.
- 435 Water and Waste Water Treatment** 3:3:0
Principles of physical, chemical and biological processes employed in water and waste water treatment. Design of selected units within water and waste water treatment systems.
Prerequisite: CE 337.
- 437 Transportation Engineering** 3:3:0
Study of highway pavements. History and development of transportation facilities. Drainage requirements. Fundamentals of highway location, design, construction and maintenance.
- 438 Reinforced Concrete Design** 3:2:3
The design of structural concrete members based upon elastic and plastic theory. Study of standard specifications. Introduction to prestressed concrete.
Prerequisite: CE 334.
- 439 Structural Steel Design** 3:2:3
The elastic design of buildings and bridge components according to standard specifications. Introduction to plastic design of steel structures.
Prerequisite: CE 334.
- 4390 Civil Engineering Systems II** 3:3:0
Principles of system analysis utilized for solving civil engineering problems. Application of numerical methods, systems modeling, linear programming, dynamic programming, optimization, finite elements and finite differences.
Prerequisite: CE 3390 or Statistics.
Corequisite: CE 334, CE 337, CE 339.

Department of Electrical Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: William R. Wakeland

2006 Cherry Building

Professors: Bean, Cooke, Crum, Wakeland, Watt

Associate Professors: Carlin

Assistant Professors: Viviani

Laboratory Technician: Ingram

For many years the use of electricity has played a major role in the advancement of societies throughout the world. From megawatts of electrical power to microprocessors not as large as the pupil of the eye, the world of tomorrow will depend even more heavily than today upon the use of electricity.

Men and women who are electrical engineers will play vital roles in key areas affecting everyone's life by working in such areas as: microprocessor based instrumentation systems; advanced computer systems—both large scale and personal size; medical instrumentation, and computer-aided diagnostic and information systems; automatic control systems for mass transit, food production and process control; power generation and distribution systems. If these challenges sound worthwhile and you want to contribute, an Electrical Engineering degree will provide you that opportunity.

The Department of Electrical Engineering will permit transfer of up to 72 semester hours from a junior college or a community college if appropriate courses were taken at the junior or community college level. The appropriate list of courses for a particular college are available upon request.

The academic standards of the College of Engineering require that a student satisfy certain criteria for admission to a particular engineering program. In addition, there are four electrical sequences of courses which serve as the foundation for advanced courses in electrical engineering. Poor performance in these courses will seriously handicap a student in the advanced courses. Therefore, after admittance to the Electrical Engineering program, and during the course of study, no more than one "unimproved D" is allowed in each of the following sequences of courses in order to continue the sequences, or to graduate.

- a. EGR 233, EE 331, 3305, 332
- b. EE 333, 431, 432, 4302
- c. EGR 1121, 1221, EE 3301
- d. EE 217, 318, 319, 3201, 416, 417

A "D" in a course is considered "improved" when the course has been repeated with a "C" or better.

Bachelor of Science — Electrical Engineering

Recommended Program of Study

First and Second Year

(See Common Program)

Third Year

First Semester	Second Semester
EE 318 Electronics Laboratory 1	EE 319 Electric Machinery Laboratory 1
EE 331 Circuits II 3	EE 3201 Digital Laboratory 2
EE 333 Electronics I 3	EE 332 Circuit Design 3
EE 3301 Electrical Analysis 3	EE 336 Electrical Machinery/Transformers 3
EE 3305 Logical Design of Switching Systems 3	EE 337 Electromagnetic Fields I 3
Phy 335 Modern Physics 3	EE 431 Electronics II 3
	POLS.231 American Government I 3

Fourth Year

First Semester	
EE 411 Electrical Engineering Seminar I	1
EE 416 Projects Laboratory	1
EE 436 Control Engineering	3
***EE Electives (2)	6
**Hum/Soc Elective	3
Spc or Technical Writing	3

Second Semester	
EE 412 Electrical Engineering Seminar II	1
EE 417 Projects Laboratory	1
****EE Electives (2)	6
English Literature	3
*** Elective	3
POLS 232 American Government II	3

17

17

Total Semester Hours 135

Notes:

** Hum/Soc Elective:

(a) Any humanities, philosophy, anthropology, literature course

(b) History 330, 331, 332, 333, 337, 338, any 400 level course

(c) Sociology 131, 132, 230, 330, 332, 333, 334, 336, 337, 431, 433, 434, 435, 436

*** A course, other than engineering, which will broaden a student's education for an electrical engineering career, approved by advisor.

**** Total elective design content must be minimum of 4 hours.

Electrical Engineering Courses (EE)

- | | | |
|-------------|--|--------------|
| 217 | Circuits Laboratory
Experience in the use of elementary electrical equipment and elements, including the oscilloscope.
<i>Corequisite:</i> Egr 233. | 1:0:3 |
| 318 | Electronics Laboratory
Design of power supplies and amplifiers using diodes, transistors, thyristors and linear integrated circuits.
<i>Prerequisite:</i> EE 217.
<i>Corequisite:</i> EE 333. | 1:0:3 |
| 319 | Electric Machinery Laboratory
Three phase circuits, DC and AC motors and generators; transformers.
<i>Prerequisite:</i> EE 217.
<i>Corequisite:</i> EE 336. | 1:0:3 |
| 3201 | Digital Laboratory
Testing and design of digital circuits; introduction to small computer hardware and software.
<i>Prerequisite:</i> EE 3305 or CS 3305. | 2:1:3 |
| 3301 | Electrical Analysis
Application of the digital computer to analysis and design of electrical systems using numerical methods.
<i>Prerequisite:</i> Mth 331, Egr 233, 1221, 1121. | 3:3:0 |
| 3305 | Logical Design of Switching Systems
Switching algebra. Formulate and manipulate switching functions. Combinational networks. Flip-flops. Sequential networks.
<i>Prerequisite:</i> Junior standing. | 3:3:0 |
| 331 | Circuits II
Power calculations, polyphase circuits. Frequency response, resonance, magnetically coupled circuits, two port networks. Fourier series, Fourier and Laplace transform application.
<i>Prerequisite:</i> Egr 233.
<i>Corequisite:</i> Mth 331 or 3301. | 3:3:0 |
| 332 | Circuit Design
Circuit design concepts using frequency domain. Pole-zero characterization of system response. Synthesis of passive and active networks.
<i>Prerequisite:</i> EE 331. | 3:3:0 |
| 333 | Electronics I
An analysis of both digital and analog signal processing methods by the use of solid state electronic devices, Bipolar, FET and linear integrated circuits.
<i>Prerequisite:</i> Egr 233
<i>Corequisite:</i> EE 318 for EE students. | 3:3:0 |

- 336 Electric Machinery/Transformers** 3:3:0
A study of transformers and conventional electric machinery, DC motors and generators, synchronous machines and induction motors.
Prerequisite: EE 331.
Corequisite: EE 319.
- 337 Electromagnetic Fields I** 3:3:0
Vector analysis, coordinate systems, static electric fields, electric potential, dielectrics, conductors, capacitance, current, static magnetic fields, magnetic materials, magnetic potentials, inductance, electromagnetic forces. Maxwell's equations, time-varying fields, plane waves.
Prerequisite: Mth 331, Phy 248, Egr 233.
- 4101 Individual Study** 1:1:0
Independent study under the direction of a faculty member. May be repeated for credit.
- 411 Electrical Engineering Seminar I** 1:1:0
A study of the literature of electrical and related engineering fields; preparation and presentation of papers on electrical subjects.
Pre or Corequisite: EE 416 or 417.
- 412 Electrical Engineering Seminar II** 1:1:0
Preparation, presentation and discussion of material on the engineering profession, the interface between technology and society, and new areas of engineering involvement.
Pre or Corequisite: EE 416 or 417.
- 416 Projects Laboratory** 1:0:3
Senior design projects with hardware implementation and testing.
Prerequisite: EE 217, 318, 319, 3201, 431.
- 417 Projects Laboratory** 1:0:3
Senior design projects with hardware implementation and testing.
Prerequisite: EE 217, 318, 319, 3201, 431.
- 4302 Communication Theory** 3:3:0
Principles of modulation; random signal theory and network analysis; basic information theory; analysis of noise. 1 hour design content.
Prerequisite: EE 332.
- 4304 Advanced Topics** 3:3:0
Topics are selected on the basis of the needs of an adequate number of students. May be repeated for credit when topics vary.
Prerequisite: EE 331, 431.
- 4306 Minicomputers** 3:3:0
Introduction to assembly language programming and small computer organization. 1-1/2 hours design content.
Prerequisite: EE/CS 3305.
- 4307 Microcomputers** 3:3:0
Microcomputer organization, peripheral devices, systems software for small computers. 1-1/2 hours design content.
Prerequisite: EE 4306 or CS 3302.
- 4308 Automata Theory** 3:3:0
Sets, relations, structure of sequential machines, incompletely specified machines, partition methods, state identification and fault detection. 1 hour design content.
Prerequisite: EE 3305 or CS 3305.
- 4309 Electric Power Systems** 3:3:0
An introduction to electric power system analysis. Transmission line calculations, system operation, short circuit computations. 1.5 hour design content.
Prerequisite: EE 336, 337.

- 431 Electronics II** **3:3:0**
In-depth study of semiconductor device characteristics, BJT's, FET's, SSI logic and linear integrated circuits.
Prerequisite: EE 333, 3305, 331.
- 4311 Introduction to Nuclear Power** **3:3:0**
Nuclear reaction mechanics; radioactivity; neutron reactions; fission products, decay; reactor kinetics, systems; radiation, dose limits, shielding. 1/2 hour design content.
Prerequisite: Egr 234 and Phy 335.
- 432 Electronics III** **3:3:0**
Analog systems with semiconductor elements. Frequency response, feedback and feed forward amplifier design, power electronic devices with regulated power supplies. 2 hours design content.
Prerequisite: EE 431.
- 436 Control Engineering** **3:3:0**
Transfer functions; state variables; time response; frequency response and stability.
Prerequisite: EE 332, 3301.
- 438 Instrumentation** **3:3:0**
Unified methods for the design of signal conditioning circuits between sensors and computers. Accepted practice for sensor based microprocessor and minicomputer data acquisition and processing systems. Instrumentation amplifier circuits. 2 hours design content.
Prerequisite: EE 333, 3305.

Department Of Industrial Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Victor Zaloom

2014 Cherry Building

Professors: Brennan, Gates, Zaloom

Associate Professor: Carruth, Thomas

Assistant Professor: Chu

Laboratory Technician: Costa

The Department of Industrial Engineering offers the Bachelor of Science degree in Industrial Engineering and in Industrial Technology.

Industrial Engineering

Industrial engineering serves vital functions in today's world and provides a wide range of career opportunities.

Industrial engineering deals not only with things but also with people. It especially deals with managerial problems requiring a knowledge of fundamental science and engineering practice for their solution.

Industrial engineers combine advanced study in management systems, economics and decision-making to answer such questions as: "What products or services should we offer?... What materials and methods should we use?...How can we best motivate and reward people?...How can we improve quality, productivity and service?"

Typical responsibilities of the industrial engineer involve design, operation and management. While manufacturing industry demands many graduates, increasing numbers are finding satisfying employment in other kinds of businesses. Airlines, banks, restaurant chains, department stores and hospitals, e.g. all use industrial engineers. Governmental agencies of all sorts are attracting graduates.

Women find special opportunities in industrial engineering. Responsible jobs and excellent salaries accompany a demand which far exceeds the supply of women in the field. Advancement on the same basis as that experienced by men makes the profession especially attractive.

The Department of Industrial Engineering at Lamar University is one of the leaders in integrating computer-aided design and computer-aided manufacturing into the curriculum.

The Department of Industrial Engineering also offers a Bachelor of Science degree in Industrial Technology. This curriculum is especially designed to prepare two-year technology graduates to work effectively in the engineer-technologist team and to assume management responsibilities.

The first two years of this program are administered by the College of Technical Arts. Students entering Lamar as freshmen will be advised on their technology major by Technical Arts. This degree requires successful completion of Lamar University's Associate of Applied Science degree—or equivalent—composed of a minimum of 36 semester hours of related and sequential courses. Technology courses beyond those specified in a major field must be approved by the Industrial Engineering Department.

Admission to the Industrial Technology Program will be granted, upon application, after completion of a minimum of 45 semester hours toward the Associate of Applied Science Degree or the Engineering common program with a grade point average (GPA) of at least 2.00. Six hours of Freshman English Composition and Mth 1334 and Mth 1341 or higher level math courses must be included in the 45 semester hour minimum.

Any student in the Industrial Technology program considering working toward an Industrial Engineering degree at any time in the future should so inform his or her advisor, since certain adjustments in the Industrial Technology program will make it easier to obtain an Industrial Engineering degree.

Bachelor of Science - Industrial Engineering

Recommended Program of Study

First and Second Year

(See Common Program)

Third Year

First Semester	Second Semester
IE 222 Introduction to Manufacturing 2	IE 3303 Economic Analysis and Design 3
IE 335 Accounting for Engineers 3	IE 338 Work Design 3
IE 332 Industrial Engineering Analysis I 3	IE 432 Statistical Decision Making for Engineers . . 3
IE 311 IE Seminar I 1	English Literature (1) 3
Eng 4335 Technical Report Writing 3	POLS 232 American Government II 3
His 232 American History II 3	Hum/Soc Elective (2) 3
POLS 231 American Government I 3	
18	18

Fourth Year

First Semester	Second Semester
IE 435 Production and Inventory Control 3	IE 436 Design of Production Facilities 3
IE 430 Quality Control 3	IE 437 Operations Research 3
IE 434 Materials Science and Manufacturing Processes 3	IE 431 Computer Applications in IE 3
ME 3311 Momentum Transfer 3	IE 4316 Industrial and Product Safety 3
IE 4315 Organization and Management 3	Free Elective (4) 3
Technical Elective (3) 3	
18	15

Total Semester Hours 137

Notes:

- (1) Any course in Sophomore Literature (Eng 2311–2319) will satisfy this requirement.
- (2) Psychology, Sociology or Economics will be approved.
- (3) An upper level course in Engineering Design.
- (4) Physical Education, Engineering or Mathematics may not be elected. Approval of advisor required.

Bachelor of Science - Industrial Technology

Recommended Program of Study

First Year

First Semester		Second Semester	
Technology Courses	12	Technology Courses	12
Eng 131 Composition(1)	3	English Composition(1).....	3
PEGA/MLB/MS	1 or 2	PEGA/MS	1 or 2
	16-17		16-17

Second Year

First Semester		Second Semester	
Technology Courses	12	Technology Courses	12
Technology Course or Elective.....	3	Technology Course or Elective.....	3
PEGA/MLB /MS	2	PEGA/MS	2
	17		17

Third Year

First Semester		Second Semester	
Mth 1334 College Algebra	3	Mth 1341 Elements of Analysis.....	3
CS 131 Computer Programming I	3	Chm 143 or Phy 143	4
POLS 231 American Government I.....	3	POLS 232 American Government II	3
IE 3301 Survey of IE	3	English Literature (2)	3
IE 3311 Machining Processes	1	IE 438 Work Measurement	3
Elective I (3)	3	IE 311 Seminar	1
	18		17

Fourth Year

First Semester		Second Semester	
Mth 234 Elementary Statistics	1	His 232 American History II	3
IE 333 Engineering Economy	3	IE 4301 Survey of Quality Control.....	3
IE 339 Materials Science and Manufacturing Processes.....	3	IE 4315 Organization and Management	3
His 231 American History I	3	IE 335 Accounting for Engineers	3
IE 4351 Production and Inventory Systems.....	3	Eng 4335 Technical Report Writing (5).....	3
	15		15

Total Semester Hours 131-133

Notes:

- (1) Any of Eng 132 – Eng 135 will satisfy this requirement.
- (2) Any of Eng 2311 – Eng 2316 will satisfy this requirement.
- (3) 300 level courses in Psychology, Sociology, Economics or Business, from approved list.
- (4) A 300 or 400 level IE course, from approved list.
- (5) SPC 331 may be substituted with approval of advisor.

Industrial Engineering Courses (IE)

212	Production and Fabrication Processes Machinery, welding, casting, forming and joining operations on materials of engineering importance. Demonstrations, lectures and laboratory exercises.	1:0:3
222	Introduction to Manufacturing Production planning, programming and operation of metal cutting machinery.	2:1:3
311	IE Seminar I Identifying and analyzing Industrial Engineering problems. Corequisite: Any other industrial engineering course.	1:1:0
330	Industrial Engineering Introduction to Industrial Engineering, its tools and techniques.	3:3:0
3301	Survey of Industrial Engineering The origins and evolution of Industrial Engineering. The problem solving techniques available and their applications. For non-engineering students.	3:3:0
3303	Economic Analysis and Design Capital budgeting, Depreciation and income taxes. Decisions under uncertainty. Prerequisite: Egr 223, Mth 3370	3:3:0

- 332 Industrial Engineering Analysis I 3:3:0**
Descriptive analysis of Engineering Data, probability distributions applied to engineering design, sampling in an engineering environment, estimation.
Prerequisite: Mth 241
- 3311 Machining Processes 3:1:3**
Theory and practice of machine tool applications, safety quality and economics. Introduction to digital programming of machine tools and processes. (For non-engineering students.)
Prerequisite: BASIC Programming.
- 333 Engineering Economy 3:3:0**
Economics applied to the evaluation of engineering proposals. The effects of depreciation, taxation and interest rates.
Not open to students majoring in engineering.
Prerequisite: Mth 1341.
- 335 Accounting for Engineers 3:3:0**
Introduction to principles of bookkeeping and cost accounting. Use of cost records to help the engineer/executive make decisions.
- 338 Work Design 3:2:3**
Determination of work content, layout, methods, and times required for manufacturing tasks. Design of jobs and workplace for productivity and human value content.
Prerequisite: Mth 3370 or IE 332
- 339 Manufacturing Materials and Process 3:3:0**
Functional and economic selection of materials and processes in manufacturing. For non-engineering students.
Prerequisite: Chm 143 or equivalent.
- 430 Quality Assurance and Control 3:3:0**
Assurance that products perform as intended. Reducing or eliminating defective output.
Prerequisite: Mth 3370 or IE 332.
- 4301 Quality Control Applications 3:3:0**
Quality assurance and the application of statistics to the control of quality. Control charts, acceptance sampling reliability and the role of standards in the quality function. For non-engineering students.
Prerequisite: Mth 234
- 431 Computer Applications in Industrial Engineering 3:3:0**
Computer aided manufacturing—Open ended problems in the areas of production control, economic analysis, scheduling, inventory control and other traditional areas of Industrial Engineering.
Prerequisite: Senior Standing
- 4315 Organization and Management 3:3:0**
The theory of organization and management. How the executive functions to achieve the organization's goals.
- 4318 Industrial and Product Safety 3:3:0**
Loss control engineering. Mandatory and voluntary standards. Product liability.
Prerequisite: Senior standing.
- 432 Statistical Decision Making for Engineers 3:3:0**
Analysis of data to help the engineer/executive make decisions. Evaluation of performance claims.
Mth 3370 or IE 332 and Mth 3301: Junior standing in engineering.
- 434 Materials Science and Manufacturing Processes 3:3:0**
Basic principles underlying the behavior of engineering materials and methods of processing these materials.
Prerequisite: Complete engineering core.
- 435 Production and Inventory Control 3:3:0**
Techniques for planning and controlling production and inventories. Modern materials requirements planning.
Prerequisite: Mth 3370 or IE 332, IE 330.
- 4351 Production and Inventory Systems 3:3:0**
The design and operation of systems for managing production and inventories.
Prerequisite: Mth 234, LS 131.
- 436 Design of Production Facilities 3:1:6**
Use of the principles from other IE courses to determine the location, layout, needed equipment and facilities and other factors in facilities design.
Prerequisite: IE 222, 330, 3303, 338, 434 and engineering core.
- 437 Operations Research 3:3:0**
An introduction to the construction of mathematical models of organizational systems to aid executives in making decisions.
Prerequisite: Mth 3370, Egr 223 and IE 3303.

438 Work Measurement

3:2:3

Analysis of layout, methods and motion. Measurement of work content and time manual and machine tasks. Setting time standards. For students not majoring in engineering.

Department of Mechanical Engineering

Program accredited by the Accreditation Board for Engineering and Technology.

Department Head: Otto G. Brown

2008 Cherry Building

Professors: Brown, Martinez, Mei, Young

Associate Professors: Joshi

Assistant Professors: Chern, Nguyen

Adjunct Associate Professor: Boughton

Adjunct Instructors: Adams, Craigue

Laboratory Technician: Colville

Mechanical engineering is a very diverse profession which includes the analysis, design, synthesis and selection of materials for mechanical and thermal systems. This wide range of applications requires a solid foundation in the basic sciences and mathematics as well as in the engineering sciences.

Application of the sciences to the many phases of mechanical engineering is initiated in the junior year. Opportunity is provided the student at the senior level to examine certain aspects of mechanical engineering in more detail or to prepare for graduate study.

Mechanical engineers are found in virtually every phase of industry. They are engaged in professional engineering, research, development, management, and public service. The end products resulting from the application of their knowledge and professional skills are many and a list would include, for example, energy conversion, energy economics, all forms of transportation, central power plants, nuclear reactors, space vehicles, computers, and complex and challenging engineering endeavors.

Bachelor of Science - Mechanical Engineering

Recommended Program of Study

First and Second Year

(See Common Program)

Third Year

First Semester	
ME 330 Kinematics.....	3
ME 3311 Momentum Transfer.....	3
ME 338 Thermodynamics II.....	3
Mth Elective.....	2
American History.....	3
English Literature.....	3
	17

Second Semester	
ME 321 Instrumentation and Testing Laboratory ..	2
ME 331 Transport Theory.....	3
ME 332 Elements of Mechanical Design I.....	3
ME 334 Engineering Analysis I.....	3
EE 333 Electronics I.....	3
English Literature.....	3
	17

Fourth Year

First Semester	
ME 421 Engineering Systems Design.....	2
ME 4313 Thermal Systems Design.....	3
ME 4319 Materials Science.....	3
ME 4323 Elements of Mechanical Design II.....	3
*ME Elective.....	3
POLS 231 American Government I.....	3
	17

Second Semester	
ME 4316 Engineering Design Project.....	3
ME 4317 Engineering Analysis II.....	3
ME Elective.....	3
POLS 232 American Government II.....	3
Free Elective.....	3
ME 411 Seminar.....	1
	16

Total Semester Hours 135

*At least 3 hours must be an ME design elective course.

Mechanical Engineering Courses (ME)

- 321 Instrumentation and Testing Laboratory** 2:1:3
 Various instruments with mechanical engineering applications are studied and tests are made. Emphasis is on pressure, temperature, speed, power, torque, frequency and various types of flow measurements.
Prerequisite: ME 3311 and ME 338 or parallel with both.
- 330 Kinematics** 3:3:0
 Analysis of mechanisms: centros, velocities, and accelerations in plane mechanisms; rolling and sliding in belts, chains and cams; gears in plain and epicyclic trains.
Prerequisite: Egr 231 and CE 232 or parallel.
- 331 Transport Theory** 3:3:0
 Theory of conduction and potential flow, radiation and convection with engineering techniques and applications.
Prerequisite: Mth 3301 and ME 3311.
- 3311 Momentum Transfer** 3:3:0
 Fluid-flow concepts are presented through the derivation of the basic equations of continuity, energy and momentum. Engineering aspects of flow measurement, pressure-drop calculations and pumping requirements are considered.
Prerequisite: Egr 231, 234, CE 232 and Mth 3301.
- 332 Elements of Mechanical Design I** 3:2:3
 The design of machine components including shafting, columns, springs and frames with regard to static and dynamic forces employing analytical and graphical analysis.
Prerequisite: CE 232 and ME 330.
- 334 Engineering Analysis I** 3:3:0
 Methods of analysis of engineering situations requiring application of fundamentals of engineering science and mathematics are studied. Mathematical methods of engineering analysis are presented and applied.
Prerequisite: ME 3311.
- 338 Thermodynamics II** 3:3:0
 A continuation of Egr 234 including vapor and gas cycles, mixtures of gases, thermodynamics of chemical systems and psychrometrics.
Prerequisite: Mth 3301 and Egr 234.
- 411 Seminar** 1:1:0
 Oral and written presentation and discussion of selected topics including those from current literature of fields related to mechanical engineering. Professional activities are encouraged.
- 421 Engineering Systems Design** 2:1:3
 The design techniques of integrated component systems are treated. The student is required to utilize these techniques by designing such a system.
Prerequisite: ME 334 and senior standing.
- 4311 Controls Engineering** 3:3:0
 The theory of integrated automatic controls systems with application to combustion, temperature, pressure, flow and humidity control. Industrial control systems are considered.
Prerequisite: ME 331 and ME 334.
- 4312 Gas Dynamics** 3:3:0
 Fundamentals of one-dimensional compressible flow. An introduction to multidimensional wave phenomena with various applications.
Prerequisite: ME 4313 or parallel.
- 4313 Thermal Systems Design** 3:3:0
 Heat transfer study with emphasis on heat exchanger design, optimization of energy exchange, economics and design feasibility.
Prerequisite: ME 331, 334, 338.
- 4314 Fundamentals of Physical Metallurgy** 3:3:0
 Fundamental and scientific principles of physical metallurgy to include nucleation theory of solidification, behavior of single and polycrystalline solids under stress and heat treatment plastic deformation and recrystallization and basic principles of X-ray diffraction used in physical metallurgy.
Prerequisite: ME 4319 or parallel.
- 4315 Thermodynamics III** 3:3:0
 Topics in applied thermodynamics selected from any of the following: Psychrometrics, combustion, equilibrium reactions, compressible flow, thermodynamic machinery and optimization of power plant and utility systems using availability analysis and/or linear programming. May be repeated for credit with consent of instructor.
Prerequisite: ME 334, ME 338; ME 4313 in parallel.

- 4316 Engineering Design Project** **3:1:6**
 Student research projects are planned, scheduled, designed and evaluated. Experience is gained in the execution of an engineering project and a formal technical report is required.
Prerequisite: ME 421, 4313.
- 4317 Engineering Analysis II** **3:3:0**
 A continuation of ME 334 with some emphasis being placed on analog methods and computer techniques in solving engineering problems.
Prerequisite: ME 334.
- 4319 Materials Science** **3:2:3**
 Properties of materials. Aspects of elastic behavior as well as stress and strain measurement, yield phenomena, tensions, torsion, hardness and assorted effects are considered. Criteria for selected proper engineering materials are discussed.
Prerequisite: CE 232.
- 432 Mechanical Vibrations** **3:3:0**
 The theory of vibrating systems, including kinematics or vibrations, harmonic and non-harmonic, single and multiple degrees of freedom; free and forced vibrations, with and without damping. Applications to crank and slider, rotating machinery, balancing, vibration isolation and absorption, and instrumentation.
Prerequisite: ME 334 and senior standing.
- 4320 Propulsion Systems** **3:3:0**
 Space mission parameters. Basic elements of propulsion systems and propulsion systems parameters. Selected problems of thermochemical systems and electro-magneto-thermal systems.
Prerequisite: ME 331 and 338.
- 4323 Elements of Mechanical Design II** **3:2:3**
 The design of power transmission machinery. Completed design of some assigned machine.
Prerequisite: ME 332.
- 433 Aerodynamics** **3:3:0**
 Topics include circulation and curl, irrotational flow, velocity potential, vortex theorems, the equations of motion, flow about a body, and the thin airfoil. Vector and complex notations are used.
Prerequisite: ME 3311 and ME 331 or parallel.
- 434 Internal Combustion Engines** **3:2:3**
 The principles of design and analysis of various types of internal combustion engines.
Prerequisite: ME 331 and ME 338.
- 435 Turbomachinery** **3:3:0**
 Flow problems encountered in the design of water, gas and steam turbines, centrifugal and axial-flow pumps and compressors.
Prerequisite: ME 3311 and ME 338.
- 436 Dynamics of Machinery** **3:2:3**
 Kinematics of mechanisms, gears and epicyclic gear trains. Synthesis of linkages. Calculation of inertia forces and shaking forces on machines. Multi-cylinder engine balancing. Graphical and analytical methods are employed.
Prerequisite: ME 332 and ME 334.
- 437 Advanced Machine Design** **3:2:3**
 The application of machine design principles to an integrated design of a complete machine, including fabrication and economic consideration.
Prerequisite: ME 4323.
- 438 Environmental Systems Engineering** **3:2:3**
 Design of refrigeration and air-conditioning systems including selection of mechanical equipment, controls, piping and duct layout.
Prerequisite: ME 331 and ME 338.
- 439 Advanced Strength of Materials** **3:3:0**
 Introduction to the fundamental theory of three-dimensional elasticity. Specialization of the general theory to provide the theory of plane stress and plane strain. Determination of stress and deflections in a beam on elastic foundations, plates, shells and cylinders. Study of torsion of bars and cylinders.
Prerequisite: CE 232 and ME 334.

Department of Mathematics

Department Head: George D. Poole

205 Lucas Building

Director of Mathematics Instruction: Sam M. Wood, Jr.

Professors: Berzsenyi, Crim, Poole, Stark

Professor Emeritus: Bell (1979), Latimer (1979)

Associate Professors: Baj, Brenizer, Dingle, Laidacker, Price, Wood

Assistant Professors: Green, Harvill, Lauffer, Lee, Matheson, Parrish, Read, Saet, Thames

The Department of Mathematics offers courses in applied and pure mathematics, computer science, mathematics education for elementary and secondary school certification, and statistics. These programs permit students to select courses suited to a variety of interests and career goals. Advising plays an integral role in achieving these objectives. Consequently each student is assigned an advisor to assist with scheduling and career planning. An active mathematics club provides students with the opportunity to work with fellow mathematics majors in a number of activities.

The department offers the following Baccalaureate degrees:

Bachelor of Arts in Mathematics

Bachelor of Science in Mathematics

Bachelor of Science in Mathematical Sciences (Applied Mathematics Concentration)

Bachelor of Science in Mathematical Sciences (Statistics Concentration)

The first two degree programs emphasize the traditional aspects of mathematics, both as a basic science and as the major tool in solving problems. They provide depth in analytical reasoning, abstraction and structure. Students graduating with these degrees are equipped to enter secondary teaching or to pursue graduate programs, in mathematics or statistics.

The last two programs prepare students for careers in a variety of fields, including positions in industry, business and government. Students who chose one of the latter two programs, concentrating in applied mathematics or statistics, will have the appropriate information recorded on their transcripts.

The importance of the mathematical sciences to the ambitious scientist and engineer cannot be overemphasized. Many phenomena of nature can best be understood when translated into the language of mathematics. A student majoring in science or engineering at a university should become acquainted with the basic tools of mathematics.

Undergraduate education in mathematics has, and will continue, to undergo substantial changes during this decade. The computer is primarily responsible for this. High speed computing machines have for many years been an important mathematical applications tool in business, industry and government. This has created new demands for professional applied mathematicians. Such people optimally have a solid background in basic mathematics, an understanding of algorithm design and analysis, a programming skill in at least one programming language, and finally, a mastery of important techniques in applied mathematics, such as operations research and in statistics.

People with such qualifications may secure positions in industrial management, market forecasting, high-technology fabrication plants and other comparable positions.

Finally, those with an interest in statistics are quite valuable to firms—for example, banking and insurance—who deal with a large amount of data and thus need professional mathematicians to develop and maintain the associated computer software.

Placement Test

The Mathematics Department has developed a Placement Test for entrance into freshman mathematics courses. This test will assist the department in placing a student in the course for which the student's chances for successful completion are best. The test will be given during the summer orientation and regular registration periods. For information concerning the test, contact the Mathematics Department, Box 10047, Lamar University, Beaumont, Texas, 77710. All entering students are required to take the placement test before entering Mth 1333, 134, 1334, 1335, 148 or 236. Entrance into all other mathematics

courses is determined by the advisor in the student's major department, consistent with course prerequisites.

Teacher Certification Mathematics

Those wishing to secure the Bachelor of Arts or the Bachelor of Science in Mathematics and at the same time certify for a provisional secondary school certificate with a teaching field in mathematics must include in their degree program the following:

1. 30 hours of professional education (consult the Director of Mathematics Instruction)
2. Minor to be expanded to include an approved 24 hour teaching field other than mathematics (Consult this bulletin—College of Education).
3. 12 hours of advanced mathematics to include Mth 333 or 433.

Elementary certification requires the Mathematics sequence 1360, 1362. This can be expanded into either an 18 or 24 semester hour specialization in elementary mathematics. For specific courses, contact the Department of Mathematics.

Recommended Programs of Study

Requirements Common to all Four Degree Programs:

1. General requirements: (Minimum) 36 hours
 - a. Eng—Composition—six semester hours (Eng 131, 132)
 - b. Eng—Literature—six semester hours
 - c. Laboratory science—eight semester hours (same science)*
 - d. POLS 231, 232 American Government I, II
 - e. History—Soph Am His—six semester hours
 - f. PE (Activity)—four semester hours (minimum)
2. Major requirements: 46-48 hours
 - a. Mth 148, 149, 241—Calculus and Analytic Geometry
 - b. Mth 233, 331, 3311, 335, 338, 3370, 4315
 - c. Mth Electives—7-9 semester hours at the 300/3000 level or higher depending on program of study.
 - d. CS 131, CS 132
3. Minor requirements (see program below)
4. Electives (see program below)

*To be chosen from Phy 141/142, or 247/248 Chem, Bio or Geo 141/142

Bachelor of Arts - Mathematics Major - Total Hours 124-126

1. Additional General Requirements: 10-12 Hours
Foreign Language
2. Additional Major requirements:
Select Three Courses from the List: Mth 333, 3321, 4202, 4203, 431, 433, 4316, 4321, 4322, 4325
3. Minor Requirements: 18 Hours
4. Electives: 12 Hours
At least six hours other than mathematics

Bachelor of Science - Mathematics Major - Total Hours 124-126

1. Additional general requirements:—None
2. Additional major requirements: 7-9 hours
Select three courses from the list: Mth 333, 3321, 4202, 4203, 431, 433, 4316, 4322, 4325
3. Professional Area: 27 hours
Courses to be approved by the department.
4. Electives: 15 hours
At least six hours (to be approved by the department) must be from the Humanities and Social Sciences.

Bachelor of Science - Mathematical Sciences - Applied Mathematics Concentration

This is a professional program that prepares the student to start an industrial or government career immediately after graduation. However, the student's training will be sufficiently comprehensive to allow entry into most graduate programs in the engineering, mathematical, physical, life or management sciences as well as computer science.

1. Additional General Requirements: None
2. Additional Major Requirements: 7-9 hours
Select three courses from the list: Mth 4202, 4203, 431, 4316, 4325
3. Professional Area: 27 hours
Courses to be approved by Department
4. Electives: 15 hours
At least six hours (to be approved by the Department) must be from the Humanities and Social Sciences

Bachelor of Science - Mathematical Sciences - Statistics Concentration

**(See Description under Bachelor of Science - Mathematics Science
- Applied Mathematics Concentration)**

1. Additional General Requirements: None
2. Additional Major Requirements: 9 hours
 - a. Select one course from the list:
Mth 4321, 4322
 - b. Select one course from the list:
Mth 3321, 433, 4316
3. Professional Area: 27 hours
Courses to be approved by Department
4. Electives: 15 hours
At least six hours (to be approved by the Department) must be from the Humanities and Social Sciences

Standard Curriculum—For All Degree Programs

First Year

First Semester	
Eng Comp.	3
Mth 148 Calculus and Analytic Geometry I.	4
CS 131 Computer Programming I.	3
Humanities & Social Science Elective or Foreign Language	3-4
PE/MLb/MS	1
	14 or 15

Second Semester	
Eng Composition.	3
CS 132 Computer Programming II	3
Mth 149 Calculus and Analytic Geometry	4
Mth 233 Linear Algebra I.	3
Science/Lab Elective or Foreign Language	4
**PE/MLb/MS	1
	18

Second Year

First Semester	
Mth 241 Calculus and Analytic Geometry III	4
English Literature	3
His Soph American.	3
POLS 231 American Government I.	3
PE/MLb/MS	1
	17

Second Semester	
English Literature (1).	3
Mth 331 Ordinary Diff Equ	3
Mth 3370 Intro to Theory Stat Info.	3
POLS 232 American Government II	3
His Soph American.	3
**PE/MS.	1
	16

Third Year

First Semester	
Mth 3311 Set Theory.	3
Mth 335 Modern Algebra.	3
Science/Lab Elective	4
*Professional Elective.	3
Mth Sci Elective	3
	16

Second Semester	
Mth 338 Advanced Calculus	3
Mth 4315 Numerical Analysis.	3
Mth Sci Elective	3
Professional Elective.	3
Elective.	3
	15

Fourth Year

First Semester	
Mth Sci Elective	3-6
Professional Elective.	6
***Elective	3-6
	15-18

Second Semester	
Mth Sci Elective	3
Humanities and Social Science Elective.	3
Professional Elective.	3
***Elective	3-6
	15

*Professional electives are courses selected in consultation with the student's advisor. ***To be selected with the approval of the student's counselor.

(1) In place of English literature, the student may choose a course in Speech, Technical Report Writing or Foreign Language.

Bachelor of Arts/Bachelor of Science - Teacher Certification

Those students desiring to complete the requirements for the Bachelor of Arts Degree or the Bachelor of Science Degree may, at the same time, complete requirements for secondary teacher certification by including the following additional requirements in their program:

1. Mathematics: Mathematics electives must include Mth 333 or 433.
2. Education (30 hours):

Students wishing to secure the Bachelor of Arts or Bachelor of Science degree and at the same time to certify for a provisional certificate with a secondary teaching field will be required to meet a revised set of teacher education standards. All teacher education programs are subject to comply beginning in the fall of 1985. It will be necessary to consult with your department head or the College of Education Advising Center concerning the specifics of these requirements.

3. The minor/professional area in the B.A./B.S. Program may be replaced with a 24-hour teaching minor. Consult the Mathematics Department for additional details.

Mathematics Courses (Mth)

- 1314 Individualized Tutorial Intermediate Algebra** **3:3:0**
Review of skills and concepts of intermediate algebra. Signed numbers, linear equations, linear equalities, quadratic equations, quadratic inequalities, systems of equations, determinants and logarithms. Recommended for those who need a review before taking Mth 134 or 1334.
- 1333 Trigonometry** **3:3:0**
Study of trigonometric functions, identities, inverse functions, trigonometric equations, graphs and applications of trigonometry. Recommended for students who have not had high school trigonometry.
Prerequisite: Two years of high school algebra, Mth 1334 or concurrent.
- 1334 College Algebra** **3:3:0**
Linear, quadratic equations and inequalities, determinants, matrices, systems of equations, partial fractions, binomial theorem, logarithms, theory of equations.
Prerequisite: Mth 1314 or its equivalent.
- 1335 Precalculus Mathematics** **3:3:0**
Intensive review of algebra, trigonometry and analytic geometry. Prepares students for Mth 148 and 236.
Prerequisite: Two years of high school algebra and trigonometry.
- 1336 Survey of Mathematics** **3:3:0**
Mathematics history, sets, logic, problem solving, probability and related topics.
Prerequisite: High School Algebra I, II, III and IV (two years) or Mth 1334.
- 134 Mathematics for Business Applications** **3:3:0**
Review of basic algebraic techniques, linear equations and inequalities; the mathematics of finance, matrices, linear programming, and an introduction to probability and statistics.
Prerequisite: Mth 1314 or its equivalent.
- 1341 Elements of Analysis for Business Applications** **3:3:0**
An introduction to calculus. The derivative, applications of the derivative, techniques of differentiation, exponential and natural logarithmic functions, an introduction to the integral calculus.
Prerequisite: Mth 134 or 1334, or their equivalent.
- 1345 Discrete Mathematics** **3:3:0**
An introduction to combinatorial and finite mathematics required in the study of computer science. Topics include special functions such as truncation, floor and ceiling, number theory, matrix algebra, summation notation, logic and Boolean algebra, probability, combinatorics, graph theory, difference equations and recurrence relations.
Prerequisite: Mth 1334 or its equivalent.
- 1360 Mathematics I for Elementary School Teachers** **3:3:0**
Sets, the system of whole numbers, the system of integers, elementary number theory, the system of rationals, and the system of real numbers.
Prerequisite: Mth 1314 or its equivalent. For Elementary Education majors only.
- 1362 Mathematics II for Elementary School Teachers** **3:3:0**
Probability and statistics, elementary geometry, congruence and similarity, measurement, coordinate geometry, and an introduction to computers.
Prerequisite: Mth 1360. For Elementary Education majors only.
- 148 Calculus and Analytic Geometry I** **4:4:0**
Functions, limits, derivatives of algebraic, trigonometric, exponential and logarithmic functions, curve sketching, related rates, maximum and minimum problems, definite and indefinite integrals with applications.
Prerequisite: Mth 1335 or its equivalent.
- 149 Calculus and Analytic Geometry II** **4:4:0**
Methods of integration, polar co-ordinates, and vector analysis.
Prerequisite: Mth 148 or its equivalent.
- 233 Linear Algebra I** **3:3:0**
A first course in linear algebra, including vector and matrix arithmetic, solutions of linear systems and the Eigenvalue-Eigenvector problem. Elementary vector space and linear transformation theory.
Prerequisite: Mth 148 (Mth 236) or current enrollment in Mth 148 (Mth 236).
- 234 Elementary Statistics** **3:3:0**
Non-calculus based introduction to statistics. Statistical measures of data, statistical description of data, elementary probability, random variables, binomial and normal distribution, estimation, testing hypotheses.
Prerequisite: Mth 1334 or its equivalent.

- 236 Calculus I** **3:3:0**
Sets, functions, limits, derivatives and applications. Introduction to integral calculus. Designed for students majoring in business, social and life sciences.
Prerequisite: Mth 1335 or its equivalent.
- 237 Calculus II** **3:3:0**
Integral calculus and applications. Functions of several variables. Convergence and divergence of series and sequences. Designed for students majoring in business, social and life sciences.
Prerequisite: Mth 236.
- 241 Calculus and Analytic Geometry III** **4:4:0**
Vectors, parametric equations, functions of several variables, partial derivatives, multiple integrals, differential equations.
Prerequisite: Mth 149 or equivalent.
- 330 Principles of Mathematics for Elementary Education Majors** **3:3:0**
Introduction to some modern mathematical concepts. Structure of the number system, groups and related structures, sets and counting.
Prerequisite: Mth 1334 or its equivalent, and Mth 136 or 1362. For Elementary Education majors only.
- 3301 Applied Differential Equations** **3:3:0**
Ordinary differential equations designed for engineering students. Classical solutions to first and second order equations, including Laplace transforms and series solution.
Prerequisite: Mth 241
- 331 Ordinary Differential Equations** **3:3:0**
Classical and numerical solutions of ordinary differential equations and linear systems. Existence and uniqueness of solutions.
Prerequisite: Mth 149 and 233.
- 3311 Set Theory** **3:3:0**
Infinite sets, cardinal and ordinal arithmetic, axiom of choice, transfinite induction, introduction to topology.
Prerequisite: Mth 149
- 3313 Geometry for Elementary Education Majors** **3:3:0**
The development of Euclidean geometry, concepts of measurement and co-ordinate geometry.
Prerequisite: Mth 136 or 1362, or permission of instructor.
- 3315 Number Theory for Elementary Education Majors** **3:3:0**
A development of the elementary theory of numbers, Diophantine equations, congruences, Fibonacci numbers and magic squares.
Prerequisite: Mth 1334 or its equivalent, and Mth 136 or 1362.
- 3317 Problem Solving for Elementary Education Majors** **3:3:0**
Role of inductive and deductive methods in solving and posing problems, motivational techniques to help children become problem solvers. Methodology is introduced via illustrative examples.
Prerequisite: Mth 1334 or its equivalent, and Mth 136 or 1362.
- 3321 Discrete Structures** **3:3:0**
Combinatorics, graphs, Boolean algebra, algebraic structures, coding theory, finite state machines, machine design and computability.
Prerequisite: Mth 149 and 233, and CS 132.
- 333 Higher Geometry** **3:3:0**
Axiomatic and set-theoretic treatment of geometry. An analysis of the metric and synthetic approach to Euclidean geometry. Introduction to non-Euclidean geometries.
Prerequisite: Mth 149.
- 335 Modern Algebra** **3:3:0**
An introduction to algebraic structures, groups, rings, integral domains and fields.
Prerequisite: Mth 233 and Mth 149 (or 237).
- 3370 Introduction to the Theory of Statistical Inference** **3:3:0**
A calculus-based introduction to statistics. Probability, special probability distribution, nature of statistical methods, sampling theory, estimation, testing hypotheses.
Prerequisite: Mth 149 or 237.
- 338 Advanced Calculus** **3:3:0**
Sequences, series, Riemann integral, Weierstrass approximation theorem, Picard existence theorem for differential equations, Lebesgue integral.
Prerequisite: Mth 241
- 4131, 4231, 4331 Special Problems** **1-3-1-3:0**
Special advanced problems in mathematics to suit the needs of individual students. Course may be repeated for credit when the topic varies.
Prerequisite: Consent of instructor.

- 4142, 4242, 4342 Special Topics in Analysis** 1-3:1-3:0
 Special advanced problems in analysis to suit the needs of individual students. Course may be repeated for credit when the topic varies.
Prerequisite: Consent of instructor.
- 4202 Partial Differential Equations** 2:2:0
 Fourier series. Solution of boundary value problems including the heat equation, the wave equation, and the potential equation.
Prerequisite: Mth 241, and Mth 3301 or Mth 331.
- 4203 Vector Analysis** 2:2:0
 Vector algebra, vector calculus of three dimensional vector fields (gradients, curl, divergence Laplacian) Green's, Gauss' and Stokes' theorems.
Prerequisite: Mth 241
- 431 (G) Complex Variables** 3:3:0
 Complex numbers, analytic functions, complex line integrals, Cauchy integral formula and applications.
Prerequisite: Mth 241
- 4315 (G) Numerical Analysis** 3:3:0
 Algorithms for solving linear and non-linear equations and systems thereof. Interpolating polynomials, finite difference approximations of derivatives, techniques of numerical integration. One-step and multi-step methods for solving ordinary differential equations and systems thereof.
Prerequisite: Mth 241 and CS 132, or its equivalent.
- 4316 (G) Linear Programming** 3:3:0
 Theory, development and computational aspects of the simplex method; convexity; degeneracy problems; revised simplex method; transportation problems, network flow problems; industrial applications.
Prerequisite: Mth 149, Mth 233 and CS 132.
- 4321 Regression Analysis** 3:3:0
 The simple linear model and the principle of least squares. Inference about slope parameter, prediction of future values, model checking, polynomial regression, multiple regression analysis, regression using matrix algebra.
Prerequisite: Mth 3370 or 438, & Mth 233.
- 4322 (G) Analysis of Variance** 3:3:0
 Single sample inference, two sample inference, single factor analysis of variance, multiple comparison in ANOVA, multi-factor analysis of variance, 2p factorial experiment.
Prerequisite: Mth 3370 or 438.
- 4325 (G) Finite Element Analysis** 3:3:0
 Fundamentals of the finite element method. Domain and discretization, interpolation functions and computer implementation. Applications to heat transfer, torsion of noncircular sections and irrotational flow.
Prerequisite: Mth 3301 or Mth 331, or equivalent.
- 433 (G) Linear Algebra II** 3:3:0
 Vector-spaces, linear transformations, matrices, determinants, Eigenvalues, Eigenvectors, canonical forms, bilinear mappings and quadratic forms.
Prerequisite: Mth 149 and 233.
- 437 (G) Mathematical Theory of Probability** 3:3:0
 Calculus-based introduction to formal probability theory. Basic probability theory, independence and dependence, mean and variance, random variables, expectation, sums of independent random variables, central limit theorem.
Prerequisite: Mth 241 and 3370.
- 438 (G) Theory of Statistical Inference** 3:3:0
 A formal introduction to statistical inference, sampling theory, general principles of statistical inference, goodness of fit test, regression and correlation, analysis of variance.
Prerequisite: Mth 3370.



College of Fine Arts and Communication

Departments: Art, Communication, Music
W. Brock Brentlinger, Ph.D., Dean

Aims and Purposes

In Relation to the University: Within the context of a philosophy that suggests that art and science may improve upon nature, the College of Fine Arts and Communication provides work on a professional level in several creative and practical disciplines. The College also assumes the role of contributing to the education of the "whole" man or woman; therefore, with the possible exception of some of the upper-level courses, all of the work available in the College is open to and within the capabilities of most students enrolled in the University. It is the purpose of those courses in the fine arts to confront the unknown from a non-science oriented approach to knowledge to encourage the development of aesthetic sensitivity and to provide for an enriching artistic experience. Several programs in Communication are available within the College. The goal of the coursework in these areas is to educate students for professional work within the fields of public speaking, the mass media, and speech and hearing therapy.

In Relation to the Departments: The College of Fine Arts and Communication offers the following basic degree programs:

1. Bachelor of Fine Arts, Art Major
 - a. Graphic Design
 - b. Studio Art
2. Bachelor of Science, Art Major
 - a. Plan I Graphic Design
 - b. Plan II Studio Art
 - c. Plan III All Level Teacher Certification
 - d. Secondary Art
3. Bachelor of Music Major in:
 - a. All Applied Fields
 - b. Theory and Composition
 - c. Music Education (Teacher Certification, all levels)
4. Bachelor of Science, Speech or Mass Communication Major
 - a. Speech—Public Address Major
 - b. Speech—Pathology and Audiology Major
 - c. Speech—Theatre Major
 - d. Communication

The Bachelor of Arts is offered in all of the above disciplines except Communication.

5. Bachelor of General Studies Fine Arts

Descriptions of graduate programs leading to the Master of Music, Master of Music Education, Master of Science in Speech and Master of Science in Deaf Education degrees are included in the Graduate Bulletin.

Humanities Courses (Hum)

The departments of art, communication and music of the College of Fine and Applied Arts cooperate in the offering of three interdisciplinary courses in fine arts appreciation.

130 Appreciation of Art and Music

3:3:0

Survey course of art and music appreciation. Introduces student to major monuments of painting, sculpture and architecture. The course is concerned with basic elements of line, color, space and form common to visual art. The music section seeks to develop the student's perception of "sound" and "time" in music. A wide spectrum of music is presented including jazz, rock, opera, nonwestern and traditional classical.

- 131 Appreciation of Music and Theater**

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.

3:3:0
- 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 elements of line, color, space and form common to all visual arts.

3:3:0
- 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. (LU-Rome only.)

3:2:4
- 331 Experiential Learning in the Arts**

Design and implementation of experiential learning study project under guidance of faculty advisor. Provides opportunity to apply classroom learning to actual experiences in community art programs. May be repeated for credit.

3:0:9
- 335 Topics in Museum Studies**

Research seminars and individual directed study conference courses on selected topics, techniques and developments in museology. May be repeated for a maximum of six semester hours when the area of study is different.

3:3:0
- 439 Seminar in the Fine Arts**

A study of aesthetics, i.e., the theory of fine arts and people's response to them particularly in reference to the visual arts, music and theater.

3:3:0

Bachelor of General Studies - Fine Arts

The Bachelor of General Studies Fine Arts degree offers a program of interest to those who desire a wide knowledge of the arts without the intent of becoming practicing professional artists and teachers of the arts. Thus, the program offered through this degree resists any tendency toward specialization within the arts. It does provide opportunity, however, for an individual to construct his/her own curricular plan, i.e., to follow a special interest within the arts, or to complement his/her appreciation and understanding of the arts through the selection of a rather broadbased program of elective courses from the University offerings as a whole.

Recommended Program of Study

First Year

First Semester	Second Semester
The 233 Introduction to Theater 3	Art 135 Art Appreciation 3
MLt 122 Music Literature 2	His 234 American History: Arts in America 3
MEd 131 Elements of Music 3	MLt 122 Music Literature 2
English Composition 3	English Composition 3
Mth/Sci 3-4	Mth/Sci 3-4
PE Activity 1	PE Activity 1
15-16	15-16

Second Year

First Semester	Second Semester
MLt 113 Pop Music Survey 1	Art 236 Art History II 3
Art 235 Art History Survey I 3	Eng Literature/Spc/Foreign Language 3
Eng 2311 English Literature 3	POLS 232 American Government II 3
POLS 231 American Government I 3	Mth 3
Mth/Sci 3-4	His 231 American History 3
PE Activity 1	PE Activity 1
14-15	16-17

Third Year

First Semester	3	Second Semester	3
MLt 333 Music History I	3	MLt 334 Music History II	3
Eng 337/4317 Drama	3	The 334 Stagecraft	3
Hum 331 Experiential Learning	3	Hum 331 Experiential Learning	3
Elective	4	Elective	3
Elective	4	Elective	4
	16		16

Fourth Year

First Semester	3	Second Semester	3
The 436 History of Theater	3	Hum 439 Seminar Fine Arts	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
	15		15

Department of Art

Department Head: Robert C. Rogan

105 Art Building

Professors: Rogan, Newman

Associate Professors: Madden, O'Neill

Assistant Professors: Fitzpatrick, Jack, Lokensgard

Instructors: Fournet

Academic Advisor: Swift

The Department of Art offers undergraduate instruction leading to the Bachelor of Fine Arts Degree in Graphic Design and Studio. Students may elect courses that further professional development in the following areas: Graphic Design, Illustration, Computer Graphics, Photography, Painting, Drawing, Printmaking, Sculpture, and Ceramics. The Bachelor of Science degree is offered in Art Education, studio art and graphic design. The following subject areas may be selected for further professional study in the visual arts: Illustration, Graphic Design and Computer Graphics. Art courses are designed for the general student as well as those in the visual arts professionally.

Art majors are required to follow the prescribed sequence of courses. The letter grade "C" will be the minimum prerequisite grade for continuing studio courses in sequence.

All graduating art majors must be counseled by the Art Department Head during the first semester of their senior year.

During the senior year, a candidate for a degree in art will be required to prepare a one-person exhibit or to participate in a group exhibit. The Department of Art reserves the right to retain a selected work from each graduate for its collection.

A nonmajor student may be admitted to an art course requiring prerequisites with the consent of the instructor.

Students may minor in art by earning 18 hours of credit approved by the department head.

Recommended Programs of Study

Bachelor of Fine Arts—Graphic Design

Bachelor of Fine Arts in Graphic Design requires 72 hours of academic foundations with 60 credit hours of professional program.

First Year

First Semester	3	Second Semester	3
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
Art 135 Art Appreciation	3	Hum 131 Appreciation of Music and Theater	3
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Mth/Laboratory Science	3-4	Mth/Laboratory Science	3-4
	16-17		16-17

Second Year

First Semester	3	Second Semester	3
Art 231 Drawing III	3	Art 232 Drawing IV	3
Art 233 Design III	3	Art 236 Art History II	3
Art 235 Art History Survey I	3	Art 237 Graphic Design I	3
PE Activity	2	PE Activity	2
Eng Literature	3	Eng Literature/Spc/Foreign Language	3
Mth 1334 or above	3	Mth/Laboratory Science	3-4
	17-18		17-18

Third Year*

First Semester	3	Second Semester	3
Art 139 Photography I	3	Art Elective	3
Art 3313 Illustration I	3	Art 3343 Graphic Design III	3
Art Elective	3	Art History Elective	3
Sophomore American History	3	Sophomore American History	3
POLS 231 American Government I	3	POLS 232 American Government II	3
CS 131 Introduction to Programming	3	General Elective	3
	18		18

Fourth Year

First Semester	3	Second Semester	3
Art Elective	3	Art 4399 Thesis	3
Art 3355 Printmaking I	3	Art Elective	3
Art 3316 Watercolor I	3	Art Elective	3
Art History Elective	3	Art Elective	3
General Elective	3	Art History Elective	3
	15		15

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Bachelor of Fine Arts - Studio Art

Bachelor of Fine Arts in Studio requires 72 credit hours of academic foundations, 60 credit hours of professional program to include courses in the following areas:

Painting: 3316, 3317, 3326, 3327, 4316, 4326

Printmaking: 3365, 4355, 4399

Drawing: 3325, 4315, 4325

Sculpture: 3375, 4375

Ceramic: 3386, 4376

First Year

First Semester	3	Second Semester	3
Art 131 Drawing I	3	Art 132 Drawing II	3
Art 133 Design I	3	Art 134 Design II	3
Art 135 Art Appreciation	3	Hum 131 Apprec of Music & Theatre	3
English Composition	3	English Composition	3
PE Activity	1	PE Activity	1
Mth 1334 or above	3	Mth/Laboratory Science	3-4
	16		16-17

Second Year

First Semester	
Art 231 Drawing III	3
Art 233 Design III	3
Art 235 Art History Survey I	3
PE Activity	2
Eng Literature	3
Mth/Laboratory Science	3-4
	17-18

Second Semester	
Art 232 Drawing IV	3
Art 234 Sculpture	3
Art 236 Art History II	3
Art 238 Painting I	3
PE Activity	2
Eng Literature/Spc/Foreign Language	3
	17

Third Year*

First Semester	
Art 3315 Drawing V	3
Art 139 Photography I	3
Art 3355 Printmaking I	3
Sophomore American History	3
POLS 231 American Government I	3
Mth/Lab Science	3-4
	17-18

Second Semester	
Art Elective	3
Art History Elective	3
Sophomore American History	3
POLS 232 American Government II	3
Art 3335 or 3376	3
	15

Fourth Year

First Semester	
Art Elective	3
Art Elective	3
Art Studio Elective (upper div)	3
Art History Elective	3
General Elective	3
General Elective	3
	18

Second Semester	
Art 4399 Thesis	3
Art Elective	3
Art Studio Elective (upper div)	3
Art History Elective	3
General Elective	3
General Elective	3
	18

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Bachelor of Science - Graphic Design

Bachelor of Science in Graphic Design requires 72 hours of academic foundations with 60 credit hours of professional program to include courses from the following areas:

- Graphic Design: 3333, 3355, 1393
- Illustration: 3315, 3323, 3353
- Computer Graphics: 4343, 3355, 4353

First Year

First Semester	
Art 131 Drawing I	3
Art 133 Design I	3
English Composition	3
PE Activity	1
Húm 131 Appreciation of Music and Theater	3
Mth/Laboratory Science	3-4
	16-17

Second Semester	
Art 132 Drawing II	3
Art 134 Design II	3
English Composition	3
PE Activity	1
Mth/Laboratory Science	3-4
CS 131 Intro to Programming	3
	16-17

Second Year

First Semester	
Art 231 Drawing III	3
Art 233 Design III	3
Art 235 Art History Survey I	3
English Literature	3
PE Activity	2
General Elective	3
	17

Second Semester	
Art 236 Art History II	3
Art 237 Graphic Design I	3
Art 139 Photography I	3
PE Activity	2
General Elective	3
Eng Literature/Spc/Foreign Language	3
	17

Third Year*

First Semester	Second Semester
Art 3313 Illustration I..... 3	Art 3343 Graphic Design III..... 3
Art Elective..... 3	Art Elective..... 3
Sophomore American History..... 3	Sophomore American History..... 3
Mth 1334 or above..... 3-4	Mth/Laboratory Science..... 3-4
General Elective..... 3	General Elective..... 3
Art Elective..... 3	
18	15-16

Fourth Year

First Semester	Second Semester
Art Elective..... 3	Art 4399 Thesis..... 3
Art 3316 Watercolor I..... 3	Art Elective..... 3
POLS 231 American Government I..... 3	POLS 232 American Government II..... 3
General Elective..... 3	General Elective..... 3
General Elective..... 3	Art Elective..... 3
Art Elective..... 3	Art Elective..... 3
18	18

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Bachelor of Science - Studio Art**First Year**

First Semester	Second Semester
Art 131 Drawing I..... 3	Art 132 Drawing II..... 3
Art 133 Design I..... 3	Art 134 Design II..... 3
English Composition..... 3	Art 135 Art Appreciation..... 3
PE Activity..... 1	English Composition..... 3
Hum 131 Appreciation of Music and Theater..... 1	PE Activity..... 1
Mth 1334 or above..... 3-4	Mth/Laboratory Science..... 3-4
16	16-17

Second Year

First Semester	Second Semester
Art 231 Drawing III..... 3	Art 232 Drawing IV..... 3
Art 233 Design III..... 3	Art 234 Sculpture I..... 3
Art 235 Art History Survey I..... 3	Art 236 Art History II..... 3
PE Activity..... 2	Art 238 Painting I..... 3
English Literature..... 3	PE Activity..... 2
Mth/Laboratory Science..... 3-4	Eng Literature/Spc/Foreign Language..... 3
17-18	17

Third Year*

First Semester	Second Semester
Art 3316 Watercolor I..... 3	Art 3327 Painting III..... 3
Art 3317 Painting II..... 3	Sophomore American History..... 3
Art 3355 Printmaking I..... 3	Art Elective..... 6
Sophomore American History..... 3	Mth/Laboratory Science..... 3-4
General Elective..... 3	General Elective..... 3
15	15-16

Fourth Year

First Semester	
Art History Elective	3
POLS 231 American Government I	3
Art Elective	3
General Elective	3
General Elective	3
	15

Second Semester	
Art 4399 Senior Thesis and Exhibit	3
Art History Elective	3
Art Elective	3
POLS 232 American Government II	3
General Elective	3
General Elective	3
	18

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Bachelor of Science

All-Levels Certification

First Year

First Semester	
Art 131 Drawing I	3
Art 133 Design I	3
English Composition	3
PE Activity	1
Mth	3
Foundation Elective	3
	16

Second Semester	
Art 132 Drawing II	3
Art 134 Design II	3
English Composition	3
PE Activity	1
Mth 1334 or above	3
Foundation Elective	3
C&I 2101	1
	17

Second Year

First Semester	
Art 231 Drawing III	3
Art 233 Design III	3
Art 235 Art History Survey I	3
English Literature	3
PE Activity	2
Science (Laboratory)	4
	18

Second Semester	
Art 236 Art History II	3
English Literature	3
PE Activity	2
Science (Laboratory)	4
Speech 131	3
Art 237 Graphic Design I	3
	18

Third Year*

First Semester	
Art 3355 Printmaking I	3
Art 3371 Elementary Art Education	3
C&I 331 Foundations of Education	3
C&I 332 Educational Psychology	3
POLS 231 American Government I	3
Sophomore American History	3
	18

Second Semester	
Art 3381 Secondary Art (spring only)	3
C&I 3225 Needs of Special Learner	3
POLS 232 American Government II	3
Sophomore American History	3
CS 130	3
Art 139 Photography I	3
	18

Fourth Year

First Semester	
Art 3376 Ceramics I	3
Art 4331 Crafts Elementary Education (fall only) ..	3
C&I 3226 Reading Strategies for Content Areas ...	2
C&I 338 Curriculum, Materials, & Eval. in Secondary Schools	3
Art 4341 Crafts Secondary Education (fall only) ...	3
Art 3316 Watercolor I	3
	17

Second Semester	
C&I 483 Student Teaching	8
C&I 434 Classroom Management	3
Art Elective	3
	14

*Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Teacher Certification - Art

Students wishing to obtain the Bachelor of Science degree and at the same time to certify for a provisional secondary certificate with a teaching field in art, must include in their degree program the following:

1. An approved 24 hour additional teaching field. (See list of approved teaching fields in the College of Education section of this Bulletin).
2. Professional Development
3. Approved electives to complete a total of 132 semester hours.

Art Courses (Art)

131	Drawing I A beginning course investigating a variety of drawing media, techniques and subjects, exploring perceptual and descriptive possibilities.	3:6:0
132	Drawing II Continuation of Drawing I stressing the expressive and conceptual aspects of drawing. <i>Prerequisite:</i> Art 131.	3:6:0
133	Design I The study of the elements and concepts of two-dimensional design.	3:6:0
134	Design II Continuation of Design I with emphasis upon three-dimensional concept. <i>Prerequisite:</i> Art 133.	3:6:0
135	Art Appreciation An introductory course emphasizing the understanding and appreciation of visual arts (painting, sculpture, architecture) Open to all students.	3:3:0
139	Photography I An introduction to basic photographic processes and techniques used as an art medium.	3:6:0
239	Photography II Advanced study of black and white photography as an art medium. <i>Prerequisite:</i> Art 139	3:6:0
231	Drawing III A life drawing course emphasizing structure and action of the human figure. <i>Prerequisite:</i> Art 132.	3:6:0
232	Drawing IV A continuation of Drawing III with emphasis on individual expression. <i>Prerequisite:</i> Art 231.	3:6:0
233	Design III An advanced investigation into the problems of two-dimensional form with emphasis on individual expression. <i>Prerequisite:</i> Art 134.	3:6:0
234	Sculpture I An exploration of the various sculptural approaches in a variety of media including additive and subtractive techniques. <i>Prerequisite:</i> Art 132 and 134.	3:6:0
235	Art History Survey I A survey of painting, sculpture, architecture and the minor arts from prehistoric times to the 14th Century.	3:3:0
236	Art History Survey II A survey of painting, sculpture, architecture and the minor arts from the 14th Century to the present.	3:3:0
237	Graphic Design I An introduction to the field of graphic design with emphasis on typography and basic layout.	3:6:0
238	Painting I Exploring the potentials of painting media with emphasis on color and composition. <i>Prerequisite:</i> Art 132 and 134.	3:6:0
330	Color I An introduction to color printing techniques and the use of color analyzers. <i>Prerequisite:</i> Art 1393	3:6:0
3313	Illustration I A media course. The preparation and execution of graphic material for reproduction.	3:6:0
3315	Drawing V Continuation of drawing. Experimentation with various media and their adaptability to drawing principles. <i>Prerequisite:</i> Art 232.	3:6:0

- 3316 Watercolor I** 3:6:0
Study and practice in the planning and execution of paintings in transparent and opaque watercolor.
Prerequisite: Art 233. *May be repeated for credit.*
- 3317 Painting II** 3:6:0
Continuation of Painting I with emphasis on individual expression.
Prerequisite: Art 238. *May be repeated for credit.*
- 3323 Illustration II** 3:6:0
Experimentation with various techniques and/or media. Continuation of Art 3313.
Prerequisite: Art 3313.
- 3325 Drawing VI** 3:6:0
Continuation of Art 3315. May be repeated for credit.
Prerequisite: Art 3315.
- 3326 Watercolor II** 3:6:0
A continuation of 3316. May be repeated for credit.
Prerequisite: Art 3316.
- 3327 Painting III** 3:6:0
Continuation of 3317. May be repeated for credit.
Prerequisite: Art 3317.
- 3333 Graphic Design II** 3:6:0
The study of advanced layout for media advertising, collateral and editorial material and the basic preparation of art for reproduction.
Prerequisite: Art 237.
- 3335 Crafts** 3:6:0
Basic processes of textile design, weaving, leather and jewelry. May be repeated for credit.
- 3343 Graphic Design III** 3:6:0
Photo-mechanical reproduction, camera ready art for reproduction, introduction to computer imaging with emphasis on type, typesetting and text design and page layout. Advertising layout in color and introductory package design. Hard copy production and use in practical problems of design and reproduction.
Prerequisite: Art 139, 3313, 3333
- 3353 Fashion Layout and Illustration** 3:6:0
A study of basic layout and illustration for fashion advertising.
- 3355 Printmaking I** 3:6:0
An introduction to printmaking with an emphasis on intaglio and relief processes.
Prerequisite: Art 233.
- 3365 Printmaking II** 3:6:0
A continuation of Art 3355 with emphasis on planographic and serigraphic techniques. May be repeated for credit.
Prerequisite: Art 3355.
- 3371 Elementary Art Education** 3:3:0
Curricula, methods, and materials for the elementary school.
- 3375 Sculpture II** 3:6:0
Application of the principles of sculpture through experiment in clay, plaster and various materials. May be repeated for credit.
Prerequisite: Art 234.
- 3376 Ceramics I** 3:6:0
Investigation and practice in ceramic processes: forming and firing techniques. May be repeated for credit.
Prerequisite: Art 234 or permission of instructor.
- 3381 Secondary Art Education** 3:3:0
Curricula, methods, and materials for the secondary school.
Spring semester only.
- 3386 Ceramics II** 3:6:0
Opportunities for specialization in ceramic processes. May be repeated for credit.
Prerequisite: Art 3376.
- 339 Large Format Camera Photography** 3:6:0
Introduction to the use of the view camera.
Prerequisite: Art 1393.
- 4315 Drawing VII** 3:6:0
Specialized problems in studio area. May be repeated for credit.
Prerequisite: Art 232.
- 4316 Painting IV** 3:6:0
Specialized problems in studio area. May be repeated for credit.

4325	Drawing VIII A continuation of Drawing VII. May be repeated for credit. <i>Prerequisite:</i> Art 3325.	3:6:0
4326	Painting V A continuation of Painting IV. May be repeated for credit. <i>Prerequisite:</i> Art 4316.	3:6:0
4331	Crafts Elementary Education An introduction to various craft materials and techniques used in the elementary school. Course may be repeated for credit.	3:6:0
4336	Professional Practices A study of the practical aspects of the art profession with emphasis on health hazards, business procedures, and art law.	3:3:0
4338	Renaissance Art Study of 15th and 16th century art in the Western world.	3:3:0
4341	Crafts Secondary Education An introduction to the various craft materials and techniques used in the secondary school. Course may be repeated for credit.	3:6:0
4343	Computer Graphics I Three dimensional imaging. Advanced work to package design, color modelling, structures. Advanced work in page design for editorial layout and electronic illustration/simulation for TV commercials. <i>Prerequisite:</i> Art 3343	3:6:0
4348	Nineteenth & Twentieth Century Abstract Art Foundation of Abstraction in European Art from Neo-Classicism through Surrealism.	3:3:0
4353	Computer Graphics II Development of computer images for interactive video/film for educational communications. Animation and video for creative communications. <i>Prerequisite:</i> Art 3343.	3:6:0
4355	Printmaking III Specialized problems in studio area. May be repeated for credit. <i>Prerequisite:</i> Art 3365.	3:8:0
4358	American Art The development of painting, sculpture and architecture in the United States from Colonial times to the present.	3:3:0
4363	Computer Graphics III (Specified elective for CG majors). Advanced problems in Computer Graphics. Student selected problems dealing with specific areas of computer images. Work done on a contract basis with specific areas of computer images. Work done on a contract basis with specified objectives and tangible results. <i>Prerequisite:</i> Art 3343.	3:6:0
4368	Contemporary Art A historical and critical analysis of painting, sculpture, and architecture in Europe and the Americas from 1900 to the present.	3:3:0
4373	Field Study in Graphic Design Familiarization with the overall commercial art field through actual experience. Time to be arranged. Permission of instructor.	3:6:0
4375	Sculpture III Specialized problems in studio area. May be repeated for credit. <i>Prerequisite:</i> Art 3375.	3:6:0
4378	Ceramics III Specialized problems in studio area. May be repeated for credit. <i>Prerequisite:</i> Art 3376.	3:6:0
4378	Primitive Art A study of the development and nature of primitive art.	3:3:0
4388	Modern Architecture and Sculpture The development and evolution of modern architecture and sculpture from the late 19th century to the present in America and Europe.	3:3:0
4391	Directed Individual Study Study of specialized area within art education field. May be repeated for credit. <i>Prerequisite:</i> <i>Permission of instructor.</i>	3:A:0

4393	Directed Individual Study Study of specialized area within commercial art field. May be repeated for credit. <i>Prerequisite: Permission of instructor.</i>	3:A:0
4395	Directed Individual Study Study of specialized area within fine arts field. May be repeated for credit. <i>Prerequisite: Permission of instructor.</i>	3:A:0
4398	History of Photography The development and evolution of photography from its invention in 1839 to the present.	3:3:0
4399	Thesis Student selected problem encompassing an area of emphasis with suitable research, production, written support and oral presentation to a faculty committee.	3:6:0

Department of Communication

Department Head: John P. Johnson

201 Communication Building

Professors: Achilles, Brentlinger, Holland, James, Johnson, Moulton, Pederson

Associate Professors: Baker, Bingham, Campbell, Harrigan, McIntosh, Roth

Assistant Professors: King, Masterson, Myers, Wilkerson, Winney

Instructors: Clem, Placette

Adjunct Instructors: Cockrell, Mistic, Perkins

The Department of Communication offers the Bachelor of Science and Bachelor of Arts Degrees in Speech and the Bachelor of Science Degree in Communication. Majors in Public Address, Theatre and Speech Pathology/Audiology are available under the bachelor's degree in speech. Teacher certification plans are offered in the fields of Speech, Theatre, Journalism and Deaf Education. The undergraduate major in Speech Pathology and Audiology is considered to be pre-professional in nature and provides a foundation for graduate study. A master's degree is required for professional employment in these two fields (see Graduate Catalogue).

Students wishing to pursue a major in the Department must meet the following admission requirements: 1) A minimum score of 700 on the SAT or a composite score of 15 on the ACT, and 2) A minimum score of 35 on the Test of Standard Written English. Transfer students and those wishing to enter the Department through a change of major may do so by meeting the above requirements or by having a minimum grade point average of 2.25 based on at least 30 semester hours of college study. Grades of "D" are not accepted in courses in the major area.

Programs of Study

The academic foundation coursework required for all majors in the Department is listed below. The required courses for each major are listed under the major heading.

General Requirements:

English Composition—6 hours

English Literature—6 hours

(Spc 235 may substitute for 3 hours of English Lit)

Math 1314

Math 1334

Lab Science—8 hours

Political Science 231

Political Science 232

History 231

History 232

Computer Science 130

Humanities 130, 131, or 132

Physical Activity—4 Semesters

Foundation Electives (Hour requirement varies with major)

Bachelor's Degree in Speech - Public Address Major

This Program is designed to prepare students for careers in public relations, human resource development, personnel management, teaching at the secondary level and may serve as an appropriate curriculum for those wishing to enter law school or pursue graduate education. Professional elective coursework is selected on the basis of the student's career objectives.

Required Courses in Major: Spc 131, 1302, 232, 235, 238, 332, 334, 4324, 433, 434.

Bachelor's Degree in Speech - Theatre Major

This Program provides a well-balanced curriculum which prepares students to assume positions in either professional theatre or as teachers in secondary schools. Students participate in all phases of scheduled theatre productions and through coursework and participation are provided with a background in both performance and technical theatre. It is recommended that students pursue the Bachelor of Arts Degree which requires the completion of 12 semester hours of a foreign language.

Required courses in major: THE 131, 132, 135, 137, 231, 232, 334, 336, 338, 434, 439. The teacher certification requirements differ slightly and interested students should see the section below for specifics.

Bachelor's Degree in Speech - Pathology/Audiology Major

Accredited by the American Speech-Language-Hearing Association, this Program of Study leads to either the Bachelor of Arts or Bachelor of Science Degree in Speech (Pathology and Audiology). The Undergraduate program is considered pre-professional in nature and completion of the Master's Degree is required for professional employment (see the Graduate Catalogue for requirements). Upon completion of the Master's Degree, students are eligible for professional certification and state licensure. Through coursework and clinical practice, students are prepared to assume positions as speech pathologists or audiologists in public schools, hospitals, clinics, rehabilitation centers and in private practice.

Required courses in major: SPC 1301, 1302, 1303, 2301, 2302, 2303, 2304, 2305, 3301, 3302, 3306, 4301, 4302 (Note: SPC 1302, 1303 and 2304 are included as academic foundation courses. PSY 131 and 241 are also required foundation courses).

Bachelor of Science Degree in Communication

This Program is designed to prepare students for careers in Radio-TV-Film and Journalism. All students complete a 30 semester hour common core curriculum which insures basic competence in writing and reporting, broadcasting, film, persuasion, advertising and the legal aspects of mass media. An additional 14 semester hours of coursework in Radio-TV-Film and Journalism is selected under the category of "professional electives" to complete the major.

Required courses in major: SPC 131, COM 131, 133, 231, 234, 2384 or 2385, 3383, 431, 4383 or 438, and SPC 332 or SPC 334 or 434. In addition, all students must enroll in COM 3234, Practicum in Communication, at least once.

Teacher Certification Plans

Teacher certification programs are available in Speech, Journalism, Theatre and Deaf Education. With the exception of the 36 semester hour program in Deaf Education, teacher certification plans require the completion of two-24 semester hour teaching fields

plus the required professional education coursework. In addition to the general academic foundation courses previously listed, students seeking certification must complete SPC 131 or 331 and C&I 2101.

The following professional education courses are required: C&I 331, 332, 3225, 3226, 338, 434, 483.

The following courses are required for certification in the teaching field specified.

Speech-Secondary: SPC 232, 233, 235, 238, 332, 334, 4324, 434.

Journalism-Secondary: COM 133, 231, 232, 234, 333, 3381, 431, 4383.

Theatre (Drama)-Secondary: THE 132, 135, 137, 210, 232, 332, 338, 435, 4371.

Deaf Education (Hearing Impaired): SPC 1303, 2302, 2303, 239, 3305, 3392, 4302, 4303, 4305, 4306, 4326, and C & I 2301.

Recommended Course Sequence

Each major in the Department varies in terms of course requirements. Students should seek the guidance of their faculty advisor in planning their individual programs of study. The program listed below is for general reference only.

First Year	Second Year
English Composition..... 6	English Literature..... 6
Mth 1314 and 1334..... 6	POLS 231 and 232..... 6
Lab Science..... 8	His 231 and 232..... 6
Humanities 130, 131, or 132..... 3	Computer Science 130..... 3
Major core courses..... 6	Major core courses..... 9
Physical Activity..... 2-4	Physical Activity..... 2-4
32-33	32-34
Third Year	Fourth Year
Major core courses..... 9	Major core courses..... 9-12
Foundation Electives..... 15	Professional Electives..... 21
Professional Electives..... 9	
33	30-33

Communication Courses (Com)

131	Introduction to Mass Communication Study of mass communication, analysis of media conglomerates, advertising, popular culture, and media-audience interaction.	3:3:0
133	News Writing A study of the principles of news writing, with emphasis upon concise, accurate, objective writing. Proficiency in typewriting is required.	3:2:3
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. <i>Prerequisite: Com 133 with a grade of "C" or higher.</i>	3:2:3
232	Editing and Copyreading The development and use of printing, type recognition, type harmony, preparing editorial material, writing headlines and correcting copy. <i>Prerequisite: Com 231.</i>	3:2:3
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.	3:2:3
2341	Principles of Broadcast Production Training in radio and television basic production with emphasis on oper campus broadcast facilities. Different formats will be considered. Practical experience in announcing, planning, production of programs. <i>Prerequisite: Com 234 or consent of instructor.</i>	3:2:3
2384	Evolution of Motion Pictures Development of American film as an art form, industry, mass medium and "language."	3:3:0

2385	Film Genre Familiar entertainment film types: science fiction, horror, gangster, and Westerns are analyzed for formal properties and ideological content. May be repeated when units vary.	3:3:0
3234	Practicum in Communication Laboratory experience in an actual setting. Assignment may be made for specific on the job experience in newspaper offices, radio stations, television stations, advertising agencies, etc. May be repeated for a total of six semester hours. Approval required prior to registration.	2:0:6
333	Advanced Journalism Writing Writing focusing on skills required for sports, human interest, feature, editorial and specific subject area columns. <i>Prerequisite: Com 231 or equivalent.</i>	3:2:3
335	Magazine Production Analysis and participation in all phases of magazine production.	3:2:3
337	Audio Production Principles and practice of introductory professional audio recording and editing.	3:2:3
338	Television Production Activities in writing, acting, directing, producing, announcing and engineering various types of television productions. <i>Prerequisite: Com 131, 234.</i>	3:2:3
3381	Photo Journalism Principles of photography applied to the specific area of photojournalism. No experience is required, but each student must have access to a 35 mm adjustable camera.	3:2:3
3383	Broadcast Advertising Broadcast advertising theory and techniques in the total marketing mix.	3:3:0
339	Television Field Production Principles and practices, editing and post production. <i>Prerequisite: Com 338.</i>	3:3:0
430	Communication Problems and Projects Problems analyzed and evaluated under individual guidance of faculty. Course may be repeated for credit two times. Consent of faculty member required prior to registration.	3:3:3
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.	3:3:0
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.	3:3:0
433	Mass Communication and Society Analysis of impact of mass communication on society.	3:3:0
438	Broadcast News Study and practice in developing news for broadcasting. Various types of news material, including the documentary, its procurement and presentation. <i>Prerequisite: Com 234 or consent of instructor.</i>	3:2:3
4383	Print Advertising A study of advertising, including copy writing, type selection, layout and design for print media.	3:2:3
4391	Advanced Television Production Seeks to develop professional competence in television production of news, commercials, documentaries and special program. <i>Prerequisite: Com 338 or permission of instructor.</i>	3:2:3

Speech Courses (Spc)

1301	Introduction to Speech, Hearing and Language Disorders Overview of the profession of speech pathology, audiology and deaf education.	3:3:0
1302	Phonology Descriptive phonetics, phonetic alphabet systems.	3:3:0
1303	Speech, Hearing and Voice Science Introduction to the scientific variables of speech, hearing, and voice.	3:3:0
131	Public Speaking Principles and practice of public speaking.	3:3:0
211	Parliamentary Procedure Theory and practice in conducting a business meeting through standard parliamentary procedures.	1:1:0

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. <i>Prerequisite: Permission of instructor required.</i>	2:0:4
230	Articulation Disorders Prevention, assessment, etiology and remediation of articulation disorders.	3:3:0
2301	Introduction to Speech Pathology Etiology and treatment of speech disorders with emphasis on functional disorders.	3:3:0
2302	Introduction to Deaf Education Historical and current considerations in the deaf education profession.	3:3:0
2303	Introduction to Audiology Anatomy of ear, physics of sound, test modes and procedures.	3:3:0
2304	Anatomy and Physiology of Speech and Hearing Study of the anatomy/physiology of speech and auditory mechanisms.	3:3:0
2305	Introduction to Manual Communication Systems Introduction to finger spelling and the language of signs.	3:3:0
232	Interpersonal Communication Principles and practices of interpersonal communication in various settings.	3:3:0
233	Advanced Public Speaking Principles and practice in special occasion speaking.	3:3:0
235	Oral Interpretation of Literature Instruction and practice in the principles of speech applied to performance in the interpretation of prose and poetry.	3:3:0
238	Oral Controversy A study of evidence and reasoning and a critique of them as reflected in current public affairs.	3:3:0
239	Language for the Deaf Survey of systems of teaching language development in nursery and preschool age children.	3:3:0
3301	Research in Speech and Hearing Research methods, statistics and experimental design in the speech and hearing sciences.	3:3:0
3302	Language Development and Language Disorders Normal language development, language assessment, and intervention.	3:3:0
3305	Manual Communication II Intermediate skills course in American Sign Language.	3:3:0
331	Business and Professional Speech Application of the fundamentals of speech production to the needs of the professional person.	3:3:0
332	Group Methods and Discussion Communication theory of group processes. Practice in group problem solving.	3:3:0
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 program in laboratory and in nearby schools, hospitals and homes.	3:3:0
334	Interviewing Theory and practice in the several types of interviews current in the United States.	3:3:0
3392	Speech for the Deaf Speech development and teaching strategies in the young deaf child.	3:3:0
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/she does extensive research and presents a report to the department faculty. Course may be repeated three times for credit. Permission of instructor required.	3:A:0
4301	Advanced Speech Pathology Advanced speech pathology: introduction to specific communication disorders, diagnostic procedures and therapy programs.	3:3:0
4302	Advanced Audiology Hearing evaluation procedures, clinical evaluation techniques and instrumentation.	3:3:0
4303	Clinical Practicum Introduction to clinical practice in speech pathology, audiology and deaf education. This course may be repeated for clinical clock hours accumulation.	3:0:9
4305	Manual Communication III Expanded American Sign Language for the Deaf.	3:3:0
4306	Advanced Language, Reading for the Deaf Methods of teaching language and reading to the hearing impaired.	3:3:0
432	Public Relations Theory, principles, and practice of public relations.	3:3:0

4324	Non Verbal Communication	3:3:0
	Theory, research, analysis and practice in non verbal communication.	
4326	Instructional Methods in Deaf Education	3:3:0
433	Organizational Communication	3:3:0
	Theory, principles, and practice of communication within organizations.	
434	Persuasion	3:3:0
	The psychological and emotional principles involved in influencing individuals and groups. An analysis and practice with the speech devices and techniques in effectively motivating audience reaction.	
4341	Advanced Interviewing	3:3:0
	Study of modern communication and related research as applied in business and professional interviews.	
4381	Rhetoric of Social Movements	3:3:0
	Analysis of the rhetoric of selected social movements in American history.	
439	Rhetoric and Public Address	3:3:0
	A study and analysis of some of the world's great speeches with application of the principles of original speeches of special types.	

Theater Courses (The)

131	Introduction to Theater	3:2:3
	A general survey of the major fields of theater arts. For students who have a limited theatrical experience or knowledge. Emphasis on the various types and styles of plays, knowledge of the functions of the actor, director, costumer, scene designer, light designer and other elements of theater production.	
1311	Voice and Diction	3:3:0
	Vocal development, vocabulary building and pronunciation Skills through systematic drills.	
132	Stagecraft	3:2:3
	Basic course on the handling and construction of scenery, the care of stage properties, lighting and theatrical nomenclature.	
135	Fundamentals of Stage Makeup	3:2:3
	Principles and practices of stage makeup for a performance.	
137	Elements of Acting	3:2:3
	Introductory principles and practice for acting.	
210	Theater Practicum	1:0:3
	Laboratory instruction in production techniques required in the area of scenery, lighting, costumes and other technical areas. It may be repeated three times for credit of four hours.	
231	Costume Construction	3:2:3
	Basic course in costume construction designed to emphasize all aspects of construction principles and techniques. Participation in theatrical production (s) required.	
232	Fundamentals of Stage Lighting	3:2:3
	Basic course in stage lighting with emphasis on elements of electricity, lighting instruments and their control. Participation in theatrical production (s) required. <i>Prerequisite: The 132</i>	
235	Advanced Stage Makeup	3:2:3
	Principles and practices of handling makeup problems; beards, wigs, prostheses and three dimensional affect. <i>Prerequisite: The 135</i>	
237	Stage Movement	3:2:3
	Principles and practices of bodily movement in period and in style for acting. <i>Prerequisite: The 137</i>	
331	Auditioning	3:2:3
	Principles of selection, preparation and execution of effective scenes for auditioning. <i>Prerequisite: The 237</i>	
332	Fundamentals of Scene Design	3:2:3
	Introduction to scene design practices. Drafting and rendering techniques emphasized. <i>Prerequisite: The 132</i>	
333	Lighting Design	3:2:3
	Emphasis on designer's practice and process of lighting for special affects. <i>Prerequisite: The 232</i>	
334	Dramatic Literature/Play Analysis	3:2:3
	Study and analysis of dramatic literature and playwrights from Greeks through mid-nineteenth century.	
336	Theatre History I	3:3:0
	A survey of theatre from its beginnings through the Elizabethan periods.	

- 337 Acting III** 3:2:3
Detailed study of approaches to character development, stage combat, and improvisation through scene study and special problem assignments.
Prerequisite: The 237
- 338 Fundamentals of Play Directing** 3:2:3
Introductory principles and practices for directing stage productions.
Prerequisite: The 132, 137
- 339 Creative Dramatics** 3:3:0
Instruction in the methods of introducing creative projects related to the development of creative play making in the home, community and school.
- 3360 Children's Theater** 3:2:3
Instruction and practice in advanced principles of theater as applied to plays for children's audiences. Participation in theatrical production required. May be repeated once for credit.
- 430 Creative Communication** 3:3:0
This is a process oriented approach to creative learning through creative communications. It is of special value to the communication of information in or out of the classroom at any age level.
- 431 Problems and Projects in Theater** 3:A:0
Students will perform activities in one of the following areas: acting, directing, producing, designing and constructing costumes and stage settings for the school theater.
May be repeated three times for credit.
- 432 Advanced Scene Design** 3:2:3
Advanced study of the history and development of scene design.
Prerequisite: The 332
- 4360 Musical Comedy** 2:0:6
A laboratory course providing background study and practical work in the field of musical comedy, including participation in the presentation of a full production. Open by audition or by consent of the instructor to students from all departments who are interested in acting or technical work in the theater, especially as applied to musical comedy. May be repeated for credit up to six hours.
- 4371 Directing Secondary School Dramatic Activities** 3:3:0
Principles involved in directing activities in secondary schools. Practical experience with workshops constitutes part of this course.
- 433 Theatre Management and Public Relations** 3:3:3
- 434 Contemporary Dramatic Literature** 3:3:3
Study and analysis of dramatic literature and playwrights from Isben to the present.
Prerequisite: The 334
- 435 Costume Design** 3:2:3
Advanced study of principles and practices of costume design. Emphasis on drafting and historical accuracy.
Prerequisite: The 332
- 436 History of Theater II** 3:3:0
A survey of theater from the Restoration to the present day.
Prerequisite: The 336
- 437 Acting IV** 3:3:0
Detailed study of period styles and techniques for acting.
Prerequisite: The 337
- 438 Advanced Directing** 3:3:3
Principles and practices of play directing. For upper level theatre majors only.
- 439 Summer Repertory Theater** 3:2:3
Participation in a variety of shows during the summer season to enable the student to work in a professional repertory atmosphere. May be repeated two times for credit.

Department of Music

Department Head: James M. Simmons

106 Music Building

Professors: Carlucci, Parks

Associate Professors: Collier, Holmes, LeBlanc, Simmons, Truncalé

Assistant Professors: Babin, Berthiaume, Culbertson, Dyess, Ornelas, Thomas

Instructors: Johnson, Linn, Morehouse, Parks

Adjunct Instructors: Boone, Graham, Hines, Hudgins, Rives

The degrees of Bachelor of Music in voice, piano, theory and composition, instrumental major and music education 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 as recommended by the music faculty before the end of the first semester of the senior year. Junior level music history and music theory must be taken before the oral examination.
4. All students must continue to take secondary piano for as many consecutive semesters as are required for the completion of the proficiency exam.
5. Participate in and attend recitals and concerts as recommended by the department.
6. For graduation, all music majors must present a recital during the senior year as recommended by the department.
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 in Performance degree programs.
9. All band instrumental majors who elect marching band in lieu of physical education requirements will be required to take an additional non-music elective.
10. A music course with a grade of "D" will not apply toward graduation.
11. Music minor for non-music majors: Students who elect music as a minor must complete a minimum of eighteen (18) hours in music theory, applied music, or music literature, six of which must be advanced courses. Two (2) semesters of recital attendance (MUS 110) will also be required. Music laboratory credit may be used at the discretion of the Department Head. Education certification is not available to students who minor in music.
12. Students will be required to successfully complete eight semesters of MUS 110, Recital Attendance, to be approved for graduation.

Recommended Programs of Study

Bachelor of Music - Composition

First Year	Second Year
AM Major Instrument 4	AM 2283-2284 4
MLb Band, Choir, Orchestra 2	MLb Band, Choir, Orchestra 2
MTy 132-133 Elementary Harmony 6	MTy 232-233 Advanced Harmony 6
MLt 111-112 Music Literature 2	English Literature 3
English Composition 6	Sophomore American History 6
PE 2	POLS 231, 232 American Government I 6
AM 1143, Secondary Piano 2	PE 2
Elective (Math, Science) 8	MLb 114 Repertoire & Pedagogy 2
MLb 114 Repertoire & Pedagogy 2	*Non Music Elective 3
34	34
Third Year	Fourth Year
AM 3483-3484 8	AM 4483-4484 8
MLb Band, Choir, Orchestra 2	MLb Band, Choir, Orchestra 2
MTy 321-322 Counterpoint 4	MTy 421, 422 4
MLt 333-334 Music History 6	MLt 336 or MLt 337 3
MLb 114 Repertoire & Pedagogy 2	MEd 337 or MEd 338 3
Elective (Math, Science) 6	MTy 425 Band Arranging 2
Hum 132 Appreciation of Theater and Art 3	Music Elective 4
Non Music Elective 3	MLb 114 Repertoire & Pedagogy 2
34	28

*Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.

Instrumental (Strings)

First Year	
AM Major Instrument	4
MLB 114 Repertoire & Pedagogy	2
AM 1143, Secondary Piano	2
MTy 132, 133 Elementary Harmony	6
MLB 1120 Orchestra	2
MLt 111, 112 Music Literature	2
English (Composition)	6
PE	2
Elective (Math, Science)	8
	34

Third Year	
AM Major Instrument	8
MLB 114 Repertoire & Pedagogy	2
MLB 1120 Orchestra	2
MLT 333, 334 Music History	6
POLS 231, 232	6
Electives (Mth, Science)	6
MTY 321, 322 Counterpoint	4
	34

Second Year	
Am Major Instrument	4
MLB 114 Repertoire & Pedagogy	2
Chamber Music Ensemble	2
MTY 232-233 Advanced Harmony	6
MLB 1120 Orchestra	2
Sophomore American History	6
HUM 132	3
Non Music Elective	3
English Literture	3
*Non Music Elective	3
PE	2
	36

Fourth Year	
AM Major Instrument	8
MLB 114 Repertoire & Pedagogy	2
MLB 1120 Orchestra	2
MLT 337 Instrumental Literature	3
MED 338 Instrumental Conducting	3
MTY 421, 422	4
Chamber Music Electives	2
Non Music Elective	3
	27

*Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.

Instrumental (Wind or Percussion)

First Year	
AM Major Instrument	4
MLB 114 Repertoire & Pedagogy	2
AM 1143, Secondary Piano	2
MTY 132, 133 Elementary Harmony	6
MLB 124 Marching Band-(PE)	2
MLB 1150 Symphonic Band	1
MLT 111, 112 Music Literature	2
Music Electives	2
English Composition	6
Elective (Mth, Science)	8
	35

Third Year	
AM Major Instrument	8
MLB 114 Repertoire & Pedagogy	2
MLT 333-334 Music History	6
Chamber Music Ensembles	2
MTY 321, 322 Counterpoint	4
MLB 124 Marching Band (PE)	2
POLS 231, 232 American Government	6
Electives (Mth, Science)	6
MLB 1150 Symphonic Band	1
	37

Second Year	
AM Major Instrument	4
MLB 114 Repertoire & Pedagogy	2
MTY 232, 233 Advanced Harmony	6
Music Electives	2
MLB 124 Marching Band-(PE)	2
Sophomore American History	6
English Literature	3
*Non Music Elective	3
Non Music Electives	4
MLB 1150 Symphonic Band	1
	33

Fourth Year	
AM Major Instrument	8
MLB 114 Repertoire & Pedagogy	2
MLT 337 Instrumental Literature	3
MED 338 Instrumental Conducting	3
MTY 421, 422	4
MLB 124 Marching Band (PE)	2
MLB 1150 Symphonic Band	1
Non Music Elective	3
	26

*Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.

Keyboard

First Year	
AM Major Instrument	4
MLB 114 Repertoire & Pedagogy	2
Major Performing Ensemble	2
AM 1183-1184 Voice	2
MLT 111, 112 Music Literature	2
MTY 132, 133 Elementary Harmony	6
English Composition	6
PE	2
Elective (Mth, Science)	8

34

Third Year	
AM Major Instrument	8
MLB 114 Repertoire & Pedagogy	2
Major Performing Ensemble	2
Chamber Music Ensemble	2
MTY 321, 322 Counterpoint	4
MLT 333, 334 Music History	6
POLS 231, 232 American Government	6
Elective (Mth, Science)	6

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*Must be 3 semester hours of literature, technical report writing, speech communication or foreign language.

Vocal

First Year	
AM 1281, 1282	4
MLB 114 Repertoire & Pedagogy	2
AM 1143, Secondary Piano	2
Choir	2
MTY 132, 133 Elementary Harmony	6
MLT 111, 112 Music Literature	2
English Composition	6
Italian, German	6
PE	2

32

Third Year	
AM 3481, 3482	8
MLB 114 Repertoire & Pedagogy	2
Choir	2
MLB 210 Opera	2
MTY 321, 322 Counterpoint	4
MLT 336 Choral Literature	3
MED 337 Choral Conducting	3
MLT 333, 334 Music History	6
Laboratory Science	8

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Second Year	
AM Major Instrument	4
MLB 114 Repertoire & Pedagogy	2
Major Performing Ensemble	2
Chamber Music Ensemble	2
MTY 232, 233 Advanced Harmony	6
English Literature	3
*Non Music Elective	3
Sophomore American History	6
Non Music Electives	6
PE	2

36

Fourth Year	
AM Major Instrument	8
MLB 114 Repertoire & Pedagogy	2
Major Performing Ensemble	2
MTY 421, 422	4
Mlt 336 or MLT 337	3
MED 337 or MED 338	3
HUM 132	3
Non Music Elective	3

28

Second Year	
AM 2281, 2282	4
MLB 114 Repertoire & Pedagogy	2
Choir	2
MTY 232, 233 Advanced Harmony	6
English Literature	3
Spc 1302 Phonology	3
French	3
Elective (Mth, Science)	3
Sophomore American History	6
PE	2

34

Fourth Year	
AM 4481, 4482	8
MLB 114 Repertoire & Pedagogy	2
Choir	2
MLB 210 Opera	2
MTY 421, 422	4
POLS 231, 232	6
HUM 132	3
Elective (Mth, Science)	3

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Bachelor of Music in Music Education (Band)

(Qualifies for teacher certification music, all-levels)

First Year	
AM 1143	1
MLT 121, 122	4
MTY 132, 133 Elementary Harmony	6
AM Major Instrument	4
MLB 1150 Symphonic Band	1
English Composition	6
Mth	6
Laboratory Science	8
Spc 131 or 331	3
MLB 124 Marching Band	2
41	

Second Year	
MTY 232, 233	6
AM Major Instrument	4
MLB 1150 Symphonic Band	1
MED 335 Choral Music	3
MED 331 Elementary Methods	3
MED 315 Percussion	1
English Literature	6
POLS 231, 232	6
Sophomore American History	6
MLB 124 Marching Band	2
C&I 2101	1
39	

Third Year	
AM Major Instrument	4
MLB 1150 Symphonic Band	1
MED 311, 312, 313, 314, 411, 412	6
MED 317	1
MED 336, 338	6
MLT 333, 334 Music History	6
C&I 331, 332, 338	9
C&I 3326	6
MLB 124 Marching Band	2
MTY 322 Counterpoint	2
43	

Fourth Year	
AM Major Instrument	2
MTY 421, 422	4
C&I 434	3
C&I 463	6
CS 130	3
MLB 124 Marching Band	3
20	

Bachelor of Music in Music Education (Orchestra)

(Qualifies for teacher certification music, all-levels)

First Year	
AM 1143	1
MLT 121, 122 Music Literature	4
MTY 132, 133 Elementary Harmony	6
AM Major Instrument	4
MLB 1120 Orchestra	2
English Composition	6
Mth	6
Laboratory Science	8
PE	2
39	

Second Year	
MTY 232, 233 Advance Harmony	6
AM Major Instrument	4
MLB 1120 Orchestra	2
MED 311, 312, 315, 411, 412	5
MED 313 or 314 (Opposite of major)	1
English Literature	6
Sophomore American History	6
POLS 231, 232	6
PE	2
C&I 2101	1
39	

Third Year	
MTY 322	2
AM Major Instrument	4
MLB 1120 Orchestra	2
MLT 333, 334 Music History	6
MED 331, 335	6
MED 336, 338	6
C&I 331, 332, 338	9
C&I 3325, 3326	6
41	

Fourth Year	
MTY 421, 422	4
AM Major Instrument	2
MLB 1120 Orchestra	1
Spc 131 or 331	3
CS 130	3
C&I 434	3
C&I 463	6
22	

Bachelor of Music in Music Education (Vocal/Choir)

(Qualifies for teacher certification music, all-levels)

First Year		Second Year	
AM 1143.....	1	MTY 232, 233 Advanced Harmony.....	6
MLT 121, 122 Music Literature.....	4	AM Major Applied.....	4
MTY 132, 133 Elementary Harmony.....	6	Choir.....	2
AM Major Applied.....	4	MED 336 Instrumental Music.....	3
Choir.....	2	English Literature.....	6
English Composition.....	6	Sophomore American History.....	6
Mth.....	6	POLS 231, 232.....	6
Laboratory Science.....	8	PE.....	2
PE.....	2	Opera.....	1
	<hr/>	C&I 2101.....	1
	39		<hr/>
			37
Third Year		Fourth Year	
MTY 322 Counterpoint.....	2	MTY 421 Form & Analysis.....	2
AM Major Applied.....	4	AM Major Applied.....	2
Choir.....	2	Choir.....	1
MLT 333, 334 Music History.....	6	Spc 131 or 331.....	3
MED 335, 337.....	6	CS 130.....	3
MED 331, 332.....	6	C&I 434.....	3
C&I 331, 332, 338.....	9	C&I 463.....	6
C&I 3325, 3326.....	6	MTY 422 Orchestration.....	2
Opera.....	1		
	<hr/>		
	42		<hr/>
			25

DEGREE REQUIREMENT: A student must participate in two opera productions.

*Piano majors will substitute secondary voice for AM 1143 and must take voice for as many consecutive semesters as necessary to pass the vocal proficiency exam.

Music Courses (Mus)

110	Recital Attendance	1:0:0
	Attendance at scheduled recitals and concerts as prescribed by the Department of Music. Successful completion of eight semesters required for graduation. Music Education major exempt during the semester of student teaching. Course may be taken eight times for credit and is offered on a pass/fail basis.	
430	Problems and Special Projects	0:0:0
	An individual problem or project will be assigned as needs arise. <i>Prerequisite: Consent of the Department Head.</i>	

Applied Music Courses (AM)

1101 Beginning Band or Orchestral Instruments	1:1:0
1143 Secondary Piano	1:1:0
1183, 1184 Secondary Voice	1:1:0
1201 Applied Music	2:1.5*:0
1203, 1204, 2203, 2204, 3203, 3204, 4203, 4204 Bassoon	2:1.5*:0
3403, 3404, 4403, 4404 Bassoon	4:2**:0
1211, 1212, 2211, 2212, 3211, 3212, 4211, 4212 Cello	2:1.5*:0
3411, 3412, 4411, 4412 Cello	4:2**:0
1215, 1216, 2215, 2216, 3215, 3216, 4215, 4216 Clarinet	2:1.5*:0
3415, 3416, 4415, 4416 Clarinet	4:2**:0
1217, 1218, 2217, 2218, 3217, 3218, 4217, 4218 Cornet-Trumpet	2:1.5*:0
3417, 3418, 4417, 4418 Cornet-Trumpet	4:2**:0
1221, 1222, 2221, 2222, 3221, 3222, 4221, 4222 Flute	2:1.5*:0
3421, 3422, 4421, 4422 Flute	4:2**:0
1223, 1224, 2223, 2224, 3223, 3224, 4223, 4224 French Horn	2:1.5*:0
3423, 3424, 4423, 4424 French Horn	4:2**:0
1231, 1232, 2231, 2232, 3231, 3232, 4231, 4232 Oboe	2:1.5*:0
3431, 3432, 4431, 4432 Oboè	4:2**:0

- 1233, 1234, 2233, 2234, 3233, 3234, 4233, 4234 Organ 2:1.5*:0
 3433, 3434, 4433, 4434 Organ 4:2**:0
 1241, 1242, 2241, 2242, 3241, 3242, 4241, 4242 Piano 2:1.5*:0
 3441, 3442, 4441, 4442 Piano 4:2**:0
 1251, 1252, 2251, 2252, 3251, 3252, 4251, 4252 Saxophone 2:1.5*:0
 3451, 3452, 4451, 4452 Saxophone 4:2**:0
 1253, 1254, 2253, 2254, 3253, 3254, 4253, 4254 Percussion 2:1.5*:0
 3453, 3454, 4453, 4454 Percussion 4:2**:0
 1257, 1258, 2257, 2258, 3257, 3258, 4257, 4258 String Bass 2:1.5*:0
 3457, 3458, 4457, 4458 String Bass 4:2**:0
 1261, 1262, 2261, 2262, 3261, 3262, 4261, 4262 Trombone or Baritone 2:1.5*:0
 3461, 3462, 4461, 4462 Trombone or Baritone 4:2**:0
 1263, 1264, 2263, 2264, 3263, 3264, 4263, 4264 Tuba 2:1.5*:0
 3463, 3464, 4463, 4464 Tuba 4:2**:0
 1271, 1272, 2271, 2272, 3271, 3272, 4271, 4272 Viola 2:1.5*:0
 3471, 3472, 4471, 4472 Viola 4:2**:0
 1273, 1274, 2273, 2274, 3273, 3274, 4273, 4274 Violin 2:1.5*:0
 3473, 3474, 4473, 4474 Violin 4:2**:0
 1281, 1282, 2281, 2282, 3281, 3282, 4281, 4282 Voice 2:1.5*:0
 3481, 3482, 4481, 4482 Voice 4:2**:0
 2283, 2284 Composition 2:1.5*:0
 3283, 3284, 4283, 4284 Composition 2:1.5*:0
 3483, 3484, 4483, 4484 Composition 4:2**:0

*One 30-minute private lesson and one one-hour class per week.

**One hour private lesson and one one-hour class per week.

Music Education Courses (MEd)

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|------------|---|--------------|
| 131 | Elements of Music | 3:3:0 |
| | Designed to familiarize non-music majors with music fundamentals, materials, and methods for the teaching of elementary music in the self-contained classroom. | |
| 311 | Brass | 1:1:0 |
| | Techniques and materials in the teaching of instrumental music in the elementary school. Trumpet and Horn. | |
| 312 | Brass | 1:1:0 |
| | Techniques and materials in the teaching of instrumental music in the elementary school. Trombone, Baritone and Tuba. | |
| 313 | Strings | 1:1:0 |
| | Techniques and materials in the teaching of instrumental music in the upper elementary school. Violin and Viola. | |
| 314 | Strings | 1:1:0 |
| | Techniques and materials in the teaching of instrumental music in the upper elementary school. Cello and Bass. | |
| 315 | Percussion | 1:1:1 |
| | Techniques and materials in the teaching of percussion instruments in the upper elementary school. | |
| 317 | Marching Methods | 1:2:0 |
| | Basic marching maneuvers. Charting various types of half-time shows for football games, such as the pageant type and the precision drills, and arranging the music for these shows. Term project: a completely charted half-time show with music. | |
| 331 | Elementary Methods and Materials | 3:3:0 |
| | Techniques and materials in teaching of music in the lower elementary grades. The child's voice, rote singing; rhythmic, introduction of notation, creative music activities.
Prerequisite: MTy 131 or equivalent. | |
| 332 | Techniques and Materials in Teaching of Music in the Upper Elementary Grades | 3:3:0 |
| | Creative music, rhythmic activity, rote singing, reading of notation and effective use of materials.
Prerequisite: MTy 131 or equivalent. | |
| 334 | Hymnody | 3:3:0 |
| | A course designed for the music major and non-major. It is a chronological survey of Christian hymnody designed to aid in the understanding and appreciation of the hymns used in today's churches. | |

335	Choral Music A detailed study, 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.	3:3:0
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.	3:3:0
337	Choral Conducting Basic patterns and rudiments of choral techniques as applied to secondary school choral groups. Limited to music majors. <i>Prerequisite: Some vocal study, piano keyboard, one year of vocal laboratory and music theory.</i>	3:3:0
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.	3:3:0
410	Seminar A general study of the problems encountered in music.	1:1:0
411	Woodwinds Techniques and materials in the teaching of instrumental music in the upper elementary school. Flute, Clarinet and Saxophone.	1:1:0
412	Woodwinds Techniques and materials in the teaching of instrumental music in the upper elementary school. Oboe and Bassoon.	1:1:0
430	Recording Techniques Step-by-step familiarization with studio recording techniques, professional equipment, special effects and production theories.	3:3:0
431	Jazz Electronic Music An introduction to electronic jazz keyboard instruments (synthesizer) through an analysis of the styles of pop, jazz and contemporary performers. <i>Prerequisite: Completion of the piano barrier.</i>	3:3:0

Music Laboratory (MLb) *

*Courses in Music Laboratory may be repeated for credit. Total credit not to exceed eight semesters for any one course.

113	Jazz Improvisation Designed to provide background in the art of improvisation.	1:1:0
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 in the same instrument required (AM-Applied) of each major.	1:1:0
115	Jazz Combo Basic fundamentals of small ensemble jazz performance Must be taken concurrent with MLB 113 (Jazz Improvisation).	1:1:0
117	Dance Band Organized to furnish training in all styles of dance band performance. Open to any student who can qualify.	1:0:3
118	Percussion Ensemble The study and performance of chamber percussion literature. Designed to provide experience on all of the percussion instruments.	1:0:1
119	Steel Band A performing ensemble representing the traditional steel band concept. Public concerts given regularly.	1:0:1
1120	Orchestra A performing ensemble open to all University students who can qualify. Required of any student majoring in a string instrument.	1:0:6
124	Marching Band The study and performance of march music and military drill. Open to any student who can qualify. Four semesters completes PE requirement.	2:0:6
1150	Symphonic Band Performs symphonic wind ensemble and band repertoire. Tryout required for admittance.	1:0:6
1101	A Cappella 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.	1:0:6
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.	1:0:6

- 1104 Grand Chorus** 1:0:3
 A course in choral singing designed to acquaint the student with the larger works in choral literature. A public concert is given each semester. Open to qualified students from other departments.
- 1105 Cardinal Moods** 1:0:6
 Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments. LU at Orange only
- 1108 Cardinal Reflections** 1:0:6
 Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments. LU at Port Arthur only.
- 210 Opera** 1:0:3
 A laboratory class for advanced voice students providing study of complete operatic roles, scenes and excerpts for presentation in the opera-theater. Annual full scale opera production. Auditions open to all qualified students.
- 2260 Musical Comedy** 2:0:6
 A laboratory course providing both background study and practical work in the specialized field of musical comedy, including participation in the presentation of a full production. Open to both vocalists and instrumentalists from all departments by audition or by consent of instructor.
- 423 Chamber Music Ensemble** 2:0:5
 String ensemble, woodwind, brass ensemble and percussion ensemble. A course designed to give the student an opportunity to study and perform music written for the smaller instrumental ensembles. These groups will participate in various recital programs throughout the year. Open to any student upon recommendation of the instructor.

Music Literature Courses (MLt)

- 121-122 Music Literature** 1:1:0
 An appraisal of the important events in music history with emphasis upon those aspects of music associated with style, form and performance. Familiarization of the student with music terminology and a thorough briefing on score reading through the use of recordings from the significant periods of music history.
 Prerequisite: MLt 121 must be taken before MLt 122.
- 333 Music History** 3:3:2
 A survey of the literature and advances made in music from the early Christian era through the middle Baroque (c. 1700). Two hours of listening required per week in addition to class lecture.
 Prerequisite: MLt 121-122 and MTy 232-233.
- 334 Music History** 3:3:2
 A survey of the literature and advances made in music from the late Baroque (J. S. Bach and others) through the present time. Two hours of listening required per week in addition to class lecture.
 Prerequisite: May be taken before Music History 333, so long as prerequisites for Music History 333 have been satisfied.
- 336 Choral Literature** 3:3:0
 A study of music written for combinations of vocal music groups from the 12th century to the present day.
 Prerequisite: Junior status.
- 337 Instrumental Literature** 3:3:0
 An in depth study of the literature and pedagogy of symphonic literature for strings and winds.
 Prerequisite: Junior status.

Music Theory Courses (MTy)

- 131 Elements of Music** 3:3:0
 Designed to prepare students for advanced study in music theory. A study of scales, chords, musical terminology, key signatures, sight singing, rhythm, musical notation and the harmonic, melodic and rhythmic structure of music.
- 132, 133 Elementary Harmony** 3:5:0
 Elementary keyboard and written harmony, sight singing; ear training.
 Prerequisite: MTy 131 or by advanced standing exam.
- 232, 233 Advanced Harmony** 3:5:0
 Advanced keyboard and written harmony; sight singing; ear training.
 Prerequisite: MTy 133.
- 321, 322 Counterpoint** 2:2:0
 16th and 18th century contrapuntal techniques through analysis and creative writing.
 Prerequisite: MTy 233.

- 323 Jazz Arranging** **2:2:0**
A study and analysis of jazz harmony, melody and rhythm as applied to jazz band instrumentation; a workshop wherein arrangements are written and played.
- 421 Form and Analysis** **2:2:0**
Analytical study of musical forms and styles.
Prerequisite: MTy 233.
- 422 Orchestration** **2:2:0**
Techniques of writing and arranging for orchestral instruments in small combinations and for full orchestra.
Prerequisite: MTy 233.
- 425 Band Arranging** **2:2:0**
Techniques of writing, transcribing from orchestra score and arranging for the instrumentation of the high school marching and concert bands.



College of Health and Behavioral Sciences

Departments: Allied Health, Nursing, Psychology
Myrtle L. Bell, Ed.D., Dean

The College of Health and Behavioral Sciences was formed in 1981 when the Department of Psychology merged with the Departments of Allied Health and Nursing which had been in the College of Health Sciences. The departmental merger brought together programs of instruction in psychology, baccalaureate nursing, associate degree nursing, vocational nursing, dental hygiene, radiologic technology, and respiratory technology.

Goals of the College

The overall goal of the College of Health and Behavioral Sciences continues the tradition of the College of Health Sciences—to produce high caliber health specialists in specific areas of need and in sufficient numbers to contribute significantly to the improvement of health care of Southeast Texas citizens.

Since education of the health professional draws on concepts from the reservoir of knowledge in general and scientific education, health and behavioral science students are exposed to those concepts through university courses during the preprofessional semesters.

The bringing together of Psychology with Allied Health and Nursing initiates a broadening scope of interdisciplinary approaches to the education of future professionals in their respective fields. The major purposes of the Bachelor of Arts degree program are to acquaint the students with the tools and techniques of psychologist and to prepare them academically for employment with various social or mental health agencies under the supervision of licensed or certified personnel. Opportunities are also available in industrial and organizational settings. Although the same career opportunities as stated above are available for the student who completes the Bachelor of Science degree program, the program is designed primarily for the student who wishes to continue graduate study in psychology.

The College and its faculty are dedicated to responding to the health manpower needs of urban and rural health delivery systems. The tangible offerings include certificates, associate degrees, and baccalaureate degrees listed below.

Degrees Offered

Bachelor of Arts—Psychology

Bachelor of Science—Psychology

Bachelor of Science—Nursing

Associate of Science—Nursing

Associate of Applied Science: Dental Hygiene,* Radiologic Technology,* Respiratory Therapy.*

Certificate of Completion: Respiratory Technology,* Vocational Nursing.*

**These programs are offered with the approval of the Texas Education Agency.*

Department of Allied Health

Department Head: William David Short **254A Ward Health Sciences Building**

Assistant Professors: Atherton, Bailey, Ball, Short

Instructors: Fearing, Reynard, Young

Clinical Instructors: Fleischer, Hoosier, Huval, Meador, Tinsley, Walker

Adjunct Professors: Baxley, Bharathi, Darnell, Giglio, Gish, Jepson, Maddox, Coleman, Pinchback, Shaw, Sweet, Touns, Weaver

Part-time Clinical Instructors: Dishman, Sherri, Smith

The health occupations within the department provide specific services to people in a variety of health care settings under the supervision of physicians or dentists. The goal of delivering services through a team of health specialists working cooperatively characterizes allied health disciplines. The faculty aims to achieve this goal by providing an academic environment in which students can learn the theory underlying practice, gain positive attitudes toward their contribution to health care, and achieve clinical competence through supervised application of knowledge.

Admission to Department of Allied Health Programs

Students enrolled at Lamar University must submit an Application for Admission to the Department.

Students not enrolled at Lamar must submit two separate applications: one for admission to Lamar (obtained from the Office of Admissions and Records) and one for admission to the specific program (obtained from the program director, Ward Health Sciences Building).

Completed Application for Admission to Allied Health programs, with required transcripts, test scores and related documents, must be received on specific dates (see program statement) of each year, to be considered for admission to Summer Session I. Applicants are urged to follow application instructions carefully to ensure processing by program admission committees:

Applications for Admission are evaluated on the following basis:

1. Admission to the University (Admission section of this bulletin).
2. SAT or ACT scores.
3. Transcripts and grades in high school and previous college work.
4. Evidence of physical and emotional capability of completing the program of instruction and clinical practice. Health examinations are required. Forms are available with application forms.
5. Motivation for allied health practice demonstrated through letters of recommendation, employment and volunteer records and references, a statement of career goals and, in some cases, a personal interview.
6. Admission may be limited by available space.

Additional costs above tuition and fees are required in all Allied Health Department programs. Uniforms, equipment and instruments, liability insurance, health examinations and transportation to clinical facilities are the responsibility of the student. A wrist watch with a second hand is needed. Financial aids are available to eligible students: see Financial Aid and Award section of this bulletin.

Liability insurance and health examinations must be renewed each year of a health science program.

Students may be assigned to clinical experiences during day, evening, night or weekend hours.

Clinical agencies may require additional health examinations, dress codes or conformity with other policies. Students will be informed in advance of each requirement.

Health Sciences Courses (HS)

121 Health Care Concepts

2:2:0

Lecture course designed to provide the basic concepts appropriate to health. The various health care worker roles, professional ethics, communication, growth and development and related topics will be presented. The rationale for skills which are common to all health personnel will be introduced. The course is required for all health science majors and will be prerequisite for the beginning skill courses in the various programs.

Dental Hygiene

Program Director: Frieda Atherton

The purpose of the Dental Hygiene Program is to prepare highly competent dental hygienists to meet the oral health care needs of the public.

The program is designed to produce practitioners who will meet part of the preventive, maintenance and therapeutic needs of the community and state concerning oral health and its effect on total health. Through basic education in the Dental Hygiene Program, students acquire knowledge and proficiency to become functioning members of the health care delivery team.

Applications for Admission to the Dental Hygiene Program and criteria for admission procedures are available from the Dental Hygiene Program office, Ward Health Sciences Building. Applications and supporting materials are due by January 15 of each year.

To progress in the Dental Hygiene Program, a minimum grade of "C" (2.0) is required in all phases (lecture and laboratory/clinical practice) of dental hygiene courses and in Bio 143/144, Bio 245, HEc 138. Many are prerequisites for succeeding dental hygiene courses.

A minimum grade point average of 2.0 must be maintained in all courses submitted on the degree plan to obtain the Associate of Applied Science degree. Graduates who successfully pass the Dental Hygiene National Board Examination are eligible to take state licensing exams in states where they plan to practice.

Associate of Applied Science - Dental Hygiene

Recommended Program of Study

First Year

Summer Session I		Summer Session II	
Bio 143 Anatomy and Physiology	4	Bio 144 Anatomy and Physiology	4
DH 131 Orientation to Dental Hygiene.	3	DH 127 Morphology and Occlusion	2
HS 121 Health Care Concepts	2		
	9		6
Fall Semester		Spring Semester	
DH 132 Dental Radiology	3	DH 147 Dental Materials	4
DH 134 Head and Neck Anatomy and Physiology	3	DH 148 General and Oral Pathology	4
DH 155 Pre Clinic	5	DH 146 Clinic I	4
Chem 143 Introductory Chemistry	4	Bio 245 Introductory Microbiology.	4
	15		16

Second Year

Summer Session I		Summer Session II	
HEc 138 Principles of Nutrition	3	DH 221 Diet Analysis	2
English Composition.	3	DH 223 Periodontology.	2
	6		4
Fall Semester		Spring Semester	
Psy 131 Introduction to Psych.	3	DH 225 Community Dentistry II	2
DH 224 Pharmacology	2	DH 266 Clinic III.	6
DH 233 Community Dentistry I.	3	English Composition.	3
DH 265 Clinic II	6	Soc 131 Introduction to Sociology	3
	14		14

NOTE: Credit by examination may be earned in some Dental Hygiene courses. See the program director.

Dental Hygiene Courses (DH)

127 Dental Morphology and Occlusion

2:1:3

A detailed anatomical study of human teeth, their eruption, exfoliation and occlusion.

Prerequisite: Admission to the program.

- 131 Orientation to Dental Hygiene Practice 3:2:3**
Orientation and introduction to the practice of dental hygiene, including his/her role in all phases of dental specialty practice.
Prerequisite: Admission to the program.
- 132 Dental Radiology 3:2:3**
A detailed study of theories, clinical techniques and principles of dental radiographic practice. Radiation safety, protection, exposure, production, development and interpretation are emphasized.
Prerequisite: Admission to the program; Bio 143/144.
- 134 Head and Neck Anatomy and Physiology 3:3:0**
A detailed study of the embryology, histology, anatomy and physiology of the head and neck region, including common dysfunctions of the temporomandibular joint.
Prerequisite: Admission to the program or permission of program director; Bio 143/144.
- 147 Dental Materials 4:3:3**
A study of the sources, properties, uses and techniques of manipulation of the various materials used in dentistry.
Prerequisite: Admission to the program.
- 148 General and Oral Pathology 4:2:0**
A histopathological study of oral lesions, pathogenic conditions of particular significance to dentistry and principles of general and oral pathology.
Prerequisite: Admission to the program.
- 155 Pre-Clinic 5:3:6**
Theoretical and clinical instruction in oral prophylaxis and preventive procedures. Transfer to patient simulation completed on manikins and class partners.
Prerequisite: Admission to the program.
- 146 Clinic I 4:2:8**
Continuation and mastery of basic oral prophylaxis procedures. Advancement of complete patient care conducted in the dental hygiene clinic.
Prerequisite: Admission to the program; DH 155.
- 221 Dietary Analysis 2:2:0**
Study and application of diet analysis consultation skills in effecting patient behavior change relative to diet and dental disease.
Prerequisite: Admission to the program; HEC 138.
- 223 Periodontology 2:2:0**
Comparative study of normal and diseased periodontium and the effects of structural, functional and environmental agents.
Prerequisite: Admission to the program; Bio 245.
- 224 Pharmacology 2:2:0**
Study of the uses and actions of drugs including drug side effects, contra-indications and oral manifestations.
Prerequisite: Admission to the program; Chem 143, Bio 245.
- 225 Community Dentistry II 2:1:3**
Application of program planning skills enhanced through actual community implementation. Analytical skills concerning critical evaluation of scientific data emphasized through a review of scientific literature.
Prerequisite: Admission to the program; DH 233.
- 233 Community Dentistry I 3:3:0**
Theory and principles of public health including epidemiology, statistics, preventive medicine, health behavior and program planning related to governmental, sociological, environmental and cultural concerns.
Prerequisite: Admission to the program.
- 265 Clinic II 6:3:12**
Advancement of clinical prophylaxis skills applied to periodontally involved patients. Clinic and theoretical framework expanded through the addition of amalgam polishing procedures and diet consultation procedures.
Prerequisite: Admission to the dental hygiene program; DH 155 and 146.
- 266 Clinic III 6:3:12**
Continuation and advancement of dental hygiene skills including advanced scaling and root smoothing procedures. Time utilization emphasized.
Prerequisite: Admission to the program; DH 265.

Radiologic Technology

Program Director: William David Short

The purpose of this program is to prepare students for a career in Radiologic Technology. Each student will be assisted in the pursuit of technical competence through lectures, demonstrations, supervised study and practical experience. A graduate of this two-year instructional program is awarded the Associate of Applied Science degree and becomes eligible to take the American Registry Examination for Radiologic Technology.

Students are accepted into the Radiologic Technology Program in the summer of each year. Admission to the program is based upon evidence of personal, physical, intellectual and emotional characteristics which are assumed to be consonant with a successful career in radiologic technology.

Radiologic Technology application for admission forms, criteria and admission procedures are available from the Radiologic Technology Program director, Ward Health Sciences Building. Applications are due by April 15 of each year.

A minimum grade of "C" (2.0) must be earned in all radiologic technology and science courses for progression in the program. In addition, a grade point average of 2.0 must be maintained in all courses submitted on the degree plan to obtain the Associate of Applied Science degree.

Associate of Applied Science - Radiologic Technology

Recommended Program of Study

First Year

Summer Session I

Bio 143 Anatomy and Physiology	4
HS 121 Health Care Concepts	2
	6

Fall Semester

RA 132 Radiographic Principles	3
RA 143 Radiographic Positioning	4
Math	3
English Composition	3
RA 152 Radiographic Practicum I	5
	18

Summer Session II

Bio 144 Anatomy and Physiology	4
RA 131 Orientation to Radiologic Technology	3
	7

Spring Semester

RA 133 Advanced Positioning & Pathology	3
RA 144 Radiographic Physics	4
English Composition	3
Psy 131	3
RA 154 Radiographic Practicum II	5
	18

Second Year

Summer Session I

RA 234 Radiographic Practicum III	3
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Fall Semester

RA 231 Special Procedures	3
RA 242 Advanced Procedures	4
RA 262 Radiographic Practicum V	6
	13

Summer Session II

RA 235 Radiographic Practicum IV	3
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Spring Semester

RA 236 Radiographic Technology Seminar	3
RA 233 Radiation Biology	3
RA 264 Practicum VI	6
	12

Radiologic Technology Courses (RA)

- | | | |
|------------|--|--------------|
| 131 | Orientation to Radiologic Technology | 3:2:3 |
| | Introduction to Radiology; including history, organization, production of X-rays, radiation protection, dark-room technique, terminology. Examinations performed in radiology department. | |
| 132 | Radiographic Principles | 3:3:0 |
| | Study of basic principles of X-ray production; emphasis on the relationship between milliamperage, kilovoltage, time and distance as related to density and contrast on a radiograph. Film critique and dark room technique. | |
| 133 | Advanced Positioning & Pathology | 3:3:0 |
| | An intensive study in radiographic positioning to include Skulls, trauma, pediatrics and pathology identifications. | |

143	Radiographic Positioning	4:3:4
	Procedures in radiology. Basic, advanced contraindications are explored. Topographic anatomy included.	
144	Radiographic Physics	4:3:2
	Intensive study of electromagnetism, electric transformers, electrical rectification, production of X-rays and the preventive maintenance of X-ray machines.	
152	Radiographic Practicum I	5:0:24
	Introduction to the clinical environment in affiliate hospitals. Rotation through different work centers to observe and assist in the operation of the radiology department. Course requires 24 hrs/week of clinical participation.	
154	Radiographic Practicum II	5:0:24
	Students make standard radiographs under close supervision by a qualified radiologic technologist. Course requires 24 hrs/week in clinical participation.	
231	Special Procedures	3:3:0
	Procedures uncommon to the radiology department. Specialized equipment involved. Anatomy, contrast media and radiographic projections used. Analysis of film quality.	
233	Radiation Biology	3:3:0
	Effects of radiation on the human population, methods of protection and dosimetry. Basic principles of radiation therapy and nuclear medicine.	
234	Radiographic Practicum III	3:0:40
	Clinical study to broaden the students' application of radiographic procedures. Proficiencies in diagnostic radiology will be emphasized. Course requires 40 hrs/week of clinical participation.	
235	Radiographic Practicum IV	3:0:40
	A continuation of Ra 234 with increasing emphasis in diagnostic radiology. Course requires 40 hrs/week of clinical participation. Prerequisite: Ra 234.	
236	Radiologic Technology Seminar	3:3:0
	An indepth study of testing methodology. Also covered will be new advances in the field of radiology.	
242	Advanced Procedures	4:3:2
	Specialized technical procedures in radiology. Basic image detector principles, reducing patient exposure, accessory devices for patient safety, comparison of radiographic tubes, enlargement techniques, comparison of timing devices, mobile or bedside radiography, body section radiography and electronic image systems. Pediatric radiology included.	
262	Radiographic Practicum V	6:0:32
	Rotation through specialized procedure areas during clinical practice under limited supervision. Course requires 32 hrs/week of clinical participation.	
284	Radiographic Practicum VI	6:0:32
	Rotation through specialized areas in a radiology department. Emphasis on job responsibilities and confidence in skill performance. Course requires 32 hrs/week clinical participation.	

Respiratory Technology/Therapy

Program Director: Ginger Tinsley

The purpose of this program is to prepare students for careers in respiratory therapy through lectures, laboratories and clinical experiences aimed at qualifying the student for certification in respiratory therapy. Upon successful completion of the course, the graduate may take the entry level certification 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.).

The student may option to continue into the second year of the program which leads to an Associate of Applied Science degree in Respiratory Therapy. Admission criteria into the second year are: 1) Successful completion of a one-year CAHEA Accredited Respiratory Therapy Technician Program; 2) or Certification by the NBRT as a Certified Respiratory Therapy Technician (CRTT). 3) Completion of application form for two-year AAS degree program.

Upon successful completion of the two-year course, the graduate may take the written registry examination given by the National Board for Respiratory Care. Obtaining a passing grade on the written examination qualifies the graduate to take the Clinical Simulation

Examination. A passing grade on this examination qualifies the individual as a Registered Respiratory Therapist (R.R.T.).

Completed application forms must be submitted to the director of the respiratory technology/therapy program by April 15 of each year. These forms and the admission procedures are available from the program director, Ward Health Sciences Building.

A minimum grade of "C" 2.0 must be earned in all respiratory technology courses for progression in the program. In addition, a grade point average of at least 2.0 must be maintained in all courses to obtain the Certificate of Completion in Respiratory Technology, or the Associate of Applied Science Degree in Respiratory Therapy.

Certificate of Completion - Respiratory Technology

Recommended Program of Study

First Year

Summer Session I		Summer Session II	
Bio 143 Anatomy and Physiology	4	Bio 144 Anatomy and Physiology	4
HS 121 Health Care Concepts	2	RT 131 Orientation to RT Practice	3
RT 123 Basic Respiratory Technology Care	2		
	<u>8</u>		<u>7</u>
Fall Semester		Spring Semester	
RT 121 Clinical Medicine I	2	RT 122 Clinical Medicine II	2
RT 141 RT Procedures I	4	RT 137 RT Procedures II	3
RT 143 RT Sciences	4	RT 138 Cardiopulm Tech	3
RT 160 RT Clinic I	6	RT 161 RT Clinic II	6
	<u>16</u>		<u>14</u>

Second Year

Summer Session I		Summer Session II	
English Composition	3	English Composition	3
RT 232 Card-Pulm-Renal Anatomy & Physiology	3	RT 231 RT Procedures III	33
	<u>6</u>		<u>6</u>
Fall Semester		Spring Semester	
Chem 143 Introductory Chemistry	4	Bio 245 Intro Microbiology	4
Math	3	Physics	4
RT 221 Pulmonary Pathophysiology	2	RT 234 RT Procedures IV	3
RT 233 RT Clinical III	3	RT 235 RT Clinical IV	3
Psy 131	3		
	<u>15</u>		<u>14</u>

Respiratory Technology Therapy Courses (RT)

- 121 Clinical Medicine I** **2:2:0**
Basic pathological process applicable to disease conditions important to the respiratory technician. Emphasis on chronic respiratory diseases.
- 122 Clinical Medicine II** **2:2:0**
Prepares the student for the management of acute respiratory failure in newborn, pediatric, medical, surgical, obstetric and gynecology patients. Respiratory therapy involvement is emphasized.
- 123 Basic Respiratory Technology Care** **2:2:0**
A basic introduction to the concepts of oxygen care, physical examinations, gas modalities and oxygen analyzers.
- 131 Orientation to RT Practice** **3:3:6**
An orientation to the concepts of oxygen manufacture, transport and storage, flow meters, regulators, tanks, humidifiers, oxygen concentrators, and an indepth modul in CPR.
- 137 Respiratory Therapy Procedures II** **3:2:3**
Prepares the student to skillfully operate various volume ventilators and to effectively administer assistance required by medical staff.
Prerequisite: Concurrent enrollment in RT 138, 122, and 161.

- 138 Cardiopulmonary Technology** 3:2:3
Emphasizes the importance of the heart and lungs to respiratory therapy. Relates the cardiopulmonary systems to airway management, cardiopulmonary resuscitation, blood gas analysis, pulmonary function, studies and chest physiotherapy.
- 141 Respiratory Therapy Procedures I** 4:3:4
Instruction and application of techniques and skills necessary to administer common methods of gas, aerosol and humidity therapy. Pharmacology for respiratory therapy discussed in detail and correlated with intermittent positive pressure breathing procedures and equipment.
- 143 Respiratory Therapy Sciences** 4:3:2
Basics of mathematics, chemistry, physics and microbiology as they relate to respiratory therapy principles and procedures.
- 160 Respiratory Therapy Clinic I** 6:0:24
Introduces the student to the respiratory therapy department in clinical facilities. Observation of techniques of therapists and technicians as they perform services. The student will participate in basic respiratory therapy procedures including intermittent positive pressure breathing, aerosol, humidity and gas therapy. Prerequisite: Concurrent enrollment in RT 141, 143 and 121.
- 161 Respiratory Therapy Clinic II** 6:0:24
Clinical application of treatment conditions discussed concurrently in RT 122, 137 and 138. Special emphasis on practice in critical care areas utilizing volume ventilators. Experience in the management of artificial airways, tracheobronchial aspiration, blood gas analysis and pulmonary function testing are included.
- 221 Pulmonary Pathophysiology** 2:2:0
An advanced study of disease with emphasis on the diseases which compromise the function of the respiratory apparatus.
- 231 Respiratory Therapy Procedures III** 2:3:3
Emphasizes advanced pulmonary function studies including nitrogen washout, helium closed circuit, body box, closing volumes, flow volume loops, chest X-ray interpretation, stress testing and heart catheterization.
- 232 Cardiopulmonary/Renal Anatomy & Physiology** 3:3:0
Emphasizes the anatomy and physiology of the heart, circulatory system, respiratory system and the excretory system.
- 233 Respiratory Therapy Clinical III** 0:3:16
Clinical application of therapeutic modalities as related to specific disease entities diagnosed from results of lab tests.
- 234 Respiratory Therapy Procedures IV** 2:3:3
Will be divided into three sections: Pulmonary rehabilitation/ home care; organization and administration of Respiratory Therapy Departments; teaching techniques in Respiratory Therapy.
- 235 Respiratory Therapy Clinical IV** 0:3:16
Clinical rotation will be divided into three sections: a clinical rotation through the pulmonary rehabilitation unit concurrently with a respiratory home care agency; a clinical rotation with the department heads of each affiliating hospital; a clinical teaching rotation.

Department of Nursing

Department Head: Eileen Tiedt

233B Ward Health Sciences Building

Professor: Tiedt

Associate Professor: Taylor

Assistant Professors: Boyd, Esperat, Hale, Hall, Kendall, Malone, Moss, Price-Nealy, Rabalais, Slaydon, J. Smith, P. Smith, Twiname, Wilsker, Wohler

Instructors: Gilmore, Kilpartick, Kirksey, Welch, Usrey-Timms

Instructor II: Rudloff

Instructor I: Mason

Clinical Instructors: Gregory, Kamla, Richard

Nursing education began at Lamar University in 1951, when the Vocational Nursing Program was approved in the College of Technical Arts. Eventually, the way was paved for the development of Registered Nurse preparation. The Associate of Science in Nursing program accepted students in January 1974, and the Bachelor of Science in Nursing Program admitted the first class in January 1976.

Nursing programs differ in their focus on education and clinical practice. It is pertinent then, to state the department's view of nursing education and nursing service.

Basic to the philosophy of the department is the belief that all people have the right to optimal health care. Nursing shares with other health sciences the goal of promoting health for individuals, families, and communities, as well as the responsibility for the care, comfort, and coordination of services to clients experiencing acute, chronic, and terminal illness. To accomplish this goal, nurses function in collaboration with other members of the health team, in a supportive role to the medical plan, and as independent practitioners of nursing. Nurses also function as patient/client advocates. Based on scientific knowledge, caring attitudes and technical skills, nurses focus on promotion of health, prevention of illness and disease. Nursing is concerned with expansion and application of new knowledge and methods of care, and with improvement of health care delivery systems.

To implement this philosophy, the curricula focus on the behavior of people in various levels of wellness. The programs provide understanding of the systems which influence living and care giving, and people's psychology and physiology under normal and pathological conditions. Attaining clinical competence is stressed.

Students of nursing meet course requirements through didactic courses, laboratory assignments, and clinical experiences in health care facilities under supervision of University faculty. Students are expected to adhere to rules and regulations of Lamar University and the various facilities to which they are assigned. Specific policies may be obtained from program directors.

Admission to Department of Nursing Programs

Students enrolled at Lamar University must submit an application for Admission to Nursing programs.

Students not enrolled at Lamar must submit two separate applications: one for admission to Lamar (obtained from the Office of Admissions and Records), and one for admission to the specific program (obtained from the Advising Center, Room 257, Ward Health Sciences Building).

Completed Application for Admission to Nursing programs, with required transcripts, test scores and related documents must be received on specified dates (see program statements to be considered for admission). Applicants are urged to follow application instructions carefully to ensure processing by admission committees.

Applications for Admission are evaluated on the following bases:

1. Admission to the University (Admissions section of this bulletin.)
2. Transcripts and grades in high school and previous college work. Specified test scores may be required.
3. Evidence of physical and emotional capability of completing the program of instruction and clinical practice. Health examinations are required. Forms are available with application forms.
4. Motivation for nursing practice demonstrated through letters of recommendation, employment and volunteer records and references, statement of career goals and, in most cases, a personal interview.
5. Admission may be limited by available space.
6. An overall grade point average of 2.0 for the Associate Degree, 2.5 in the Biological Science courses and 2.0 (minimum of a "C" grade) in all other college work for the Baccalaureate Degree and an SAT score of 550 for the Vocational Nursing certificate, is the minimum required for consideration for admission to these programs. Applicants who exceed the minimum requirements will gain more favorable recognition.

Additional costs above tuition and fees are involved in nursing programs. Uniforms, equipment, instruments, liability insurance, health examinations, special testing fees, course packet fees, additional laboratory fees, and transportation to clinical facilities are the student's responsibility. Financial aids are available for eligible students (see Financial Aid and Awards section of this bulletin.)

Liability insurance and health examinations must be renewed each year of Nursing programs.

Students may be assigned to clinical experiences during day, evening, night, or weekend hours.

Clinical agencies may require additional health examinations, dress codes or conformity with other policies. Students will be informed in advance of such requirements.

Transfer credits from other institutions will be evaluated on an individual basis.

Courses taught during the summer sessions may require different registration procedures.

Bachelor of Science - Nursing

Program Director: Eileen Tiedt

The purpose of the baccalaureate nursing program is to prepare professional nurse practitioners to meet community and state needs for nurses who can assume leadership in the delivery of health care.

The program is designed to prepare the graduate for beginning roles in assessing, planning, implementing and evaluating nursing and health care needs of individuals, families and groups in a variety of settings. This program also lays the foundation necessary for graduate study in clinical specialties, supervision, administration, education, and/or research.

Completion of the program leads to a Bachelor of Science in Nursing degree. Recipients of the degree are eligible to make application to write the examination given by the Board of Nurse Examiners to become a Registered Nurse (RN).

The baccalaureate program also provides an opportunity for Registered Nurses who wish to pursue a Bachelor of Science Degree in Nursing.

Application for admission to the program is made during the spring semester preceding the sophomore year. Students are encouraged to develop and maintain early counseling contact with the department.

Admission to the nursing major follows criteria of the College of Health and Behavioral Sciences. Admission is determined by the Admissions Committee and is based on evaluation of the student's application and available space. To be considered for admission the student must:

- 1) Have a minimum overall grade point average (GPA) of 2.50 in Biological Science and a minimum of a "C" grade in all other prerequisites.
- 2) Have completed all prerequisite courses.
- 3) Submit a complete application and attendant materials to the Admissions Committee by April 15 of the freshman year.

Credit may be earned by examination in selected nursing courses. Criteria for eligibility to take competency/equivalency examinations, fees, policies, procedures and other details may be obtained from the program director, Ward Health Sciences Building.

Students may be required to validate their knowledge of social, psychological or biological science courses which were taken more than 10 years prior to the date of application to the nursing program.

Nursing courses may be repeated once only by special permission, after demonstration of prerequisite knowledge and skills (see program director and/or Student Handbook for specific policies and procedures).

Bachelor of Science - Nursing Major

Recommended Program of Study

First Year

First Semester		Second Semester	
Bio 143 Human Anatomy and Physiology	4	Bio 144 Human Anatomy and Physiology	4
Chm 143 Introduction	4	Chm 144 Introduction	4
Psy 234 Child Psychology	3	Psy 236 Adult Develop. & Aging	3
HEc 138 Principles of Nutrition	3	Soc 131 Introduction to Sociology	3
Eng 131 Composition	3	Eng 132 Composition	3
HPE	1	HPE	1
	<hr/> 18		<hr/> 18

Second Year

First Semester		Second Semester	
Bio 245 Introductory Microbiology	4	Nur 284 Nursing Care of the Adult Client I	8
Mth 1334 College Algebra	3	Nur 232 Pharmacologic Basis of Nursing Practice	3
Nur 221 Concepts Basic to Nursing Practice	2	Eng 231 Literature	3
Nur 253 Concepts and Practice of Clinical Nursing	5	HPE	1
Nur 233 Basic Pathophysiology	3		
HPE	1		
	<hr/> 18		<hr/> 15

Third Year

First Semester		Second Semester	
Nur 328 Ecology of Nursing	2	Nur 331 The Community as a Client	3
Nur 353 Nursing Care of Adult Client II	5	Nur 382 Nursing the Family I	8
Nur 355 Nursing Care of Adult Client III	5	Eng Literature (2)	3
His 231 American History	3	POLS 231 American Government I	3
*Elective (Non Major)	3		
	<hr/> 18		<hr/> 17

Fourth Year

First Semester		Second Semester	
Nur 481 Nursing the Family II	8	Nur 491 Comprehensive Nursing Practice	9
Nur 430 Research Process in Nursing	3	Nur 433 Senior Seminar	3
His 232 American History	3	POLS 232 American Government II	3
*Nur Elective	3	*Elective (non-major)	3
	<hr/> 17		<hr/> 18

*Students are encouraged to take these courses earlier, if possible.

Bachelors Degree Nursing Courses (Nur)

221	Concepts Basic to Nursing Practice	2:2:0
	Introduction to selected concepts which serve as a framework for nursing practice. Beginning integration of content from the natural, physical, and social sciences applied to health care. Prerequisite: Admission to the BSN Program or departmental consent.	
234	Pharmacologic Basis of Nursing Practice	3:3:0
	An introduction to pharmacology, principles of therapeutics and clinical applications. Prerequisite: Departmental consent.	
233	Basic Pathophysiology	3:3:0
	Study of basic pathophysiology with emphasis on disease processes. Focus on implications for nursing practice. Prerequisite: Admission to the BSN program or department consent.	
253	Concepts and Practice of Clinical Nursing	5:3:6
	Beginning application of the nursing process and physical assessment skills. Emphasis on health assessment, maintenance and history taking. Prerequisite: Admission to the BSN Program.	

- 284 Nursing Care of the Adult Client I** **8:4:12**
Application of the nursing process and physical assessment skills, emphasizing planning and intervention skills with adult clients experiencing interference in biological health.
Prerequisite: Nur 221, 233, 253, admission to BSN Program.
- 328 Ecology of Nursing** **2:2:0**
Consideration of nursing from historical perspective to aid understanding of contemporary practice. Emphasis on roles of the nurse. Introduction to legal and ethical issues and to the scientific approach to nursing. Focus on the inter-relatedness of nursing education and practice within the health care system.
Prerequisite: Nur 221, 233, 253, 284 or Departmental consent.
- 3305 Directed Study in Nursing** **3:3:0**
This elective provides the nursing student with an opportunity for individualized study of selected concepts and/or problems in professional nursing. Course may be repeated as content varies.
Prerequisite: Departmental consent.
- 331 The Community as a Client** **3:3:0**
Expands previously presented concepts to include the delivery of health care to large and small groups. Emphasis is given to the concepts of the community as a client within the context of primary, secondary and tertiary health care.
Prerequisite: Departmental consent.
- 336 Oncology Nursing** **3:3:0**
Emphasis is on the bio-psycho-social needs of clients with cancer. Course content includes pathophysiology, diagnosis and staging, modes of therapy, psychosocial problems, the nurse's role and support groups.
Prerequisite: Departmental consent.
- 345 Physical Assessment** **4:3:3**
Clinical laboratory and classroom experience in applying physical assessment skills. Appropriate for junior and senior nursing students.
Prerequisite: Nur 233 or departmental consent.
- 353 Nursing Care of the Adult Client II** **5:2:9**
A continuation of Nur 284, with emphasis on the adult client experiencing interference with biological health.
Prerequisites: Nur 253, 284.
- 355 Nursing Care of the Adult Client III** **5:3:6**
Application of nursing process, emphasizing planning and intervention skills with adult clients experiencing interferences in psychological health.
Prerequisites: Nur 253, 284.
- 382 Nursing Care of the Family I** **8:3:15**
Application of nursing process, emphasizing health maintenance of clients and families in community settings.
Prerequisite: Nur 253, 284, 353, 355.
- 4301 Special Topics Nursing** **3:3:0**
Nursing elective introducing topics related to health care. Designed to expand the student's professional role in various health care settings and areas of specialization.
Prerequisite: Departmental Consent.
- 4305 Directed Study in Nursing** **3:3:0**
This elective provides the senior nursing student with an opportunity for individualized study of selected concepts and/or problems in professional nursing. The course may be repeated as the content varies.
Prerequisite: Departmental consent.
- 430 Research Process in Nursing** **3:3:0**
Introduction to the philosophy and values of research, the major methods of conducting investigations and the application of research findings to nursing and health care.
Prerequisite: Departmental consent.
- 431 Clinical Elective in Nursing** **3:1:6**
Opportunity to expand knowledge of theory and practice in selected areas of nursing. Course may be repeated as content varies.
Prerequisite: Departmental consent.
- 432 Nursing of Children in Crisis** **3:3:0**
Use of the nursing process in the care of children and their families facing crisis. This course covers the dynamics of the crisis situation and the adaptive responses of the child and family.
Prerequisite: Departmental consent.
- 433 Senior Seminar** **3:3:0**
Provides the senior nursing student the opportunity to study and discuss complex nursing and health care issues.
Prerequisite: Department consent.

- 435 Managing Time and People** **3:3:0**
 A lecture-discussion and clinical practice course designed for nurses in management positions. Emphasis on solving on-the-job problems through application of practical management strategies. Focus on improving time management skills, including setting priorities, increasing job and life satisfaction. Includes management skills in delegating and evaluation of personnel. Strategies for coping with people and situations which cause problems for nurse managers. Students will choose current on-the-job problems and devote on-duty time to their resolution.
Prerequisite: Employment in a managerial position, or department consent.
- 436 Occupational Health Nursing** **3:3:0**
 Considers occupational health nursing from a variety of viewpoints. Analysis of current and projected trends and continuing need to assure industrial workers maximal level of wellness, safe work environment, and optimal production.
Prerequisite: Departmental consent.
- 442 Emergency and Disaster Nursing** **4:2:6**
 A lecture/discussion and clinical practice course designed to provide theory and practice for students interested in emergency and disaster nursing.
Prerequisite: Departmental consent.
- 481 Nursing Care of the Family II** **8:3:15**
 Application of nursing process emphasizing health restoration and rehabilitation of clients and families in the childbearing and childrearing cycles.
Prerequisite: Nur 382.
- 491 Comprehensive Nursing Practice** **9:3:18**
 Application of nursing process to comprehensive nursing care. Leadership and management of nursing service delivery systems.
Prerequisite: Nur 481, 430.

Associate of Science - Nursing

Program Director: Doris J. Price-Nealy

The purpose of the Associate of Science degree nursing program is to prepare a practitioner for beginning roles in assessing, planning, implementing, and evaluating, with assistance, the nursing and health care needs of clients in the hospital setting.

The associate degree nursing program may be completed in two calendar years. Students receive classroom instruction and supervised clinical experience in the nursing care of patients at local hospitals and community agencies. Each recipient of the degree is eligible to make application to write the state licensing examination given by the State Board of Nurse Examiners to become a registered nurse (RN).

A minimum grade of "C" must be maintained in all nursing and science courses for admission and progression in the program, as well as to obtain the Associate of Science degree. For progression in the program an overall GPA of 2.0 must be maintained in all course work. A student who fails to perform satisfactorily in clinical practice will receive a failing grade in the nursing course regardless of the theory grade. Nursing courses may be repeated once by special permission, after demonstration of prerequisite knowledge and skills (see program director and/or Student Handbook for specific policies and procedures).

To be considered for admission, the student must submit an application to the admissions committee of the associate degree nursing program by April 15 of each year. This form, and information concerning admission procedures may be procured from the Advising Center, Room 257, Ward Health Science Building. The student must also complete the required courses offered in Summer Session I and Summer Session II with a grade of "C" or better. Students are encouraged to develop and maintain early counseling contact with the department. Admissions is determined by the Admissions Committee and is based on evaluation of the student's application and available space.

Associate of Science - Nursing

Recommended Program of Study

First Year

Summer Session I		Summer Session II	
HS 121 Health Care Concepts	2	Nur 132 Basic Nursing Skills	3
Bio 143 Human Anatomy and Physiology	4	Bio 144 Human Anatomy and Physiology	4
PE Activity	1-2		
	7-8		7
Fall Semester		Spring Semester	
Eng 131 Composition	3	Bio 245 Microbiology	4
Psy 131 Introduction	3	Eng 132 Composition	3
Nur 161 Mental and Physical Health	6	Nur 172 Nursing Adult Client I	7
POLS 231 American Government I	3	His 231 American History	3
	15		17
Summer Session I and II			
Nur 281 Maternity Nursing	8		

Second Year

Fall Semester		Spring Semester	
Nur 282 Nursing Child Client	8	Nur 283 Nursing Adult Client II	8
POLS 232 American Government II	3	His 232 American History	3
PE Activity	1-2	Eng Literature	3
Soc 131 Introduction	3		
	15-16		14

Associate Degree Nursing Courses (Nur)

132 Basic Nursing Skills	3:2:3
Focuses on the development of basic nursing skills, mathematical and measurement skills and terminology. Required for all ADN applicants.	
161 Mental and Physical Health I	6:3:12
Introduction to nursing concepts which form the framework for the nursing process. Includes physiology, nutrition, pharmacology, mental health, growth and development. Emphasis on technical, observational, and communication skills needed for effective nursing care.	
<i>Prerequisite: Nur 132, admission to ADN program.</i>	
172 Nursing Care of the Adult Client I	7:3:16
Continues integration of concepts basic to the nursing process. Emphasis on application of nursing process to care of hospitalized adults with disturbances in physical or mental health.	
<i>Prerequisite: Nur 161.</i>	
281 Maternity Nursing	8:4:16
Application of concepts basic to the nursing process to the hospitalized maternity client. Emphasis on physiology, growth and development, emotional and environmental influences on childbearing.	
<i>Prerequisite: Nur 172.</i>	
282 Nursing Care of the Child Client	8:4:16
Application of concepts basic to the nursing process to the hospitalized child.	
<i>Prerequisite: Nur 281.</i>	
283 Nursing Care of the Adult Client II	8:3:20
Application of all concepts included in the nursing process to hospitalized adults with complex disturbances in physical and mental health. Introduction to management in hospital nursing service.	
<i>Prerequisite: Nur 282.</i>	

Vocational Nursing

Program Director: Sandra Boyd

Vocational Nurses provide basic nursing care under the direct supervision of a Registered Nurse or physician. Upon successful completion of the program, graduates receive a certificate of completion and are eligible to make application to write the examination given by the State Board of Vocational Nurse Examiners to become a Licensed Vocational Nurse (LVN).

Vocational nursing classes begin in the Fall and Spring Semesters with application deadlines being July 1 and November 1 of each year. To be considered for admission applicants must submit an SAT score of at least 550 or an ACT score of at least 11. Application forms and procedures are available from the Advising Center, Room 257, Ward Health Sciences Building.

A minimum grade of "C" must be obtained in theory courses and an "S" (Satisfactory) in all clinical courses for progression in the program. Vocational nursing courses may be repeated once by special permission.

Vocational Nursing

Recommended Program of Study

First Semester	
VN 175 Nursing Skills I	7
VN 144 Anatomy	4
VN 122 Nutrition	2
VN 166 Clinical Practice I	6
	19

Second Semester	
VN 163 Nursing Skills II	6
VN 136 Medical Surgical Nursing I	3
VN 133 Pharmacology	3
VN 167 Clinical Practice II	6
	18

Third Semester	
VN 137 Medical Surgical Nursing II	3
VN 138 Obstetrical Nursing	3
VN 139 Pediatric Nursing	3
VN 121 Personal and Vocational Adjustments	2
VN 168 Clinical Practice III	6
	17

Vocational Nursing Courses (VN)

121	Personal and Vocational Adjustments Introduction to health care delivery systems, professional organizations, mechanics of licensure and transition to graduate status.	2:2:0
122	Nutrition and Diet Therapy 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.	2:2:0
133	Pharmacology This course is designed to introduce the student to pharmacology and the administration of medicines.	3:3:0
136	Medical Surgical Nursing I Specific theory in the diseases and conditions of integumentary, special sensory, respiratory, endocrine, muscular and cardiovascular systems.	3:3:0
137	Medical Surgical Nursing II Specific theory in the disease and conditions of gastrointestinal, genitourinary, male and female reproductive, nervous and skeletal systems.	3:3:0
138	Obstetrical Nursing Specific theory on the care of mothers and newborn infants.	3:3:0
139	Pediatric Nursing Specific theory on the care of sick children.	3:3:0
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.	4:4:0
163	Nursing Skills II Continuation of basic care skills, adding more complex skills such as drug administration, sterile technique and assisting with special procedures.	6:2:8
166	Clinical Practice I Introduction to basic needs of hospitalized adults and children.	6:0:24
167	Clinical Practice II Refinement of skills presented in Clinical Practice I with emphasis on nursing care needs of adults and children experiencing common medical-surgical problems.	6:0:24
168	Clinical Practice III Continues development of skills from previous Clinical Practice with introduction to basic care of the obstetrical patient and newborn infant.	6:0:24

175 Nursing Skills I

7:2:8

Presentation of basic patient care skills; basic microbiology; mental health and illness; personal and professional ethical and legal responsibilities.

Department of Psychology

Department Head: Richard G. Marriott

103 Psychology Building

Professors: Barrington, Bell

Associate Professors: Die, Esser, Marriott, Walker

Assistant Professors: Dippel, Lindoerfer, Shaheen

Bachelor of Arts - Psychology Major

The degree of Bachelor of Arts in Psychology will be awarded upon completion of the following:

1. General Requirements:
 - English Composition six semester hours
 - Literature six semester hours
 - Mathematics six semester hours
 - (A minimum of 3 semester hours at or above the level of Mth 1334)
 - Biology 141-142 General eight semester hours
 - Foreign Language 12 semester hours completion of the 232 course in a foreign lanaguage
 - Political Science 231, 232 American Government six semester hours
 - Sophomore American History six semester hours
 - Physical Activity four semesters
2. Major:
 - Psychology 131 Introduction to Psychology
 - Psychology 241 Statistical Methods in Psychology
 - Psychology 342 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 Biology 8	Eng Literature 6
Eng Composition 6	Foreign Language 6
Foreign Language 6	His Sophomore American History 6
Mth 6	Psy 241 Introduction to Statistical Methods 4
Psy 131 Introduction to Psychology 3	Electives 8
PE Activity 2-4	PE Activity 2-4
31-33	32-34
Third Year	Fourth Year
POLS 231, 232 American Government I, II 6	Psy, Advanced 9
Psy 342 Methods in Psychology 4	Minor 9
Psy Advanced 3 hrs 6	Electives 12
Minor 9	
Electives 6	
31	30

Total 126 Hours

Bachelor of Science - Psychology Major

The degree of Bachelor of Science in Psychology will be awarded upon completion of the following:

1. General Requirements:
 - English Composition six semester hours
 - Literature six semester hours
 - *Mathematics 6-12 semester hours; completion of Mth 236, 237 or the equivalent, maximum of 6 semester hours in computer science may be substituted for the 200 level mathematics courses upon completion of six semester hours in mathematics including Mth 1335.
 - Biology 141-142 General eight semester hours
 - Political Science 231, 232 American Government six semester hours
 - Sophomore American History six semester hours
 - Science eight semester hours (Geo 141-142; Che 141-142; or Phy 141-142)
 - Physical Activity four semesters
2. Major:
 - Psychology 131 Introduction to Psychology
 - Psychology 241 Statistical Methods in Psychology
 - Psychology 342 Methods in Psychology
 - Psychology 443 Experimental Psychology
 - Psychology Additional 18 semester hours, to include nine semester hours selected from Psychology 331, 332, 333 and 432 and nine semester hours selected from Psychology 336, 431, 436, and 438.
3. Minor:
 - An approved minor of 18 semester hours a minimum of six semester hours must be on the advanced level
4. Electives:
 - A sufficient number of approved electives to complete a total of 128 semester hours.

Recommended Program of Study

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Minor	6																																																																								
Electives and other Psy	9																																																																								
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31																																																																									

*Deviations from the Mth 236, 237 sequence require prior approval of department head.

*** Bachelor of Science in Psychology**

*** Bachelor of Science in Biology**

First Year	
Bio 141, 142 General Biology	8
Chm 141, 142 General	8
Eng Composition	6
Mth 1335 Precalculus Mathematics	3
Psy 131 Introduction to Psychology	3
Psy 241 Introduction to Statistical Methods	4
PE Activity	2-4

34-36

Summer	
POLS 231, 232 American Government I, II	6
PE Activity	2-4
Electives	6

14-16

Third Year	
His Sophomore American History	6
Phy 141, 142 General	8
Bio 347 Genetics	4
Bio 345 Botany	4
Psy 443 Experimental Psy	4
***Psy Advanced	9

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Second Year	
Chm 341, 342 Organic	8
Bio 240 Comparative Anatomy or 444 Vertebrate Natural History	4
Bio 245 or 243 Microbiology	4
Psy 342 Methods	4
Eng Soph Literature	6
Mth 236 Calculus I	3
Mth 237 Calculus II or CS 131	3
***Psy Advanced	3

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Fourth Year	
Bio 346 Invertebrate Zoology	4
Bio 417 Classical Biological Literature	2
**Bio Electives	12
***Psy Advanced	6
Electives	13

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*Both degrees must be awarded simultaneously.

**Biology electives chosen from Bio 342, 344, 446, 447.

***Advanced Psychology elective: Group I (choose any three): Psy 331, 332, 333, 432; Group II (choose any three): Psy 336, 431, 436, 438.

Psychology Courses (Psy)

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.	3:3:0
132	Fields of Applied Psychology A survey of the major fields of applied psychology such as personal and vocational adjustment, industrial-organizational psychology, consumer psychology and environmental psychology. Emphasis is on ways in which the principles of psychology can be applied to practical problems in life and work. Prerequisite: Psy 131.	3:3:0
234	Child Psychology A study of the growth and development of behavior patterns in children.	3:3:0
235	Adolescent Psychology A study of the growth and development of behavior patterns in adolescents.	3:3:0
241	Introduction to Statistical Methods Statistical concepts and techniques used in behavioral science research. Topics include graphs, measures of position, central tendency and dispersion, correlation and regression, probability, tests of significance and introduction to non-parametric techniques.	4:3:2
342	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. Prerequisite: Psy 131 and 241.	4:3:2
330	Psychology of Communication A study of the theory, structure and function of communication patterns in various group settings. Prerequisite: Psy 131.	3:3:0
331	Systems and History of Psychology Historical development of psychology. Emphasis on the evolution of major systems of psychology. Prerequisite: Psy 131.	3:3:0

- 332 Psychology of Personality** **3:3:0**
A study of several of the major theories of personality organization and adjustment processes.
Prerequisite: Psy 131.
- 333 Psychology of Social Interaction** **3:3:0**
Investigation of psychological basis of interpersonal behavior. Emphasis is on the study of individual experience and behavior in relation to the social environment, and how individual behavior both affects and is affected by social interaction.
Prerequisite: Psy 131.
- 334 Industrial Psychology** **3:3:0**
Introduction to Psychological processes and techniques as they apply in industrial settings. Emphasis on selecting, training and evaluating workers. Emphasis also on organizational influences on behavior.
Prerequisite: Psy 131
- 335 Motivation** **3:3:0**
A study of contemporary concepts, theories and research in motivation.
Prerequisite: Psy 131.
- 336 Psychological Tests and Measurements** **3:3:0**
Theory and use of instruments for measurements of intelligence, interests, aptitude and attitudes.
Prerequisite: Psy 131, 241 or equivalent or permission of instructor.
- 337 Psychology of Adjustment** **3:3:0**
A study of normal adjustment and commonly used defenses against anxieties.
- 339 Psychology and Biology of Sexuality** **3:3:0**
Understanding of human sexuality through progressive study of conception and birth, through the development of sex roles, to the acquisition of sexual maturity and functioning in society. Credit may not be received for both Bio 339 and Psy 339.
- 410, 420, 430 Undergraduate Research** **1-3:A:0**
Designed to provide an opportunity for advanced psychology students to pursue an individual research project under the direction and supervision of a faculty member. May be repeated for credit.
Prerequisite: 9 hours of psychology and permission of instructor.
- 4201, 4301 Special Topics in Psychology** **2-3:A:0**
Topics in developmental, physiological, social, differential, experimental, quantitative, cognitive or clinical psychology. Includes library and/or laboratory work and conferences with a staff member. A description of the particular area of study will be indicated. A student may repeat the course for credit when the area of study varies.
- 431 Sensation and Perception** **3:3:0**
A review of research and theory regarding the structure and function of the basic sensory processes and sensory perception.
Prerequisite: Psy 131.
- 432 Abnormal Psychology** **3:3:0**
A study of abnormal behavior. Special emphasis on the symptomatology, etiology and therapeutic approaches.
Prerequisite: Psy 131.
- 434 An Introduction to Group Psychotherapy** **3:3:0**
An introduction to the theory and techniques of group psychotherapy. Instruction will be combined with experimental learning of the basic skills used in group psychotherapy.
Prerequisite: Psy 131.
- 435 Leadership and Group Dynamics** **3:3:0**
A study of the nature, evaluation and utilization of intra and inter-personal forces producing behavior in various group structures.
Prerequisite: Psy 131.
- 436 Learning** **3:3:0**
Theories and research concerning learning processes, with a consideration of practical implications.
Prerequisite: Psy 131.
- 438 Physiological Psychology** **3:3:0**
Survey of the physiological bases of behavior with emphasis on the mechanisms in the central nervous system.
Prerequisite: Psy 131.
- 439 Contemporary Problems in Psychology** **3:3:0**
A critical and comprehensive examination of current problems in selected areas of psychology. Topics will vary from semester to semester.
Prerequisite: Nine hours in psychology or permission of instructor. May be repeated for credit when topics vary.
- 443 Experimental Psychology** **4:3:2**
Techniques to demonstrate and investigate concepts in psychology. Includes planning and executing an original research project.
Prerequisite: Psy 342.



College of Technical Arts

Departments: Adult Training, Industrial, Related Arts, Technical
Kenneth E. Shipper, Ph.D., Dean

The College of Technical Arts provides technical and industrial education for thousands of men and women from Texas, other states and many foreign countries. It is housed in a modern plant consisting of six buildings containing 125,000 feet of classroom, shop and office space. The Cecil R. Beeson Technical Arts classroom and office building was completed for occupancy for the fall of 1977. Parking for 480 cars is provided adjacent to these buildings. Entrance to this area, located in the 4400 block of Spur 380 Beaumont-Port Arthur Highway, is on Lavaca Street. The Port Arthur and Orange campuses also offer similar courses and programs.

An Associate of Applied Science degree is awarded at the Beaumont campus in the following fields of study: business data processing; child care technology; computer drafting technology; computer electronics and robotics technology; diesel mechanics; fire protection technology; electrical technology; industrial electronics technology; industrial supervision; instrumentation technology; mid-management; machine tools; occupational safety and health; property tax administration; refrigeration and air conditioning technology; real estate; and welding.

A student may earn a diploma for satisfactorily completing appliance repair; electronics; or office occupations.

The child care technology, industrial supervision, occupational safety and health, plant maintenance plate welding, real estate, and refrigeration programs have provisions for offering a Certificate of Completion when the specified course requirements have been satisfied.

Associate Degree Programs

The College of Technical Arts offers career-oriented education in 17 degree programs in four departments in the College.

Adult Training Programs

- Child Care Technology
- Electrical Technology
- Fire Protection Technology
- Instrumentation Technology
- Occupational Safety and Health

Industrial Department

- Diesel Mechanics
- Machine Tools
- Refrigeration and Air Conditioning Technology
- Welding

Related Arts Department

- Business Data Processing
- Industrial Supervision
- Mid-Management
- Property Tax Administration
- Real Estate

Technical Department

- Computer Drafting Technology
- Industrial Electronics Technology
- Computer Electronics and Robotics Technology

Lamar University - Orange

- Drafting Technology
- General Secretary
- Industrial Electronics Technology

Industrial Supervision
Mid-Management
Real Estate
Technical Accounting
Welding

Lamar University - Port Arthur

Automotive Body Repair
Automotive Mechanics
Business Data Processing
Child Care Technology
Drafting Technology
Electronics Technology
General Secretary
Legal Secretary
Medical Secretary
Mid-Management
Welding
Word Processing

All of the above two-year programs are designed to give the student training prior to entry into an occupation. Successful completion of one of these programs should provide the student with sufficient knowledge, skill and confidence to enter and advance rapidly in a selected field.

The curriculum of each program is designed to allow a student to enter in any semester and is arranged so that a student can take supporting work in either the College of Technical Arts or in other colleges in the University.

Course descriptions and further information about the College of Technical Arts are included in a separate bulletin. Requests for copies of the College of Technical Arts catalog should be addressed to the Office of the Dean, College of Technical Arts, Box 10043, Lamar University Station, Beaumont, Texas 77710.



College of Graduate Studies

Charles P. Turco, Ph.D., Dean
Howell H. Gwin, Jr., Ph.D., Director

The Graduate College

The Dean of the College of Graduate Studies and Research is responsible for the direction of graduate programs of the University. The Dean is assisted by the Graduate Council, a body that serves in an advisory capacity to the Dean. The Council consists of representatives from each College offering graduate degrees.

Degrees Offered

Master of Arts in

English
History
Political Science

Master of Business Administration

Master of Education in

Elementary Education
Guidance and Counseling
School Administration
Secondary Education
Special Education
Supervision

Master of Engineering

Master of Engineering Management

Master of Engineering Science

Master of Music

Master of Music Education

Master of Public Administration

Master of Science in

Biology
Chemistry
Computer Science
Deaf Education
Health and Physical Education
Home Economics
Mathematics
Psychology
Speech Communication
Theater
Speech Pathology/Audiology

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, College of Graduate Studies and Research, Lamar University, Box 10004, Lamar University Station, Beaumont, Texas 77710.

Admission to a Degree Program

1. For admission to a degree program the applicant must meet the following minimum standards and have submitted the following credentials to the Office of Admissions and Records at least 30 days before registration.
 - A. An applicant must hold a bachelor's degree from an institution approved by a recognized accrediting agency.
 - B. An official transcript sent directly from each college previously attended.
 - C. Scores on the aptitude section of the Graduate Record Examination (GRE) are sent directly to the Office of Admissions and Records by the Educational Testing Service. The Lamar Testing and Counselling Center, located in the Wimberly Student Affairs Building, administers the GRE. Application forms and information about the GRE are available at this center. Applicants for the Master of Business Administration are not required to take the GRE, but must take the Graduate Management Admission Test. (See the College of Business section of the Graduate Bulletin for specific requirements).

NOTE: GRE, GMAT, or NTE scores more than five years old will be accepted only by special permission of the Graduate Dean/Director.

- D. Applicants for the Doctor of Engineering degree should write a letter to the Dean of the College of Engineering. This letter should include information about the applicant, engineering experience, present employment and chief interests. Applicants should also indicate what type of work they would like to undertake for their field study.
- E. An application for admission sent to the Office of Admissions and Records.
- F. The applicant's undergraduate grade point average and GRE scores must be above the minimum standard established by the college of Graduate Studies. For all students, except those wishing to pursue the Master of Business Administration degree, one of the following requirements for admission must be met:
 - (1) A minimum overall grade point average of 2.5 on a four point scale, and a minimum composite score, (verbal, quantitative and analytical), of 1100 on the aptitude section of the GRE.
 - (2) A minimum grade point average of 2.5 on the last 60 hours of undergraduate course work and a minimum composite score of 1100 on the aptitude section of the GRE.
 - (3) A grade point average lower than 2.5 but with a score of at least 540 on an appropriate section of the GRE aptitude test. A composite score of 1100 is also required. Departmental requirements are as follows:

540 in either V or Q	540 in V	540 in Q
Biology	English	Audiology
Education	History	Chemistry
HPED	Speech	Engineering
Home Economics	Speech Pathology	Mathematics
Music		Computer
Political Science		Science
Psychology		
Public Administration		
 - (4) A minimum overall grade point average of 2.5 on a four point scale and a score at or above the 25th percentile on the appropriate Advanced Test of the GRE, (appropriate test will be determined by the department in which the graduate program is offered), or, in the case of students applying to the College of Education; a score at or above the 25th percentile on the appropriate Area Exam of the National Teachers Examination. Stu-

- dents admitted under this option must submit GRE aptitude scores before admission.
- (5) A minimum overall grade point average of 3.0 on all work and the recommendation of the department in which the graduate program is offered. Students admitted under this option must submit GRE scores before admission.
 - (6) The Graduate Council has approved higher standards for admission to some programs. These are stated in the particular departmental section of this Bulletin.
2. Students wishing to pursue the Master of Business Administration degree should refer to the College of Business section of the Graduate Bulletin for specific requirements.
 3. Admission requirements for international students are evaluated on an individual basis after the following information is received:
 - A. An official transcript from each college previously attended. Complete and official English translations must be furnished along with the certified copies of the transcripts.
 - B. Scores on the aptitude section of the GRE and scores on the Test of English as a Foreign Language, (TOEFL), must be submitted. In general, an international student whose native language is not English is expected to score 500 or above on the **TOEFL** and over 1100 on the aptitude section of the GRE. Application form, test scores, financial statement and complete educational records for international students must be on file by the dates indicated: term beginning in August, by June 15; January, by November 1; June by March 15.
 - C. An original statement of financial resources. The University provides a form for this purpose. Other forms will not be accepted.
 4. Any other applicant whose native language is not English and who attended foreign secondary schools, colleges, or universities must submit **TOEFL** scores of 500 or above in addition to the requirements stated above. Individual departments may require even higher scores.
 5. Students who wish to pursue graduate work in any area for which they have not had the prerequisites will be required to make up deficiencies as required by the Graduate Council. In general, the student is required to have a minimum of 24 semester hours, (12 of which must be on the junior-senior level), of undergraduate work in the subject chosen as the graduate major. For a minor, 12 semester hours of undergraduate work are required.
 6. Admission to the College of Graduate Studies does not imply candidacy for a degree.
 7. The dean of admissions will notify the applicant of admission to the College of Graduate Studies. All transcripts, certificates, etc. become the property of Lamar University and are not returnable.
 8. Admission requirements stated above are minimum requirements. The applicant must also have the approval of the departments in which the degree program is offered and must meet the specific requirements of that department.

Post Baccalaureate Admission

1. Students who wish to take graduate courses but do not wish to be admitted to the College of Graduate Studies, or who have not met all requirements for admission to the College of Graduate Studies, may be admitted as Post Baccalaureate students in one of the undergraduate colleges under the following conditions:
 - A. The applicant must hold the bachelor's degree.
 - B. The applicant must submit an application for admission to the Post Baccalaureate program.
 - C. The applicant must submit official transcripts from each college previously attended.
 - D. The applicant must be approved for admission by the dean of admissions.
2. International students will not be admitted as Post Baccalaureate students.
3. If application for admission to a graduate degree is received in a subsequent semester and requirements for admission to the College of Graduate studies are completed, a maximum of 12 semester hours previously completed may be counted for degree credit with the approval of the department and the Graduate Dean/Director.
4. No post baccalaureate student may apply more than 12 hours toward a graduate degree.
5. Post baccalaureate students are not permitted to enroll in Business courses for graduate credit without the prior permission of the Graduate Coordinator, College of Business.



Directory of Personnel 1986-87

Faculty 1986-87

The following list reflects the status of the Lamar University faculty as of spring 1986. The date following each name is the academic year of first service to the University and does not necessarily imply continuous service.

- Achilles, Robert F. 1963, *Regents' Professor of Communication*
B.S., McPherson College; M.A., Ph.D., Wichita State University; A.S.H.A. Certification and Licensure in Speech Pathology
- Adams, Eugenia C. 1984, *Instructor, Reference Librarian*
B.S., Southwestern University; M.L.S., University of Texas
- Akers, Hugh A. 1977, *Associate Professor of Chemistry*
B.S., University of California, Riverside; Ph.D., University of California-Berkeley
- Allen, Charles L. 1979, *Associate Professor of Economics*
B.A., East Texas State University; M.A., Ph.D., University of Arkansas
- Allen, Joel L. 1960, *Assistant Professor of Economics*
B.S., Arkansas Agricultural and Mechanical College; M.S., Baylor University
- Altomose, John R., Jr. 1973, *Professor of Criminal Justice*
A.B., Davidson College; M.Ed., Lamar University; M.A., Ph.D., Sam Houston State University
- Amberg, Julie S. 1984, *Adjunct Instructor of English*
B.A., Boston University; M.A., University of Michigan
- Amornthanormchoke, Bung-Orn 1984, *Adjunct Instructor of Mathematics*
B.S., Chulalongkorn University; M.S., Lamar University
- Anderson, Adrian N. 1967, *Professor of History; Head, Department of History*
B.S., M.A., Ph.D., Texas Tech University
- Anderson, Virginia N. 1960, *Associate Professor of Home Economics*
B.S., Georgia State College for Women; M.Ed., Trinity University
- Aronow, Saul 1955, *Professor of Geology*
B.A., City University of New York, Brooklyn College; M.S., State University of Iowa; Ph.D., University of Wisconsin
- Asteris, Mark M. 1985, *Instructor of Media Services*
B.A., King's College; M.L.S., Villanova University
- Atherton, Frieda L. 1976, *Assistant Professor of Dental Hygiene; Director, Dental Hygiene Program*
B.S., Baylor University; M.S., University of Missouri-Kansas City; Registered Dental Hygienist
- Babin, L. Randolph 1968, *Assistant Professor of Music*
B.M.Ed., M.M.Ed., Louisiana State University
- Bailey, P. Gail 1975, *Assistant Professor of Dental Hygiene*
B.S., M.Ed., Lamar University; Registered Dental Hygienist
- Baj, Joseph A., II 1964, *Associate Professor of Mathematics*
B.A., Kent State University; M.A., University of Texas
- Baker, B. Joanne 1981, *Visiting Assistant Professor of Mathematics*
B.A., Lamar University; M.A., Ph.D., University of Texas at Austin
- Baker, Barbara C. 1983, *Instructor I of Related Arts*
B.A., M.A. University of Southwestern Louisiana
- Baker, Christopher P. 1976, *Associate Professor of English; Director, Freshman English*
B.A., St. Lawrence University; M.A., Ph.D., University of North Carolina
- Baker, Mary Alice 1969, *Associate Professor of Communication*
B.S., M.A., University of Oklahoma; Ph.D., Purdue University
- Ball, John 1985, *Assistant Professor of Radiologic Technology*
B.S., Midwestern University; M.Ed., Sam Houston State University; Registered Radiographer

- Barbre, Al 1983, *Lecturer in Physical Education and Assistant Basketball Coach*
B.S., M.S., Stephen F. Austin State University
- Barlow, H. A. 1951, *Regents' Professor, Associate Professor of Accounting*
B.S., Louisiana Tech University; M.B.A., Louisiana State University; Certified Public Accountant
- Barnes, Cynthia 1982, *Assistant Professor of Office Administration*
B.S. Howard Payne University; M.Ed., Texas Tech University; Ed.D. North Texas State University.
- Barnes, Robert J. 1960, *Regents' Professor of English*
B.A., M.A., University of Kansas; Ph.D., University of Texas
- Barrington, Billy Ray 1967, *Professor of Psychology*
B.S., Southwest Texas State University; M.Ed., Sam Houston State University; Ph.D., University of Houston
- Bean, Wendell C. 1968, *Professor of Electrical and Nuclear Engineering*
B.A., B.S., Lamar University; M.S., Ph.D., University of Pittsburgh; Registered Professional Engineer
- Bechler, David L. 1981, *Assistant Professor of Biology*
B.A., Indiana University; M.S., Northeast Louisiana University; Ph.D., St. Louis University
- Bell, Alice C. 1971, *Professor of Health, Physical Education and Dance; Associate Athletic Director; Acting Head, Department of Health, Physical Education and Dance*
B.S., M.A., Ph.D., Texas Woman's University
- Bell, Myrtle L. 1963, *Professor of Psychology; Dean, College of Health and Behavioral Sciences*
B.S., M.S., Texas A&I University; Ed.D., University of Texas
- Bennett, Richmond O. 1957, *Professor of Accounting*
B.S., M.S., Texas A&M University; Ph.D., University of Texas; Certified Public Accountant
- Berthiaume, Gerald B. 1978, *Assistant Professor of Music*
B.M., University of Puget Sound; M.M., New England Conservatory of Music
- Berzsenyi, George 1969, *Professor of Mathematics*
B.A., University of Dallas; M.S., Ph.D., Texas Christian University
- Bingham, Drake 1985, *Associate Professor of Communication*
B.A., Northwestern State College; M.A., University of Oklahoma; Ph.D., Southern Illinois University
- Birdwell-Pheasant, Donna 1984, *Assistant Professor of Anthropology*
B.A., M.A., Ph.D., Southern Methodist University
- Black, Geoffrey 1985, *Adjunct Instructor of English*
B.A., M.A., University of Wisconsin-Madison
- Bonton, Donald R. 1981, *Instructor I of Computer Drafting Technology*
A.A.S., Lamar University
- Boughton, James K. 1980, *Adjunct Associate Professor of Mechanical Engineering*
B.S., Illinois Institute of Technology; M.S., Lamar University; Registered Professional Engineer
- Boyd, Sandra M. 1979, *Assistant Professor of Nursing; Director, Vocational Nursing Program*
B.S.N., Wayne State University; M.S., University of Houston; Registered Nurse
- Brenizer, Joan E. 1957, *Associate Professor of Mathematics*
B.S., Lamar University; M.A., University of Texas
- Brentlinger, W. Brock 1969, *Professor of Communication; Dean, College of Fine Arts and Communication*
B.A., Greenville College; M.A., Indiana State University; Ph.D., University of Illinois
- Briggs, Kenneth R. 1966, *Regents' Professor of Education; Director, Lamar University Teacher Center*
B.S., M.Ed., Ed.D., North Texas State University
- Brooks, Alvin 1982, *Lecturer in Physical Education; Assistant Basketball Coach*
A.S. Henderson Junior College; B.A., Lamar University
- Brunson, Richard W., 1982, *Associate Professor of Management*
B.S., U.S. Military Academy; M.B.A., Babson College; Ph.D., Michigan State University

- Brust, Melvin F. 1978, *Associate Professor of Finance*
B.S.E.E., M.S.E.E., University of Texas; Ph.D., North Texas State University; Registered Professional Engineer
- Bryan, George A., Jr. 1964, *Assistant Professor of Biology*
B.S., University of Texas at El Paso; M.S., Pennsylvania State University
- Burke, Charles M. 1970, *Professor of Education; Director, Lamar Early Access Program*
B.A., Southeastern Louisiana University; M.Ed., Louisiana State University; Ed.D., University of Southern Mississippi
- Burke, William T. III 1982 *Assistant Professor of Business Law*
B.A., Morehouse College; J.D., Howard University Law Center.
- Bussell, Karen A. 1979, *Lecturer of Health, Physical Education and Dance*
B.S., Texas Tech University; M.S., Lamar University
- Calvert, Patricia H. 1979, *Lecturer of Health, Physical Education and Dance; Women's Softball Coach; Assistant to Associate Athletic Director for Women's Athletics*
B.S., M.S., Lamar University
- Cameron, Margaret D. 1956, *Regents' Professor of Chemistry*
B.A., Texas Woman's University; M.S., University of Houston; Ph.D., Tulane University
- Camp, Kathryn 1985, *Assistant Professor of Home Economics*
B.S., Kansas State College; M.S., University of Arkansas
Tulane University
- Campbell, Don R. 1984, *Associate Professor of Communication*
B.A., Brigham Young University; M.S., Gallaudet College; M.A., California State University; Ed.D., Brigham Young University
- Campbell, Jerry W. 1976, *Instructor II of Diesel Mechanics*
C.C., A.A.S., Lamar University
- Caples, Stephen C., 1984, *Assistant Professor of Finance*
B.A., Lake Superior College; M.B.A., Louisiana Tech University; Ph.D., University of Texas-Arlington
- Carley, Wayne W. 1983, *Assistant Professor of Biology*
B.S., M.A., Ph.D., University of California
- Carlin, Dewey R., Jr. 1958, *Associate Professor in the Department of Electrical Engineering*
B.S., Lamar University; M.S., University of Texas
- Carlucci, Joseph B. 1971, *Professor of Music*
B.M., M.M., Yale University; D.M.A., Eastman School of Music, University of Rochester
- Carroll, David J. 1975, *Instructor, Head, Catalog Department*
B.A., Kansas State University; M.L.S., University of Denver
- Carroll, John M. 1972, *Professor of History*
A.B., Brown University; M.A., Providence College; Ph.D., University of Kentucky
- Carruth, Carl 1966, *Associate Professor of Industrial Engineering*
B.S., Lamar University; M.S., University of Houston; Ph.D., University of Texas-Arlington; Registered Professional Engineer
- Cass, Michael 1981, *Assistant Professor of Education*
M.A., Ed.D., University of Alabama
- Castle, David S. 1985, *Assistant Professor of Political Science*
B.A., M.A., Marshall University; Ph.D., University of Rochester
- Cater, Alice W. 1974, *Instructor IV of Real Estate*
B.B.A., Southern Methodist University; M.B.A. University of Texas at Austin
- Cavaliere, Frank J. 1985, *Assistant Professor of Business Law*
B.A., Brooklyn College; M.B.A., Lamar University; J.D., University of Texas School of Law
- Chan, Chen-Wen Wendy 1984, *Adjunct Instructor/Computer Lab Supervisor*
B.S., Lamar University

- Chappell, Dana Lynn 1985, *Instructor I of Child-Care Technology*
B.S.Ed., University of Pennsylvania; M.S.Ed., Duguesne University
- Chen, Daniel Hao 1982, *Assistant Professor in the Department of Chemical Engineering*
B.S., National Cheng Kung University; M.S., National Taiwan University; Ph.D., Oklahoma State University
- Chen, Julie J. 1985, *Adjunct Instructor of English*
B.A., National Taiwan University; M.A., Oklahoma State University
- Cherry, Richard T. 1966, *Regents' Professor of Finance; Head, Department of Management, Marketing and Finance.*
B.A., Texas A&M University; M.A., Ph.D., University of Texas
- Choi, Jai-Young 1982, *Assistant Professor of Economics*
B.A., Yonsei University; M.A., University of Kansas; Ph.D., University of Oklahoma
- Chu, Hsing-wei 1979, *Assistant Professor in the department of Industrial Engineering*
B.S., Tunghai University; M.S., Asian Institute of Technology; Ph.D., University of Texas
- Chudzinski, James 1983, *Assistant Professor of Economics*
B.S., University of Tulsa; M.A., Ball State University
- Clark, Lynnwood M., Jr. 1972, *Instructor II of Business Data Processing*
B.S., Lamar University
- Clem, Roger 1985, *Instructor of Communication*
B.S., M.S., Lamar University; A.S.H.A. Certification in Audiology
- Collier, J. N. 1955, *Associate Professor of Music*
B.M., University of Houston; M.M., Southern Methodist University
- Cooke, James L. 1956, *Regents' Professor of Electrical Engineering*
B.S., Texas Tech University; M.S., University of Texas; Ph.D., Northwestern University; Registered Professional Engineer
- Cooper, Mark 1984, *Assistant Professor of Education*
B.S.E., M.S.E., Henderson State University; Ph.D., Georgia State University
- Cooper, Roger W. 1979, *Associate Professor of Geology*
B.A., University of South Dakota; M.S., University of Wisconsin-Madison; Ph.D., University of Minnesota
- Corrigan, Daniel R. 1983, *Assistant Professor of Marketing*
B.B.A., University of Texas-Arlington; M.B.A., East Texas State University; Ph.D., University of Arkansas.
- Cox, James W. 1985, *Instructor I of Computer Drafting Technology*
- Crawford, Katrinka J. 1981, *Lecturer Health, Physical Education and Dance; Head, Volleyball Coach*
B.S., Utah State
- Crim, Sterling C. 1964, *Professor of Mathematics*
B.A., Lamar University; B.S., Baylor University; M.Ed., North Texas State University; M.A., George Peabody College for Teachers; Ph.D., University of Texas
- Crowder, Vernon Roy 1967, *Professor of Health, Physical Education and Dance*
B.S., Lamar University; M.S., Ph.D., Louisiana State University
- Crum, Floyd M. 1955, *Regents' Professor of Electrical Engineering*
B.S., M.S., Louisiana State University; Registered Professional Engineer
- Culbertson, Robert M., Jr. 1974, *Assistant Professor of Music*
B.M., Northern Illinois University; M.M., University of Wisconsin
- Cyrson, Edward F. 1985, *Visiting Associate Professor of Marketing*
B.A., Adam Mickewicz University; M.A., University of Warsaw; Ph.D., Central School of Planning
- Daigrepoint, Lloyd M. 1981, *Assistant Professor of English*
B.A., M.A., Ph.D., Louisiana State University
- Daniali, Saeed 1981, *Assistant Professor of Civil Engineering*
B.S., Tehran Polytechnique; M.S., School of Engineering of Strasbourg; Ph.D., University of Lille; Registered Professional Engineer
- Darbonne, Robert V. 1985, *Adjunct Instructor of Instrumentation*

- Darsey, Nancy S. 1955, *Professor of Office Administration; Head, Department of Administrative Services*
B.B.A., M.B.A., Texas Tech University; Ph.D., Louisiana State University
- Davidson, Jane S. 1970, *Professor of Home Economics*
B.S., Texas Woman's University; M.S., Sam Houston State University; Ph.D., Texas Woman's University
- Davis, Elvis C. 1956, *Associate Professor of Accounting*
B.B.A., Lamar University; M.B.A., University of Arkansas; Certified Public Accountant
- De Ste Croix, James Benson 1985, *Adjunct Instructor of English*
B.A., Western Washington University; M.A., Angelo State University
- Die, Ann, 1977, *Associate Professor of Psychology*
B.S., Lamar University; M.Ed., University of Houston; Ph.D., Texas A&M University
- Dietert, Linda 1980, *Instructor, Head Interlibrary Loans Department*
B.A., University of Texas at Arlington; M.L.S., North Texas State University
- Dimick, Roger 1985, *Instructor I of Related Arts*
B.B.A., Lamar University
- Dingle, Robert L. 1959, *Associate Professor of Mathematics*
B.S., M.Ed., University of Houston; M.S., University of Arkansas
- Dippel, Raye Lynne 1984, *Assistant Professor of Psychology*
B.S., East Texas State University; Ph.D., Texas Tech University
- Dorrell, Jean T. 1956, *Assistant Professor of Office Administration*
B.S., Northwestern Louisiana University; M.S., Louisiana State University
- Dorris, Kenneth L. 1965, *Associate Professor of Chemistry*
B.S., Ph.D., University of Texas
- Drenan, Raymond L. 1962, *Associate Professor of Sociology*
B.S., University of Illinois; M.P.S., University of Colorado
- Drapeau, Richard A. 1983, *Assistant Professor of Business Statistics*
B.S., Arizona State University; M.B.A., Lamar University; Ph.D., Texas A&M University.
- Droddy, Frances M., 1983, *Instructor I of Child Care Technology*
B.S., Northwestern State College; M.S., Lamar University
- Drury, Bruce R. 1971, *Professor of Political Science*
B.A., M.A., University of Nebraska; Ph.D., University of Florida
- DuBose, Elbert T., Jr. 1974, *Assistant Professor of Political Science*
B.A., Southwest Texas State University; M.A., Texas Tech University; Ph.D., University of Oklahoma
- Dugger, Linda J. 1970, *Assistant Professor, Head, Acquisitions Department*
B.A., M.L.S., North Texas State University
- Durgin, Thomas R. 1980, *Instructor II of Industrial Electronics Technology*
A.A.S., Lamar University
- Dutt, Anjal 1985, *Adjunct Instructor of English*
B.A., M.A., Miranda House; M.A., Sam Houston State University; Ph.D., Oklahoma State University
- Dyess, J. Wayne 1977, *Assistant Professor of Music*
B.M., Stephen F. Austin State University; M.M., Catholic University of America
- Elliff, Connie Jo 1976, *Instructor of Home Economics*
B.S., Southwest Texas State University; M.S., Kansas State University; Registered Dietitian
- Elliott, Eric G. 1983, *Instructor of Economics*
B.A., Eastern Illinois University; M.A. University of Texas
- Ellis, M. LeRoy 1969, *Professor of Modern Languages*
B.A., M.A., University of South Carolina; Ph.D., University of Aix-Marseille
- Esperat, Maria Christina 1979, *Assistant Professor of Nursing*
B.S.N., M.S.N., Silliman University; Registered Nurse
- Esser, James K. 1976, *Associate Professor of Psychology*
B.S., University of Iowa; Ph.D., Indiana University
- Essien, Edet. T. 1984, *Adjunct Instructor of Plant Maintenance*
B.S., Lamar University

- Fatino-Stahly, Betty W. 1982, *Assistant Professor of Social Work*
B.S., Lamar University; M.S.W., University of Houston
- Fearing-Tornwall, Ruth O. 1980, *Instructor of Dental Hygiene*
B.S., Northeastern University; M.S., Boston University School of Dentistry; Registered Dental Hygienist
- Fitzpatrick, James E. 1985, *Instructor I of Industrial Electronics Technology*
A.A.S., B.S., Lamar University
- Fitzpatrick, Philip M. 1977, *Assistant Professor of Art*
B.F.A., M.F.A., Auburn University
- Fleischer, Vickie 1983, *Clinical Instructor of Respiratory Therapy*
A.A.S., Hines Jr. College; Registered Respiratory Therapist
- Foreman, Myers L. 1985, *Assistant Professor*
B.S., M.S., Lamar University; M.S., University of Southwestern Louisiana
- Foster, Pat 1980, *Lecturer of Health, Physical Education and Dance; Head, Basketball Coach; Special Assistant for Intercollegiate Athletics*
B.S., University of Arkansas
- Fournet, Annette E. 1984, *Instructor of Art*
B.F.A., Memphis Academy of Arts; M.F.A., Memphis State University
- Francis, Nathan Travis 1962, *Associate Professor of Modern Languages*
B.A., Texas Tech University; M.A., Texas Christian University; Ph.D., Texas Tech University
- Frazier, Robert L. 1974, *Professor of Criminal Justice*
B.S., M.A., Ph.D., Sam Houston State University
- Frederick, Bob L. 1965, *Assistant Professor of Health, Physical Education and Dance; Director, Activity Programs*
B.S., Lamar University; M.S., University of Texas
- Frederick, Maurice, 1982, *Instructor I of Refrigeration & Air Conditioning Technology*
- Fritze, Ronald H. 1984, *Assistant Professor of History*
B.A., Concordia College; M.A., M.L.S., Louisiana State University; Ph.D., University of Cambridge
- Gardner, Kathryn A. 1979, *Instructor II of Business Data Processing*
B.B.A., Lamar University
- Gates, David G. 1963, *Professor of Industrial Engineering*
B.S., M.S., University of Arkansas; Ph.D., Oklahoma State University; Registered Professional Engineer
- Gentry, Gary M. 1985, *Assistant Professor of Military Science*
B.S., Sam Houston State University
- Georgas, Marilyn D. 1962, *Professor of English*
B.A., Sam Houston State University; M.A., Lamar University; Ph.D., University of Texas
- Ghezzi, Debby L. 1980, *Lecturer of Health, Physical Education and Dance; Women's Tennis Coach*
B.S., M.Ed., Ohio University
- Gilligan, James P. 1972, *Instructor of Health, Physical Education and Dance*
B.S., M.S., Lamar University
- Gilmore, Patricia 1980, *Instructor of Nursing*
B.S.N., University of Texas at San Antonio; M.S.N., University of Texas Medical Branch-Galveston; Registered Nurse
- Godkin, Roy Lynn 1981, *Associate Professor of Management*
A.B., Bethany Nazarene College; M.R.E., Nazarene Theological Seminary; M.A., Sangamon State University; Ph.D., North Texas State University
- Goines, Oscar T. 1961, *Assistant Professor of Physics*
B.S., Stephen F. Austin State University; M.S., Texas A&M University
- Goulas, Fara 1975, *Assistant Professor of Education*
B.A., Lamar University; M.A., University of Colorado; Ed.D., McNeese State University
- Green, Annie Sue 1964, *Assistant Professor of Mathematics; Director, Engineering Advisement Center*
B.A., M.S., Lamar University

- Green, Marcia L. 1972, *Instructor IV of Related Arts*
B.A., Bishop College; M.A., Stephen F. Austin State University; M.Ed., Lamar University;
Ph.D. Texas Woman's University
- Gregory, O. Delilah 1973, *Clinical Instructor of Nursing*
B.S.N., University of Texas Medical Branch-Galveston; Registered Nurse
- Gremillion, Rae R. 1961, *Assistant Professor of Health, Physical Education and Dance*
B.S., M.S., Northwestern State University of Louisiana
- Grubbs, Donald R. 1974, *Instructor III of Welding; Coordinator of Placement*
B.S., Lamar University
- Gwin, Howell H., Jr. 1962, *Professor of History; Director, Graduate Studies*
B.A., M.A., Ph.D., Mississippi State University
- Gwynn, Robert S. 1976, *Associate Professor of English*
A.B., Davidson College; M.A., M.F.A., University of Arkansas
- Haiduk, Michael W. 1983, *Assistant Professor of Biology*
B.S., M.S., Texas A&M University; Ph.D., Texas Tech University
- Hale, Elizabeth Ann 1979, *Assistant Professor of Nursing*
B.S.N., University of Texas-Houston; M.S.N., University of Texas-Galveston; Ph.D., Texas
Woman's University; Registered Nurse
- Hall, Iva 1985, *Assistant Professor of Nursing*
B.S.N., University of Central Arkansas; M.S.N., University of Central Arkansas; Registered
Nurse
- Hallowell, Brooke 1985, *Adjunct Instructor of French*
A.B., Brown University
- Hamby, Jerald B. 1985, *Adjunct Instructor of English*
B.A., M.A., West Texas State University
- Hansen, Keith C. 1967, *Professor of Chemistry; Head, Department of Chemistry*
B.S., Lamar University; Ph.D., Tulane University
- Hargrove, W. Richard 1964, *Professor of Education*
B.S., M.Ed., North Texas State University; Ed.D., George Peabody College for Teachers
- Harmon, Anne 1959, *Associate Professor of Chemistry*
B.S., Monmouth College; M.S., Baylor University
- Harrel, Richard C. 1966, *Professor of Biology*
B.S., East Central State College; M.S.Ed., University of Georgia; Ph.D., Oklahoma State Uni-
versity
- Harrigan, W. Patrick, III 1969, *Associate Professor of Communication*
B.S., Loyola University; M.F.A., Tulane University; Ph.D., Louisiana State University
- Harris, Robert 1979, *Instructor II of Machine Tools*
A.A.S., Lamar University
- Harris, William T. 1983, *Associate Professor of Accounting*
B.B.A., M.B.A., Texas Tech University; Ph.D., Louisiana State University; Certified Public Ac-
countant
- Harvill, John B. 1984, *Associate Professor of Computer Science*
B.A., M.A., North Texas State University; Ph.D., Southern Methodist University
- Harvill, John F. 1965, *Assistant Professor of Mathematics*
B.S., M.S., Northwestern State University of Louisiana
- Haven, Sandra L. 1973, *Associate Professor of Education*
B.S., Lamar University; M.A., Central Michigan University; Ed.D., University of Houston
- Hawkins, Charles F. 1966, *Regents' Professor of Economics; Head, Department of Economics*
B.A., Lamar University; M.A., Ph.D., Louisiana State University
- Heumann, Mark 1985, *Assistant Professor of English*
B.A., Cornell University; M.A., University of Houston; Ph.D., State University of New York-
Stony Brook

- Hill, Rebecca O. 1965, *Assistant Professor of Health, Physical Education and Dance*
B.A., Butler University; M.A., University of Michigan
- Hinchev, Jane A. 1968, *Assistant Professor of Home Economics*
B.S., Winthrop College; M.S., University of Tennessee
- Ho, Tho-Ching 1982, *Assistant Professor in the Department of Chemical Engineering*
B.S., National Taiwan University; M.S., Ph.D., Kansas State University
- Hogue, Bradley B. 1967, *Professor of Education*
B.A., M.Ed., Southern Methodist University; Ed.D., North Texas State University
- Holland, DeWitte T. 1971, *Professor of Communication*
B.S., United States Merchant Marine Academy; A.B., Howard College; B.D., Southern Baptist Theological Seminary; M.A., University of Alabama; Ph.D., Northwestern University
- Holland, Mary M. 1976, *Instructor, Head, Documents/Special Collections*
A.B., Birmingham Southern College; M.L.S., Drexel University
- Holm, Belle Mead 1963, *Professor of Health, Physical Education and Dance*
B.S., M.S., George Peabody College for Teachers; Ph.D., Texas Woman's University
- Holt, Marion W. 1960, *Associate Professor of History*
B.A., Hendrix College; M.A., Louisiana State University
- Holt, Virginia Raye 1975, *Professor of Health, Physical Education and Dance*
B.S., Georgia State College for Women; M.S., Baylor University; Ed.D., University of Tennessee
- Hoosier, Peggy 1982, *Clinical Instructor of Radiologic Technology*
B.S., Lamar University; Registered Radiographer
- Hopper, Jack R. 1969, *Professor of Chemical Engineering; Head, Department of Chemical Engineering*
B.S., Texas A&M University; M.Ch.E., University of Delaware; Ph.D., Louisiana State University; Registered Professional Engineer
- Horne, Nadine 1984, *Lecturer in HPED; Assistant Women's Basketball Coach*
B.S., Sam Houston State University
- Hudson, Jean Marie 1951, *Associate Professor of Accounting*
B.A., Carleton College; M.A., University of Oklahoma; Ph.D., University of Texas at Austin; Certified Public Accountant
- Hunt, Madelyn D. 1973, *Assistant Professor of Biology*
B.S., Lamar University; M.P.H., Dr.P.H., University of Texas School of Public Health; Registered Medical Technologist (A.S.C.P)
- Hutchings, Henry, III 1964, *Assistant Professor of English*
B.A., M.A., Southern Methodist University
- Huval, Martha J. 1978, *Clinical Instructor of Radiologic Technology*
B.S., Lamar University; Registered Radiographer
- Hwang, Chia-Shen, James 1985, *Instructor II of Computer Electronics and Robotic Technology*
B.S., M.S., Tatung Institute of Technology
- Idoux, John P. 1984, *Professor of Chemistry; Dean, College of Arts and Sciences*
B.A., University of St. Thomas; M.S., Ph.D., Texas A&M University
- Isaac, Paul E. 1960, *Regents' Professor of History*
B.A., Pepperdine College; M.A., Ph.D., University of Texas
- Jack, Meredith M. 1977, *Assistant Professor of Art*
B.F.A., University of Kansas; M.F.A., Temple University
- James, S. Walker 1965, *Professor of Communication*
B.A., M.A., Baylor University; M.F.A., Case Western Reserve University; Ph.D., University of Denver
- Johnson, Andrew J. 1958, *Professor of History; Vice President for Student and University Affairs*
B.A., University of Texas; M.A., University of Chicago; M.A., Ph.D., Indiana University
- Johnson, Barry W. 1983, *Instructor of Music; Director of Bands*
B.Med., M.A. Sam Houston State University

- Johnson, Betty S. 1979, *Associate Professor of Office Administration*
B.S.E., M.S.E., Arkansas State University; Ed.D., University of Arkansas
- Johnson, John P. 1977, *Professor of Communication; Head, Department of Communication*
B.A., M.S., Florida State University; Ph.D., Kent State University; A.S.H.A. Certification and Licensure in Speech Pathology
- Johnston, Maxine 1955, *Associate Professor and Director of Library Services*
B.S., Sam Houston State University; M.L.S., University of Texas
- Jolly, Sonny 1971, *Associate Professor of Health, Physical Education and Dance; Head Track Coach; Athletic Director*
B.S., M.S., Lamar University, M.Ed., Stephen F. Austin State University; Ed.D., North Texas State University
- Jones, Bonner R. 1982, *Instructor I of Electrical Technology*
A.A.S., Lamar University
- Jones, Kirkland C. 1973, *Associate Professor of English*
B.A., University of Washington; M.A., Texas Southern University; Ph.D., University of Wisconsin
- Jones, Richard W. 1975, *Professor of Accounting; Head, Department of Accounting*
B.S.C., Texas Christian University; M.A., University of Alabama; Ph.D., University of Arkansas; Certified Public Accountant
- Jones, Roger D. 1984, *Adjunct Instructor of English*
B.A., M.A., Sam Houston State University
- Jordan, Donald L. 1979, *Assistant Professor of Computer Science*
B.S., East Texas Baptist College; B.S., Lamar University; M.S., Air Force Institute of Technology, Ph.D., University of Houston.
- Jordan, Jim L. 1982, *Assistant Professor of Geology*
B.S., Lamar University; Ph.D., Rice University
- Joshi, Narayan R. 1983, *Associate Professor in the Department of Mechanical Engineering*
B.S., M.S., Poona University; M.S., Ph.D., Johns Hopkins University
- Juarez, Joe I. 1968, *Instructor IV of Basic Communications; Head, Department of Related Arts*
B.F.A., University of Houston; B.S., Lamar University; M.Ed., University of Houston
- Kamla, Jean 1984, *Clinical Instructor of Nursing*
B.S.N., McNeese State University; Registered Nurse.
- Kare, Dilip D. 1985, *Assistant Professor of Finance*
B.Tech., Indian Institute of Technology; M.B.A., University of Santa Clara; Ph.D., University of Texas-Arlington
- Karlin, Andrea 1981, *Assistant Professor of Education*
B.A., Hunter College; M.A., Ph.D., University of New Mexico
- Kendall, Olivia 1984, *Assistant Professor of Nursing*
B.S.N., Spalding College; M.P.H., Tulane School of Public Health; M.Ed., Eastern Kentucky University; Registered Nurse
- Kilpatrick, Ruby 1977, *Instructor of Nursing*
B.S.N., M.Ed., Lamar University; Registered Nurse
- Kindl, Jamie 1982, *Instructor, Health, Physical Education and Dance*
B.S., M.A., Butler University
- King, Jess Freeman 1978, *Assistant Professor of Communication*
B.S., McNeese State University; M.S., Eastern New Mexico University; Ed.D., McNeese State University
- Kirksey, Kenneth 1983, *Instructor of Nursing*
B.S.N., Texas Woman's University; M.S.N., University of Texas-Arlington; Registered Nurse
- Koehn, Enno 1984, *Professor of Civil Engineering; Head, Department of Civil Engineering*
B.C.E., The City College of New York; M.S., Columbia University; M.C.E., New York University; Ph.D., Wayne State University; Registered Professional Engineer

- Koh, Hikyoo 1985, Associate Professor of Computer Science
B.A., Young-Nam; M.S., University of Hawaii; Ph.D., University of Pittsburgh
- Kriegel, Otto A. 1973, Instructor III of Machine Tools
- Kumar, Subodh 1985, Visiting Associate Professor in the Department of Civil Engineering
B.Tech., Indian Institute of Technology; M.S., Iowa State University; Ph.D., University of Oklahoma; Registered Professional Engineer
- Laidacker, Michael A. 1967, Associate Professor of Mathematics
B.S., M.S., Lamar University; Ph.D., University of Houston
- Lambert, Joseph C. 1962, Associate Professor of History; Director, University Honors Program
B.A., Millsaps College; M.A., Louisiana State University
- Landry, Larry M. 1985, Visiting Associate Professor of Computer Science
B.S., University of Southwestern Louisiana; M.S., Tulane University; Ph.D., University of Southwestern Louisiana
- Lane, James E. 1967, Assistant Professor of Education; Director, Teacher Certification
B.S., Abilene Christian University; M.Ed., Lamar University; Ed.D., North Texas State University
- Lanier, Boyd L. 1970, Associate Professor of Political Science
B.A., M.S., Ph.D., Florida State University
- Lauffer, Charles H. 1962, Assistant Professor of Mathematics
B.S., M.S., Auburn University
- Lawrence, Robert J. 1958, Instructor III of Industrial Electronics Technology
- LeBar, Barbara 1985, Adjunct Instructor of English
B.A., Kansas State University; M.A., Western Michigan University
- LeBlanc, John R. 1971, Associate Professor of Music; Director of Music Education
B.M.Ed., McNeese State University; M.S.M., Southwestern Baptist Theological Seminary; M.M., Louisiana State University; Ph.D., University of Southern Mississippi
- Lee, Kwan R. 1981, Assistant Professor of Mathematics
B.S., M.S., Seoul National University; M.S., Ph.D., Southern Methodist University
- Lewis, William 1986, Assistant Professor of Military Science
B.B.A., North Georgia College
- Li, Ku-Yen 1978, Associate Professor of Chemical Engineering
B.S., M.S., Cheng Kung University; Ph.D., Mississippi State University; Registered Professional Engineer
- Lihs, Harriett 1983, Instructor of HPED
B.A., M.A., University of Iowa
- Lindoefer, Joanne 1980, Assistant Professor of Psychology
B.S., Loyola University; M.S., Ph.D., University of Texas
- Linn, Richard G. 1984, Instructor of Music
B.S., West Chester State University; M.M., University of Massachusetts
- Loewenstein, Gaither D. 1983, Assistant Professor of Political Science
B.S., University of the Pacific; M.U.A., Wichita State University; Ph.D., University of Delaware
- Logan, H. Joyce 1984, Adjunct Instructor
B.S., Louisiana Tech University; M.S., Lamar University
- Lokensgard, Lynne L. 1973, Assistant Professor of Art
B.A., M.A., University of Minnesota
- Love, James J. 1976, Assistant Professor of Criminal Law; Director, Criminal Justice Program
B.A., Lamar University; J.D., University of Texas
- Lovelady, Victor L. 1985, Instructor I of Electrical Technology
A.A.S., B.S., Lamar University
- Lowrey, Mildred A. 1974, Associate Professor of Health, Physical Education and Dance; Director, Academic Programs
B.S., Howard College; M.S., Alabama College; Ph.D., Florida State University
- Lowrey, Norman E. 1967, Supervisor of Adult Training Programs
B.S., Lamar University

- Ma, Li-Chen 1972, *Associate Professor of Sociology*
B.S., M.S., National Taiwan University; Ph.D., University of Georgia
- Mackey, Howard 1963, *Professor of History*
B.A., University of Toledo; M.A., Ph.D., Lehigh University
- Madden, Robert 1959, *Associate Professor of Art*
B.A., Centenary College; M.F.A., University of Arkansas
- Mainord, Robert A., Jr. 1981, *Instructor I of Industrial Electronics Technology*
A.A.S., B.A., Lamar University
- Malnassy, Phillip G. 1973, *Associate Professor of Biology*
A.B., Hunter College, New York; Ph.D., Rutgers University
- Malone, A. Brenda 1977, *Assistant Professor of Nursing*
B.S.N., Northwestern State College; M.S.N., University of Texas-Houston; Registered Nurse
- Mantz, Peter A. 1982, *Associate Professor in the Department of Civil Engineering*
B.Sc., Newcastle University; M.Sc., Southampton University; Ph.D., London University; Chartered Engineer(UK)
- Marble, Ronald I. 1967, *Instructor IV of Welding*
A.A.S., Lamar University
- Marriott, Richard G. 1976, *Associate Professor of Psychology; Head, Department of Psychology*
B.S., Weber State College; M.A., Ph.D., University of New Mexico
- Martinez, Eugene P. 1959, *Regents' Professor in the Department of Mechanical Engineering*
B.S., Lamar University; M.S., Rice University; Ph.D., University of Houston
- Mason, Charlotte 1984, *Lecturer in HPED; Women's Basketball Coach*
B.S., Wayland Baptist University
- Mason, Ruth 1973, *Instructor I of Nursing*
B.S.N., School of Nursing, University of Texas Medical Branch-Galveston; Registered Nurse
- Masterson, Julie 1985, *Assistant Professor of Communication*
B.A., Ouachita Baptist University; M.S., Baylor University; Ph.D., Memphis State University; A.S.H.A. Certification in Speech Pathology
- Matak, Pete III 1978, *Instructor II of Diesel Mechanics*
A.A.S., Lamar University
- Matheny, Sarah Sims 1971, *Assistant Professor of Education*
B.S., Lamar University; M.Ed., Sam Houston State University
- Matheson, Alec L. 1983, *Assistant Professor of Mathematics*
B.S., University of Washington; Ph.D., University of Illinois
- Mathis, Verbie T. 1978, *Instructor II of Related Arts*
B.S., Texas Eastern University; M.B.E., Stephen F. Austin State University
- Mauer, William H. 1979, *Instructor II and Program Coordinator of Industrial Electronics Technology*
A.A.S., Lamar University
- McAdams, LeBland 1967, *Associate Professor of Home Economics*
B.S., Sam Houston State University; M.Ed., University of Houston; Ph.D., Texas Woman's University
- McCabe, Dennis P. 1984, *Professor of Professional Development and Graduate Studies; Dean, College of Education*
B.A., M.S., New Mexico Highlands University; Ph.D., University of New Mexico
- McGillivray, Robert E. 1984, *Associate Professor of Accounting*
B.S., M.B.A., University of Colorado; Ph.D., North Texas State University; Certified Public Accountant.
- McGraw, J. Leon, Jr. 1967, *Professor of Biology*
B.S., Lamar University; M.S., Ph.D., Texas A&M University
- McGuire, Sterling W. 1956, *Professor of Computer Science*
B.S., M.A., Sam Houston State University; Ph.D., Texas A&M University
- McIntosh, Edward R. 1971, *Associate Professor of Communication*
B.S., University of Florida; M.S., Florida State University; Ed.D., Michigan State University

- Meador, Pamela A. 1981, *Clinical Instructor of Respiratory Therapy*
A.A.S., Midlands Technical School; Registered Respiratory Therapist
- Mei, Harry T. 1960, *Professor of Mechanical Engineering*
B.S., National Taiwan University; M.S., Ph.D., University of Texas; Registered Professional Engineer
- Mejia, Joe M. 1960, *Associate Professor of Chemistry*
B.S., M.S., Texas A&M University
- Mock, Ralph K., Jr. 1966, *Instructor IV and Program Coordinator of Computer Drafting Technology; Senior Certified Engineering Technician*
- Monger, George Anne 1971, *Assistant Professor; Associate Director for Public Services*
B.A., Baylor University; B.S., Western Reserve University
- Monroe, Vernice M. 1970, *Associate Professor of Social Work; Director, Social Work Program*
B.S., M.S.W., University of Missouri
- Montano, Carl B. 1981, *Associate Professor of Economics*
B.S.A., M.S., University of the Philippines, Ph.D., Michigan State University
- Morehouse, Thomas 1983, *Instructor of Music*
B.M., Texas Christian University; M.M.E., University of Wisconsin
- Morgan, William E. 1972, *Professor of Civil Engineering*
B.S., U.S. Naval Academy; B.S., U.S. Naval Post Graduate School; M.S., University of Alaska; Ph.D., University of Texas; Registered Professional Engineer
- Moss, Helen M. 1978, *Assistant Professor of Nursing*
B.S., McNeese State University; M.S.N., University of Texas at Austin; Registered Nurse
- Moulton, Robert D. 1974, *Professor of Communication; Director, Speech and Hearing Clinic*
B.S., M.S., University of Utah; Ph.D., Michigan State University; A.S.H.A. Certification in Speech Pathology
- Murray, M. Kathleen 1973, *Assistant Professor; Associate Director, Technical Services.*
B.A., Bryn Mawr College; M.L.S., University of Texas
- Musselwhite, John E. 1982, *Instructor I of Industrial Electronics Technology*
- Myers, Roland 1983, *Assistant Professor of Communication; Director, Theater*
B.A., M.A., Texas Tech University; M.F.A., University of Georgia; Ph.D., Texas Tech University.
- Nelson, Floyd A. 1985, *Instructor I of Instrumentation*
- Nevils, Kerry L. 1983, *Instructor I of Business Data Processing*
A.A.S., Lamar University
- Newberry, Rosario I. 1975, *Instructor of Health, Physical Education and Dance*
B.S., Lamar University; M.S., Texas Tech University
- Newman, Jerry A. 1962, *Regents' Professor of Art*
B.F.A., University of Texas; M.F.A., University of Southern California
- Nguyen, Anh-Tri 1981, *Assistant Professor in the Department of Mechanical Engineering*
B.S., M.S., San Jose State University; Ph.D., Ohio State University
- Niessingh, Christiaan C., Jr. 1982, *Instructor I of Diesel Mechanics*
A.A.S., Lamar University; B.S., State University College of New York
- Nylin, Libbie C. 1976, *Instructor II of Related Arts*
B.S., M.S., Lamar University
- Nylin, William C. 1975, *Professor of Computer Science; Vice President for Finance and Computer Services*
B.S., Lamar University; M.S., Ph.D., Purdue University
- O'Neill, Robert G. 1962, *Associate Professor of Art*
B.F.A., University of Nebraska-Omaha; M.F.A., University of Colorado
- Ornelas, Raul S. 1972, *Assistant Professor of Music*
B.M., University of Texas; M.A., McNeese State University
- Ortego, James Dale 1968, *Professor of Chemistry*
B.S., University of Southwestern Louisiana; Ph.D., Louisiana State University

- Owen, Donald E. 1985, *Professor of Geology; Head, Department of Geology*
B.S., Lamar University; M.S., Ph.D., University of Kansas
- Pampe, William R. 1966, *Regents' Professor of Geology*
A.B., M.S., University of Illinois; Ph.D., University of Nebraska
- Parigi, Sam F. 1961, *Regents' Professor of Economics*
B.S., Saint Edward's University; M.B.A., Ph.D., University of Texas
- Park, Patricia A. 1969, *Assistant Professor of Health, Physical Education and Dance; Women's Golf Coach*
B.S., University of New Mexico; M.S., Lamar University
- Parks, Walter I., Jr. 1981, *Instructor of Music*
B.M., M.M., Illinois State University
- Parrish, Reta G. 1964, *Assistant Professor of Mathematics*
B.A., Southern Methodist University; M.A., Texas Woman's University
- Paul, Naomi W. 1981, *Instructor; Head, Circulation Department*
B.A., M.L.S., University of Texas at Austin
- Payton, John E. 1970, *Assistant Professor of Health, Physical Education and Dance*
B.S., M.S., A&M University-Prairie View
- Pearson, James M. 1962, *Associate Professor of Economics*
B.B.A., M.S., Baylor University
- Pearson, William M. 1969, *Professor of Political Science; Head, Department of Political Science*
B.S., Sam Houston State University; M.A., Texas A&M University; Ph.D., Louisiana State University
- Pederson, Olen T. 1975, *Professor of Communication*
B.S., University of Houston; M.S., East Texas State University; Ph.D., University of Oklahoma;
A.S.H.A. Certification and Licensure in Speech Pathology and Audiology
- Peebles, Hugh O., Jr. 1963, *Associate Professor of Physics*
B.S., University of Texas; M.S., Ph.D., Oklahoma State University
- Pemberton, Amy R. 1984, *Instructor of Home Economics*
B.S., M.S., Lamar University
- Perkins, David 1984, *Health, Physical Education and Dance*
B.S., Lamar University
- Perkins, Howard 1972, *Adjunct Instructor of Communication; Director, Student Publications*
B.A., Lamar University; M.A., Louisiana State University
- Peterson, James D. 1984, *Assistant Professor of Military Science*
B.S., U.S. Military Academy
- Pineda, Antonio De J. 1965, *Assistant Professor of Modern Languages*
B.A., Instituto de Santa Clara; M.A., Ph.D., Universidad de la Habana
- Pizzo, Joseph F., Jr. 1964, *Professor of Physics; Head, Department of Physics*
B.A., University of Saint Thomas; Ph.D., University of Florida
- Placette, Adonia 1985, *Instructor of Communication*
B.S., M.S., Lamar University
- Platt, Annette E. 1963, *Associate Professor of English*
B.A., M.A., University of Texas; Ed.D., McNeese State University
- Poole, George 1983, *Professor of Mathematics; Head, Department of Mathematics*
B.S.E., Emporia State University; M.S., Colorado State University; Ph.D. Texas Tech University
- Price, Donald I. 1981, *Associate Professor of Economics*
B.A., Hendrix College; M.A., Ph.D., University of Arkansas
- Price-Nealy, Doris J. 1973, *Assistant Professor of Nursing; Director, Associate of Science Degree Nursing Program*
B.S.N., Prairie View A&M University; M.S.N., Ohio State University; Registered Nurse
- Price, R. Victoria 1972, *Associate Professor of English*
B.A., Tift College; M.A., M.Ed., Lamar University; M.A., Ph.D., Rice University

- Price, Richard L. 1970, *Associate Professor of Mathematics*
 B.S., Praire View A&M University; M.A., University of Texas; M.A.R., Yale University; Ph.D. Ohio State University
- Rabalais, Janice T. 1984, *Assistant Professor of Nursing*
 B.S.N., Northwestern State University; M.S.N., Texas Women's University; Registered Nurse
- Ramsey, Jed J. 1965, *Professor of Biology*
 B.S., Kansas State University of Agriculture and Applied Science; M.S., Kansas State Teachers College; Ph.D., Oklahoma State University
- Read, Billy D. 1965, *Assistant Professor of Mathematics*
 B.S., Lamar University; M.S., North Texas State University
- Read, David R. 1965, *Regents' Professor of Computer Science*
 B.S., Lamar University; M.S., North Texas State University; Ph.D., University of Houston
- Renfrow, Jack N. 1959, *Associate Professor of English*
 B.A., Louisiana Tech University; M.A., University of Denver; Ph.D., Louisiana State University
- Rennebohm, Fern 1982, *Professor of Home Economics; Head, Department of Home Economics*
 B.S., M.S., Ph.D., University of Wisconsin
- Reynard, Betty Jane 1979, *Instructor of Dental Hygiene*
 B.S., M.Ed., Lamar University; Registered Dental Hygienist
- Reynolds, Richard Clay 1978, *Assistant Professor of English*
 B.A., University of Texas; M.A., Trinity University; Ph.D., University of Tulsa
- Richard, Connie J. 1979, *Clinical Instructor of Nursing*
 B.S.N., Lamar University; Registered Nurse
- Rigney, Carl J. 1957, *Professor of Physics*
 B.S., University of Louisville; M.S., Ph.D., Northwestern University
- Rogan, Robert C. 1961, *Professor of Art; Head, Department of Art*
 B.A., Washburn University; M.F.A., University of Iowa; Ed.D., University of Kansas
- Rogas, Dan W. 1955, *Assistant Professor of Health, Physical Education and Dance; Associate Athletic Director for Operations*
 B.S., Tulane University; M.S., Lamar University
- Rogers, Bruce G. 1961, *Professor of Civil Engineering*
 B.S., University of Houston; M.S., Ph.D., University of Illinois; Registered Professional Engineer
- Roth, Lane 1978, *Associate Professor of Communication*
 B.A., New York University; M.A., Ph.D., Florida State University
- Roy, M. Paul 1963, *Instructor IV of Machine Tools; Head, Industrial Department*
- Rudloff, Virginia 1964, *Instructor II of Nursing*
 Diploma, Hotel Dieu School of Nursing; Registered Nurse
- Runnels, William C. 1965, *Associate Professor of Biology*
 B.S., M.S., Texas A&I University; Ph.D., Texas A&M University
- Ryan, John A. 1975, *Professor of Marketing; Dean, College of Business*
 B.S., University of Southern California; M.B.A., Ph.D., University of Texas
- Ryan, William L. 1978, *Assistant Professor; Library Systems Coordinator*
 B.S., Northwest Missouri State University; M.L.S., M.A., Ed., Specialist-Instructional Media, University of Missouri
- Saet, Yuly A. 1982, *Assistant Professor of Mathematics*
 B.S., M.S., Ph.D., Academy of Science, Leningrad State University
- Sanders, L. Thomas 1974, *Associate Professor of Political Science; Director, Institutional Research and Reporting*
 B.A., Louisiana State University; M.A., Ph.D., University of Michigan
- Satterfield, R. Beeler 1963, *Professor of History*
 B.A., M.A., Vanderbilt University; Ph.D., Johns Hopkins University
- Schroder, John P. 1983, *Instructor I of Computer Drafting Technology*
 B.S., Southwestern Louisiana Institute

- Seelbach, Wayne C. 1976, *Associate Professor of Sociology and Gerontology; Assistant to the Provost*
B.A., Lamar University; M.A., Stephen F. Austin State University; Ph.D., Pennsylvania State University
- Self, E. Lee 1959, *Professor of Education; Director, Field Experiences*
B.S., M.Ed., Northwestern State University of Louisiana; Ph.D., Louisiana State University
- Senorski, Andrew Peter 1978, *Lecturer of Health, Physical Education and Dance; Assistant Track Coach*
B.S., M.S., Lamar University
- Shaheen, Joyce E. 1985, *Assistant Professor of Psychology; B.S., Emory University; M.S., Ph.D., University of Georgia*
- Sheppard, Sallye J. 1980, *Assistant Professor of English*
B.A., M.A., Texas Christian University; M.R.E., Brite Divinity School; Ph.D., Texas Woman's University
- Shipper, Kenneth E. 1971, *Dean, College of Technical Arts*
B.S., Sam Houston State University; M.A., Ph.D., University of Texas
- Short, W. David 1974, *Assistant Professor of Radiologic Technology; Head, Department of Allied Health*
B.S., Incarnate Word College; M.Ed., University of Houston; Registered Radiographer
- Shukla, Shyam S. 1985, *Assistant Professor of Chemistry; Director, Environmental Science*
B.S., University of Lucknow; M.S., University of Saskatchewan; Ph.D., Clarkson University
- Simmons, James M. 1970, *Associate Professor of Music; Head, Department of Music*
B.S., Memphis State University; M.M., University of Houston; Ed.D. McNeese State University
- Simpson, Michael W. 1984, *Major Professor of Military; Head, Military Science Department*
B.A., Texas Tech University
- Sims, Victor H. 1978, *Assistant Professor of Criminal Justice*
B.A., University of Mississippi; M.S., Arizona State University; Ph. D., University of Southern Mississippi
- Slaydon, Bessie 1980, *Assistant Professor of Nursing*
B.S.N., McNeese State University; M.S.N., University of Texas-Galveston; Registered Nurse
- Smith, Bobbie L. 1981, *Sergeant Major, Instructor of Military Science*
B.A., Columbia College
- Smith, Frances J. 1977, *Assistant Professor of Nursing*
B.S., Northwestern State University; M.S.N., Texas Woman's University; Registered Nurse
- Smith, James Gregory 1985, *Adjunct Instructor of English*
B.A., University of Texas; M.A., West Texas State University
- Smith, Kevin B. 1981, *Associate Professor of Sociology; Head, Department of Sociology, Social Work and Criminal Justice*
B.S., Texas A&M University; M.A., Ph.D., Louisiana State University
- Smith, Phyllis 1985, *Assistant Professor of Nursing*
B.S.N., M.S.N., University of Texas-Galveston; Registered Nurse
- Snyder, Phillip B. 1972, *Professor of Curriculum and Instruction; Professor of Geology*
B.S., Trinity University; M.Ed., Ph.D., University of Texas
- Sontag, Monty L. 1972, *Professor of Education*
B.A., University of Denver; M.A., Ed.D., Columbia University
- Spitz, Walter 1985, *Adjunct Instructor of English*
B.A., Tarleton State University; M.A., North Texas State University
- Spradley, Larry W. 1972, *Professor of Business Statistics and Athletic Academic Advisor*
B.A., Stephen F. Austin State University; M.Th., Southern Methodist University; M.S., Lamar University; Ph.D., Texas A&M University
- Stahl, Deanna K. 1972, *Instructor IV of Technical Mathematics*
B.A., M.S., Lamar University
- Standley, Troy 1975, *Instructor III of Fire Protection Technology; Coordinator, Fire Training Program*
LL.B., Baylor University

- Stanley, William H. 1973, *Professor of Education*
B.S., North Texas State University; M.Ed., Hardin-Simmons University; Ed.D., North Texas State University
- Stark, Jeremiah M. 1956, *Professor of Mathematics*
B.S., United States Coast Guard Academy; B.S., North Texas State University; S.M., Ph.D., Massachusetts Institute of Technology
- Steiert, Alfred F. 1966, *Assistant Professor of Management*
B.S., M.B.A., University of Florida
- Stelly, Tony Stuart 1984, *Adjunct Instructor of English*
B.A., M.A., Ph.D., University of Southwestern Louisiana
- Stevens, Eleanor M. 1957, *Assistant Professor of Office Administration*
B.B.A., University of Texas; M.B.A. University of Houston
- Stevens, James B. 1970, *Professor of Geology*
B.S., M.S., University of Michigan; Ph.D., University of Texas
- Stevens, Manfred 1960, *Professor of Political Science*
B.A., M.A., University of Oklahoma; Ph.D., University of Michigan
- Stevens, Rita 1985, *Assistant Professor of Professional Development and Graduate Studies*
B.A., Glassboro State College; M.Ed., West Georgia College; Ed.D., Mississippi State University
- Stidham, Ronald 1970, *Associate Professor of Political Science*
B.S., M.A., East Tennessee State University; Ph.D. University of Houston
- Stiles, JoAnn, K. 1966, *Assistant Professor of History*
B.A., M.A., University of Texas
- Stivers, Catherine G. 1983, *Assistant Professor of Health, Physical Education and Dance*
B.A., Bridgewater College; M.S., Indiana State University; Ph.D., Southern Illinois University
- Stone, Lorene Hemphill 1984, *Assistant Professor of Sociology*
B.A., Iowa State University; M.A., Ph.D., Washington State University
- Storey, John W. 1968, *Professor of History*
B.A., Lamar University; M.A., Baylor University; Ph.D., University of Kentucky
- Strickland, Arney, L. 1969, *Professor of English*
B.A., M.A., Lamar University; Ph.D., Ball State University
- Sullivan, John T. 1984, *Assistant Professor of Biology*
A.B., Dartmouth College; M.S., Ph.D., Lehigh University
- Sullivan, Judith E. 1984, *Instructor of Health, Physical Education and Dance*
B.S., University of Arkansas-Little Rock; M.Ed., University of Arkansas-Fayetteville
- Summerlin, Charles Timothy 1973, *Associate Professor of English; Head, Department of English and Foreign Languages*
B.A., Abilene Christian University; M.Ph., Ph.D., Yale University
- Sutton, Walter A. 1963, *Professor of History*
B.A., Rice University; M.A., Ph.D., University of Texas
- Swerdlow, Marleen S. 1984, *Assistant Professor of Business Law*
B.S., Newcomb College of Tulane University; J.D., Bates College of Law, University of Houston
- Swerdlow, Robert A. 1978, *Associate Professor of Marketing; Graduate Coordinator, MBA Program*
B.B.A., M.B.A., Lamar University; Ph.D., University of Arkansas
- Taylor, David G. 1955, *Associate Professor of Marketing*
B.A., M.A., Baylor University
- Taylor, Ruth 1977, *Associate Professor of Nursing*
B.S.N., M.S.N., Hunter College of City University of New York; M.Ed., Fordham University, Registered Nurse; Certified Clinical Specialist Medical-Surgical Nursing
- Thames, Dorothy Faye 1957, *Assistant Professor of Mathematics*
A.B., Birmingham-Southern College; M.A., George Peabody College for Teachers
- Thomas, Barbara 1985, *Assistant Professor of Music*
B.M., M.M., North Texas State University
- Thomas, James L. 1983, *Associate Professor in the Department of Industrial and Mechanical Engineering; Director, CAD/CAM*
B.S., Oklahoma State University; M.S., Ph.D., Texas Tech University

- Thomas, Robert Blaine 1960, *Professor of English*
B.S., Virginia Polytechnic Institute and State University; M.A., M.S., Ph.D., Louisiana State University
- Thompson, Ellis 1956, *Instructor III of Refrigeration and Air Conditioning Technology*
- Thompson, Robert 1985, *Professor and Head of Professional Development and Graduate Studies*
B.S., Abilene Christian; M.Ed., Ph.D., East Texas State University
- Tiedt, Eileen 1981, *Professor of Nursing; Head, Department of Nursing*
B.S.N., Marquette University; M.S.N., Wayne State University; Ph.D., Ohio State University; Registered Nurse
- Tinsley, Ginger 1985, *Clinical Instructor Respiratory Therapy; Director of Respiratory Therapy*
B.S., University of Texas Health Science Center at Houston; Registered Respiratory Therapist
- Treadway, Kathleen 1982, *Instructor of Health, Physical Education and Dance*
B.S., M.A., Texas Woman's University
- Tritsch, Jon P. 1980, *Serials Cataloger, Instructor*
B.S., Peru State College; M.L.S., Emporia State University; M.A., Sam Houston State University
- Truncale, Joseph 1954, *Associate Professor of Music*
B.M., North Texas State University; M.L., University of Houston
- Tucker, Jerry R. 1971, *Associate Professor of Education*
B.S., University of Texas; M.Ed., Trinity University; Ph.D., Texas A&M University
- Turco, Charles P. 1965, *Professor of Biology; Dean, Graduate Studies and Research*
B.S., Saint John's College; M.S., M.S.Ed., Saint John's University; Ph.D., Texas A&M University
- Twiname, B. Gayle 1979, *Assistant Professor of Nursing*
B.S.N., University of North Florida; M.S.N., Medical College of Georgia; Registered Nurse; Certified Clinical Specialist Psychiatric-Mental Health Nursing
- Usrey-Timms, Sharon 1984, *Instructor of Nursing*
B.A., North Texas State University; B.S.N., M.S.N., University of Texas-Arlington; Registered Nurse
- Utter, Glenn H. 1972, *Associate Professor of Political Science*
B.A., State University of New York at Binghamton; M.A., Ph.D., State University of New York-Buffalo
- Vaughn, Jeannette W. 1954, *Assistant Professor of Office Administration*
B.A., Texas Woman's University; M.B.A., University of Texas
- Veuleman, Malcolm W. 1970, *Professor of Accounting*
B.S., McNeese State University; M.B.A., Ph.D., University of Arkansas; Certified Public Accountant
- Viviani, G.L. 1982, *Assistant Professor of Electrical Engineering*
B.S., M.S., Ph. D., Purdue; Registered Professional Engineer
- Wakeland, William R. 1978, *Professor of Electrical Engineering; Head, Department of Electrical Engineering*
B.S., U.S. Naval Academy; M.S., Naval Postgraduate School; Ph.D., University of Houston; Registered Professional Engineer
- Waldron, Bobby R. 1970, *Professor of Computer Science; Head, Department of Computer Science*
B.S., Louisiana College; M.S., Northwestern State University of Louisiana; Ph.D., Texas A&M University
- Walker, Delia A. 1979, *Instructor II of Computer Drafting Technology*
A.A.S., Lamar University
- Walker, James L., Jr. 1969, *Associate Professor of Psychology*
B.A., Baylor University; Ph.D., Texas Tech University
- Walker, Richard E. 1963, *Professor of Chemical Engineering*
B.S., Purdue University; M.S. Bucknell University; Ph.D., Iowa State University of Science and Technology; Registered Professional Engineer
- Walker, Wentrice 1984, *Clinical Instructor of Dental Hygiene*
A.A.S., Lamar University; Registered Dental Hygienist

- Wall, George B. 1965, *Professor of Philosophy*
B.A., Occidental College; B.D., Fuller Theological Seminary; Ph.D., University of Southern California
- Warren, Michael E. 1966, *Professor of Biology; Head, Department of Biology*
B.A., M.A., Ph.D., University of Texas
- Watt, Joseph T., Jr. 1965, *Professor of Electrical Engineering; Director, Cooperative Education*
B.A., B.S., Rice University; M.S., Ph.D., University of Texas; Registered Professional Engineer
- Watts, Doyle 1985, *Professor and Head, Department of Curriculum and Instruction*
B.A., Abilene Christian College; M.A., Ph.D., Texas Tech University
- Welch, Jeanie M. 1983, *Assistant Professor, Reference Librarian*
A.A., Glendale College; B.A., M.L.S., University of Denver; M.B.A., American Graduate School of International Management
- Welch, Myrtle 1985, *Instructor of Nursing*
B.S.N., Stephen F. Austin University; M.S.N., Texas Woman's University; Registered Nurse
- Wesbrooks, Ronald L. 1969, *Instructor of Health, Physical Education and Dance; Tennis Coach for Men*
B.S., Eastern New Mexico University; M.S., Lamar University
- Wesley, Carey B. 1966, *Instructor IV of Welding*
A.A.S., Lamar University
- White, Kathryn 1973, *Regents' Professor of Office Administration*
B.S., M.S., Oklahoma State University; M.R.E., Southwestern Baptist Theological Seminary; Ed.D., Oklahoma State University
- White, William 1982, *Professor of Education*
A.B., St. Bernard's College; M.Ed., University of Buffalo; Ph.D., State University of New York-Buffalo
- Whittle, John A. 1969, *Professor of Chemistry*
B.S., University of Glasgow; Ph.D., University of London, Imperial College
- Wiemers, Susan V. 1983, *Adjunct Instructor of Computer Science*
B.S., Southwest Texas State University; M.S., McNeese State University
- Wilkerson, Robert H. 1964, *Assistant Professor of Communication*
B.A., M.A., University of Oklahoma
- Williams, Harry L. 1968, *Vocational Counselor*
B.B.A., Stephen F. Austin State University; M.Ed., Lamar University
- Williams, James A. 1982, *Instructor I of Industrial Electronics Technology*
- Wills, Curtis E. 1971, *Associate Professor of Education*
B.S., M.Ed., Sam Houston State University; Ed.D., North Texas State University; Licensed Psychologist
- Wilsker, Donna 1985, *Assistant Professor of Nursing*
B.S.N., University of Bridgeport; M.S.N., University of Maryland; Registered Nurse
- Wilsker, Ira Lee 1977, *Instructor II of Mid-Management*
B.S., M.B.A., University of Maryland
- Wilson, Jerry L. 1970, *Instructor IV of Industrial Electricity and Electronics Technology; Head, Technical Department*
B.S., M.Ed., Lamar University; Ph.D., Texas A&M University
- Wohler, Marjorie Lynn 1975, *Assistant Professor of Nursing*
B.S.N., McNeese State University; M.S.N., Texas Woman's University; Registered Nurse
- Wood, Sam M., Jr. 1958, *Regents' Professor; Associate Professor of Mathematics; Director, Mathematics Instruction*
B.A., University of Texas; M.S., Texas A&M University
- Woodland, Naaman J., Jr. 1957, *Associate Professor of History*
B.A., B.S., Louisiana State University; M.A., Northwestern University
- Wooster, Ralph A. 1955, *Regents' Professor of History; Assistant Vice-President for Academic Affairs; Dean of Faculties*
B.A., M.A., University of Houston; Ph.D., University of Texas
- Wooten, Bob E. 1975, *Professor of Management*
B.B.A., M.B.A., Lamar University; Ph.D., Louisiana State University; Accredited Personnel Specialist (APS)

- Worsham, William L. 1972, *Assistant Professor of Health, Physical Education and Dance*
B.S., M.Ed., Lamar University
- Wright, Stuart A. 1985, *Assistant Professor of Sociology*
B.A., M.A., University of Houston; Ph.D., University of Connecticut
- Yaws, Carl L. 1975, *Professor of Chemical Engineering*
B.S., Texas A&I University; M.S., Ph.D., University of Houston; Registered Professional Engineer
- Yerick, Roger E. 1958, *Professor of Chemistry*
B.S., Texas A&I University; Ph.D., Iowa State University
- Young, Fred M. 1978, *Professor of Mechanical Engineering; Dean, College of Engineering*
B.S.M.E., M.S.M.E., Ph.D., Southern Methodist University; Registered Professional Engineer
- Young, Ira Lee 1978, *Instructor of Radiology Technology*
B.A., McNeese State University; M.Ed., Nicholls State University; Registered Radiographer
- Zaloom, Victor A. 1981, *Professor of Industrial Engineering; Head, Department of Industrial Engineering; Director, Engineering Graduate Programs*
B.S.I.E., M.S.E., University of Florida; Ph.D., University of Houston; Registered Professional Engineer
- Zeek, Paul T. 1971, *Instructor of Health, Physical Education; Head, Athletic Trainer*
B.S., University of Texas-El Paso
- Zimmerman, Roxy Ann 1984, *Instructor, Assistant Acquisitions Librarian*
B.S., Illinois University; M.L.S., University of Illinois

Part-Time Faculty

- Adams, Lucien J., Jr. 1981 *Adjunct Instructor of Mechanical Engineering*
B.S., University of Southwestern Louisiana
- Arrington, Alan R. 1983, *Adjunct Instructor of Business Data Processing*
A.A.S., Lamar University
- Atwood, Peggy 1983, *Adjunct Professor of Education*
B.S., Stephen F. Austin State University; M.Ed., Lamar University
- Baker, Kenneth R. 1978, *Adjunct Instructor of Fire Protection Technology*
A.A.S., Lamar University
- Barrington, Peggy 1981, *Adjunct Instructor of Office Administration*
B.B.A., Lamar University; M.B.A., Sam Houston State University
- Beale, Luther A. 1955, *Professor of Civil Engineering*
B.S., M.S., Georgia Institute of Technology; Ph.D., University of Texas; Registered Professional Engineer
- Bell, M. Katherine 1962, *Regents' Professor; Associate Professor of Mathematics Emeritus*
B.S., Florida State University; M.A., University of Cincinnati
- Boone, Jim 1983, *Adjunct Instructor of Music*
B.S., M.Ed., Lamar University
- Bost, David L. 1949, *Professor of Professional Development and Graduate Studies*
B.A., Hardin Simmons University; M.J., University of Texas; Ph.D., East Texas State University; Professional Psychologist
- Brennan, James J. 1968, *Professor of Industrial Engineering*
B.S.E.E., Iowa State University of Science and Technology; M.S.I.E., University of Arkansas; Ph.D., University of Texas; Registered Professional Engineer
- Brewer, John L. 1985, *Adjunct Instructor of Fire Protection Technology*
A.A.S., Lamar University
- Brooker, Lauren J. 1985, *Adjunct Instructor of Geology*
B.A., University of North Carolina; M.S., Virginia Polytechnic Institute and State University
- Brookshear, Robert D. 1983, *Adjunct Instructor of Business Statistics*
B.B.A., North Texas State University; M.B.A., University of North Dakota

- Brown, Otto George 1962, *Professor of Mechanical Engineering; Head Department of Mechanical Engineering*
B.S.; University of Oklahoma; M.S., Ph.D., University of Texas; Registered Professional Engineer
- Bruyere, John Alan 1957, *Associate Professor of Mechanical Engineering*
B.S., M.S., University of Texas; Registered Professional Engineer
- Caples, Ginny 1984, *Adjunct Instructor of Finance*
B.B.A., Sam Houston State University
- Cater, Otis E., III 1977, *Adjunct Instructor of Real Estate*
B.S., M.Ed., Lamar University
- Chatham, Joy K. 1985, *Adjunct Instructor of Related Arts*
B.S., M.Ed., Lamar University
- Coleman, Alan 1984, *Adjunct Professor of Dental Hygiene*
B.S., Lamar University; D.D.S., University of Texas Dental Branch-Houston
- Commander, Emily Sue 1985, *Adjunct Instructor of Mathematics*
M.S., Lamar University
- Craigue, William 1980, *Adjunct Instructor of Mechanical Engineering*
B.S., University of Virginia
- Creekmore, Terry J. 1985, *Adjunct Instructor of Business Data Processing*
A.A.S., Lamar University
- De Ment, Dock B. 1981, *Adjunct Instructor of Mathematics*
B.A., Henderson State Teachers College; M.A., M.E., Louisiana State University
- Dishman, Sherry 1984, *Clinical Instructor of Radiology*
A.A.S., Lamar University; Registered Radiographer
- Drenan, Raymond L. 1962, *Associate Professor of Sociology*
B.S., M.P.S., University of Illinois
- Duncan, James A. 1985, *Adjunct Assistant Professor of Psychology*
B.S., McNeese State University; M.A., Ph.D., Louisiana State University
- Elliott, Carl C. 1985, *Adjunct Instructor of Refrigeration and Air Conditioning Technology*
A.A.S., Lamar University
- Faraci, Dominick A., Jr. 1985, *Adjunct Instructor of Refrigeration and Air Conditioning Technology*
A.A.S., Lamar University
- Fitzgerald, Steve 1985, *Adjunct Instructor of Mathematics*
B.S., M.S., Lamar University
- Franks, Wanda 1977, *Adjunct Instructor of Related Arts*
B.S., M.Ed., Lamar University
- Gibson, Penny Kinnard 1984, *Adjunct Instructor of Curriculum and Instruction*
B.S., University of Texas; M.S., Lamar University
- Giglio, Sam C., Jr. 1978, *Adjunct Professor of Dental Hygiene*
B.S., Lamar University; D.D.S., University of Texas Dental Branch-Houston
- Gilchrist, William 1985, *Adjunct Instructor of English*
B.A., M.A., Lamar University
- Gish, James 1979, *Adjunct Professor of Radiologic Technology*
B.S., M.D., Indiana University
- Goetz, George R. 1968, *Assistant Professor of Management*
B.S., St. Edward's University; M.B.A., Lamar University
- Graham, Beth 1983, *Adjunct Instructor of Music*
B.S., Lamar University; M.S. University of Illinois
- Gray, Nancy T. 1981, *Adjunct Instructor of Related Arts*
B.A., Lamar University
- Green, Ina J. 1984, *Adjunct Instructor of Related Arts*
B.S., M.Ed., Lamar University
- Griffin, Richard P. 1978, *Adjunct Instructor of Occupational Safety and Health*
B.S., Baylor University; M.B.A., Lamar University
- Griffin, Vernon H. 1970, *Professor of Professional Development and Graduate Studies*
B.S., M.Ed., Sam Houston State University; Ed.D., University of Houston

- Hamby, Cynthia Cole 1985, *Adjunct Instructor of Music*
B.M., M.M., West Texas University
- Hart, Darlene 1985, *Adjunct Instructor of Mathematics*
B.S., M.S., Lamar University
- Hawkins, Charla J. 1982, *Adjunct Instructor of Mathematics*
B.B.A., M.S., Lamar University
- Hebert, Rolands 1981, *Adjunct Instructor of Occupational Safety and Health*
B.S., Lamar University
- Hedgspeth, Joe M. 1980, *Adjunct Instructor of Appliance Repair*
- Hickman, John 1985, *Adjunct Instructor of Art*
B.E.A., University of Utah
- Higgins, J. B. 1949, *Professor of Health, Physical Education and Dance; Athletic Director Emeritus*
B.A., Trinity University; M.Ed., University of Houston
- Hines, Betsy 1985, *Adjunct Instructor of Music*
B.M., M.M., University of Texas at Austin
- Holmes, Paul W. 1953, *Associate Professor of Music*
B.M., Hardin-Simmons University; M.M., University of Texas
- Huckaby, Dennis 1981, *Adjunct Instructor of Related Arts*
B.S., B.S.E.E., Lamar University
- Hudgins, Mabel 1985, *Adjunct Instructor of Music*
B.M.Ed., East Texas Teachers College
- Hurlbut, Brian 1982, *Adjunct Instructor of Business Data Processing*
B.S., Iowa State University; M.S., San Diego State College; M.B.A., University of Houston
- Jepson, Harry L. 1978, *Adjunct Professor of Dental Hygiene*
B.S., East Texas Baptist College; D.D.S., University of Texas School of Dentistry
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B.B.A., University of Mississippi; M.A., University of Alabama
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A.A.S., Lamar University
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B.B.A., Lamar University
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B.S., Dong A University; M.S., Kored Advanced Institute of Science; Ph.D., Lamar University
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L.L.B., Baylor University
- Kirksey, C.D. 1946, *Professor of Business Statistics*
B.S., M.S., North Texas State University; Ph.D., University of Texas
- Krohn, Gail 1983, *Adjunct Instructor of Professional Development and Graduate Studies*
B.S., M.Ed., Lamar University
- Lee, Kenneth R. 1980, *Adjunct Instructor of Computer Science*
B.S., University of Texas at Austin; M.Ed., Lamar University
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B.S., College of St. Joseph the Provider; M.Ed., Ph.D., University of Nebraska-Lincoln
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B.S., B.B.A., Lamar University; M.B.A., Southern Methodist University; M.S., University of Houston-Clear Lake; Certified Public Accountant
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B.B.A., Stephen F. Austin State University; L.L.B., University of Texas School of Law
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B.S., University of Southwestern Louisiana
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B.S., University of Aston, England; M.S., University of London
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B.S., Lamar University; M.A., University of Houston

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- Patterson, Sheryl Hopper 1985, *Adjunct Instructor of Computer Science*
B.A., University of Texas-Arlington; M.Ed., Lamar University
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B.S., Lake Erie College; M.N.S., Arizona State University; Ed.D., East Texas State University
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A.A.S., Lamar University; Registered Respiratory Therapist
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B.B.A., M.B.A., Lamar University; Certified Public Accountant
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B.S., M.Ed., Stephen F. Austin State University
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B.S., University of Houston; Registered Respiratory Therapist
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B.A., Milton College; M.A., Instituto Tecnologico de Monterrey
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B.S., Lamar University; M.A., University of Texas at Austin
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B.A., Central Michigan University; M.S., University of Michigan
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B.B.A., Texas A & M University
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B.A., B.B.A., M.B.A., Lamar University

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B.S., Abilene Christian University; M.Ed., Ed.D., University of Houston
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B.S., Lamar University; D.D.S., University of Texas Health Science Center-San Antonio, Dental School
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B.S., National Taiwan University; M.S., Ph.D., Catholic University of America
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B.S., Sam Houston State University
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B.S., Lamar University
- Winney, Betty 1967, *Assistant Professor of Communication*
B.S., M.S., Lamar University; Certificate in Audiology
- Woods, Anita J. 1971, *Adjunct Instructor of Related Arts*
B.A., Sam Houston State University
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B.S., M.S., Lamar University
- Yates, L.A. 1966, *Regents' Professor of Health, Physical Education and Dance*
B.S., M.S., Louisiana State University; Ed.D., University of Houston

Academic Administration

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NOTES

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Academic Programs	Ralph A. Wooster, Assistant Vice President, P.O. Box 10002
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Admission & Records	Elmer Rode, Dean, P.O. Box 10009
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College of Business	John A. Ryan, Dean, P.O. Box 10059
College of Education	Dennis P. McCabe, Dean, P.O. Box 10034
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Student Health	LuLu Smith, M.D., P.O. Box 10015
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