

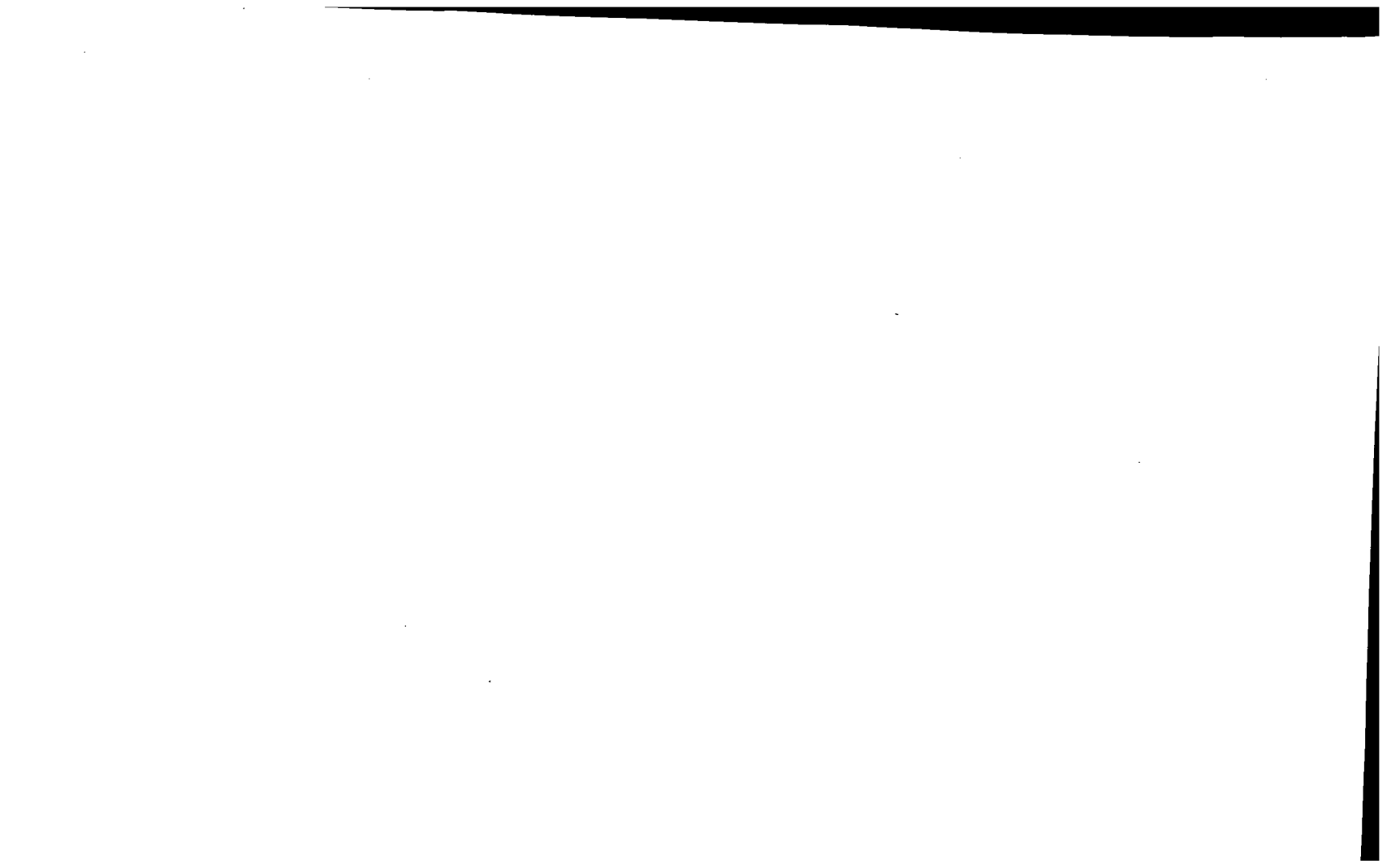
# LAMAR UNIVERSITY

Beaumont, Texas

1972-73 Bulletin



On May 3, 1971, Gov. Preston Smith signed the bill changing the name of Lamar State College of Technology to Lamar University. Lamar's new status became official on August 22, 1971.



# **ADDENDUM**

The following policies, approved by the Board of Regents of Lamar University on March 6, 1972, take precedence over information contained in this bulletin.

## **ADMISSIONS**

- A. All applicants who are graduates of accredited high schools will be admitted to Lamar University.
- B. Applicants who have not graduated from an accredited high school may be admitted if they:
  - 1. Have graduated in the upper two-thirds of their class, or,
  - 2. Score 700 or above on the Scholastic Aptitude Test (SAT).
- C. For counseling purposes, all applicants will be required to take the SAT.

## **GRADE POINT AVERAGE**

A student who passes a course in which he has previously received a failing grade will have only the passing grade and its associated grade points applied toward any certificate or Associate degree.

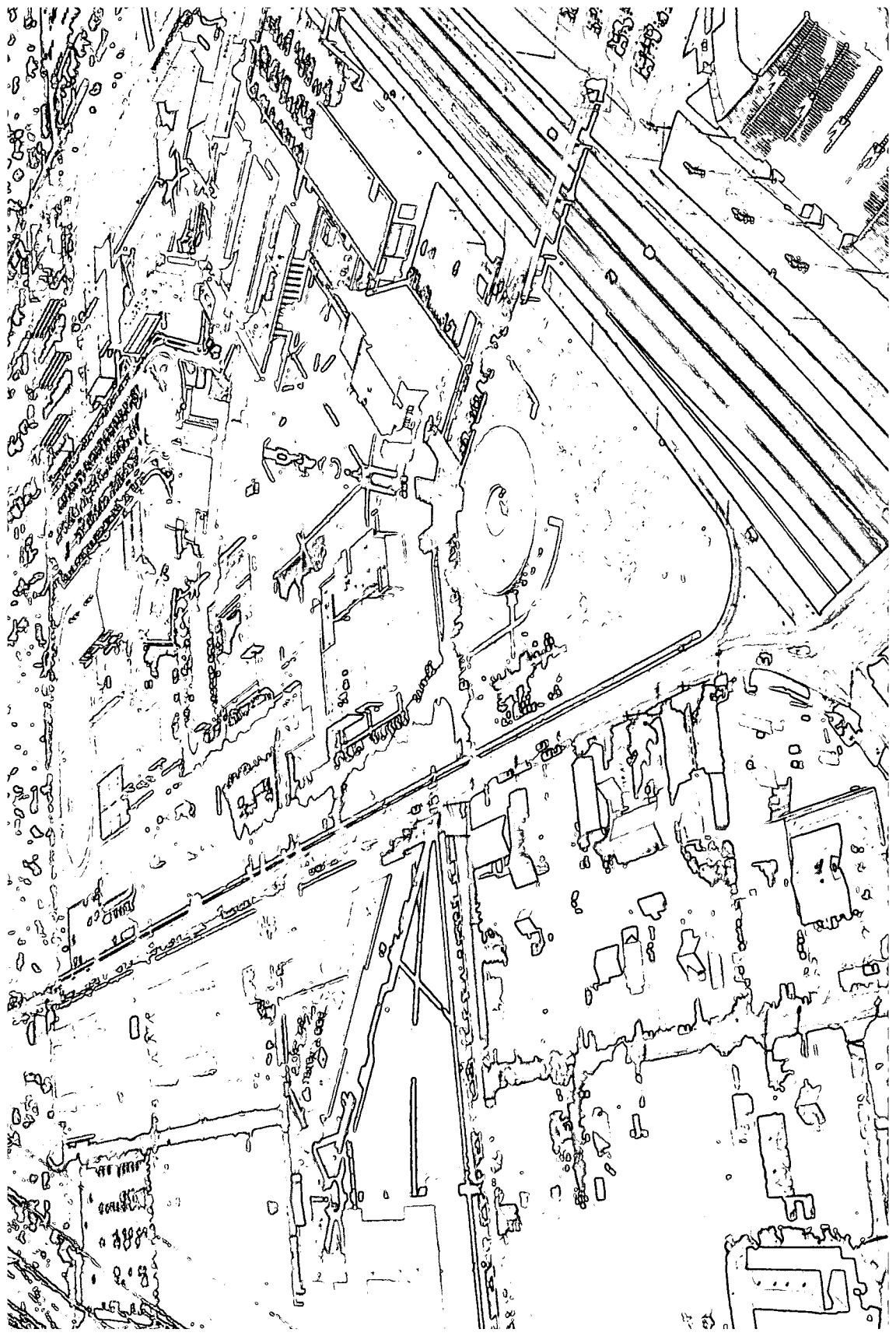
## **ASSOCIATE DEGREES**

Along with the previously approved Associate of Applied Science degree, Lamar will, subject to Coordinating Board, Texas College and University System approval, award the Associate of Arts and Associate of Science degree to students who complete a prescribed two-year program of study and apply for the degree.

## **UNIVERSITY COLLEGE**

Plans for implementation of a University College are subject to review by the Board of Regents and Coordinating Board.

Upon approval, all first and second year students will enter Lamar through this College. Students desiring Associate of Applied Science degrees will be transferred to Technical Arts after being admitted to the University.



**BULLETIN**  
of  
**LAMAR UNIVERSITY**

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**Vol. XXII**

**FEBRUARY, 1972**

**No. 6**

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Second class mail privileges authorized at Beaumont, Texas. Published by Lamar University semi-monthly in February and May; monthly except in June, July, and August.

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**TWENTY-FIRST ANNUAL CATALOG ISSUE**

**With Announcements for 1972-73**

Member:

Association of Texas Colleges and Universities  
American Council on Education  
National Commission on Accreditation  
Southern Association of Colleges and Schools  
Association of American Colleges  
Texas Association of Music Schools  
American Society of Engineering Education  
American Association of University Women  
American Association of Colleges for Teacher Education  
Approved by the Texas Education Agency  
Approved for the Training of Veterans under all classifications  
Departments of Chemical Engineering, Civil Engineering, Electrical  
Engineering, Industrial Engineering, and Mechanical Engineering  
accredited by Engineers' Council  
for Professional Development  
Department of Chemistry accredited  
by American Chemical Society  
Department of Music accredited  
by National Association of Schools of Music  
Departments of Elementary and Secondary Education accredited  
by the National Council for Accreditation of Teacher Education

Established as a four-year coeducational  
state-supported college on September 1, 1951

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Lamar University is an equal opportunity/affirmative action educational institution and employer. Students, faculty and staff members are selected without regard to their race, color, creed, sex, or national origin, consistent with the Assurance of Compliance with Title VI of the Civil Rights Act of 1964, and Executive Order 11246 as issued and amended.

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

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## HOW TO ENTER LAMAR UNIVERSITY

### High School Graduates

#### When to Apply

Application for admission should be made well in advance of the expected enrollment date. Students planning to enter either a summer session or the fall semester, should apply by February 1. Applications for the spring semester should be on file by October 1.

#### Where to Apply

All required admission forms should be addressed to the Dean of Admissions and Records, Lamar University, Lamar University Station, Box 10009, Beaumont, Texas 77710.

#### How to Apply (Details Page 11 of this catalog)

1. File official application for admission (form attached to back of this catalog).
2. Take College Entrance Examination Board's (CEEB) Scholastic Aptitude Test (SAT) and designate Lamar University to receive the scores. (November, December, January, test dates are preferred).
3. Submit the official health data form executed by a physician (health form attached back of this catalog).
4. Have transcript of high school grades sent directly to Dean of Admissions and Records, Lamar University.
5. Students desiring dormitory space should file a request for a dormitory room with the Assistant Dean of Students for Housing, Box 10041, Lamar University. A \$50 room deposit is required.

#### Requirements for Admission (Details page 9 of this catalog)

1. \*Graduation from an accredited high school with
  - A. Four (4) units of English (excludes speech, journalism, Business English, etc.).
  - B. Two (2) units of mathematics (algebra and geometry).
  - C. Four (4) units from two of the following groups:
    1. Group I—Two (2) units of social studies.
    2. Group II—Two (2) units of natural science.
    3. Group III—Two (2) units of foreign language.
  - D. Six(6) units of electives (must not include more than four (4) vocational units).
2. Total verbal and mathematics scores on CEEB aptitude test (SAT) must be 700 or above for Texas residents. Out-of-state students must rank in the upper three-fourths of their graduating class and have a minimum SAT score of 900.

### Transfer Students

Students seeking admission as transfer students from other institutions see Page 15 of this catalog for procedures.

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\*Applicants for admission to the School of Engineering—see special requirements Page 10 of this catalog.

**DIRECTORY FOR CORRESPONDENCE**

Numbers for all campus stations may be obtained through the central switchboard, Area Code 713, 838-7011. All correspondence should be directed to Lamar University Station, Beaumont, Texas 77710.

To obtain prompt attention, address inquiries to the following persons or agencies.

- Academic Program . . . . . Andrew J. Johnson, Vice-President, P.O. Box 10002
- Admissions and Records . . . . . Norris H. Kelton, Dean, P.O. Box 10009
- Athletics . . . . . J. B. Higgins, Director, P.O. Box 10038
- Books/Supplies . . . . . P. B. Plotts, Bookstore Manager, P.O. Box 10019
- Continuing Education/Extended Day Classes . . . . . Joseph D. Reho, Director,  
P.O. Box 10008
- Extended Services . . . . . Thomas T. Salter, Vice-President, P.O. Box 10051
- Financial Affairs . . . . . H. C. Galloway, Vice-President, P.O. Box 10003
- Financial Aid/Awards . . . . . Jess R. Davis, Director, P.O. Box 10042
- Information/Publications . . . . . Russell DeVillier, Director, P.O. Box 10011
- Library . . . . . R. B. Thomas, Director, P.O. Box 10021
- Research and Programs . . . . . Jack Hill, Director, P.O. Box 10053
- Student Activities . . . . . W. James Carter, Director, P.O. Box 10018
- Student Affairs . . . . . David L. Bost, Vice-President, P.O. Box 10006
- Student Health . . . . . Mrs. Ola Saunders, R.N., P.O. Box 10015
- Student Housing . . . . . Tommy D. Paulsel, Director, P.O. Box 10041
- Teacher Certification . . . . . Howard W. Adams, Director, P.O. Box 10034
- Traffic/Security . . . . . Gene Carpenter, Director, P.O. Box 10013
- Tuition/Fees/Expenses . . . . . Finance Office, P.O. Box 10003
- Testing/Veterans' Affairs . . . . . Joe B. Thrash, Director, P.O. Box 10012
- School of Business . . . . . J. D. Landes, Dean, P.O. Box 10059
- School of Education . . . . . M. L. McLaughlin, Dean, P.O. Box 10034
- School of Engineering . . . . . Lloyd B. Cherry, Dean, P.O. Box 10057
- School of Fine/Applied Arts . . . . . W. Brock Brentlinger, Dean, P.O. Box 10050
- School of Liberal Arts . . . . . Preston B. Williams, Dean, P.O. Box 10058
- School of Sciences . . . . . Edwin S. Hayes, Dean, P.O. Box 10037
- Graduate School . . . . . E. B. Blackburn, Dean, P.O. Box 10004
- School of Technical Arts . . . . . Kenneth E. Shipper, Dean, P.O. Box 10043

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## CALENDARS FOR 1972 AND 1973

## 1972

S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
<b>JANUARY</b> 1	<b>FEBRUARY</b>	<b>MARCH</b>	<b>APRIL</b> 1
2 3 4 5 6 7 8	1 2 3 4 5	1 2 3 4	2 3 4 5 6 7 8
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23 24 25 26 27 28 29	20 21 22 23 24 25 26	19 20 21 22 23 24 25	23 24 25 26 27 28 29
30 31	27 28 29	26 27 28 29 30 31	30
<b>MAY</b>	<b>JUNE</b>	<b>JULY</b> 1	<b>AUGUST</b>
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14 15 16 17 18 19 20	11 12 13 14 15 16 17	16 17 18 19 20 21 22	13 14 15 16 17 18 19
21 22 23 24 25 26 27	18 19 20 21 22 23 24	23 24 25 26 27 28 29	20 21 22 23 24 25 26
28 29 30 31	25 26 27 28 29 30	30 31	27 28 29 30 31
<b>SEPTEMBER</b>	<b>OCTOBER</b>	<b>NOVEMBER</b>	<b>DECEMBER</b> 1 2
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17 18 19 20 21 22 23	22 23 24 25 26 27 28	19 20 21 22 23 24 25	24 25 26 27 28 29 30
24 25 26 27 28 29 30	29 30 31	26 27 28 29 30	31

## 1973

S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
<b>JANUARY</b>	<b>FEBRUARY</b>	<b>MARCH</b>	<b>APRIL</b>
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28 29 30 31	25 26 27 28	25 26 27 28 29 30 31	29 30
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6 7 8 9 10 11 12	3 4 5 6 7 8 9	8 9 10 11 12 13 14	5 6 7 8 9 10 11
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27 28 29 30 31	24 25 26 27 28 29 30	29 30 31	26 27 28 29 30 31
<b>SEPTEMBER</b>	<b>OCTOBER</b>	<b>NOVEMBER</b>	<b>DECEMBER</b> 1
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2 3 4 5 6 7 8	7 8 9 10 11 12 13	4 5 6 7 8 9 10	9 10 11 12 13 14 15
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23 24 25 26 27 28 29	28 29 30 31	25 26 27 28 29 30	30 31
30			

LAMAR UNIVERSITY

Fall Semester for 1972

Aug. 29	Tuesday	Meeting for new faculty. Dormitories open.
30	Wednesday	Faculty convocation. Dining halls open. Registration of students who have completed entrance procedures.
31-Sept. 1	Thurs.-Fri.	Continued Registration.

Registration after this date  
limited to available classes.

Late registraiton (penalty fee  
charged). Payment of fees is  
part of registration.

Sept. 4	Monday	8:00 a.m.	Classes begin.
6	Wednesday		Last date for registration or for adding courses.
19	Tuesday		Twelfth class day.
20-Nov. 22			Period of application for December graduation.
Oct. 23-26	Mon.-Thurs.		Mid-semester week.
27-30	Fri.-Mon.		Mid-semester recess of class meetings.
31	Tuesday		Mid-semester grades due in Office of Admissions and Records.
Nov. 10	Friday		Last date for dropping courses or for withdrawing without penalty.
13	Monday		Open counseling period.
20	Monday		Last date for approval for December graduation.
22	Wednesday		Dining halls close. Dormitories close.
		10:00 p.m.	Thanksgiving holidays begin.
26	Sunday	12:00 noon	Dormitories open.
27	Monday		Dining halls open.
		8:00 a.m.	Classes resume.
Dec. 11-22			Examinations as announced.
15	Friday		Last date for dropping courses or for withdrawing. Final date for submitting semester grades for graduating seniors to Office of Admissions and Records.
16	Saturday		Commencement exercises.

22	Friday	Last class day.
27	Wednesday	Final date for submitting semester grades other than for graduating seniors to Office of Admissions and Records.

### Spring Semester for 1973

Jan. 9	Tuesday	General faculty meetings. Dormitories open.
10	Wednesday	Dining halls open. Registration for students who have completed entrance procedures.
11-12	Thurs.-Fri.	Continued registration.

Registration after this date limited to available classes.

Late registration (penalty fee charged). Payment of fees is part of registration.

15	Monday	8:00 a.m.	Classes begin.
17	Wednesday		Last date for registration or for adding courses.
30	Tuesday		Twelfth class day.
31-April 13			Period of application for May graduation.
Mar. 5-9	Mon.-Fri.		Mid-semester week.
13	Tuesday		Mid-semester grades due in Office of Admissions and Records.
23	Friday		Last date for dropping courses or for withdrawing without penalty.
26	Monday		Open counseling period.
April 13	Friday		Dining halls close. Dormitories close.
22	Sunday	10:00 p.m.	Spring holidays begin.
23	Monday	12:00 noon	Dormitories open. Dining halls open.
May 1-June 22		8:00 a.m.	Classes resume. Period of application for August graduation.

May 7-18		Examinations as announced.
11	Friday	Last date for dropping courses or for withdrawing.
		Final date for submitting semester grades for graduating seniors to Office of Admissions and Records.
12	Saturday	Commencement exercises.
18	Friday	Last class day.
21	Monday	Final date for submitting semester grades other than for graduating seniors to Office of Admissions and Records.

Summer Session, 1973

First Term

June 3	Sunday	Limited operation of dormitories.
4	Monday	Dining halls open.
		Registration.

Registration after this date limited to available classes.	Late registration (penalty fee charged). Payment of fees is part of registration.
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5	Tuesday	8:00 a.m.	Classes begin.
6	Wednesday		Last date for registration or for adding courses.
8	Friday		Fourth class day.
25	Monday		Last day for approval for August graduation.
			Last date for dropping courses or withdrawing without penalty.
July 4	Wednesday		Independence Day holiday.
9	Monday		Last date for dropping courses or for withdrawing.
10-11	Tues.-Wed.		Examinations as announced.
11	Wednesday		Last class day.
14	Saturday		Term grades due in Office of Admissions and Records.

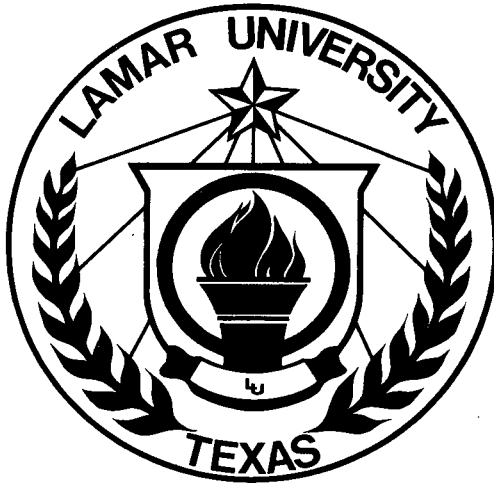
Second Term

12	Thursday	Registration.
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Registration after this date limited to available classes.		Late registration (penalty fee charged). Payment of fees is part of registration.
13	Friday	First class day.
16	Monday	Last date to register or to add courses.
18	Wednesday	Fourth class day.
Aug. 2	Wednesday	Last date for dropping courses or for withdrawing without penalty.
13	Monday	Last date for dropping courses or for withdrawing.
15-17		Examinations as announced.
17	Friday	Last class day. Final date for submitting semester grades of graduating seniors to Office of Admissions and Records.
18	Saturday	Commencement exercises.
21	Tuesday	Final date for submitting semester grades other than for graduating seniors to Office of Admissions and Records.

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**BOARD OF REGENTS**

Otho Plummer, Chairman	Beaumont, Texas
Cecil Beeson, Vice-Chairman	Orange, Texas
A. H. Montagne, Secretary	Orangefield, Texas
Bryan Beck, Jr.	Beaumont, Texas
Lloyd L. Hayes	Port Arthur, Texas
Tom M. Maes, II.	Beaumont, Texas
W. S. Monroe	Port Arthur, Texas
Pat Peyton, Jr.	Beaumont, Texas
J. L. Smith	San Augustine, Texas



**GENERAL INFORMATION****Location**

Lamar University is a state-supported institution located in the center of industrial Southeast Texas at Beaumont. Principal industries in the area are oil refining, shipping, shipbuilding, rubber manufacturing and chemical production. Surrounding the urban communities are ranches and rice farms.

The campus is adjacent to the Beaumont-Port Arthur Highway in southeastern Beaumont. With a population of approximately 120,000, Beaumont has modern schools, churches, and shopping districts to serve the thriving industrial community.

In the metropolitan Beaumont area are the cities of Port Arthur, Orange, Vidor, Port Neches, Nederland and Groves, all within 25 miles and forming the heart of the Gulf Coast area with an estimated population of more than 350,000.

**History**

South Park Junior College was established in 1923. The college was organized and controlled by the South Park Independent School District, and classes were conducted in the South Park High School Building. Enrollment increased from about 125 in 1923 to 300 in 1931.

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

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

A movement to expand Lamar College into a four-year state-supported school culminated in the creation of Lamar State College of Technology on September 1, 1951. Since that time enrollment has increased to more than 10,000 students, and the curriculum has been expanded and liberalized to include many areas of study. Graduate work in specified fields began in the academic year of 1960-61, and extension work became an integral part of the educational program in 1964. A new plateau was reached in 1971 with the addition of a doctoral program in engineering.

With the name change to Lamar University on August 23, 1971, the institution's status as a university became official.

**Government**

The government of the university is vested in a board of nine regents appointed by the Governor and approved by the Senate for terms of six

years. The direction of academic affairs is delegated by the Board of Regents to the President, administrative officers, and faculty.

The general policies of the Graduate School are determined and administered by the Graduate Council.

### **Objectives**

Lamar University is a member of the Texas state system of higher education, offering a variety of scientific, technical, pre-professional, professional and liberal arts programs of study. The philosophy of the university is expressed in the following objectives:

1. Provide educational opportunities, within the available resources, for all qualified students who are admitted.

2. Assist students to find and prepare for the particular vocation for which they are best suited by interest, aptitude, and background.

3. Promote and maintain professional competency in all instruction and research involved in academic programs leading to the authorized undergraduate and graduate degrees.

4. Insure that students have the opportunity to realize their full potential as individuals, as responsible citizens, and as leaders in a democratic society through a proper integration of general and special education in all degree and terminal programs.

5. Maintain, in all areas of the university, on the main campus and in extension work, a joint quest by faculty and students for truth through creative study and research.

6. Develop and sustain such student organizations and services as are needed to encourage a healthy, cultural, and intellectual student campus life.

7. Contribute scholarly and scientific services to the community, state, and nation.

### **Accreditation**

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

Several departments have been accredited by professional agencies. In the School of Engineering, the departments of Chemical, Civil, Electrical, Industrial, and Mechanical Engineering are accredited by the Engineers' Council for Professional Development. Other accreditations include the Department of Chemistry, which is accredited by the American Chemical Society; the Department of Music, which is accredited by the National Association of Schools of Music; and the Departments of Elementary and

Secondary Education, which are accredited by the National Council for the Accreditation of Teacher Education.

### Degree Offerings

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

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

**Bachelor of Business Administration** in Accounting, Economics, General Business, Management, Marketing and Secretarial Science.

**Master of Arts** in English, Government, and History.

**Master of Business Administration** (undifferentiated).

**Master of Education** in Elementary Education, Secondary Education, Guidance and Counseling, Special Education, and Supervision.

**Master of Engineering.**

**Master of Engineering Science** in Engineering.

**Master of Science** in Biology, Chemistry, Mathematics, Speech, Speech (Pathology or Audiology), and Health and Physical Education.

**Doctor of Engineering.**

### Organization

The university is organized into eight schools. Each school is administered by a dean.

#### Schools

Business	Liberal Arts
Education	Sciences
Engineering	Technical Arts
Fine and Applied Arts	Graduate

Student academic matters requiring the attention or approval of the deans are:

1. Guidance and assignment of counselor.
2. Academic load.
3. Changes in schedule.
4. Dropping and adding courses.
5. Unsatisfactory academic progress.
6. Withdrawal from college.
7. Graduation requirements.

### **Entering Dates**

Courses and schedules have been arranged so that students may enter Lamar four times each year. The approximate entering dates are June 4, July 12, August 30, and January 10. The current University Calendar contains information regarding registration periods and exact entering dates.

## **FACILITIES**

### **Buildings and Grounds**

Located on a campus of approximately 200 acres and valued at approximately \$40,000,000, the Lamar University plant includes many new and functional buildings of modern design. These structures include:

Administration Building, Art Building, Biology Building, Bookstore, Business Building, Chemistry Buildings, Education Building, Educational Services Center, three Engineering Buildings, Geology Building, Health Center, Home Economics Building, Theatre-Gallery, Liberal Arts Building, Library, McDonald Gymnasium, Music-Speech Building, Physics Building, Post Office Building, Science Lecture Auditorium, Setzer Student Center, five School of Technical Arts Buildings, Student Affairs Building, University Cafeteria, and Women's Gymnasium and Pool.

The Richard W. Setzer Student Center, opened in 1971, represents an investment of almost \$3,000,000 in expansion, renovation, and furnishing of the former Student Union Building. Refurbishing of the Student Affairs Building (formerly Liberal Arts) and Engineering Buildings 1 and 2 has been completed also.

On-campus dormitories include Brooks Hall, Gentry Hall and Gray Hall for women; Campbell Hall, Combs Hall, Morris Hall, Plummer Hall, and Shivers Hall for men. Also, three apartment buildings for upper class students and married couples are included in the residence hall system.

A football stadium seating 17,150 and planned eventually to accommodate 38,500; Cardinal baseball field, athletic practice fields, Olympic swimming pool, indoor swimming pool, 14 tennis courts, track and field stadium, and a four-building maintenance complex are also located on the campus.

### **The Library**

In support of the continuously expanding academic programs, the Lamar Library has developed a strong collection. Approximately 25,000 volumes are added annually to the present 245,000 volumes, and over 3,000 periodicals are received. Library resources are further enriched by some 30,000 state and federal documents and microform materials. Additional resources are available to faculty, graduate students, and advanced research students through the Library's membership in a statewide teletype network.

Library hours are 7:30 a.m. to 11 p.m. Monday through Thursday; 7:30 a.m. to 5 p.m. Friday; 8 a.m. to 5 p.m. Saturday; and 2 to 11 p.m. Sunday. Hours between sessions and on holidays are posted.

### **Health Center**

The university maintains a Health Center for the use of students during the long term or summer session.

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

It is not possible for the university to provide unlimited medical service. Special medicines, examinations, treatments, X-rays, and laboratory tests are not furnished. However, no charge is made for care in the Health Center up to ten days each semester. A small fee for drugs, supplies, and special services may be charged students required to remain in the Health Center for more than ten days.

The Health Center, located on East Virginia near Combs Hall, is adequately staffed and equipped for treating illnesses and injuries, but the Center does not provide care for students requiring surgery or the services of specialists. In these cases, every effort will be made by the physician or nurse to notify the parents or guardians of the student's needs.

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

In the event the Health Center is filled to capacity, the university is not under obligation to provide hospital services elsewhere. However, the Health Center has a sufficient number of beds for all normal needs.

Students who are ill should report promptly to the Center for diagnosis and treatment. They will not be treated in the dormitory or in rooming houses. The university will take appropriate disciplinary action against students who refuse to report for medical advice when ill.

### **Bookstore**

For the convenience of faculty and students, the university operates its own bookstore where supplies and books, new and used, may be purchased.

Used books which are currently approved may be sold to the bookstore at prices much better than such books would ordinarily bring. Books which must be discontinued are not purchased by the bookstore except at a salvage price.

The bookstore reserves the right to require the seller to prove his ownership.

### **Dining Halls**

The university owns and operates the University Cafeteria located on the Main Campus (see map inside back cover). Also, dining halls are maintained in Brooks-Shivers, Gentry, and Plummer Halls for their residents.

The University Cafeteria maintains the following serving hours on **MONDAY** through **FRIDAY**:

- 6:30 a.m.-8:30 a.m.—Regular Breakfast
- 8:30 a.m.-9:00 a.m.—Continental Breakfast
- 10:30 a.m.-2:30 p.m.—Lunch
- 4:30 p.m.-6:30 p.m.—Dinner

Other dining halls maintain the following serving hours on **MONDAY** through **FRIDAY**:

- 6:30 a.m.-8:30 a.m.—Regular Breakfast
- 8:30 a.m.-9:00 a.m.—Continental Breakfast
- 11:00 a.m.-1:00 p.m.—Lunch
- 4:30 p.m.-6:00 p.m.—Dinner

On Saturdays and Sundays, only Plummer and Brooks-Shivers Halls serve breakfast. Hours are 7:30-9:00 a.m. All other meals on these two days are available at the Setzer Student Center. The Center is open from 9:00 a.m.-7:00 p.m. on Saturday; and from 11:00 a.m.-7:00 p.m. on Sunday.

Provision is made for special diets and work or class schedules that conflict with serving hours.

Two snack bars are located in the Setzer Student Center where sandwiches, soft drinks, and light lunches are available.

### **Housing**

Eight modern dormitories for women and men are located on the campus. The university also owns and operates three apartment buildings for upper class students and married couples. For additional information regarding housing, see the Fees and Expenses section of this Bulletin.

### **Computer Center**

The university operates a computer center as a service to faculty, administration, students, researchers, and others. The computer center has modern, high-speed digital and analog equipment valued in excess of three-quarters of a million dollars.

**Research and Programs**

A Research Center was formally organized in 1956. In August, 1970, it became the Office of Research and Programs. It is administered by a director who serves as the chairman of the faculty research committee. All state financed research projects are awarded through the research committee.

The Office also provides means for industrial organizations to obtain faculty assistance in solving their research needs.

## ADMISSIONS

Applicants for admission to the university are required to be of good moral character and to meet the academic requirements outlined in this Catalog or other applicable publications of the university.

Both the Graduate School and the School of Technical Arts publish separate bulletins and each require special application forms.

Information related to the admission to the undergraduate program of the university is listed in the following sections and applies to the Orange County Branch campus as well as to the main campus in Beaumont. Students seeking admission should study the requirements carefully and follow the procedure outlined for making application for admission. All required application forms are in the back of this bulletin. Requests for additional forms or admission information should be directed to the Dean of Admissions and Records, Lamar University, Lamar University Station, Box 10009, Beaumont, Texas 77710.

## REQUIREMENTS FOR STUDENTS ENTERING FROM HIGH SCHOOLS

An applicant is required to have graduated from an accredited high school with the units of credit specified for enrollment in the school for which he is applying and to offer Scholastic Aptitude Test scores which meet the minimum requirement. An applicant who has ever enrolled at another college or university is not at liberty to disregard that enrollment and seek admission on the basis of his high school record alone. Equivalency diplomas granted on the basis of GED scores will not fulfill entrance requirements. The following sections give details of the minimum score requirements and list units of credit required for admission to the different Schools of the University.

### Entrance Examination Requirement

The Scholastic Aptitude Test (SAT) of the College Entrance Examination Board is required of applicants entering from high school. This requirement is waived for graduates prior to 1960 if high school preparation includes all units required for admission as listed on page 10.

Residents of Texas applying for admission are required to have a minimum combined (verbal and mathematics) score of 700 on the SAT. Residents who score below the 700 requirement may be admitted on a provisional basis as explained on page 11. Non-residents of Texas must have a minimum score of 900 on the SAT and must also rank in the upper three-fourths of their graduating class. Non-resident students are not eligible to participate in the provisional program.

The Scholastic Aptitude Test is administered by CEEB at test centers throughout the United States and in many foreign countries in November, December, January, March, and July. It is recommended that summer and fall applicants take the test no later than the January date. The location of all test



centers, test dates, fees, application forms, and general information about the test is given in the CEEB booklet: Bulletin of Information—College Board Admissions Tests. The Bulletin may be obtained without charge from high school counselors, or by writing directly to the College Entrance Examination Board, Box 1025, Berkeley, California 94701. Secure a booklet EARLY so that a convenient test date and site can be selected.

The Level I Mathematics Test must be taken by all students entering the School of Engineering and is strongly recommended for students planning to major in any of the physical sciences. Students planning to continue a language started in high school must take the CEEB reading test in the language for placement purposes. Otherwise, achievement tests are not required but in many cases are recommended. Students whose high school records are outstanding should consider taking achievement tests for advanced placement (see page 12).

### Unit Requirement

Minimum unit requirement for admission to the Schools of Liberal Arts, Sciences, Business, Education, Fine and Applied Arts:

English <sup>1</sup> .....	4
Mathematics	
Algebra .....	1
Geometry .....	1
Social Sciences .....	} 2 units from each of 2 of
Natural Sciences <sup>2</sup> .....	
Foreign Language .....	} these
Electives <sup>3</sup> .....	
<b>Total</b> .....	<b>16</b>

Units required for admission to the School of Engineering:

English <sup>1</sup> .....	4
Mathematics	
Algebra .....	2
Geometry .....	1
Trigonometry <sup>4</sup> .....	½
Natural Sciences	
Chemistry <sup>4</sup> .....	1
Physics <sup>4</sup> .....	1
Social Sciences .....	2
Electives <sup>3</sup> .....	4½
<b>Total</b> .....	<b>16</b>

<sup>1</sup>Only regular standard English may be used to fulfill this requirement.

<sup>2</sup>One unit of home economics or agriculture may be used in fulfilling this requirement; additional units of either are classified as vocational units.

<sup>3</sup>May not include more than 4 units in vocational courses with no allowance for drill subjects (physical education, military training, driver training, etc., and including band and chorus unless offered as curricular subjects rather than activities, and with prerequisite prescribed by the Division of Professional Standards of the Texas Education Agency). Courses classified as vocational include agriculture, home economics, business courses, drafting, shop, applied mathematics.

<sup>4</sup>Students not presenting this unit will be required to take an additional college level course.

Conditional admission may be granted candidates who meet all other standards but have minor deficiencies in entrance units. The "condition" is removed upon the satisfactory completion of the first 30 hours of the curriculum in which he enrolls.

### **Health Record Requirement**

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

### **Provisional Admission Program**

Residents of Texas whose scores fall below the required SAT score of 700 may be admitted on a provisional basis to either the summer session or the spring semester. Eligibility for regular admission may be established by making the proper grades during the trial period.

Summer provisional students must pass nine semester hours and earn twenty-four grade points. Students enrolling for the spring semester on a provisional basis must pass twelve hours and earn twenty-four grade points.

Courses must be selected from those specified by the curriculum of the student's major field. Provisional admission is not open to out-of-state residents or to students who have attended college previously.

The program is not available during the fall semester.

It is permissible for provisional students to retake the SAT on a regularly scheduled test date and supply new scores for consideration.

### **How to Apply for Admission**

1. Submit application for admission on the official form. Inclusion of social security number is required on this form.
2. Submit a completed Health Data Form properly executed by a physician.
3. At the end of the first semester of the senior year, have the high school send the university a copy of your record including work in progress. Immediately after graduation, a supplementary transcript covering the final semester and certifying graduation must be sent.
4. Take the Scholastic Aptitude Test (November, December, or January dates preferred) and designate this university to receive score reports.

### **When to Apply**

Application should be made well in advance of the proposed enrollment date. Students planning to enter either a summer session or the fall semester, should apply by February 1. Applications for the spring semester should be on file by October 1.

The application form should ordinarily be submitted before the other required credentials. Submission of partial transcripts upon the completion of the first semester of the senior year is requested. Supplementary transcripts should be sent immediately after graduation.

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

### **Acceptance Notices**

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

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

### **Freshman Registration**

A series of two-day freshman registration conferences is held during the summer months. These small group sessions are designed to acquaint the new student with campus facilities and services and to give the individual student an opportunity to confer with college departmental advisors about his academic program. Registration for the fall semester is completed. The payment of tuition and fees, and the purchase of books at this time is optional. All beginning day students are required to attend one of these sessions. Attendance at each session is limited and advance reservations are necessary. Details of the program including available dates, costs, and reservation forms, are sent out with acceptance notices. Reservations should be requested early so that a convenient date can be selected. Parents are invited to attend and to participate in programs designed especially for them. Similar programs are required of new students entering in the spring semester or summer terms.

### **Advanced Placement**

Two optional testing programs are offered to enable first time college students to qualify for advanced standing and/or college credit. Tests must be taken prior to enrollment.

#### **1. Advanced Placement Examinations (Optional)**

Applicants who wish to receive credit for college-level work completed in high school may do so by submitting scores on the College Entrance Examination Board's Advanced Placement Examinations. Examinations are given annually in May, and arrangements are made through high schools. Application is made directly to CEEB. Subject matter areas and the basis of granting credits are listed below:

Subject Area	Required Score	Credit Granted
Chemistry	Score of 3 or above	Chemistry 141
English	Score of 3 or above	Eng. 1311-1312
	Score of 2	Eng. 1311 (Student receiving such credit must enroll in Eng. 1316)
Foreign Language	Score of 4 or 5	Six semester hours of foreign language
	Score of 3	Three semester hours of foreign language
American History	Score of 3 or above	History 231-232
European History	Score of 3 or above	History 131-132
Biology	Score of 3 or above	Biology 141-142
Calculus		
AB Test	Score of 3 or above	Math 133, 134, 1381, 1391
BC Test	Score of 3 or above	Math 133-134, 1381, 1391, 2311
Physics	Score of 3 or above	Physics 141

## 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. The student may enter advanced courses provided the test results indicate he is qualified to do so. 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 the regularly scheduled test dates in December, January, March, May, and July. Application is made directly to CEEB.

Subject Matter Area	CEEB Test Required	Credit Granted
English	English Composition	Eng. 1311 if validated by completion of Eng. 1316 with a grade of "C" or better.
Foreign Lang.	Spanish French German	0 to 6 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	6 to 9 semester hours depending on placement and validation.
Physics	Physics	Physics 141 if validated by completion of Physics 142 with a grade of "C" or better.

#### REQUIREMENTS OF STUDENTS ENTERING FROM OTHER COLLEGES

To be eligible for unconditional admission, a transfer student must (1) be eligible to re-enter all colleges previously attended, and (2) have an over-all grade-point average of C (2.0). The average is computed on all college work the student has undertaken, whether passed, failed, or repeated; and in the computation four grade-points are counted for each semester hour completed with a grade of A, three for B, two for C, one for D, and none for F.

The records of transfer applicants who meet requirement (1) above but who are deficient in grade-points are evaluated for admission purposes on the same basis as if the work had been taken at Lamar. A student admitted on probation must remove deficiencies in accordance with the provisions of the section on academic probation and suspension on page 45.

Transfer students who have earned less than 18 semester hours of transferable credit must also submit SAT scores, meet the same score requirement (see page 9), and meet the same unit requirement as a student entering directly from high school. The university reserves the right to require tests of any student if it appears that scores would be helpful in making the admission decision or would be beneficial for counseling purposes.

College transfer students are not eligible to participate in the provisional program shown on page 11.

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

### **Transfer of Credit**

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

Students transferring from a junior college are limited to the transfer of 66 semester hours or to the number of hours required by this university during the freshman and sophomore years in the curriculum under which the student enrolls. Once this maximum has been earned at any college (junior or senior), no additional hours earned at a junior college will transfer.

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

### **How to Apply for Admission**

The following procedure should be followed in making application for admission. All credentials should be sent to the Dean of Admissions and Records, Lamar University, Beaumont, Texas.

1. Submit application for admission on the official form. Inclusion of social security number is required on this form.
2. Submit the Health Data Form properly executed by a physician.
3. Submit official transcripts from each college previously attended. This requirement applies regardless of the length of time in attendance and regardless of whether credit was earned or is desired.
4. If entrance examination scores are required, take the prescribed entrance tests and/or have a record of test scores sent to the Office of Admissions and Records.

### **When to Apply**

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

The application form should be submitted before transcripts are sent. Transcripts should normally be sent after all work to be transferred is completed. If the time interval between the end of a semester elsewhere and

the beginning of a subsequent semester at this university is too short for the transcript to be submitted prior to registration, a temporary admission may be granted. 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 and can only be resolved by the evaluation of a partial transcript. Under these circumstances, the partial transcript should be submitted and a supplementary transcript furnished at the end of the semester.

### **FORMER STUDENTS RETURNING FROM ANOTHER INSTITUTION**

A former student who has attended another college is required to submit a complete record of all work done subsequent to the last date of attendance at Lamar University and to meet the academic requirements for other transfer students outlined on page 14 of this catalog.

### **SUMMER TRANSIENTS**

Students in attendance at another college during the spring semester and 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 the regular application for admission. A Letter of Standing or transcript from your college will NOT be required. Transient students who later apply for regular long term admission must meet all entrance requirements and supply all necessary admission credentials.

### **ADMISSION BY INDIVIDUAL APPROVAL**

A non-high school graduate who is 21 years of age or older may apply for admission as an individual approval student. Applicants must furnish evidence of preparation substantially equivalent to that required of other applicants, and of aptitude and seriousness of purpose to successfully pursue a college course of study.

Applicants are required (1) to take the entrance examination (see page 9), (2) to submit a record of the high school work which was completed, and (3) to appear for a personal interview. Educational records and test scores must be on file well in advance of the proposed registration date. Arrangements for the interview should be made after records and scores are received by the university but well in advance of registration. Individual approval applications cannot be considered during the registration period.

### **ADMISSION OF STUDENTS FROM OTHER COUNTRIES**

Physical facilities limit the number of students that can be accepted from

other countries, but a small number of admissions is granted every year and applications are welcomed. Approximately 87 students from 20 different countries are currently enrolled.

Applicants are required to have completed secondary schools with above average marks and to have been issued appropriate college entrance certificates, to be proficient in written and spoken English, to have adequate financial resources and to be in good physical condition. Candidates for admission are required to take the Scholastic Aptitude Test of the College Entrance Examination Board. The Test of English as a Foreign Language (TOEFL) is required if the applicant's native language is one other than English. Both the SAT and TOEFL are given several times a year at test centers throughout the world. Information on the tests can be secured by writing to the College Entrance Examination Board, Box 592, Princeton, New Jersey, U.S.A. Application forms, test scores, and complete educational records must be on file three months in advance of the proposed registration date.

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 Dean of Admissions and Records.



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**FEES AND EXPENSES**
**Payment of Fees**

Lamar University reserves the right to change fees in keeping with acts of the Texas Legislature.

A student is not registered until all his fees are paid in full. Payment may be made by check, money order, or currency. Checks and money orders, not in excess of total fees, should be made payable to Lamar University and will be accepted subject to final payment. Checks and drafts deposited with Federal Reserve banks cannot be handled through regular bank collection channels if received without the magnetic ink (MICR) transit number. The new electronic processing demands such magnetic ink encoding. The university will not accept counter checks or "changed" checks.

**Fees Summary****Texas Resident Fees****Long Session  
(Fall or Spring)**

Hours	Tuition	S.S. Fee	Bldg. Fee	Setzer Center	Total + Lab Fees
1	\$50	\$8	\$13	\$10	\$81
2	50	8	13	10	81
3	50	8	13	10	81
4	50	8	13	10	81
5	50	8	13	10	81
6	50	8	13	10	81
7	50	8	13	10	81
8	50	22	26	10	108
9	50	22	26	10	108
10	50	22	26	10	108
11	50	22	26	10	108
12	50	22	26	10	108
13	52	22	26	10	110
14	56	22	26	10	114
15	60	22	26	10	118
16	64	22	26	10	122
17	68	22	26	10	126
18	72	22	26	10	130
19	76	22	26	10	134
20	80	22	26	10	138

Add \$4 for each hour over 20 for Tuition. Other fees remain the same.

Minimum Tuition-\$50

**Summer Session  
(Six Weeks)**

Hours	Tuition	S. S. Fee	Bldg. Fee	Setzer Center	Total +Lab Fees
1	\$25	\$10	\$13	\$5	\$53
2	25	10	13	5	53
3	25	10	13	5	53
4	25	10	13	5	53
5	25	10	13	5	53
6	25	10	13	5	53
7	28	10	13	5	56
8	32	10	13	5	60
9	36	10	13	5	64
10	40	10	13	5	68

Add \$4 for each hour over 10 for Tuition. Other fees remain the same.

Minimum Tuition-\$25

This fee schedule supercedes the fee schedule contained on page 17 of the 1971-72 bulletin of Lamar University (Vol. 21) to conform with the revisions enacted by the 62nd Texas Legislature, HB 43.

**Non Resident Students  
U. S. Citizens  
Long Session  
(Fall or Spring)**

Hours	Tuition	S.S. Fee	Bldg. Fee	Setzer Center	Total +Lab Fees
1	\$40	\$8	\$13	\$10	\$71
2	80	8	13	10	111
3	120	8	13	10	151
4	160	8	13	10	191
5	200	8	13	10	231
6	240	8	13	10	271
7	280	8	13	10	311
8	320	22	26	10	378
9	360	22	26	10	418
10	400	22	26	10	458
11	440	22	26	10	498
12	480	22	26	10	538
13	520	22	26	10	578
14	560	22	26	10	618
15	600	22	26	10	658
16	640	22	26	10	698
17	680	22	26	10	738
18	720	22	26	10	778
19	760	22	26	10	818
20	800	22	26	10	858

Add \$40 for each hour over 20. Other fees remain the same.

Minimum Tuition-\$40

**Summer Session  
(Six Weeks)**

Hours	Tuition	S.S. Fee	Bldg. Fee	Setzer Center	Total +Lab Fees
1	\$40	\$10	\$13	\$5	\$68
2	80	10	13	5	108
3	120	10	13	5	148
4	160	10	13	5	188
5	200	10	13	5	228
6	240	10	13	5	268
7	280	10	13	5	308
8	320	10	13	5	348
9	360	10	13	5	388
10	400	10	13	5	428

Add \$40 for each hour over 10. Other fees remain the same.

Minimum Tuition-\$40

This fee schedule supercedes the fee schedule contained on page 17 of the 1971-72 bulletin of Lamar University (Vol. 21) to conform with the revisions enacted by the 62nd Texas Legislature. HB 43.

**Non Resident Students  
U. S. Citizens  
Registered During Spring, 1971,  
Long Session  
(Fall or Spring)**

Hours	Tuition	S. S. Fee	Bldg. Fee	Setzer Center	Total +Lab Fees
1	\$50	\$8	\$13	\$10	\$81
2	50	8	13	10	81
3	50	8	13	10	81
4	66	8	13	10	97
5	83	8	13	10	114
6	100	8	13	10	131
7	117	8	13	10	148
8	133	22	26	10	191
9	150	22	26	10	208
10	167	22	26	10	225
11	183	22	26	10	241
12	200	22	26	10	258
13	200	22	26	10	258
14	200	22	26	10	258
15	200	22	26	10	258
16	200	22	26	10	258
17	200	22	26	10	258
18	200	22	26	10	258
19	200	22	26	10	258
20	200	22	26	10	258

Minimum Tuition-\$50

**Summer Session  
(Six Weeks)**

Hours	Tuition	S.S. Fee	Bldg. Fee	Setzer Center	Total +Lab Fees
1	\$50	\$10	\$13	\$5	\$78
2	50	10	13	5	78
3	50	10	13	5	78
4	66	10	13	5	94
5	83	10	13	5	111
6	100	10	13	5	128
7	117	10	13	5	145
8	133	10	13	5	161
9	150	10	13	5	178
10	167	10	13	5	195

Minimum Tuition-\$50

**Foreign Students  
Long Session  
(Fall or Spring)**

Hours	Tuition	S.S. Fee	Bldg. Fee	Setzer Center	Total +Lab Fees
1	\$200	\$8	\$13	\$10	\$231
2	200	8	13	10	231
3	200	8	13	10	231
4	200	8	13	10	231
5	200	8	13	10	231
6	200	8	13	10	231
7	200	8	13	10	231
8	200	22	26	10	258
9	200	22	26	10	258
10	200	22	26	10	258
11	200	22	26	10	258
12	200	22	26	10	258
13	200	22	26	10	258
14	200	22	26	10	258
15	210	22	26	10	268
16	224	22	26	10	282
17	238	22	26	10	296
18	252	22	26	10	310
19	266	22	26	10	324
20	280*	22	26	10	338

\*Add \$14 for tuition for each hour over 20. Other fees remain the same.

Minimum Tuition-\$200

Hours	Tuition	Summer Session (Six Weeks)			Total + Lab Fees
		S. S. Fee	Bldg. Fee	Setzer Center	
1	\$100	\$10	\$13	\$5	\$128
2	100	10	13	5	128
3	100	10	13	5	128
4	100	10	13	5	128
5	100	10	13	5	128
6	100	10	13	5	128
7	100	10	13	5	128
8	112	10	13	5	140
9	126	10	13	5	154
10	140*	10	13	5	168

\*Add \$14 for tuition for each hour over 10. Other fees remain the same.

Minimum Tuition-\$100

These fees have been approved by appropriate acts of the Legislature of the State of Texas.

#### Student Responsibility for Residence Classification

The responsibility of registering under the proper residence classification is that of the student, and if there is any possible question of his right of classification as a resident of Texas, it is his obligation, prior to or at the time of his registration, to raise the question with the Dean of Admissions and Records and have his status officially determined.

Every student who is classified as a resident student who becomes a non-resident at any time by virtue of a change of legal residence by his own action or by the person controlling his domicile is required to notify the Dean of Admissions and Records.

Students failing to comply with the residency provisions of the state tuition bill (Art. 2645c, V.C.S. as amended 1957) are subject to penalties as set forth in the law and/or appropriate disciplinary action.

#### Private Lessons in Voice and Instrumental Music

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

#### Laboratory Fees

For all courses in which the combined credit of lecture and laboratory is from 1 to 3 semester hours, a laboratory fee of \$2 is charged for each semester. For such courses in which the credit is 4 semester hours or more, the laboratory fee is \$4 per semester.

**Parking Fee**

Charges for parking on campus are made at the time a student is registered. In each instance, a student's parking fee is honored up to the end of the current fiscal year, which is August 31.

Registration of an automobile in September is \$10. The January fee is \$6. A student registering for the first Summer Session is charged \$4, and for the second Summer Session the fee is \$2.

Only one registration is required for one school year.

**Returned Check Fees**

If a check is returned unpaid, the student is automatically suspended from the university, but may re-enter upon redemption of the check plus payment of the return check fee of \$2.

**Special Fees**

Fees for courses for which special plans must be prepared and for which specialists must be secured as instructors will be set for each such course by the university administration subject to the approval of the president.

**Miscellaneous Fees**

Associate Diploma .....	\$4.50
Certificate of Completion .....	4.50
Bachelor's Diploma .....	7.50
Cap and Gown Rental .....	7.00
Late Registration .....	5.00
Returned Checks .....	2.00
Re-entry Fee .....	5.00
Transcript Fee .....	.50
Advanced Standing Examination .....	5.00 per course
Photo Identification .....	2.00
Swimming Pools (suits and towels) .....	2.00

**Health and Accident Insurance**

Additional health and accident coverage providing protection over and beyond that given by the Health Center is available at registration for students carrying nine or more semester hours. The fee is \$25 (estimated). For their protection and welfare this (or similar) insurance is required of all foreign students.

**Exemption 1. Scholarships to High School Honor Graduates**

The highest ranking student in the graduating class of a fully affiliated Texas high school will be entitled to a scholarship valued at \$100. This scholarship must be utilized during the long session immediately following graduation.

**Exemption 2. Veterans**

Citizens of Texas who served in the Armed Forces in World War I, World War II, the Korean Conflict, or the Vietnam War, and were honorably discharged and who are not eligible for educational benefits provided for veterans of the United States Government are **exempt** from tuition and laboratory fees, but not from other fees. To obtain this exemption, the service record, discharge papers, or other necessary papers must be presented at the time of registration.

The above exemption also extends to children 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 the Vietnam War.

**Summary of Registration Expenses**

Each student must study his own budget carefully. It is possible to attend Lamar on a very modest sum and yet participate in all important phases of the university program. To assist in planning registration expenses, the following estimate is furnished as a guide:

Texas residents taking a 15 hour academic work load\*:

Tuition	\$60
Student Services Fee	.22
Building Use Fee	.26
Setzer Student Center Fee	.10
Parking Fee (if desired)	.10
Health Insurance (if desired)	.25
Books and Incidentals (estimated)	<u>.55</u>
	\$208
	+lab fees

Part-time Student (Six semester hours):

Tuition	\$50
Student Services Fee	8
Building Use Fee	.13
Setzer Student Center Fee	.10
Parking Fee (if desired)	.10
Books and Incidentals (estimated)	<u>.20</u>
	\$111
	+lab fees

The tuition fee varies with the semester hours carried so that the total is less or more than this estimate, according to the schedule shown in the section, "Fees Summary."

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

**Refund of Fees**

Any student withdrawing officially will receive a refund on tuition, student service, laboratory and private lesson fees according to the following schedule:

**Long Session**

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

**Summer Session**

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

No refunds are made when dropping courses.

Application for refund must be made to the Vice-President of Finance after the student has officially withdrawn, but not later than the end of the current semester or summer session.

It takes about 30 days to process these refunds.

**Fine and Breakage Loss**

All library fines, breakage or loss of equipment charges, 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 or loss of instructional equipment or other university property.



## STUDENT HOUSING

The student housing program at Lamar is designed to supplement the academic program of instruction by providing opportunities for social and intellectual development and recreation in a pleasant living environment. A professional staff is on hand to work with students in planning and executing residence hall programs and to serve as advisors and counselors to students.

University residence halls can economically provide the proper atmosphere for out-of-class activities of an educational nature, and the proper environment for academic preparation and study.

A variety of room accommodations and meal plans are available to meet the needs of the individual student.

It is realized that the facilities and programs of Lamar's residence halls will not fulfill the desired life-style of some students. For this reason, students who do not feel that the residence hall program meets their personal needs may elect to find living accommodations off-campus.

The adjustment from secondary school to the university frequently is difficult for the first-year student. It is, therefore, recommended that all freshmen who do not live with parents or other relatives, reside on the campus where they will have ready access to assistance with their academic programs through the Library and through contacts with upperclassmen in their major fields, and to counseling with a professional staff.

### Policies

The following policies will govern the operation of residence halls in 1972-73.

1. Students may request private rooms, or rooms with one or two roommates. Unfurnished rooms will be available at reduced cost in selected housing units. A student who lives in university housing must participate in the room and board plan designated for the residence hall in which he elects to reside.
2. Residence hall room assignments will be made on a contract lease basis, cancellable by the student at the end of any given semester. If a student removes himself from the housing system prior to the end of the semester, no refund of room rent or deposit will be made and the student will honor his contractual agreement for food service for the balance of the semester. Except for fractional parts of a month, rent refunds will be made to occupants moving from the married student apartments if 15 day notice is given.
3. Under the guidance of the Student Affairs Division, the various residence halls councils, elected by the residents, will have the responsibility for enacting and enforcing rules and regulations governing their respective residence halls.

4. Within certain limitations, rooms may be decorated to suit individual tastes, including the painting of the walls in some units. Prior approval of the Assistant Dean of Students for Housing is required.
5. A \$50 deposit will be required of all residents, to serve as a guarantee of reservation and to be applied against any damage to university facilities, chargeable to the student. All unclaimed rooms will be declared vacant and deposit forfeited at 6 p.m. on the last day of registration unless the student gives the Student Housing Office written instructions to hold the room for a longer period. The amount of the deposit must total \$50 at the start of each semester; *i.e.*, any charges against the deposit must be reimbursed to the deposit fund to bring it up to \$50 prior to occupancy for the ensuing semester.
6. Dormitory residents will be responsible for keeping their rooms in good condition. They will be financially responsible for the replacement or repair of any university property entrusted to them which may be damaged, whether such damage is caused by the occupant or a guest.
7. Payment for damages to any area of the dormitory will be required of the individual student responsible for the damages. In the event responsibility for damages to lounges, hallways, stairways, etc. cannot be determined, all residents will share equally in the cost of replacement or repair.
8. Women's housing units normally close at 12 midnight Sunday through Thursday, and at 2 a.m. on Friday and Saturday nights. Parental consent for self-regulated hours, special late permissions, and general overnight and weekend permissions will be honored.
9. Residents of the Lamar Apartments will be allowed to have visitors of the other sex in their apartments during prescribed hours. This plan is available only in the apartments. In addition to married couples, apartment units may be leased by upperclass and graduate students who are 21 years of age, or whose parents sign a consent form. Rules governing the Lamar Apartments will be drafted and enforced by the residence hall council of the Lamar Apartments in cooperation with the Student Affairs staff.
10. The illegal use of drugs, the possession and/or use on campus of alcoholic beverages or marijuana is a violation of university regulations, and violators will be subject to disciplinary action, including removal from the institution, and prosecution through the civil and/or criminal courts.

Direct inquiries regarding all housing (accommodations, charges, room reservations, board, etc.) to: Housing Office, Lamar University, P.O. Box 10041, Lamar University Station, Beaumont, Texas 77710.

11. Students whose general behavior warrants disciplinary action may forfeit their privilege of remaining in the university residence halls.
12. The university reserves the right to inspect student rooms and apartments when evidence points to imminent danger to persons or property. Otherwise, routine inspections for maintenance purposes will be made only at announced times.

**Housing Rate Summary**

If a student wishes to pay rent on a monthly basis, information is available on request. Write: Student Housing Office – Lamar University Station, Box 10041, Beaumont, Texas 77710.

**ROOM RENT (per semester)**

Type of Facility (Cost per Student)	WITH <u>Air/Cond</u>	WITHOUT <u>Air/Cond</u>
<b>Resident Halls:</b>		
<b>Fall &amp; Spring Semesters</b>		
Single Occupancy . . . . .	\$325.00	\$300.00
Double Occupancy . . . . .	220.00	200.00
Triple Occupancy . . . . .	160.00	145.00
Two-Room Suites:		
2 Students per Suite (each) . . . . .	325.00	300.00
3 Students per Suite (each) . . . . .	255.00	233.00
<b>Summer Sessions</b>		
Single Occupancy . . . . .	108.50	Not Available
Double Occupancy . . . . .	73.50	Not Available
Triple & Suite rental not available for summer terms.		
<b>Apartments (with Kitchen):</b>		
<b>Fall &amp; Spring Semesters</b>		
Married Student . . . . .	\$375.00	\$350.00
Two Students (each) . . . . .	250.00	Not Available
<b>Summer Sessions</b>		
Married Student . . . . .	125.00	116.50
Two Students (each) . . . . .	83.50	Not Available
<b>Apartments (without kitchens):</b>		
<b>Fall &amp; Spring Semesters</b>		
One Student . . . . .	\$375.00	Not Available
Two Students (each) . . . . .	220.00	Not Available
<b>Summer Sessions</b>		
Apartments without kitchens not available for summer terms.		

(A reduction of \$45 per 9 months term and \$7.50 per each summer term per room will be allowed for rooms and apartments rented unfurnished. Unfurnished rooms are available only in Campbell, Combs, Morris, and Gray Halls and the Lamar Apartments.)

**Meal Plans**

(All meal prices include current 5% sales tax)

**Board Plans May Not Be Changed During The Semester**

- A. **Full Board Plan:** Provides three meals per day except Sunday evening. Meal stickers are not transferable. Lost stickers will be replaced for a fee. Payment may be made in advance for the semester, or the student may elect to follow this payment schedule:

Fall Semester		Spring Semester	
Aug 29 (check-in) . . . . .	\$91.88	Jan 9 . . . . .	\$45.94
Oct 1 . . . . .	76.98	Feb 1 . . . . .	66.61
Nov 1 . . . . .	64.56	Mar 1 . . . . .	55.13
Dec 1 . . . . .	<u>42.21</u>	Apr 1 . . . . .	64.31
		May 1 . . . . .	<u>43.64</u>
<b>TOTAL FALL . . . . .</b>	<b>\$275.63</b>	<b>TOTAL SPRING . . . . .</b>	<b>\$275.63</b>

- B. **Partial Board Plan:** The student contracts to purchase a minimum of four-meal coupon books per semester. Each book contains coupons for 41 meals, priced at \$50.00 (plus current tax) per book, for a total of 164 meals at \$200.00 (plus current tax) per semester. Coupons may be used at any meal, in any dining hall (Plummer and Gentry Halls by invitation only). A book of coupons may be purchased by commuters or residents of Gray and Morris Halls in the Housing Office.

**Conditions Governing the Partial Board Plan:** Coupons are transferable and may be used to "treat" guests. No refunds will be made for lost books. Coupons must be used in the semester of issue. Unused coupons are not redeemable. Coupons purchased during the fall semester will expire on December 22, 1972; coupons purchased during the spring semester will expire on May 18, 1973. Students residing in Brooks, Shivers, Plummer, or Gentry Halls who choose to pay room in advance for the semester and the partial meal plan by the payment schedule, must purchase coupon books on or before the following dates:

Fall Semester		Spring Semester	
No. 1—Tues Aug 29 (check-in) \$52.50		No. 1—Tues Jan 9 (check-in) \$52.50	
No. 2—Mon Sept 18 . . . . . 52.50		No. 2—Mon Feb 12 . . . . . 52.50	
No. 3—Mon Oct 23 . . . . . 52.50		No. 3—Mon Mar 12 . . . . . 52.50	
No. 4—Mon Nov 20 . . . . . <u>52.50</u>		No. 4—Mon Apr 9 . . . . . <u>52.50</u>	
<b>TOTAL FALL . . . . . \$210.00*</b>		<b>TOTAL SPRING . . . . . \$210.00*</b>	

- C. **Summer Board Plan:** Provides three meals per day, five days per week, Monday thru Friday. Meal stickers are not transferable. Saturday and Sunday meal service is available in the Setzer Student Center on a cash basis.

Cost per each Summer Session. . . . . \$75.60\*

All rates are subject to change without notice.

\*Includes current tax

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

## RESERVATIONS AND ASSIGNMENTS

### Reservations

To reserve a room in the residence halls or an apartment, direct a request to the Housing Office, Lamar University, P.O. Box 10041, Lamar University Station, Beaumont, Texas 77710. A check or money order for \$50.00 must accompany the reservation request. Reservations may be cancelled with full refund until three weeks prior to the first day of classes. No refunds will be issued on cancellations received after this date.

All unclaimed rooms will be declared vacant and the deposit forfeited at 6:00 p.m. on the last day of registration unless the student gives the Student Housing Office written instructions to hold the room for a longer period. Residents will be refunded deposits, less any breakage or cleaning charges, at the end of a semester on proper withdrawal from the housing unit. The deposit will not be refunded if the student moves from the housing system prior to the end of a semester.

### Assignments

Permanent assignments cannot be made until the student reports for check-in. The University reserves the right to assign students to specific apartments, dormitories, and rooms. Students may request certain apartments, dormitories, and rooms, and all possible consideration will be given each request. Students already living in university-owned housing units have the first choice of rooms and apartments the following semester.

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## SERVICES

### Advisors and Counselors

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

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

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

The Counseling Center is under the supervision of the Vice-President of Student Affairs.

### Testing and Placement Service

The Testing and Placement Center is located in the Educational Services Center and is open 8:00 a.m. to 5:00 p.m. Monday through Friday.

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

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

### Teacher Certification

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

### 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, listed elsewhere in this catalog, the centers offer opportunities for worship, non-credit study and counseling in order to aid the student in developing a meaningful context for his university years.

### **Campus Post Office**

The campus post office, a contract facility operated by the university, is officially designated as Lamar University Station 77710.

Each student can make application for a box at the post office by completing necessary forms. The charge is \$3 per semester and \$1.50 per Summer Session. Three students are allowed to share the same box.

For those students who do not choose to reserve boxes at the post office, mail may be picked up at the general delivery window. Full postal services are offered.

### **Intramural Sports Program**

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

### **Scholarship Honors**

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

### **Ex-Students Association**

An association of former students of Lamar, whether graduates or not, is active on a year-around basis. The Executive Secretary of the Alumni Association maintains an office in the Student Affairs Building.

### **Extended Day Classes**

For administrative purposes, classes offered after 4:45 p.m. are referred to as Extended Day Classes. With few exceptions, both day and Extended Day classes are taught by the regular faculty and all educational facilities are the same. A person employed during the hours of regular classes may attend classes in the evening and work to obtain a degree or to expand his knowledge in a special field of interest.

Courses offered in the evening make possible continual progress toward a degree objective. The program of study outlined in the catalog should be followed and should be approved by the department head concerned with the training objective of the student.

### **Vocational-Technical Courses**

The School of Technical Arts offers vocational-technical programs in the following fields: business data processing, dental hygiene, drafting

technology, diesel mechanics, industrial electricity and electronics, machine tools, mid-management, police science, refrigeration and air conditioning technology, and welding. Vocational nursing is a one-year program while the others extend over a period of two years.

This School also offers supplementary training in the following fields: apprenticeship training, distributive education, industrial supervision and leadership, and trade extensions.

For further details, request catalog from: Lamar School of Technical Arts, P.O. Box 10043, Beaumont, Texas 77710.

### **Veterans Education**

Lamar is approved for educational training under all of the Veterans Educational Assistance programs.

Students who expect to attend under some veteran's benefit plan should secure a certificate of eligibility from the Veteran's Administration before registration. The local office of the Veteran's Administration or the Lamar Office of Veteran's Education (Educational Services Center Building) will assist in securing this certification.



### FINANCIAL AIDS

Financial assistance in the form of scholarships, loans and employment is available to a limited number of qualified students. Complete information about financial aids is published in the annual Bulletin of Financial Aids and Awards, copies of which are available from the Office of Public Information or the Director of Student Financial Aid. The following is a summary of the student aid program at Lamar.

**When to apply.** Applications are accepted only in the month of April for the following school year. Announcements of awards usually are made in late summer.

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

**Minimum qualifications.** The applicant's record on the Scholastic Aptitude Test (SAT) and his rank in his high school class are used to determine scholastic eligibility for entering freshmen. The student's college grade-point average serves as the determinant for upperclassmen. Applicants must have scored 450 or higher on both the math and verbal sections of the SAT or must have a 2.50 or higher grade-point average to be eligible for a scholarship. The applicant's need for assistance must be established by submission of a Parents' Confidential Statement (PCS) through the College Scholarship Service.

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

Application forms for financial aid may be obtained from the Director of Student Financial Aid. Students must re-apply each year for consideration of continued assistance.

Loans are available for short-term emergency borrowing and for long-term loans with repayment after graduation under such programs as the National Defense Student Loan Program (NDEA), Federally Insured Loan Program, United Student Aid Funds, Inc. (USA), Law Enforcement Education Program (LEEP), and the Hinson-Hazelwood College Student Loan Act. A number of students finance university expenses through loans from foundations and private agencies. A complete description of loans, including repayment and interest provisions, is contained in the Bulletin of Financial Aids and Awards.

Scholarships are grants which cover a portion of the student's expenses. There are two types: those administered solely by the university, including the selection of recipients, and those administered by the university at the request of donors who choose students to receive them. The scholarship

program at Lamar is financed solely by public donation. The average award is valued at about \$200 per year.

**Valedictorians** from affiliated high schools of Texas are entitled to an exemption from payment of tuition for one year, provided the student enters Lamar in the year immediately following graduation. This scholarship is valued at \$50 per semester or \$100 for the year (2 semesters).

When ready to pay tuition and fees, valedictorians should present a statement signed by their principal or superintendent certifying their academic rank at graduation.

**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 aids program. The university, local businesses, and industries provide a number of part-time jobs which enable students to earn part or all of their expenses while attending the university.

Students employed by the university (with few exceptions) will be selected and assigned by the Director of Student Financial Aid. Applicants for off-campus, part-time employment should also register with his office.

**Educational Opportunity Grants.** Outstanding students with exceptional financial need may qualify for assistance from this program. Grants from university-related funds are matched by federal funds, and consideration is given to the minimum needs of the student and to the amount of family assistance received. All students who qualify for financial aid are considered for Educational Opportunity Grant assistance also and no additional application is required.

**Students with Physical Handicaps (Vocational Rehabilitation).** The State Board for Vocational Education, through the Vocational Rehabilitation Division, offers assistance on tuition to students who have certain physical disabilities, provided the vocational objective selected by the disabled person has been approved by a representative of the Division. Application for Vocational Rehabilitation assistance should be made to the nearest rehabilitation office or to the Director of Vocational Rehabilitation, 612 Littlefield Building, Austin, Texas 78711. The Beaumont office is located at 1110 Goodhue Building.

## AWARDS

Outstanding students in academic schools of the university and student leaders who have made significant contributions to the university and student welfare are recognized by a number of awards which are announced each spring at Commencement exercises.

A description of awards, including donors, purpose of the awards, and criteria for selection of recipients is published in the Bulletin of Financial Aids and Awards. Copies of this publication may be obtained from the Office of Public Information or the Director of Student Financial Aids.

**ACADEMIC REGULATIONS****Course Numbering**

Each course has an individual alpha-numeric code. The alpha part indicates the subject area. Each number contains three or more figures. The first digit indicates the rank of the course: 1 means that it is for freshmen; 2, for sophomores; 3, for juniors; and 4, for seniors. The second figure indicates the number of semester hours credit. The third figure (or figures) indicates the order in which the course is taken. The letter a, b, c, or d following course numbers indicates partial credit in each case; full credit for such numbered courses will be granted only when the series is complete.

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

**Semester Hour**

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

**Course**

The unit of measure for instructional purposes is the course. Most courses meet three hours each week and have a credit value of 3 semester hours for one semester, or 6 semester hours for two semesters. Unless otherwise stated a course means 3 semester hours.

**Registration Procedure**

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

No one may register after the last date for registration for credit as shown on the official calendar.

**Course Load**

Entering students may carry a load of 15 semester hours or the amount regularly scheduled for the first semester of the program being followed. Students entering on probation may not carry more than 13 semester hours.

**Maximum Course Loads**

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

2. Summer session – The maximum course load for the summer session is 14 semester hours or 8 semester hours for one term. All physical education activity courses and swimming courses being taken for activity credit may be counted as a load of one semester hour in computing these maximums. Course loads of more than seven semester hours must be approved by the student's academic dean.

### **Admission to Class**

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

### **Absences**

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

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

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

### **Postponed Examinations**

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

### **Advanced Standing Examinations**

Advanced standing examinations are intended only for those students who have had the equivalent, in formal or informal training, of the work being presented in the course in question. Credit may be granted for those who pass advanced standing examinations with a grade of B or better.

To secure permission for such examinations, a student must obtain the written permission of the Vice-President of Academic Affairs, the department head responsible for the course, and the Vice-President of Finance of the University.

A fee of \$5.00 must be paid to the Finance Office.

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

Advanced standing examinations will not be approved for skill courses.

### **College Level Examination Program (CLEP)**

Subject examinations may be applied for credits in satisfying baccalaureate degree requirements.

### **Registration for No Grade**

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

### **Repetition of a Course**

If a student repeats a course, his official grade is the last one made although the original grade remains on his record as a course taken.

### **Correspondence Work**

Lamar does not offer correspondence credit. However, a maximum of 18 semester hours of correspondence work from an accredited institution may be applied toward a baccalaureate degree.

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

No student may: (1) register for, carry, or complete a correspondence course during the last semester or summer session before graduation, nor (2) receive credit for any junior or senior course taken by correspondence, except in the following circumstances:

- (a) A course required for graduation is not offered by Lamar.
- (b) The student has a schedule conflict between required courses.
- (c) A non-resident senior who is six semester hours or less short of graduation and who has filed a statement of intent to complete his work by correspondence. This statement of intent must be approved by his department head and filed in the Office of Admissions and Records no later than the last date for approval for graduation.

Seniors must file correspondence transcript fourteen days before graduation.

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

### **Cooperative Programs**

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

To meet the minimum qualifications for the co-op programs, a student

1. Must have completed all freshman work in a core program, of which the last 15 semester hours credit must have been earned at Lamar.

2. Must have an over-all grade-point average of 2.5 or higher.

To remain in the program, a student must maintain his grade points and perform in a manner satisfactory to both his employer and Lamar.

### **Transfer from One Department to Another**

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

### **Transfer Students**

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

### **Changing Schedules**

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

### **Dropping Course**

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

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

A student may not drop a course the last three days prior to the last week of classes.

### **Withdrawals**

A student wishing to withdraw for the remainder of a semester, or summer term, should fill out a Withdrawal Petition in triplicate in the office of his department head. He must clear all financial obligations, and return all uniforms, books, laboratory equipment and other materials to the point of original issue.

Three copies of the withdrawal form signed by the department head, the Director of Library Services, and an Associate Dean of Students, are presented to the Office of Admissions and Records by the student.

On application before the end of the semester or summer session, the comptroller will return such fees as are returnable according to the schedule shown under the "Fees" section of the catalog bulletin. This refund is made

only to persons withdrawing and only if requested before the end of the current semester or summer session.

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

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

A student who leaves without an official withdrawal will receive a grade of "F" in all courses and forfeit all returnable fees.

### **Enforced Withdrawal Due to Illness**

The Director of the Health Center and the Vice-President of Student Affairs on the advice of competent medical personnel may require withdrawal or deny admission of a student for health reasons (mental or physical).

### **English Requirement**

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

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

### **Physical Activity Course Requirement**

All students must be registered for physical activity until they complete four semesters except as follows:

1. Those who are not able to participate in a regular or modified activity course because of physical handicaps (must have written exemption from the university physician.)
2. Those who choose active participation in the band for four fall semesters.
3. Students who are 25 years of age or over at the time of registration at Lamar, at their option may be exempted from this requirement.

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

### **Bible Courses**

A student may take as much 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.

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**DEGREE REQUIREMENTS**
**Bachelor Degree – General**

1. Remove all admission conditions.
2. Have the following minimums:
  - (a) 30 semester hours in residence at Lamar. Twenty-four semester hours of this minimum must be earned during the senior year, except for the special degree programs which apply to biology, law, and medical technology.
  - (b) a grade-point average of at least 2.0 on all courses in the major field and on all courses which may be counted for the degree. (See “Requirements of Students Entering from Other Colleges” under “Admissions Requirements.”) Each registration in a course so used, whether passed or failed, will be counted in the grade-point calculation.
  - (c) 124 semester hours.
  - (d) A major of 24 semester hours, 12 of which must be in advanced courses.
  - (e) 6 semester hours in Government (231-232).
  - (f) 6 semester hours in United States History.
  - (g) 6 semester hours of freshman English.
  - (h) 3 semester hours of literature and an additional 3 semester hours of literature, speech, or technical report writing.
  - (i) 4 semester hours of physical activity or marching band credit (4 semesters).
  - (j) 21 semester hours from the following with no more than 6 (8 in sciences) semester hours in any one discipline listed:
 

foreign language	biology	economics
music (not applied)	chemistry	psychology
speech	geology	anthropology
art (not applied)	physics	sociology
journalism	mathematics	philosophy
communications		geography
  - (k) 4 courses in math or laboratory science, with no more than 3 courses in math or 3 in science.



3. A maximum of 66 semester hours from the area of concentration may be counted toward a degree. In the professional programs the area of concentration is composed of the professional courses (i.e., engineering, commercial art, education, home economics, and business). In the non-professional programs, the area of concentration is composed of the combined major and minor.
4. Complete the program of study as listed in the Catalog.
5. No more than a total of 30 semester hours of correspondence and extension credit may be applied toward the bachelor's degree. (Eighteen semester hours is the maximum for correspondence work only.)
6. Make final application for graduation as required and pay the designated fee.
7. Attend the official graduation exercises or receive prior approval from the Vice-President of Academic Affairs for graduating in absentia.

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

#### **Bachelor of Arts Degree**

1. Meet the basic requirements of all degree programs.
2. Complete the course numbered 232 in a foreign language.
3. Complete 6 semester hours of literature.
4. Complete a minor of 18 semester hours, 6 of which must be in advanced courses.
5. Meet the specific requirements of the selected program of study as listed in the department concerned.

#### **Bachelor of Science Degree**

1. Meet the basic requirements of all degree programs.
2. Meet the specific requirements of the selected program of study as listed in the department concerned.

#### **Bachelor of Business Administration Degree**

1. Meet the basic requirements of all degree programs.
2. Meet the specific requirements of the selected program of study as listed in the department concerned.

### Special Degree Programs

**Law:** In the preparation for the study of law, there are two plans. Under either plan the student completes three years of work and one year at an accredited law school. Both plans have been approved by one or more recognized law schools of Texas.

Under Plan I a student may receive the Bachelor of Business Administration degree, while under Plan II the Bachelor of Arts or Bachelor of Science degree is granted.

#### Plan I:

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

#### Plan II:

Complete 94 semester hours of the basic requirements for the Bachelor of Arts or Bachelor of Science degree as shown under the Department of Government in this Catalog.

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

The following minimums are required:

1. Complete 100 semester hours of the basic requirements for the Bachelor of Science degree. This includes all the required minimums except the total of 140 semester hours.
2. Complete at least 30 semester hours in an approved college of dentistry or medicine.
3. Apply for the degree by June 15 preceding the August graduation program.

## ACADEMIC PROGRESS

### Classification of Students

Students are classified as freshmen, sophomores, juniors, seniors, and special. For the purpose of determining eligibility to hold certain offices and for other reasons, regularly 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 30 grade points.

**Junior:** Has completed a minimum of 60 semester hours with 60 grade points.

**Senior:** Has completed a minimum of 90 semester hours with 90 grade points.

**Special Student:** Must meet all entrance requirements.

**Full-Time Student:** A student taking 12 or more semester hours (four or more in a summer term) is classified as a full-time student.

### Grading System

A—Excellent	W—Withdrawn
B—Good	Q—Course was dropped
C—Satisfactory	S—Credit
D—Passing	U—Unsatisfactory, no credit
F—Failure	NG—No grade
I—Incomplete	

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** is given when any requirement of the course, including the final examination, is not completed.

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

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

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

### Grade Points

For the purpose of computing grade averages, grade points are assigned as follows: to the grade **A**, 4 points; to **B**, 3 points, to **C**, 2 points, to **D**, 1 point, and **F**, 0 points. A student's grade-point average is obtained by multiplying the number of semester hours credit of each grade by the grade points assigned to the grade and dividing the sum of these by the total number of semester hours of all work taken, whether passed or failed.

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

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

### **Reports**

Reports on grades are mailed at the end of each semester or summer term. Reports on student work are sent at mid-semester. Upon written request to the Office of Admissions and Records, married students or veterans may have grades sent directly to them.

### **Dean's List**

At the end of each semester the Office of Admissions and Records prepares a list of all full-time (those who complete twelve or more semester hours) freshmen and sophomore students who have earned for that semester a grade-point average of 3.25 or above and junior and senior students who have earned for that semester a grade-point average of 3.45 or above. This list is known as the Dean's List and is announced by the academic dean of each school.

### **Scholastic Probation and Suspension**

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

All students with a grade-point deficiency at the end of any regular semester shall be placed on scholastic probation and continued on probation as long as a deficiency exists.

All students with a grade-point deficiency of 25 or more grade-points at the end of any regular semester shall be suspended. A student returning from an academic suspension must continue to reduce his grade-point deficiency every semester of enrollment until the deficiency is eliminated. Should he fail to reduce his deficiency in any one semester, he will be suspended.

The first academic suspension shall be for one long semester; the second for two long semesters; and the third for four long semesters and readmission only with special permission of the Vice-President of Academic Affairs.

### **Removal of Scholastic Probation and Suspension**

1. Students on scholastic probation cannot:
  - a. Represent the university in any extracurricular activity.

- b. Hold collegiate or university office.
  - c. Participate in trips or tours except when required as class projects.
2. **Warning** – Each student is responsible for knowing his academic status and the regulations which apply. A student who does not abide by the regulations governing his particular status may be required to reduce his academic load or withdraw from the university without special consideration.

## GRADUATION

### Application for Graduation

Applications for graduation must be on file with the Office of Admissions and Records not later than December 1, March 1, or June 15 for the following December, May, or August dates respectively.

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

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

The application of a student lacking a grade-point average of 2.0 either over-all or in his major field, will be removed from the graduation list at the beginning of the semester.

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

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

### Graduation Under a Particular Catalog

A student may complete his work for graduation according to the

requirements of the catalog of the year in which he is accepted as a major by a department.

The catalog year shall be considered to begin with the long session in August. Students entering for the first time in the summer session are subject to the catalog for the long session immediately following.

Failure to complete the requirements for graduation within seven years after the entering date will require the student to graduate under the regulations effective for the current graduating class.

The university reserves the right to make effective, during the course of a student's work toward graduation, any new ruling which may be necessary for the general good of the university and to substitute courses offered for those no longer offered.

### **Graduation Honors**

Members of the graduating class who have a grade-point average of 3.45 or above are classified as "honor graduates."

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

A student must complete 60 or more semester hours at Lamar University to be eligible for graduation with honors.

**GENERAL REGULATIONS****New Courses**

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

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

**Minimum Class Enrollment**

The university reserves the right not to offer any course listed in this Catalog unless there are at least twelve students who register for the course.

**Change of Address**

Students changing their address during a semester must give prior notice to the Dean of Students. Students maintaining households of their own and those living with parents or guardians are exempted from this rule.

Any student who moves during a semester must immediately register his change of address in the office of the Vice-President of Student Affairs and in the Office of Admissions and Records. He is responsible for all communications addressed to him at the address on file in these offices.

**Official Summons**

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

**Discipline**

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

Disciplinary procedures, specific rules and regulations, and statements of student rights and responsibilities are published each year in the Student Handbook, available from the office of the Vice-President of Student Affairs.

### **Disciplinary Probation**

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

### **Hazing**

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

### **Penalty for False Statements**

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

### **Eligibility for Extracurricular Activities**

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

Any full-time student not on disciplinary or scholastic probation who is 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 his college work completed at Lamar and that of the preceding semester.

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

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

### **Eligibility of Intercollegiate Activities**

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

For additional details on eligibility for intercollegiate athletics, the student is directed to make inquiry of the Director of Athletics or of the Conference faculty representative.



**Assembly**

Attendance at official assemblies is expected of all students.

**Student Debts**

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

Students and student organizations are expected to honor contractual obligations promptly, but in case of flagrant disregard of such obligations the Dean of Students will take appropriate action.

Penalty for failure to clear up these obligations may be: a) no readmission; b) withholding of grades and transcripts; c) withholding of degree.

**Telephone Service**

Public telephone pay stations have been installed in the Engineering, Home Economics, Library, Student Center, and Technical Arts Buildings. Students are expected to use these telephones for their personal calls. Office telephones are for the use of faculty and administrative personnel. Incoming telephone calls for students are transmitted to the students only in cases of emergency.

**Parking Regulations**

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

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**STUDENT ACTIVITIES****Student Government Association**

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

**Publications**

The **Redbird**, the official university newspaper, is published regularly by a staff organized by a faculty sponsor. The publication serves both as a medium of training and as a source of information. Any student is eligible to become a staff member.

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

The **Student Handbook** is a handbook published primarily for the benefit of new students. Pertinent information concerning the university and student activities is given in this publication.

The **Student Directory** is published annually by the university. It contains a listing of the names, addresses, and telephone numbers of the student association, the faculty, and the administration.

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

**Interface** is a quarterly magazine published by students. It accepts copy from all schools in the university.

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

**Artist Series**

The Fine Arts Committee of the Setzer Student Center is made up of students and faculty. The committee annually arranges for the presentation of a number of programs by professional artists and entertainers. Outstanding personalities, musicians, artists, and companies have been presented under the sponsorship of the committee.

**The Student Center**

The Richard W. Setzer Student Center provides facilities for recreation

and leisure and is the campus center of extracurricular activities. The recently completed addition, costing approximately \$2,800,000, was opened in 1971. It includes lounges, snack bars, recreation areas, bookstore, ballroom, barber shop, meeting rooms, and facilities for student organizations. Offices for Student Government, Setzer Student Center Council, activities program counselors, and the Center's director are located there.

### **Student Organizations**

More than 125 student organizations currently active on the campus offer students membership in one or more service, professional, religious, social, and mutual interest clubs, societies, fraternities and sororities. Participation in student organizations is designed to enhance the education of students, who are encouraged to enter into the organizations and their programs of activities.

# SCHOOL OF BUSINESS

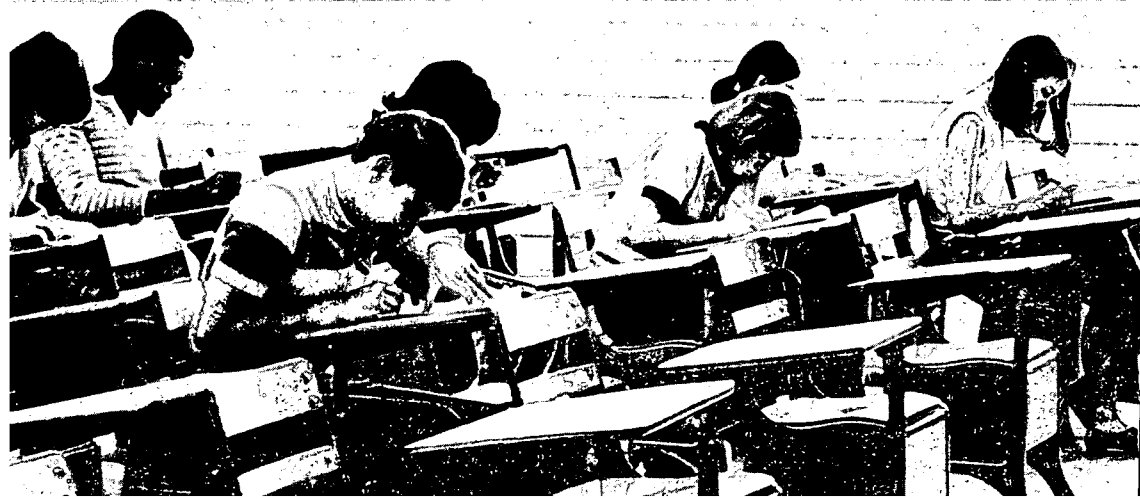
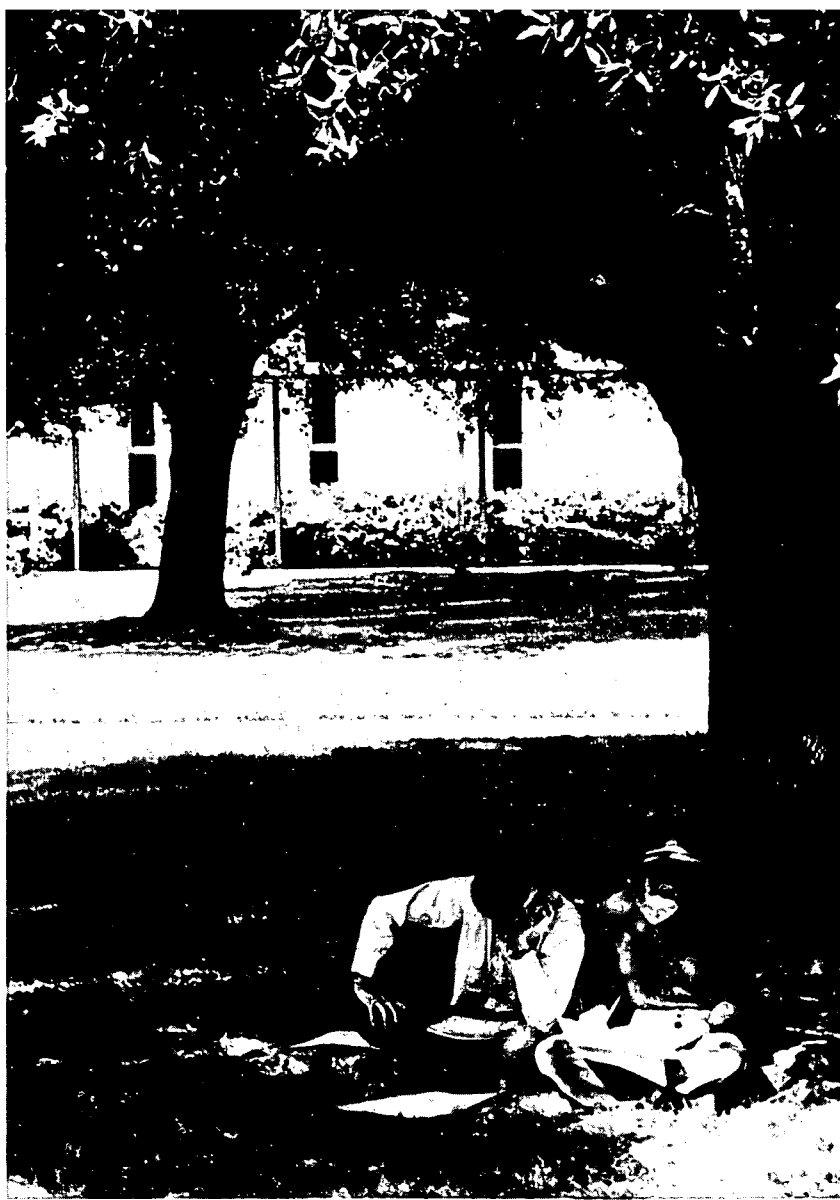
## **Departments**

**Accounting**

**Business Administration**

**Economics**

**Secretarial Science**



## School of Business

J. D. Landes, Ph.D., Dean

The School of Business was established by the University in 1954. Prior to this time, degrees in business and economics were granted by the Division of Business which began in 1951.

The School of Business is organized in four departments: Accounting, Business Administration, Secretarial Science, and Economics. The Bachelor of Business Administration degree is granted in all areas. A three-year program especially designed for Pre-Law students is offered in the area of General Business.

The degree of Master of Business Administration is also offered. Details may be found in the Graduate Bulletin.

### OBJECTIVES

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

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

The professional education offered reflects the belief that theory and not techniques should be the proper concern of the undergraduate student. A selected body of fundamental business theory is presented in the core pattern of business subjects. This theory is developed along with certain basic quantitative tools of analysis and communication as preparation for the specialized professional courses.

Regardless of a graduate's position in the business world, he will need to understand the consistent relativity of all areas and functions of business operations. The development of such basic business understandings is the objective of the core courses in business and economics required of all business graduates.

The specialized professional preparation of the student provides opportunities for study in a particular field of interest. It prepares a graduate to assume a position of responsibility in business, public service, or education.

The attainment of these objectives requires not only a given pattern of courses but also successful teaching and research. In classroom presentation, the School utilizes many approaches including lecture, discussion, case

method, individual research projects, etc. Lower level courses are presented primarily from historic and descriptive points of view, while the upper level courses are designed to develop the student's ability to analyze and utilize research findings in problem-solving situations.

### DEGREES

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

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

#### I. Curriculum Requirements

##### Plan I

- A. Non-professional education courses (66 semester hours)
  - Eco 231, 232—Principles of Economics
  - English Composition—six semester hours
  - Gov 231, 232—State and National
  - His 231, 232—United States
  - Literature—six semester hours
  - Mth 134, 1341—Algebra and Elements of Analysis
  - Physical Education or Band—four semesters
  - Science—eight semester hours (in same science)
  - Soc, Phl, or Ant—three semester hours
  - Spc 131—Speech Communication
  - Approved non-professional education electives—twelve semester hours— not to exceed six semester hours in any subject area.
- B. Pre-professional courses (three semester hours)
  - BA 120—Introduction to Computer Programming
  - BA 210—Computer Programming (Fortran)
- C. Professional core courses (34 semester hours)\*
  - Acc 231, 232—Principles of Accounting
  - BA 331—Business Law
  - BA 332—Principles of Finance
  - BA 334—Principles of Marketing
  - BA 335—Principles of Management
  - BA 3301, 3302—Business Statistics
  - Eco 334—Macro Economics
  - Eco 339—Economics of the Firm
  - SS 344—Business Communications
- D. Professional Specialization (21-24 semester hours)

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

**Acc Major (18 sem. hours)**

Acc 331, 332 – Inter Acc  
 Acc 334 – Cost Acc  
 Acc 338 – Tax Acc  
 Acc elective – 3 hours  
 Acc 430 – Auditing  
 Acc 431 – Adv Acc

**Economics Major**

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

**Gen Bus Major (21 sem. hours)**

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

**Management Major (21 sem. hours)**

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

**Marketing Major (21 sem. hours)**

BA 336 – Per Management  
 BA 338 – Prob in Ret-Whlsg  
 BA 339 – Sales Promotion  
 BA 4310 – Mkt Mgmt  
 BA 4314 – Admin Policies  
 BA 4318 – Mkt Research  
 BA 4319 – Adv Mkt Prob

**Sec Sci Major (23 sem. hours)**

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

E. Approved electives to complete a total of 132 semester hours.

**BBA – General Business****Plan II**

The Plan II program is designed for distinguished students with superior ability. The pattern of courses required will develop a particularly strong background for graduate work. All students enrolling in the Plan II program must have the approval of the Dean of the School of Business. In general, such approval will be given only if the student's high school record and college entrance test scores give evidence of scholastic excellence.

- A. Non-professional education courses (77 semester hours)  
 Eco 233–Prin and Policies  
 English Composition–six semester hours  
 \*Foreign Language–fourteen semester hours

\*One year of science may be substituted for the second year of foreign language if a student has completed two years of the same language on the high school level.



Gov 231, 232 – State and National  
 His 231, 232 – United States  
 Literature – six semester hours  
 Mth – twelve semester hours  
 (including 6 sem. hours of Calculus)  
 Phl 231 – Introduction or Phl 232 – Logic  
 Physical Education or Band – four semesters  
 Psy 231 – General  
 Science – eight semester hours (in same science)  
 Soc 330 – American Society  
 Spc 331 – Professional Speech

B. Professional core courses (28 semester hours)

Acc 231, 232 – Prin of Acc  
 BA 331 – Bus Law  
 BA 332 – Prin of Finance  
 BA 334 – Prin of Marketing  
 BA 335 – Prin of Mgmt  
 BA 3301, 3302 – Business Statistics  
 SS 344 – Business Communications

C. Professional specialization (18 semester hours)

Acc 331, 332 – Inter Acc  
 BA 336 – Per Management  
 BA 4314 – Admin Policies  
 Eco 333 – Inter Theory  
 Eco 433 – Hist of Eco Thought

D. Approved electives (9 semester hours – upper level courses including six hours of economics) to complete a total of 132 semester hours.

- II. A minimum grade-point average of 2.00 in all business and economic subjects.
- III. A minimum grade-point average of 2.00 in all work required for degree.
- IV. Application for the degree must be made through the office of the Dean of Business

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

- I. The specific course requirements as set forth in the Department of Economics for the degree. (See Department of Economics in this catalog.)
- II. A minimum grade-point average of 2.00 in all economics courses.

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- III. A minimum grade-point average of 2.00 in all work required for the degree.
  - IV. A minimum of 128 semester hours exclusive of physical education and band.
  - V. A minimum of 30 semester hours in the field of economics.
  - VI. A minor of 18 semester hours, six of which must be 300 or 400 level courses.

Requirements for the **Master of Business Administration** degree are given in detail in the Graduate Bulletin.

### **Selection of a Major**

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

## DEPARTMENT OF ACCOUNTING

*Department Head* – R. O. Bennett. *Professors* – R. O. Bennett, J. D. Landes, Reginald Rushing. *Associate Professors* – H. A. Barlow, Elvis C. Davis, W. Fred Farrar, Malcolm W. Veuleman. *Assistant Professors* – Howard V. Galliher, George C. Sculley.

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

The program in accounting is designed for those students seeking careers in either private or public accounting.

### Program of Study

#### Bachelor of Business Administration – Accounting Major

First Year	Second Year
CS 133–Int to Comp Prog . . . . .3	Acc 231, 232–Prin . . . . .6
Eco 231, 232–Prin . . . . .6	BA 210–Comp Prog-Fortran . . . . .1
Eng–Composition . . . . .6	Eng–Literature . . . . .6
Mth 134, 134I–Alg & Analysis . . .6	Gov 231, 232–State & Natl . . . . .6
Science . . . . .8	His 231, 232–United States . . . . .6
Spc . . . . .3	HPE–Activity . . . . .4
HPE–Activity . . . . .2	Electives . . . . .3
34	32
Third Year	Fourth Year
Acc 331, 332–Interim . . . . .6	Acc 430–Auditing . . . . .3
Acc 338–Tax Acc . . . . .3	Acc 431–Advanced . . . . .3
BA 331–Bus Law . . . . .3	Acc 334–Elem Cost . . . . .3
BA 332–Prin of Finance . . . . .3	BA 334–Marketing . . . . .3
BA 3301, 3302 Bus Stctcs . . . . .6	BA 335–Prin of Mgmt . . . . .3
Eco 339–Eco of Firm . . . . .3	Eco 334–Macro Eco . . . . .3
Electives . . . . .9	SS 344–Bus Commun . . . . .4
33	11
	33

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**Accounting (Acc)**

**231 – Principles of Accounting.** Procedures and techniques used in recording business transactions and preparing financial statements. Journalization; posting; statement preparation; controlling accounts and subsidiary ledgers; adjusting and closing entries; voucher system. Class: 3 hours. Credit: 3 semester hours.

**232 – Principles of Accounting.** Continuation of Acc 231 with special attention given the financial statements; cash and receivables; fixed assets; prepaid expenses; liabilities; capital stock and related owners' equity; manufacturing accounting; installment sales; branch accounts. Class: 3 hours. Credit: 3 semester hours.

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

**332 – Intermediate Accounting.** Continuation of Acc 331 with emphasis on the interpretation of data relative to managerial decisions. Investments; fixed assets; liabilities and reserves; analysis of operations; ratios; statement of application of funds. Class: 3 hours. Credit: 3 semester hours.

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

**338 – Taxation Accounting.** Provisions of the income tax code as applied to individuals. Taxable income; gains and losses; capital gains; dividends; expenses; itemized deductions; depreciation; losses; standard deduction. Prerequisite: Acc 232. Class: 3 hours. Credit: 3 semester hours.

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

**430 – Auditing.** Principles and procedures applied by public accountants and auditors in the examination of financial statements and accounts. Verification of data; audit working papers; reports; types of audits; procedures. Prerequisite: Acc 332. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

**437 – Municipal and Governmental Accounting.** Special procedures for enterprises operating under appropriated budgets with attention given to federal, state, municipal governmental units. Bond funds; special assessment funds; general funds; budgets; financial statements. Class: 3 hours. Credit: 3 semester hours.

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**DEPARTMENT OF BUSINESS ADMINISTRATION**

*Department Head* – C. D. Kirksey. *Professors* – Walter W. Bennett, Richard T. Cherry. *Associate Professors* – Arthur F. Stelley, David G. Taylor, Donald E. Williams. *Assistant Professors* – J. Michael Biggs, George R. Goetz, Jack Hill, Ann D. Jones, Charles D. McCullough, Larry T. Patterson, Don R. Robinson, Alfred F. Steiert. *Instructors* – Charles T. Bennett, James R. Harvey.

The Department of Business Administration offers the following fields of concentration: General Business, Management, and Marketing.

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

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

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

**Pre-Law**

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

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

A second plan for pre-law students is offered in the School of Liberal Arts.

### Programs of Study

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

First Year	Second Year
CS 133—Intro to Comp Prog . . . . . 3	Acc 231, 232—Prin . . . . . 6
BA 210—Comp Prog-Fortran . . . . . 1	Eco 231, 232—Prin . . . . . 6
Eng—Composition . . . . . 6	Eng—Literature . . . . . 6
Mth 134, 1341 . . . . . 6	Gov 231, 232—State & Natl . . . . . 6
Science . . . . . 8	His 231, 232—United States . . . . . 6
Soc, Phl, Ant, or Psy . . . . . 3	HPE—Activity . . . . . 4
Spc . . . . . 3	
HPE—Activity . . . . . 2	34
Elective . . . . . 3	
<u>35</u>	
Third Year	Fourth Year
BA 331—Bus Law . . . . . 3	BA 333—Insurance . . . . . 3
BA 332—Prin of Finance . . . . . 3	BA 335—Prin of Mgmt . . . . . 3
BA 334—Prin of Marketing . . . . . 3	BA 336—Per Mgmt . . . . . 3
BA 3301, 3302 Bus Ststcs . . . . . 6	BA 4314—Admin Policy . . . . . 3
Eco 333—Interm Theory . . . . . 3	Eco 339—Eco of Firm . . . . . 3
Eco 334—Macro Econ . . . . . 3	Eco 433—His of Eco Tht . . . . . 3
SS 344—Bus Commun . . . . . 4	Electives (Bus or Eco.300 or
Electives . . . . . 6	400 Level) . . . . . 14
<u>31</u>	<u>32</u>

#### Bachelor of Business Administration—General Business Major (Plan II)\*\*

First Year	Second Year
Eng—Composition . . . . . 6	Acc 231, 232—Prin . . . . . 6
Foreign Language . . . . . 8	Eco 233—Prin . . . . . 3
Mth . . . . . 6	Foreign Language or Science . . . . . 6
Phl 231 or 232 . . . . . 3	His 231, 232—United States . . . . . 6
Psy 231—General . . . . . 3	Mth (Calculus) . . . . . 6
Science . . . . . 8	Elective . . . . . 3
HPE—Activity . . . . . 2	HPE—Activity . . . . . 4
<u>36</u>	<u>34</u>

\*\*Admission to this program only by approval of the Dean of the School of Business.

Third Year	Fourth Year
Acc 331, 332—Inter . . . . .6	BA 332—Prin of Finance . . . . .3
BA 331—Bus Law . . . . .3	BA 3301, 3302 Bus Ststes . . . . .6
BA 334—Prin of Marketing . . . . .3	BA 336—Personnel Mgmt . . . . .3
Eco 333—Interm Theory . . . . .3	BA 335—Prin of Mgmt . . . . .3
Eng—Literature . . . . .6	BA 4314—Adm Policy . . . . .3
Gov 231, 232—State & Natl . . . . .6	Eco 433—Hist Eco Tht . . . . .3
Spc 331—Professional . . . . .3	SS 344—Bus Commun . . . . .4
Electives* . . . . .3	Electives* . . . . .5
<u>33</u>	<u>30</u>

\*Approved Electives—Must be upper level courses and include six hours of Economics.

**Bachelor of Business Administration—Management Major**

First Year	Second Year
CS 133—Intro to Comp Prog . . . . .3	Acc 231, 232—Prin . . . . .6
BA 210—Comp Prog—Fortran . . . . .1	Eco, 231, 232—Prin . . . . .6
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Mth 134, 1341 . . . . .6	Gov 231, 232—State & Natl . . . . .6
Science . . . . .8	His 231, 232—United States . . . . .6
Soc, Phl, Ant, or Psy . . . . .3	HPE—Activity . . . . .4
Spc . . . . .3	<u>34</u>
HPE—Activity . . . . .2	
Electives (non-business) . . . . .3	
<u>35</u>	

Third Year	Fourth Year
BA 331—Bus Law . . . . .3	Acc 334—Cost Acc . . . . .3
BA 332—Prin of Finance . . . . .3	BA 336—Personnel Mgmt . . . . .3
BA 334—Prin of Marketing . . . . .3	BA 3311—Labor Law or Eco 336 . . . . .3
BA 335—Prin of Mgmt . . . . .3	BA 436—Production Mgmt . . . . .3
BA 3301, 3302 Bus Ststes . . . . .6	BA 4314—Admin Policy . . . . .3
Eco 334—Macro Eco . . . . .3	BA 4310—Mktg Mgmt . . . . .3
SS 344—Bus Commun . . . . .4	BA 4315—Budgetary Control . . . . .3
Electives (non-business) . . . . .6	Eco 339—Eco of Firm . . . . .3
<u>31</u>	Electives (Bus or Eco 300 or 400 Level) . . . . .8
	<u>32</u>



### Program of Study

#### Bachelor of Business Administration—Marketing Major

First Year	Second Year
CS133—Intro to Comp Prog . . . . .3	Acc 231, 232—Prin . . . . .6
BA 210—Comp Prog-Fortran . . . . .1	Eco 231, 232—Prin . . . . .6
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Mth 134, 1341 . . . . .6	Gov 231, 232—State and Natl . . . .6
Science . . . . .8	His 231, 232—United States . . . .6
Soc, Phl, Psy or Ant . . . . .3	HPE—Activity . . . . .4
Spc . . . . .3	
HPE—Activity . . . . .2	34
Elective (non-business) . . . . .3	
35	

Third Year	Fourth Year
BA 331—Bus Law . . . . .3	BA 338—Prob in Ret & Whl . . . . .3
BA 332—Prin of Finance . . . . .3	BA 336—Personnel Mgmt . . . . .3
BA 334—Prin of Marketing . . . . .3	BA 339—Sales Promotion . . . . .3
BA 335—Prin of Mgmt . . . . .3	BA 4310—Mktg-Mgmt . . . . .3
BA 3301, 3302 Bus Ststes . . . . .6	BA 4314—Adm Policy . . . . .3
Eco 334—Macro Eco . . . . .3	BA 4318—Mkt Research . . . . .3
SS 344—Bus Commun . . . . .4	BA 4319—Adv Mktg Problems . . . .3
Electives (non-business) . . . . .6	Eco 339—Eco of Firm . . . . .3
31	Electives (Bus or Eco 300 or 400-Level) . . . . .8
	32

### Program of Study

#### Bachelor of Business Administration—Pre-Law

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

##### Requirements:

1. Complete 100 hours exclusive of HPE and Band.
2. Grade-point average of 2.5 on all college work taken.
3. Application for degree at end of first year of law school.

First Year	Second Year
CS 133—Intro to Comp Prog . . . . .3	Acc 231, 232—Prin . . . . .6
BA 210—Comp Prog-Fortran . . . . .1	Eco 231, 232—Prin . . . . .6
Bio 141, 142—General . . . . .8	Eng—Literature . . . . .6
Eng—Composition . . . . .6	Gov 231, 232—State and Natl . . . . .6
Mth 134, 1341 . . . . .6	His 231, 232—United States . . . . .6
Elective (non-business) . . . . .3	HPE—Activity . . . . .4
Soc 131 . . . . .3	
Spc 131 . . . . .3	34
HPE—Activity . . . . .2	\
35	

### Third Year

Acc 331, 332—Interm . . . . .6
BA 332—Prin of Finance . . . . .3
BA 334—Prin of Marketing . . . . .3
BA 335—Prin of Mgmt . . . . .3
BA 3301, 3302 Bus Stctcs . . . . .6
Eco 339—Eco of Firm . . . . .3
Eco 334—Macro Eco . . . . .3
SS 344—Bus Commun . . . . .4
Electives (Bus or Eco 300 or 400 Level)* . . . . .6
37

\*Advanced courses in Business Administration with the exclusion of Business Law.

### Business Administration (BA)

**210 – Elementary FORTRAN Applications in Business.** To familiarize business students with elementary applications of FORTRAN as needed in special business situations. Class: 1 hour. Credit: 1 semester hour.

**320 – Computer Applications in Business (FORTRAN).** Emphasis on utilizing the resources of FORTRAN in statistical and other business applications, such as measures of central tendency and dispersion, amortization schedules, depreciation, correlation analysis. Prerequisite: B. A. 210. Class: 2 hours. Lab: 1 hour. Credit: 2 semester hours.

**321 – Computer Applications in Business (COBOL).** Emphasis on utilizing the resources of COBOL in business applications such as payrolls, accounts receivable and payable, invoice extensions, tax accounting problems, and file updating. Prerequisite: C. S. 133. Class: 2 hours. Lab: 1 hour. Credit: 2 semester hours.

**331 – Business Law.** Principles of law which form the legal framework

for business activity. Applicable statutes; contracts; agency. Class: 3 hours. Credit: 3 semester hours.

**332 – Principles of Finance.** A survey of the field of business finance. Financial planning; administration and control of financial activities; short-term and long-term financing; advantages and disadvantages of the various business organizations; security markets; commercial banking systems; Federal Reserve System; financial reorganization. Class: 3 hours. Credit: 3 semester hours.

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

**334 – Marketing.** The social and economic aspects of distribution as found in business organizations. Structures; functions; institutions; problems. Prerequisites: Eco 132 and Acc 232. Class: 3 hours. Credit: 3 semester hours.

**335 – Principles of Management.** A general theory of management presented within the framework of the traditional managerial functions. Stress is placed upon the universality and practicality of fundamental propositions in the practice of management in all of business. A basic course for the study of more advanced and specialized aspects of business administration. Prerequisites: Eco 132 and Acc 232. Class: 3 hours. Credit: 3 semester hours.

**336 – Personnel Management.** A behavioral approach to the management of the human resource in business enterprise. The fundamentals of human relations and organizational behavior will be used to structure an understanding of the managerial problems of recruitment, selection, training, promotion, and termination of personnel. Supervision of the work force will be considered as an examination of theories of motivation, communication, and leadership. Prerequisites: BA 335. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

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

**4303 – Intermediate Business Statistics.** Continuation of BA 3302. Topics include Bayesian inference, payoff tables, sample design, analysis of variance, and logarithmic and multiple correlation and regression analysis. Prerequisite: BA 3302. Class: 3 hours. Credit: 3 semester hours.

**4310 – Marketing Management.** The planning and execution of various marketing activities from the managerial viewpoint are presented, *viz.*: determining the basic product (or service) market analysis, price policies, product promotion, management of the sales force, and sales analysis and physical distribution with the logistics system concept. Class: 3 hours. Credit: 3 semester hours.

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

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

**4316 – Business Simulation, Modeling and Decision Theory.** The use of

the computer in the solution of problems concerning pricing, inventory control, production scheduling, sales forecasting and related business decisions. Prerequisites: BA 3302 and BA 320. Class: 3 hours. Credit: 3 semester hours.

**4317 – Computers in Business Management.** Concepts of computers information systems, capabilities and limitations, 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 and BA 210. Class: 3 hours. Credit: 3 semester hours.

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

**4319 – Advanced Marketing Problems.** Oral and written cases in the area of marketing management and marketing strategy are utilized (organization, product lines, pricing, channels of distribution, selling, etc.). Emphasis is placed on simulated problem solving and decision making in the marketing environment. Class: 3 hours. Credit: 3 semester hours.

**DEPARTMENT OF ECONOMICS**

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

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

**Programs of Study**

**Bachelor of Arts—Economics Major**

Requirements:

1. Complete 126 semester hours exclusive of HPE or Band.
2. Complete 30 semester hours in the field of economics.
3. Complete a minor of at least 18 semester hours, 6 of which must be in advanced courses.

First Year	Second Year
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Foreign Language . . . . .8	Foreign Language . . . . .6
Mth 134, 1341—Alg & Analysis . . .6	Eco 333—Interm Theory . . . . .3
Eco 231, 232—Prin . . . . .6	Eco 334—Macro Eco . . . . .3
Science . . . . .8	Gov 231, 232—State & Natl . . . . .6
HPE—Activity . . . . .2	His 231, 232—United States . . . . .6
36	BA 210—Comp Prog . . . . .1
	HPE—Activity . . . . .4
	35

Third Year	Fourth Year
BA 320—Inter Comp . . . . .2	Eco 332—Mon & Bkg . . . . .3
Eco 339—Eco of Firm . . . . .3	Eco 433—Hist of Eco Thot . . . . .3
BA 3301, 3302—Bus Ststes . . . . .6	**Electives . . . . .25
SS 344—Bus Commun . . . . .4	31
**Electives . . . . .15	
30	

\*\*Electives must include six semester hours of advanced courses in Economics.

**Bachelor of Business Administration—Economics Major**

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

First Year	Second Year
Eng—Composition . . . . .6	Acc 231, 232—Prin . . . . .6
Mth 134, 1341—Alg & Analysis . . .6	Eng—Literature . . . . .6
Science . . . . .8	Eco 333—Interm Theory . . . . .3
Eco 231, 232—Prin . . . . .6	Soc, Phil, or Ant . . . . .3
CS 133—Intro to Comp Prog . . . .3	Gov 231, 232—State & Natl . . . .6
Spc . . . . .3	His 231, 232—United States . . . .6
HPE—Activity . . . . .2	HPE—Activity . . . . .4
34	34
Third Year	Fourth Year
BA 331—Bus Law . . . . .3	Eco 332—Mon & Bkg . . . . .3
BA 332—Prin of Finance . . . . .3	BA 335—Prin of Mgmt . . . . .3
BA 334—Marketing . . . . .3	SS 344—Bus Commun . . . . .4
BA 336—Per Mgmt . . . . .3	**Electives . . . . .23
BA 3301, 3302—Bus Ststcs . . . . .6	31
Eco 334—Macro Eco . . . . .3	
Eco 339—Eco of Firm . . . . .3	
**Electives . . . . .9	
33	

\*\*Electives must include 15 semester hours of advanced courses in Economics.

**Economics (Eco)**

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

**232 – Principles.** Continuation of Eco 131. Allocation of resources; determination of output and prices; distribution; and managerial economics. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

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

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

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

**432 – Econometrics.** Introduction to econometrics; scope, techniques and methods, survey of classical econometric models, application of techniques to such problems as production functions, cost functions, input-output models, etc. Prerequisites: Eco 231, 232, BA 3301, Mth 1341. Class: 3 hours. Credit: 3 semester hours.

**433 – History of Economic Thought.** Historical development of economic



thought from primitive periods to the present. Classical; historical; socialist; neo-classical; institutional thought. Prerequisites: Eco 333 or 334. Class: 3 hours. Credit: 3 semester hours.

**434—Economic Development.** Introduction to the theories and history of economic growth and development applicable to advanced and emerging economies; analysis of processes of growth including cultural, technological, and economic factors; identification of problem areas with policy implications. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

**4111, 4211, 4311, 4411—Special Problems in Economics.** Investigation into special areas in economics under the direction of a faculty member. This course may be repeated for credit when topics of investigation differ. Credit: 1-4 semester hours.

**4314—Industrial Organizations and Countervailance.** A systematic study of industrial organizations; market structures, conduct, and performance; sociopolitical environment and interplay between the firm and society; public policies as social counterpoint. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

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

## DEPARTMENT OF SECRETARIAL SCIENCE

*Department Head*—Norma S. Hall. *Assistant Professors*—Nancy S. Darsey, Jean Dorrell, Nelda C. Garcia, Jeannette Vaughn.

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

A major in Secretarial Science may be combined with courses in Education. This plan will qualify a graduate for a professional teacher's certificate.

The Department also offers a two-year program for students who do not desire to follow any degree plan. The two-year curriculum is designed to develop competence in typewriting, shorthand, office machine operation, clerical record keeping, and business correspondence. Successful students are prepared to pass civil service examinations and the employment tests given by large business and industrial offices.

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

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

### Program of Study

First Year	Second Year
CS 133—Int to Comp Prog . . . . .3	Acc 231-232—Prin . . . . .6
Eco 231,232 Prin . . . . .6	BA 210—Comp Prog Fortran . . . . .1
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Mth 134,1341—Algebra & Analysis . . . . .6	Gov 231—Const & State . . . . .3
SS 123—Interm Typing . . . . .2	His 231, 232—United States . . . . .6
Science . . . . .8	HPE—Activity . . . . .4
HPE—Activity . . . . .2	Spc . . . . .3
	Elec . . . . .3
33	32

Third Year	Fourth Year
BA 331—Bus Law . . . . .3	BA 335—Ind Mgmt . . . . .3
BA 332—Prin of Finance . . . . .3	BA 336—Pers Mgmt . . . . .3
BA 334—Marketing . . . . .3	BA 437—Investments . . . . .3
BA 3301, 3302—Bus Ststcs . . . . .6	SS 222—Prod Typing . . . . .2
Gov 232—Natl . . . . .3	Eco 339—Eco of Firm . . . . .3
SS 363—Adv Shorthand . . . . .6	Eco 334—Macro Eco . . . . .3
SS 344—Bus Commun . . . . .4	SS 341—Sec. Off Proc . . . . .4
Electives . . . . .4	SS 332—Dict & Trans . . . . .3
SS 125 . . . . .2	Electives . . . . .9
34	33

### Teacher Certification—Secretarial Science Major

Students who wish to qualify for a provisional teacher's certificate—secondary—with a teaching field in Secretarial Science must include in the Bachelor of Business Administration degree program the following changes:

1. The inclusion of Edu 331, 332, 338, 438, 462, and SS 438.
2. BA 336, 3302, 437, Eco 334, 339 are not required of those following the teacher certification plan.

### Two-Year Terminal Program in Secretarial Science

First Year	Second Year
CS 133—Int to Comp Prog . . . . .3	Acc 231,232—Prin . . . . .6
Eng—Composition . . . . .6	BA 210—Comp Prog Fortran . . . . .1
Mth 134,1341—Algebra & Analysis . . . . .6	Eco 231,232—Prin . . . . .6
SS 123—Interm Typing . . . . .2	Eng—Literature . . . . .6
SS 125—Records . . . . .2	SS 222—Prod Typing . . . . .2
SS 363—Adv Shorthand . . . . .6	SS 231—Sec Prac . . . . .3
Spc 131 . . . . .3	SS 341—Sec Off Proc . . . . .4
Electives . . . . .3	SS 332—Dict & Trans . . . . .3
HPE—Activity . . . . .2	
33	31

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**Secretarial Science (SS)**

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

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

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

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

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

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

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

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

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

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

**341—Secretarial Office Procedures.** Analysis of responsibilities and duties

of the administrative secretary. Procedure; work simplification; supervision; office etiquette and ethics; sources of information. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**344—Business Communications.** Theories, practice, and problems involved in communications in business and industry with emphasis on use of practical psychology, good judgment. Letters; reports; memoranda. Prerequisite: touch system of typewriting. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

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

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

# SCHOOL OF EDUCATION

## **Departments**

**Elementary Education**

**Secondary Education**

**Special Education**

**Health and Physical Education**

**Home Economics**



## School of Education

M. L. McLaughlin, Ed. D., Dean  
Howard W. Adams, Ed. D., Director of Certification  
and Graduate Studies  
E. Lee Self, Ph.D., Director of Student Teaching

The School of Education was established in 1959 and has six departments. Separate departments of Elementary Education and Secondary Education were authorized in 1969, and a Department of Special Education in 1970. Other departments include Health and Physical Education for Women, Health and Physical Education for Men, and Home Economics.

Providing education for prospective teachers has been a tradition of the university, even from its beginning as a junior college. Non-teaching specialities in Home Economics and Health and Physical Education are more recent offerings representing diversification and growth of the School of Education.

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

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

### Degrees Offered

Bachelor of Science with majors in the following fields:

Elementary Education  
Secondary Education

Health and Physical Education  
Home Economics

### Objectives

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

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

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



### **Teacher Education – A Shared Responsibility**

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

#### **Teacher Education Programs**

Lamar University provides undergraduate programs of teacher education which fulfill the curriculum requirements for the following Provisional Certificates in the State of Texas: elementary school teacher, secondary school teacher, teacher of the mentally retarded, teacher of the physically handicapped, education of the deaf, speech and hearing therapy, driver education, all-levels music teacher, all-levels art, kindergarten education, and vocational home economics.

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

#### **Admission to Teacher Education**

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

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

#### **Admission to Student Teaching**

Students wishing to enroll in student teaching must be selected and approved in order to be eligible to register for this course. Applications for student teaching must be submitted to the Director of Student Teaching by May 1, prior to the academic year for which student teaching is planned. This includes applications for the spring semester as well as applications for the

fall. Failure to follow this procedure may delay admission to the student teaching program by at least one semester.

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

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

### Certification Policies

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

1. A grade-point average of 2.0 (C) in all work undertaken at Lamar, 2.0 in elementary school specialization or in each teaching field, and 2.0 in the professional education courses relevant to the certificate.
2. A minimum of six hours in residence at Lamar in professional education courses.
3. A minimum of six hours in residence at Lamar.
  - a. In each teaching field for secondary education (unless this requirement is waived in writing by the head of the department).
  - b. In the area of specialization for elementary education (unless this requirement is waived in writing by the head of the department).
4. Successful completion of the National Teachers Examination.

### Provisional Certificate and Degree Requirements

Provisional Certificate programs are offered in elementary education, secondary education, vocational home economics, all-levels art, all-levels music, and all-levels speech and hearing therapy. Provisional Certificate endorsements are available in driver education, kindergarten education, and in several areas of special education. Information concerning these programs may be found in the following paragraphs or in departmental sections of this catalog.

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

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

#### Academic Foundations (60 semester hours)

The academic foundation program that is outlined below is required of all students working toward Provisional Certificates at this university. Within the general framework shown, some course selections may be governed by the type of certification or degree obtained. Where appropriate, a maximum of 6 semester hours (8 in science) taken in academic foundations may be included in any one teaching field.

1. Required core courses . . . . .	42 Hours
English—Composition . . . . .	6 hrs.
Eng—Literature . . . . .	6 hrs.
Mth . . . . .	6 hrs.
Science—Laboratory (same science) . . . . .	8 hrs.
Gov 231-232—State and National . . . . .	6 hrs.
His 231-232—United States . . . . .	6 hrs.
HPE—Activity . . . . .	4 hrs.

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2. Foundations electives and degree requirements . . . . . 18 Hours  
 These hours must be selected from approved courses in the following groups with courses included from a minimum of three groups:

Group I: English, Foreign Language, Philosophy, Bible.

Group II: Art, Music, Speech.

Group III: Biology, Chemistry, Mathematics, Geology, Physics.

Group IV: History, Government, Economics, Geography.

Group V: Sociology, Anthropology, Psychology.

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### Special Certificates and Endorsements

#### All-levels Art degree and certificate.

Described in the "Art" section of this catalog.

#### Driver education

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

HPE 320 – Safety and First Aid

HPE 334 – Driver Education

HPE 416 – Student Teaching in Driver Education

#### Kindergarten education endorsement

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

#### All-levels Music degree and certificate

Described in the "Music" section of this catalog.

#### Special education certificate endorsement

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

#### Education of the deaf and speech and hearing therapy

Described in the "Speech" section of this catalog.

#### Vocational Home Economics degree and certificate

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

#### Certification for Persons with Baccalaureate Degree (or higher) Who Are Not Certified to Teach in Texas

1. Information concerning these certification plans is available in the office of the Dean of the School of Education.
2. Persons with degrees from Texas colleges apply directly to the Dean of the School of Education for certification.
3. Persons with degrees from out-of-state colleges apply to the Texas Education Agency for certification.

#### Certification for Persons With Texas Teaching Certificates Who Desire Additional Endorsements

Those persons with elementary certificates who desire secondary certification, those with secondary certificates who desire elementary certification, and those with elementary or secondary certificates who desire additional endorsements may obtain information from the Dean of the School of Education.

#### Professional Certificates

Requirements for Professional Certificates are described in the Graduate Bulletin.

## DEPARTMENT OF ELEMENTARY EDUCATION

Accredited by the National Council for the  
Accreditation of Teacher Education

*Department Head*—Conrad D. Mang. *Professors*—E. B. Blackburn, Jr., Betty Coody, W. Richard Hargrove, Bradley B. Hogue, Marvin L. McLaughlin. *Associate Professors*—Vernon Griffin, Edward McIntosh. *Assistant Professors*—Charles M. Burke, Genevieve Pearce, Sarah Sims. *Instructor*—Meredith Fitzgerald. *Secretary*—Aline Campbell.

### Bachelor of Science in Education—Elementary

The Bachelor of Science degree in Elementary Education as described below is designed to meet the requirements for a Provisional Elementary Teaching Certificate in the State of Texas. The persons who major in Elementary Education may also receive a certificate endorsement to teach one or more Special Education fields, Kindergarten, or Driver Education by meeting the additional curriculum requirements as described in other sections of this catalog.

In addition to completing the 60 hours required in the 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 6 semester hours between academic foundations and the area of specialization, thus allowing 12 semester hours of free electives. If the area of specialization is in a discipline other than English, Mathematics, science, or history, the free electives may be reduced to 6 semester hours.

#### Academic Foundations (60 Semester Hours)

(Described in Prior Section)

#### Academic Specialization (36 Hours)

- A. Specialization in one subject (18 hours, 9 advanced). Courses must be in one of the following areas: English, history, mathematics, one science, one foreign language, speech, art, music, or physical education. Courses may include 6 hours ( 8 in science) taken as part of the academic foundations. A listing of course sequences is available in the office of the Head of the Department of Elementary Education.
- B. Work in a combination of subjects (18 semester hours). Specific requirements are:

Geo 237—Physical Geography or Geo 238—Cultural Geography  
CA 3371—Elementary Art Education  
Spc 333—Interpre. Child. Lit. or Spc 336—Creative Dramatics  
HPE 339—Physical Education in the Elementary School  
MEd 131—Elements of Music  
His 134—History of Texas

**Professional Development (30 semester hours)**

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

**Free Electives (6 semester hours)**

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

**Program of Study**

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

First Year	Second Year
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Science—Laboratory . . . . .8	His 231-232—United States . . . . .6
Mth 135, 136—Con Mth . . . . .6	Gov 231-232—St & Natl . . . . .6
MEd 131—Ele of Music . . . . .3	Science . . . . .3
His 134—Texas . . . . .3	HPE 339—P.E. in Elem Sch . . . . .3
HPE—Activity . . . . .2	HPE—Activity . . . . .2
Acad Found—Elect . . . . .3	Specialization . . . . .3
Geo 237 or 238 . . . . .3	Mth 3313—Mod Ele Geom . . . . .3
34	32
Third Year	Fourth Year
CA 3371—Elem Schl Art . . . . .3	Edu 437—Sci & Soc Stud . . . . .3
Edu 331—Foundations . . . . .3	Edu 434—Clsrm Mgt . . . . .3
Edu 332—Edu Psy . . . . .3	Edu 465—Student Teaching . . . . .6
Edu 333—Lang Arts . . . . .3	Area of Specialization . . . . .3
Edu 334—Child Dev & Eval . . . . .3	Acad Found—Elect . . . . .9
Edu 335—Arith in Elem Sch . . . . .3	Free Electives . . . . .6
Edu 339—Read in Elem Sch . . . . .3	30
Spc 333—Interp Child Lit . . . . .3	
Area of Specialization . . . . .12	
36	

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

### Kindergarten Certificate Requirements

Kindergarten education may be added as an additional endorsement to the Provisional Elementary Certificate and is based on the successful completion of the courses listed below.

Edu 4302—Early Childhood Development .....	3
Edu 4303—Instruction in Early Childhood .....	3
Edu 4304—History and Philosophy of Kindergarten .....	3
Edu 463—Student Teaching (3 hrs. Elementary, 3 hrs. Kindergarten) .....	6
Total	<u>15</u>

Students who do not plan to do student teaching in kindergarten can certify after taking 12 hours of Early Childhood Education and after teaching one year in an accredited kindergarten.

## DEPARTMENT OF SECONDARY EDUCATION

Accredited by the National Council for the  
Accreditation of Teacher Education

*Department Head*—Oliver P. Monk. *Professors*—Howard W. Adams, Harvey C. Johnson, E. Lee Self. *Associate Professors*—Kenneth R. Briggs, D. L. Hybarger, Charles H. Wilbanks. *Assistant Professors*—Marianella Permenter, Richard E. Swain, III, Jerry R. Tucker, Curtis E. Wills. *Secretary*—Mary Shannon.

### Bachelor of Science in Education—Secondary

The Bachelor of Science degree in Secondary Education is designed to meet the requirements for the Provisional Secondary Certificate in the State of Texas. Those who complete the requirements for the degree will be eligible for certification in the particular teaching fields selected (or single field as explained previously in certification requirements). Persons who certify in Secondary Education may, through planning the use of electives or taking additional work, receive certificate endorsements qualifying them to teach in one or more areas of Special Education or Driver Education. Attention is called to the fact that students may qualify for a certificate to teach in secondary schools by completing the requirements for a Bachelor of Science in Secondary Education or by fulfilling certification requirements while obtaining a degree in a specific discipline. Some programs are available through only one of the above avenues, as shown below:

#### Bachelor of Science in Secondary Education

Art (All Levels)  
Biology  
Chemistry  
Earth Science  
Economics  
French  
General Science  
German  
Government  
Health and Physical Education  
(Men)  
Health and Physical Education  
(Women)  
Health Education  
History  
Mathematics  
Physics  
Social Studies  
Spanish  
Speech

#### Bachelor's Degree in a Particular Discipline

Art (All Levels)  
Business (Secretarial Science)  
Earth Science  
English  
French  
Government  
Health and Physical Education  
(Men)  
Health and Physical Education  
(Women)  
History  
Home Economics  
Mathematics  
Music (All Levels)  
Physics  
Spanish  
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 6 semester hours (8 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 60 hour academic foundations and the teaching fields then the free electives are limited to 6 semester hours. These requirements are explained in the four following areas.

**1. Academic Foundations (60 Semester Hours)**

(Described in introductory section for School 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 Secretarial Science, 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 sequences below:

**Art**

Specialization: (24 semester hours) CA 137, 235, 236, 338, 437, 438, 4318, plus 3 hours of electives in art.  
(When selected as area of greatest interest program must include Spc 131, MLt 130.)

**Art (All Levels)**

Specialization: (48 semester hours) CA 131, 132, 133 or 134, 137, 231 or 232, 235, 236, 237 or 238, 337, 338, 4317, 4318, 431 or 432, and nine (9) hours of CA electives from 300 or 400 level courses. (Foundation electives must include Spc 131, MLt 130.)

**Biology**

Specialization: (24 semester hours) Bio 141, 142, 345, 347, plus 8 hours to be selected from Bio 245, 346, 440, 441, 442, 443, 444, 445, 446, 447, 449. Also required: Chm 141-142 or 143-144.  
(When selected as area of greatest interest program must also include 8 additional hours of biology.)

**Business (Plan II—Composite Field)**

Specialization: (48 semester hours) Acc 231, 232, BA 120, 210, 331, 332, 334, 335, 431, Sec 123, 222, 341, 332, 344, 363, 438.  
(Academic Foundations must include Eco 131-132, Spc 131, plus 3 hours Sociology, Philosophy, or Anthropology.)

**Chemistry**

Specialization: (24 semester hours) Chm 141, 142, 333, 343, plus 9 additional hours. The 9 additional hours must include 5 advanced hours.

**Drama (See Theatre)****Earth Science**

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

**Economics**

Specialization: (24 semester hours) Eco 231, 232, 333, 334, 435, plus nine semester hours selected from any 300 or 400 level Eco course. (When selected as area of greatest interest program must include BA 3301 and 3302.)

**English**

Specialization: (24 semester hours) Six hours of sophomore literature selected from 2311, 2314, 2315, or 2316; 334; 4331 or 4332; six hours of advanced British Literature; six hours of advanced American Literature. Eng 3321—Methods of Teaching English, is also strongly recommended. Foundations programs must include a foreign language through 232 for students who had foreign language in high school and a foreign language through 142 for students who had no foreign language in high school.  
(When selected as area of greatest interest program must include a Foreign Language through 232.)

**French**

Specialization : (24 semester hours) Fre 231, 232, 321, 331 or 332, 337, 338, 411, plus 6 hours of courses on the 400 level.

**General Science (Plan II—Composite Field)**

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

**German**

Specialization: (24 semester hours) Ger 231, 232, 321, 335, 411, plus 12 hours of courses on the 300 or 400 level.

**Government**

Specialization: (24 semester hours) Gov 233 and at least one advanced Government course from each of five fields: American government; political philosophy; international relations; comparative government; public administration (See Government Department in this catalog for listing of courses). Also required: Gov 231–232, which are included in core requirements of academic foundations. (When selected as area of greatest interest, program must include a foreign language through 232.)

**Health and Physical Education (Men)**

Specialization: (24 semester hours) HPE 132M, 235, 236M, 331 or 332, 336, 436, plus 6 hours from 333, 435 and 431, 237, and 335. (Foundations program must include Bio 141, 142.) (When selected as area of greatest interest program must include Bio 330 and Spc 131.)

**Health and Physical Education (Women)**

Specialization: (24 semester hours) HPE 132, 133, 236, 237, 332, 333, 433; and three advanced elective hours in HPE-W (Foundations program must include Bio 141, 142.) (When selected as area of greatest interest program must include four additional hours of HPE activity courses, Bio 330, and Spc 131.)

**Health Education**

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

**History**

Specialization: (24 semester hours) His 131, 132, 6 hours advanced American History, 6 hours advanced World History, plus His 231, 232 which are included in foundations program. (When selected as area of greatest interest program must include History 339 and Foreign Language through 232.)

**Home Economics (Vocational)**

Specialization: (48 semester hours) HEc 124, 131, 132, 133, 137, 231, 232, 235, 330, 331, 332, 333, 334, 335, 433, 444.

**Mathematics**

Specialization: (24 semester hours) Mth 1381, 1391, 2311, 330 or 338, 3301 or 339, 3311, 333 or 334; 335, 336 or 337.

**Music (All Levels)**

See Music Department in this Catalog.

**Physics**

Specialization: (24 semester hours) Phy 141, 142, 448 or Phy 140, 241, 242; 333; 335; plus 6 hours to be selected from 324, 436, 338, 436, 414, 416 and 417. Foundations program must include Mth 1381, 1391, 2311, 2321, 331, Chm 141, 142.

**Social Studies (Plan II-Composite Field)**

Specialization: (48 semester hours as follows:)

- A. 30 semester hours: 6 hours Economics, 6 hours Geography, 6 hours Sociology, 6 hours Advanced Government, 6 hours Advanced American History.
- B. 12 semester hours: selected from one of the following: Non U.S. History, Advanced Government, Sociology (at least 6 advanced), and Economics (at least 6 advanced).
- C. 6 semester hours: selected from one of the fields not selected in "B" above.

**Spanish**

Specialization: (24 semester hours) Spa 231, 232, 321, 331, 335, 337 or 338, 411, plus 6 hours of courses on the 400 level.

**Speech**

Specialization: (24 semester hours) Spc 132, 133, 234, 238, 434, 438, 439; plus 6 advanced hours of Speech from 332, 338, 430.  
(When selected as area of greatest interest program must include Spc 131 and 233.)

**Theatre (Drama)**

Specialization: (24 semester hours) Spc 133, 233, 235, 237, 334, 335, 437, plus 6 advanced hours of Drama, from Spc 336, 337, 436, 3360. (When selected as area of greatest interest, program must include Spc 131 and 132.)

**3. Professional Development (18 semester hours)**

Edu 331 – Foundations in Education

Edu 332 – Educational Psychology

Edu 338 – Curriculum, Materials, and Evaluation in the Secondary School

Edu 438 – Classroom Management

Edu 462 – Student Teaching in the Secondary School

#### 4. Free Electives (6 semester hours)

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

#### Program of Study

The secondary education degree and certification requirements are shown in outline form below. Many variations based upon the choice of the two teaching fields, overlaps of teaching field and academic foundation requirements, and plans for use of academic foundation electives and free electives make the outline flexible to meet individual student needs. The outline does comprise a desirable sequence of courses:

First Year	Second Year
Eng–Composition . . . . .6	Eng–Literature . . . . .6
Math . . . . .6	His 231–232–U.S. . . . .6
Science–Laboratory . . . . .8	Gov 231–232–St and Natl . . . . .6
HPE–Activity . . . . .2	HPE–Activity . . . . .2
First Teaching Field . . . . .3	First Teaching Field . . . . .6
Second Teaching Field . . . . .3	Second Teaching Field . . . . .6
Acad Found–Elect . . . . .6	Acad Found–Elect . . . . .3
34	35
Third Year	Fourth Year
Edu 331–Foundations . . . . .3	Edu 438–Classroom Mgt . . . . .3
Edu 332–Edu Psy . . . . .3	Edu 462–Student Teaching . . . . .6
Edu 338–Cur & Mth . . . . .3	First Teaching Field–Adv . . . . .6
First Teaching Field . . . . .9	Second Teach Field–Adv . . . . .6
(6 hrs. advanced)	Acad Found–Elect . . . . .3
Second Teaching Field . . . . .9	Free Electives . . . . .6
(6 hrs. advanced)	
Acad Found–Elect . . . . .6	
33	30

A listing of courses in professional education and course descriptions may be found following the section describing the Special Education Department.

## DEPARTMENT OF SPECIAL EDUCATION

*Department Head* – Claude W. Cheek. *Associate Professor* – Walter Dezelle. *Assistant Professor* – \*James E. Lane. *Instructors* – Nadine Jenkins, Timothy O. Sonnenburg. *Department Secretary* – Patricia Townsend.

(\*On leave.)

### Special Education Certificate Requirements

A student may complete the requirements for Special Education Certification within the Elementary or Secondary Education undergraduate program. Since the Special Education Certificate is an endorsement program, it is also possible to obtain certification at any time following the completion of an Elementary, Secondary, or All-Levels program.

Certification may be obtained in the areas of the Mentally Retarded, Physically Handicapped, and/or Emotionally Disturbed. Those receiving certification in the area of the Mentally Retarded will be qualified to teach in classes for the Educable Mentally Retarded or the Trainable Mentally Retarded. Certification in Physically Handicapped prepares students for teaching positions in classes for the orthopedically (physically) handicapped, minimally brain injured, or hospital/homebound student.

The program for acquiring certification in Emotionally Disturbed is a cooperative arrangement between Lamar University and the University of Texas Medical Branch, Division of Child and Adolescent Psychiatry, Galveston. Students pursuing this certification would be required to spend one semester (Or equivalent) in residence at the University of Texas Medical Branch. During their residence they would take Education 3313, 4314, and 4315. Other required Special Education courses are taken on the Lamar campus.

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

#### Mental Retardation

- Edu 3301 – Survey in the Education of Exceptional Children
- Edu 3311 – Nature and Needs of the Mentally Retarded
- Edu 430 – Education of the Mentally Retarded
- Edu 431 – Psychology of Exceptional Children
- Edu 463 – Student Teaching – Special\*

#### Physically Handicapped/Minimal Brain Injury

- Edu 3301 – Survey in the Education of Exceptional Children
- Edu 3312 – Education of the Physically Handicapped
- Edu 439 – Methods and Materials for Learning Disabilities
- Edu 431 – Psychology of Exceptional Children
- Edu 463 – Student Teaching – Special\*

**Emotionally Disturbed**

- Edu 3301 – Survey in the Education of Exceptional Children
- Edu 3313 – Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed
- Edu 4314 – Educational Needs of the Emotionally Disturbed
- Edu 4315 – Practicum Experiences with the Emotionally Disturbed
- Edu 463 – Student Teaching – Special\*

\*Secondary students, see restrictions listed under “Student Teaching” in the following section.

The addition of 6 hours from either the certification program for Mentally Retarded or Physically Handicapped/Minimal Brain Injury over and above the 12 hours required for completion of one area will entitle the student to dual certification in Special Education, along with certification in Elementary Education or Secondary Education.

Any or all of the above courses may be taken as elective hours by students who do not wish to certify in either of the Special Education areas. Additional information concerning this program may be obtained from the Head of the Department of Special Education.

**Student Teaching in Special Education****Elementary and Special Education**

A student may complete the special education certification requirement by enrolling in Education 463, Student Teaching – Special. The student teaching assignment will then be divided between a regular elementary class and a special education class in the area in which certification is being sought.

A student may want to obtain two Special Education teaching certificates. After completing course requirements, the student must choose one special area in which to do student teaching. Upon graduation he will be eligible for elementary education certification and certification in that special area in which student teaching was completed. After completing one year of successful teaching in an accredited school, the student may then apply for certification in the other area of special education without having to do student teaching in that area. Applications are made in the office of the Head of the Department of Special Education.

**Secondary Education Students**

A secondary education student may not do student teaching in special education. After taking the previously mentioned sequence of courses (see Special Education Certification Requirements) and completing one year of successful teaching in an accredited school, the secondary student is eligible for certification in special education.

A listing of courses in professional education and course descriptions may be found in the following section.

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**Education (Edu)**

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

**332 – Educational Psychology.** Principles and psychological problems involved in education and the practical application of psychological principles to teaching. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

**3311 – Identification and Habilitation of the Mentally Retarded.** Nature and causes of mental retardation, physical and mental characteristics; the organization and administration of classes; evaluation, integration, and adaptation of the program to meet socio-economic needs. Includes 24 hours field experience in observing the behavior of mentally retarded children. Class: 3 hours. Credit: 3 semester hours.

**3312 – Education of the Physically Handicapped.** Description and characteristics of children with physical disabilities. Consideration of



etiological factors and limitations in regular and special classes, hospital and homebound instruction. Includes 18-hour field experience in observing the behavior of physically handicapped children. Class: 3 hours. Credit: 3 semester hours.

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

**430 – Education of the Mentally Retarded.** Problems of the selection, preparation, development, and use of curriculum materials. Use of resources, selection of equipment, employment opportunities, and a review of recent research. Includes 24-hour field experience in observing and modifying the behavior of mentally retarded children. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

**439 – Methods and Materials for Learning Disabilities.** Classroom management and teaching procedures for children with learning disabilities due to possible minimal brain injury. Discussion of behavioral characteristics and problems in diagnosis. Includes 18-hour field experience in observing the behavior of children with learning disabilities. Class: 3 hours. Credit: 3 semester hours.

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

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

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

**4101, 4201, 4301, 4601 – Institute or Workshop in Education.** A number of institutes or workshops are designed to advance the professional competence of teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop or institute differs sufficiently from one previously taken. Class: 1 to 6 hours. Credit: 1 to 6 semester hours.

**4302 – Early Childhood Development.** A study of the psychological development of children from birth to age six, with recognition given to their basic needs. Includes some of the appropriate educational experiences for the early years. Class: 3 hours. Credit: 3 semester hours.

**4303 – Instruction in Early Childhood.** A comprehensive study of methods and materials for pre-school and kindergarten age children. Focus on oral language experiences, science and mathematics concepts, and creative expression. Class: 3 hours. Credit: 3 semester hours.

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

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

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

**4314 – Educational Needs of the Emotionally Disturbed.** 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. Class: 3 hours. Credit: 3 semester hours.

**4315 – Practicum Experiences with the Emotionally Disturbed.** Practicum experiences with emotionally disturbed children and adolescents. Utilize behavioral observation techniques and informal methods of appraising pupils' educational status and progress. Organize, modify, and supplement the curriculum on an individual basis. Evaluate methods and materials in terms of instructional or behavioral objectives. Class: 3 hours. Credit: 3 semester hours.

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

**DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION FOR MEN**

*Department Head* – J. B. Higgins. *Director of Academic Programs* – L. A. Yates. *Associate Professors* – Vernon M. Glass, Jack T. Martin. *Assistant Professors* – Vernon R. Crowder, Raymond L. Fletcher, Bobby L. Frederick, Fred M. Jacob, Sidney Jolly, Dan W. Rogas. *Instructors* – Donald E. Bryson, Vernon E. McManus, John E. Payton, William H. Vincent, Ronald L. Wesbrooks, Paul T. Zeek. *Secretary* – Mrs. Linda Sue Fortenberry.

**Program of Study**

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

**Bachelor of Science in Health & Physical Education (MEN)**

First Year	Second Year
Eng-Composition . . . . . 6	Eng-Literature . . . . . 6
Bio 141-142-Gen Biology . . . . . 8	Gov 231-232-State and Natl . . . . 6
Mth 131-132-Finite . . . . . 6	His 231-232-United States . . . . 6
Spc 131-Spc Comm . . . . . 3	HPE 235M-Health Edu . . . . . 3
HPE 132M-Principles . . . . . 3	HPE-Activity . . . . . 4
HPE 236M-PE Sec Sch . . . . . 3	*Electives . . . . . 9
HPE-Activity . . . . . 2	
*Electives . . . . . 3	34
34	
Third Year	Fourth Year
Bio 330-App Anat and Kinesiol. . . 3	Edu 438-Classroom Mgt Sec . . . . 3
Edu 331-Foundation . . . . . 3	Edu 462-Stu Tchng Sec Sch . . . . 6
Edu 332-Edu Psy . . . . . 3	HPE-M-Advanced Elective . . . . 3
Edu 338-Curr Mat-Sec Sch . . . . 3	HPE 436-Org and Admin . . . . . 3
HPE 331-Coaching-Major Spt	*Electives . . . . . 18
or	33
HPE 332-Coaching-Major Spt . . . 3	
HPE 333-Physiology of Exer . . . . 3	
HPE 336-Tests & Msrments . . . . 3	
*Electives . . . . . 12	
33	

\*Electives must include the following:

1. An approved additional teaching field of 24 semester hours.  
(Consult this catalog, Department of Secondary Education, for requirements for additional teaching fields.)
2. Twelve semester hours of electives from the five groups described under "Academic Foundations" (see page 84) with courses included from a minimum of three groups.

**Physical Education (HPE)  
Activity Courses for Men**

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

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

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

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

**Professional Courses**

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

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

**228 – Senior Life Saving.** Lectures, demonstrations, and practice in the technique of life saving. Prerequisite: HPE 227 (M). Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

**229 – Water Safety Instructor Course.** Organization, conditioning, and preparation of students in the required swimming and life saving skills. Advanced students may qualify for American Red Cross Water Safety Instructor. Prerequisite: Current Red Cross Senior Life Saving Certificate. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

**235 – Health Education in the Secondary School.** Subject matter and grade placement, teaching methods and practice in preparation of teaching

units in Health Education at the secondary school level. A study of source materials, planning and organizing included. Prerequisite: HPE 132. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

**332M – Coaching Major Sports—Baseball and Track.** The fundamentals, theory, history, development, and modern techniques in baseball and track. Lectures and demonstrations in coaching methods and techniques. Prerequisite: 9 semester hours in physical education. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

**339 – Physical Education in the Elementary School** The theory and practice of teaching physical education activities in the elementary grades. Classroom instruction and field laboratory assignments are included for demonstration and practice. Stress is placed on games of low organization. Classified as elementary physical education for purposes of teacher certification. Prerequisite: HPE 132. Class: 3 hours. Credit: 3 semester hours.

**416 – Student Teaching in Driver Education.** Supervised observation and teaching of driver education in actual class and behind-the-wheel training. Prerequisite: HPE 320 and HPE 334. Class: 1 hour. Credit: 1 semester hour.

**430 – Problems in Physical and Health Education, Recreation and Safety.** Special problems in physical and health education, recreation and safety are assigned to individual students or to groups of students. Assignments are made and consultations are held. Class: by consultation. Credit: 3 semester hours.

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

**432 – Officiating Major Sports.** A study of the rules and their interpretation and of the mechanics of officiating. The course is designed to develop the skills and knowledge required in the officiating of major sports. Class: 3 hours. Credit: 3 semester hours.

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

**436 – Organization and Administration of Physical and Health Education and Athletics.** Administration procedures in setting up and conducting programs in physical education, health education, and intramural athletics. A survey of types of programs, administrative organizations, scope, personnel, policies, functions and duties of supervision, related problems in the three areas. Prerequisite: 15 hours in physical education. Class: 3 hours. Credit: 3 semester hours.

#### **Driver Education Certification Requirements**

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

HPE 320 – Safety and First Aid

HPE 334 – Driver Education

HPE 416 – Student Teaching in Driver Education

**DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION  
FOR WOMEN**

*Department Head*—Belle M. Holm. *Associate Professors*—Dianne Baker, Mary Jane Haskins. *Assistant Professors*—Rae R. Gremillion, Rebecca M. Hill, Alice C. Bell, Lois J. Wilson. *Instructors*—Marilyn A. Krause, Patricia A. Park, Claudia K. Perry. *Secretary*— Donna W. Adams.

The services of the women's health and physical education department are two-fold. The required service program offers activity courses which are appropriate to the needs of the college woman. Professional courses offered to the student with emphasis in health and physical education (first and second teaching area) are designed for teacher preparation as well as to enhance the general educational objectives of the university.

The basic degree program offered by the department leads to the degree Bachelor of Science in Health and Physical Education. A Master of Science degree is also offered. Additional information concerning the program is outlined in the Graduate Bulletin.

**Bachelor of Science Degree in Health and Physical Education**

The Bachelor of Science degree in Women's Health and Physical Education is designed for students who plan to teach health and physical education in secondary schools or who plan to continue the study of health and physical education for an advanced degree. A companion program of specialization in elementary health and physical education is available through the Bachelor of Science in Elementary Education degree.

**Program of Study**

**Bachelor of Science in Health and Physical Education for Women  
(Teacher Certification — Plan I)**

First Year	Second Year
Bio 141-142—General . . . . . 8	Eng—Literature . . . . . 6
Eng—Composition . . . . . 6	Gov 231-232—St & Nat . . . . . 6
Mth . . . . . 6	His 231-232—United States . . . . . 6
HPE 123—Basic Movement . . . . . 2	HPE 2201—Tennis or HPE 227— Badminton . . . . . 2
HPE 127 Folk Dance or HPE 128 — Modern Dance . . . . . 2	HPE 236—P Edu—Sec Sch . . . . . 3
HPE 132—Principles . . . . . 3	HPE 237—Hlth Edu—Sec Sch . . . . . 3
HPE 133—Personal Health . . . . . 3	HPE 2251—Tumbling and Gymnastics . . . . . 2
HPE 223—Basketball and Volleyball or HPE 224—Flag Football and Softball . . . . . 2	*Electives . . . . . 6
32	34

\*Electives must include the following:

1. Additional teaching field of 24 semester hours. (See Department of Secondary Education in this catalog for requirements for additional teaching fields).
2. Twelve semester hours of electives from the five groups described under "Academic Foundations" (see page 84) with courses included from a minimum of three groups.



Third Year	Fourth Year
Bio 330—Anatomy . . . . .3	Edu 438—Classroom Mgt . . . . .3
Spc 131—Spc Comm . . . . .3	Edu 462—Stu Teaching . . . . .6
Edu 331—Foundations . . . . .3	HPE 433—Sport Theory . . . . .3
Edu 332—Edu Psy . . . . .3	HPE—W—Adv Elective . . . . .3
Edu 338—Curr Mat . . . . .3	*Electives . . . . .18
HPE 332W—Meas Eval P Edu . . . . .3	
HPE 333W—Physiology . . . . .3	33
HPE—Activity . . . . .2	
*Electives . . . . .12	

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

First Year	Second Year
Bio 141-142—General . . . . .8	Eng—Literature . . . . .6
Eng—Composition . . . . .6	Gov 231-232—St & Nat . . . . .6
Mth . . . . .6	His 231-232—United States . . . . .6
HPE 123—Basic Movement . . . . .2	HPE 2201—Tennis or HPE 227— Badminton . . . . .2
HPE 127—Folk Dance or HPE 128— Modern Dance . . . . .2	HPE 234—Public & Consumer Hlth .3
HPE 131—Emergency Care, Safety and Survival . . . . .3	HPE 236—P Edu—Sec Sch . . . . .3
HPE 132—Principles . . . . .3	HPE 237—Hlth Edu—Sec Sch . . . . .3
HPE 133—Personal Health . . . . .3	HPE 2251—Tumbling and Gymnastics . . . . .2
HPE 223—Basketball and Volleyball or HPE 224—Flag Football and Softball . . . . .2	*Electives . . . . .3
	34

35

Third Year	Fourth Year
Bio 330—Anatomy . . . . .3	Edu 438—Classroom Mgt . . . . .3
Spc 131—Spc Comm . . . . .3	Edu 462—Stu Teaching . . . . .6
Edu 331—Foundations . . . . .3	HPE 433—Sport Theory . . . . .3
Edu 332—Edu Psy . . . . .3	HPE 434—Hlth Human Ecology . . .3
Edu 338—Curr Mat . . . . .3	HPE 437—Hlth Science and Epidemiology . . . . .3
HPE 331—Meas Eval Hlth Edu . . .3	HPE—Adv Elective (W) . . . . .9
HPE 332W—Meas Eval Procedures in P Edu . . . . .3	*Electives . . . . .3
HPE 333W—Physiology . . . . .3	
HPE 337—Contemporary Health Problems . . . . .3	30
HPE—Activity . . . . .2	
*Electives . . . . .6	

35

**Theory Courses**

**123 – Basic Movement Fundamentals.** Mechanical analysis of motor skills. Class: 3 hours. Credit: 2 semester hours.

**131 – Emergency Care, Safety, and Survival.** Standard and advanced American Red Cross First Aid Certification course, plus the Public Health Service Office of Civil Defense Medical Self-Help course and Safety Education. Class: 3 hours. Credit: 3 semester hours.

**132 – Principles of Physical Education.** Definition, terminology, aims, objectives, and history of physical education, and health education. Includes the nature of and specialized areas within the profession. Class: 3 hours. Credit: 3 semester hours.

**133 – Personal Health.** A study of bodily organs and diseases; systems; physical and mental health concepts; knowledges and appraisal of individual health. Class: 3 hours. Credit: 3 semester hours.

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

**236 – Physical Education in the Secondary School.** Materials for teaching physical education in the secondary grades. Teaching situations and problems are studied, and activities are analyzed at the secondary level. Class: 3 hours. Credit: 3 semester hours.

**237 – Health and Education in the Secondary School.** Historical development of school health programs, health education, and school health services, with the evolvement of principles and objectives of health education. Emphasis on methods and techniques of presentation. Class: 3 hours. Credit: 3 semester hours.

**331 – Measurement and Evaluation in Health Education.** Analysis and interpretation of various kinds of tests and testing instruments used in school health programs. Experience is offered in the administration of tests, in test construction, and in the use of elementary statistics to interpret scores. Class: 3 hours. Credit: 3 semester hours.

**332W – Measurement and Evaluation Procedures in Physical Education.** An analysis of various kinds of tests used in the field of physical education. Experience is offered in the administration of tests and in the use of elementary statistics to interpret scores. Class: 3 hours. Credit: 3 semester hours.

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

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

**337 – Contemporary Health Problems.** Problems associated with personal, social, and sexual adjustment, with emphasis on social and psychological factors which promote successful interpersonal and family relations. Class: 3 hours. Credit: 3 semester hours.

**338 – Health Education in the Elementary School.** Includes health problems and interests of elementary school children, the promotion of the healthful school environment, and understanding of health appraisal of school children and curriculum construction. Class: 3 hours. Credit: 3 semester hours.

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

**4101, 4201, 4301 – Workshop in Health and Physical Education.** A number of workshops are designed to advance the professional competence of teachers. For each, a description of the particular area of study will be indicated. May be repeated for credit when nature of workshop differs sufficiently from one previously taken. Class: 1 to 3 hours. Credit: 1 to 3 semester hours.

**430 – Problems in Physical Education.** Biological, physiological, social, psychological, and other purposes and outcomes; selection and distribution of activities; teaching methods; facilities; teacher preparation; literature; research problems. Prerequisite: senior standing and consent of department head. Class: by consultation. Credit: 3 semester hours.

**431 – Practicum in Recreational Leadership.** Discussion and laboratory practice in various forms of recreational activities, skills and crafts; study of issues in areas of public school and community recreation. Class: 3 hours. Credit: 3 semester hours.

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

**434 – Health and Human Ecology.** Emphasis on the interaction of the human organism with the many aspects of environment and the implications in each area with regard to health. Class: 3 hours. Credit: 3 semester hours.

**437 – Health Science and Epidemiology.** A study of infectious and non-infectious diseases. Class: 3 hours. Credit: 3 semester hours.

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

### Activity Courses for Women

The following are activity courses from which 4 semesters must be selected for graduation. This requirement is met during both semesters of the freshman and sophomore years. It is recommended that the student take one sport, one dance, one aquatic and one elective hour.

Students enrolled in Physical Education are required to have regulation costumes which may be purchased in the university bookstore. Equipment for class work is provided by the student.

The physical education activity program is designed to enlarge the educational experience of the student by developing skills and understandings associated with sport, dance and aquatics.

#### Activity:

**111, 112 – Activity, Required Activity for Women.** Selected body building exercises, and physical activities directed toward increasing the physical fitness of students. Class: 3 hours. Credit: 1 semester hour.

**221, 222 – Activity.** Continuation of HPE 111 and 112. Class: 3 hours. Credit: 2 semester hours.

**228 – Modified Activity.** Modified or special exercise programs for individuals with physical limitations. Class: 3 hours. Credit: 2 semester hours.

#### Aquatics:

**120 – Swimming.** Demonstrations, lectures and practice in the basic techniques of swimming and water safety skills. Class: 3 hours. Credit: 2 semester hours.

**121 – Swimming and Diving.** Demonstrations, lectures and practice in the techniques and analysis of selected swimming strokes and dives. Class: 3 hours. Credit: 2 semester hours.

**220 – Advanced Aquatic Sports.** Lecture, demonstration, and practice in swimming, diving, synchronized swimming and water games. Class: 3 hours. Credit: 2 semester hours.

**225 – Lifesaving.** Prerequisite: intermediate swimming skills. Development of proficiency in lifesaving and water safety skills and

techniques. Completion of course also includes American Red Cross Senior Lifesaving Certificate. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

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

#### **Dance:**

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

**128 – Modern Dance.** An introductory course in modern dance. Instructions and practice in the techniques of modern dance and beginning work in composition. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

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

**216 – Musical Comedy Dance.** A laboratory course providing both background study and practical work in the specialized field of musical comedy including participation in the presentation of 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. Laboratory: 3 hours. Credit: 1 semester hour. May be repeated for credit up to 3 hours.

#### **Sports:**

The following courses are planned to develop in the student an appreciation and knowledge of the activity, as well as to develop skills for the enjoyment of participation. Class: 3 hours. Credit: 1 semester hour.

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

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

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

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

**2251 — Tumbling and Gymnastics.** Development of tumbling skills with knowledge of movement principles, spotting techniques and class organization. Instruction and practice on gymnastics apparatus and floor exercise. Emphasis on spotting techniques and teaching methods. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

**DEPARTMENT OF HOME ECONOMICS**

*Department Head* – Dorothy W. McAlister. *Assistant Professors* – Virginia Anderson, Marsha L. Daggett\*, Jane S. Davidson, Doris Davis, LeBland McAdams. *Instructors* – Jane O. Hinchey, Mavis B. Kelton. *Secretary* – Karen Moses.

(\*On leave.)

**Bachelor of Science in Home Economics**

Home Economics is a field of study concerned with all aspects of home and family living, and their interrelationships. Home Economics draws from the basic disciplines of the physical, biological, and social sciences and the arts. The courses preparing professional home economists are built upon relevant knowledge from these areas.

Students may pursue either of two degree programs, the vocational teacher certification program or the general home economics program. The teacher education plan prepares the student to teach any home economics program in the public schools. The general Home Economics curriculum is planned to meet the individual needs and professional interests of the student. Guidance will be given in the choice of electives to meet professional requirements for the home economists in extension, business, social welfare, food service, and nursery school programs.

Students may minor in Home Economics by earning 18 hours of credit from the following courses or from other courses in Home Economics approved by the department head: HEc 131, 132, 133, 137, 232, 330, 332, 333, 335.

Courses in Home Economics are required as follows:

**Child Development and Family Relations – 9 semester hours.**

HEc 137 – Marriage and Family Relationships  
HEc 333 – Early Childhood Development  
HEc 334 – Early Childhood Laboratory School

**Clothing and Textiles – 9 semester hours.**

HEc 132 – Clothing Selection and Construction  
HEc 231 – Textiles  
HEc 331 – Advanced Clothing Construction

**Food and Nutrition – 9 semester hours.**

HEc 131 – Food Selection and Preparation  
HEc 235 – Meal Management  
HEc 332 – Human Nutrition

**Home Equipment, Furnishings, Management, and Economics—  
13 semester hours.**

- HEc 330 – Consumer Economics
- HEc 335 – Housing and Home Furnishings
- HEc 433 – Household Equipment
- HEc 444 – Home Management

**Related Art – 6 semester hours.**

- HEc 133 – Art in Home Economics
- HEc 232 – Dress Design

**Specialization – 5 semester hours.**

- HEc 124 – Foundations in Home Economics
- HEc 437 – Seminar in Home Economics – General Home Economics Only

**Programs of Study  
General Home Economics**

This curriculum qualifies for Home Economics in Business and Extension Service.

First Year	Second Year
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Chem—Intro or . . . . .	Gov 231-232—State and Natl . . . . .6
Bio—Gen Biology . . . . .8	HEc 231—Textiles . . . . .3
HEc 124—Found in HEc . . . . .2	HEc 232—Dress Design . . . . .3
HEc 131—Food Prep . . . . .3	HEc 235—Meal Mgt . . . . .3
HEc 132—Beg Clothing . . . . .3	Science or Math . . . . .8-6
HEc 133—Art in HEc . . . . .3	Acad Found—Electives . . . . .3
HEc 137—Family Rel . . . . .3	HPE—Activity . . . . .2
Acad Found—Electives . . . . .3	
HPE—Activity . . . . .2	34-32
<u>33</u>	

Third Year	Fourth Year
Edu 331—Found in Edu Cur . . . . .3	HEc 433—Household Equipment . . .3
HEc 330—Consumer Eco . . . . .3	HEc 437—Seminar in HEc . . . . .3
HEc 331—Clothing Const . . . . .3	HEc 444—Home Mgt . . . . .4
HEc 332—Nutrition . . . . .3	Free Electives . . . . .21
HEc 333—Early Chld Dev . . . . .3	<u>31</u>
HEc 334—Early Chld Lab Sch . . . .3	
HEc 335—Home Furn . . . . .3	
Hist. 231-232—United States . . . .6	
Acad Found—Electives . . . . .3	
Free Electives . . . . .3	
<u>33</u>	



### Home Economics Education

This plan fulfills curriculum requirements for the Provisional Vocational Homemaking Certificate, coded 164 by the Texas Education Agency.

First Year	Second Year
Eng—Composition . . . . .6	Eng—Literature . . . . .6
Chm—Intro or	Gov 231-232—State and Natl . . . .6
Bio—Gen Biology . . . . .8	HEc 231—Textiles . . . . .3
HEc 124—Found in HEc . . . . .2	HEc 232—Dress Design . . . . .3
HEc 131—Food Prep . . . . .3	HEc 235—Meal Mgt . . . . .3
HEc 132—Beg Clothing . . . . .3	Mth . . . . .6
HEc 133—Art in HEc . . . . .3	Acad Found—Electives . . . . .6
HEc 137—Family Rel . . . . .3	HPE—Activity . . . . .2
Acad Found—Electives . . . . .3	
HPE—Activity . . . . .2	35

33

Third Year	Fourth Year
Edu 331—Found in Edu Cur . . . . .3	HEc 433—Household Equip . . . . .3
Edu 332—Edu Psy . . . . .3	HEc 438—Tchg Mtds and Mtls . . . .3
HEc 330—Consumer Eco . . . . .3	HEc 444—Home Mgt . . . . .4
HEc 331—Clothing Const . . . . .3	HEc 462—Std Tchng in HEc . . . . .6
HEc 332—Nutrition . . . . .3	Acad Found—Electives . . . . .9
HEc 333—Early Chld Dev . . . . .3	Free Electives . . . . .3
HEc 334—Early Chld Lab Sch . . . .3	
HEc 335—Home Furn . . . . .3	28
HEc 338—Phil Prin Voc . . . . .3	
His 231-232—United States . . . . .6	
Free Electives . . . . .3	

36

### Home Economics (HEc)

**124 – Foundations in Home Economics.** An overview of the total profession of Home Economics. Class: 2 hours. Credit: 2 semester hours.

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

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

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

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

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

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

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

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

**239 – Nutrition and Health.** Nutrition related to fundamental health habits and the essentials of an adequate diet. Emphasis on nutrition education in school and community. Class: 3 hours. Credit: 3 semester hours.

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

**331 – Advanced Clothing Construction.** The construction of a tailored garment and semi-formal costume suited to the individual. Economic, social, and psychological aspects of clothing are considered. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**332 – Human Nutrition.** Nutrition and functions of nutrients related to the chemistry and physiology of the human body throughout the life cycle. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

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

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

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

**336 – Therapeutic Nutrition.** Concepts of abnormal nutrition and disease treated by dietary modifications. Prerequisite: HEc 332; Bio 141 and 142 or Chm 143 and 144. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

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

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

**421, 431, 461 – Special Topics.** Special topics, including workshops and institutes, in home economics. A description of the particular area of study will appear on the printed semester schedule. May be repeated for a maximum of six semester hours when the area of study is different. Class: 2-6 hours. Credit: 1-6 semester hours.

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

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

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

**444 – Home Management.** Residence in the home management house where information gained from previous courses is put into practice. Housing fee, payable in advance, is determined by Vice-President of Finance. Additional expenses will include cost of food and supplies. Class: 2 hours. Laboratory to be arranged. Credit: 4 semester hours.

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

# SCHOOL OF ENGINEERING

## Departments

**Chemical**

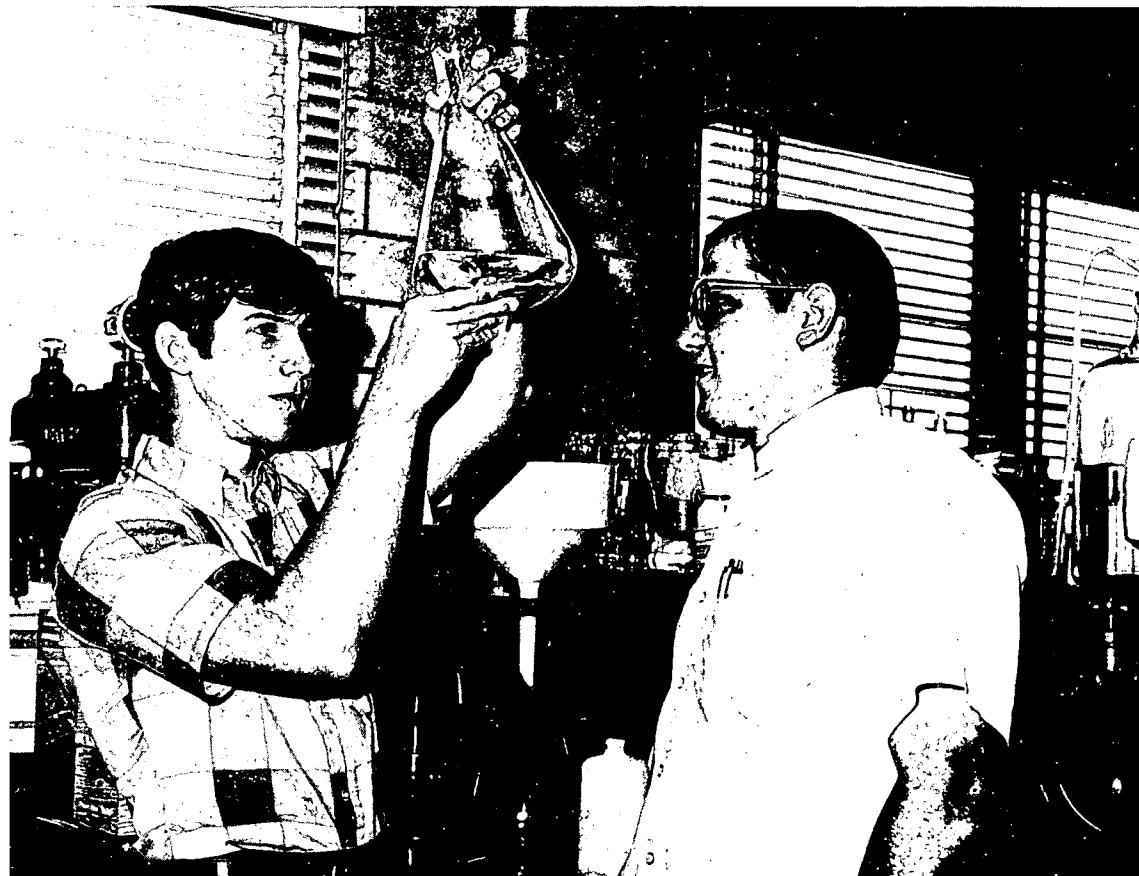
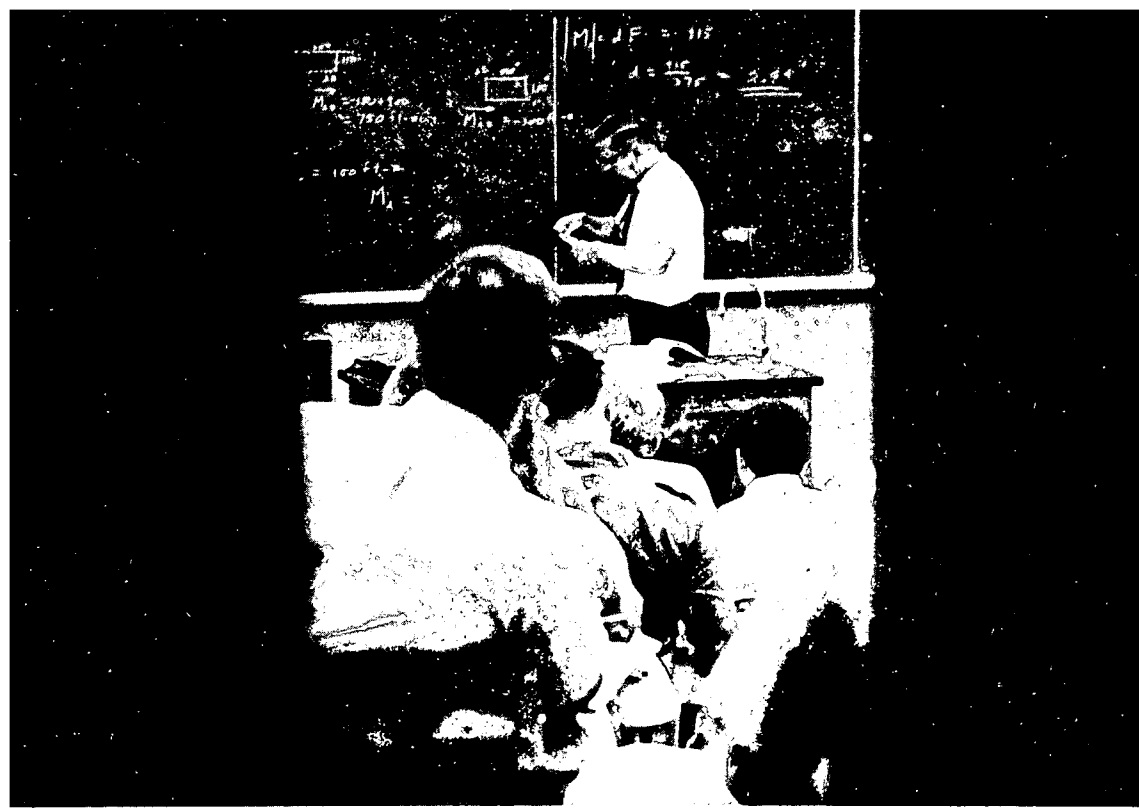
**Civil**

**Electrical**

**Industrial**

**Mechanical**

**Mathematics**



## School of Engineering

Lloyd B. Cherry, P.E., Dean

George B. Tims, Jr., P.E., Associate Dean

The School of Engineering offers five undergraduate curricula in engineering and two in mathematics. Graduate curricula at the master level is offered in both engineering and mathematics together with curricula leading to the Doctor of Engineering degree. These curricula are designed to prepare graduating students for positions of leadership as they become professional engineers, administrators, investigators, applied mathematicians or teachers; yet, the basic knowledge and mental discipline gained from these educational programs is sufficiently broad and fundamental to constitute excellent preparation for other careers.

The Texas Engineering Practice Act of 1965 contains the following:

“... In recognition of the vital impact which the rapid advance of knowledge of the mathematical, physical and engineering science as applied in the practice of engineering is having upon the lives, property, economy and security of our people and the national defense, it is the intent of the Legislature, in order to protect the public health, safety and welfare, that the privilege of practicing engineering be entrusted only to those persons duly licensed, registered and practicing under the provisions of this Act . . .

“... In furtherance of such intent and purpose of the Legislature, the practice of engineering is hereby declared a learned profession to be practiced and regulated as such, and its practitioners in this state shall be held accountable to the state and members of the public by high professional standards in keeping with the ethics and practices of the other learned professions in this state . . .

“The term ‘Professional Engineer’ when construed by the Board shall mean a person who, by reason of his knowledge of mathematics, the physical sciences, and the principles of Engineering acquired by professional education and practical experience, is qualified to engage in Engineering practice.

“The term ‘Professional Engineering’ when construed by the Board shall mean professional service which may include consultation, investigation, evaluation, planning, designing, or responsible supervision of construction, in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works or projects wherein the public welfare, or the safeguarding of life, health and property is concerned or involved, when such professional service requires the application of Engineering principles and the interpretation of Engineering data . . .”

The law specifically states the qualities of engineering practice and thus defines the general scope of engineering education. Thus, only through continued practice and exercise of judgment can the stature of an engineer be attained. Consequently, laboratory work under the supervision of those who have had professional experience as well as a full scientific background is an

important part of the various engineering curricula. Emphasis, however, is placed upon creative, analytical thinking rather than upon the acquisition of factual information or the attainment of manual skills.

All engineering curricula and, to some extent, the mathematics curricula leading to the bachelor of science degree with an engineering minor, have been designed upon a common core of subjects rich in mathematics and science which appear throughout each curriculum. The first two years of study are common for all engineering curricula, thus until the engineering student completes the first two years of work, he will be classed as an engineering student without departmental designation. Because of the variety of mathematics programs, all mathematics majors are admitted directly to the mathematics department upon matriculation.

Each student in the School of Engineering is assigned to a member of the faculty who serves as his counselor. Through his counselor, the student will be able to determine his ultimate professional interests as well as obtain help and guidance in his academic life.

The entrance requirements from high school for the School of Engineering are:

1. English . . . . .	4 units
2. Mathematics	
Algebra . . . . .	2 units
Geometry . . . . .	1 unit
Trigonometry . . . . .	½unit
3. Natural Sciences	
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
4. Social Sciences . . . . .	2 units
5. Electives . . . . .	4½units
Total . . . . .	16 units

Students who meet the general entrance requirements of the University, but lack in specific requirements for the engineering curricula may, upon consultation with the Dean, be permitted to enroll in the School of Engineering; however, all deficiencies must be removed before the beginning of the second academic year. Students having entrance deficiencies or weaknesses are urged to use the summer terms preceding the freshman year in college to remove them.

Attention is directed to the section in this Catalog on admission requirements and, in particular, to the requirement that each person desiring to begin the regular program of mathematics in the engineering curriculum must take the Level I Mathematics Test.

In addition to instruction in the various branches of engineering, the functions of the School of Engineering include research, both on fundamental

and applied problems, development of a technological library, extension activities, provision of a center of technical meetings and activities, and the management of a cooperative program.

A cooperative (co-op) program is offered to a limited number of qualified students enrolled in the School of Engineering, whereby the student spends alternate terms at work or study.

To meet the minimum qualifications for the co-op programs, a student

1. Must have completed all freshman work in the core program, of which the last 15 semester hours credit must have been earned at Lamar.
2. Must have an over-all grade point average of 2.5 or higher.

To remain in the program, a student must maintain his grade points and perform in a manner satisfactory to both his employer and Lamar.

The period during which a student may participate in the co-op program extends through the regular sophomore and junior years. Co-op privileges are not extended to freshman or senior students. By participating in the co-op program throughout his eligibility a student extends the time required to obtain a degree to five years, but in doing so gains the equivalent of almost two years experience in industry.

A student may apply for admission to the co-op program through the office of the Dean of Engineering.

### Core Program – Engineering

#### First Year

First Semester	Second Semester
Chm 141–Gen Chem . . . . . 3-3-4	Chm 142–Gen Chem . . . . . 3-3-4
Eng Comp . . . . . 3-0-3	Eng Comp . . . . . 3-0-3
Egr 114 . . . . . 0-3-1	Egr 133–Int Data Proc . . . . . 3-0-3
Hist 134–Texas . . . . . 3-0-3	Egr 132–Mechanics I . . . . . 3-0-3
Mth 1381–Anal Geom . . . . . 3-0-3	Mth 1391–Calculus I . . . . . 3-0-3
HPE–Activity . . . . . <u>0-3-1</u>	HPE–Activity . . . . . <u>0-3-1</u>



## Second Year

First Semester	Second Semester
Egr 231—Mechanics II . . . . . 3-0-3	Gov 232 Amer & State . . . . . 3-0-3
Gov 231—Constitutions . . . . . 3-0-3	Major Requirement* . . . . . 3-0-3
Literature . . . . . 3-0-3	Mth 2321 Calculus III . . . . . 3-0-3
Mth 2311—Calculus II . . . . . 3-0-3	Phy 242 Lt, Snd, Qua . . . . . 3-3-4
Phy 241—Ht, Elec, Mag . . . . . 3-3-4	Hist 231 United States** . . . . . 3-0-3
HPE Activity . . . . . 0-3-1	HPE Activity . . . . . 0-3-1
17	17

\*Various majors enroll in course indicated:

Chemical Engineering	----	EGR 234 Thermodynamics
Civil Engineering	----	EGR 232 Mechanics III
Electrical Engineering	----	EGR 233 Elec Cir & Fields
Industrial Engineering	----	EGR 235 Digital Com
Mechanical Engineering	----	EGR 234 Thermodynamics

\*\*Electrical Engineering majors take Egr. 234 and delay U.S. History until third year.

Three and one-half units of high school mathematics and the Level I Mathematics Achievement Test are required for registration in Mth 1381. Students deficient in algebra or trigonometry should take Mth 134 or Mth 133 or both. Geometry deficiencies must be eliminated in high school or by correspondence from the University of Texas.

One unit of high school physics as well as completion of or enrollment in Mth 1391 are required for enrolling in Egr 132. Students deficient in high school physics are required to take Phy 141.

## Engineering (Egr)

**114—Engineering Graphics.** Principles of orthographic projection combined with descriptive geometry to solve space problems graphically. Lettering and drafting technique emphasized. Laboratory: 3 hours. Credit: 1 semester hour.

**132—Mechanics I.** Utilizes vectors in the study of particle mechanics. Energy methods. Prerequisite: Mth 1391 or concurrent. Class: 3 hours. Credit: 3 semester hours.

**133—Introduction to Engineering Computation.** Introduction to engineering practice, decision-making, the slide rule, flow charting, digital computers, FORTRAN, FORTRAN programming. Class: 3 hours. Credit: 3 semester hours.

**212—Production and Fabrication Processes.** Machinery, welding, casting, forming, and joining operations on materials of engineering importance. Demonstrations, lectures and laboratory exercises. Laboratory: 3 hours. Credit: 1 semester hour.

**214—Industrial Projects.** Special assignments in the major areas of engineering under guidance of a faculty member. Presentation of oral and written reports. May be repeated for credit. Prerequisite: Approval of academic dean. Credit: 1 semester hour.

**231—Mechanics II.** Kinematics of rigid bodies, kinetics of rigid bodies, work and energy, impulse and momentum. Prerequisite: Egr 132; Mth 2311 or concurrent. Class: 3 hours. Credit: 3 semester hours.

**232—Mechanics III.** Effect of loads on deformable bodies. Uniaxial and biaxial stress-strain relationships, statically indeterminate systems. Equations developed for torsion, bending and buckling. Prerequisite: Egr 231 and Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**233—Electric Circuits and Fields.** Electrical and magnetic units; heating effects; basic circuit analysis; electric and magnetic fields; ferromagnetic circuits; inductance and capacitance; principles of energy conversion and measurements. Prerequisite: Phy 241; Mth 2321 or concurrent. Class: 3 hours. Credit: 3 semester hours.

**234—Thermodynamics.** The fundamental laws of thermodynamics, properties of systems, gases, vapors, and thermodynamics tables. Prerequisite: Chm 142, Phy 241; Mth 2321 and Mth 234 or concurrent; Egr 122. Class: 3 hours. Credit: 3 semester hours.

**235—Digital Computation.** Continuation of Egr 122. Problem theory, flow charting, solution of advanced problems from the various engineering disciplines. Class: 3 hours. Credit: 3 semester hours.

**331—Momentum Transfer.** Fluid-flow concepts are presented through the derivation of the basic equations of continuity, energy, and momentum. Engineering aspects of flow measurement, pressure-drop calculations, and pumping requirements are considered. Prerequisite: Egr 234. Class: 3 hours. Credit: 3 semester hours.

**333—Electronics.** A study of charged particles; metals and semiconductors; vacuum tube and transistor characteristics; gaseous conduction; rectifiers and power supplies. Prerequisite: Egr 233 and Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**334—Mechanics IV.** Generalized stress-strain relationships, theories of material failure. Unsymmetrical bending, torsion of non-circular sections, buckling. Elastic and inelastic behavior compared. Laboratory demonstrations to illustrate theory. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**339—Materials Science and Manufacturing Processes.** Basic principles underlying the behavior of engineering materials and methods of processing these materials. Prerequisite: Chm 141 and Phy 241. Class: 3 hours. Credit: 3 semester hours.

**4101, 4201, 4301, 4401—Special Problems.** An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ. Credit: 1-4 semester hours.

**421—Data Processing.** A study of AM, FM, and pulse width modulation for telemetry of data and use of analog and digital computers for storing and analyzing the data. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

## DEPARTMENT OF CHEMICAL ENGINEERING

*Department Head*—Robert A. McAllister. *Professors*—Frederic C. Jelen, Richard E. Walker. *Associate Professor*—Edwin O. Eisen. *Assistant Professor*—Jack R. Hopper. *Laboratory Technician*—John Read. *Secretary*—Mrs. Katy Rankin.

The growth of the American chemical industry since the first World War has been nothing short of phenomenal. While industry as a whole has made great strides, the chemical field has literally gone ahead in tremendous leaps.

The work of the chemical engineer is the changing of raw materials into finished products with efficiency and economy. He is concerned primarily with the design, construction and operation of equipment and plants in which chemical or physical changes of materials are involved. The work of 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, petro-chemicals, metals, agricultural pesticides and fertilizers, plastics, paints, foods, paper, glass, dyes, synthetic fibers, and a host of others. There is virtually no field which offers a greater opportunity than chemical engineering.

### Program of Study

#### Bachelor of Science in Chemical Engineering

Accredited by Engineers' Council for Professional Development

#### First and Second Year

(See Core Program)

#### Third Year

First Semester	Second Semester
CHE 334—Chem Proc Prin I . . . 3-0-3	CHE 313—Laboratory I . . . . .0-3-1
CHE 343—Thermodynamics II. 3-3-4	CHE 332—Chem Proc Prin II . . 3-0-3
CHM 341—Organic . . . . .3-4-4	CHE 432—Kinetics . . . . .3-0-3
EGR 331—Mom Transfer . . . . 3-0-3	MTH 438—Prob & Statistics . . 3-0-3
CHE 314—Instrumentation . . . 1-0-1	CHM 342—Organic . . . . .3-4-4
CHE 315—Process Econ . . . . .1-0-1	Technical Elective . . . . .3-0-3
CHE 316—Calculations . . . . .1-0-1	

15-7-17

15-7-17

## Fourth Year

First Semester	Second Semester
CHE 414—Seminar . . . . .1-0-1	CHE 432—Laboratory III . . . .0-6-2
CHE 431—Laboratory II . . . .1-6-3	CHE 434—Design . . . . .1-6-3
CHE 442—Chm Proc Prin III . .3-3-4	CHE 433—Process Dynamics . .3-0-3
CHM Elective* . . . . .3-0-3	CHM 432—Physical . . . . .3-0-3
ENG 3311—Tech Report Writ .,3-0-3	CHE 435—Exptl Design . . . .3-0-3
Elective . . . . .3-0-3	Elective . . . . .3-0-3
14-9-17	13-12-17

\*May be 4 semester hours if a laboratory is required with the course.

## Chemical Engineering (ChE)

**313—Laboratory.** Lab work based on CHE 334 and Engineering core courses. Prerequisites: CHE 334 and EGR 331. Laboratory: 3 hours. Credit: 1 semester hour..

**314—Instrumentation.** Introduction to industrial instrumentation and chemical process measurements. Prerequisite: EGR 331 and CHE 334 or concurrent. Class: 1 hour. Credit: 1 semester hour.

**315—Process Economics.** Topics presented include equivalence in cost comparisons using both discrete and continuous interest, depreciation, taxes, profitability, and components of total product cost. Prerequisite: Junior standing. Class: 1 hour. Credit: 1 semester hour.

**316—Calculations.** Calculations typical of the chemical process industries. More advanced use of the digital computer. Prerequisites: CHE 333 and 334 or concurrent. Class: 1 hour. Credit: 1 semester hour.

**332—Chemical Process Principles II.** Generalized approach to heat transfer, conduction, convection, and radiation will be considered. An introduction to mass transfer will be made. Prerequisite: EGR 331. Class: 3 hours. Credit: 3 semester hours.

**334—Chemical Process Principles I.** The application of mathematics, chemistry, and physics to solution of problems in industrial chemistry. Included are topics on mass and energy balance, phase equilibria, and economic evaluations. Prerequisite: EGR 234. Class: 3 hours. Credit: 3 semester hours.

**343—Thermodynamics II.** Properties of non-ideal substances. Maxwell relations, enthalpy-concentration diagrams, physical and chemical equilibria. Prerequisite: EGR 234. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**414—Seminar.** An oral and written presentation of selected topics in chemical engineering from recent technical publications. Class: 1 hour. Credit: 1 semester hour.

**423—Laboratory III.** Laboratory work based on Egr 331, ChE 332 CHE 432, and ChE 442. Prerequisite: ChE 442. Laboratory: 6 hours. Credit: 2 semester hours.

**431—Laboratory II.** Laboratory work based on Egr 331 and ChE 332 and ChE 442. Prerequisite: ChE 442 or concurrent. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

**432—Kinetics.** Introduction to the kinetics of chemical reactions with a study of the rates and mechanisms of such reactions. Thermal and catalytic reactions, both homogeneous and heterogeneous, are considered. Application of fundamental principles to the design and operation of commercial reactors is covered. Prerequisite: ChE 343. Class: 3 hours. Credit: 3 semester hours.

**433—Process Dynamics and Control.** Fundamental principles of process dynamics and instruments used for measurement and control of process variables such as pressure, temperature, and flow rate. Class: 3 hours. Credit: 3 semester hours.

**434—Design.** Application of chemical engineering fundamentals to the design and development of chemical processing plants. Includes calculations of capacity, economic evaluation of processes and equipment, equipment layout, specifications, cost estimates, and equipment design. Prerequisites: ChE 432, ChE 442. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

**435—Experimental Design.** Advanced statistical methods, including analysis of variance and experimental design. Prerequisite: Mth 438. Class: 3 hours. Credit: 3 semester hours.

**442—Chemical Process Principles III.** A continuation of ChE 332. Includes mass transfer operations and stagewise processing. Topics include diffusional operations, absorption, distillation, extraction and humidification. Prerequisite: ChE 332, ChE 343. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**4111—Seminar.** Oral presentation of advanced topics or research work in chemical engineering. Class: 1 hour. Credit: 1 semester hour.

**4316—Stagewise Processes.** Graphical and analytical solutions of difference equations, and applications to the stagewise processes of engineering. Class: 3 hours. Credit: 3 semester hours.

**4318—Advanced Distillation.** A study of the various design procedures used in multicomponent distillation and batch fractionation. Prerequisite: ChE 442. Class: 3 hours. Credit: 3 semester hours.

**4321—Chemical Engineering Economics.** Calculations involving process and control as determined by least cost or maximum profit. Based on unit operations and unit processes. Class: 3 hours. Credit: 3 semester hours.

**4322—Advanced Unit Operations.** The application of chemical engineering fundamentals to special problems selected for advanced study. Course may be repeated for credit when subject matter varies. Class: 3 hours. Credit: 3 semester hours.

**4323—Materials.** Basic principles underlying the behavior of solid, liquid, and gaseous materials. Engineering properties and deterioration of the materials in an industrial environment will be treated. Class: 3 hours. Credit: 3 semester hours.

**4325—Introduction to Nuclear Engineering.** Interaction of neutrons with matter, nuclear properties of materials, shielding and control of reactors, production of neutrons by nuclear fission, discussion of the various types of reactors and introduction to reactor theory and design. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF CIVIL ENGINEERING

*Department Head* – Luther A. Beale. *Professors* – Andre P. Delflache, Bruce G. Rogers. *Associate Professor* – Bill R. Henry. *Assistant Professor* – David G. Parker. *Instructors* – Spencer L. Brinkerhoff, Jr., D. Rex Goode. *Laboratory Technician* – Charles C. Cowart. *Secretary* – Frances Bourland.

Civil Engineering is vital to man's economic, political, and social well-being. Modern technological developments are ever widening the vistas of this profession and deepening its scientific roots. These trends are accentuating and creating needs that can be met only by truly professional people whose education has the breadth of a liberal education and the depth of a firm foundation in mathematics and science. This curriculum is designed to meet these requirements. It is strong in the engineering sciences including the natural and earth sciences. It embraces a sound core of mathematics, physics and chemistry. Completion of this curriculum will enable a student to enter the professional field of practice or to pursue an advanced program of study leading to a graduate degree in Civil Engineering. Areas of activity include soil, structural, hydraulic, sanitary, transportation, surveying and mapping, and power engineering. This curriculum is modern and designed to meet the requirements of the space and atomic age. Options are provided to fit the individual interest of the Civil Engineering student.

### Program of Study Bachelor of Science in Civil Engineering

#### BASIC PROGRAM

Accredited by Engineers' Council for Professional Development

First and Second Year  
(See Core Program)

#### Third Year

First Semester	Second Semester
CE 313–Egr Meas . . . . . 0-3-1	CE 314–Surveying . . . . . 0-3-1
CE 334–Struc Mech . . . . . 3-0-3	CE 339–Soil Science . . . . . 3-0-3
CE 337–Wtr Util Sys . . . . . 3-0-3	CE 335–Hydraulics . . . . . 2-3-3
CE 338–Spec & Law . . . . . 3-0-3	CE 331–Environ Sci . . . . . 2-3-3
CE 336–Hydrology . . . . . 3-0-3	CE 430–Indet Struc . . . . . 3-0-3
Egr 334–Mech III . . . . . 2-3-3	Egr 233–Elec Cir & Fld . . . . . 3-0-3
Geo 220–Egr Geol . . . . . 1-3-2	

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## Fourth Year

First Semester	Second Semester
CE 410—Thesis Research . . . . .1-0-1	CE 411—Seminar . . . . .1-0-1
CE 413—Photogrammetry . . . . .0-3-1	CE 437—Trans Egr . . . . .2-3-3
CE 434—Soil Egr . . . . .2-3-3	CE 4312—Adv Struc Des . . . . .3-0-3
CE 438—Re Con Des . . . . .3-0-3	Egr 234—Thermo . . . . .3-0-3
CE 439—Struc Stl Des . . . . .3-0-3	Mth 234—Prob & Stat . . . . .3-0-3
Spch—Prof Spch . . . . .3-0-3	*Elective . . . . .3
*Elective . . . . . <u>3</u>	<u>16</u>

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## Total 133 Semester Hours

\*Departmental approval required.

## Environmental Engineering Option

## First Year

(See Core Program)

Note: Core students planning to take the Environmental Option should transfer to CE Dept. at the end of the Freshman year.

## Second Year

First Semester	Second Semester
Bio 141—Gen Biology . . . . .3-3-4	Bio 142—Gen Biology . . . . .3-3-4
Eng 231—Mechanics II . . . . .3-0-3	Egr 232—Mechanics III . . . . .3-0-3
Phy 241—Ht, Elec, Mag . . . . .3-3-4	Mth 2321—Calculus III . . . . .3-0-3
Mth 2311—Calculus II . . . . .3-0-3	Phy 242—Lt, Snd, Qua . . . . .3-3-4
Mth 234—Prob & Stat . . . . .3-0-3	Egr 233—Elec Cir & Fld . . . . .3-0-3
HPE—Activity . . . . . <u>0-3-1</u>	HPE—Activity . . . . . <u>1</u>
18	18

## Third Year

First Semester	Second Semester
CE 313—Egr Meas . . . . .0-3-1	CE 336—Hydrology . . . . .3-0-3
CE 334—Struc Mech . . . . .3-0-3	CE 331—Environ Sci . . . . .2-3-4
CE 337—Wtr Util Sys . . . . .3-0-3	Egr 234—Thermo . . . . .3-0-3
CE 338—Spec & Law . . . . .3-0-3	IE 333—Egr Eco . . . . .3-0-3
CE 335—Hydraulics . . . . .2-3-3	Bio 243—Microbiology . . . . .3-3-4
Chm 243—Organic . . . . . <u>3-3-4</u>	<u>17</u>
17	17

## Fourth Year

First Semester	Second Semester
CE 410—Thesis Research . . . . .1-0-1	CE 411—Seminar . . . . .1-0-1
CE 433—Environ Hth Egr . . . . .3-0-3	CE 435—Wtr Sup Egr . . . . .3-0-3
Chm 334—Air Analysis . . . . .2-3-3	Gov 232—Amer & State . . . . .3-0-3
Gov 231—Constitutions . . . . .3-0-3	His 231—United States . . . . .3-0-3
Spch—Prof Spch . . . . .3-0-3	Literature . . . . .3-0-3
Elective . . . . .3	Elective . . . . .3
16	16

## Total 134 Semester Hours

## Electives

Bio 443—Limnology	Chm 434—Air Pollution Control
Bio 445—Marine Biology	Geo 141—Physical Geology
Chm 241—Quant. Analysis	Geo 220—Geology for Engineers
Chm 333—Inorganic	

## Civil Engineering (CE)

**313 — Engineering Measurements.** Science of data collection applied to measurement of horizontal and vertical angles; horizontal and vertical distances; and site adaptation. Field layouts of tangents, simple curves, parabolic curves and clothoid spirals. Computation procedures utilize rotary and digital computers. Laboratory: 3 hours. Credit: 1 semester hour.

**314 — Surveying.** Applications of measurement principles to civil engineering layout problems. Prerequisite: CE 313. Laboratory: 3 hours. Credit: 1 semester hour.

**331 — Environmental Science.** Introduction to the hydrologic cycle and the chemistry and microbiology of the natural aquatic environment, with emphasis on the physical, chemical, and biological aspects of water and waste water systems in relation to man's environment. Laboratory work in the physical, chemical, and biological analysis of water and waste water. Prerequisite: Chm 142. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**334 — Structural Mechanics.** Analysis of loadings for bridges and buildings. Dynamics effects of moving loads. Influence lines. Shear and moment diagrams. Analysis of indeterminate structures. Model analysis. Introduction to structural design, investigation of frames, girders, and bents. Prerequisite: Egr 232. Class: 3 hours. Credit: 3 semester hours.

**335 — Hydraulics.** Basic principles of fluid flow. Friction and drag studies. Calibration of flow measuring devices. Flow characteristics of open channels and closed conduits. Boundary Layer Theory. Prerequisite: Egr 231. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**336 – Hydrology.** Precipitation, surface water, infiltration, sub-surface water. Analysis of rainfall and runoff data. Collection studies. Hydraulics of wells. Net storm rain, peak discharge and flood runoff. Prerequisite Geo 220. Class: 3 hours. Credit: 3 semester hours.

**337 – Water Utility Systems.** The ecosystem of man as influenced by the water utility. Population evaluation and forecasting; factors influencing water demand and waste water flow; application of fluid mechanics to pressure and open channel flow of water systems and storage requirements. Design considerations of fluid transportation facilities including hydraulic, structural, and environmental elements. Class: 3 hours. Credit: 3 semester hours.

**338 – Engineering Specifications and Law.** Specification writing and interpretation for engineering projects. Legal significance of specifications. Economic principles applied to engineering construction. Class: 3 hours. Credit: 3 semester hours.

**339 – Soil Science.** Basic principles of soil behaviour under load. Soil properties and classification. Study of Hydraulics as applied to Soil Mechanics. Prerequisite: Geo 220. Class: 3 hours. Credit: 3 semester hours.

**410 – Thesis Research.** Class devoted to discussion of research methods and techniques of literature search. Progress reports on thesis work required. Prerequisite: an approved thesis proposal. Class: 1 hour. Credit: 1 semester hour.

**411 – Seminar.** Discussion of professional topics. Study of technical journals and transactions. Presentation of oral and written reports. Completed thesis required. Prerequisite: CE 410. Class: 1 hour. Credit: 1 semester hour.

**413 – Photogrammetry.** Principles of aerial photography applied to map making, route locations and ground control. Introduction to use of photogrammetry equipment, including stereoscopes and plotters. Prerequisite: CE 314. Laboratory: 3 hours. Credit: 1 semester hour.

**430 – Indeterminate Structures.** Basic principles of structural analysis and design, based upon requirements of equilibrium and continuity. Classical methods of strain energy, slope deflection and moment distribution used for analysis of frames, trusses and beams. Digital computer methods stressed. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

**433 – Environmental Health Engineering.** Problems of public health in rural, urban, and industrial centers with water, housing, heating, cooling, ventilation, milk food insects and rodents. Bio-statistics and public health laws, ordinances, and regulations. Prerequisite: Chm 244 and Bio 243, or CE 331. Class: 3 hours. Credit: 3 semester hours.

**434 – Soil Engineering.** Compressibility and strength characteristics. Stress distribution. Shallow and deep foundations, earth pressure theories, retaining walls, stability of slopes. Prerequisite: CE 339. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**435 – Water Supply Engineering.** Water resources, analysis, planning, and design of the processes required for the supply of potable water to urban centers and optimization processes for selection of most economical and reliable system. Special problems and application of model studies for treatment process design. Prerequisite: CE 337. Class: 3 hours. Credit: 3 semester hours.

**437 – Transportation Engineering.** Study of highway pavements. History and development of transportation facilities. Drainage requirements. Fundamentals of highway location, design, construction, and maintenance. Prerequisite: CE 434. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**438 – Reinforced Concrete Design.** The design of structural concrete members based upon elastic and plastic theory. Study of standard specifications. Introduction to prestressed concrete. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

**439 – Structural Steel Design.** The elastic design of buildings and bridge components according to standard specifications. Plastic design of steel structures. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

**4310 – Soil-Structure Interaction.** Analysis of the mechanical behavior of soil-structure systems under the effect of static and dynamic loading, impact and stress wave propagation. Applications to structures supported by shallow and deep substructure, and underground structures. Computer techniques are employed. Prerequisite: CE 434. Class: 3 hours. Credit: 3 semester hours.

**4312 – Advanced Structural Design.** Design principles associated with plastic design of steel, pre-stressed concrete, composite structures, hybrid girders and thin shell concrete. Computer methods of analysis utilized. Prerequisite: CE 430. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF ELECTRICAL ENGINEERING

*Department Head* – Wendell C. Bean. *Professors* – Lloyd B. Cherry, James L. Cooke, Floyd M. Crum. *Associate Professor* – Joseph T. Watt, Jr. *Assistant Professors* – Lyle E. Bohrer, D. Robert Carlin, Ramon S. Satterwhite. *Laboratory Technicians* – Nicholas Accardo, George Vivier. *Secretary* – Sherry McClusky.

Electrical engineering is a rapidly changing profession which promises to bring significant changes to our society within the next decade. Electrical engineers are involved in research, development, design, manufacturing and applications in areas as varied as microelectronic devices, information science, power systems, computers, digital systems, and communications systems.

In each of the electrical engineering courses emphasis is placed upon creative thinking and an analytical approach. The specified curriculum lays a broad foundation in the relevant electrical sciences, and electives allow pursuit of the student's special interests. In-depth specialization is possible in graduate school, industry, or research.

### Program of Study

#### Bachelor of Science in Electrical Engineering

Accredited by Engineers' Council for Professional Development

#### First and Second Year

(See Core Program)

#### Third Year

First Semester	Second Semester
EE 317—Jr. EE Lab .....0-3-1	EE 318—Jr. EE Lab .....0-3-1
EE 331—Circuits I .....3-0-3	EE 332—Circuits II .....3-0-3
EE Elective .....3-0-3	EE 336—Energy Convers II ...3-0-3
U. S. Hist. ....3-0-3	EE 337—Elec & Mag Flds ....3-0-3
EGR 333—Electronics .....3-0-3	EGR 331—Momen Transfer ...3-0-3
MTH 331—Diff. Equations ...3-0-3	PHY 335—Modern .....3-0-3

## Fourth Year

First Semester	Second Semester
EE 411—Seminar . . . . .1-0-1	EE 412—Seminar . . . . .1-0-1
EE 415—Proj Lab . . . . .0-3-1	EE 416—Proj Lab . . . . .0-3-1
EE 417—Proj Lab . . . . .0-3-1	EE 418—Proj Lab . . . . .0-3-1
EE 431—Electronics II . . . . .3-0-3	EE 436—Control EGR . . . . .3-0-3
EE 433—Net Anal . . . . .3-0-3	EE—Elective . . . . .3-0-3
EE—Elective . . . . .3-0-3	EE—Elective . . . . .3-0-3
SPC or Tech Writing . . . . .3-0-3	Elective (non-EGR) . . . . .3-0-3
Elective . . . . .3-0-3	Human/Soc Sci Elective . . . . .3-0-3
18	18

Total 134 Semester Hours.

### Electrical Engineering (EE)

**317 — Junior EE Laboratory.** To be taken in parallel with EE 331. Laboratory: 3 hours per week. Credit: 1 semester hour.

**318 — Junior EE Laboratory.** To be taken in parallel with EE 332 and EE 336. Laboratory: 3 hours per week. Credit: 1 semester hour.

**331 — Circuits I.** A study of instantaneous current and voltage, the impedance function, complex algebra in circuit analysis, average power and effective current, equivalent networks, resonance, graphical methods, loop and node network equations, matrix solutions, and network theorems. Prerequisites: Egr 233, Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**332 — Circuits II.** Coupled circuits, balanced and unbalanced polyphase circuits, symmetrical components, non-linear elements. Fourier series and integral, transient response, complex frequency plane. Laplace transformation. Prerequisite: EE 331. Class: 3 hours. Credit: 3 semester hours.

**335 — Energy Conversion I (Direct).** An introductory study of direct heat to electrical energy conversion methods such as those employed by thermoelectric devices, thermionic converters, magnetohydrodynamic engines, solar and fuel cells. Prerequisites: Egr 234; parallel: Egr 333. Class: 3 hours. Credit: 3 semester hours.

**336 — Energy Conversion II (Electromechanical).** A study of electromechanical energy conversion principles. Lagrange's equations; incremental motion transducers; rotating machines. Prerequisite: EE 331. Class: 3 hours. Credit: 3 semester hours.

**337 — Electromagnetic Fields.** Vector analysis, coordinate systems, static electric fields, electric potential, dielectrics, conductors, capacitance, current, static magnetic fields, magnetic materials, magnetic potentials, inductance,

electromagnetic forces, Maxwell's equations, time varying fields, plane waves. Prerequisites: Egr 233, Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**411 – Electrical Engineering Seminar I.** A study of the literature of electrical and related engineering fields; preparation and presentation of papers on electrical subjects. Parallel: EE 431. Class: 1 hour. Credit: 1 semester hour.

**412 – Electrical Engineering Seminar II.** Preparation, presentation, and discussion of material on the engineering profession, the interface between technology and society, and new areas of engineering involvement. Class: 1 hour. Credit: 1 semester hour.

**415-417 – Projects Laboratory.** Laboratory studies selected from machines, vacuum-tube and semiconductor electronics, digital logic, and communication theory. Laboratory: 3 hours. Credit: 1 semester hour for each course.

**416-418 – Projects Laboratory.** Laboratory studies selected from automatic control systems, computers, vacuum-tube and semiconductor electronics, microwave devices. Laboratory: 3 hours. Credit: 1 semester hour for each course.

**431 – Electronics II.** Vacuum tubes and semi-conductors as circuit elements, untuned voltage and power amplifiers, and electronic computing circuits. Prerequisite: Egr 333, EE 331. Class: 3 hours. Credit: 3 semester hours.

**432 – Electronics III.** A study of bipolar field effect transistor and tunnel diode devices as circuit elements in integrated circuits. Applications to digital systems, high frequency analog systems and measuring instruments are analyzed. Discrete elements in electronic circuits as signal processing devices are also studied. Prerequisite: EE 431. Class: 3 hours. Credit: 3 semester hours.

**433 – Network Analysis.** Properties of linear systems, excitation and response in the time domain, excitation and response in the frequency domain, generalized function, differential equations applied to network analysis, network analysis functions, differential equations applied to network analysis, network analysis domain. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

**434 – Network Synthesis.** Impedance synthesis, network synthesis using image parameters, modern realization methods for two-terminal-pair networks, rational-fraction approximation. Prerequisite: EE 433. Class: 3 hours. Credit: 3 semester hours.

**436 – Control Engineering.** Transfer functions; state variables; time response; frequency response; stability; observability and controllability; special topics. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

**437 – Microwaves.** A study of microwave generation, transmission and detection. Includes a treatment of motion of electrons in microwave devices and specific tubes such as klystrons, traveling-wave tubes, and magnetrons. Consideration is given to measurements and measuring devices at these frequencies. Prerequisite: EE 337. Parallel: EE 431, and EE 433. Class: 3 hours. Credit: 3 semester hours.

**438 – Instrumentation.** A study of analog and digital electronic instruments in making measurements. Instruments studied are oscilloscopes, strip recorders, oscillators, frequency counters, PDR's, PGR's, digital (voltmeters, ohmmeters) and transducers. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**4302 – Communication Theory.** Principles of modulation; random signal theory and network analysis; basic information theory; and analysis of noise. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

**4303 – Logical Design of Switching Systems.** Switching algebra necessary for formulating and manipulating switching functions. Circuit realization using relay logic, diode logic, transistor gates and core gates. Derivation and simplification of state tables for sequential circuits. State assignments for the design of computing systems. Asynchronous circuits. Prerequisite: Egr 333. Class: 3 hours. Credit: 3 semester hours.

**4304 – Advanced Topics.** Topics are selected on the basis of the needs of an adequate number of students. Topic areas include analog computation; digital machines, languages, and algorithms; optimization techniques; power systems analysis; advanced fields problems. May be repeated for credit when topics vary. Prerequisite: EE 331 or concurrent. Class: 3 hours. Credit: 3 semester hours.



**DEPARTMENT OF INDUSTRIAL ENGINEERING**

*Department Head* – David G. Gates. *Professors* – Irvin L. Reis, George B. Tims, Jr. *Associate Professors* – Ali M. Ali, James J. Brennan, Bobby R. Waldron. *Assistant Professor* – Carl Carruth. *Laboratory Technician* – Herbert W. Deaton. *Secretary* – Velma Wisenbaker.

The Department of Industrial Engineering offers the Bachelor of Science degree in both Engineering and Computer Science.

Industrial Engineering is concerned with the design and operation of systems of men, materials and equipment. The curriculum is basically engineering with its foundation in mathematics and the physical sciences, but with additional emphasis on the human and economic factors essential in all engineering activity.

Industrial engineers may serve either as managers or as technical specialists in such areas as production or production control, systems analysis, statistical quality control, economic analysis, and sales engineering. Industrial Engineering has become increasingly important in manufacturing, medical, financial, governmental, military and other types of organizations.

The essential tool which the industrial engineer uses in order to maintain his systems is the computer. For those who wish to concentrate upon the use of the computer in organizations, the systems engineering option is offered. The systems engineering option decreases emphasis somewhat upon manufacturing management and increases emphasis upon mathematics and computing.

The Bachelor of Science in Computer Science is not an engineering degree. It is, rather, offered for those planning a career as a computer professional, as preparation for graduate work in computer science, or for those who plan considerable use of the computer in a given subject area.

**Program of Study****Bachelor of Science in Industrial Engineering****BASIC PROGRAM**

Accredited by Engineers' Council for Professional Development

**First and Second Year**

(See Core Program)

## Third Year

First Semester	Second Semester
IE 311—Seminar I . . . . . 1-0-1	BA 334—Personnel Management 3-0-3
IE 330—Principles of IE . . . . . 3-0-3	IE 335—Acctg for Egrs . . . . . 3-0-3
IE 333—Egr Economy . . . . . 3-0-3	IE 338—Methods Egr . . . . . 2-3-3
Egr 212—Prod & Fab Proc . . . . . 0-3-1	Egr 233—Elec Circ Fields . . . . . 3-0-3
Egr 234—Thermodynamics . . . . . 3-0-3	Egr 331—Momentum Trans . . . . . 3-0-3
Egr 339—Mat Sci & Mfg Proc . . . . . 3-0-3	Approved Elective <sup>1</sup> . . . . . 3-0-3
Mth 438—Prob & Stat . . . . . 3-0-3	
17	18

## Fourth Year

First Semester	Second Semester
IE 411—Seminar II . . . . . 1-0-1	IE 430—Stat Qual Control . . . . . 2-3-3
IE 432—Ind Statistics . . . . . 3-0-3	IE 436—Prod Syst Design . . . . . 1-6-3
IE 435—Prod & Inv Control . . . . . 3-0-3	IE 437—Operations Research . . . . . 3-0-3
IE 4315—Org & Mgt . . . . . 3-0-3	Approved Elective <sup>3</sup> . . . . . 3-0-3
Egr 333—Electronics . . . . . 3-0-3	Free Elective . . . . . 3-0-3
Humanities <sup>2</sup> . . . . . 3-0-3	
16	15

## Total 132 Semester Hours

<sup>1</sup>Approved Science or Technical Elective<sup>2</sup>Spc 131, Spc 331 or Eng 3311<sup>3</sup>Approved Humanistic-Social Elective

## Systems Engineering Option

## First and Second Year

(See Core Program)

## Third Year

First Semester	Second Semester
IE 333—Egr Economy . . . . . 3-0-3	IE 338—Methods Egr . . . . . 2-3-3
IE 3302—Funct Char Dig Comp 3-0-3	IE 3303—Comp Tech Sci Egr . . . . . 3-0-3
Egr 234—Thermodynamics . . . . . 3-0-3	Egr 233—Elec Cir Fields . . . . . 3-0-3
Mth 233—Linear Algebra . . . . . 3-0-3	Mth 331—Diff Equa . . . . . 3-0-3
Mth 438—Prob & Stat . . . . . 3-0-3	Mth 4315—Numer Anal . . . . . 3-0-3
	Approved Elective <sup>1</sup> . . . . . 3-0-3
15	18

## Fourth Year

First Semester	Second Semester
IE 432—Ind Statistics . . . . . 3-0-3	IE 430—Stat Qual Control . . . . 2-3-3
IE 435—Prod & Inv Control . . . 3-0-3	IE 437—Operations Research . . 3-0-3
IE 4302—Syst Anal & Des . . . . 3-0-3	IE 4303—Linear Program . . . . 3-0-3
IE 4315—Org & Mgt . . . . . 3-0-3	Humanities <sup>3</sup> . . . . . 3-0-3
Egr 333—Electronics . . . . . 3-0-3	Free Elective . . . . . 3-0-3
Approved Elective <sup>2</sup> . . . . . 3-0-3	

18

15

## Total 132 Semester hours

<sup>1</sup>Approved Science or Technical Elective<sup>2</sup>Approved Humanities—Social Elective<sup>3</sup>Spc 131, Spc 331, or Eng 3311

## Industrial Engineering (IE)

**311 — Seminar.** Current problems related to industrial engineering. Class: 1 hour. Credit: 1 semester hour.

**330 — Principles of Industrial Engineering.** The function of the industrial engineer in industry. The introduction of the various industrial control systems designed, improved and installed by the industrial engineer. Class 3 hours. Credit: 3 semester hours.

**333 — Engineering Economy.** Economic evaluation of engineering alternatives. Interest, depreciation, valuation, cost control, replacement theory, taxation. Prerequisite: Mth 1391. Class 3 hours. Credit: 3 semester hours.

**335 — Accounting for Engineers.** Elements of accounting, cost accounting systems and budget systems. Class: 3 hours. Credit: 3 semester hours.

**338 — Methods Engineering Work Measurement.** Analysis and improvement of manual work methods. Time measurement of work and methods of establishing performance evaluation standards. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**3302 — Functional Characteristics of Digital Computers.** Machine, assembler level and macro languages, data representation, instruction formats, addressing, computer structure. Prerequisite: CS 236, 237 or Egr 235. Class 3 hours. Credit: 3 semester hours.

**3303 — Computer Techniques for Science and Engineering.** Development and application of numerical algorithms, seminumerical algorithms, statistical techniques, other pertinent techniques for students in Engineering and/or Sciences. Prerequisite: Egr 235 or CS 132. Math 233,234. Class: 3 hours. Credit: 3 semester hours.

**411 – Seminar.** Advanced methodologies, professional problems and current research in industrial engineering. Class: 1 hour. Credit: 1 semester hour.

**430 – Statistical Quality Control.** The use of statistics in the design, installation and operation of systems for the design of quality, the prevention of defects and the assurance of given quality levels. Prerequisite: Mth 438. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**432 – Industrial Statistics.** Significance tests, confidence intervals, tests of hypotheses, correlation, experimental design. Prerequisite: Mth 438. Class: 3 hours. Credit: 3 semester hours.

**434 – Manufacturing Engineering.** The design of products for quality production, the design of tools, gauges, jigs and fixtures. Analysis, design and selection of materials handling equipment. Prerequisite: IE 338, 333. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**435 – Production and Inventory Control.** Techniques employed in continuous process and job lot manufacture for planning and controlling production. Procurement, inventory control, scheduling, facilities, loading routing, dispatching. Prerequisite: Mth 438, IE 330. Class: 3 hours. Credit: 3 semester hours.

**436 – Production Systems Design.** Principles and methods of designing and locating industrial plants. The design and location of a factory as the result of technical and economic analyses. Prerequisite: Egr 212, 339, IE 330, 333, 338. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

**437 – Operations Research.** Introduction to the major techniques of operations research and their application to managerial decision-making. Transportation method, linear programming, allocation models, Monte Carlo technique. Prerequisite: Mth 438, IE 333. Class: 3 hours. Credit: 3 semester hours. IE 333. Class: 3 hours. Credit: 3 semester hours.

**4302 – System Analysis and Design.** Multiprocessing and real time systems, timesharing, core management systems, interfacing, analysis and design of systems to meet specific requirements, management systems, system programming. Prerequisites: IE 3302. Class: 3 hours. Credit: 3 semester hours.

**4303 – Linear Programming.** General linear-programming problems, techniques for solving L-P problems, degeneracy procedure, parametric programming, transportation problems, applications. Prerequisite: CS 132, Mth 233. Class: 3 hours. Credit: 3 semester hours.

**4313 – Human Engineering.** The specialized adaptation of engineering designs to meet human physiological and psychological needs. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**4315 – Organization and Management.** Theory of the organization, the relationship of human efforts for effective and efficient coordinated activity. Investigation of the executive functions, planning, decision-making, policy formulation, motivation, communication, control. Class: 3 hours. Credit: 3 semester hours.

## Program of Study

## Bachelor of Science in Computer Science

## First Year

First Semester	Second Semester
CS 131—Intro Comp & Info Sci 3-0-3	CS 132—Program Dig Comp . . . 3-0-3
Eng Composition . . . . . 3-0-3	Eng Composition . . . . . 3-0-3
HPE—Activity . . . . . 0-3-1	HPE—Activity . . . . . 0-3-1
Mth 1381 . . . . . 3-0-3	Mth 1391—Calculus I . . . . . 3-0-3
Electives* . . . . . 6-0-6	Electives* . . . . . 6-0-6
16	16

## Second Year

First Semester	Second Semester
CS 133—Intro Comp (CØBØL) 3-0-3	IE 3302—Funct Char Dig Comp 3-0-3
Mth 233—Linear Algebra . . . 3-0-3	Mth 234—Prob & Stat . . . . 3-0-3
HPE—Activity . . . . . 0-3-1	HPE—Activity . . . . . 0-3-1
English Literature . . . . . 3-0-3	Speech or Eng Lit . . . . . 3-0-3
History 231—United States . . 3-0-3	History 232—United States . . 3-0-3
Electives* . . . . . 3-0-3	Electives* . . . . . 3-0-3
16	16

## Third Year

First Semester	Second Semester
Mth 4315—Numer Anal . . . . 3-0-3	Mth Elective . . . . . 3-0-3
IE 330—Principles of IE . . . 3-0-3	CS 3305—Logic & Algorithms 3-0-3
IE 3303—Comp Tech Sci & Egr or CS 3304—Comp Tech . . . 3-0-3	BA 336—Personnel Management 3-0-3
Electives* . . . . . 3-0-3	IE 432—Ind Statistics . . . . . 3-0-3
Gov 231—Constitutions . . . . 3-0-3	IE 4302—System Anal Design 3-0-3
15	15

## Fourth Year

First Semester	Second Semester
CS 4303—Linear Programming 3-0-3	CS 4304—Prog Languages . . . 3-0-3
CS 4305—Intro Info Struct . . 3-0-3	CS 4306—Tech Info Process . 3-0-3
Gov 232—Constitutions . . . . 3-0-3	Electives* . . . . . 3-0-3
Electives* . . . . . 9-0-9	IE 335—Acctg for Egrs . . . . 3-0-3
18	IE 4315—Org & Mgt . . . . . 3-0-3
	15

## Total 127 Semester Hours

\*Chosen to satisfy general college requirements and minor requirements.

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**Computer Science (CS)**

**131 – Introduction to Computer and Information Science.** Structure and operational characteristics of computing systems, survey of computer languages and their usages, software, computer applications, information systems. Class: 3 hours. Credit: 3 semester hours.

**132 – Programming of Digital Computers.** Utilization of digital computers to solve both numeric and nonnumeric problems by means of procedural and/or conversational languages. Prerequisite: CS 131 or consent of the instructor. Class: 3 hours. Credit: 3 semester hours.

**CS 133 – Introduction to Computers (CØBØL).** Introduces the student to historical evolution of computers; internal design; associated hardware including input/output, internal and secondary storage; and their social implications. A familiarity with the CØBØL language is gained through the execution of several business oriented problems. Class: 3 hours. Credit: 3 semester hours.

**3304 – Computing Techniques.** Principles and application of computers to problems from disciplines other than Engineering, utilization of various problem oriented languages, techniques of writing and/or utilizing subprograms. Prerequisite: CS 131, 132. Class: 3 hours. Credit: 3 semester hours.

**3305 – Logic and Algorithms.** Boolean algebra and propositional logic, algorithmic processes, logical structure of computer components such as adders, registers, counters, switching networks. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

**4304 – Programming Languages.** Formal definition of programming languages, including specifications of syntax, semantics, statements, notations, including prefix, postfix, infix, subroutines. Prerequisite: IE 3302 and CS 3305. Class: 3 hours. Credit: 3 semester hours.

**4305 – Introduction to Information Structures.** Data bases and their structures; concepts of functions, arrays, files, records, lists, trees, storage systems and structure; symbol tables and search techniques, multilinked files. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

**4306 – Techniques of Information Processing and Retrieval.** Continuation of CS 4305. Keyword and descriptive indexing, decision tables, real time information processing and total information systems. Prerequisite: CS 4305. Class: 3 hours. Credit: 3 semester hours.

**DEPARTMENT OF MECHANICAL ENGINEERING**

*Department Head* – Otto G. Brown. *Professor* – Harry T. Mei. *Associate Professors* – John A. Bruyere, Thomas J. Greene, Eugene P. Martinez, Fred M. Young. *Assistant Professor* – John M. Kramer. *Laboratory Technician* – George E. Hundley, Jr. *Secretary* – Mrs. Linda Crum.

Mechanical Engineering embraces the analysis, design, synthesis and selection of materials for mechanical and thermal processes and machines. Such a broad field must of necessity require a firm foundation in the fundamental sciences and mathematics as well as in the engineering sciences.

Application of the sciences to diverse areas of mechanical engineering are studied in the junior year. Opportunity is provided the student at the senior level to examine certain aspects of Mechanical Engineering in more detail or to prepare for graduate study.

Mechanical engineers are found in virtually every phase of industry. They are engaged in professional engineering, research, management, and public services. The end products resulting from the application of their knowledge and professional skills are many, and a list would include, for example, all forms of transportation, central power plants, nuclear reactors, space vehicles, computers, and complex systems.

Few fields of endeavor offer more to the individual in challenge and opportunity or require better preparation than does mechanical engineering.

Successful completion of the curriculum leads to the degree of Bachelor of Science in Mechanical Engineering.

**Program of Study****Bachelor of Science in Mechanical Engineering**

Accredited by Engineers' Council for Professional Development

First and Second Year

(See Core Program)

## Third Year

First Semester	Second Semester
Egr 212—Prod and Fab Proc . . . . . 0-3-1	Egr 333—Electronics . . . . . 3-0-3
Egr 232—Mechanics III . . . . . 3-0-3	ME 321—Instrmt and Test Lab . . . . . 0-6-2
Egr 233—Elec Circ, Fields . . . . . 3-0-3	ME 331—Transport Theory I . . . . . 3-0-3
Egr 331—Momentum Transfer . . . . . 3-0-3	ME 332—Elem Mech Des I . . . . . 2-3-3
Mth 331—Diff Eqns. . . . . 3-0-3	ME 334—Engr Anal I . . . . . 3-0-3
ME 338—Thermo II . . . . . 3-0-3	Spc 131—Spc Comm or Spc 331—Prof Spc . . . . . 3-0-3
15-3-16	14-9-17

## Fourth Year

First Semester	Second Semester
Eng 3311—Tech Report Writing . . . . . 3-0-3	ME 431—Egr Sys Des . . . . . 2-3-3
ME 411—Seminar . . . . . 1-0-1	ME 4316—Egr Project . . . . . 1-6-3
ME 4313—Trans Theo II . . . . . 3-0-3	ME 4319—Mat Sci . . . . . 2-3-3
ME 4323—Elem Mech Des II . . . . . 2-3-3	Electives . . . . . 9
Phy 335—Modern Phy . . . . . 3-0-3	
Electives . . . . . 3	
16	18

**Total 133 Semester Hours**

**Suggested ME Block Electives**

**(12 Semester Hours Minimum)**

**Aero-Space, Thermal, Design**

A block of a minimum of twelve hours of approved electives with at least nine in the specialty area.

**Professional**

A block of a minimum of twelve hours of approved electives with at least nine in the major field.

**Graduate School Preparatory**

A block of a minimum of twelve hours of approved electives with at least six in the major field.



**Mechanical Engineering (ME)**

**321 – Instrumentation and Testing Laboratory.** Various instruments with mechanical engineering applications are studied and tests are made. Emphasis is on pressure, temperature, speed, power, torque, frequency, and various types of flow measurements. Prerequisites: ME 338; ME 331 in parallel. Laboratory: 6 hours. Credit: 2 semester hours.

**331 – Transport Theory I.** Theory of conduction and potential flow, radiation, and convection with engineering techniques and applications. Prerequisites: Egr 331; ME 334 in parallel. Class: 3 hours. Credit: 3 semester hours.

**332 – Elements of Mechanical Design I.** The design of machine components including shafting, columns, springs and frames with regard to static and dynamic forces employing analytical and graphical analysis. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**334 – Engineering Analysis I.** Methods of analysis of engineering situations requiring application of fundamentals of engineering science and mathematics are studied. Mathematical methods of engineering analysis are presented and applied. Prerequisites: Egr 331 in parallel. Class: 3 hours. Credit: 3 semester hours.

**338 – Thermodynamics II.** A continuation of Egr 234 including vapor and gas cycles, mixtures of gases, thermodynamics of chemical systems and psychrometrics. Prerequisite: Egr 234. Class: 3 hours. Credit: 3 semester hours.

**411 – Seminar.** Oral and written presentation and discussion of selected topics including those from current literature of fields related to mechanical engineering. Professional activities are encouraged. Class: 1 hour. Credit: 1 semester hour.

**431 – Engineering Systems Design.** The design techniques of integrated component systems are treated. The student is required to utilize these techniques by designing such a system. Prerequisite ME 334 and senior standing. Class: 3 hours. Credit: 3 semester hours.

**432 – Mechanical Vibrations.** The theory of vibrating systems, including kinematics or vibrations, harmonic and non-harmonic, single and multiple degrees of freedom; free and forced vibrations, with and without damping. Applications to crank and slider, rotating machinery, balancing, vibration isolation and absorption, and instrumentation. Prerequisites: ME 332 and ME 334. Class: 3 hours. Credit: 3 semester hours.

**433 – Aerodynamics.** Topics include circulation and curl, irrotational flow, velocity potential, vortex theorems, the equations of motion, flow about a body, and the thin airfoil. Vector and complex rotation is used. Prerequisite: ME 331. Class: 3 hours. Credit: 3 semester hours.

**434 – Internal Combustion Engines.** The principles of design and analysis of various types of internal combustion engines. Prerequisites: ME 331 and ME 338. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**435 – Turbomachinery.** Flow problems encountered in the design of water, gas and steam turbines, centrifugal and axial-flow pumps and compressors. Prerequisites: ME 331 and ME 338. Class: 3 hours. Credit: 3 semester hours.

**436 – Dynamics of Machinery.** Kinematics of mechanisms, gears, and epicyclic gear trains. Synthesis of linkages. Calculation of inertia forces and shaking forces on machines. Multicylinder engine balancing. Graphical and analytical methods are employed. Prerequisite: ME 332. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**437 – Advanced Machine Design.** The application of machine design principles to an integrated design of a complete machine, including fabrication and economic consideration. Prerequisite: ME 4323. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**438 – Environmental Systems Engineering.** Design of refrigeration and air-conditioning systems including selection of mechanical equipment, controls, piping, and duct layout. Prerequisite: ME 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

**439 – Advanced Strength of Materials.** Introduction to the fundamental theory of three dimensional elasticity. Specialization of the general theory to provide the theory of plane stress and plane strain. Determination of stress and deflections in a beam on elastic foundations, plates, shells, and cylinders. Study of torsion of bars and cylinders. Prerequisite: Egr 232. Class: 3 hours. Credit: 3 semester hours.

**4311 – Controls Engineering.** The theory of integrated automatic controls systems with application to combustion, temperature, pressure, flow and humidity control. Industrial control systems are considered. Prerequisites: ME 331 and ME 334. Class: 3 hours. Credit: 3 semester hours.

**4312 – Gas Dynamics.** Fundamentals of one-dimensional compressible flow. An introduction to multi-dimensional wave phenomena with various applications. Prerequisite: ME 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

**4313 – Transport Theory II.** Transport processes in incompressible boundary layers. Transport with change of phase. Compressible flow in nozzles, ducts, and turbomachines. High speed compressible boundary layer flow. Slip and free molecule flow. Prerequisite: ME 331. Class: 3 hours. Credit: 3 semester hours.

**4314 – Fundamentals of Physical Metallurgy.** Fundamental and scientific principles of physical metallurgy to include nucleation theory of solidification, behavior of single and polycrystalline solids under stress and heat treatment – plastic deformation and recrystallization and basic principles of X-ray diffraction used in physical metallurgy. Prerequisite: ME 4319 or parallel. Class: 3 hours. Credit: 3 semester hours.

**4315 – Thermodynamics III.** An introduction to the kinetic theory of gases, statistical mechanics, and quantum theory. Prerequisites: ME 338 and ME 334. Class: 3 hours. Credit: 3 semester hours.

**4316 – Engineering Project.** Individual student professional or research projects are planned, scheduled, designed, and evaluated. Experience is gained in the execution of an engineering project and a formal technical report is required. Prerequisites: ME 321 and senior standing. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

**4317 – Engineering Analysis II.** A continuation of ME 334 with some emphasis being placed on analog methods and computer techniques in solving engineering problems. Prerequisite: ME 334. Class: 3 hours. Credit: 3 semester hours.

**4319 – Materials Science.** Properties of materials. Aspects of elastic behavior, as well as stress and strain measurement, yield phenomena, tensions, torsion, hardness, and assorted effects are considered. Criteria for selecting proper engineering materials are discussed. Prerequisite: Egr 232, Egr 234. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**4320 – Propulsion Systems.** Space mission parameters. Basic elements of propulsion systems and propulsion system parameters. Selected problems of thermochemical systems and electro-magneto-thermal systems. Prerequisites: ME 338 and ME 331. Class: 3 hours. Credit: 3 semester hours.

**4321 – Space Dynamics.** An analytical treatment of the mechanics of orbital motion, with applications to the trajectories of astronomical objects and space vehicles. Prerequisite: ME 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

**4323 – Elements of Mechanical Design II.** The design of power transmission machinery. Complete design of some assigned machine. Prerequisite: ME 332. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF MATHEMATICS

*Department Head* – Jeremiah M. Stark. *Director of Freshman Mathematics* – Philip W. Latimer. *Professors* – Russell W. Cowan, Sterling C. Crim, Sterling W. McGuire, Howard C. Vanzant. *Associate Professors* – Joseph A. Baj, II, Ralph J. Brookner, Joan E. Brenizer, Robert L. Dingle, \*Richard L. Price, Jacob A. Wolkeau, Sam M. Wood, Jr. *Assistant Professors* – Lawrence D. Bell, Mary Katherine Bell, George Berzsenyi, Dock B. DeMent, Annie Sue Green, John F. Harvill, Jean Marie Hudson, Michael A. Laidacker, Charles H. Lauffer, Reta G. Parrish, Billy D. Read, David R. Read, Dorothy Faye Thames. *Instructors* – Therlene B. Boyett, John W. Mades, Jana W. McNeill, Donald A. Rickett. *Secretary* – Mrs. Alma Baize.  
(\*On leave.)

The importance of mathematics to the ambitious scientist and engineer of the present day cannot be overemphasized. Many phenomena of nature can be understood adequately only when translated into the language of mathematics. In a day when inventions are sought almost on schedule, a student majoring in science or engineering at a technological college may expect to find an emphasis on the basic tool of mathematics.

Mathematicians with adequate training and background find a variety of opportunities in industry, in government service, in the actuarial profession as statisticians, and of course, as teachers of mathematics on the secondary school, college, or university levels. For further information along these lines, the reader is invited to confer with faculty members and is referred to the publication "Professional Opportunities in Mathematics," obtainable from the Mathematical Association of America.

The Mathematics Department offers programs leading to the Bachelor of Science degree, the Bachelor of Arts degree, and the Master of Science degree. The Bachelor of Arts degree is primarily for those who plan to teach mathematics in secondary schools. The Bachelor of Science degree is recommended for those undergraduate students who plan to do industrial work in mathematics or to enter graduate school for an advanced degree in mathematics.

Those wishing to secure the Bachelor of Arts degree in mathematics while fulfilling the requirements for a provisional secondary school certificate with a teaching field in mathematics, will find below the details of such a program. Also given below are programs of study for the Bachelor of Arts degree with major in mathematics and minor unspecified, the Bachelor of Science degree with major in mathematics and minor in engineering, the Bachelor of Science degree with major in mathematics and a computer concentration, and the Bachelor of Science degree in mathematics with minor unspecified.

For information concerning the Master of Science and Doctor of Engineering degrees, refer to the Graduate Bulletin.

### Programs of Study

#### Bachelor of Arts – Mathematics Major

##### 1. General requirements:

- (1) Eng-Composition—6 sem. hours.
- (2) Eng-Literature—6 sem. hours.
- (3) Laboratory science—8 sem. hrs (same science).
- (4) Gov 231, 232—State and National.
- (5) His 231, 232—United States
- (6) Foreign Language through 232 (same Lang.).
- (7) HPE (Activity)—4 sem. hrs.

##### 2. Major requirements:

- (1) A minimum of 24 semester hours of mathematics including 15 of advanced courses approved by the department.

##### 3. Minor requirements:

- (1) A minor of 18 hours approved by the department.

##### 4. Electives—(approved).

#### Bachelor of Arts – Mathematics Major

##### First Year

First Semester	Second Semester
Mth 1381—Anal Geom . . . . .3	Mth 1391—Cal I . . . . .3
Eng—Composition . . . . .3	Eng—Composition . . . . .3
Science . . . . .4	Science . . . . .4
Minor . . . . .3	Minor . . . . .3
*Elective . . . . .3	*Elective . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
<u>17</u>	<u>17</u>

##### Second Year

First Semester	Second Semester
Mth 2311—Cal II . . . . .3	Mth 2321—Cal III . . . . .3
Eng—Literature . . . . .3	Eng—Literature . . . . .3
His 231—United States . . . . .3	His 232—United States . . . . .3
For Lang 141 . . . . .4	For Lang 142 . . . . .4
*Elective . . . . .3	*Elective . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
<u>17</u>	<u>17</u>

**Third Year**

First Semester		Second Semester	
Mth 331-Diff Equa	3	Mth-(Adv.)	3
Mth-(Adv.)	3	Gov 232-St and Ntl	3
Gov 231-St and Ntl	3	For Lang 232	3
Minor	3	*Elective	3
For Lang 231	3	Minor	3
	15		15

**Fourth Year**

First Semester		Second Semester	
Mth-(Adv.)	3	Mth-(Adv.)	3
Minor	3	Minor	3
*Electives	9	*Electives	9
	15		15

\*Approved by the Mathematics Department.

**Teacher Certification – Mathematics**

Those wishing to secure the Bachelor of Arts degree in mathematics and at the same time certify for a provisional certificate – secondary with a teaching field in mathematics must include in their degree program the following:

- (1) 18 hours of professional education as follows:  
Edu 331, 332, 338, 438, and 462.
- (2) Minor to be expanded to include an approved 24 hours teaching field other than mathematics. (Consult this catalog – School of Education.)
- (3) 15 hours of advanced mathematics as follows:  
Mth 330, 3301, 3311, 333 or 334, 335 or 336 or 337.
- (4) Approved electives sufficient to make a total of 132 semester hours.

**Bachelor of Science – Mathematics Major**

**Program I – Engineering Minor**

**First Year**

First Semester		Second Semester	
Eng-Composition	3	Eng-Composition	3
Chm 141-General	4	Chm 142-General	4
Mth 1381-Anal Geom	3	Mth 1391-Cal I	3
Egr 121-Graphics	2	Egr 122-Intro Comp	2
Gov 231-St and Natl	3	Egr 132-Mech I	3
HPE-Activity	1	HPE-Activity	1
	16		16

## Second Year

First Semester	Second Semester
Mth 2311—Cal II ..... 3	Mth 2321—Cal III ..... 3
Mth 233—Linear Algebra ..... 3	Mth 234—Prob and Stat ..... 3
Egr 231—Mech II ..... 3	Phy 242—Snd Lt Qua ..... 4
Phy 241—Heat El Mag ..... 4	Egr 233—Elet Cit and Fld ..... 3
Gov 232—St and Natl ..... 3	*Liberal Arts Elect ..... 3
HPE—Activity ..... 1	HPE—Activity ..... 1
17	17

## Third Year

First Semester	Second Semester
Mth 331—Diff Equa ..... 3	Mth 3311—Set Theo ..... 3
Mth 338—Adv Cal ..... 3	Mth 339—Adv Cal ..... 3
Egr Elec (Adv) ..... 3	Eng—Literature ..... 3
Eng—Literature ..... 3	His 232—U.S. .... 3
His 231—U.S. .... 3	Egr Elec (Adv) ..... 3
15	15

## Fourth Year

First Semester	Second Semester
Mth 431—Complex Var ..... 3	Mth 432—Complex Var ..... 3
Mth Elective (Adv) ..... 3	Mth Elective (Adv) ..... 3
*Liberal Arts Elect ..... 6	*Electives ..... 9
*Electives ..... 6	
18	15

\*Approved by department head.

## Program II — Physics Minor

## First Year

First Semester	Second Semester
Chm 141—Gen ..... 4	Chm 142—Gen ..... 4
Eng—Composition ..... 3	Eng—Composition ..... 3
Mth 1381—Analy Geom ..... 3	Mth 1391—Cal I ..... 3
*Liberal Arts Elective ..... 3	Phy 140—Intro Mech ..... 4
HPE—Activity ..... 1	HPE—Activity ..... 1
14	15

\*Approved by department head.

## Second Year

First Semester		Second Semester	
Eng—Literature . . . . .	3	Eng—Literature . . . . .	3
His 231—U.S. . . . .	3	His 232—U.S. . . . .	3
Mth 2311—Cal II . . . . .	3	Mth 2321—Cal III . . . . .	3
Mth 233—Linear Alg . . . . .	3	Mth 234—Prob and Stat . . . . .	3
Phy 241—Heat El Mag . . . . .	4	Phy 242—Snd Lt Qua . . . . .	4
HPE—Activity . . . . .	1	HPE—Activity . . . . .	1
	17		17

## Third Year

First Semester		Second Semester	
Gov 231—St and Natl . . . . .	3	Gov 232—St and Natl . . . . .	3
Mth 331—Diff Equations . . . . .	3	Mth 3311—Set Theory . . . . .	3
Mth 338—Adv Cal . . . . .	3	Mth 339—Adv Cal . . . . .	3
Phy 335—Modern . . . . .	3	Phy Elective (Adv) . . . . .	3
*Liberal Arts Elective . . . . .	3	*Liberal Arts Elective . . . . .	3
*Elective . . . . .	3		
	18		15

## Fourth Year

First Semester		Second Semester	
Mth 431—Complex Var . . . . .	3	Mth 432—Complex Var . . . . .	3
Phy Elective (Adv) . . . . .	3	Mth Elective (Adv) . . . . .	3
Mth Elective (Adv) . . . . .	3	*Electives . . . . .	9
*Electives . . . . .	9		
	18		15

\*Approved by the Mathematics Department.

## Program III — Computer Concentration

## First Year

First Semester		Second Semester	
Eng—Composition . . . . .	3	Eng—Composition . . . . .	3
Lab Science . . . . .	4	Lab Science . . . . .	4
Mth 1381—Anal Geom . . . . .	3	Mth 1391—Cal I . . . . .	3
Egr 122—Intro Comp . . . . .	2	*Liberal Arts Elective . . . . .	3
*Liberal Arts Elective . . . . .	3	*Elective . . . . .	3
HPE—Activity . . . . .	1	HPE—Activity . . . . .	1
	16		17

\*Approved by the Mathematics Department.



## Second Year

First Semester	Second Semester
Mth 2311—Cal II . . . . . 3	Mth 2321—Cal III . . . . . 3
Mth 233—Linear Alg. . . . . 3	Mth 234—Prob and Stat . . . . . 3
Eng—Literature . . . . . 3	Eng—Literature . . . . . 3
His 231—U.S. . . . . 3	His 232—U.S. . . . . 3
*Liberal Arts Elective . . . . . 3	Egr 235—Dig Comp I . . . . . 3
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
<u>16</u>	<u>16</u>

## Third Year

First Semester	Second Semester
Mth 331—Diff Equa . . . . . 3	Mth 3311—Set Theory . . . . . 3
Mth 338—Adv Cal . . . . . 3	Mth 339—Adv Cal . . . . . 3
Gov 231—St and Natl . . . . . 3	Mth 4315—Numer Analy . . . . . 3
IE 3302—Funct Char . . . . . 3	Gov 232—St and Natl . . . . . 3
Dig Comp	IE 3303—Comp Tech . . . . . 3
Elective . . . . . 3	Sci & Egr
<u>15</u>	*Elective . . . . . 3
	<u>18</u>

## Fourth Year

First Semester	Second Semester
Mth 437—Prob and Stat . . . . . 3	Mth 438—Prob and Stat . . . . . 3
Mth Elective (Adv) . . . . . 3	Mth Elective (Adv) . . . . . 3
IE 4302—System Anal . . . . . 3	IE 4303—Linear . . . . . 3
Design	Programming
*Electives . . . . . 6	*Electives . . . . . 6
<u>15</u>	<u>15</u>

\*Approved by the Mathematics Department.

## Program IV — Other Minors

## First Year

First Semester	Second Semester
Eng—Composition . . . . . 3	Eng—Composition . . . . . 3
Science . . . . . 4	Science . . . . . 4
Mth 1381—Anal Geom . . . . . 3	Mth 1391—Cal I . . . . . 3
*Liberal Arts Elec . . . . . 3	Minor . . . . . 3
Minor . . . . . 3	*Liberal Arts Elec . . . . . 3
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
<u>17</u>	<u>17</u>

\*Approved by the Mathematics Department.

## Second Year

First Semester	Second Semester
Mth 2311—Cal II . . . . . 3	Mth 2321—Cal III . . . . . 3
Mth 233—Linear Alg . . . . . 3	Mth 234—Prob and Stat . . . . . 3
Eng—Literature . . . . . 3	Eng—Literature . . . . . 3
Minor . . . . . 3	Minor . . . . . 3
*Elective . . . . . 3	*Elective . . . . . 3
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
<u>16</u>	<u>16</u>

## Third Year

First Semester	Second Semester
Mth 331—Diff Equa . . . . . 3	Mth 3311—Set Theory . . . . . 3
Mth 338—Adv Cal . . . . . 3	Mth 339—Adv Cal . . . . . 3
Gov 231—St and Natl . . . . . 3	Gov 232—St and Natl . . . . . 3
Minor . . . . . 3	Minor . . . . . 3
*Electives . . . . . 6	*Liberal Arts Elect . . . . . 3
<u>18</u>	<u>15</u>

## Fourth Year

First Semester	Second Semester
Mth 431—Complex Var . . . . . 3	Mth 432—Complex Var . . . . . 3
Mth Elective (Adv) . . . . . 3	Mth Elective (Adv) . . . . . 3
His 231—U.S. . . . . 3	His 232—U.S. . . . . 3
*Electives . . . . . 6	*Electives . . . . . 6
<u>15</u>	<u>15</u>

\*Approved by the Mathematics Department.

It should be noted that no Mth course below 1381 may be counted toward any mathematics degree even as an elective.

## Mathematics (Mth)

**131 — Finite Mathematics I.** Linear and quadratic equations, logarithms, inequalities, compound interest, geometric progressions and annuities, and statistics. Prerequisite: 2 units of high school mathematics. Class: 3 hours. Credit: 3 semester hours.

**132 — Finite Mathematics II.** Selected topics in modern finite mathematics. Class: 3 hours. Credit: 3 semester hours.

**133 — Analytical Trigonometry.** Trigonometric functions and their applications, trigonometric identities and equations. Prerequisite: 1½ units of high school algebra and 1 unit in plane geometry. Class: 3 hours. Credit: 3 semester hours.

**134 – College Algebra.** Linear equations, linear systems, linear inequalities, linear programming, vectors, matrices, and logarithms. Class: 3 hours. Credit: 3 semester hours.

**1341 – Elements of Analysis.** Linear programming, differential and integral calculus. Prerequisite: Mth 134. Class: 3 hours. Credit: 3 semester hours.

**135 – Contemporary Mathematics I.** Sets, counting numbers, integers, number theory, rational numbers, decimals and the real number system. CUPM for Education majors only. Class: 3 hours. Credit: 3 semester hours.

**136 – Contemporary Mathematics II.** Field of real numbers, linear equations and inequalities, functions and graphs, systems of linear equations, quadratic equations, complex and finite number systems. CUPM for Education majors only. Prerequisite Mth 135. Class: 3 hours. Credit: 3 semester hours.

**Mth 137 – Contemporary Mathematics III.** Experimental and informal geometry in terms of sets with some elementary theorems and proofs. Measurements and construction. CUPM for education majors only. Prerequisite: Mth 136. Class: 3 hours. Credit: 3 semester hours.

**1334 – Algebra and Trigonometry.** A precalculus course in the fundamentals of algebra and trigonometry. Designed to prepare students for Mth 1381 and Mth 1391. Class: 3 hours. Credit: 3 semester hours.

**1381 – Analytic Geometry.** Straight lines, conic sections, transformation of coordinates, polar coordinates, and solid analytic geometry. Prerequisite: Mth 133 or high school trigonometry. Class: 3 hours. Credit: 3 semester hours.

**1391 – Calculus I.** Limits, derivatives, applications of derivatives, integration with applications, and transcendental functions. Prerequisite: Mth 1381. Class: 3 hours. Credit: 3 semester hours.

**2311 – Calculus II.** Methods of integration, hyperbolic functions, vectors and parametric equations, and solid geometry and vectors. Prerequisite: Mth 1391. Class: 3 hours. Credit: 3 semester hours.

**2321 – Calculus III.** Partial differentiation, multiple integrals, infinite series, differential equations. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

**233 – Linear Algebra.** Set notation, number fields, groups, vectors, geometry of space, vector spaces, determinants, linear transformations, matrices. Prerequisite: Mth 1391 or concurrently. Class: 3 hours. Credit: 3 semester hours.

**234 – Probability and Statistics.** Empirical, frequency distributions, probability theoretical distributions, sampling distributions, and statistical

applications. Prerequisite: Mth 1391 or concurrently. Class: 3 hours. Credit: 3 semester hours.

**330 – Principles of Mathematics.** An introduction to some modern topics in mathematics. Symbolic logic, a development of the number system, groups, fields, sets, boolean algebra, function theory, and probability. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

**3301 – Introduction to Data Processing.** Types of digital computing systems. Design of computation for computing machinery. Prerequisite: Mth 2321. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

**331 – Differential Equations.** Analytical solution of ordinary differential equations in terms of elementary and classical functions. Application to problems in geometry, engineering, and physics. Introduction to solution by series. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**3311 – Set Theory.** Set theory. Infinite sets, cardinal and ordinal arithmetic. Axiom of choice. Transfinite induction. Applications in the topology of the real line, complex plane, and simple closed curves. Class: 3 hours. Credit: 3 semester hours.

**3313 – Modern Elementary Geometry.** A study of the structure of geometry with primary emphasis on the needs of the elementary teacher. Prerequisite: Mth 136. Class: 3 hours. Credit: 3 semester hours.

**3315 – Number Theory.** A development of the elementary theory of numbers with emphasis on the needs of teachers. Class: 3 hours. Credit: 3 semester hours.

**333 – Higher Geometry.** An axiomatic treatment of one or more of the important types of space—projective, metric, Euclidean, or topologic. Emphasis on the method rather than on the content. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

**334 – Higher Geometry.** Advanced topics in Euclidean geometry followed by a brief study of satellites. Constructible elements, problem of Apollonius, geometrical transformations. Euler line, Feuerbach Theorem, geometry of the triangle, Dandelin spheres, conic sections. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

**335, 336 – High Algebra.** Postulates for the system of positive integers. Systems of integers, rational numbers, real numbers, and complex numbers by embedding. Dedekind cuts. Groups, rings, fields, Diophantine equations, congruences, matrix theory. Prerequisite: Mth 2311. Mth 335 is not a prerequisite for Mth 336. Class: 3 hours. Credit: 3 semester hours for each course.

**337 – Theory of Equations.** Complex numbers, general theorems on algebraic equations, solution cubic and quartic equations. Determinants and matrices. Cramer's Rule. Symmetric functions, resultants, discriminants and

elimination, the Graeffe method. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

**338, 339 – Advanced Calculus.** The number system, the concept of a function, limits, sequences, continuity, differentiability, the Riemann integral, functions of several variables, differentiable functions of several variables, multiple integrals, improper integrals, infinite series. Taylor's series, and Fourier series. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours for each course.

**4131, 4231, 4331 – Special Problems.** Special advanced problems in mathematics to suit the needs of individual students. Class: 1 to 3 hours. Credit: 1 to 3 semester hours.

**4301 – Advanced Calculus for Engineers.** Linear ordinary differential equations, the Laplace Transform, series solutions of differential equations, boundary-value problems. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**431, 432 – Introduction to Functions of a Complex Variable.** Review of theorems from analysis and point set theory followed by a study of analytic functions from the Cauchy-Riemann and Weierstrass points of view. Compact sets, uniform convergence, Taylor Expansion Theorem, analytic continuation, Laurent expansions, calculus of residues, conformal mapping. Prerequisite: Mth 3311. Class: 3 hours. Credit: 3 semester hours each course.

**4311 – Numerical Solution of Differential Equations.** Analytical foundations. Methods for ordinary and partial differential equations. Prerequisite: Mth 3301, 331. Class: 3 hours. Credit: 3 semester hours.

**4315 – Numerical Analysis.** Approximations, interpolations, finite differences, numerical integration, curve fitting. Prerequisite: Mth 3301 or IE 3302. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

**433 – Vector Analysis.** The algebra and calculus of vectors with applications. Scalar and vector fields, operators, Green's, Stokes', and Divergence Theorems; curvilinear coordinates. Other topics as time permits. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**434 – Partial Differential Equations.** General and particular solutions, boundary conditions. Fourier series, Bessel functions, harmonic analysis, numerical solutions, conditions of heat, flow of electricity. Prerequisite: Mth 331 and either Mth 338 or Mth 4301. Class: 3 hours. Credit: 3 semester hours.

**435 – Introductory Topology.** Topological spaces, metric spaces, product spaces, connected spaces, and compact spaces. Open sets, closed sets, neighborhoods, limit points, closure, interior, boundary, continuity, homeomorphism, subspaces, components, and open coverings. Some applications to analysis. Prerequisite: Mth 3311. Class: 3 hours. Credit: 3 semester hours.

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**437, 438 – Probability and Statistics.** Discrete and continuous event spaces, functions of several random variables, independent experiments, Central Limit Theorem, and properties of special distribution. Introduction to analysis of variance. Prerequisite: Mth 234. Class: 3 hours. Credit: 3 semester hours for each course.

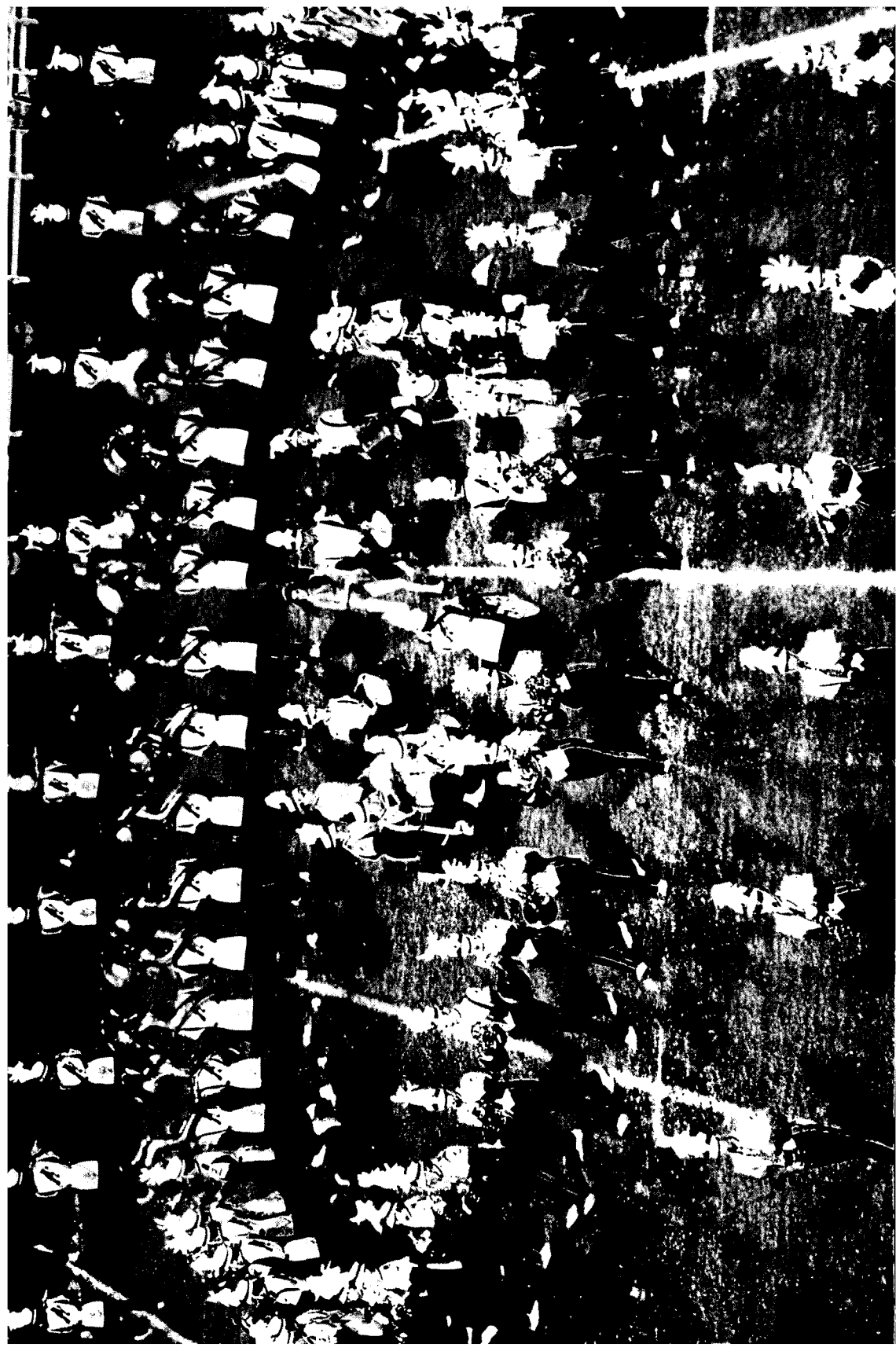
SCHOOL  
OF  
FINE AND APPLIED ARTS

Departments

Commercial Art

Music

Speech





## School of Fine and Applied Arts

W. Brock Brentlinger, Ph.D., Dean

### Aims and Purposes

**In Relation to the University:** Within the context of a philosophy that suggests that art may improve upon nature, the School of Fine and Applied Arts provides work on a professional level in several creative disciplines. The School also assumes the role of contributing to the education of the "whole" man; therefore, with the possible exception of some of the upper level courses, all of the work available in the School is open to and within the capabilities of most students enrolled in the university. It is the purpose of these courses 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 experience within the fine arts. In this respect the aims and purposes of the School of Fine and Applied Arts agree with and complement those of Lamar University.

**In Relation to the Departments:** The School of Fine and Applied Arts offers the following basic degree programs:

1. Bachelor of Science—Commercial Art
  - a. Plan I—Commercial Art
  - b. Plan II—Fine Arts
  - c. Plan III—All Level Teacher Certification
2. Bachelor of Science—Music Major, Performance Certificate
  - a. Instrumental Major
  - b. Piano Major
  - c. Vocal Major
3. Bachelor of Science—Music Major, Teacher Certification (all levels)
  - a. Instrumental Major
  - b. Piano Major
  - c. Vocal Major
4. Bachelor of Science—Speech Major
  - a. Plan I—Teacher Certification in Speech of Theatre
  - b. Plan II—Teacher Certification in Speech and Hearing Therapy
  - c. Plan III—Teacher Certification in Deaf Education
  - d. Plan IV—Speech and Hearing Therapy, Public Address or Theatre
5. Bachelor of Arts—Speech Major, available in all four plans listed
6. Bachelor of Science—Communication Major

Descriptions of graduate programs are included in the Graduate Bulletin.

### DEPARTMENT OF COMMERCIAL ART

*Department Head*—Robert C. Rogan. *Professor*—William H. Boughton. *Assistant Professors*—Joseph R. Madden, Jerry A. Newman, Robert G. O'Neill. *Instructors*—Gay C. Emmons, Harvey E. Hamburgh, Conn M. Trussell, Luther B. Youngblood, III. *Secretary*—Mrs. Phyllis L. Freeman.

### PROGRAM OF STUDY

#### Bachelor of Science—Commercial Art—Plan I

This program is designed for those students seeking professional careers in commercial art.

#### First Year

First Semester		Second Semester	
CA 131 .....	3	CA 132 .....	3
CA 133 .....	3	CA 134 .....	3
Eng-Composition .....	3	Eng-Composition .....	3
HPE-Activity .....	1	HPE-Activity .....	1
Mth .....	3	Mth .....	3
Elective .....	3	Elective .....	3
	16		16

#### Second Year

First Semester		Second Semester	
CA 231—Life Drawing .....	3	CA 232—Life Drawing .....	3
CA 233—Inter. Design .....	3	CA 234—Inter. Design .....	3
CA 235—Art History .....	3	CA 236—Art History .....	3
HPE-Activity .....	1	CA 239—Photography .....	3
*Eng—Literature .....	3	*Eng—Literature .....	3
Elective .....	3	HPE-Activity .....	1
	16		16

#### Third Year\*\*

First Semester		Second Semester	
CA 3313—Illustration .....	3	CA 3323—Illustration .....	3
CA 3333—Advt. Design .....	3	CA 3343—Advt. Design .....	3
His 231—United States .....	3	His 232—United States .....	3
Science (lab) .....	4	Science (lab) .....	4
Elective .....	3	Elective .....	3
	16		16

\*Speech 131 may be substituted for 3 hours of Literature.

\*\*CA 235-236 prerequisite to all CA 300-400 level courses.

## Fourth Year

First Semester	Second Semester
CA 4333—Prob. Advt. Art . . . . .3	CA 4343—Prob. Advt. Art . . . . .3
CA 4353—Spec. Prob . . . . .3	CA 4363—Spec. Prob . . . . .3
Gov. 231—State and Natl . . . . .3	Gov. 232—State and Natl . . . . .3
Electives . . . . .9	Electives . . . . .9
18	18

## Plan II

This program is designed for those students seeking careers in Fine Art.

## First Year

First Semester	Second Semester
CA 130 . . . . .3	CA 132 . . . . .3
CA 131 . . . . .3	CA 134 . . . . .3
CA 133 . . . . .3	CA 139 . . . . .3
Eng—Composition . . . . .3	Eng—Composition . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
Mth . . . . .3	Mth . . . . .3
16	16

## Second Year

First Semester	Second Semester
CA 231 . . . . .3	CA 232 . . . . .3
CA 233 . . . . .3	CA 234 . . . . .3
CA 235 . . . . .3	CA 236 . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
*Eng—Literature . . . . .3	*Eng—Literature . . . . .3
Science (lab) . . . . .4	Science (lab) . . . . .4
17	17

## Third Year\*\*

First Semester	Second Semester
CA 3316 . . . . .3	CA 3327 . . . . .3
CA 3317 . . . . .3	His 232 . . . . .3
CA 3355 . . . . .3	Electives . . . . .9
His 231 . . . . .3	
Electives . . . . .3	15
15	

\*Speech 131 may be substituted for 3 hours of Literature.

\*\*CA 235-236 prerequisite to all CA 300-400 level courses.

## Fourth Year

First Semester		Second Semester	
CA-History .....	3	CA-History .....	3
Gov. 231 .....	3	Gov. 232 .....	3
Electives .....	12	Electives .....	12
	<u>18</u>		<u>18</u>

## Plan III

## All-Level Certification

Fulfilling the requirements for Plan III qualifies a student for teacher certification in art all levels.

## First Year

First Semester		Second Semester	
CA 130 .....	3	CA 132 .....	3
CA 131 .....	3	CA 134 .....	3
CA 133 .....	3	Eng-Composition .....	3
Eng-Composition .....	3	HPE-Activity .....	1
HPE-Activity .....	1	Mth .....	3
Mth .....	3	Elective .....	3
	<u>16</u>		<u>16</u>

## Second Year

First Semester		Second Semester	
CA 231 .....	3	CA 236 .....	3
CA 233 .....	3	Eng-Literature .....	3
CA 235 .....	3	HPE-Activity .....	1
Eng-Literature .....	3	Science (lab) .....	4
HPE-Activity .....	1	Spc 131 .....	3
Science (lab) .....	4	Elective .....	3
	<u>17</u>		<u>17</u>

## Third Year\*\*

First Semester		Second Semester	
CA 3371 .....	3	CA 3381 .....	3
Edu 331 .....	3	Edu 334 .....	3
Edu 332 .....	3	Gov. 232 .....	3
Gov. 231 .....	3	His 232 .....	3
His 231 .....	3	Elective .....	6
Elective .....	3		
	<u>18</u>		<u>16</u>

\*Speech 131 may be substituted for 3 hours Literature.

\*\*CA 235-236 prerequisite to all CA 300-400 level courses.

## Fourth Year

First Semester	Second Semester
CA 4331-Crafts Elem Edu . . . . .3	CA 4341-Crafts Sec. Edu . . . . .3
Edu 438-Classroom Mngt . . . . .3	Educ 463-Stu. Teaching . . . . .6
Electives . . . . .9	Electives . . . . .6
15	15

\*CA 235-236 prerequisite to all 300-400 level courses.

During the senior year, a candidate for a degree in Art will be required to prepare a one-man exhibit or to participate in a group exhibit.

The Art Department reserves the right to retain a selected work from each graduate for its departmental collection.

## Commercial Art (CA)

**130 – Appreciation of the Fine Arts.** (Same as Spc 130 and MLt 130). A survey course covering the areas of a. art, b. music, c. theatre. To be taught by representatives of the art, music and speech faculties. Class: 3 hours. Credit: 3 semester hours.

**131 – Drawing.** Exploration of various media and techniques used in drawing. Class and Studio: 6 hours. Credit: 3 semester hours.

**132 – Drawing.** Continuation of CA 131. Prerequisite: CA 131. Class and Studio: 6 hours. Credit: 3 semester hours.

**133 – Design.** Theory and practice of two-dimensional design principles. Class and Studio: 6 hours. Credit: 3 semester hours.

**134 – Design.** Theory and practice of three-dimensional design principles. Prerequisite: CA 133. Class and Studio: 6 hours. Credit: 3 semester hours.

**139 – Introduction to the Visual Arts.** An analysis of art form: Line, value, texture, volume, color and their application to the production of art. Class: 3 hours. Credit: 3 semester hours.

**231 – Life Drawing.** Problems in drawing and construction of the human figure in various media. Prerequisite: CA 132 and CA 134. Class and Studio: 6 hours. Credit: 3 semester hours.

**232 – Life Drawing.** Continuation of 231. Prerequisite 231. Class and Studio: 6 hours. Credit: 3 semester hours.

**233 – Intermediate Design.** Expansion of two-dimensional principles introduced in Design CA 133. Prerequisite: CA 134. Class and Studio: 6 hours. Credit: 3 semester hours.

**234 – Intermediate Design.** Expansion of three-dimensional principles introduced in Design CA 134. Prerequisite: CA 233. Class and Studio: 6 hours. Credit: 3 semester hours.

**235 – Survey of Western Art History.** Survey of art history of the Western World from pre-historic times through the Gothic Period. Class: 3 hours. Credit: 3 semester hours.

**236 – Survey of Western Art History.** Survey of art history of the Western World from the Renaissance to the present. Class: 3 hours. Credit: 3 semester hours.

**239 – Photography.** A basic course designed to teach students the operation of various types of cameras. Included is a study of the theory and practical application of darkroom laboratory processes. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**3313 – Illustration.** A media course. The preparation and execution of graphic material for reproduction. Prerequisite: CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3315 – Advanced Drawing.** Continuation of drawing. Experimentation with various media and their adaptability to drawing principles. Prerequisite: CA 234 and CA 236. Class and Studio: 6 hours. Credit: 3 semester hours.

**3316 – Watercolor.** Study and practice in the planning and execution of paintings in transparent and opaque watercolor. Class and Studio: 6 hours. Prerequisite: CA 234. Credit: 3 semester hours.

**3317 – Painting.** Introduction to painting techniques and use of materials. Prerequisite: CA 232 and CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3323 – Illustration.** Experimentation with various techniques and/or media. Continuation of CA 3313. Class and Studio: 6 hours. Credit: 3 semester hours.

**3325 – Advanced Drawing.** Continuation of CA 3315. Prerequisite: CA 3315. Class and Studio: 6 hours. Credit: 3 semester hours.

**3326 – Watercolor.** Continuation of 3316. Prerequisite: CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3327 – Painting.** Continuation of 3317. Prerequisite: CA 3317. Class and Studio: 6 hours. Credit: 3 semester hours.

**3333 – Advertising Design.** The study of basic layout, advertising design and commercial reproduction techniques. Prerequisite: CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3335 – Crafts.** Basic processes of textile design, weaving, leather and jewelry. May be repeated for credit. Prerequisite: CA 234 and CA 236. Class and Studio: 6 hours. Credit: 3 semester hours.

**3343 – Advertising Design.** Continuation of CA 3333. Prerequisite: CA 3333. Class and Studio: 6 hours. Credit: 3 semester hours.

**3355 – Graphics.** An introduction to print-making with an emphasis on intaglio and relief processes. Prerequisite: CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3365 – Graphics.** A continuation of CA 3355 with emphasis on planographic and serigraphic techniques. Prerequisite: CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3371 – Elementary Art Education.** Contemporary concepts of art in the elementary school program. Experience with a variety of techniques and media appropriate for the elementary classroom teacher. Class and Studio: 6 hours. Credit: 3 semester hours.

**3375 – Sculpture.** Application of the principles of sculpture through experiment in clay, plaster, and various materials. May be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

**3376 – Pottery.** Investigation and practice in pottery construction: throwing and hand-building. May be repeated for credit. Prerequisite: CA 234. Class and Studio: 6 hours. Credit: 3 semester hours.

**3381 – Secondary Art Education.** Problems involved in building a significant art program for the contemporary secondary school: studio experience with techniques and media appropriate for the secondary school. Class and Studio: 6 hours. Credit: 3 semester hours.

**4311 – Oil Painting.** The planning and producing of original oil paintings either as commercial art subjects or as fine art paintings. Their presentation for publication and exhibition. Class and Studio: 6 hours. Credit: 3 semester hours.

**4315 – Advanced Life Drawing.** Specialized problems in studio area. May be repeated for credit. Prerequisite: CA 232. Class and Studio: 6 hours. Credit: 3 semester hours.

**4316 – Advanced Painting.** Specialized problems in studio area. May be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

**4321 – Oil Painting.** Continuation of 4311. Class and Studio: 6 hours. Credit: 3 semester hours.

**4331 – Crafts Elementary Education.** An introduction to various craft materials and techniques used in the elementary school. Prerequisite: CA 3371. Class and Studio: 6 hours. Credit: 3 semester hours. Course may be taken twice for credit.

**4333 – Problems in Advertising Art.** Further study of commercial art techniques and typography. Prerequisite: CA 3333 and 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

**4338 – Renaissance Art.** Study of fifteenth and sixteenth century art in the western world. Class: 3 hours. Credit: 3 semester hours.

**4341 – Crafts Secondary Education.** An introduction to the various craft materials and techniques used in the secondary school. Prerequisite: CA 3381. Class and Studio: 6 hours. Credit: 3 semester hours. Course may be taken over for credit.

**4343 – Problems in Advertising Art.** Continuation of CA 4333. Class and Studio: 6 hours. Credit: 3 semester hours.

**4353 – Special Problems in Advertising Design.** Investigation of problems, methods and other considerations relevant to designing an advertising campaign. Prerequisite: CA 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

**4355 – Advanced Graphics.** Specialized problems in studio area. May be repeated for credit. Prerequisite: CA 3365. Class and Studio: 6 hours. Credit: 3 semester hours.

**4358 – American Art.** The development of painting, sculpture, and architecture in the United States from Colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

**4363 – Special Problems in Advertising Design.** Continuation of 4353. Prerequisite: CA 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

**4368 – Contemporary Art.** A historical and critical analysis of painting, sculpture and architecture in Europe and the Americas from 1900 to the present. Class: 3 hours. Credit: 3 semester hours.

**4371 – Curriculum and Instruction in Art Education.** Problems in selecting, evaluation and guiding art activities; reading, discussion and lectures dedicated toward research of past and contemporary art educators. Study of children's development in art as background for teaching. Class: 3 hours. Credit: 3 semester hours.

**4373 – Field Study in Advertising Design.** Familiarization with the overall commercial art field through actual experience. Students will be placed in various studios, agencies and/or associated business in order to encounter and handle numerous problems, techniques and media involved in the commercial and art field through actual working experience. Time to be arranged, 6 hours per week. Permission of Department Head and Instructor. Credit: 3 semester hours.

**4375 – Advanced Sculpture.** Specialized problems in studio areas. May be repeated for credit. Prerequisite: CA 3375. Class and Studio: 6 hours. Credit: 3 semester hours.



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**4376 – Advanced Pottery.** Specialized problems in studio area. May be repeated for credit. Prerequisite: CA 3376. Class and Studio: 6 hours. Credit: 3 semester hours.

**4378 – Ethnic Art.** A study of the development and nature of ethnic art, designed to recognize the formative influences of social backgrounds, to present the artistic life of the communities and to analyze the aesthetic forms of their art. Class: 3 hours. Credit: 3 semester hours.

**4381 – Problems: Art Education.** Individual projects to be completed under faculty supervision. Prerequisite: CA 4371. Class and Studio: 6 hours. Credit: 3 semester hours.

**4391 – Directed Individual Study.** Directed individual study of a specialized area within the art education field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

**4393 – Directed Individual Study.** Directed individual study of a specialized area within the commercial art field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

**4395 – Directed Individual Study.** Directed individual study of a specialized area within the fine arts field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

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**DEPARTMENT OF MUSIC**

*Department Head*—George L. Parks. *Professors*—Joseph Carlucci, Hubert B. Kaszynski, Charles A. Wiley. *Associate Professors*—Edna M. Brooks, Paul W. Holmes, Joseph Truncala. *Assistant Professors*—Mary French Barrett, Jay N. Collier, Katherine J. Elsey, John LeBlanc. *Instructors*—Randolph Babin, James Simmons, Francis A. VanAusdal, Victor Vener, *Staff Accompanist*—Susan Michael. *Secretary*—Mrs. Ertith Travis.

The degree of Bachelor of Science—Music Major (voice, piano, theory and composition, or instrumental major) is granted under the following conditions:

1. Meet the basic requirements for all degree programs.
2. Complete one of the programs of study listed below.
3. Pass a department qualifying examination given by the music faculty before the end of the first semester of the senior year.
4. All students must continue to take secondary piano for as many consecutive semesters as are required for the completion of the barrier. Application for the piano barrier exam may be made during any semester of the student's enrollment except when otherwise specified.
5. Participate in student recitals as recommended by the department. A minimum of ten (10) hours of practice per week in the university practice hall.
6. For graduation all music majors must present a recital as recommended by the department head, during the senior year.
7. All students, including transfers, must show adequate proficiency in their areas of specialization as determined by the music faculty.

All students must take a placement examination during their first semester.

**Program of Study****Bachelor of Science—Music Major****Plan I (Qualifies for teacher certification—music, all levels.)**

## Instrumental Major

## First Year

First Semester		Second Semester	
Eng—Composition . . . . .	3	Eng—Composition . . . . .	3
Mth 131—Finite . . . . .	3	Mth 132—Finite . . . . .	3
MA—Applied . . . . .	2	MA—Applied . . . . .	2
MA—Piano . . . . .	1	Mlt 112—Music Principles . . . . .	1
Mlt 111—Music Principles . . . . .	1	Mty 133—Elementary Harmony . . . . .	3
Mty 132—Elementary Harmony . . . . .	3	MLb 114—Band . . . . .	1
HPE—Activity		Science—Laboratory . . . . .	4
or			
MLb 114—Band . . . . .	1		
Science—Laboratory . . . . .	4		
	<u>18</u>		<u>17</u>

## Second Year

First Semester		Second Semester	
Eng—Literature . . . . .	3	Eng—Literature . . . . .	3
His 231—United States . . . . .	3	His 232—United States . . . . .	3
Gov 231—State . . . . .	3	Gov 232—National . . . . .	3
MA—Applied . . . . .	2	MA—Applied . . . . .	2
MTy 232—Advanced Harmony . . . . .	3	MTy 233—Advanced Harmony . . . . .	3
Elective (Free) . . . . .	3	Elective (Free) . . . . .	3
HPE—Activity		MLb 115—Band . . . . .	1
or			
MLb 114—Band . . . . .	1		
	<u>18</u>		<u>18</u>

## Third Year

First Semester		Second Semester	
Edu 331-332 . . . . .	6	Edu 334 . . . . .	3
MA—Applied . . . . .	2	MA—Applied . . . . .	2
MEd 311—Brass . . . . .	1	MEd 312—Brass . . . . .	1
MLt 323—Music History . . . . .	2	MLt 324—Music History . . . . .	2
MEd 336—Instrumental Music . . . . .	3	MTy 322—Counterpoint . . . . .	2
MEd 317—Marching Methods . . . . .	1	MLb 115—Band . . . . .	1
MTy 321—Counterpoint . . . . .	2	MEd 313-314—Strings . . . . .	2
HPE—Activity		MEd 315—Percussion . . . . .	1
or			
MLb114—Band . . . . .	1		
	<u>18</u>		<u>17</u>

## Fourth Year

First Semester	Second Semester
Edu 438 . . . . . 3	Edu 464 . . . . . 6
MTy 421—Form and Analysis . . . . . 2	MTy 425—Band Arranging or 422 Orchestration . . . . . 2
MA—Applied . . . . . 2	MA—Applied . . . . . 2
Elective—Music . . . . . 1	MLb 115—Band . . . . . 1
Elective (Free—Non-music) . . . . . 4	MEd 412—Woodwinds . . . . . 1
HPE—Activity	12
or	
MLb 114—Band . . . . . 1	TOTAL . . . . . 132
MEd 411—Woodwinds . . . . . 1	
14	

The six elective hours must be chosen from the academic foundations groups. (see page 84).

## Piano and Organ Major

## First Year

First Semester	Second Semester
Eng—Composition . . . . . 3	Eng—Composition . . . . . 3
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
MA 1183—Voice . . . . . 1	MA 1184—Voice . . . . . 1
MA 1241—Piano . . . . . 2	MA 1242—Piano . . . . . 2
MLb—Choir or Orchestra . . . . . 1	MLb—Orchestra or Choir . . . . . 1
MLt 111—Music Principles . . . . . 1	MLt 112—Music Principles . . . . . 1
MTy 132—Elementary Harmony . . . . . 3	MTy 133—Elementary Harmony . . . . . 3
Science—Laboratory . . . . . 4	Science—Laboratory . . . . . 4
16	16

## Second Year

First Semester	Second Semester
Eng—Literature . . . . . 3	Eng—Literature . . . . . 3
His 231—United States . . . . . 3	His 232—United States . . . . . 3
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
MA 2241—Piano . . . . . 2	MA 2242—Piano . . . . . 2
MLb—Choir or Orchestra . . . . . 1	MLb—Choir or Orchestra . . . . . 1
MLb 210—Opera . . . . . 1	MLt 213—Piano Pedagogy . . . . . 1
Mth—Math . . . . . 3	Mth—Math . . . . . 3
MTy 232—Advanced Harmony . . . . . 3	MTy 233—Advanced Harmony . . . . . 3
17	17

**Third Year**

First Semester	Second Semester
Edu 331 . . . . .3	Edu 334 . . . . .3
Edu 330—Edu Psy . . . . .3	MA 3243—Piano . . . . .2
MA 3241—Piano . . . . .2	MEd 332—Technique and Materials . . . . .3
MEd 331—Elementary Meth . . . . .3	MEd 337—Choral Conducting . . . . .3
MEd 335—Choral Music . . . . .3	MLb—Choir or Orchestra . . . . .1
MLb—Choir or Orchestra . . . . .1	MLt 324—Music History . . . . .2
MLt 323—Music History . . . . .2	MTy 322—Counterpoint . . . . .2
MTy 321—Counterpoint . . . . .2	Elective . . . . .3
—	—
19	19

**Fourth Year**

First Semester	Second Semester
Edu 438 . . . . .3	Edu 464 . . . . .6
Gov 231—State . . . . .3	Gov 232—National . . . . .3
MA 4241—Piano . . . . .2	MA 4241—Piano . . . . .2
MLb—Choir or Orchestra . . . . .1	MLb—Choir or Orchestra . . . . .1
MTy 421—Form and Analysis . . . . .2	MTy 422—Orchestration . . . . .2
Elective . . . . .3	—
—	—
14	14

The six elective hours must be chosen from the academic foundations groups. (see page 84).

If the student is an organ major, substitute MA organ for all MA piano.

Piano or organ majors must take at least four semesters of their eight semesters of laboratory in choir.

**String Major****First Year**

First Semester	Second Semester
Eng—Composition . . . . .3	Eng—Composition . . . . .3
Mth 131—Finite . . . . .3	Mth 132—Finite . . . . .3
Science—Laboratory . . . . .4	Science—Laboratory . . . . .4
MLt 111—Music Principles . . . . .1	MLt 112—Music Principles . . . . .1
MTy 132—Elementary Harmony . . . . .3	MTy 133—Elementary Harmony . . . . .3
MA—Major Instrument . . . . .2	MA—Major Instruments . . . . .2
MLb 112—Orchestra . . . . .1	MLb 112—Orchestra . . . . .1
HPE—Activity . . . . .1	HPE—Activity . . . . .1
—	—
18	18

## Second Year

First Semester	Second Semester
Eng—Literature . . . . . 3	Eng—Literature . . . . . 3
Gov 231—State . . . . . 3	Gov 232—National . . . . . 3
His 231—United States . . . . . 3	His 232—United States . . . . . 3
MTy 231—Advanced Harmony . . . . . 3	MTy 232—Advanced Harmony . . . . . 3
MEd 313 or 314—Strings . . . . . 1	MA—Violin or Cello . . . . . 1
MA—Major Instrument . . . . . 2	MA—Major Instrument . . . . . 2
MLb 112—Orchestra . . . . . 1	MLb 112—Orchestra . . . . . 1
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
17	17

## Third Year

First Semester	Second Semester
Edu 331, 332 . . . . . 6	Edu 334 . . . . . 3
MEd 311—Brass . . . . . 1	MEd 338—Instrumental Conduct . . 3
MEd 336—Instrumental Music . . . 3	MLt 324—Music History . . . . . 2
MLt 332—Music History . . . . . 2	MTy 322—Counterpoint . . . . . 2
MTy 321—Counterpoint . . . . . 2	MA—Major Instrument . . . . . 2
MA—Major Instrument . . . . . 2	MLb 112—Orchestra . . . . . 1
MLb 112—Orchestra . . . . . 1	MA—Piano . . . . . 1
	Elective—Music . . . . . 2
17	16

## Fourth Year

First Semester	Second Semester
Edu 438 . . . . . 3	Edu 464 . . . . . 6
MEd 411—Woodwinds . . . . . 1	MTy 422—Orchestration . . . . . 2
MEd 332—Techniques and Materials . . . . . 3	MA—Major Instrument . . . . . 2
MTy 421—Form and Analysis . . . . 2	MLb 112—Orchestra . . . . . 1
MA—Major Instrument . . . . . 2	Elective (Free) . . . . . 3
MLb 112—Orchestra . . . . . 1	14
Elective (Free) . . . . . 3	TOTAL . . . . 132
15	

The six elective hours must be chosen from the academic foundations groups. (see page 84).

## Theory and Composition Major

## First Year

First Semester	Second Semester
Eng-Composition . . . . .3	Eng-Composition . . . . .3
Mth 131-Finite . . . . .3	Mth 132-Finite . . . . .3
Science-Laboratory . . . . .4	Science-Laboratory . . . . .4
MA-Major Instrument . . . . .2	MA-Major Instrument . . . . .2
MTy 132-Elementary Harmony . . .3	MTy 133-Elementary Harmony . . .3
MLt 111-Music Principles . . . . .1	MLt 112-Music Principles . . . . .1
MLb-Band, Orchestra, Chorus . . .1	MLb . . . . .1
HPE-Activity . . . . .1	HPE-Activity . . . . .1
18	18

## Second Year

First Semester	Second Semester
Eng-Literature . . . . .3	Eng-Literature . . . . .3
His 231-United States . . . . .3	His 232-United States . . . . .3
Gov 231-State . . . . .3	Gov 232-National . . . . .3
MA-Piano . . . . .2	MA-Piano . . . . .2
MTy 232-Advanced Harmony . . .3	MTy 233-Advanced Harmony . . .3
MLb . . . . .1	MLb . . . . .1
HPE-Activity . . . . .1	HPE-Activity . . . . .1
	Elective . . . . .3
16	19

## Third Year

First Semester	Second Semester
Edu 331 . . . . .3	Edu 334 . . . . .3
Edu 332 . . . . .3	MA 3284-Composition . . . . .2
MA 3283-Composition . . . . .2	MTy 322-Counterpoint . . . . .2
MTy 321-Counterpoint . . . . .2	MEd 337-Choral Conducting . . . .3
MLt 323-Music History . . . . .2	MEd 338-Instrument Conduct . . .3
MEd 331-Elementary Methods . . .3	MLt 324-Music History . . . . .2
MLb . . . . .1	MTy 425-Band Arr . . . . .2
Music Elective . . . . .1	MLb . . . . .1
17	18

## Fourth Year

First Semester	Second Semester
Edu 438 .....3	Edu 463 .....6
MEd 332—Techniques and Materials .....3	MTy 422—Orchestration or 425 Band Arranging .....2
MTy 421—Form and Analy .....2	MA 4284—Composition .....2
MA 4283—Composition .....2	Elective .....3
Music Elective .....1	MLb .....1
MLb .....1	
12	TOTAL .... 132

The six elective hours must be chosen from the academic foundations groups. (see page 84).

Theory and Composition majors may elect 6 hours from Percussion 315, Brass 311, 312, Strings 313, 314, or Woodwinds 411, 412, in place of Music Education 331, and 332.

## Vocal Major

## First Year

First Semester	Second Semester
Eng—Composition .....3	Eng—Composition .....3
HPE—Activity .....1	HPE—Activity .....1
MA 1143—Piano .....1	MA 1143—Piano .....1
MA 1281—Voice .....2	MA 1282—Voice .....2
MLb—Choir .....1	MLb—Choir .....1
MLt 111—Music Principles .....1	MLt 112—Music Principles .....1
MTy 132—Elementary Harmony ...3	MTy 133—Elementary Harmony ...3
Science—Laboratory .....4	Science—Laboratory .....4
16	16

## Second Year

First Semester	Second Semester
Eng—Literature .....3	Eng—Literature .....3
His 231—United States .....3	His 232—United States .....3
HPE—Activity .....1	HPE—Activity .....1
MA 2281—Voice .....2	MA 2282—Voice .....2
MLb—Choir .....1	MLb—Choir .....1
MLb 210—Opera .....1	MLb 210—Opera .....1
Mth—Math .....3	Mth—Math .....3
MTy 232—Advanced Harmony ...3	MTy 233—Advanced Harmony ...3
17	17



**Third Year**

First Semester	Second Semester
Edu 331 .....3	Edu 334 .....3
Edu 332 .....3	MA 3282-Voice .....2
MA 3281-Voice .....2	MEd 332-Techniques and Mater . .3
MEd 331-Elementary Methods . .3	MEd 337-Choral Conducting . . .3
MEd 335-Choral Music .....3	MLb-Choir .....1
MLb-Choir .....1	MLt 324-Music History .....2
MLt 323-Music History .....2	MTy 322-Counterpoint .....2
MTy 321-Counterpoint .....2	Elective .....3
19	19

**Fourth Year**

First Semester	Second Semester
Edu 438 .....3	Edu 463 .....6
Gov 231-State .....3	Gov 232-National .....3
MA 4281-Voice .....2	MA 4282-Voice .....2
MLb-Choir .....1	MLb-Choir .....1
MTy 421-Form and Analysis . . .2	MTy 422-Orchestration . . . .2
Elective .....3	
14	14
	TOTAL . . . . 132

Voice majors will take two semesters of private piano lessons. These may not be waived by a barrier exam.

The six elective hours must be chosen from the academic foundations groups. (see page 84).

**Plan II****BS-Music**

Meet all of the specifications and requirements for the Bachelor of Science Degree – music major, with the following additional requirements:

The education hours for Plan I may be regarded as elective hours for Plan II with the permission of the head of the department.

The Performance Certificate will be issued only after a junior recital before the faculty. This recital may qualify a student for a senior recital for the Performance Certificate.

**Applied Music (AM)**

**1101 – Beginning Band or Orchestral Instruments.** Basic fundamentals of articulation and tone production. Scales and arpeggios. Elementary methods

and easy solo materials. Freshman students must audition before registering for placement in MA. Class: One-half hour lessons per week. Credit: One semester hour per course.

**1143 – Secondary Piano.** Study of scale systems and application, intervals, chord structure, harmonization of melody, and other elements of keyboard harmony. Two octave scales and cadences. Maximum of four students per class. Class: 1 hour. Credit: 1 semester hour.

**1183, 1184 – Secondary Voice.** Music majors not majoring in voice will learn to use the singing voice. Study of breathing and vocalization. Songs will be studied. Prerequisite: Ability to read music, and some knowledge of the keyboard. One lesson per week. Credit: One semester hour per course.

**1203, 1204, 2203, 2204, 3203, 3204, 4203, 4204 – Bassoon.** Practical studies, Weissenborn, scale studies. Pare, Reveirie, Jancourt, Romanze, Klakhardt, The Carnival, Hume. Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1211, 1212, 2211, 2212, 3211, 3212, 4211, 4212 – Cello.** An approach to the left and right hand techniques using materials and literature suitable to the level of the individual student. Auditions will determine the level of proficiency of each new student. Two half-hour lessons per week. Credit: 2 semester hours per course.

**1215, 1216, 2215, 2216, 3215, 3216, 4215, 4216 – Clarinet.** Scales and arpeggios from Baermann Langenus Vol. III. Rose Forty Studies Canzonetta, Pierne, Concertino, Tartini-Jacob, Adagio-Tarantella, Cavallini; Fantasy Pieces, Schumann. Last 6 semesters will include Voxman, Polastchek, Perier Etudes; Advanced Solos and Orchestra Studies. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1217, 1218, 2217, 2218, 3217, 3218, 4217, 4218 – Cornet-Trumpet.** Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition. Methods: St. Jacome, Arban, Hering, Sachse, Schlossberg. Representative solos: Ropartz, Andante and Allegro; Balay, Petite Piece Concertante. Performance on student recitals once a semester. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1221, 1222, 2221, 2222, 3221, 3222, 4221, 4222 – Flute.** Modern method of Boehm Flute, Book; Sonata No. 3; Handel; 24 Caprices, Boehm; Fourth Sonata, Bach; Orchestral studies, Minuet in D, Mozart; Concertino, Chaminade. Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1223, 1224, 2223, 2224, 3223, 3224, 4223, 4224 – French Horn.** Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition. Band and orchestral repertoire. Methods: Alphonse, Koprash, Sansone. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1231, 1232, 2231, 2232, 3231, 3232, 4231, 4232 – Oboe.** Complete method for Oboe, Barrett, scales studies, Pare; three Romanances, Schumann; Niemann; 16 daily exercise, Labate; Orchestral Studies, Reed making; Pastorale, Labate; Niedell's Sonata No. 1. Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1233, 1234, 2233, 2234, 3233, 3234, 4233, 4234 – Organ.** Organ instruction includes a study of the techniques needed to prepare and project publicly the literature of the keyboard representing organ literature of all periods in both small and large forms. Particular emphasis will be placed on manual and pedal technique, analysis of literature, thorough knowledge of registration, ability to adapt piano accompaniments, hymn playing, and proficiency in accompanying, ensemble, chamber music and solo recital playing. Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1241, 1242, 2241, 2242, 3241, 3242, 4241, 4242 – Piano.** To develop musicianship, through technical proficiency and ability to assimilate music without guidance. A study of the various techniques needed to prepare and project publicly the literature of the keyboard representing piano literature of all periods in both small and large forms. Particular emphasis will be placed on scale and arpeggio playing, formal exercises, use of the pedals, analysis of the literature, programming, ability to employ and develop creative techniques for individual requirements, and proficiency in accompanying, ensemble, chamber music and solo recital playing. Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1251, 1252, 2251, 2252, 3251, 3252, 4251, 4252 – Saxophone.** Method for Saxophone by DeVille. Air from Suite in D by Bach-Leeson. Jota by Gurewich. Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1253, 1254, 2253, 2254, 3253, 3254, 4253, 4254 – Percussion.** Garner, Goodman, Harr, and Rubank. Methods, standard solos, band and orchestra repertoire. Performance on student recital once a semester. Two half-hour lessons per week. Credit: 2 semester hours.

**1257, 1258, 2257, 2258, 3257, 3258, 4257, 4258 – String Bass.** Through the use of appropriate methods, e.g., Simandl, the technique of the student will be developed. Scales and arpeggios will also form a vital part of the study. Two half-hour lessons per week. Credit: 2 semester hours per course.

**1261, 1262, 2261, 2262, 3261, 3262, 4261, 4262 – Trombone or Baritone.** Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Methods: Mueller, Rochut, Clarke, Vobaron, Kopprasch. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

**1263, 1264, 2263, 2264, 3263, 3264, 4263, 4264 – Tuba.** Basic fundamentals of articulation and tone production. Major and minor scales

and arpeggios. Band and orchestral repertoire. Methods: Eby, Bell, Slama, Solos. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

1271, 1272, 2271, 2272, 3271, 3272, 4271, 4272 – **Viola.** Scales and arpeggios. Studies and exercises selected according to the individual needs of the student. Sonata, concertos and short solo pieces. Minimum practice: two hours daily. Two half-hour lessons per week. Credit: 2 semester hours per course.

1273, 1274, 2273, 2274, 3273, 3274, 4273, 4274 – **Violin.** Scales and arpeggios. Studies and exercises selected according to individual needs of the student. Sonatas and concerts selected for technical and musical advancement. Minimum practice: 2 hours daily. Two half-hour lessons per week. Credit: 2 semester hours per course.

1281, 1282, 2281, 2282, 3281, 3282, 4281, 4282 – **Voice.** Study of breathing and vocalization. A balanced repertoire of songs will be studied each semester. Course offered to both music and non-music majors. Prerequisite: Ability to read music, and some knowledge of the keyboard. Two private half-hour lessons per week. Credit: 2 semester hours per course.

2283, 3284, 4283, 4284 – **Composition.** Creative writing ranging from solo and small ensemble works to more extended composition for orchestra, band or chorus. Prerequisite: MTy 233. Two half-hour lessons a week. Credit: 2 semester hours.

#### Music Education (MEd)

131 – **Elements of Music.** Designed to familiarize non-music majors with the meaning of musical notation and the harmonic, melodic, and rhythmic structure of music. Class: 3 hours. Credit: 3 semester hours.

311 – **Brass.** Techniques and materials in the teaching of instrumental music in the elementary school. Trumpet and Horn. Class: 1 hour. Credit: 1 semester hour.

312 – **Brass.** Techniques and materials in the teaching of instrumental music in the elementary school. Trombone, Baritone and Tuba. Class: 1 hour. Credit: 1 semester hour.

313 – **Strings.** Techniques and materials in the teaching of instrumental music in the elementary school. Violin and Viola. Class: 1 hour. Credit: 1 semester hour.

314 – **Strings.** Techniques and materials in the teaching of instrumental music in the elementary school. Cello and Bass. Class: 1 hour. Credit: 1 semester hour.

315 – **Percussion.** Materials for the percussion instruments. Performance on all percussion instruments. Class: 1 hour. Laboratory: 1 hour. Credit: 1 semester hour.

**317 – Marching Methods.** Basic marching maneuvers. Charting various types of half-time shows for football games, such as the pageant type and the precision drills, and arranging the music for these shows. Term project: a completely charted half-time show with music. Class: 2 hours. Credit: 1 semester hour.

**331 – Elementary Methods and Materials.** Techniques and materials in teaching of music in the lower elementary grades. The child's voice, rote singing; rhythmic, introduction of notation; creative music activities. Prerequisite: MTy 131 or equivalent. Class: 3 hours. Credit: 3 semester hours.

**332 – Techniques and Materials in Teaching of Music in the Upper Elementary Grades.** Creative music, rhythmic activity, rote singing, reading of notation, and effective use of materials. Class: 3 hours. Credit: 3 semester hours.

**335 – Choral Music.** A detailed study, primarily at the secondary level, of the organization and administration of choirs, glee clubs, small ensembles, and vocal problems encountered in the choral music class. Class: 3 hours. Credit: 3 semester hours.

**336 – Instrumental Music.** Materials and problems encountered in the instrumental music field of the high school. A detailed study of the organization and administration of bands, orchestras, etc. Class: 3 hours. Credit: 3 semester hours.

**337 – Choral Conducting.** Basic patterns and rudiments of choral techniques as applied to secondary school choral groups. Limited to music majors. Prerequisite: Some vocal study, piano keyboard, one year of vocal laboratory, and music theory. Class: 3 hours. Credit: 3 semester hours.

**338 – Instrumental Conducting.** The rudiments of conducting as applied to high school instrumental groups, phrasing interpretation, etc. of the instrumental field, both band and orchestra. Class: 3 hours. Credit: 3 semester hours.

**339 – Choral Conducting.** Basic patterns and rudiments of choral conducting; choral techniques as applied to elementary school classroom instruction and choral performances. Limited to non-music majors. Class: 3 hours. Credit: 3 semester hours.

**410 – Seminar.** A general study of the problems encountered in music. Class: 1 hour. Credit: 1 semester hour.

**411 – Woodwinds.** Techniques and materials in the teaching of instrumental music in the elementary school. Flute, Clarinet, and Saxophone.

**412 – Woodwinds.** Techniques and materials in the teaching of instrumental music in the elementary school. Oboe and Bassoon.

**Music Laboratory (MLb)\***

**112—Orchestra.** A performing ensemble open to all university students who can qualify. Required of any student majoring in a string instrument. Laboratory: 6 hours. Credit: 1 semester hour per course.

\*Courses in Music Laboratory may be repeated for credit. Total credit not to exceed eight semester hours for any one course.

**113 — Chamber Music Ensemble.** String ensemble, woodwind ensemble, brass ensemble and percussion ensemble. A course designed to give the student an opportunity to study and perform music written for the smaller instrumental ensembles. These groups will participate in various recital programs throughout the year. Open to any student upon recommendation of the instructor. Laboratory: 3 hours per week. Credit: 1 semester hour.

**114 — Marching Band.** The study and performance of march music and military drill. Open to any student who can qualify. Four semesters completes P.E. requirement. Laboratory: 6 hours per week. Credit: 1 semester hour.

**115 — Symphonic Band.** Performs symphonic wind ensemble and band repertoire. Tryout required for admittance. Laboratory: 6 hours. Credit: 1 semester hour per course.

**117 — Dance Band.** Organized to furnish training in all styles of dance band performance. Open to any student who can qualify. Laboratory: 3 hours. Credit: 1 semester hour per course.

**1101 — Concert Choir.** A course in choral singing, organized to furnish training in the more important works of choral literature. Presentation of selection in public throughout the year. Audition required. Open to qualified students from other departments. Laboratory: 6 hours. Credit: 1 semester hour per course.

**1102 — Cardinal Singers.** Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

**1103 — Chamber Singers.** A performing choral ensemble specializing in music especially suited for chamber performances. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

**1104 — Grand Chorus.** A course in choral singing designed to acquaint the student with the larger works in choral literature. A public concert is given each semester. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

**210 — Opera.** A laboratory class for advanced voice students providing study of operatic excerpts of standard and contemporary roles and scenes for presentation in the opera-theatre. Laboratory: 2 hours. Credit: 1 semester hour per course.

**216 – Musical Comedy.** A laboratory course providing both background study and practical work in the specialized field of musical comedy, including participation in the presentation of a full production. Open to both vocalists and instrumentalists from all departments by audition or by consent of instructor. Laboratory: 3 hours. Credit: 1 semester hour. May be repeated for credit up to 3 hours.

### Music Literature (MLt)

**111, 112 – Music Principles.** An appraisal of the important events in Music History with emphasis upon those aspects of music associated with style, form, and performance. Familiarization of the student with music terminology and a thorough briefing on score reading through the use of recordings from the significant periods of Music History. Class: 2 hours. Credit: 1 semester hour per course.

**130 – Appreciation of Fine Arts.** (Same as Spc 130 and CA 130). A survey course covering the areas of a. art, b. music, c. theatre. To be taught by any representative of the art, music, and speech faculties. Class: 3 hours. Credit: 3 semester hours.

**213 – Piano Pedagogy.** A brief, chronological survey and analysis of the styles and forms of compositions in relation to keyboard instruments. Minimum knowledge of all keyboard instruments will be required. Special emphasis will be placed on the contribution of the performers, composers, and compositions in the field of piano literature. Class: 2 hours. Credit: 1 semester hour per course.

**323 – Music History.** A survey of the literature and advances made in music from ancient times to 1800. Three hours of listening required per week in addition to class lecture. Prerequisite: MLt 111-112. Class: 3 hours. Credit: 2 semester hours.

**324 – Music History.** A survey of the literature and advances made in music from 1800 through early 20th century. Three hours of listening required per week in addition to class lecture. Prerequisite: Music History 323. Class: 3 hours. Credit: 2 semester hours.

**335 – Music of the Afro-American.** A general survey of the present day American Negro music and a study of the Afro-American music historical background. Class: 3 hours. Credit: 3 semester hours.

### Music Theory (MTy)

**131 – Elements of Music.** Designed to prepare students for advanced study in music theory. A study of scales, chords, musical terminology, signature, sight singing, rhythms, musical notation and the harmonic, melodic, and rhythmic structure of music. Class: 3 hours. Credit: 3 semester hours.

**132, 133 – Elementary Harmony.** Elementary keyboard and written harmony, sight singing; ear training. Prerequisite: MTy 131 or by advanced standing exam. Class: 5 hours. Credit: 3 semester hours.

**232, 233 – Advanced Harmony.** Advanced keyboard and written harmony; sight singing; ear training. Prerequisite: MTy 133. Class: 5 hours. Credit: 3 semester hours.

**321, 322 – Counterpoint.** 16th and 18th century contrapuntal techniques through analysis and creative writing. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

**421 – Form and Analysis.** Analytical study of musical forms and styles. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

**422 – Orchestration.** Techniques of writing and arranging for orchestral instruments in small combinations and for full orchestra. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

**425 – Band Arranging.** Techniques of writing, transcribing from orchestra score and arranging for the instrumentation of the high school marching and concert bands. Class: 2 hours. Credit: 2 semester hours.



## DEPARTMENT OF SPEECH

*Department Head* – DeWitte T. Holland. *Professors* – Robert F. Achilles, S. Walker James. *Associate Professors* – Arnold C. Anderson, Jewel D. Blanton, Crystal Canon. *Assistant Professors* – Mary Alice Baker, Vera Hays Campbell, David W. Granitz, W. Patrick Harrigan, III, White A. Jacob. *Instructor* – Betty Winney. *Secretary* – Kathy Hobbs.

## Bachelor of Science – Speech Major

## Program of Study

Plan I (For those who wish to qualify for a teacher's certificate)

## First Year

First Semester	Second Semester
Eng—Composition . . . . .3	Eng—Composition . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
Lab Science . . . . .4	Lab Science . . . . .4
Mth . . . . .3	Mth . . . . .3
Spc—Required . . . . .6	Spc—Required . . . . .6
17	17

## Second Year

First Semester	Second Semester
Eng—Literature . . . . .3	Eng—Literature . . . . .3
His 231—United States . . . . .1	His 232—United States . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
Spc—Required . . . . .6	Spc—Required . . . . .3
Electives . . . . .3	Electives . . . . .6
16	16

## Third Year

First Semester	Second Semester
Edu 331—Foundations . . . . .3	Edu 338—Cur and Mat . . . . .3
Edu 332—Edu Psy . . . . .3	Gov 232 . . . . .3
Gov 231 . . . . .3	Spc Adv . . . . .6
Spc—Adv . . . . .3	Teaching Field Two and/or
Teaching Field Two and/or	Electives . . . . .6
Electives . . . . .6	—
18	18

## Fourth Year

First Semester	Second Semester
Edu 438—Classroom Mgmt . . . . .3	Edu 462—Student Teaching . . . . .6
Spc—Adv . . . . .3	Teaching Field Two and/or
Teaching Field Two and/or	Electives . . . . .6
Electives . . . . .6	12
<u>18</u>	TOTAL . . . . 132

Teacher's certificate is available in either Speech or Theatre (Drama) under Plan I.

Courses included under Public Address specialization are as follows: 132, 133, 234, 238, 434, 438, 439, plus 3 advanced hours. In addition, 131 and 233 are degree requirements.

Courses included under Theatre specialization are as follows: 133, 233, 235, 237, 334, 335, plus 3 advanced hours. In addition, 131 and 132 are degree requirements.

**Plan II** (For those who wish to qualify for a teacher's certificate in speech and hearing therapy — all levels)

## First Year

First Semester	Second Semester
Bio 141 . . . . .4	Bio 142 . . . . .4
Eng—Composition . . . . .3	CA 130—Appr of Fine Arts . . . . .3
HPE—Activity . . . . .1	Eng—Composition . . . . .3
Mth . . . . .3	HPE—Activity . . . . .1
Spc 131—Spc Comm . . . . .3	Mth . . . . .3
Spc 133—Voice and Phonetics . . . . .3	Spc 134—Spc Cor: A Survey . . . . .3
<u>17</u>	<u>17</u>

## Second Year

First Semester	Second Semester
Eng—Literature . . . . .3	Eng—Literature . . . . .3
His 231—United States . . . . .3	His 232—United States . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
Spc 230—Spc Cor,	Psy 131—Intro to Hum Beh . . . . .3
Pract and Theory I . . . . .3	Spc 232—P and T II . . . . .3
Spc 231—Audiology . . . . .3	Elective . . . . .3
Elective . . . . .3	<u>16</u>
<u>16</u>	

## Third Year

First Semester	Second Semester
Edu 331—Foundation . . . . .3	Bio 332—Anat and Physical
Edu 332—Edu Psy . . . . .3	Spc and Hrng . . . . .3
Gov 231 . . . . .3	Edu 3301—Edu Excpt Child . . . . .3
Psy 234—Child . . . . .3	Edu 334—Cur Mat Elem . . . . .3
Spc 339—Beg Clinical Practice . . . . .3	Gov 232 . . . . .3
Elective . . . . .3	Spc 3391—Spc Read and Trng . . . . .3
	Elective . . . . .3
18	18

## Fourth Year

First Semester	Second Semester
Edu 434—Classroom Mgmt . . . . .3	Edu 463—Student Teaching . . . . .6
Phy 338—Individual Testing . . . . .3	Phy 337—Adjustment . . . . .3
Spc 435—Spc and Lang Disorders . . . . .3	Spc 432—Psy of Spc . . . . .3
Electives . . . . .9	
18	12
	TOTAL . . . . 132

**Plan III** (For those who desire to qualify for a teacher's certificate in deaf education)

## First Year

Same as Plan II

## Second Year

First Semester	Second Semester
Eng—Literature . . . . .3	Eng—Literature . . . . .3
His 231—United States . . . . .3	His 232—United States . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
Psy 131—Intro to Hum Beh . . . . .3	Psy 234—Child . . . . .3
Spc 136—Nor Lng Dev . . . . .3	Spc 239—Lang for Deaf . . . . .3
Spc 231—Audiology . . . . .3	Electives . . . . .3
16	16

## Third Year

First Semester	Second Semester
Edu 331—Foundations . . . . .3	Bio 332—Anat and Physiology
Edu 332—Edu Psy . . . . .3	Spc and Hrng . . . . .3
Gov 231 . . . . .3	Edu 3301—Edu Excerpt Child . . . . .3
Psy 338—Individual Testing . . . . .3	Edu 334—Cur Mat Elem . . . . .3
Spc 3392—Spc for Deaf . . . . .3	Gov 232 . . . . .3
Electives . . . . .3	Psy 337—Adjustment . . . . .3
	Spc 3391—Spc Read Aud Trng . . . . .3
18	18

## Fourth Year

First Semester	Second Semester
Edu 434—Classroom Mgmt . . . . .3	Edu 463—Student Teaching . . . . .6
Edu 335—Arith in Elem School . . .3	Spc 4321—Adv Lang . . . . .3
Edu 339—Read in Elem School . . .3	Spc 4332—Adv Spc . . . . .3
Edu 437—Sci and Soc Stud . . . . .3	
Electives . . . . .6	12
18	TOTAL . . . . 132

**Plan IV (For those not desiring the teacher's certificate)**

This degree plan is designed for those wishing to emphasize public address, theatre, or speech and hearing therapy, for purposes other than teaching certification. The plan provides a maximum of flexibility in the composition of the speech courses for the speech major. The first and second years of Plan IV are, of course, essentially the same as Plan I. Students interested in concentrating in any of these areas of study apart from teacher certification, should contact the departmental chairman for further assistance.

**Bachelor of Arts—Speech Major**

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

**Bachelor of Science—Mass Communication**

The purpose of this degree program is to provide a broadly-based preparation for college students who are interested in professional careers in mass communication, e.g., radio, television, newspaper, magazine, public relations and advertising. In its attempt to prepare students for the communications industry as a whole, rather than for a specific position, the program focuses attention upon significant concepts of the mass communication process in contrast to efforts to refine and perfect specific skills. The program does, however, give attention to the development of basic speech, art, and writing proficiency. Thus, a unique characteristic of this degree is its purpose to provide the student with an interdisciplinary experience in the study of communication involving several departments. For this reason, the major requirement is 43 hours instead of the usual 24 or 30 hours. Within this total requirement, 27 hours of specific course work is required, and the student will complete the 43-hour total by selecting 16 hours from a second group of related courses referred to in the degree plan as 'major electives.'

**First Year**

<b>First Semester</b>	<b>Second Semester</b>
English Composition . . . . .3	English Composition . . . . .3
Laboratory Science . . . . .4	Laboratory Science . . . . .4
Speech 131 . . . . .3	Economics 133 . . . . .3
Journalism 131 . . . . .3	Journalism 132 . . . . .3
Commercial Art 130 . . . . .3	Engineering 4301 . . . . .3
Physical Education . . . . .1	Physical Education . . . . .1
<u>17</u>	<u>17</u>

**Second Year**

<b>First Semester</b>	<b>Second Semester</b>
English Literature . . . . .3	Speech 235 . . . . .3
Mathematics/Science . . . . .3-4	Mathematics . . . . .3
History 231 . . . . .3	Government 232 . . . . .3
Government 231 . . . . .3	History 232 . . . . .3
Journalism 231 . . . . .3	Major Elective . . . . .3
Physical Education . . . . .1	Physical Education . . . . .1
<u>16-17</u>	<u>16</u>

**Third Year**

<b>First Semester</b>	<b>Second Semester</b>
Speech 234 . . . . .3	Communication 3383 . . . . .3
Psychology 330 . . . . .3	Sociology 330 . . . . .3
Journalism 331 . . . . .3	Major Elective . . . . .3
English 3311 . . . . .3	Major Elective . . . . .3
History 338 . . . . .3	Psychology 335/330 . . . . .3
<u>15</u>	<u>15</u>

**Fourth Year**

<b>First Semester</b>	<b>Second Semester</b>
Sociology 437 . . . . .3	Major Elective . . . . .7
History 4328 . . . . .3	General Electives . . . . .8
Major Elective . . . . .3	
General Electives . . . . .6	
<u>15</u>	<u>15</u>

**Speech (Spc)**

**130 – Appreciation of the Fine Arts.** (Same as M. Lit. 130 and Art 130). A survey course covering the areas of a. art, b. music, c. theatre. To be taught by representatives of the art, music, and speech faculties. Class: 3 hours. Credit: 3 semester hours.

**131 – Speech Communication.** Instruction in the theory of speech communication as an effective force in human behavior. Emphasis upon the development of the student's skill as an initiator in the communication cycle. Students will participate in informative and persuasive communicative situations by way of public address, group discussion, reading from manuscript and informal speaking activities. Class: 3 hours. Credit: 3 semester hours.

**132 – Fundamentals of Effective Speech.** Continuation of Speech 131. A study of speech construction, including the use of outlining and supporting material. Practice is given in outlining, preparing, and presenting special types of speeches with emphasis placed on extemporaneous speaking. Prerequisite: Speech 131. Class: 3 hours. Credit: 3 semester hours.

**133 – Voice and Phonetics.** Phonetic transcription, regional and foreign dialects, and application of phonetic study to speech correction. Class: 3 hours. Credit: 3 semester hours.

**134 – Speech Correction: A Survey.** An introduction to the study of speech correction. A survey of the defects of speech with particular emphasis on articulation defects and voice problems. Class: 3 hours. Credit: 3 semester hours.

**135 – Children's Theatre.** Instruction and practice in the beginning principles of theatre as applied to plays for children's audiences. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**136 – Normal Language Development.** A study of the normal developmental processes in children. Class: 3 hours. Credit: 3 semester hours.

**216 – Musical Comedy.** A laboratory course providing background study and practical work in the field of musical comedy, including participation in the presentation of a full production. Open by audition or by consent of the instructor to students from all departments who are interested in acting or technical work in the theatre, especially as applied to musical comedy. Laboratory: 3 hours. Credit: 1 semester hour. May be repeated for credit up to 3 hours.

**230 – Speech Correction: Pathology and Therapy I.** A technical and professional course in the causes, nature, symptoms and rehabilitation of disordered speech. Prerequisite: Spc 134. Class: 3 hours. Credit: 3 semester hours.

**231 – Audiology.** Study of the human ear and its abnormalities.

Administration and interpretation of hearing tests; clinical observation. Credit: 3 semester hours.

**232 – Speech Correction: Pathology and Therapy II.** A technical and professional course in the causes, nature, symptoms and rehabilitation with emphasis on disorders of fluency, voice, and language. Class: 3 hours. Credit: 3 semester hours.

**233 – Introduction to Theatre.** A general survey of the major fields of theatre art. For students who have a limited theatrical experience or knowledge. Emphasis on the various types and styles of plays, elementary theory and practice of acting and directing, basic principles of voice development, movement, and interpretation for the stage. An introduction of technical production: methods of construction and handling of scenery, elementary problems in scene design, stage lighting, costume and costume design. Participation in major productions. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**234 – Introduction to Radio and Television.** A general survey of the principles involved in radio broadcasting and television, including a study of station and network organization and control. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**235 – Oral Interpretation of Literature.** Instruction and practice in the principles of speech applied to performance in the interpretation of prose and poetry. Class: 3 hours. Credit: 3 semester hours.

**237 – Acting.** Detailed study of characterization and styles of acting through class assignments of individuals and group scenes. Class: 2 hours. Laboratory: 3 hours and participation in department productions. Credit: 3 semester hours.

**238 – Argumentation and Debate.** The principles of argument, analysis, evidence, reasoning, fallacies, briefing, and delivery, as well as their applications in speech situations. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**239 – Language for the Deaf.** Survey of systems of teaching language to the deaf; emphasis on language development in the nursery and pre-school age child. Class: 3 hours. Credit: 3 semester hours.

**331 – Business and Professional Speech.** Application of the fundamentals of speech production to the needs of the professional man or woman. Practice in gathering and organizing material for speeches for special occasions. Emphasis is given to extemporaneous speaking, conferences and discussion group speaking, and report presentations. Class: 3 hours. Credit: 3 semester hours.

**332 – Discussion Methods.** Instruction in the types, principles, and methods of oral discussion. Practice in all forms of parliamentary procedure and various forms of group discussion. Class: 3 hours. Credit: 3 semester hours.

333 – Interpretation of Children's Literature. Study of materials for different ages of children; sources of program material; practice in adapting material into programs; practice in presenting programs in laboratory and in nearby schools, hospitals and homes. Class: 3 hours. Credit: 3 semester hours.

334 – Stagecraft. To give the student a theoretical and working knowledge of the crafts of the theatre; designing, building, and handling of scenery; technical plotting of scenery; lighting the stage; physical requirements of a theatre; nomenclature of the crafts of theatre. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

335 – Directing. To give the student a background knowledge in directing from the viewpoint of the interpreter, the planner, the organizer, and the businessman, the technician, the actor, the psychologist, and the artist with specific problems in directing scenes from plays. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

336 – Creative Dramatics. Instruction in the methods of introducing creative dramatics into the elementary and junior high schools, and the presentation of projects related to the development of creative play-making in the home, community, and school. Class: 3 hours. Credit: 3 semester hours.

3360 – Advanced Children's Theatre. Instruction and practice in advanced principles of theatre as applied to plays for children's audiences. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

337 – Advanced Oral Interpretation of Literature. Instruction and practice in the principles of speech applied to performance in the interpretation of dramatic literature. Class: 3 hours. Credit: 3 semester hours.

338 – Radio and Television Production. Activities in writing, acting, directing, producing, announcing, and engineering various types of radio and television programs. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

339 – Beginning Clinical Practice in Speech and Hearing Therapy. Diagnostic and therapeutic procedures in speech and hearing therapy. One hour of clinical practice per week per credit hour. Prerequisite: Spc 230. Credit: 3 semester hours. Course may be taken 3 times for credit.

3391 – Speechreading and Auditory Training. Techniques of teaching speech reading to deaf children and deafened persons. Class: 3 hours. Credit: 3 semester hours.

3392 – Speech for the Deaf. Study of various methods of developing speech in the young deaf child. Class: 3 hours. Credit: 3 semester hours.

430 – Problems and Projects in Speech. These problems are discussed and analyzed through discussion and research. Each student elects a project or problem on which he does extensive research and presents a report to the department faculty. Credit: 3 semester hours. Course may be repeated once for credit.



**431 – Problems and Projects in Theatre.** Students will perform activities in one of the following areas: acting, directing, producing, designing, and constructing costumes and stage settings for the school theatre. Credit: 3 semester hours. Course may be repeated once for credit.

**432 – The Psychology of Speech.** The study of the nature and origin of speech in terms of its psychological and neurological aspects. Class: 3 hours. Credit: 3 semester hours.

**4321 – Advanced Language for the Deaf.** Principles and techniques for systematic development of language from first through sixth grades. Class: 3 hours. Credit: 3 semester hours.

**4322 – Advanced Speech for the Deaf.** Designed to study problems of speech development along with maintaining intelligible speech. Class: 3 hours. Credit: 3 semester hours.

**4324 – Advanced Audiology.** Assessment of auditory functions by special pure tone techniques and speech audiometry and hearing aid evaluation. Class: 3 hours. Credit: 3 semester hours.

**4325 – Instrumentation.** A study of the behavior of sound waves, basic recording and analysis of sound, use and maintenance of equipment used in speech and hearing clinics or for research projects. Credit: 3 semester hours.

**434 – Persuasion.** The psychological and emotional principles involved in influencing individuals and groups. An analysis and practice with the speech devices and techniques in effectively motivating audience reaction. Class: 3 hours. Credit: 3 semester hours.

**435 – Organic Speech and Voice Disorders.** Diagnosis and therapy of disorders and communication that are organic in nature, with emphasis on structural disorders and disorders of voice. Credit: 3 semester hours.

**436 – History of Theatre.** A survey of theatre from 5th C.B.C. to the present day, with emphasis on methods and styles of presentation. Class: 3 hours. Credit: 3 semester hours.

**437 – Directing Secondary School Theatre Activities.** Principles involved in extracurricular theatre activities. Practical experience with workshop students constitutes a part of this course. (Offered in summer terms only.) Credit: 3 semester hours.

**438 – Directing Secondary School Speech Activities.** Principles involved in extracurricular activities such as debate, extemporaneous speaking, radio and television. Practical experience with workshop students constitutes a part of this course. (Offered in summer terms only.) Credit: 3 semester hours.

**439 – Rhetoric and Public Address.** A study and analysis of some of the world's great speeches with application of the principles of original speeches of special types. Class: 3 hours. Credit: 3 semester hours.

**Communication (Com)**

**131 – Introduction to Mass Communications.** A study of mass communication and the media involved in the dissemination of news. Emphasis is given to methods of gathering, writing, and presenting the news by newspapers, magazines, and other media. Class: 3 hours. Credit: 3 semester hours.

**132 – Introduction to Mass Communications.** A continuation of Communication 133, with detailed study of newspapers, television, and radio, magazines, book publishing, motion pictures, advertising, public relations and mass communication research. Class: 3 hours. Credit: 3 semester hours.

**231 – News Reporting.** A basic course in gathering material and writing news stories for publication. Proficiency in typewriting is required. Course may be repeated for a maximum of six semester hours credit. Class: 3 hours. Credit: 3 semester hours.

**232 – Editing and Copyreading.** The development and use of printing, type recognition, type harmony, preparing editorial material, writing headlines, and correcting copy. Prerequisite: Communication 231. Class: 3 hours. Credit: 3 semester hours.

**331 – Laws and Ethics of the Mass Media.** A study of the responsibilities of the media, including ethical responsibilities to news sources, persons in the news, readers and employers and legal rights and restrictions. Class: 3 hours. Credit: 3 semester hours.

**332 – History and Principles of American Journalism.** The growth of modern newspapers, with emphasis on important persons in American journalism and the influence of their publications on the history of the United States. Class: 3 hours. Credit: 3 semester hours.

**3234 – Practice in Communication Techniques.** A course designed to give students an off-campus laboratory experience in an actual setting demanding the use of communicative techniques. Under the direction of an academic advisor within the program, students will be provided with specific, on-the-job assignments in radio-television stations, advertising agencies, and newspaper and magazine offices. Credit: 2 semester hours. Course may be repeated once for credit.

**3381 – Principles of Film Communication.** The study of the medium of film as employed by communication experts in the field of drama, education, industry, advertising, and as an adjunct to television. The history of film development, technical aspects of film story structure, the basic skills of photography through a mastery of the still camera and the development of subliminal motivation through visual means. Class: 3 hours. Credit: 3 semester hours.

**3382 – Principles of Film Communication.** Application of theory of film communication to the actual production of film units as advertising tools and

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story telling devices, using still and motion picture cameras. Credit: 3 semester hours.

**3383 – Introduction to Advertising.** A study of advertising theory and techniques in relation to the economic and social order and the organization and management of advertising and its relationship to the marketing process. Class: 3 hours. Credit: 3 semester hours.

# SCHOOL OF LIBERAL ARTS

## Departments

English

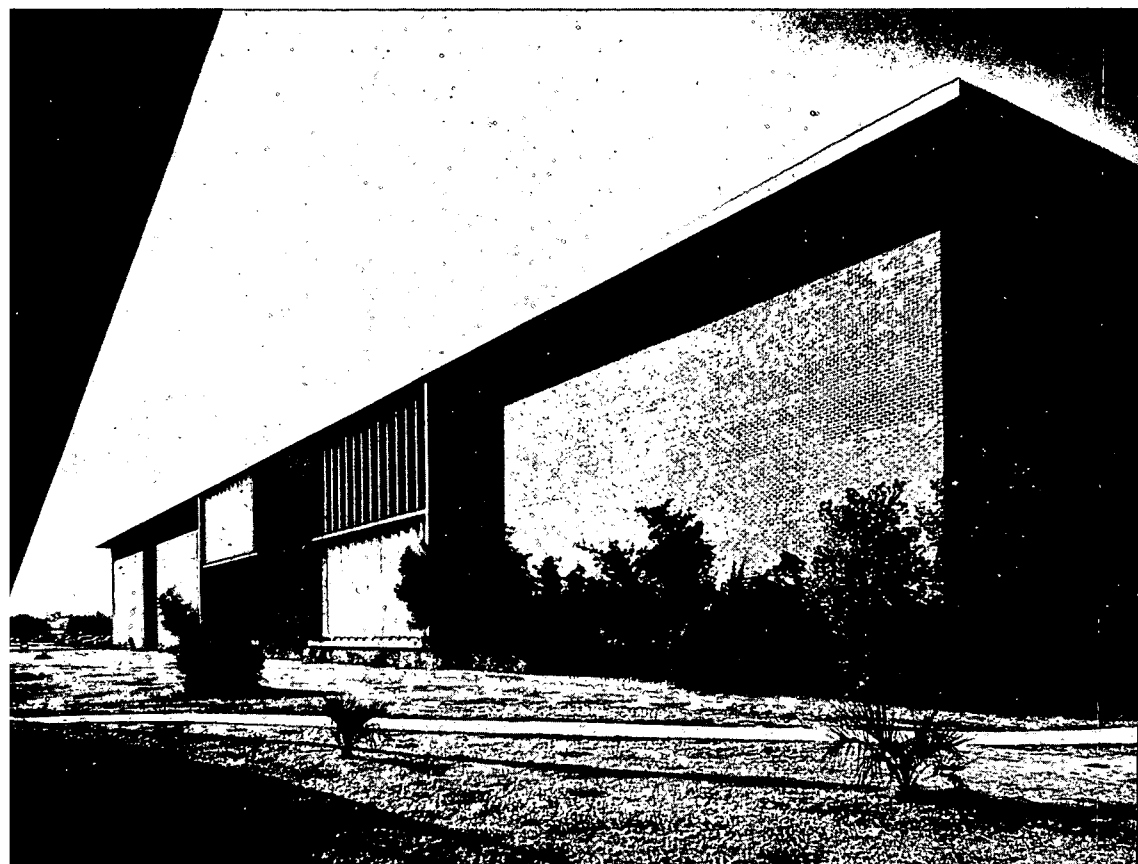
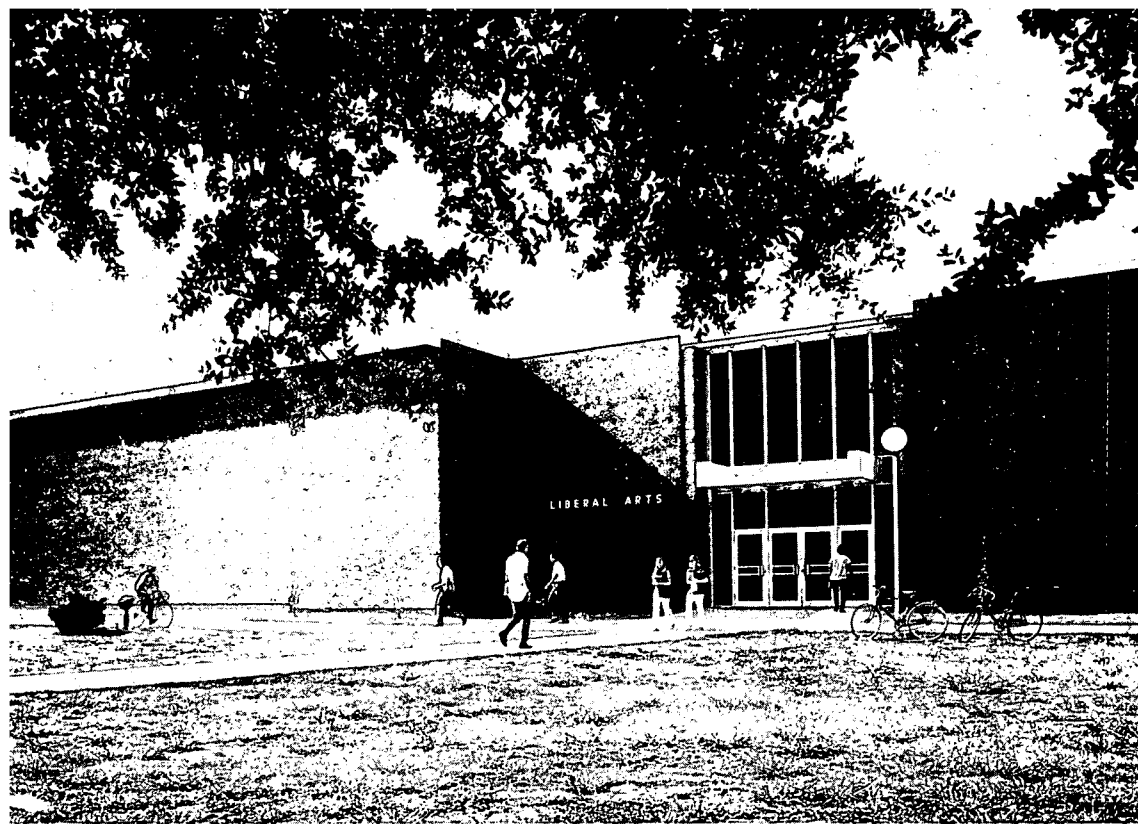
Government

History

Modern Languages

Sociology

(Bible)



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## School of Liberal Arts

Preston B. Williams, Ph.D., Dean

### Degree Offerings

Bachelor of Arts with majors in the following fields:

English	History
French	Sociology
Government	Spanish

Bachelor of Science with majors in the following fields:

**Government – Criminal Justice**

Information concerning graduate programs in English, government and history may be obtained in the Graduate Bulletin.

### The Liberal Arts

Lamar University accepts the philosophy that higher education involves the whole mind of man and thus should not be limited merely to job preparation. Thus, every student in the University takes a substantial portion of his first two years of work in courses offered by the School of Liberal Arts.

The liberal arts are those fields which "liberate" the mind and give the student an opportunity to learn about and to criticize the various facts and assumptions about man, his society, and the relationship between the individual and that society. Broadly speaking, the area may be divided into the Humanities (English, History, Journalism, Modern Languages and Philosophy) and the Social Sciences (Government, Sociology, Anthropology, Economics, and Psychology).

Specialization in one or more of these disciplines provides an excellent liberal education and the best possible pre-professional preparation.

To increase and strengthen its programs of education for public service, Lamar University has established in the School of Liberal Arts two programs designed for those students who wish to enter the public service areas of social welfare and criminal justice. A student may earn a minor in social welfare which will qualify him for employment in social agencies or he may earn a Bachelor of Science in government with a criminal justice emphasis.

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

**Bachelor of Arts – Pre-Law Program**

The Bachelor of Arts for pre-law students may be obtained in one of two ways:

- I. While in residence at Lamar completing the degree requirements prescribed in this bulletin. (The Baylor University Law School is the only Texas law school which does not require a bachelor's degree for admission.)
- II. By completing three years of work, totaling a minimum of 94 semester hours with a grade average of 2.3 in courses at Lamar, and completion of one year of law school with a 2.0 for a minimum of 30 semester hours of law courses. These 94 hours should be distributed as follows:
  1. 6 semester hours of freshman English and 6 semester hours of literature.
  2. 6 semester hours in mathematics.
  3. The completion of the 232 course in a foreign language.
  4. 16 semester hours in laboratory science, including 8 semester hours in chemistry or physics, and 8 semester hours in biology or geology.
  5. 36 semester hours in the social sciences, including Government 231, 232, History 231, 232 and at least 15 semester hours of advanced social science courses.
  6. 4 semesters of physical activity courses.
  7. Sufficient electives in Liberal Arts and Sciences to include 6 semester hours of advanced courses and to total 94 semester hours. Accounting 231, 232 may be counted among these electives.

The head of the Department of Government is the advisor for pre-law students. All pre-law students should consult him at each registration period.

## DEPARTMENT OF ENGLISH

*Department Head* – Arney L. Strickland. *Director of Freshman English* – Nora. B. Leitch. *Professors* – Robert J. Barnes, George W. deSchweinitz, Winfred S. Emmons, Harry L. Frissell, Robert C. Olson, Henry B. Rule, A. W. Yeats. *Associate Professors* – Clarine Branom, Elizabeth Meeks, Jack N. Renfrow, R. Blaine Thomas, David D. Zink. *Assistant Professors* – Marilyn D. Georgas, Olga D. Harvill, Henry Hutchings III, Robert H. Wilkerson. *Instructors* – Royce G. Bass, John H. Botkin, Patricia J. Cooke, Jimmie D. Farber, David A. Fincher, Flonelle B. Greer, Mary K. Hill, Matthias Iwundu, Jerome W. Keys, John C. Kilman, Thomas R. McClellan, Annette E. Platt, Jack W. Schneider, Joan B. Setzer, Ronald A. Smith, Anne L. Taxter, Stanley C. Williams. *Secretaries* – Mrs. Audrey Wynn, Mrs. Geraldine Blair.

### Bachelor of Arts – English Major

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

#### A. General Requirements

Freshman Composition – six semester hours.

Mathematics and Laboratory Science – four semester courses, at least one in Mathematics and one in Laboratory Science

Completion of the 232 course in a foreign language

History 131-132 – World History

History 231-232 – United States History

Government 231-232 – State and National

Physical Education – four semesters

#### B. Major

Sophomore literature – six semester hours, preferably selected from 2311, 2314, 2315, and 2316.

Six hours of advanced American literature.

Nine hours of advanced British literature, including either 4331 or 4332. English 430.

#### C. Minor

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

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

### Teacher Certification – English

Students wishing to secure the Bachelor of Arts degree in English and at the same time to certify for a provisional certificate-secondary with a teaching field in English, must include in their degree program the following:



1. Six hours of mathematics and eight hours of science.
2. A 24-hour approved additional teaching field in the place of the minor (consult this catalog, School of Education).
3. English 334 in the place of English 430.
4. Eighteen hours of Education: 331, 332, 338, 438, 462.
5. Approved electives sufficient to bring the total number of hours to 132.

### Suggested Program of Study

First Year	Second Year
Eng-Composition . . . . .6	Eng-Sophomore Lit . . . . .6
His. 131-132-World Civilization . .6	His 231-232-United States . . . . .6
Foreign Language-141-142 . . . . .8	Gov 231-232-State and National . .6
*Mth . . . . .6	Foreign Languages-231-232 . . . . .6
Electives . . . . .6	Electives . . . . .6
HPE-Activity . . . . .2	HPE-Activity . . . . .2
<u>34</u>	<u>32</u>
Third Year	Fourth Year
Eng . . . . .9	Eng 430-History of the
*Laboratory Science . . . . .8	English Language . . . . .3
Minor . . . . .9	Eng . . . . .6
Electives . . . . .6	Minor . . . . .9
<u>32</u>	Electives . . . . .9-12
	<u>27-30</u>

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

### English (Eng)

**1311 - Composition.** Detailed study of fundamental composition and reading skills. Intensive review of grammar, mechanics, and punctuation. Frequent short themes. Recommended for students who score low on entrance tests. Class: 3 hours. Credit: 3 semester hours.

**1312 - Composition.** Intensive study and practice in the basic forms and principles of expository writing. Frequent themes. Collateral reading in articles and essays of a factual and informative type. Class: 3 hours. Credit: 3 semester hours.

**1313 – Composition.** Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from wide reading in the area of prose fiction. Class: 3 hours. Credit: 3 semester hours.

**1314 – Composition.** Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from wide readings in the areas of poetry and drama. Class: 3 hours. Credit: 3 semester hours.

**1315 – Composition.** Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from a wide survey of the various communications media – films, tapes, radio, television, etc. Class: 3 hours. Credit: 3 semester hours.

(Note: Various schools and departments may counsel their majors into certain of the courses listed above; otherwise the student may satisfy his freshman English requirement by any combination of the courses above, in any sequence.)

**1316 – Composition and Rhetoric.** An accelerated program for those exceptionally well prepared at time of enrollment. Extensive writing; introduction to literary genres. Offered fall semester only. Satisfactory completion of this course meets requirement for freshman English. Class: 3 hours. Credit: 3 semester hours.

**2311 – Masterworks of World Literature.** Critical study of six to ten major monuments of world literature, from classical antiquity to the present century. Class: 3 hours. Credit: 3 semester hours.

**2312 – Masterworks of American Literature.** Critical study of six to ten major works of American literature, including both the nineteenth and twentieth centuries. Class: 3 hours. Credit: 3-semester hours.

**2313 – Masterworks of British Literature.** Critical study of six to ten major works of British literature, including writers from most of the important periods. Class: 3 hours. Credit: 3 semester hours.

**2314 – Thematic Approaches to Literature.** Critical study of significant literature related to a particular theme or concept. Works to be studied will be drawn from various genres and various national literatures. Class: 3 hours. Credit: 3 semester hours.

**2315 – The Literature of Africa.** Major writers of Africa, including various genres and works translated from languages other than English. Class: 3 hours. Credit: 3 semester hours.

**2316 – Black Writers of America.** Significant contributions to American literature from colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

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

**333 – Shakespeare.** Rapid reading of the histories, comedies, and tragedies. The development of Shakespeare as a dramatist; his relationship to the Elizabethan theater; his social, political, and literary background in the Tudor-Stuart era. Class: 3 hours. Credit: 3 semester hours.

**334 – Advanced Grammar.** Intensive analysis of sentences, the concept of structural meaning. Prerequisite: foreign language through 132. Class: 3 hours. Credit: 3 semester hours.

**335 – Creative Writing.** A workshop approach to the writing of poetry, fiction, and drama. Prerequisite: recommendation by the department head. Class: 3 hours. Credit: 3 semester hours.

**336 – The Short Story.** The technique of the short story; its historical development; study and analysis of great short stories. Class: 3 hours. Credit: 3 semester hours.

**337 – The Drama.** The historical development of the drama from Aeschylus to the present. Intensive study of selected plays. Class: 3 hours. Credit: 3 semester hours.

**338 – Studies in the British Novel.** Wide reading and critical study in some particular aspect or period of the British novel. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**339 – American Novel.** A study of the history, growth, and technique of the American novel, with emphasis on the novels of the twentieth century. Class: 3 hours. Credit: 3 semester hours.

**3311 – Technical Report Writing.** Supervised preparation of technical and scientific reports according to standard usage recommended by scientific and engineering societies. May not be counted for English major credit. Class: 3 hours. Credit: 3 semester hours.

**3312 – Introduction to Linguistics.** A survey of descriptive and historical linguistics intended to provide some understanding of the nature of language and linguistic change, of the current methods used in describing and comparing languages, and of the interaction of language and culture. Class: 3 hours. Credit: 3 semester hours.

**3313 – Mythology.** Classical, Scandinavian, German, and Oriental mythology emphasizing the myths, deities, and great legendary characters of Greek, Roman, Scandinavian, Teutonic, and Oriental civilizations most frequently referred to in the literature of the western world. Class: 3 hours. Credit: 3 semester.

**3316 – Poetic Analysis.** A study of the forms and techniques and the critical evaluation of poetry. Class: 3 hours. Credit: 3 semester hours.

**3319 – Studies in Language and Linguistics.** Special problems in linguistics, such as the history of American English, regional dialects, new grammars. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**3321 – Methods of Teaching English.** Methods of teaching reading and composition at the secondary level, with special attention to the assigning and evaluating of written work. Class: 3 hours. Credit: 3 semester hours.

**3322 – The American Literary Renaissance: 1820-1860.** An intensive study of the major authors of the period from Poe to Melville. Class: 3 hours. Credit: 3 semester hours.

**3324 – The Development of American Realism: 1860-1900.** An intensive study of the major authors of the period from Whitman to Norris. Class: 3 hours. Credit: 3 semester hours.

**430 – History of the English Language.** Theory and nature of language. Studies in the growth of English and American forms. Prerequisite: foreign language through 232. Class: 3 hours. Credit: 3 semester hours.

**432 – Studies in Sixteenth Century Literature.** Critical studies in the poetry, prose, and drama of the age. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**434 – Shakespeare.** Intensive study of selected major plays. Prerequisite: English 333 or permission of the instructor. Class: 3 hours. Credit: 3 semester hours.

**435 – Studies in Seventeenth Century Literature.** Critical studies in the poetry, prose, and drama of the period 1600-1660. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**438 – Studies in Eighteenth Century Literature.** Critical studies in the poetry, prose, and drama of the period 1660-1800. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**439 – Studies in Romantic Literature.** Critical studies in the poetry, prose, and drama of the Romantic Period. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**4311 – Studies in Victorian Literature.** Critical studies in the poetry and prose of the Victorian Period. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

**4317 – Contemporary Drama.** A study of dramatic trends and representative plays from Ibsen to the present. Class: 3 hours. Credit: 3 semester hours.

**4318 – Contemporary Poetry.** A study of poetic developments in England and America with emphasis on representative poets from Hardy to the present. Class: 3 hours. Credit: 3 semester hours.

**4319 – Contemporary Fiction.** A study of prose fiction representative of modern ideas and trends, with emphasis on English and Continental authors. Class: 3 hours. Credit: 3 semester hours.

**4322 – Russian Literature.** Selected works from nineteenth and twentieth century Russian literature in translation, Pushkin to Sholokov. Class: 3 hours. Credit: 3 semester hours.

**4123, 4223, 4323, 4423, 4523, 4623 – Institute in English.** The theory and practice of traditional, structural and generative grammar; the theory and practice of composition; and the critical analysis of literature. Class: 1-4 hours. Laboratory: 2-4 hours. Credit: 1-6 semester hours.

**4325 – Language: Sound and Meaning.** Theory of language for non-English majors. A study of meaning as related to words and to grammatical features. English phonology as applied to orthography. May not be counted for English major credit. Class: 3 hours. Credit: 3 semester hours.

**4326 – Expository Writing.** The practical application of the techniques of mature exposition; classification, explanation, evaluation. Class: 3 hours. Credit: 3 semester hours.

**4327 – Bibliography and Methods of Research.** An introduction to research methods and sources. Recommended for those planning or beginning graduate study. Class: 3 hours. Credit: 3 semester hours.

**4328 – Colonial American Literature.** A survey of all significant writers from the beginnings to the American Revolution. Class: 3 hours. Credit: 3 semester hours.

**4329 – Modern American Literature.** A critical survey of major American writers of the twentieth century. Class: 3 hours. Credit: 3 semester hours.

**4331 – Advanced Survey of British Literature.** Intensive survey of British literature from the beginnings to 1800, with wide collateral reading in literary history. Class: 3 hours. Credit: 3 semester hours.

**4332 – Advanced Survey of British Literature.** Intensive survey of British literature from 1800 to the present, with wide collateral reading in literary history. Class: 3 hours. Credit: 3 semester hours.

**4333 – Studies in a Particular Author.** Intensive critical study of a major writer such as Chaucer, Milton, Hawthorne, Faulkner. May be taken for credit more than once when the topic varies. Class: 3 hours. Credit: 3 semester hours.

**4334 – Critical Studies in Literature.** Intensive critical study of a

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particular genre or theme in comparative literature or criticism. May be taken more than once for credit when the topic varies. Class: 3 hours. Credit: 3 semester hours.

### **Journalism (Jou)**

The Department of Speech offers the Bachelor of Science degree in the field of Mass Communication. Journalism courses are now designated Communication (Com). See programs of study, Department of Speech, School of Fine and Applied Arts, in this catalog.

### DEPARTMENT OF GOVERNMENT

*Department Head* – William R. Tucker. *Professor* – Manfred Stevens. *Associate Professors* – Wendell M. Bedichek, Edwin L. Cobb. *Assistant Professors* – Bruce R. Drury, Boyd L. Lanier, William Pearson. *Instructors* – R. Philip Richey, Ronald Stidham. *Secretary* – Jo Ann Larson.

#### Bachelor of Arts – Government Major

The degree of Bachelor of Arts in Government may be awarded upon the completion of the following requirements:

##### A. General Requirements

Freshman English – six semester hours

Literature – six semester hours

\*Mathematics – six semester hours

\*Science – laboratory – eight semester hours

Completion of the 232 course in a foreign language

History 231-232 – United States History

Physical activity courses or Band – four semesters

Psychology 241 – Introduction to Statistical Methods

##### B. Major

Government 231-232 – American State and National

Government 233 – Political Behavior

Advanced Government (at least one from each of five fields) – fifteen semester hours. The fields are: American government (Gov. 334, 335, 339, 436, 437, 3301, 3311, 3312, 3313, 3315); political philosophy (Gov. 431, 432, 433); international relations (Gov. 332, 336, 337, 435); comparative government (Gov. 331, 333, 338, 3317, 3318); public administration (Gov. 3316, 430, 434, 439).

##### C. Minor

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

##### D. Electives

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

\*For science and mathematics the general degree requirements may be followed.

#### Teacher Certification – Government

Students wishing to secure the Bachelor of Arts degree in Government and at the same time certify for a provisional certificate – secondary with a teaching field in Government, must include in their degree program the following:

1. Six hours of mathematics and eight hours of science.
2. An approved twenty-four hour additional teaching field in place of the minor (consult this catalog, School of Education).

3. Education 331, 332, 338, 438, and 462.
4. Sufficient electives to complete a total of 132 semester hours.

### Suggested Program of Study

First Year	Second Year
Eng-Composition . . . . .6	Eng-Literature . . . . .6
Foreign Language . . . . .8	Foreign Language . . . . .6
Mth . . . . .6	HPE Activity . . . . .4
HPE Activity . . . . .2	His 231-232 . . . . .6
Electives* . . . . .9	Psy 241 . . . . .4
31	Gov 233 . . . . .3
	Gov 231-232 . . . . .6
	<u>35</u>

\*Gov 131 is recommended

Third Year	Fourth Year
Gov (Adv.) . . . . .9	Gov (Adv.) . . . . .6
Electives or Edu 331, 332, 338 . . . . .9	Electives or Edu 438 and 462 . . . . .9
Laboratory Science . . . . .8	Minor (or other teaching field) and
Minor (or other teaching field) and Electives . . . . .4-7	Electives . . . . .15-18
30-33	<u>30-33</u>

### Bachelor of Science – Government Major (Criminal Justice Emphasis)

Students pursuing this program may during their first two years enroll in the Police Science Program in the School of Technical Arts or may enroll in the Department of Government in the School of Liberal Arts.

First Year	Second Year
Eng-Composition . . . . .6	Gov. 231-232 . . . . .6
Mth . . . . .6	Soc 131-132 . . . . .6
Psy 131 . . . . .3	Speech 131 . . . . .3
Police Science* . . . . .15	Police Science* . . . . .9
32	Approved Electives . . . . .6
	<u>30</u>

\*These 24 semester hours of Police Science must conform to the core curriculum approved by the Coordinating Board, Texas College and University System.



Third Year	Fourth Year
Psy 241 .....4	Eng—Literature.....3
Gov 3313 .....3	Gov 430 .....3
Gov 3316 .....3	Gov 437 .....3
Science .....8	Gov 339 .....3
HPE—Activity .....2	Gov (selected from 431, 432, 433 .....3
Soc 333 .....3	HPE—activity.....4
Soc 336 .....3	Electives .....6
Psy 432 .....3	Soc 339 .....3
Elective .....3	His 231-232.....6
32	34

**Government (Gov)**

**131 — Elements of Political Science.** History of political institutions and ideas; power and cultural setting of modern governments. Class: 3 hours. Credit: 3 semester hours.

**231 — The American Constitutional System, Federal and State.** A study of the background and content of the national and state constitutions; local government; the federal and state judiciaries; civil liberties. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

**232 — American and State Government, Organization and Functions.** A study of political parties and pressure groups; the legislative and executive branches; functions of both national and state government; foreign policy. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

**233 — Political Behavior.** Economic, psychological, and social dimensions of political behavior; political participation, leadership and elites; ways of analyzing political attitudes, voting behavior and the decision-making process. Class: 3 hours. Credit: 3 semester hours.

**331 — Political Systems of Western Europe.** An analysis of the political systems of Great Britain, France, and Germany emphasizing their political culture, socio-economic conditions, recruitment of leadership, pressure groups, political parties and decision-making process. Class: 3 hours. Credit: 3 semester hours.

**332 — Studies in International Politics.** A study of the concepts underlying the Western State system; nationalism and imperialism; the techniques and instruments of power politics; and the foreign policies of selected states. Class: 3 hours. Credit: 3 semester hours.

**333 – Government and Politics of the Soviet Union.** A study of the origin, development, structures, functions and behavior of the Soviet decision-making organs. Class: 3 hours. Credit: 3 semester hours.

**334 – American Political Parties.** A study of political parties in terms of their theory, their history, and their practical function in contemporary American politics. Class: 3 hours. Credit: 3 semester hours.

**335 – The American Presidency.** The role of the office in political and diplomatic, social and economic terms, as well as in the policy making aspects. Class: 3 hours. Credit: 3 semester hours.

**336 – International Institutions.** An analysis of the political and legal foundations of international organizations with emphasis on the procedure and machinery for the peaceful settlement of international disputes. The League of Nations, the United Nations, specialized agencies, disarmament, and regional arrangements will be considered. Class: 3 hours. Credit: 3 semester hours.

**337 – The Politics of American Foreign Policy.** An analytical and historical view of United States foreign policy; its domestic sources; the instruments of American diplomacy; United States involvement in world politics; and the limitations and potentials of American foreign policy. Class: 3 hours. Credit: 3 semester hours.

**338 – Latin American Political Systems.** An intensive comparative analysis of the political systems of Latin America with special emphasis on political culture, constitutional development, authoritative decision-making activities and agencies, interest identification, leadership selection, political socialization, and conflict resolution. Class: 3 hours. Credit: 3 semester hours.

**339 – Urban Politics.** The organization, development, functions, and problems of city government in the United States. Designed generally for those interested in a career in city or county government. Class: 3 hours. Credit: 3 semester hours.

**3301 – The Legislative Process.** The structure, functioning, and political control of legislative bodies. Class: 3 hours. Credit: 3 semester hours.

**3311 – American Group Politics.** Analysis and appraisal of the role of economic, social, and other groups in American politics; organization and techniques of political influence; the group struggle and resulting problems of public policy. Class: 3 hours. Credit: 3 semester hours.

**3312 – American State Politics.** A survey of American state political patterns, with special reference to Texas. Class: 3 hours. Credit: 3 semester hours.

**3313 – Elementary Jurisprudence and the Judicial Process.** A survey of the major schools of legal thought; the structure, processes, and personnel of

American courts; judicial opinions and voting as a guide to the predictability of decisional behavior. Class: 3 hours. Credit: 3 semester hours.

**3315 – Ethnic Politics in the United States.** Analysis and appraisal of ethnic political action in the American political process; political socialization and voting behavior; techniques of participation and problems of public policy. Class: 3 hours. Credit: 3 semester hours.

**3316 – Introduction to Public Administration.** A survey of American public administration, with emphasis upon modern problems and trends. Class: 3 hours. Credit: 3 semester hours.

**3317 – Politics of Developing Areas.** An analysis of the political systems of Latin America, Africa, the Middle East, and Asia, focusing on ideologies, interest groups, political parties, elites, and problems in political development. Class: 3 hours. Credit: 3 semester hours.

**3318 – East Asian Governments and Politics.** An introduction to the political ideas, institutions, and processes of China and Japan considered against their social and economic development with special emphasis on contemporary political problems. Class: 3 hours. Credit: 3 semester hours.

**430 – Organization Theory and Behavior.** A study of the structural and management aspects of public administration, theory and practice; policy formation processes and techniques. Class: 3 hours. Credit: 3 semester hours.

**431 – History of Political Thought I.** The chief concepts of outstanding political thinkers from the Greeks to the Reformation. Class: 3 hours. Credit: 3 semester hours.

**432 – History of Political Thought II.** A continuation of Government 431 from the Reformation to Karl Marx. Class: 3 hours. Credit: 3 semester hours.

**433 – History of Political Thought III.** A continuation of Government 432 from Karl Marx to the present with attention given to contemporary thought. Class: 3 hours. Credit: 3 semester hours.

**434 – Formulation of Public Policy.** The demands for public action on policy issues; organization and nature of political support; processes and problems of decision-making in the formulation of public policy at the national, state, and local levels. The subject will vary from semester to semester. Class: 3 hours. Credit: 3 semester hours.

**435 – The International System.** The study of the legal bases of the modern international system and the political and legal characteristics of developing world order. Class: 3 hours. Credit: 3 semester hours.

**436 – American Constitutional Law and Development.** Development of the American Constitution through judicial interpretations, with particular emphasis on cases dealing with federalism, commerce, Congress, and the executive. Class: 3 hours. Credit: 3 semester hours.

**437 – American Constitutional Law and Development.** A continuation of Government 436 with particular emphasis upon cases dealing with due process and civil rights. Class: 3 hours. Credit: 3 semester hours.

**439 – Comparative Public Administration.** A study of bureaucratic structures and functions of advanced and developing nations, emphasizing comparison of relationships between environments and administrative processes. Class: 3 hours. Credit: 3 semester hours.

### DEPARTMENT OF HISTORY

*Department Chairman* – Adrian Anderson. *Professors* – Paul E. Isaac, Howard Mackey, L. Wesley Norton, Preston B. Williams, Ralph A. Wooster. *Associate Professors* – Howell Gwin, R. Beeler Satterfield, Walter Sutton, Naaman Woodland. *Assistant Professors* – Marion Holt, Joseph C. Lambert, William A. MacDonald, J. W. Storey. *Instructors* – E. James Hindman, JoAnn Stiles. *Departmental Secretary* – Randy Landry.

#### Bachelor of Arts – History Major

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

##### A. General Requirements

Freshman English – six semester hours  
 Literature – six semester hours (including English 2311)  
 Mathematics – six semester hours  
 Science – laboratory – eight semester hours  
 Completion of the 232 course in a foreign language  
 Government 231-232 – State and National  
 Physical Education or Band – four semesters

##### B. Major

History 131-132 – World History  
 History 231-232 – United States History  
 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 eighteen semester hours, including at least six advanced semester hours.

##### D. Electives

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

#### Teacher Certification -- History

Students wishing to secure the Bachelor of Arts degree in history and at the same time certify for a provisional certificate – secondary with a teaching field in history, must include in their degree program the following:

1. An approved twenty-four hour additional teaching field (See School of Education section of this catalog for a list of approved teaching fields).
2. Education 331, 332, 338, 438, and 462.
3. Sufficient approved electives to complete a total of 132 semester hours.

## Suggested Program of Study

First Year	Second Year
His 131-132—World History . . . . .6	His 231-232—United States . . . . .6
Freshman English . . . . .6	Literature (including Eng 2311) . . .6
Foreign Language . . . . .8	Foreign Language . . . . .6
Mth . . . . .6	Science . . . . .8
Electives . . . . .6	Gov 231-232—St and Natl . . . . .6
HPE—Activity . . . . .2	HPE—Activity . . . . .4
<u>34</u>	<u>36</u>
Third Year	Fourth Year
His 339 . . . . .3	His (Adv.) . . . . .6
His (Adv.) . . . . .6	Edu 438 and 462 or
Edu 331, 332, 338 or	Electives . . . . .9
Electives . . . . .9	Minor (or other Teaching
Minor (or other Teaching	Field) and Electives . . . . .15-17
Field) and Electives . . . . .12-14	
<u>30-32</u>	<u>30-32</u>

## History (His)

**131 — History of World Civilization.** Survey of world history to 1660. Class: 3 hours. Credit: 3 semester hours.

**132 — History of World Civilization.** Survey of world history from 1660 to 1965. Class: 3 hours. Credit: 3 semester hours.

**134 — History of Texas.** Survey of Texas history from the beginning to the present time. Class: 3 hours. Credit: 3 semester hours.

**231 — History of the United States.** Survey of United States history to 1865. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

**232 — History of the United States.** Survey of United States history from 1865 to the present. Prerequisite: History 231. Class: 3 hours. Credit: 3 semester hours.

**330 — History of Ideas.** The Judeo-Christian and Greco-Roman elements in the Western intellectual tradition. Class: 3 hours. Credit: 3 semester hours.

**331 — Social and Intellectual History of the United States to 1865.** Life and thought in the United States prior to 1865. Class: 3 hours. Credit: 3 semester hours.

**332 — Social and Intellectual History of the United States Since 1865.**

Life and thought in the United States since 1865. Class: 3 hours. Credit: 3 semester hours.

**333 – History of American Economic Life.** Origin and development of American economic institutions. Class: 3 hours. Credit: 3 semester hours.

**334 – Military History of the United States.** History of American warfare and the development of American military institutions and practices. Class: 3 hours. Credit: 3 semester hours.

**337 – Diplomatic History of the United States.** Historical development of American diplomacy. Class: 3 hours. Credit: 3 semester hours.

**338 – Urban History of the United States.** The origin and development of cities in the United States. Class: 3 hours. Credit: 3 semester hours.

**339 – Historical Research.** Principles and methods of historical research. Class: 3 hours. Credit: 3 semester hours.

**430 – Era of the Renaissance and Reformation.** Western Europe from 1453 to 1610. Class: 3 hours. Credit: 3 semester hours.

**431 – The Old Regime.** Western Europe from 1610 to 1783. Class: 3 hours. Credit: 3 semester hours.

**432 – The French Revolution and Napoleon.** Western Europe from 1783 to 1815. Class: 3 hours. Credit: 3 semester hours.

**433 – Russia and Eastern Europe to 1860.** Russia, Poland, and the Balkans from the period of the Byzantine Empire to 1860. Class: 3 hours. Credit: 3 semester hours.

**434 – Nineteenth Century Europe.** Europe from 1815 to 1914. Class: 3 hours. Credit: 3 semester hours.

**435 – Twentieth Century Europe.** Europe since 1914. Class: 3 hours. Credit: 3 semester hours.

**436 – The American West.** The American West from colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

**437 – The Old South.** The American South from colonial times to the Civil War. Class: 3 hours. Credit: 3 semester hours.

**438 – The New South.** The American South from the Civil War to the present. Class: 3 hours. Credit: 3 semester hours.

**439 – Honors Program.** A tutorial program for honors seniors. Admission by invitation only. Credit: 3 semester hours.

**4311 – Colonial America.** Class: 3 hours. Credit: 3 semester hours.

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4312 – **The American Revolution.** Class: 3 hours. Credit: 3 semester hours.

4313 – **The Age of Jackson.** Class: 3 hours. Credit: 3 semester hours.

4314 – **The American Civil War.** Class: 3 hours. Credit: 3 semester hours.

4315 – **Reconstruction and Industrialization: The United States from 1865 to 1898.** Class: 3 hours. Credit: 3 semester hours.

4316 – **World Power and Reform: The United States from 1898 to 1920.** Class: 3 hours. Credit: 3 semester hours.

4317 – **New Deal and World Leadership: The United States from 1920 to 1940.** Class: 3 hours. Credit: 3 semester hours.

4318 – **Classical Civilization.** Greece and Rome from earliest times to the fall of the Roman Empire in the West. Class: 3 hours. Credit: 3 semester hours.

4319 – **Medieval Civilization.** Western Europe and the Mediterranean area from the late Roman period to 1453. Class: 3 hours. Credit: 3 semester hours.

4321 – **The Far East to 1800.** Japan, China, Indo-China, and India to 1800. Class: 3 hours. Credit: 3 semester hours.

4322 – **The Far East Since 1800.** Japan, China, Indo-China and India since 1800. Class: 3 hours. Credit: 3 semester hours.

4323 – **Latin America to 1810.** Class: 3 hours. Credit: 3 semester hours.

4324 – **Latin America Since 1810.** Class: 3 hours. Credit: 3 semester hours.

4325 – **Tudor and Stuart England.** England from 1485 to 1688. Class: 3 hours. Credit: 3 semester hours.

4326 – **Eighteenth Century England.** England (Great Britain) from 1688 to 1815. Class: 3 hours. Credit: 3 semester hours.

4327 – **Victorian England.** Great Britain from 1815 to 1914. Class: 3 hours. Credit: 3 semester hours.

4328 – **Contemporary America: The United States Since 1940.** Class: 3 hours. Credit: 3 semester hours.

4329 – **Modern European Intellectual History.** An examination of the major European intellectual movements and thinkers from the Renaissance to the present. Class: 3 hours. Credit: 3 semester hours.



**4331 – Russia Since 1860.** The development of modern Russia, from 1860 to the present. Class: 3 hours. Credit: 3 semester hours.

**4332 – Afro-American History to 1865.** The black experience in Africa and in the Western hemisphere prior to emancipation. Class: 3 hours. Credit: 3 semester hours.

**4333 – Afro-American History since 1865.** The black experience toward achieving freedom in the United States. Class: 3 hours. Credit: 3 semester hours.

**4334 – Early National Period.** The United States from 1789 to 1820. Class: 3 hours. Credit: 3 semester hours.

**4335 – Topics in History.** Selected special topics in major areas of history. Course may be repeated for a maximum of six semester hours credit when the topic varies. Class: 3 hours. Credit: 3 semester hours.

**DEPARTMENT OF MODERN LANGUAGES**

*Department Head* – M. LeRoy Ellis. *Associate Professors* – John H. Lockhart, Victoria E. Urbano. *Assistant Professors* – William F. Adams, Jr., Nathan T. Francis, Llewella J. Lusk, Stanley J. McCord, Antonio de J. Pineda, Genevieve Smith, *Instructor* – Richard A. Gagne. *Departmental Secretary* – Mrs. Morfydd Timmerman.

The language requirement for a Bachelor of Arts degree is the completion of the 232 course.

Students who plan to do graduate work are advised to study two foreign languages while earning the Bachelor of Arts degree.

**Placement and Advanced Status.** A student who has had two or more years of a language in high school and wishes to continue the study of the same language on the college level will be placed according to his proficiency in the language, the proficiency being objectively determined by a CEEB language score submitted. A student not submitting a CEEB score will be required to take the CEEB Achievement Test (not the Supplementary Achievement Test) in the language either during the summer orientation program or at a designated time just prior to registration. A student with only one year of high school language may submit CEEB Achievement Test scores for advanced placement in that language; otherwise, he will be placed in language 141, for which he will receive credit.

All students are urged to take the CEEB language achievement test in high school as an additional fee will be required if the test is taken in one of the Summer Registration Conferences.

A student whose score is high enough will be placed in intermediate or advanced courses; a student who cannot place in the intermediate courses will be placed in one of the accelerated language courses 143, for which he will receive credit. A student with two or more years of a language in high school may register for a language course 141, but will not receive credit for that course. A student placing in an intermediate or advanced course will receive credit for the 142 course and intermediate courses circumvented, up to a maximum of 10 semester hours, provided that he takes the next higher course and earns a grade of "C" or better.

Americans or foreign citizens who speak a foreign language but have had no formal training in the language will be treated as any other student with no formal training in the language.

Students from foreign countries who have had formal (*i.e.*, secondary school or college level) training in their native language may not register for and will not be given credit for the elementary and intermediate courses in that language but may register for any course above the intermediate level for credit.

**Advanced Placement Examination**

(See *Admissions*, this catalog)

**Bachelor of Arts – French Major or Spanish Major**

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

**A. General Requirements**

Freshman English – six semester hours

Literature – six semester hours

\*Mathematics – six semester hours

\*Science – laboratory – eight semester hours

History 231-232 – United States History

Government 231-232 – State and National

Physical Education or Band – four semesters

**B. Major**

French

French 231-232 – Reading, Composition, Conversation

French 321 – French Conversation

French 337 – Advanced Grammar and Composition

French 338 – French Phonetics

French 411 – Techniques of Teaching Foreign Languages

Advanced French – nine semester hours

Spanish

Spanish 231-232 – Reading, Composition, Conversation

Spanish 321 – Spanish Conversation

Spanish 335 – Advanced Composition

Spanish 411 – Techniques of Teaching Foreign Languages

Advanced Spanish – twelve semester hours

**C. Minor**

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

**D. Electives**

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

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

## Suggested Program Of Study

First Year	Second Year
*Maj Lang 141-142—Elementary . . .8	Maj Lang 231, 232—Intermediate . . .6
Eng—Composition . . . . .6	Eng—Literature . . . . .6
**Mth . . . . .6	His 231, 232—United States . . . .6
HPE-Activity . . . . .2	**Sci . . . . .8
Elec . . . . .12	HPE . . . . .4
—	Elec . . . . .2
34	32
Third Year	Fourth Year
Maj Lang: Fre 321, 337, 338, 411 . . . . .9	Maj Lang (Adv) . . . . .6
Fre (Adv) . . . . .3	Elec (incl. minor) . . . . .24
or	30
Maj Lang: Spa 321, 335, 411 . . . .6	
Spa (Adv) . . . . .6	
Gov 231-232 . . . . .6	
Elec (incl. minor) . . . . .12	
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30	

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

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

## Teacher Certification — French, German, Spanish

Students wishing to obtain the Bachelor of Arts degree in French or Spanish and at the same time certify for a provisional certificate-secondary with a teaching field in French or Spanish, must include in their degree program the following:

1. An approved twenty-four hour additional teaching field (See School of Education section of this catalog for a list of approved teaching fields).
2. Education 331, 332, 338, 438, and 462.
3. Sufficient approved electives to complete a total of 132 semester hours.

Students wishing to certify for a provisional certificate-secondary with a teaching field in German may do so by completing the following courses:

German 231-232—Reading, Composition, Conversation  
 German 411—Techniques of Teaching Foreign Languages  
 Advanced German—seventeen semester hours

**French (Fre)**

**141—Elementary French.** Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**142—Elementary French.** Prerequisite: Fre 141 or equivalent determined by examination. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**143—First Year French.** Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**231, 232—Reading, Composition, Conversation.** Prerequisite for Fre 231: Fre 142 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

**321—French Conversation.** Required of majors and of students desiring teacher certification in French. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Fre 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Fre 231 or equivalent. Class: 2 hours. Credit: 2 semester hours.

**331—Contemporary French Drama.** A study of representative plays of the twentieth century with emphasis on the theater of post World War II. Dramatists studied include Giraudoux, Sartre, Camus, Ionesco, Beckett, Arrabal. Prerequisite: Fre 232. Class: 3 hours. Credit: 3 semester hours.

**332—Contemporary French Novel.** A study of representative novels of the twentieth century, including such writers as Gide, Mauriac, Sartre, Camus, and the masters of the New Novel. Prerequisite: Fre 232. Class: 3 hours. Credit: 3 semester hours.

**337—Advanced Grammar and Composition.** A thorough study of French grammar with extensive written composition. Secondary stress on pronunciation. Prerequisite: Fre 232. Class: 3 hours. Laboratory. Credit: 3 semester hours.

**338—French Phonetics.** A study of the French sound system. Laboratory exercises to improve pronunciation. Prerequisite: Fre 232. Class: 3 hours. Laboratory. Credit: 3 semester hours.

**339—French Culture and Civilization.** A survey of the intellectual, philosophic, political and social development of France. Readings of significant works in these areas. Lectures, readings, oral and written reports. Prerequisite: French 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

**411—Techniques of Teaching Foreign Languages.** A study of methods and materials for teaching foreign languages. Open to all language majors and students desiring teacher certification in French, German and Spanish. Prerequisite: 6 advanced hours in a modern language. Class: 1 hour. Credit: 1 semester hour.

**431—The Nineteenth Century French Novel.** Prerequisite: 6 hours of advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

**432—Nineteenth Century French Drama.** Prerequisite: 6 hours of advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

**433—17th Century French Literature.** A study of representative plays of Corneille, Racine, and Moliere, with secondary stress on the prose and poetry of the period. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

**435—Survey of French Literature through the 18th Century.** Readings from significant works. Lectures, readings, oral and written reports. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

**436—Survey of French Literature Since the 18th Century.** Readings from significant works. Lectures, readings, oral and written reports. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

### German (Ger)

**141—Elementary German.** Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**142—Elementary German.** Prerequisite: Ger 141 or equivalent determined by examination. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**143—First Year German.** Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**230—Technical Translation.** Translation of technical textbook and selected articles in technical and scientific journals. (Ger 230 with a prerequisite of Ger 142 does not meet the requirement for a BA degree. Science majors working towards a BA degree may substitute Ger 230 for Ger 231.) Prerequisite: Ger 142. Class: 3 hours. Credit: 3 semester hours.

**231, 232—Reading, Composition, Conversation.** Prerequisite for Ger 231:

Ger 142 or equivalent. Class: 3 hours. Credit: 3 semester hours per course. (Note: Science majors working towards a Bachelor of Arts degree may substitute Ger 230 for Ger 231.)

**321—German Conversation.** Required of students desiring teacher certification in German. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Ger 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Ger 231 or equivalent. Class: 2 hours. Credit: 2 semester hours.

**335—Advanced Composition.** Prerequisite: Ger 232. Class: 3 hours. Credit: 3 semester hours.

**337—German Culture and Civilization.** A survey of the intellectual, philosophic, political, and social development of Germany. Readings of significant works in these areas. Lectures, readings, oral and written reports. Prerequisite: Ger 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

**338—The German Novelle.** A study of the development of the German *Novelle*. Lectures, reading of selected works, oral and written reports. Prerequisite: Ger 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

**411—Techniques of Teaching Foreign Languages.** A study of methods and materials for teaching foreign languages. Open to all language majors and students desiring teacher certification in French, German, and Spanish. Prerequisite: 6 advanced hours in a modern foreign language. Class: 1 hour. Credit: 1 semester hour.

**431—German Literature to the Mid-eighteenth Century.** A study of major literary movements, authors, and works from the ninth to the mid-eighteenth century. Lectures, readings, oral and written reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

**432—German Literature Since the Mid-eighteenth Century.** A study of major literary movements, authors, and works from the mid-eighteenth century to the present. Lectures, readings, oral and written reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

**434—The History of the German Language.** A study of the development of modern German from its Indo-European sources. Lectures, readings, reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

**435—Directed Readings in German Literature.** Intensive readings in the works of an author, a genre, or a literary movement. Discussion, oral and written reports. Approval of department head required. Prerequisite: Ger 232 or equivalent, approval of department head and instructor. Class: 1 to 3 hours. Credit: 1 to 3 hours.

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**Spanish (Spa)**

**141—Elementary Spanish.** Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**142—Elementary Spanish.** Prerequisite: Spa 141 or equivalent determined by examination. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**143—First Year Spanish.** Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**231, 232—Reading, Composition, Conversation.** Prerequisite for Spa 231: Spa 142 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

**321—Spanish Conversation.** Required of majors and of students desiring teacher certification in Spanish. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Spa 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Spa 231 or equivalent. Class: 2 hours. Credit: 2 semester hours.

**331—Spanish-American Culture and Civilization.** A study of the geography, history, government, art and psychology of Spanish-America. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

**334—Survey of Spanish-American Literature.** A study of outstanding writers and their works. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

**335—Advanced Composition.** Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

**337—Contemporary Spanish-American Short Story.** The authors chosen are among the best interpreters of the spiritual and intellectual climate of Spanish America. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

**338—Contemporary Theater of Spain.** Emphasis will be given to the theater of Lorca, Casona, Buero Vallejo, Calvo Sotelo, Alfonso Sastre and other major authors of today. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

**411—Techniques of Teaching Foreign Languages.** A study of methods and materials for teaching foreign languages. Open to all language majors and students desiring teacher certification in French, German, and Spanish.



Prerequisite: 6 advanced hours in a modern foreign language. Class: 1 hour. Credit: 1 semester hour.

**431—Contemporary Spanish Literature.** Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

**432—Development of Spanish Novel.** Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

**433—Survey of Spanish Literature Through the 17th Century.** A study of the most significant works of Spanish literature through the seventeenth century. Readings from *El Cid*, *El Conde Lucanor*, *La Celestina* poetry of the Renaissance, Cervantes' prose, and the Golden Age drama. Lectures, readings, oral and written reports. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

**434—Survey of Spanish Literature Since the 17th Century.** A study of the most significant works of Spanish literature from the eighteenth century through the twentieth century. Readings with emphasis on the drama and the novel. Lectures, readings, oral and written reports. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

**436—Spanish American Novel.** Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

**437—Drama and Poetry of Spanish America.** Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF SOCIOLOGY

*Department Head* – Delbert L. Gibson. *Professors* – Claude B. Boren, John M. Ellis. *Associate Professors* – George B. Wall, George A. Woodward. *Assistant Professors* – Charles T. Butler, Raymond L. Drenan, Bernard J. Giarratano. *Instructors* – David M. Ashworth, Melvin R. Brown, Billy J. Lutes, Vernice M. Monroe, Paul B. Myers, Wayne C. Seelbach. *Secretary* – Sandy French.

## Bachelor of Arts – Sociology Major

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

- A. General Requirements.  
 Freshman English – six semester hours.  
 Literature – six semester hours.  
 Math-Science – 4 courses in math or laboratory science, with no more than 3 courses in math or 3 in science.  
 Completion of the 232 course in a foreign language.  
 Government 231-232 – State and National.  
 History 231-232 – United States.  
 Physical Education or Band – four semesters.
- B. Major – 30 semester hours, but not more than 36 semester hours.  
 Sociology 131 – Introduction to Sociology.  
 Sociology 438 – Research Methods.  
 Sociology 439 – Social Theory.
- C. Minor – 18 semester hours, but not more than 24 semester hours.  
 An approved minor of eighteen semester hours, including at least six advanced semester hours.
- D. Electives.  
 Sufficient approved electives to complete a total of 126 semester hours.

## Suggested Program of Study

First Year	Second Year
Eng–Composition . . . . .6	Eng–Literature . . . . .6
Liberal Arts Elective . . . . .6	His 231, 232–United States . . . . .6
Language . . . . .8	Language . . . . .6
Mth . . . . .6	Science . . . . .8
Soc . . . . .3-6	Soc . . . . .3
HPE–Activity . . . . .2	Elective or minor field . . . . .3
31-34	HPE–Activity . . . . .4

Third Year	Fourth Year
Gov 231, 232—St and Nat .....	Soc 438—Research Methods .....
6	3
Soc .....	Soc 439—Social Theory .....
6-9	3
Minor field .....	Minor Field .....
6-9	6-12
Electives .....	Electives .....
6-9	3-9
30	Soc .....
	6-9
	Total—126 semester hours .....
	30

### Anthropology (Ant)

**231 — Introduction to Anthropology.** The nature and the development of man as a biological organism and of culture as his distinctive creation and possession. Class: 3 hours. Credit: 3 semester hours.

**233 — Ethnology.** Analysis of culture and its development. Class: 3 hours. Credit: 3 semester hours.

**330 — Peoples and Cultures.** Intensive analysis of designated peoples and their cultures. Prerequisite: Ant 231 or Ant 233. Class: 3 hours. Credit: 3 semester hours. The course may be repeated for credit when the designated topics are varied.

### Philosophy (Phl)

**131 — Introduction to Philosophy.** General characteristics of philosophy as a field of knowledge and as a method of inquiry. Class: 3 hours. Credit: 3 semester hours.

**232 — Logic.** Nature and methods of correct reasoning; deductive and inductive proof; logical fallacies. Class: 3 hours. Credit: 3 semester hours.

**233 — History of Philosophy, I, Ancient and Medieval Philosophy.** The development of Western philosophic thought from the inception in Greece to the end of the Medieval period. Class: 3 hours. Credit: 3 semester hours.

**234 — History of Philosophy, II, Modern Philosophy.** The development of philosophic thought from the Renaissance through the nineteenth century; emphasis upon philosophers of the seventeenth and eighteenth centuries. Class: 3 hours. Credit: 3 semester hours.

**330 — Philosophy of Science.** A critical analysis of the basic concepts and procedures of science. Prerequisite: Phl 131. Class: 3 hours. Credit: 3 semester hours.

**331 — American Philosophy.** Major philosophies and philosophers of American society from the colonial period to the twentieth century. Class: 3 hours. Credit: 3 semester hours.

**332 – Ethics.** A critical analysis of the concepts, methodology, and theories of ethics. Class: 3 hours. Credit: 3 semester hours.

### **Social Welfare (Swf)**

**231 – Introduction to Social Welfare.** History and philosophy of social welfare and social work. Class: 3 hours. Credit: 3 semester hours.

**332 – Behavioral Foundations.** Analysis of human behavior and development as derived from the social processes and institutions of man. Class: 3 hours. Credit: 3 semester hours.

**333 – Methods of Intervention.** Methods of intervention for problem solving as employed by the social work profession. Class: 3 hours. Credit: 3 semester hours.

**334 – Social Welfare: Advanced.** Program and process of social welfare within American society. Class: 3 hours. Credit: 3 semester hours.

**461 – Social Welfare Field Experience.** Work experience in a community agency under supervision. Consent of instructor required for registration. Class: 4 hours daily for two days a week plus one hour of seminar instruction. Credit: 3 semester hours. May be repeated once for credit.

**432 – Seminar.** Current topics in social work. Class: 3 hours. Credit: 3 semester hours. (May be repeated for credit when the topic is varied.)

### **Sociology (Soc)**

**131 – Introduction to Sociology.** Sociology as a field of knowledge. Basic terms, concepts, theories of sociology applied to an explanation of human behavior, personality, groups, and society. Class: 3 hours. Credit: 3 semester hours.

**132 – Social Problems.** Attributes of society and of persons which are subject to disapproval; the causes, extent, and consequences of these problems; programs and prospects of their resolution. Class: 3 hours. Credit: 3 semester hours.

**230 – Urban Problems.** The study of contemporary urban problems in America. Attention is given to problems of poverty, transportation, disorganization, and city planning and reconstruction. Class: 3 hours. Credit: 3 semester hours.

**231 – Deviant Behavior.** The study of the major areas of social maladjustment from the standpoint of the processes underlying social and individual disorganization, such as alcoholism, illegitimacy, suicide, drug addiction and other personal deviations. Class: 3 hours. Credit: 3 semester hours.

**233 – Marriage and the Family.** Characteristics of and problems within

courtship, marriage, and family in American society. Class: 3 hours. Credit: 3 semester hours.

**330 – American Society.** Description and analysis of structural and functional characteristics of American society and culture. Class: 3 hours. Credit: 3 semester hours.

**332 – Social Psychology.** Social and cultural influences upon individual behavior and personality; inter-personal and inter-group relations and collective behavior. Class: 3 hours. Credit: 3 semester hours.

**333 – Urban Sociology.** Social and ecological processes in the urbanization movement; characteristics of urban society and culture. Class: 3 hours. Credit: 3 semester hours.

**334 – Industrial Sociology.** The social structure of industry and of the trade union; inter-relationships of industry, union, and society; personal, social, and cultural factors in industrial organization and operation. Class: 3 hours. Credit: 3 semester hours.

**335 – The Family.** Structural and functional characteristics of the family as a basic institution. Class: 3 hours. Credit: 3 semester hours.

**336 – Race Relations.** Racial and cultural minority groups within society; causes and consequences of prejudice and discrimination and of changes in the relationship between minority and dominant groups. Class: 3 hours. Credit: 3 semester hours.

**338 – Criminology.** Extent of and explanation for crime in American society; agencies dealing with crime and criminals; programs for control and prevention of crime and delinquency. Class: 3 hours. Credit: 3 semester hours.

**339 – Juvenile Delinquency.** The nature, incidence, and explanations for juvenile delinquency in American society; agencies and programs for prevention and control of delinquency. Class: 3 hours. Credit: 3 semester hours.

**430 – Seminar in Sociology.** Basic concepts and general principles of sociology as applied to the study of selected topics. Class: 3 hours. Credit: 3 semester hours. The course may be repeated for credit when the designated topics are varied.

**431 – Population Problems.** The growth and composition of population with emphasis on social, economic, and political problems. Class: 3 hours. Credit: 3 semester hours.

**436 – Social Movements.** Historical, structural, and tactical considerations in the development of major systems of belief and practice within society; political movements in American society. Class: 3 hours. Credit: 3 semester hours.

**437 – Public Opinion.** Factors and processes in formation and change of public opinion; influence of the mass media of communication; analysis and evaluation of propaganda. Class: 3 hours. Credit: 3 semester hours.

**438 – Research Methods.** Techniques of scientific research in sociology. Class: 3 hours. Credit: 3 semester hours.

**439 – Social Theory.** A survey of major social and sociological theories. Class: 3 hours. Credit: 3 semester hours.

**COURSES IN BIBLE AND RELIGIOUS EDUCATION**

*Instructors* – Jim Chatham, Charles Eckert, Joseph Goss, Allen Hudgens, B. H. McCoy, John M. Purcell, Earl Sheffield, James A. Wray.

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

**Bible (Bib)**

**131 – Survey of the Old Testament.** A critical study of the Old Testament and its relevance to Western culture. Class: 3 hours. Credit: 3 semester hours.

**132 – Survey of the New Testament.** A critical study of the New Testament, its historical context, and the beginnings of the Christian Church. Class: 3 hours. Credit: 3 semester hours.

**133 – New Testament: Gospels.** A critical study of the Gospels, the person and work of Jesus of Nazareth. Class: 3 hours. Credit: 3 semester hours.

**134 – New Testament: Paul.** A study of the life and ministry of St. Paul and the major portion of the Pauline letters. Class: 3 hours. Credit: 3 semester hours.

**135 – Introduction to Christian Thought.** A course designed to acquaint the student with the major concepts of the Christian faith: to explore their Biblical basis and their relevance for the present day. Class: 3 hours. Credit: 3 semester hours.

**212 – Current Issues in Religion.** An interpretation of religious events through the reading of current religious and secular periodicals. Class: 1 hour. Credit: 1 semester hour.

**231 – Church History.** The history of the Christian Church, including the General Councils, the missionary movements, the Reformation, and the transition to the modern scene. Class: 3 hours. Credit: 3 semester hours.

**232 – Christian Ethics.** The relation of the Christian Faith to daily living, with particular emphasis on vocation, courtship and marriage, the person, and society. Class: 3 hours. Credit: 3 semester hours.

**233 – Old Testament: Prophets.** A study of the major and minor prophets and the role they played in the development of the religion of Israel. Class: 3 hours. Credit: 3 semester hours.

**331 – Philosophy of Religion.** Planned to describe the points of view in religious philosophy which are of vigorous contemporary influence, and to analyze the basic issues between them, including a study of religion as such,

its historical development, and some emphasis on major contemporary religions. Class: 3 hours. Credit: 3 semester hours.

**332 – Major Themes of the Bible.** Planned to present Biblical concepts of God, man, history, covenant, prophecy, vocation, and related ideas. Class: 3 hours. Credit: 3 semester hours.



# SCHOOL OF SCIENCES

## Departments

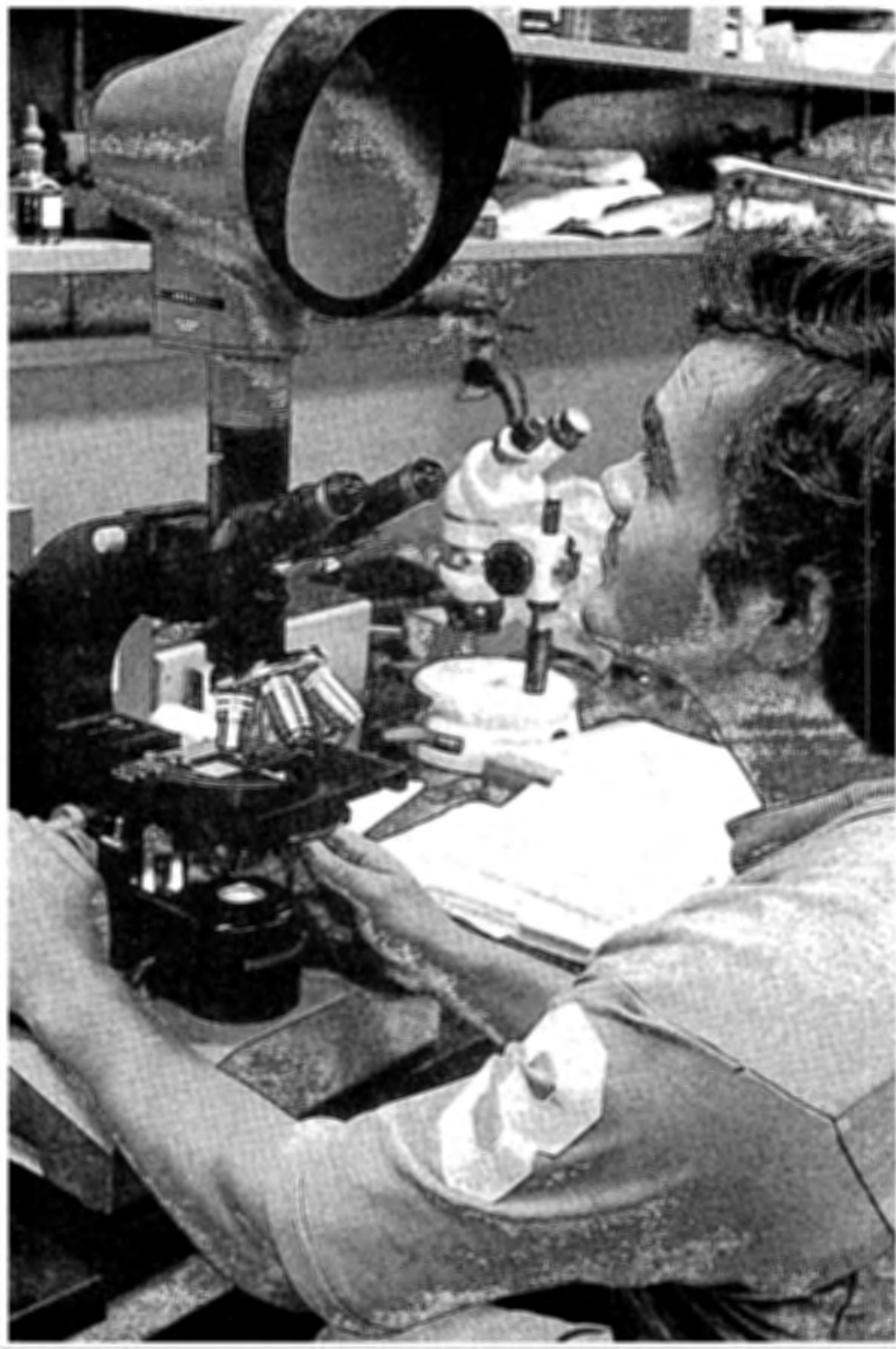
**Biology**

**Chemistry**

**Geology**

**Physics**

**Psychology**



## School of Sciences

Edwin S. Hayes, Ph.D., Dean

The School of Sciences, established by the university in 1966, comprises the departments of Biology, Chemistry, Geology, Physics and Psychology. Prior to this reorganization, degrees had been granted in these areas by the School of Arts and Sciences, formed in 1952.

The Bachelor of Science degree is granted in Biology, Chemistry, Geology, Physics, Psychology, Medical Technology, Oceanographic Technology, and Environmental Science. The Bachelor of Arts degree is offered in Biology, Chemistry, Geology, and Psychology.

Information concerning graduate programs in Biology and Chemistry may be found in the Graduate Bulletin.

### General Statement

Success in scientific pursuits requires an inquiring mind, thorough grounding in fundamental theory, and manipulative skill. The ultimate of success is attained when these qualities are developed against a broad background of liberal education.

Through a specialized curriculum, the student prepares himself for a career in business or industry, government service, teaching, research, advanced study, and other professional fields.

Pre-professional training geared to the biological sciences curriculum, prepares the student for careers in nursing, medical technology, medicine, dentistry, pharmacy, physical therapy, and veterinary medicine.

The pre-medical and pre-dental curricula have been programmed to satisfy requirements for admission to medical and dental schools. Completion of suggested curriculum leads to the Bachelor of Science in Biology degree from Lamar University after successful completion of one year in such a professional college.

### Degree Offerings

**Bachelor of Arts** with majors in the following fields:

Biology	Geology
Chemistry	Psychology

**Bachelor of Science** with majors in the following fields:

Biology	Oceanographic Technology
Chemistry	Medical Technology
Environmental Science	Physics
Geology	Psychology

## DEPARTMENT OF BIOLOGY

*Department Head*—Michael E. Warren. *Professors*—Edwin S. Hayes, Russell J. Long, W. Russell Smith, Henry T. Waddell. *Associate Professors*—William T. Fitzgerald, Jed J. Ramsey, Charles P. Turco. *Assistant Professors*—George A. Bryan, Jr., Gilbert W. Gatlin, Richard C. Harrel, J. Leon McGraw, Philip B. Robertson, William C. Runnels. *Instructor*—Mrs. Karen Olson.

## Program of Study

## Bachelor of Science—Biology Major

First Semester	Second Semester
Eng—Composition . . . . .3	Eng—Composition . . . . .3
Bio 141—General . . . . .4	Bio 142—General . . . . .4
Chm 141—General . . . . .4	Chm 142—General . . . . .4
Mth 134—Algebra . . . . .3	Mth 133—Trigonometry . . . . .3
Elective . . . . .3	Elective . . . . .3
HPE—Activity . . . . .1	HPE—Activity . . . . .1
18	18
Second Year	Third Year
Eng—Literature . . . . .6	Bio—Electives . . . . .16
Bio—Elective . . . . .8	Chm 343—Quantitative . . . . .4
Chm 341, 342—Organic . . . . .8	Chm 443—Biological . . . . .4
Phy 141, 142—General . . . . .8	Gov 231, 232—State and Natl . . . . .6
His 231, 232—American . . . . .6	Electives . . . . .6
HPE—Activity . . . . .2	36
38	
Fourth Year	
Bio 416, 417—Bio Lit . . . . .2	
Bio—Electives . . . . .8	
Electives . . . . .20	
30	

## Pre-Medical and Pre-Dental Recommended Program

First Year	Second Year
Same as for First Year of B.S. in Biology	Eng—Literature . . . . .6
	Bio 240—Comp Anatomy . . . . .4
	Bio 243, 244—Microbiology . . . . .8
	Chm 341, 342—Organic . . . . .8
	His 231, 232—American . . . . .6
	Mth 1381—Analyt Geom . . . . .3
	HPE—Activity . . . . .2
	37

Third Year	Fourth Year
Bio 341—Histology . . . . .4	Bio 416, 417—Bio Literature . . . . .2
Bio 342—Embryology . . . . .4	Bio 441—Parasitology . . . . .4
Bio 344—Adv Physiology . . . . .4	Bio 447—Cellular . . . . .4
Chm 343—Quantitative . . . . .4	Bio 347—Genetics . . . . .4
Chm 443—Biological . . . . .4	Electives . . . . .19
Phy 141, 142—General . . . . .8	
Gov 231, 232—State and Natl . . . . .6	33
34	

Most medical and dental schools require three years or more of pre-professional training, and students may apply for entrance to the next class of such schools during their third or fourth year. Students who complete three years (minimum 100 semester hours) of the program may, after satisfactory completion of the first year in a medical or dental school, apply for the degree of Bachelor of Science-Biology. Application for the degree under this plan must be to the Registrar by June 15 of the year in which the degree is to be conferred.

#### Bachelor of Science—Medical Technology

First Year	Second Year
Same as for First Year of B.S. in Biology	Eng—Literature . . . . .6
	Bio 243-244—Microbiology . . . . .8
	Chm 243—Organic . . . . .4
	Chm 244—Physiological . . . . .4
	Phy 141—Mechanics . . . . .4
	Phy 142—Electricity, etc. . . . .4
	Gov 231-232—State and Natl . . . . .6
	HPE—Activity . . . . .2
	38
30	

#### Fourth Year

The student spends twelve consecutive months in training at a hospital laboratory approved for teaching by the Council on Medical Education and Hospitals of the American Medical Association. After satisfactorily completing this training, attested to by a transcript of performance in the clinical laboratory, the student is awarded the degree of Bachelor of Science-Medical Technology. Full details of approved laboratories may be obtained by writing to the American Society of Clinical Pathologists, Board of Schools, 710 South Wolcott, Chicago, Illinois 60612.

The three years of study shown will fulfill the requirements of the Registry.

**Professional Nurse Program**

Two years of training in an approved hospital nursing school preceded by courses shown in this program of study qualifies a student to take the examination for becoming a registered nurse.

First Year	
First Semester	Second Semester
Eng—Composition . . . . .	Eng—Composition . . . . .
Bio 133—Anat and Physiol . . . . .	Bio 134—Anat and Physiol . . . . .
Chm 143—Introductory . . . . .	Bio 245—Microbiology . . . . .
Psy 131—Intr Human Behavior . . . . .	HEc 138—Prin of Nutrition . . . . .
Soc 131—Introduction . . . . .	Psy 234—Child Psychology . . . . .
HPE—Activity . . . . .	HPE—Activity . . . . .
17	17

**Bachelor of Science in Nursing Program**

The following two year program has been recommended for the student who plans to get a degree in nursing. For specific information consult the catalog of the college where the degree is to be given, and plan work at Lamar accordingly.

First Year	Second Year
Eng—Composition . . . . .	Bio 133, 134—Anat & Physiology . . . . .
Bio 141, 142—General . . . . .	Bio 245—Microbiology . . . . .
Chm 143, 144—Introductory . . . . .	Eng—Literature . . . . .
Soc 131—Introduction . . . . .	His 231, 232—United States . . . . .
Psy 131—Intr Human Behavior . . . . .	Gov 231, 232—State and Natl . . . . .
Psy 234—Child Psychology . . . . .	Psy 241—Intr Stat Mthds . . . . .
HEc 138—Prin of Nutrition . . . . .	Soc 334—Industrial . . . . .
HPE—Activity . . . . .	HPE—Activity . . . . .
36	37

**Pharmacy**

First Year	Second Year
Bio 141, 142—General . . . . .	Chm 341, 342—Organic . . . . .
Chm 141, 142—General . . . . .	Eco 133—Principles . . . . .
Eng—Composition . . . . .	Eng—Literature . . . . .
His 231, 232—United States . . . . .	Gov 231, 232—State and Natl . . . . .
Mth 133, 134—Trig, Alg . . . . .	Phy 141, 142—General . . . . .
HPE—Activity . . . . .	HPE—Activity . . . . .
36	36

All colleges of pharmacy have a five year program, two pre-professional and three professional years. Students following the plan outlined above will be admitted to the first professional year of many colleges of pharmacy, including those at The University of Texas and The University of Houston. Consult the catalog of school of choice for specific requirements.

**Physical Therapy**

First Year	Second Year
Same as for First Year of B.S. in Biology. (Chm 143 and 144 recommended)	Eng—Literature . . . . .6 Bio 240—Comp Anatomy . . . . .4 Bio 347—Genetics . . . . .4 His 231, 232—American . . . . .6 Psy 131—Intr Human Behavior . . . . .3 Psy 234—Child Psychology . . . . .3 Soc 131—Introduction . . . . .3 HPE—Activity . . . . .2
<b>Third Year</b>	
Gov 231, 232—State and Natl . . . . .6 Phy 141, 142—General . . . . .8 Soc 132—Social Problems . . . . .3 Electives . . . . .15	31
32	

The program outlined above will prepare the student for admission in a School of Physical Therapy such as that of The University of Texas Medical Branch at Galveston. Upon completion of the fourth year there, the student is awarded by that institution the B.S. in Physical Therapy and a Certificate of Proficiency. Consult the professional school of your choice for specific admission requirements.

**Veterinary Medicine**

First Year	Second Year
Eng—Composition . . . . .6 Bio 141, 142—General . . . . .8 Chm 141, 142—General . . . . .8 His 231, 232—United States . . . . .6 Mth 133—Trigonometry . . . . .3 Mth 134—Algebra . . . . .3 HPE—Activity . . . . .2	Eng—Literature . . . . .6 Bio 345—General Botany . . . . .4 Chm 341, 342—Organic . . . . .8 Gov 231, 232—State and Natl . . . . .6 Phy 141—Mechanics . . . . .4 Phy 142—Electricity, etc . . . . .4 Elective . . . . .3 HPE—Activity . . . . .2
36	37

**Bachelor of Science—Environmental Science**

First Year	
Fall Semester	Spring Semester
Bio 141—General . . . . .4 Chm 141—General . . . . .4 Eng—Composition . . . . .3 Mth 133 (1381)—Trig (Analyt Geom) . . . . .3 His 231—American . . . . .3 HPE—Activity . . . . .1	Bio 142—General . . . . .4 Chm 142—General . . . . .4 Eng—Composition . . . . .3 Mth 134 (1391)—Alg (Calc I) . . . . .3 His 232—American . . . . .3 HPE—Activity . . . . .1
18	18

## Second Year

Fall Semester	Spring Semester
Bio 243—Microbiology . . . . .4	Bio 244—Microbiology . . . . .4
Chm 343—Quant Analysis . . . . .4	Eng—Literature . . . . .3
Eng—Literature . . . . .3	Phy 142—General . . . . .4
Mth 1381 (2311)—An Geom (Calc II) . . . . .3	HPE—Activity . . . . .1
Phy 141—General . . . . .4	Electives . . . . .6
HPE—Activity . . . . .1	18
19	

## Third Year

Fall Semester	Spring Semester
Bio 446—Terrestrial Ecology . . . . .4	Chm 342 (244)—Organic (Phys) . . .4
Chm 341 (243)—Organic . . . . .4	Chm 334—Air Analysis . . . . .3
CE 331—Env Sci . . . . .3	Gov 232—State and Natl . . . . .3
Eng 3311—Tech Writing . . . . .3	Electives . . . . .7
Gov 231—State and Natl . . . . .3	17
17	

## Fourth Year

Fall Semester	Spring Semester
Bio 443—Limnology . . . . .4	Chm 443—Biochemistry . . . . .4
Chm 410—Sem Env Sci . . . . .1	CE 433—Env Hlth Egr . . . . .3
Chm 434—Air Poll Surveys . . . . .3	Electives . . . . .8
Electives . . . . .7	15
15	

Completion of this program will qualify graduates for governmental and industrial positions concerned with the prevention, detection and abatement of pollution detrimental to the quality of the environment. Interdisciplinary by design, the curriculum affords latitude in the selection of electives, thus providing for the enhancement of competence in fields of primary interest.

## Biology (Bio)

**130—Fundamentals of Modern Biology.** Basic biological concepts relevant to human welfare and the quality of life. Emphasis on approach to social problems through environmental and population control, conservation of natural resources, and the genetic basis for human betterment. A student may not receive credit for Bio 130 and Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

**133-134—Human Anatomy and Physiology.** Human anatomy and physiology with special emphasis on problems in nursing. Laboratory includes



experiments in vertebrate physiology, and the dissection of a mammal. Class: 3 hours. Laboratory: 2 hours. Credit: 3 semester hours for each semester.

**141-142—General Biology.** A brief survey of living things; a comparison of structural and functional adaptations for fundamental life processes; principles of reproduction, inheritance, development and phylogenetic relationships; interactions of organisms with the environment. Credit for first semester prerequisite for enrollment in second. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours per semester.

**240—Comparative Anatomy of the Vertebrates.** Comparative anatomy presented from systemic viewpoint. Designed primarily for biology majors, pre-medical, and pre-dental students. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**243-244—Microbiology.** Micro-organisms with emphasis on bacteria in soil, water, milk, and sewage. Laboratory includes the isolation, cultivation, and identification of common bacteria. The last half of the second semester is devoted to the study of bacteria, rickettsiae and viruses in relation to disease; theories of antigen-antibody responses; and the immunization of a laboratory animal. Recommended for biology majors, pre-medical, pre-dental, and medical technology students. Credit for first semester prerequisite for enrollment in second. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours per semester.

**245—Introductory Microbiology.** Micro-organisms with emphasis on those of medical significance. Special consideration is given to problems of personal and community health. Laboratory includes the sterilization of culture media and glassware, cultivation and study of common bacteria. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**330—Applied Anatomy and Kinesiology.** Structural organization of the human body and the analysis of human motion. Includes skeletal system, attachments and actions of muscles. Emphasis is placed on the mechanics of support and of motion. Prerequisite: Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

**332—Anatomy and Physiology of Speech and Hearing.** Human structure and function with special emphasis on respiration and hearing. Designed for majors in speech and hearing pathology. Prerequisite: Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

**341—Histology and Histological Technique.** Study of normal tissues of vertebrates. Technical phase of the course includes fixation and staining of tissues, paraffin sections, conventional mounting. Designed for biology majors, pre-medical, pre-dental, and medical technology students. Prerequisite: Bio 141-142 and 240 or 243-244. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**342—Embryology.** Comparative study of the development of vertebrates, including meiosis, fertilization, cleavage, and early embryology. Detailed

organogeny of the chick. Recommended for biology majors, pre-medical and pre-dental students. Prerequisite: Bio 141-142, 240. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**343—Introduction to Medical Technology.** Survey of procedures used in clinical laboratories, including practice in hematology, serology, and urinalysis. Designed for medical technology students. Prerequisite: Bio 141-142, 243-244. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**344—Advanced Physiology.** Principles of general physiology, with special reference to cell metabolism, muscle-nerve relations, digestive, circulatory, respiratory, excretory, nervous, and endocrine systems. Designed primarily for biology majors, pre-medical and pre-dental students. Prerequisite: Bio 141-142, 240 or 243-244 and Chm 243-244 or Chm 341-342. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**345—General Botany.** Introduction to plant structure and functions with emphasis on the seed plants. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**346—Invertebrate Zoology.** Detailed study of the invertebrate phyla. Classification, natural history, phylogenetic relationships, and economic importance. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**347—Genetics.** General principles of heredity, including human inheritance. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**416-417—Current Biological Literature.** Reports by advanced students on research published in current professional periodicals. Required for biology majors. Recommended for pre-medical and pre-dental students. Prerequisite: 16 semester hours of biology. Class: 1 hour. Credit: 1 semester hour per semester.

**430—Undergraduate Problems.** Designed to afford opportunity for senior students to pursue individual interests in the investigation of problems in biology. Research to be directed by staff, and approval of department head required. Credit: 3 semester hours.

**440—Ornithology.** Natural history, taxonomy and ecology of birds. Lecture: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**441—Parasitology.** Study of animal parasites including morphology, life history, and host-parasite relationships. Special emphasis on helminthic parasites of man and other vertebrates. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**442—Entomology.** Physiology, morphology, life history, and control of insects, with emphasis on collection, identification, and classification.

Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**443—Limnology.** Fauna, flora, ecology and productivity of fresh water. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**444—Vertebrate Natural History.** Fish, amphibians, reptiles, birds, and mammals, with emphasis on collection, identification, and natural history of area forms. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**445—Marine Biology.** Ecology of marine plants and animals. Emphasis on habitats and community relationships. Recommended for biology majors. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**446—Terrestrial Ecology.** A study of the interrelationships of terrestrial organisms and their environment. Laboratory stresses quantitative approach to both field and experimental studies. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**447—Cellular Biology.** Structure and function of the cell and its organelles. Prerequisites: Bio 341, Chm 341-342. Lecture: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**449—Protistology.** Morphology, taxonomy and ecology of protozoa, algae and fungi. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**4101, 4201, 4301—Institute in Biological Sciences.** Designed to provide credit for participation in summer, in-service or other institutes. Credit varies with duration. May be repeated for credit when nature of institute differs sufficiently from those taken previously. Class: 1-3 hours. Credit: 1-3 semester hours.

## DEPARTMENT OF CHEMISTRY

*Department Head*—Harold T. Baker. *Director of Freshman Chemistry*—Roger E. Yerick. *Director of Environmental Science*—Ewin A. Eads. *Professor*—Margaret D. Cameron. *Associate Professors*—Kenneth L. Dorris, Joe N. Fields, Joe M. Mejia.\* *Assistant Professors*—Keith C. Hansen, Anne Harmon, J. Dale Ortego, John A. Whittle. *Stockroom Supervisor*—Horace L. Grayson. (\*On leave.)

The Department of Chemistry has been approved by the Professional Committee of the American Chemical Society. The following B.S. program is recommended as preparatory to graduate work in chemistry:

## Bachelor of Science—Chemistry Major

First Year	Second Year
Chm 141, 142—General . . . . .8	Chm 341, 342—Organic . . . . .8
Eng—Composition* . . . . .6	Eng—Literature . . . . .6
Mth 1381—Anal. Geom. . . . .3	Mth 2311, 2321—Calculus II & III .6
Mth 1391—Calculus I . . . . .3	Phy 140—Mechanics . . . . .4
Bio or Geo 141, 142—General . . .8	Phy 241—Heat, Elect, Mag . . . . .4
HPE—Activity . . . . .2	His 231, 232—National . . . . .6
—	HPE—Activity . . . . .2
30	36

\*Selected with approval of department.

Third Year	Fourth Year
Chm 343—Quantitative . . . . .4	Chm 433—Modern Physical . . . . .3
Chm 431, 432—Physical . . . . .6	Chm 446—Instrumental . . . . .4
Chm 413—Physical Lab . . . . .1	Chm 411—Chm Literature . . . . .1
Chm 414—Physical Lab . . . . .1	Chm 436—Inorganic . . . . .3
Phy 242—Sound, Light, Quanta . .4	Chm 444—Organic Analysis . . . . .4
Ger 141, 142—First Year . . . . .8	Chm 412—Senior Seminar . . . . .1
Gov 291, 232—State and Natl . . .6	Ger 230—Technical Transl . . . . .3
—	Electives . . . . .13
30	32

## Bachelor of Arts—Chemistry Major

A pre-medical or pre-dental program in chemistry. A minor in biology is recommended for these programs.

First Year	Second Year
Chm 141, 142—General . . . . .8	Chm 343—Quantitative . . . . .4
Eng—Composition* . . . . .6	Chm 333—Inorganic . . . . .3
Mth 1381—Anal. Geom. . . . .3	Eng—Literature . . . . .6
Mth 1391—Calculus I . . . . .3	Mth 2311, 2321—Calculus II & III .6
Language 141, 142—Frst. Yr. . . . .8	Language—Second Year . . . . .6
HPE—Activity . . . . .2	Phy 141, 142—General . . . . .8
30	HPE—Activity . . . . .2
	35

\*Selected with approval of department.

Third Year	Fourth Year
Chm 341, 342—Organic . . . . .8	His 231, 232—National . . . . .6
Chm 431, 432—Physical . . . . .6	Gov 231, 232—State and Natl . . . .6
Chm 413, 414—Physical Lab . . . . .2	Minor or Electives . . . . .18
Bio or Geo 141, 142—General . . . .8	30
Minor or Electives . . . . .9	
33	

**Bachelor of Science in Biology  
Bachelor of Science in Chemistry**

First Year	Second Year
Bio 141, 142—General . . . . .8	Chm 341, 342—Organic . . . . .8
Chm 141, 142—General . . . . .8	Bio 243—Microbiology . . . . .4
Eng—Composition . . . . .6	Bio 244—Microbiology
Mth 1381—Anal. Geo. . . . .3	or
Mth 1391—Calculus I . . . . .3	Bio 240—Comparative . . . . .4
HPE . . . . .2	Mth 2311—Calculus II . . . . .3
Electives . . . . .6	Eng.—Literature . . . . .6
36	Phy 141-142—General . . . . .8
	Chm 333—Inorganic . . . . .3
	36

**Summer**

Chm 431—Physical . . . . .3
Gov 231, 232—St. & Nat'l. . . . .6
HPE . . . . .2
Electives . . . . .3
14

Third Year	Fourth Year
His 231, 232—U.S. . . . .6	Bio 416 or 417—Bio. Lit. . . . .1
Bio 344—Adv. Physiology . . . .4	Bio 441—Parasitology . . . . .4
Bio 341—Histology . . . . .4	Bio 347—Genetics . . . . .4
Bio 342—Embryology . . . . .4	Chm 443—Biochem. . . . .4
Chm 413—Physical Lab . . . . .1	8 Semester Hours
Chm 343—Quant. Anal. . . . .4	Chosen From
Phy 335—Modern . . . . .3	Chm 432—Physical
Electives . . . . .9	Chm 414—Physical Lab } . . . . .8
—	Chm 444—Org. Qual. }
35	Chm 446—Instr. Anal. }
	Electives . . . . .12
	—
	33

Both degrees must be awarded simultaneously.

### Chemistry (Chm)

**130 — Introductory Environmental Science.** Fundamental concepts of environmental systems as related to urban affairs and man's environment. Air, water and soil pollution with control methods related to the modern technological society. Class: 3 hours. Credit: 3 semester hours.

**141 — General.** General principles, problems, fundamental laws and theories. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**142 — General.** A continuation of Chm 141. Elementary qualitative analysis and theories of solutions and equilibrium. Properties of the elements. Prerequisite: Chm 141. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**143 — Introductory.** For non-science majors. A survey course in elementary chemistry. Lecture and laboratory work in inorganic chemistry. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**144 — Introductory.** For non-science majors. Continuation of Chm 143. Nuclear science, elementary organic and physiological chemistry. Prerequisite: Chm 143 or 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**243 — Organic.** Fundamental principles of chemistry of aliphatic and aromatic compounds. Prerequisite: Chm 144 or 142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**244 — Physiological.** An elementary course in physiological chemistry. Prerequisite: Chm 243 or 341. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**331 — Radiochemistry.** Basic concepts of nuclear science. Principles and

use of radiation measuring devices. Prerequisite: Chm 141, 142 or equivalent; or Phy 141, 142 or equivalent. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**333 – Inorganic.** Generalization involving atomic and nuclear theory. Properties of the elements, with emphasis on similarities and differences within and between groups and transitional series. Non-aqueous solvents, acids, bases, oxidation-reduction, etc. Prerequisite: Chm 142. Class: 3 hours. Credit: 3 semester hours.

**334 – Air Analysis.** Theory and practice of chemistry as required in determination of ambient air quality. Prerequisite: Chm 241, Mth 1381. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**341 – Organic.** Current theories and chemical principles that relate to the field of organic chemistry. Prerequisite: Chm 142. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

**342 – Organic.** A continuation of Chm 341. Prerequisite: Chm 341. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

**343 – Quantitative Analysis.** Theory and practice of analytical chemistry, utilizing gravimetric and titrimetric techniques. Prerequisite: Chm 142, Mth 133, 134. Class: 3 hours. Laboratory: 5 hours. Credit: 4 semester hours.

**410 – Seminar in Environmental Science.** Reports and assigned reading. Prerequisite: senior standing. Class: 1 hour. Credit: 1 semester hour.

**411 – Chemical Literature.** Lecture and assigned reading in the chemical literature. Chemical literature search on an advanced level. Prerequisite: Chm 342, reading knowledge of German. Class: 1 hour. Credit: 1 semester hour.

**412 – Senior Seminar.** Reports and assigned reading. Prerequisite: senior standing in Chemistry. Class: 1 hour. Credit: 1 semester hour.

**413 – Physical Laboratory.** Laboratory applications of modern theory in physical chemistry. Prerequisite: Chm 343, Chm 431 (or parallel). Laboratory: 4 hours. Credit: 1 semester hour.

**414 – Physical Laboratory.** Continuation of Chm 413. Prerequisite: Chm 413. Laboratory: 4 hours. Credit: 1 semester hour.

**431 – Physical.** Thermodynamic principles; modern chemical theory as applied to gases, liquids and solids. Prerequisites: Chm 142, Phy 142 or 241, Mth 2321 (or parallel). Class: 3 hours. Credit: 3 semester hours.

**432 – Physical.** A continuation of Chm 431. Prerequisite: Chm 431. Class: 3 hours. Credit: 3 semester hours.

**433 – Modern Physical.** Selected topics in modern physical chemistry. Prerequisite: Chm 432 (or parallel). Class: 3 hours. Credit: 3 semester hours.

**434 – Air Pollution Surveys.** Chemical, physical, meteorological, biological, bacteriological and epidemiological factors as applied to determine the extent of environmental damage from air pollution. Prerequisites: Chm 334 and senior standing. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**436 – Inorganic.** Study of the quantized atom, periodicity, characteristics of the extra-nuclear structure. Valency and the chemical bond, complexions and coordination compounds. Prerequisite: Chm 432 (or parallel). Class: 3 hours. Credit: 3 semester hours.

**443 – Biochemistry.** Principles of biochemistry. Current theories of chemistry as applied to biochemical materials. Prerequisite: Chm 342, 343 (or parallel). Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**444 – Qualitative Organic Analysis.** A systematic study of methods for the identification of organic compounds and mixtures of organic compounds. Prerequisite: Chm 341 and 342. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours.

**427, 437, 447 – Introduction to Research.** Junior and senior chemistry students. Problems are on the undergraduate level and emphasize research techniques. With approval of the department head, these courses may be repeated for credit. Prerequisite: B average in all previous chemistry courses. Credit: 2, 3, or 4 semester hours.

**446 – Instrumental Methods of Analysis.** Instrumental techniques in modern analytical chemistry. Theory and practice in optical, electrometric, and chromatographic methods. Prerequisite: Chm 343, 432 (or parallel), Mth 2311, Phy 142 or 241. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

**4101, 4201, 4301, 4401 – Special Topics in Chemistry.** Topics in undergraduate analytical, inorganic, organic, or physical chemistry. Library and/or laboratory work and conferences with a staff member. The description of the particular area of study will appear on the printed semester schedule. A student may repeat the course for credit when the area of study is different. Credit: 1-4 semester hours.



DEPARTMENT OF GEOLOGY

*Department Head*—H. E. Eveland. *Professors*—Saul Aronow, William H. Matthews. *Associate Professors*—William R. Pampe, Anthony C. Tennissen. *Assistant Professors*—Darrell E. Davis, T. Wesley Lins, Ronald J. Scudato, James B. Stevens, Robert R. Wheeler.

Program of Study

Bachelor of Science—Geology Major

First Year

First Semester		Second Semester	
Geo 141—Physical	4	Geo 142—Historical	4
Chm 141 or 143	4	Chm 142 or 144	4
Mth 134—Algebra	3	Mth 133—Trigonometry	3
Eng—Composition	3	Eng—Composition	3
HPE—Activity	1	HPE—Activity	1
	<u>15</u>		<u>15</u>

Second Year

First Semester		Second Semester	
Geo 241—Mineralogy	4	Geo 242—Petrology	4
Bio 141—General	4	Bio 142—General	4
Mth 1381—Anal Geom	3	Mth 1391—Cal I	3
Eng—Literature	3	Spc 131 or 331	3
HPE—Activity	1	Egr 121—Graphics	2
	<u>15</u>	HPE—Activity	1
			<u>17</u>

Third Year

First Semester		Second Semester	
Geo 343—Paleontology	4	Geo 342—Structure	4
Phy 141—General	4	Phy 142—General	4
Gov 231—Constitutions	3	Gov 232—State and Natl	3
Egr 122—Computers	2	Psy 241—Statistics	4
Elective	3		<u>15</u>
	<u>16</u>		

Summer

Geo 360—Field Camp . . . . . 6

Fourth Year

First Semester		Second Semester	
Senior Geology	3	Senior Geology	3
His 231—United States	3	Senior Geology	3
Advanced Science*	3	Geo 419—Seminar	1
Advanced Arts**	3	His 232—United States	3
Elective	3	Electives	6
	<u>15</u>		<u>16</u>

## Bachelor of Arts—Geology Major

## First Year

First Semester		Second Semester	
Geo 141—Physical . . . . .	4	Geo 142—Historical . . . . .	4
Chm 143—Introductory . . . . .	4	Bio 141—General . . . . .	4
Mth 134—Algebra . . . . .	3	Mth 133—Trigonometry . . . . .	3
Eng—Composition . . . . .	3	Eng—Composition . . . . .	3
HPE—Activity . . . . .	1	HPE—Activity . . . . .	1
	<u>15</u>		<u>15</u>

## Second Year

First Semester		Second Semester	
Geo 241—Mineralogy . . . . .	4	Geo 242—Petrology . . . . .	4
Phy 137—Astronomy . . . . .	3	Egr 121—Graphics . . . . .	2
Foreign Language . . . . .	4	Foreign Language . . . . .	4
Gov 231—Constitutions . . . . .	3	Gov 232—State and Natl . . . . .	3
Eng—Literature . . . . .	3	Eng—Literature . . . . .	3
HPE—Activity . . . . .	1	HPE—Activity . . . . .	1
	<u>18</u>		<u>17</u>

## Third Year

First Semester		Second Semester	
Geo 343—Paleontology . . . . .	4	Geo 342—Structure . . . . .	4
Foreign Language . . . . .	3	Foreign Language . . . . .	3
His 231—United States . . . . .	3	His 232—United States . . . . .	3
Electives . . . . .	6	Psy 241—Statistics . . . . .	4
	<u>16</u>	Elective . . . . .	3
			<u>17</u>

## Fourth Year

First Semester		Second Semester	
Senior Geology . . . . .	3	Senior Geology . . . . .	3
Advanced Science* . . . . .	3	Senior Geology . . . . .	3
Advanced Arts** . . . . .	3	Geo 419—Seminar . . . . .	1
Advanced Arts** . . . . .	3	Advanced Arts** . . . . .	3
Elective . . . . .	3	Electives . . . . .	6
	<u>15</u>		<u>16</u>

\*A junior or senior course selected from Bio, Chm, Phy, Mth, or Egr.

\*\*A junior or senior course selected from Eng, Soc, Gov, His, Phi, Ant, Eco, Spc, or CA.

**Bachelor of Science—Oceanographic Technology**

**First Year**

First Semester	Second Semester
Chm 141 or 143 . . . . . 4	Chm 142 or 144 . . . . . 4
Bio 141—General . . . . . 4	Bio 142—General . . . . . 4
Mth 133—Trigonometry . . . . . 3	Mth 134—Algebra . . . . . 3
Eng—Composition . . . . . 3	Eng—Composition . . . . . 3
HPE—Activity . . . . . 1	HPE—Activity . . . . . 1
15	15

**Second Year**

First Semester	Second Semester
Phy 141—General . . . . . 4	Phy 142—General . . . . . 4
Egr 122—Computers . . . . . 2	Geo 141—Physical . . . . . 4
Mth 1381—Analyt Geom . . . . . 3	Egr 121—Graphics . . . . . 2
Eng—Literature . . . . . 3	Mth 1391—Calculus . . . . . 3
Spc 131—Fundamentals . . . . . 3	HPE 228—Life Saving . . . . . 2
HPE 227—Swimming . . . . . 2	15
17	

**Third Year**

First Semester	Second Semester
Geo 337—Meteorology . . . . . 3	Bio 445—Marine Bio . . . . . 4
Egr 233—Circets & Flds . . . . . 3	CE 326 or CE 331 . . . . . 2-3
Geo 344—Gnrl Oceanography . . . . . 4	Gov 231—Const . . . . . 3
His 231—United States . . . . . 3	His 232—United States . . . . . 3
Elective . . . . . 3	Elective . . . . . 3
16	15-16

**Summer**

Geo 361—Field Course . . . . . 6

**Fourth Year**

First Semester	Second Semester
Geo 417—Ocean Seminar . . . . . 1	Geo 423—Shipboard Op . . . . . 2
Egr 212—Machine Shop . . . . . 1	Geo 433—Geophysics . . . . . 3
Eng 3311—Tech Report Writing . . . . . 3	Geo 421—Physical Oceanography . . . . . 2
Science Electives . . . . . 8	Egr 421—Data Processing . . . . . 2
Gov 232—State and Natl . . . . . 3	EE 438—Instrumentation . . . . . 3
16	12

**Geology (Geo)**

**141 – Physical Geology.** Earth materials, structures, land forms, mineral resources, and the processes which have formed them. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**142 – Historical Geology.** History of the earth and its life. Prerequisite: Geo 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**220 – Geology for Engineers.** A survey of physical geology with emphasis on geologic problems in engineering practice. Primarily for engineering students. A student may not receive credit for both Geo 220 and Geo 141. Class: 2 hours. Laboratory: 2 hours. Credit: 2 semester hours.

**237 – Physical Geography.** The fundamental concepts of local, regional, and global geography. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

**238 – Cultural Geography.** History and distribution of cultural groups with emphasis upon the interaction between geographic environment and human cultures. Class: 3 hours. Credit: 3 semester hours.

**239 – History of Life.** History of the earth and its inhabitants, with emphasis on the life forms and their development. Includes the study of geologic time, fossils, and prehistoric man. A student may not receive credit for both Geo 239 and Geo 142. Class: 3 hours. Credit: 3 semester hours.

**241 – Mineralogy.** The classification, properties, occurrence, and identification of minerals. Field trip required. Prerequisite: Geo 141 and Chm 141 or 143. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**242 – Petrology.** The classification, properties, occurrence, and identification of igneous, sedimentary, and metamorphic rocks. Field trip required. Prerequisite: Geo 241. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**335 – Earth Materials.** The identification, classification, occurrence, and economic significance of minerals and rocks. Field trip required. A student may not receive credit for both Geo 335 and Geo 241-242. Prerequisite: Geo 141, Geo 237, or Geo 239. Class: 3 hours. Credit: 3 semester hours.

**336 – Geology of Texas.** The topography, physiography, structure, geologic history, and mineral deposits of Texas. Field trip required. Prerequisite: Geo 142 or Geo 239. Class: 3 hours. Credit: 3 semester hours.

**337 – Meteorology.** The structure, properties, and processes of the atmosphere. The role of climate and weather in the total environment. Prerequisite: 6 hours of elementary science. Class: 3 hours. Credit: 3 semester hours.

**338 – Oceanography.** The structure, properties, and processes of the

hydrosphere. The role of the seas and oceans in the total environment. Prerequisite: 6 hours of elementary science. Class: 3 hours. Credit: 3 semester hours.

**339 – Environmental Geography.** The environmental significance of man's development, abuse and conservation of his atmospheric, aquatic and mineral resources. Field trips required. Prerequisite: one of these: Geo 141, 237, 238, or 239. Class: 3 hours. Credit: 3 semester hours.

**342 – Structural Geology.** Rock deformation and the resulting structures. Field trip required. Prerequisite: Geo 142 and Mth 133. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**343 – Paleontology.** The classification, morphology, and identification of invertebrate fossils. Field trip required. Prerequisite: Geo 142 or 239. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**344 – General Oceanography.** Introduction to principles of oceanography. Geology of ocean basins, near shore processes, chemistry of sea water, physics of the sea, and biological environments of the ocean. Prerequisite: Geo 141, Chm 142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**360 – Summer Field Course.** Description of stratigraphic sections, preparation of geologic maps and field reports. Duration: 6 weeks. Total cost: \$200-\$300. Prerequisite: Geo 342 and Egr 121. Class: 5 hours. Laboratory: 40 hours. Credit: 6 semester hours.

**361 – Field Course in Estuarine and Coastal Oceanography.** Studies in near shore geological processes. The application of standard sampling devices. Field work along the coast and on shore. Laboratory analysis of samples. Small boat handling. Duration: 6 weeks. Prerequisite: Geo 344. Class: 5 hours. Laboratory: 40 hours. Credit: 6 semester hours.

**417 – Oceanographic Technology Seminar.** Reports on current literature in oceanography. Prerequisite: Geo 344. Class: 1 hour. Credit: 1 semester hour.

**418 – Earth Science Literature.** Reports on current source materials. Not open to geology majors. Prerequisite: 12 hours of Geology. Class: 1 hour. Credit: 1 semester hour.

**419 – Seminar.** Reports on current literature. Prerequisite: 24 hours of Geology. Class: 1 hour. Credit: 1 semester hour. (May be repeated for credit.)

**421 – Physical Oceanography.** Physical processes and properties of oceans; their relationships to atmosphere and solid earth. Dynamics of oceanic current systems. Wind currents, waves, and tides. Prerequisite: Geo 344. Class: 2 hours. Credit: 2 semester hours.

**422 – X-ray Crystallography.** Use of X-ray diffraction techniques to identify minerals and other crystalline substances. For advanced science and

engineering students. Prerequisite: one year of Chemistry or Physics. Laboratory: 6 hours. Credit: 2 semester hours.

**423 – Shipboard Operations.** Designed to familiarize students in technical operations undertaken on oceanographic vessels. Concurrent registration in EE 438 required. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

**427, 428 – Special Project.** An individual library, laboratory, or field project. To receive credit, an acceptable typewritten report is required. Credit: maximum of 4 semester hours.

**431 – Sedimentation.** The derivation, transportation, and deposition of sediments, with emphasis on environmental factors. Laboratory techniques for the study of sediments. Field trip required. Prerequisite: Geo 242. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**432 – Stratigraphy.** The history, distribution, and correlation of sedimentary strata. Field trip required. Prerequisite: Geo 343. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**433 – Geophysics.** Application of the principles of physics to geologic problems. Use of geophysical techniques in petroleum exploration. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

**434 – Geology of the United States.** A regional study of the geomorphology, structural geology, and geologic history of the United States. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

**435 – Geomorphology.** The development and classification of land forms. Field trip required. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

**436 – Optical Mineralogy.** Optical properties of minerals. Use of the polarizing microscope in the identification of minerals and rocks. Prerequisite: Geo 242. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**437 – Economic Geology.** Occurrence and origin of commercially valuable metallic and non-metallic minerals and rocks. Exploration and development of deposits. Field trip required. Prerequisite: Geo 242 and 342. Class: 3 hours. Credit: 3 semester hours.

**DEPARTMENT OF PHYSICS**

*Department Head*—Carl J. Rigney. *Professors*—Roy H. Biser. *Associate Professors*—G. F. Landegren, Hugh O. Peebles, Joseph F. Pizzo, J. G. Shepherd. *Assistant Professor*—Oscar T. Goines. *Stockroom Supervisor*—Ira Ferguson. *Departmental Secretary*—Betty Griffin.

High school preparation for the physics major must include 2 units of algebra and  $\frac{1}{2}$  unit of trigonometry. Those having inadequate high school mathematics must take Math 133 and/or Math 134 to make up the deficiency, preferably in the summer session preceding the freshman year of college.

**Bachelor of Science—Physics Major**

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

**A. General Requirements**

English—Composition—6 semester hours

Literature—6 semester hours

Chemistry 141-142—General

History 231-232—United States History

Government 231-232—State and National

Physical Education or Marching Band—4 semester hours

**B. Major**

28 semester hours, with at least 16 semester hours in physics at the junior-senior level, including 333, 335, and one of the 3 laboratory courses (324, 346, or 448). Physics majors who plan to go to graduate school should take approximately 9 additional semester hours in Physics.

**C. Minor**

Math 1381-1391, 2311-2321—Anal Geom & Cal I, II, III.

Math 331—Differential Equations

Math Electives—3 semester hours

**D. Foreign Language or Education**

German 141-142—Elementary German

German 230—Technical Translation

Substitution of any or all Education course credits required for certification (now numbered Edu 331, 332, 338, and 438) may be made for each semester hour of German listed.

**E. Electives**

Sufficient approved electives to complete a total of 128 semester hours.

## Suggested Program of Study

First Year	Second Year
Chm 141-142—General . . . . . 8	Eng—Literature . . . . . 6
Eng—Composition . . . . . 6	His 231-232 . . . . . 6
Mth 1381-1391—Anal . . . . . 6	Mth 2311-2321—Calc II & III . . . . . 6
Geom & Calc I . . . . . 6	Phy 241-242—Introductory . . . . . 8
Phy 140—Intro Mchnics . . . . . 4	HPE—Activity . . . . . 2
HPE—Activity . . . . . 2	Electives or German . . . . . 3-6
Electives or German . . . . . 6-8	
<u>32-34</u>	<u>31-34</u>
Third Year	Fourth Year
Gov 231-232—State and Natl . . . . . 6	Phy 448—Optics, or
Mth 231—Diff Equations . . . . . 3	Phy 346—Electrcal Measmnts, or
Phy 333—Analytical Mechnics . . . . . 3	Phy 324—Modern Physics Lab . . 2-4
Phy 335—Modern Physics . . . . . 3	Phy Electives . . . . . 6-8
Mth Elective . . . . . 3	Electives . . . . . 20-22
Electives and/or German . . . . . 12	
<u>30</u>	<u>30-32</u>

## Physics (Phy)

**137. — Descriptive Astronomy.** A survey of facts and an introduction to important astronomical theories. The solar system, stars, nebulae, and star systems. Class: 3 hours. Credit: 3 semester hours.

**140 — Introductory Mechanics.** Emphasis is placed on derivation, units, and problem-solving. Prerequisite: credit for or registration in Mth 1391. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**141 — General Physics—Mechanics and Heat.** Designed for majors in the physical or natural sciences. Emphasis placed upon understanding and application of basic physical laws. Prerequisite: credit for Mth 133 and 134. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**142 — General Physics—Sound, Light, Electricity and Magnetism.** A continuation of Phy 141. Prerequisite: Phy 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**143, 144 — Physical Science.** Designed for non-science majors. Appropriate topics from physics and chemistry are covered in a search for an explanation of the structure of solids. A student with acceptable credit for Phy 140, 141, 142, 241, or 242 may not receive credit for Phy 143. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours per semester.

**233 — Modern General Physics.** Content will include electronics, the



photoelectric effect, atomic structure, X-rays, molecular and crystal structure, radioactivity and nuclear reactions. A student may not receive credit for both Phy 335 and Phy 233. Prerequisite: Phy 142. Class: 3 hours. Credit: 3 semester hours.

**241 – Introductory Physics—Heat, Electricity and Magnetism.** Emphasis is placed on derivations, units, and problem-solving. Prerequisite: Phy 140 or Egr 132 and credit for or registration in Mth 2311. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**242 – Introductory Physics—Sound, Light, and Quanta.** Emphasis is placed on derivations, units, and problem-solving. Prerequisite: Phy 241. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**324 – Modern Physics Laboratory.** Selected experiments such as determination of the electronic charge and mass, and of Planck's constant; blackbody radiation; gamma ray spectroscopy; specific heats of crystalline solids, mobility of electrons in semiconductors. Prerequisite: Registration in or credit for Phy 335. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

**333 – Analytical Mechanics.** Use of vector notation in formulating and applying Newton's laws and the principles of momentum and energy. Dynamics of particles and rigid bodies emphasized. Statics treated briefly. Prerequisite: Phy 140 or 141-142 and credit for or registration in Mth 331. Class: 3 hours. Credit: 3 semester hours.

**335 – Modern Physics.** Conservation laws; special relativity; quantum effects; atomic structure; X-rays, nuclear and solid state physics. Prerequisites: Phy 241-242 or Phy 141-142 and Mth 2311. Class: 3 hours. Credit: 3 semester hours.

**338 – Electricity and Magnetism.** Electrostatic fields; magnetic fields; potential; capacitance; dielectrics; electromagnetic waves. Maxwell's equations; conduction in gases; thermoelectricity. Prerequisite: Phy 241-242 or 141-142 and credit for or registration in Mth 331. Class: 3 hours. Credit: 3 semester hours.

**339 – Thermal Physics.** Temperature and thermometry; internal energy, entropy, and thermodynamic potentials; introduction to the kinetic theory of gases and the Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics. Prerequisite: Phy 241-242 or Phy 141-142 and Mth 2321. Class: 3 hours. Credit: 3 semester hours.

**346 – Electrical Measurements.** Theoretical and practical definitions of electrical units; data handling and analysis; precision D. C. measurement of resistance, potential difference, and current; galvanometer characteristics; A. C. bridge measurement of self and mutual inductance, capacitance, and frequency; magnetic measurements. Prerequisite: Phy 241-242 or 141-142 and Mth 2311. Class: 2 hours. Laboratory: 4 hours. Credit: 4 semester hours.

**414, 415 – Experimental Projects.** Building of experimental apparatus under the supervision of a faculty member. Prerequisite: 6 hours of physics numbered above 300. Laboratory: 3 hours. Credit: 1 semester hour per course.

**416, 417 – Seminar.** Reports on current publications and on topics not treated in other physics courses. Prerequisite: 6 hours of physics numbered above 300. Class: 2 hours. Credit: 1 semester hour per course.

**431 – Classical Mechanics.** Variational principles and Lagrange's equations; the kinematics of rigid body motion; the Hamilton equations of motion; small oscillations. Prerequisite: Mth 331 and Phy 333 or Egr 231. Class: 3 hours. Credit: 3 semester hours.

**432 – Introductory Quantum Mechanics.** Basic concepts of quantum mechanics. Schrodinger's equation; wave functions. Prerequisite: Phy 333 or 431, Phy 335, and Mth 331. Class: 3 hours. Credit: 3 semester hours.

**433 – Solid State Physics.** Crystal structure; binding forces; mechanical and thermal properties; electrical conductivity; semiconductors; dielectric properties; magnetic properties; surface effects; phosphors and photoconductivity. Prerequisite: Phy 335. Class: 3 hours. Credit: 3 semester hours.

**436 – Nuclear Physics.** Natural radioactivity; the positron; the neutron; artificial disintegration; central forces; nuclear scattering of alpha particles; charged particle accelerators; nuclear fission; isotope separation; cosmic rays; the meson; particles and waves. Prerequisite: Phy 335. Class: 3 hours. Credit: 3 semester hours.

**437 – Astrophysics.** Analysis of light; stellar spectroscopy; atomic theory as applied to stars, double stars; luminosities; temperature and diameters of stars; variable stars; star clusters; the nebulae; stellar atmospheres and interiors; evolution of the stars. Prerequisite: Phy 141-142 or Phy 241-242. Class: 3 hours. Credit: 3 semester hours.

**448 – Optics.** Physical and Quantum Optics. Propagation of light; interference; diffraction; optics of solids; thermal radiation and light quanta; optical spectra; lasers. Prerequisite: Phy 241-242 or Phy 141-142 and Mth 2311. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**DEPARTMENT OF PSYCHOLOGY**

*Department Head* – James R. Hawker. *Professor* – Myrtle Bell. *Associate Professors* – Billy R. Barrington, Otto R. Flocke. *Assistant Professors* – Henry P. Buller, Robert A. Gay, James L. Walker, Jr. *Instructor* – Doris A. Simpson. *Secretary* – Marie Meguess.

**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–6 semester hours
  - Literature–6 semester hours
  - Mathematics–6 semester hours
  - Biology 141-142–General–8 semester hours
  - Foreign Language–14 semester hours (completion of the 232 course in a foreign language)
  - Government 231-232–State and National–6 semester hours
  - History 231-232–United States–6 semester hours
  - Physical Activity–4 semester hours
2. Major
  - Psychology 131–Introduction to Psychology
  - Psychology 241–Statistical Methods in Psychology
  - Psychology 242–Methods in Psychology
  - Psychology–Additional 15 semester hours—a minimum of 9 semester hours must be on the advanced level
3. Minor
  - An approved minor of 18 semester hours—a minimum of 6 semester hours must be on the advanced level
4. Electives
  - A sufficient number of approved electives to complete a total of 126 semester hours

**Suggested Program of Study**

First Year	Second Year
Bio 141, 142–General . . . . .8	Eng–Literature . . . . .6
Eng–Composition . . . . .6	Foreign Language . . . . .6
Foreign Language . . . . .8	His 231, 232–United States . . . . .6
Mth . . . . .6	Psy 241–Intro Stat Methods . . . . .4
Psy 131 . . . . .3	Electives . . . . .8
HPE–Activity . . . . .2	HPE–Activity . . . . .2
<hr style="width: 10%; margin: 0 auto;"/> 33	<hr style="width: 10%; margin: 0 auto;"/> 32

Third Year	Fourth Year
Gov 231, 232—State and Natl . . . . .6	Psy (Advanced) . . . . .9
Psy 242—Methods in Psychology . . .4	Minor . . . . .12
Psy (Advanced) . . . . .6	Electives . . . . .12
Minor . . . . .9	
Electives . . . . .6	30
31	
Total 126 Hours	

### Bachelor of Science — Psychology Major

The degree of Bachelor of Science in Psychology will be awarded upon completion of the requirements for the Bachelor of Arts in Psychology with the following modifications:

1. Eight semester hours of physical science and Math 1381-1391 (6 hours) substituted for the foreign language requirement.
2. Psychology 131—Introduction to Psychology  
 Psychology 241—Statistical Methods in Psychology  
 Psychology 242—Methods in Psychology  
 Psychology 343—Experimental Psychology  
 Psychology—Additional 15 semester hours—a minimum of nine semester hours must be on the advanced level
3. Electives  
 A sufficient number of approved electives to complete a total of 128 semester hours

### Suggested Program of Study

First Year	Second Year
Bio 141, 142—General . . . . .8	Eng—Literature . . . . .6
Eng—Composition . . . . .6	Mth 1381, 1391 . . . . .6
Mth 133, 134—Trig & Algebra . . .6	Physical Science . . . . .4
Physical Science . . . . .4	Psy 242—Methods in Psychology . .4
Psy 131—Intro to Psy . . . . .3	Minor . . . . .6
Psy 241—Intro Stat Methods . . . .4	Electives . . . . .3
HPE—Activity . . . . .2	HPE—Activity . . . . .2
33	31
Third Year	Fourth Year
Gov 231, 232—State & Natl . . . . .6	His 231, 232—United States . . . . .6
Psy 343—Experimental Psy . . . . .4	Psy (Advanced) . . . . .9
Psy (Advanced) . . . . .6	Minor . . . . .6
Minor . . . . .6	Electives . . . . .12
Electives . . . . .9	33
31	
Total 128 Hours	

**131 – Introduction to Psychology.** An introductory survey of the major areas of psychology such as learning, personality, social, testing, developmental, and physiological. Emphasis is on psychology as the scientific study of behavior and includes both human and animal behavior. Class: 3 hours. Credit: 3 semester hours.

**234 – Child Psychology.** A study of the growth and development of behavior patterns in children. Class: 3 hours. Credit: 3 semester hours.

**235 – Adolescent Psychology.** A study of the growth and development of behavior patterns in adolescents. Class: 3 hours. Credit: 3 semester hours.

**241 – Introduction to Statistical Methods.** Statistical concepts and techniques used in psychological research. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**242 – Methods in Psychology.** An introduction to the methods of research employed in the scientific study of behavior. Topics include nature and philosophy of science, experimental design, data analysis, and report writing. Several experiments are designed, conducted, and reported by students. Prerequisites: Psy 131 and 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**330 – Psychology of Communication.** A study of the theory, structure, and function of communication patterns in various group settings. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**331 – Systems and History of Psychology.** Historical development of psychology. Emphasis on the evolution of major systems of psychology. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**332 – Psychology of Personality.** A study of several of the major theories of personality organization and adjustment processes. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**333 – Psychology of Group Behavior.** Investigation of psychological basis of group behavior. Emphasis is on the study of individual experience and behavior in relation to the social environment, and how individual behavior both affects and is affected by social interaction. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**334 – Industrial Psychology.** An introduction to the application of psychological tools and techniques in industrial settings. Stress will be placed on selecting, training, and evaluating workers. Prerequisite: Psy 241. Class: 3 hours. Credit: 3 semester hours.

**335 – Motivation.** A study of contemporary concepts, theories, and research in motivation. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**337 – Psychology of Adjustment.** A study of normal adjustment and commonly used defenses against anxieties. Class: 3 hours. Credit: 3 semester hours.

**338 – Individual Psychological Testing.** An introduction to individual psychological testing for speech therapy students only. Stress will be placed on administering and interpreting the WISC, the Binet and the Vineland. Class: 3 hours. Credit: 3 semester hours.

**339 – Human Factors.** A survey of human functions in man-machine systems with consideration of human abilities and limitations in relation to equipment design and work environments. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**341 – Psychological Tests and Measurements.** Theory and use of instruments for the measurement of intelligence, interests, aptitude, and attitudes. Prerequisite: Psy 131 and 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**342 – Statistical Methods.** A continuation of Psy 241 with emphasis upon design and analysis of experiments. Includes Chi square, Student's *t*, analysis of variance, and linear regression. Prerequisite: Psy 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**343 – Experimental Psychology.** Techniques to demonstrate and investigate concepts in psychology. Prerequisite: Psy 242. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**410-420-430 – Undergraduate Research.** Designed to provide an opportunity for advanced psychology students to pursue an individual research project under the direction and supervision of a faculty member. Prerequisite: 9 hours of psychology. Credit: 1, 2, or 3 semester hours.

**431 – Sensation and Perception.** A review of research and theory regarding the structure and function of the basic sensory processes, and sensory perception. Prerequisite: 9 hours in Psy. Class: 3 hours. Credit: 3 semester hours.

**432 – Abnormal Psychology.** A study of abnormal behavior. Special emphasis on the symptomatology, etiology, and therapeutic approaches. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**433 – Differential Psychology.** Individual and group behavior differences and similarities. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**435 – Leadership and Group Dynamics.** A study of the nature, evaluation, and utilization of intra- and inter-personal forces producing behavior in various group structures. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

**436 – Learning.** Theories and research concerning learning processes, with a consideration of practical implications. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

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**437 – Quantitative Psychology.** Theory and application of psychophysical and psychological scaling methods. Prerequisite: Psy 241. Class: 3 hours. Credit: 3 semester hours.

**438 – Physiological Psychology.** Survey of the physiological bases of behavior with emphasis on the mechanisms in the central nervous system. Prerequisite: 9 hours in Psychology. Class: 3 hours. Credit: 3 semester hours.

**439 – Contemporary Problems in Psychology.** A critical and comprehensive examination of current problems in selected areas of psychology. Topics will vary from semester to semester. Prerequisite: 12 hours in Psychology. Class: 3 hours. Credit: 3 semester hours. May be repeated for credit when topics vary.

**SCHOOL  
OF  
TECHNICAL  
ARTS**

**Departments**

**Health Services**

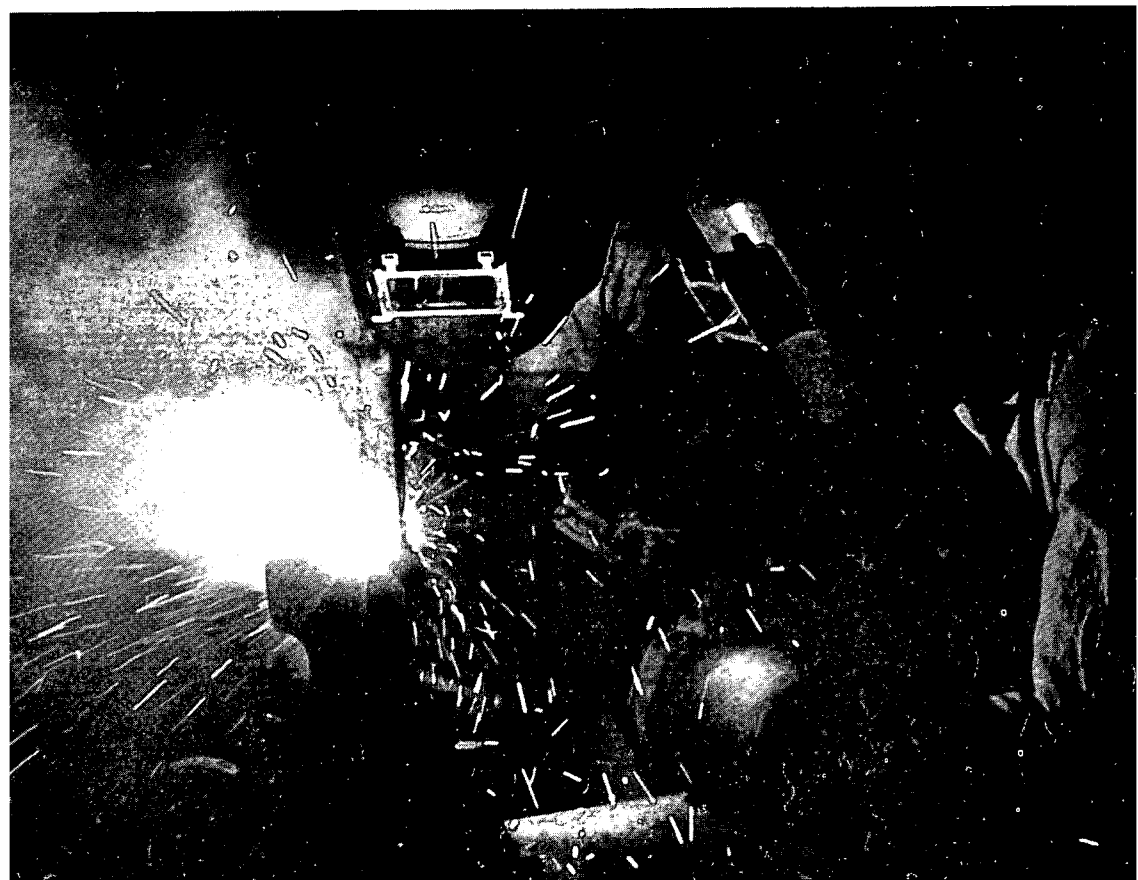
**Industrial**

**Related Arts**

**Technical**

**Adult Training**





**SCHOOL OF TECHNICAL ARTS**

Kenneth E. Shipper, Dean

The School of Technical Arts, which was formerly the School of Vocations, has a 47-year record of providing industrial and technical education for thousands of Texas men and women. The school is housed in five buildings with over 80,000 square feet of space which provides modern and adequately equipped facilities for instruction. In 1971, the School was granted permission by the Coordinating Board, Texas College and University System, to award the Associate of Applied Science degree to its graduates.

The School of Technical Arts offers career-oriented education in 12 programs which make up the four departments in the school:

1. Industrial Department: Machine Tools, Welding, Diesel Mechanics, and Refrigeration and Air Conditioning Technology.
2. Technical Department: Business Data Processing, Industrial Electricity and Electronics Technology, Drafting Technology, and Police Science.
3. Health Services Department: Vocational Nursing, Dental Hygiene, and Radiologic Technology.
4. Related Arts Department: Mid-Management.

All of the above programs, except Vocational Nursing, are 2-year programs leading to an Associate of Applied Science degree. The Vocational Nursing program requires 12 months and leads to a certificate of completion.

All of the programs offered in the School are designed to give the student trade-training prior to his entry into a skilled trade or occupation. Successful completion of one of these programs should provide the student with sufficient knowledge and skill to enter and advance rapidly in his selected field.

The curriculum of each program is designed to allow a student to enter at any semester. The curriculum is also arranged so that the student has two routes by which he may obtain the Associate of Applied Science degree.

**Plan I** – A student meets the admission requirements of the School of Technical Arts and takes courses only in the School of Technical Arts.

**Plan II** – A student wishing to pursue a four-year degree or wishing to take courses in other schools in the University should follow Plan II. He must meet the general admission requirements of the institution.

**Extended Day Classes** – Extended day classes (4:45 p.m. – 10:00 p.m.) are provided for students who do not attend the regularly scheduled day classes. While the total time will likely exceed two years, it is possible for

a student to complete a degree by judiciously selecting courses offered in the extended day schedule.

**Adult Training Programs**—Adult Training Programs are primarily designed for employed persons who desire to extend their occupational skills and knowledge. The following types of courses are offered in adult education:

- a. Apprenticeship Training for those employed as apprentices in the skilled trades.
- b. Distributive Education for those engaged in retailing, wholesaling, real estate, or similar service occupations.
- c. Trade Extension for tradesmen of journeyman grade.
- d. Industrial Supervision for persons employed in industry in supervisory or leadership capacities.
- e. Conferences and/or short courses for those individuals and groups with specific requests and/or needs.

#### **Admission**

I. Students entering the School of Technical Arts may enroll under two plans:

Plan I — All courses leading to an Associate of Applied Science degree or a one-year Certificate of Completion will be taken in the School of Technical Arts.

Plan II — Courses leading to an Associate of Applied Science degree will be taken in various Schools of the University.

II. One of the requirements outlined below must be met for admission under Plan I and all registration must be completed.

1. Evidence of graduation from an accredited high school.
2. Transfer with transcript from an accredited vocational-technical college.
3. For persons 18 years of age or over not meeting either of the two preceding requirements, individual approval from the Dean of Admissions and Records.

III. Students wishing to enroll in the Associate of Applied Science degree programs under Plan II must meet the admission requirements of the institution as outlined in the Admissions section of this Bulletin.

IV. The following requirements are necessary for admission to the credit programs of Adult Training Programs:

1. A minimum entrance age of 18 years.
2. Employment in trade or industry for which supplementary instruction would increase the skill or knowledge of the worker.

3. Submission of a statement by the student which shall include (a) the name and address of his employer, (b) his payroll designation, and (c) a brief description of the duties of his daily employment.

### Registration Procedures

The student of Technical Arts follows the procedures for admission and registration followed by all students of the University.

Application for admission should be made well in advance of the expected enrollment date – six months in advance if possible, but no less than three weeks. All required admission forms are available from and should be returned to the Dean of Admissions and Records, Lamar University, Lamar University Station, Box 10009, Beaumont, Texas 77710.

The following information on procedures will be adequate for most students of Technical Arts, but if additional information is needed, the Admissions section of this Bulletin may be consulted.

1. Students applying under Plan I must file the Technical Arts application for admission form. Inclusion of the social security number is required on this form.
2. Students applying under Plan II must file both the Technical Arts application for admission form and the general University application for admission form. Inclusion of the social security number is required on both forms.
3. Submit the Health Data Form properly executed by a physician.
4. Submit transcript of high school record.
5. The Scholastic Aptitude Test (SAT) of the College Entrance Examination Board (CEEB) is required of all students applying for admission to the University. See the Admissions section of this Bulletin for exceptions.
6. Students wanting dormitory accommodations should file an application for room reservations with the Assistant Dean of Students for Housing, Lamar University, Lamar University Station, Box 10041, Beaumont, Texas 77710. A \$50 room deposit is required.

Registration is completed by payment of tuition and fees, and no one may register after the last date for registration for credit shown on the official calendar.

# GRADUATE SCHOOL

## Departments

Biology

Business Administration

Chemistry

Education

Engineering

English

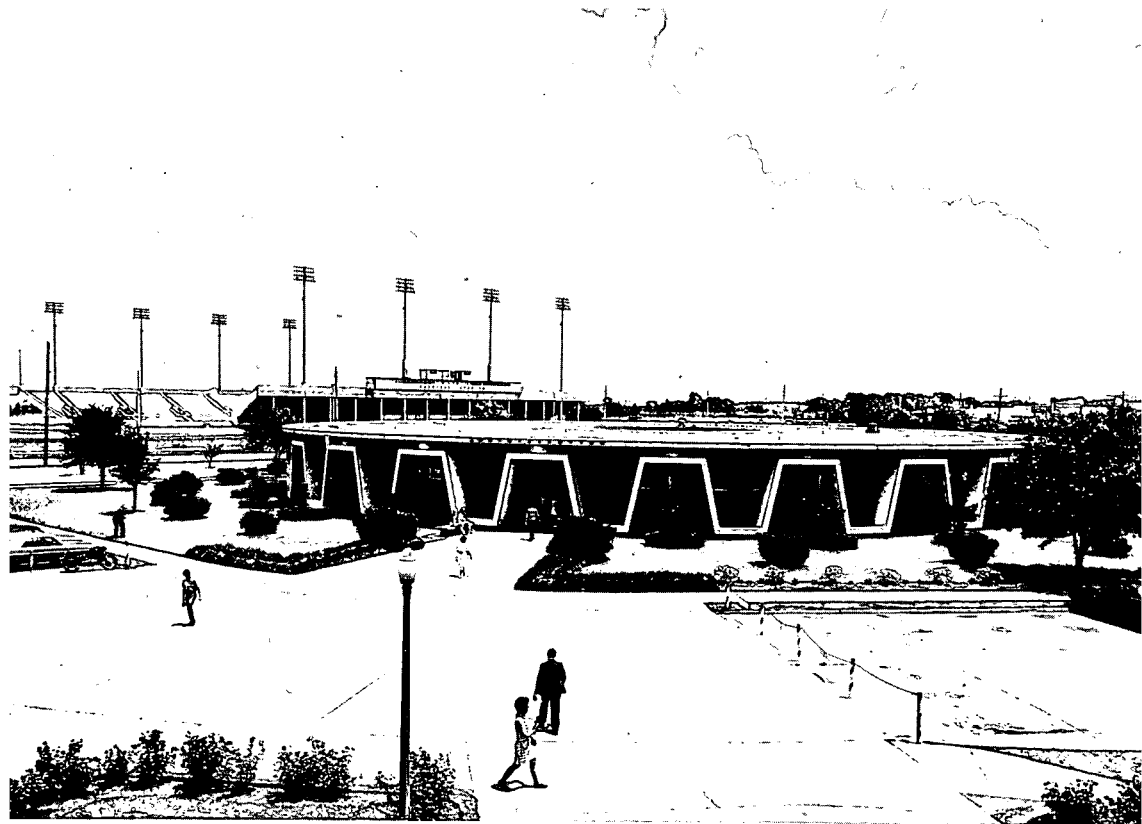
Government

Health and Physical Education

History

Mathematics

Speech



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**THE GRADUATE SCHOOL**

E. B. Blackburn, Jr., Ed.D., Dean

**The Graduate Council**

The Graduate Program is administered by the Graduate Council. The membership of the Council consists of representatives from each department offering graduate degrees, with the Dean of the Graduate School acting as chairman. The Council determines the academic policies of the Graduate School.

**Degrees Offered****Master of Arts**

- Master of Arts in English
- Master of Arts in Government
- Master of Arts in History

**Master of Business Administration****Master of Science**

- Master of Science in Biology
- Master of Science in Chemistry
- Master of Science in Health and Physical Education
- Master of Science in Mathematics
- Master of Science in Speech
- Master of Science in Speech (Audiology and Pathology)

**Master of Engineering****Master of Engineering Science****Doctor of Engineering****Master of Education**

- Master of Education in Elementary Education
- Master of Education in Guidance and Counseling
- Master of Education in Secondary Education
- Master of Education in Special Education
- Master of Education in Supervision

**The Graduate Bulletin**

The Graduate Bulletin contains a complete listing of courses, admission requirements, and other information of value to graduate students. Requests for copies should be directed to the Office of the Dean of the Graduate School, Lamar University, Box 10004, Lamar University Station, Beaumont, Texas, 77710.

### Admission

Applicants seeking admission to the Graduate School must present evidence that their academic record and personal attributes indicate the ability to pursue graduate work successfully. Admission to the Graduate School is administered by the Graduate Council. In general, the policies set forth by this Council for admission are as follows:

1. An applicant must hold a bachelor's degree from an institution approved by a recognized accrediting agency.
2. The following official credentials should be filed with the Dean of the Graduate School at least four weeks before registration.
  - A. Two official transcripts sent directly from each college previously attended.
  - B. Two completed copies of the application for admission to the Graduate School.
  - C. Scores on the aptitude and the appropriate subject matter area of the Graduate Record Examination (sent directly to the Dean of the Graduate School by the Educational Testing Service). The College Testing and Placement Center, located in the Educational Services Building, administers the Graduate Record Examination. Application forms and information about the Graduate Record Examination are available at this Center.
3. The applicant's undergraduate grade-point average and Graduate Record Examination scores must be above the minimum standard established by the Graduate School.
  - A. For regular admission **both** of the following requirements must be met:
    1. A minimum overall grade-point average of 1.5 on a three-point scale.
    2. A minimum composite score (verbal + quantitative) of 720 on the aptitude section of the Graduate Record Examination and a minimum verbal score of 350.
  - B. For admission on probation **one** of the following requirements must be met:
    1. A minimum grade-point average of 1.5 on junior and senior work and acceptable scores on the Graduate Record Examination – a composite score (V + Q) of 720 and a verbal score of 350.
    2. A grade-point average lower than 1.5, but with a score of at least 540 on an appropriate section of the G.R.E. aptitude test. (Some departments use the verbal score; some use the quantitative score; and some use either.)



3. A minimum overall grade-point of 2.0 and a minimum verbal score of 350 on the G.R.E.

NOTE: Probation is removed automatically without notification after the student completes nine semester hours of graduate work with grades of B or better.

#### C. Admission Requirements for Foreign Students:

Applications of foreign students are evaluated on an individual basis after the following information is received: (1) Official transcripts from colleges previously attended, (2) scores on the Graduate Record Examination, and (3) scores on the Test of English as a Foreign Language. In general, a foreign student whose native language is not English is expected to score over 500 on the TOEFL and fulfill the composite requirement ( $V + Q = 720$ ) on the GRE.

#### Special Students

An applicant who wishes to register for graduate work without enrolling in a degree program may do so under the following conditions:

1. He must hold a bachelor's degree.
2. He must be approved for admission by the Dean of the Graduate School.
3. With departmental approval, courses taken by a Special Student may be used for graduate degree credit under the following conditions:
  - (1) If requirements for admission to a degree program are met during his initial semester of enrollment.
  - (2) If requirements for admission are met in a subsequent semester, a maximum of six semester hours previously completed may be approved for degree credit.

#### Undergraduates Taking Graduate Courses

With the approval of the head of the major department and the Graduate Dean, an undergraduate student within twelve semester hours of graduation, may take not more than six semester hours of graduate courses to be applied toward the master's degree, provided the total academic load does not exceed fifteen semester hours.

#### Registration

A student who has been admitted to the Graduate School may register in August or January for the long session, or in June or July for the summer terms.

**LAMAR UNIVERSITY**  
**Directory 1971-72**  
**OFFICERS OF ADMINISTRATION**

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- OSCAR K. BAXLEY, B.B.A., Business Manager  
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Student Affairs Building

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Applied Arts  
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Engineering Building #3

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Chemistry Building

J. D. LANDES, B.S., M.S., Ph.D., Dean, School of Business  
Business Building

M. L. McLAUGHLIN, B.S., M.Ed., Ed.D., Dean, School of Education  
Education Building

KENNETH E. SHIPPER, B.S., M.A., Ph.D., Dean, School of Technical Arts  
Technical Arts Building #1

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Liberal Arts Building

#### OTHER ADMINISTRATIVE OFFICERS AND STAFF

O. B. ARCHER, B.S., M.S., Dean Emeritus, Executive Secretary, The Ex-Students Association

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Engineering Building #3

MRS. ANITA BROWNING, B.A., M.Ed., Associate Dean of Students  
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- RUSSELL DeVILLIER, Director of Public Information  
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- MARY FONTENOT, Computer Operator  
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- C. H. HUNT, Auditor  
Administration Building
- JACKIE F. JAMES, Director of Photographic Services  
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- KENNETH KOCH, Horticulturist  
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- BILLY LING, B.B.A., Assistant Purchasing Agent  
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- MARY MALONE, Cashier  
Administration Building
- JANE ANN MAXWELL, B.J., B.A., Assistant Director of Public Information,  
Director of Publications  
Administration Building

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- LEE ROY MYERS, Director of Physical Plant  
Maintenance Building
- JOHN M. NAUMANN, B.S., Programmer  
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Coordinator of Setzer Student Center  
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School of Technical Arts
- MRS. FRANKIE PLETZER, Senior Secretary  
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B.S.N., University of New Mexico
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B.S., M.S., Texas Woman's University
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B.S., The University of Minnesota  
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- MARY ALICE BAKER, Assistant Professor of Speech, Director of Forensics, 1969  
B.S., M.A., The University of Oklahoma
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Ph.D., The University of Texas

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Performer's Certificate
- BILLY RAY BARRINGTON, Associate Professor of Psychology, 1967  
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- LUTHER A. BEALE, Professor of Civil Engineering, Head, Department of Civil Engineering, 1955  
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B.S., M.A., Ph.D., Texas Woman's University
- LAWRENCE D. BELL, Assistant Professor of Mathematics, 1956  
B.E., C.E., North Carolina State University at Raleigh  
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Registered Professional Engineer (New York, North Carolina)  
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B.S., Florida State University  
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B.S., The University of Maryland  
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B.A., University of Dallas  
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B.B.A., The University of Texas  
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B.S., North Texas State University  
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- MRS. JEWEL D. BLANTON, Associate Professor of Speech, 1942, 1951  
B.A., Texas Christian University  
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- LYLE E. BOHRER, Assistant Professor of Electrical Engineering, 1946, 1954  
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- CLAUDE B. BOREN, Professor of Sociology, 1955, 1961  
B.A., Texas Tech University  
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B.A., M.A., Sam Houston State University
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B.A., State University of Iowa  
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B.S., M.S., West Texas State University
- CLARINE E. BRANOM, Associate Professor of English, 1946, 1953  
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- W. BROCK BRENTLINGER**, Professor of Speech, Dean, School of Fine and Applied Arts, 1969  
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- GEORGE A. BRYAN, JR.**, Assistant Professor of Biology, 1964  
B.S., The University of Texas at El Paso  
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- DONALD E. BRYSON**, Instructor of Health and Physical Education for Men, Assistant Basketball Coach, 1971  
B.S., Lamar University  
M.Ed., McNeese State University
- HENRY P. BULLER**, Assistant Professor of Psychology, 1961  
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B.M., University of Houston  
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- DOCK B. DeMENT, Assistant Professor of Mathematics, 1955, 1958  
B.A., Henderson State Teachers College  
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- GEORGE W. de SCHWEINITZ, Professor of English, 1966  
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- WALTER DEZELLE, JR., Associate Professor of Special Education, 1968  
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- ROBERT L. DINGLE, Associate Professor of Mathematics, 1959, 1964  
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B.S., University of Illinois  
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- BRUCE R. DRURY, Instructor of Government, 1971  
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B.S., M.S., North Texas State University  
Ph.D., Tulane University
- EDWIN O. EISEN, Associate Professor of Chemical Engineering, 1964, 1968  
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B.A., Sam Houston State University  
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- M. LEROY ELLIS, Professor of Modern Languages, Head, Department of Modern Languages, 1969  
B.A., M.A., The University of South Carolina  
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B.S., The University of Missouri  
M.Ed., University of Houston
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B.A., North Texas State University  
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B.S., M.S., Ph.D., University of Illinois
- JIMMIE D. FARBER, Instructor of English, 1970  
B.A., M.A., Midwestern University
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- GILBERT W. GATLIN**, Assistant Professor of Biology, 1964, 1968  
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- JAMES M. SIMMONS, Instructor of Music, 1970  
B.S., Memphis State University  
M.M., University of Houston
- MRS. DORIS R. SIMPSON, Instructor of Psychology, 1969  
B.S., Mary Washington College of The University of Virginia  
M.A., Texas Christian University
- SARAH E. SIMS, Assistant Professor of Elementary Education, 1971  
B.S., Lamar University  
M.Ed., Sam Houston State University
- GENEVIEVE Z. SMITH, Assistant Professor of Modern Languages, 1959, 1963  
B.A., Milton College  
M.A., Instituto Tecnológico de Monterrey
- JAMES H. SMITH, Instructor I of Diesel Mechanics, 1968, 1970  
C.C., Lamar University
- RONALD A. SMITH, Instructor of English, 1970  
B.A., M.A., Texas A&M University

- W. RUSSELL SMITH, Professor of Biology, 1946, 1958  
B.S., M.S., North Texas State University  
Ph.D., The University of Texas
- TIMOTHY SONNENBURG, Instructor of Special Education, 1971  
B.S., M.Ed., University of Houston
- JAMES D. SPENCER, Supervisor of Continuing Education, 1970  
B.S., M.Ed., Texas A&M University
- J. M. STARK, Professor of Mathematics, Head, Department of Mathematics,  
1956  
B.S., United States Coast Guard Academy  
B.S., North Texas State University  
S.M., Ph.D., Massachusetts Institute of Technology
- A. F. STEIERT, Assistant Professor of Business Administration, 1966  
B.S., M.B.A., University of Florida
- A. F. STELLEY, Associate Professor of Business Administration, 1954, 1965  
J.D., Baylor University
- JAMES B. STEVENS, Assistant Professor of Geology, 1970  
B.S., M.S., The University of Michigan  
Ph.D., The University of Texas
- MANFRED STEVENS, Professor of Government, 1960, 1966  
B.A., M.A., The University of Oklahoma  
Ph.D., The University of Michigan
- RONALD STIDHAM, Instructor of Government, 1970  
B.S., M.A., East Tennessee State University
- JOANN K. STILES, Instructor of History, 1966  
B.A., M.A., The University of Texas
- MRS. FAYE N. STONE, Instructor I of Vocational Nursing, 1969, 1970  
Registered Nurse, State of Texas
- JOHN W. STOREY, Assistant Professor of History, 1968  
B.A., Lamar University  
M.A., Baylor University  
Ph.D., University of Kentucky
- ARNEY L. STRICKLAND, Assistant Professor of English, Head, Department  
of English, 1969, 1970  
B.A., M.A., Lamar University  
Ed.D., Ball State University
- MRS. BERNICE STURROCK, Instructor II of Vocational Nursing, 1936,  
1971  
Registered Nurse, State of Texas
- WALTER A. SUTTON, Associate Professor of History, 1963, 1970  
B.A., William Marsh Rice University  
M.A., Ph.D., The University of Texas
- RICHARD E. SWAIN, III, Assistant Professor of Secondary Education, 1970  
B.S., M.Ed., Ed.D., North Texas State University

- ROSA MAE SYLER, Associate Director of Library Services, (Assistant Professor), 1946, 1968  
B.S., Geoge Peabody College for Teachers  
B.S. in Library Science, Louisiana State University
- DAVID G. TAYLOR, Associate Professor of Business Administration, 1955, 1957  
B.A., M.A., Baylor University
- ANNE L. TAXTER, Instructor of English, 1970  
B.A., Little Rock University  
M.A., University of Arkansas
- ANTHONY C. TENNISSEN, Associate Professor of Geology, 1963, 1965  
B.S., The University of Tulsa  
M.S., Syracuse University  
Ph.D., The University of Missouri at Rolla
- MRS. EDNA MARY TERRELL, Instructor I of Vocational Nursing, 1968, 1970  
Registered Nurse, State of Texas
- FRANK A. THOMAS, JR., Professor of Mechanical Engineering, President, 1958, 1969  
B.S., Purdue University  
M.S., Ph.D., Georgia Institute of Technology  
Registered Professional Engineer (Texas and Georgia)
- ROBERT BLAINE THOMAS, Associate Professor of English, Director of Library Services, 1960, 1970  
B.S., Virginia Polytechnic Institute and State University  
M.A., Ph.D., Louisiana State University
- ELLIS THOMPSON, Instructor III of Refrigeration & Air Conditioning, 1956, 1971
- GEORGE B. TIMS, JR., Professor of Industrial Engineering, Associate Dean, School of Engineering, Director of Cooperative Education, 1951, 1966  
B.S., M.S., Oklahoma State University  
Registered Professional Engineer
- JOSEPH TRUNCALE, Associate Professor of Music, 1947, 1965  
B.M., North Texas State University  
M.L., University of Houston
- CONN M. TRUSSELL, Instructor of Commercial Art, 1971  
B.A., M.F.A., Louisiana Tech University
- JERRY R. TUCKER, Assistant Professor of Secondary Education, 1971  
B.S., The University of Texas  
M.Ed., Trinity University
- WILLIAM R. TUCKER, Professor of Government, Head, Department of Government, 1956, 1971  
B.A., M.A., The University of Oklahoma  
Ph.D., The University of Geneva

CHARLES P. TURCO, Associate Professor of Biology, Director of Development, 1965, 1970  
B.S., Saint John's College  
M.S., M.S.Ed., Saint John's University  
Ph.D., Texas A&M University

WALTER W. TURMAN, Instructor II of Mathematics, 1967, 1970  
B.S., East Texas State University  
M.A., Texas A&M University

VICTORIA EUGENIA URBANO, Associate Professor of Modern Languages, 1966, 1969  
B.A., Colegio Superior  
M.A., Ph.D., Universidad de Madrid

FRANCIS ALAN VAN AUSDAL, Instructor of Music, 1971  
B.A., University of Washington  
M.M., Boston University

HOWARD C. VANZANT, Professor of Mathematics, 1966  
B.S., The University of Texas at El Paso  
M.S., Ph.D., University of Florida

MRS. JEANNETTE W. VAUGHN, Assistant Professor of Secretarial Science, 1954, 1957  
B.A., Texas Woman's University  
M.B.A., The University of Texas

VICTOR VENER, Instructor of Music, 1970  
B.M., M.M., University of Southern California

MALCOLM W. VEULEMAN, Associate Professor of Accounting, 1970  
B.S., McNeese State University  
M.B.A., University of Arkansas  
Certified Public Accountant

WILLIAM H. VINCENT, Instructor of Health and Physical Education for Men, Assistant Football Coach, Baseball Coach, 1968  
B.S., M.Ed., Lamar University

HENRY T. WADDELL, Professor of Biology, 1963, 1965  
B.S., M.A., George Peabody College for Teachers  
Ph.D., University of Florida

BOBBY R. WALDRON, Associate Professor of Industrial Engineering, 1970  
B.S., Louisiana College  
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Ph.D., Texas A&M University

JAMES L. WALKER, JR., Assistant Professor of Psychology, 1969  
B.A., Baylor University  
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RICHARD E. WALKER, Professor of Chemical Engineering, 1963  
B.S., Purdue University  
M.S., Bucknell University  
Ph.D., Iowa State University  
Registered Professional Engineer



- GEORGE B. WALL, Associate Professor of Philosophy, 1965, 1967  
B.A., Occidental College  
B.D., Fuller Theological Seminary  
Ph.D., University of Southern California
- MICHAEL E. WARREN, Associate Professor of Biology, Head, Department of Biology, 1966, 1971  
B.A., M.A., Ph.D., The University of Texas
- JOSEPH T. WATT, JR., Associate Professor of Electrical Engineering, 1965, 1967  
B.A., B.S., William Marsh Rice University  
M.S., Ph.D., The University of Texas  
Registered Professional Engineer
- RONALD WESBROOKS, Instructor of Health and Physical Education for Men, Tennis Coach, 1970  
B.S., Eastern New Mexico University  
M.S., Lamar University
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C.C., Lamar University
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B.A., Lamar University  
J.D., The University of Texas
- MRS. MARJORIE WHEELER, Science-Technology Librarian, (Instructor), 1970  
A.B., Smith College  
M.A., Johns Hopkins University
- ROBERT R. WHEELER, Assistant Professor of Geology, 1967  
A.B., Johns Hopkins University  
Ph.D., Harvard University
- JOHN A. WHITTLE, Assistant Professor of Chemistry, 1969  
B.S., University of Glasgow  
Ph.D., University of London
- CHARLES H. WILBANKS, Associate Professor of Secondary Education, 1946, 1951  
B.S., Sam Houston State University  
M.A., University of Houston
- CHARLES A. WILEY, Professor of Music, Director of Bands, 1952, 1962  
B.S., Texas Tech University  
M.M., The University of Texas  
Ed.D., University of Colorado
- ROBERT H. WILKERSON, Assistant Professor of Journalism, 1964, 1969  
B.A., M.A., The University of Oklahoma
- DONALD E. WILLIAMS, Associate Professor of Business Administration, 1952, 1958  
B.A., M.A., Ed.D., North Texas State University
- HARRY L. WILLIAMS, Instructor II of Business Data Processing, 1968, 1971  
B.B.A., Stephen F. Austin State University

- PRESTON B. WILLIAMS, Professor of History, Dean, School of Liberal Arts,  
1950, 1966  
B.A., M.A., North Texas State University  
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- STANLEY C. WILLIAMS, Instructor of English, 1970  
B.A., M.T., M.La., Southern Methodist University
- CURTIS E. WILLS, Assistant Professor of Secondary Education, 1971  
B.S., M.Ed., Sam Houston State University  
Ed.D., North Texas State University
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1970  
B.S., Lamar University
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for Women, 1955, 1960  
B.S., M.A., Texas Woman's University
- MRS. BETTY WINNEY, Instructor of Speech and Hearing, 1967, 1969  
B.S., M.S., Lamar University  
Certificate in Audiology
- JACOB A. WOLKEAU, Associate Professor of Mathematics, 1957, 1961  
B.A., University of Pennsylvania  
M.S., University of Pittsburgh
- SAM M. WOOD, JR., Associate Professor of Mathematics, 1958, 1965  
B.A., The University of Texas  
M.S., Texas A&M University
- NAAMAN J. WOODLAND, JR., Associate Professor of History, 1957, 1969  
B.A., B.S., Louisiana State University  
M.A., Northwestern University
- GEORGE A. WOODWARD, Associate Professor of Sociology, 1967  
B.S., M.A., University of Houston  
Ph.D., The University of Oklahoma
- RALPH A. WOOSTER, Professor of History, 1955, 1962  
B.A., M.A., University of Houston  
Ph.D., The University of Texas
- MICHAEL A. WYNN, Assistant Professor of Business Administration,  
Director of Computer Center, 1970  
B.A., Trinity University  
M.C.S., Texas A&M University
- LEONARD A. YATES, Associate Professor of Health and Physical Education  
for Men, 1966  
B.S., M.S., Louisiana State University  
Ed.D., University of Houston
- A. W. YEATS, Professor of English, 1961, 1966  
B.A., McMurry College  
M.A., Ph.D., The University of Texas

- ROGER E. YERICK, Professor of Chemistry, Assistant Dean, School of Sciences, 1958, 1970  
B.S., Texas A&I University  
Ph.D., Iowa State University
- FRED MICHAEL YOUNG, Associate Professor of Mechanical Engineering, 1967, 1969  
B.S., M.S., Ph.D., Southern Methodist University
- LUTHER B. YOUNGBLOOD, III, Instructor of Art, 1970  
B.A., University of Southwestern Louisiana
- PAUL T. ZEEK, Instructor of Health and Physical Education for Men, Athletic Trainer, 1971  
B.A., The University of Texas at El Paso
- DAVID D. ZINK, Associate Professor of English, 1965  
B.A., The University of Texas  
M.A., Ph.D., University of Colorado

## PART-TIME FACULTY

- MICHAEL D. ALLEN, Teaching Fellow of Business Administration, 1971  
B.B.A., Lamar University
- JACK C. AULBAUGH, Instructor of Real Estate, 1966  
B.S., Lamar University
- DENNIS K. BAKER, Teaching Fellow of Government, 1971  
B.A., Lamar University
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- BRUCE A. BELVIN, Teaching Fellow of Government, 1971  
B.S., Lamar University
- HERMAN BLANTON, Instructor of Real Estate, 1965
- WILLIAM T. BLOCK, JR., Teaching Fellow of History, 1970  
B.A., Lamar University
- WALTER W. BOLTON, Teaching Fellow of Mathematics, 1969  
B.S., William Marsh Rice University
- SHARON A. BOND, Teaching Fellow of Speech, 1971  
B.S., Lamar University
- WILBUR C. BREINING, Instructor of Secondary Education, 1971  
B.S., M.S., North Texas State University
- RALPH J. BROOKNER, Associate Professor of Mathematics, 1962  
B.A., William Marsh Rice University  
M.A., The University of Michigan  
Ph.D., Columbia University
- JAMES N. BROWN, Instructor of Health Services, 1971

- NORA K. BRUCE, Teaching Fellow of Mathematics, 1970  
B. S. Lamar University
- DOUGLAS BUFFINGTON, Teaching Fellow of Economics, 1971  
B.A., Lamar University
- KATIE M. BURFORD, Teaching Fellow of History, 1971  
B.A., Lamar University
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B.A., Lamar University
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Coach, 1971  
B.B.A., Lamar University
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B.S.E.E., Texas A&M University
- WILLIAM G. CHILDS, JR., Teaching Fellow of English, 1971  
B.A., Tulane University
- LYNNWOOD M. CLARK, Instructor of Related Subjects, 1970  
B.S., Lamar University
- R. D. COLLEY, Instructor of Industrial Arts, 1971
- H. O. DANIELS, Instructor of Industrial Instruments, 1956
- JOHN DANNA, Instructor of Drafting, 1971
- BERTRAND R. DIONNE, Instructor of Industrial Supervision, 1966  
B.A., The University of Texas
- THOMAS K. DREESSEN, Teaching Fellow of Accounting, 1971  
B.B.A., Lamar University
- CHARLES J. DUCHAMP, Teaching Fellow of Business Administration, 1971  
B.S., Lamar University
- J. B. ENER, Instructor of Real Estate, 1963
- HORACE EPPERHART, Instructor of Industrial Electricity & Electronics,  
1970
- JOSEPH FISCHER, Instructor of Related Arts, 1971  
B.S., Lamar University
- JOSEPH GIARRATANO, Teaching Fellow of English, 1970  
B.A., Lamar University
- D. REX GOODE, Instructor of Civil Engineering, 1970  
B.S., Georgia Institute of Technology  
B. of Arch., Georgia Institute of Technology  
Registered Architect
- BRUCE GRAHAM, Teaching Fellow of History, 1971  
B.A., Graceland College

- SHERMAN GUYON, Instructor of Related Arts, 1969  
B.B.A., University of Houston
- VANCE JAMES HARDY, JR., Teaching Fellow of Business Administration,  
1971  
B.B.A., Lamar University
- MURRAY HENDRICK, Instructor of Business Administration, 1970  
B.S., Michigan Technological University  
M.B.A., Lamar University
- DAVID S. HOOKER, Teaching Fellow of English, 1971  
B.A., Lamar University
- DAN R. HOOKS, Teaching Fellow of Health and Physical Education for Men,  
Assistant Football Coach, 1971  
B.S., Sam Houston State University
- MRS. VIRGINIA G. HORSMAN, Instructor of Secondary Education, 1971  
B.A., M.A., Ph.D., Texas Tech University
- MRS. PAULA A. HUDGINS, Teaching Fellow of Government, 1971  
B.S., Lamar University
- FLOYD E. HUNTER, Teaching Fellow of Biology, 1971  
B.S., Lamar University
- FRANK JAMESON, Instructor of Real Estate, 1969
- H. CLAY JOFFRIAN, Instructor of Accounting, 1971  
B.A., Lamar University
- CARL D. JONES, Instructor of Business Administration, 1971  
B.A., Texas A&M University
- MRS. KAY JONES, Instructor of Adult Education, 1971  
B.A., Mississippi Woman's College
- NEIL C. KERR, Instructor of Welding, 1970
- MRS. GAYLE B. KERAMIAN, Teaching Fellow of Government, 1971  
B.S., Lamar University
- LARRY D. KIKER, Teaching Fellow of Mechanical Engineering, 1971  
B.S., Lamar University
- ROBERT A. KIRKLAND, Instructor of Related Arts, 1971  
B.S., Lamar University
- JERRY KNOWLES, Instructor of Technical Arts, 1971
- DON A. LACKEY, Teaching Fellow of Business Administration, 1970  
B.S., Lamar University
- MRS. CAROLE J. M. LITTLER, Teaching Fellow of English  
B.A., Lamar University

- RICHARD A. MALLAHAN, Teaching Fellow of Business Administration,  
1971  
B.B.A., Texas A&M University
- THOMAS MARTINDALE, Instructor of Welding, 1971
- DANIEL D. McINNIS, Teaching Fellow of Business Administration, 1971  
B.B.A., Lamar University
- CALVIN McKAY, Instructor of Industrial Supervision, 1966  
B.S., University of Southwestern Louisiana
- J. PAUL McNEILL, Instructor of Business Administration, 1967  
B.A., Elon College  
M.A., Southern Methodist University
- RAJARATHNAM MOHAN, Teaching Fellow of Civil Engineering, 1971  
B.E., P.S.G. Technology  
M.S., Government College of Technology  
M.E.S., Lamar University
- ROBERT M. MOSS, Instructor of Industrial Arts, 1971
- NORMAN OLIVER, Instructor of Business Administration, 1970  
B.S., B.B.A., M.B.A., Texas A&M University
- KAREN R. OLSON, Instructor of Biology, 1966  
B.A., William Marsh Rice University  
M.Ed., Lamar University
- TERRANCE ONO, Teaching Fellow of Health and Physical Education for  
Men, 1971  
B.B.A., Western New Mexico University
- HAROLD OSMON, Teaching Fellow of Accounting, 1971  
B.B.A., Lamar University
- SHARAD D. PALIKAR, Teaching Fellow of Industrial Engineering, 1971  
B.S., College of Engineering, Poona, India
- MRS. SHERYL ANNE SAVOY PARKER, Teaching Fellow of Secretarial  
Science, 1971  
B.B.A., Lamar University
- WILBUR L. PATE, Teaching Fellow of Business Administration, 1971  
B.B.A., Lamar University
- DEXTER PATTERSON, Instructor of Business Administration, 1970  
B.S., Lamar University  
J.D., Baylor University
- WILLIAM C. PETERS, Instructor of Business Data Processing, 1967
- DALE L. PERRY, Teaching Fellow of Chemistry, 1969  
B.S., Midwestern University
- ALVIN G. PRUDHOMME, Teaching Fellow of Business Administration,  
1971  
B.B.A., Lamar University

- WENDELL C. RADFORD, Instructor of Government, 1971  
B.B.A., Lamar University  
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- JANICE L. REED, Teaching Fellow of Speech, 1971  
B.A., Lamar University
- DONALD A. RICKETT, Instructor of Mathematics, 1966  
B.S., M.S., Lamar University
- DAVID RIVES, Instructor of Health and Physical Education for Men, 1971  
B.S., Lamar University
- GEORGE D. SCHULDT, Instructor of Technical Arts, 1971  
B.A., Sam Houston State University
- RICHARD G. SCOTT, Teaching Fellow of Industrial Engineering, 1971  
B.S.I.E., Lamar University
- DENNIS S. SHIGEMURA, Teaching Fellow of Chemical Engineering, 1971  
B.S., Lamar University
- GARY STANFORD, Teaching Fellow of Government, 1971  
B.A., Lamar University
- ROBERT J. SUDELA, Teaching Fellow of English, 1970  
B.A., Lamar University
- JAMES S. TEMPLE, Instructor of Industrial Arts, 1971
- KENNETH TERRELL, Teaching Fellow of Biology, 1971  
B.S., Lamar University
- WILLIAM P. TEW, Teaching Fellow of Chemistry, 1969  
B.S., Lamar University
- D. FAYE THAMES, Assistant Professor of Mathematics, 1957, 1960  
A.B., Birmingham-Southern College  
M.A., George Peabody College for Teachers
- WILSON TRAHAN, Lecturer of Secondary Education, 1971  
B.A., M.Ed., The University of Texas
- MAX V. TRENCK, Instructor of Industrial Supervision, 1952
- MRS. MARLYS J. TUCKER, Teaching Fellow of Mathematics, 1970  
B.A., Lamar University
- LESLIE WALLEY, Instructor of Industrial Electricity & Electronics, 1970
- MRS. DOROTHY WEATHERLY, Instructor of English, 1961  
B.A., M.A., Stephen F. Austin State University
- ROBERT J. WEEMS, Teaching Fellow of Chemistry, 1971  
B.S., Southwestern State University of Oklahoma

JOHN C. WEST, Instructor of Layout, 1969  
B.S., Drexel Institute of Technology

JOHN C. WILSON, Instructor of Industrial Electricity & Electronics, 1970  
B.S., Texas A&M University

ROBERT G. WOLFE, Instructor of Industrial Electricity & Electronics, 1967  
B.S., Louisiana Tech University

MRS. ANITA WOOD, Instructor of Related Arts, 1971  
B.A., Sam Houston State University

LEONARD E. WRIGHT, Instructor of Industrial Arts, 1971

### CAMPUS MINISTERS

JIM CHATHAM, Campus Minister, Rothwell Methodist Center and Wesley Foundation

CHARLES ECKERT, Campus Minister, Lutheran Ministry

JOSEPH GOSS, O.P., Director, Newman Center

ALLEN HUDGENS, Director, Church of Christ Bible Chair

B. H. McCOY, Campus Minister, Pentecostal Students Fellowship

JOHN M. PURCELL, Campus Minister, United Christian Fellowship Center

EARL SHEFFIELD, Priest-in-Charge, Episcopal University Center and St. Matthew's Church

JAMES A. WRAY, Director, Baptist Student Center

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MRS. RUTH BECK, L.V.N.

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MYRTIE SANDEFER, Secretary



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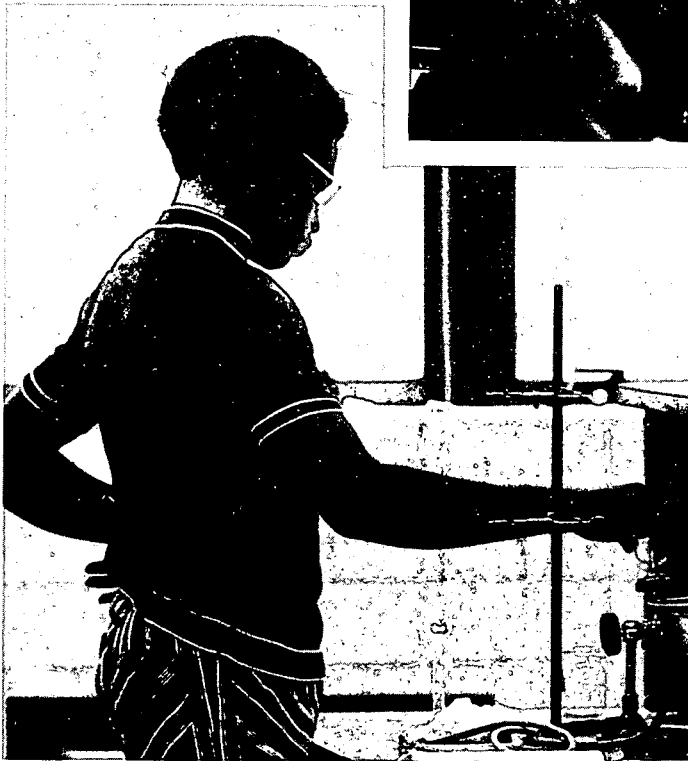
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B.S., Lamar University  
M.A., Sam Houston State University

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JOE BEN WELCH, Instructor of Mathematics, Director of Lamar University  
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B.S., Louisiana Tech University  
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- MRS. JUDITH ARONOW, Instructor of Mathematics, 1971  
B.S., The University of North Dakota  
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- MARILYN CHITWOOD, Instructor of Radiologic Technology, 1971
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B.A., Pennsylvania State University
- MARIA DOLORES GARCIA, Instructor of Modern Languages, 1969  
B.S., Lamar University  
M.A., Stephen F. Austin State University
- CHARLES R. HOLCOMB, Instructor of Government, 1970  
L.L.B., South Texas College
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B.S., Ohio University  
M.S., Texas Tech University
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- H. D. PATE, Instructor of Government, 1969  
J.D., South Texas College
- SAMUEL STANSBURY, Instructor of History, 1971  
B.A., Lamar University
- BILLY WILLS, Instructor of Geology and Physics, 1971  
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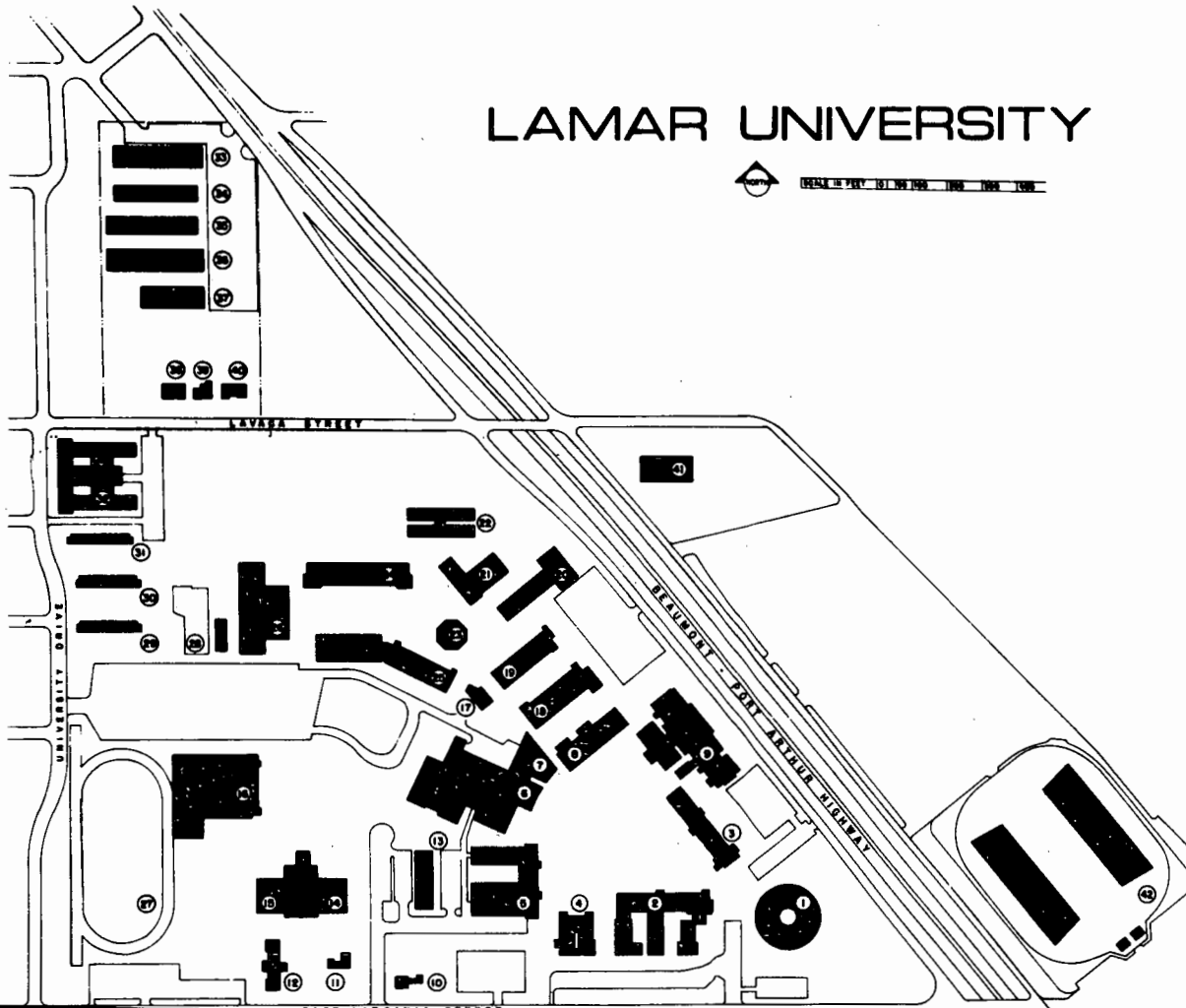
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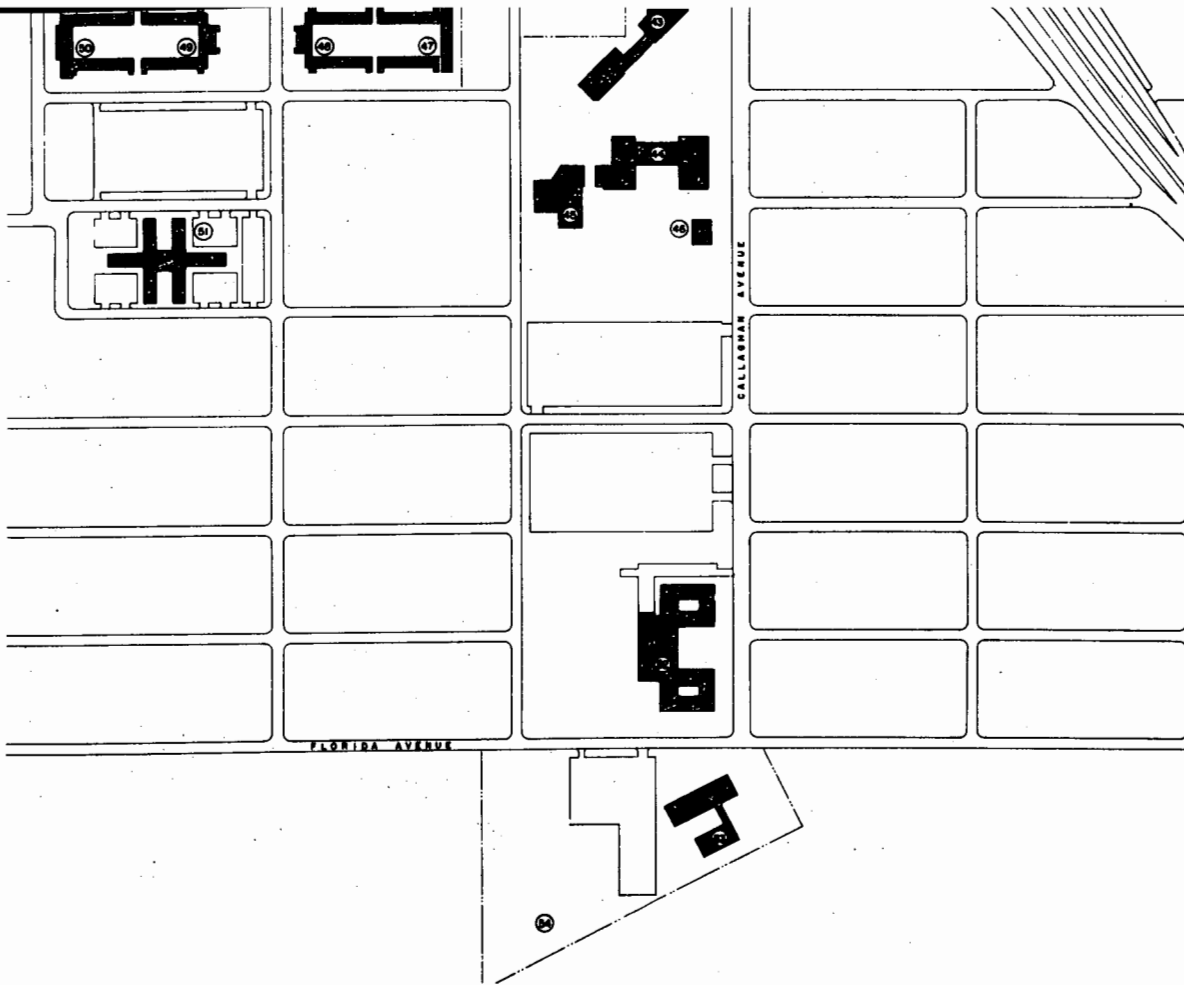


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- ⑫ HEALTH CENTER
- ⑬ POST OFFICE
- ⑭ DINING HALL A
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- ㉖ WOMEN'S PHYSICAL EDUCATION
- ㉗ TRACK

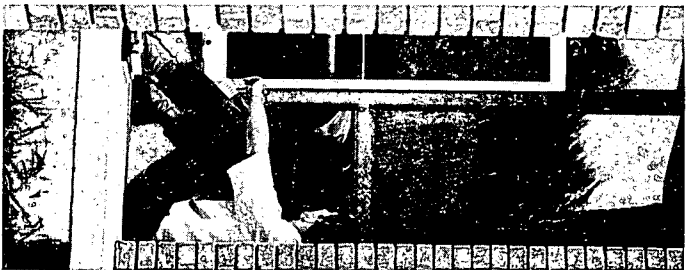
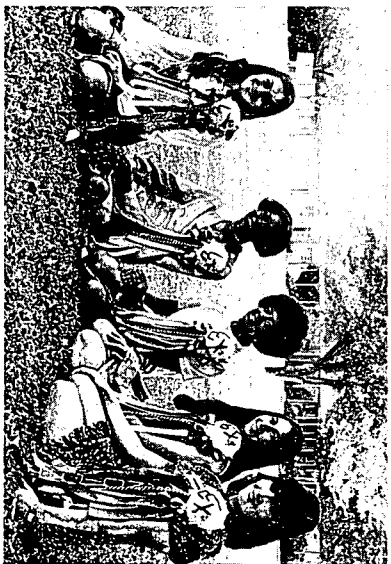




- 28 SWIMMING POOL
- 29 LAMAR APARTMENTS NO. 1
- 30 LAMAR APARTMENTS NO. 2
- 31 LAMAR APARTMENTS NO. 3
- 32 GENTRY HALL
- 33 TECHNICAL ARTS BUILDING NO. 1
- 34 TECHNICAL ARTS BUILDING NO. 2
- 35 TECHNICAL ARTS BUILDING NO. 3
- 36 TECHNICAL ARTS BUILDING NO. 4
- 37 TECHNICAL ARTS BUILDING NO. 5
- 38 NURSERY SCHOOL
- 39 HOME MANAGEMENT
- 40 BUILDING SUPERINTENDENT'S HOME
- 41 MAINTENANCE BUILDING
- 42 CARDINAL STADIUM
- 43 ENGINEERING NO. 3
- 44 LIBERAL ARTS
- 45 EDUCATION
- 46 MECHANICAL PLANT
- 47 MORRIS HALL
- 48 COMBS HALL
- 49 CAMPBELL HALL
- 50 GRAY HALL
- 51 PLUMBER HALL
- 52 BROOK'S & SHIVER'S HALLS
- 53 EDUCATIONAL SERVICES CENTER
- 54 STADIUM











Lamar University acquired the historic Sabine Pass Lighthouse and 45.56 acres of land from the U. S. Government in May, 1971. Academic programs in oceanographic technology, marine biology, engineering, meteorology, and environmental science are among those which will use the area for research.

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