

**1968**

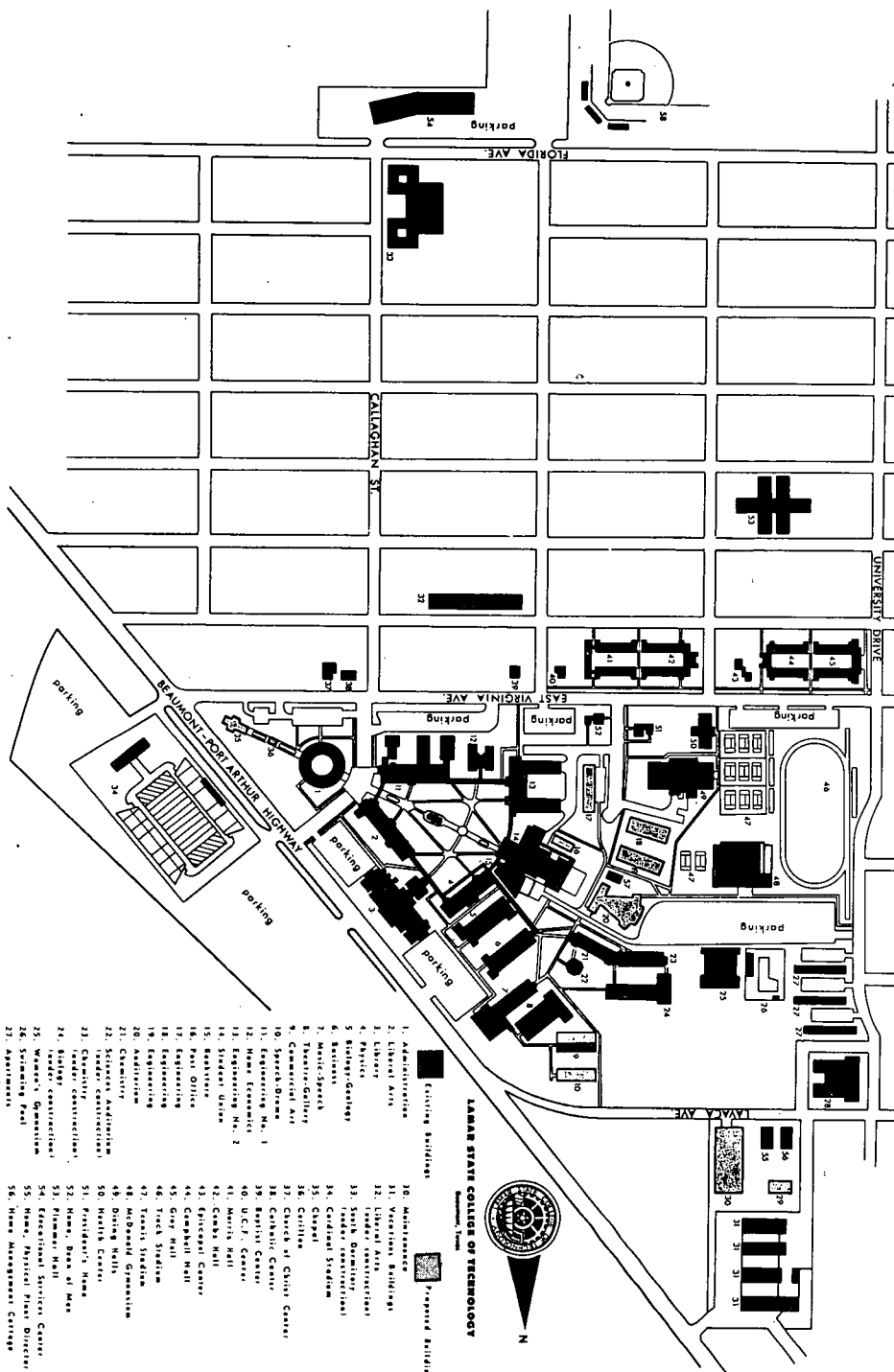
**SUMMER SESSION**

**BULLETIN**



**Lamar State College of Technology**

**Beaumont, Texas**



- Existing Buildings**
1. Administration
  2. Library Arts
  3. Library
  4. Physics
  5. Biology-Geology
  6. Business
  7. Music-Speech
  8. Theater-Dance
  9. General Shop
  10. General Shop No. 1
  11. General Shop No. 2
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**BULLETIN**  
**of**  
**LAMAR STATE COLLEGE OF TECHNOLOGY**

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MAY, 1968

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Association of Texas Colleges and Universities  
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National Commission on Accreditation  
Southern Association of Colleges and Schools  
Association of American Colleges  
Texas Association of Music Schools  
American Society for 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 Engineering Council  
for Professional Development  
Accredited by American Chemical Society

Announcements for Summer Session, 1968

First Term--June 4, 1968, through July 12, 1968

Second Term--July 16, 1968, through August 23, 1968

Lamar State College of Technology  
Beaumont, Texas

## LAMAR STATE COLLEGE OF TECHNOLOGY

### BOARD OF REGENTS

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### OFFICES OF ADMINISTRATION

#### General

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GEORGE E. MCLAUGHLIN, B. S., Dean of Men . . . . .	Room 201, Student Union Building
MRS. BESS NEAL GENTRY, B. S., M. Ed., Dean of Women . . . . .	Room 201, Student Union Building
JACK HILL, B. B. A., M. B. A., Director of Evening Classes . . . . .	Room 100, Liberal Arts Building
JOE B. THRASH, B. S., M. A., Director, Testing and Placement Center . . . . .	Room 102, Liberal Arts Building

#### Schools

EDWIN S. HAYES, B. S., Ph. D., Dean, School of Sciences . . . . .	Room 103, Biology-Geology Building
PRESTON B. WILLIAMS, B. A., M. A., Ph. D., Dean, School of Liberal Arts . . . . .	Room 112, Liberal Arts Building
J. D. LANDES, B. S., M. S., Ph. D., Dean, School of Business . . . . .	Room 103, Business Building
W. RICHARD HARGROVE, B. S., M. Ed., Ed. D., Dean, School of Education . . . . .	Room 1-A Educational Services Building
TED SKINNER, B. S., M. A., Ph. D., Dean, School of Fine and Applied Arts . . . . .	Room 206, Music-Speech Building
LLOYD B. CHERRY, B. A., B. S., M. A., Acting Dean, School of Engineering . . . . .	Room 101, E1 Engineering Building
M. L. MCLAUGHLIN, B. S., M. Ed., Ed. D., Dean, Graduate School . . . . .	Administration Building
E. E. MILLER, B. S., M. S., Director, Lamar School of Vocations . . . . .	Room 105, Vocations Building

## LAMAR STATE COLLEGE OF TECHNOLOGY

### SUMMER SESSION

#### First Term

June 2 Sunday . . . Limited operation of dormitories.  
June 3 Monday . . . Registration, 8 a.m.  
Registration--evening classes, 6 p.m.  
June 4 Tuesday . . . Classes begin 7 a.m.  
Late registration (penalty fee charged).  
Payment of fees is a part of registration.  
June 5 Wednesday . . . Last date for registration or for adding courses, 7 p.m.  
June 7 Friday . . . Fourth Class Day  
June 14 Friday . . . Last date for application for August graduation, 5 p.m.  
June 24 Monday . . . Last date for dropping courses or withdrawing without  
penalty, 7 p.m.  
July 11-12  
Thursday, Friday . . . First term finals  
July 13 Saturday . . . Last date for reporting term grades to Registrar's office.  
noon

#### Second Term

July 15 Monday . . . Registration, 8 a.m.  
Registration--evening classes, 6 p.m.  
July 16 Tuesday . . . Classes begin, 7 a.m.  
Late registration (penalty fee charged).  
Payment of fees is a part of registration.  
July 17 Wednesday . . . Last date for registration or for adding courses, 7 p.m.  
July 19 Friday . . . Fourth Class Day  
Aug. 5 Monday . . . Last date for dropping courses or withdrawing without  
penalty, 7 p.m.  
Aug. 22-23  
Thursday, Friday . . . Second term finals  
Last date for reporting term grades to Registrar's office,  
8 a.m.  
Aug. 24 Saturday . . . Commencement, 9 a.m.

## DIRECTORY FOR CORRESPONDENCE

Academic Program . . . . .	Frank A. Thomas, Jr. Vice President of Academic Affairs
Academic Records and Transcripts . . . . .	Celeste Kitchen, Registrar
Admissions and Testing . . . . .	Norris H. Kelton, Dean of Admissions
Athletics . . . . .	J. B. Higgins, Athletic Director
Books and Supplies . . . . .	O. J. Wilkerson, Manager, Bookstore
Business Affairs . . . . .	H. C. Galloway, Vice President of Finance
Employment for Students . . . . .	Joe B. Thrash, Placement Office
Evening School . . . . .	Jack Hill, Director
Graduate School . . . . .	M. L. McLaughlin, Dean
School of Sciences . . . . .	Edwin S. Hayes, Dean
School of Liberal Arts . . . . .	Preston B. Williams, Dean
School of Business . . . . .	J. D. Landes, Dean
School of Education . . . . .	W. Richard Hargrove, Dean
School of Engineering . . . . .	Lloyd B. Cherry, Acting Dean
School of Fine and Applied Arts . . . . .	Ted Skinner, Dean
School of Vocations . . . . .	E. E. Miller, Director
Housing, Dormitory Reservations . . . . .	J. Paul Pederson, Student Life Office
Library . . . . .	Andrew J. Johnson, Librarian
Publications and Information . . . . .	Richard E. Oliver, Director
Research Center . . . . .	Lloyd B. Cherry, Director
Scholarships . . . . .	David L. Bost, Dean, Student Life
Student Activities . . . . .	Gene Peters, Director
Student Health . . . . .	Mrs. Ola Saunders, Health Center
Student Loans . . . . .	Brian Sumrall, Loan Officer
Teacher Certification . . . . .	Certification Officer, School of Education
Traffic and Security . . . . .	Gene Carpenter, Director
Tuition, Fees, Expenses . . . . .	Finance Office
Veterans' Affairs . . . . .	Joe B. Thrash, Placement Office

# ORGANIZATION OF THE COLLEGE

by

Schools and Departments

## SCHOOL OF LIBERAL ARTS

(Bible)  
English  
Government  
History  
Modern Languages  
Psychology  
Sociology

## SCHOOL OF ENGINEERING

Chemical  
Civil  
Electrical  
Industrial  
Mechanical  
Mathematics

## SCHOOL OF SCIENCES

Biology  
Chemistry  
Geology  
Physics

## SCHOOL OF EDUCATION

Education  
Home Economics  
Physical and Health Education

## SCHOOL OF BUSINESS

Accounting  
Business Administration  
Economics  
Secretarial Science

## SCHOOL OF FINE AND APPLIED ARTS

Commercial Art  
Music  
Speech

## GRADUATE SCHOOL

Business  
Chemistry  
Education  
Engineering  
English  
History  
Mathematics

Note: Lamar also operates Lamar School of Vocations.  
Its courses are described in a separate bulletin.

## **GENERAL INFORMATION**

### **Location**

Lamar State College of Technology 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 faces the Beaumont-Port Arthur Highway in southeastern Beaumont. With a population of approximately 130,000, Beaumont has modern schools, churches, and shopping districts to serve the thriving industrial community.

### **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 the curriculum has been expanded and liberalized to include many areas of study, and many additional facilities have been provided. Enrollment has increased until there are now over 10,000 students.

The College offered graduate work in specified fields beginning in the academic year of 1960-61.

### **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.

The departments of Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering are accredited by the Engineering Council for Professional Development.

The Department of Chemistry is accredited by the American Chemical Society.



## **Government**

The government of the College 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.

## **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, Geology, Government History, Home Economics, Mathematics, Music, Medical Technology, Physical and Health Education, Physics, Sociology, 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 and History.

**MASTER OF BUSINESS ADMINISTRATION** in Business.

**MASTER OF EDUCATION** in Elementary Education, Secondary Education and Special Education.

**MASTER OF ENGINEERING SCIENCE** in Engineering.

**MASTER OF SCIENCE** in Chemistry and Mathematics.

## **Evening Classes**

For administrative purposes, classes offered after 6:00 p.m. are referred to as evening classes. With few exceptions the same faculty members teach in both day and evening classes, and all educational facilities are the same. A person employed during the day hours may attend classes in the evening and work toward a degree or expand his knowledge in a special field of interest.

Course offerings in the evening are such that by judicious choice of classes continual progress toward an objective may be maintained. It is advisable to follow the program of study outlined in the catalog, but in every case such program should be approved by the department head concerned with the training objective of the student.

## **GENERAL REGULATIONS**

The general regulations of the College apply to the Summer Session. Students should read all regulations regarding academic matters listed in the current General Catalog.

Among the more timely regulations with the Summer Session student in mind are the following:

### **Telephone Service**

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

### **Student Debts**

The College 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 Men (Women) will take appropriate action depending on age or marital status of the student concerned.

Penalty for failure to clear up these obligations may be: a) No re-admission; b) Withholding of grades and transcript; c) Withholding of degree.

### **Parking Regulations**

At registration time 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 placed in a specific place on the back window of the car.

### **Penalty for False Statements**

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

### **Official Summons**

An official summons from any administrative office takes precedence over all other college 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.

## ACADEMIC INFORMATION

### Advantages of Summer Session

The summer session is an important part of the total education program offered by the College. Classes are taught by regular faculty members and all facilities normally used during the fall and spring semesters are available for summer school.

Academic courses include the same material as those offered during the regular semester.

There are many advantages to attending summer school classes for the high school graduate and for students previously enrolled in college.

#### 1. For Entering Freshman

High school graduates concerned over the difficult transition from high school to college study can use summer school credits to lighten their academic load during their freshman year and eliminate some of the problems concerned with this transition period.

During the summer session, students normally enroll for two academic courses per session. This allows greater concentration on the subject matter areas which are most difficult for the entering student.

Students who have fulfilled the general admission requirements of the college may also use either summer session to make up any unit deficiencies required in certain degree programs. This would enable the student to enter normal curriculum pattern the following fall semester.

Others can make good use of summer school courses to enrich their programs through work which they otherwise might not be able to take.

Some students may wish to accelerate their graduation date through summer work. It is quite possible to shorten the academic period required for graduation by one or more semesters through repeated summer school attendance.

#### 2. For Students Who Work

Students who plan to carry reduced academic loads during the regular sessions so that they may earn part of their expenses through employment can use the summer session to increase the total number of hours taken over a calendar year to what is normally expected of a full-time student.

#### 3. Students Attending Other Colleges

Those who are regularly enrolled in other colleges but who reside in the area can use courses offered by Lamar to enrich their academic programs or to meet requirements at other institutions.

#### 4. Students in Academic Difficulty

For those students who have failed to pass certain courses, who are on probation, or who have been suspended from Lamar State College for one term,

the summer session presents an opportunity to repair their academic record. Students that are suspended for one term from Lamar State College may attend the summer session without penalty. This does not apply to students who have been suspended from other colleges.

## **Admissions**

Graduate School requirements are listed in the Graduate Bulletin.

Qualifications for vocational training are outlined in the Lamar School of Vocations Bulletin.

Requirements for admission to the undergraduate program of the College are outlined briefly in the following sections and are given in more detail in the regular catalog. Students seeking admission should study the requirements carefully. If it appears that the qualifications can be met, the procedure for making application for admission outlined on the inside of the back cover of this catalog should be followed.

Requests for application forms and additional information should be directed to the Dean of Admissions, Lamar State College of Technology, Beaumont, Texas, 77704.

## **Admission Requirements**

An applicant who has never attended college is required to be of good moral standing; to have graduated from an accredited high school with the units of credit specified in the regular catalog; and unless graduation was prior to 1960, to submit Scholastic Aptitude Test (SAT) scores which meet the minimum requirement. A total score of 700 (Verbal plus Math) on the SAT is required for admission to any regular semester but an applicant whose score falls below 700 may be admitted on a provisional basis to the summer session. In order for a provisionally admitted student to be eligible for re-admission to the fall semester, he must (1) attend both summer terms, (2) complete 12 semester hours (selected from English, history, mathematics, or science and must include English 131), (3) pass all courses taken, and (4) earn 12 grade points (C" average).

College transfers may not be deficient in excess of 15 grade points (3 point system) and must be eligible to re-enter all colleges previously attended. SAT scores totaling at least 700 must be submitted if less than 18 semester hours of transferable work has been completed.

Former students at the college who have subsequently enrolled at another institution are considered to be transfer students and are required to meet the above requirements in order to be re-admitted.

### **Health Data Requirement**

All students entering day classes for the first time at Lamar State College must file a Health Data Form with the Dean of Admissions. This regulation does not apply to transient students.

### **Social Security Number Required**

The application for admission form calls for the applicant's Social Security Number. The number will be used as a permanent student number in machine processing of student records. Non-holders of Social Security cards should secure one so that the proper information can be entered on the application form.

### **Temporary Admission**

Students entering Lamar in the summer often find that the interval between the completion of high school work and the beginning of a college semester is too short for the transcript to reach the College. 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 from college.

### **Entrance Test Requirement**

The Scholastic Aptitude Test (SAT) of the College Entrance Examination Board is required of applicants entering from high school unless graduation was prior to 1960. Test scores are one of several factors considered in determining the candidate's qualifications for admission.

The SAT may be taken more than one time but if repeated, the test must be taken on one of the regular test dates when the SAT is administered nationally.

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, May, and July. Lamar State College is one of the testing centers. 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 - Scholastic Aptitude Test. The bulletin may be obtained without charge from high school counselors, or by writing directly to the College Entrance Examination Board, Box 592, Princeton, New Jersey. A copy of the booklet should be secured EARLY so that a convenient test date can be selected. Application to take the test and test fees are sent to CEEB, not to the College.

Failure to take entrance tests in advance may seriously delay admission and registration.

## **Admission of Transient Students For Summer Work Only**

Students attending another college who wish to enroll for the summer session only at Lamar may be admitted as transient students. A student accepted under this classification is required to submit the regular Application for Admission Form only. Transient students who later apply for regular admission must meet all entrance requirements.

Applicants not in attendance at another college during the spring semester immediately prior to the summer session will not be considered as transients and must apply as regular transfers.

## **Transfer of Credit**

A student transferring from an accredited institution will be allowed to transfer as many hours as he has grade points (3-2-1-0 basis). Work accepted from an institution which is not accredited by its association is subject to validation by satisfactory work at Lamar State College.

Students transferring from a junior college are limited to the transfer of 66 semester hours or to the number of hours required by this college 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.

## **Registration**

Applications for admission or re-admission to the first six-weeks term received after Friday, May 17, will be assigned a time to register at the end of the registration schedule. The same system will be followed for the second summer term for applications received after Friday, July 5.

Registration for the first term will be held on Monday, June 3, 1968, beginning at 8 a. m. Registration for evening classes will be on Monday, June 3, 1968, at 6 p. m. Classes begin on Tuesday, June 4.

Registration for the second summer session will begin at 8 a. m., Monday, July 15, 1968. Registration for evening classes will be on Monday, July 15, 1968, at 6 p. m. Classes begin on Tuesday, July 16.

## **Student Load**

No student will be permitted to register for more than eight semester hours in a given summer term or for more than fourteen semester hours for the complete summer session. Exceptions to this regulation may be made for seniors scheduled to be graduated at the end of current summer session. Such seniors may enroll for a maximum of fifteen semester hours during the complete summer session preceding their graduation.

## **Absences**

Regular and punctual attendance in classes and laboratories is required of all students. An absence is normally classified as approved or unapproved by the instructor of the class or laboratory involved. Student protest regarding classification of an absence by an instructor will be referred to the department head in charge of the course being offered. A student having an approved absence may make up examinations, written assignments, reports, etc., without penalty. This privilege is not extended to those having unapproved absences.

Students accumulating excessive unapproved absences (guideline--those who are absent for more than the number of class meetings scheduled for a given course per week) will be reported to the Dean of Student Life for disciplinary action. The Dean of Women or the Dean of Men will summon such students for conferences, will notify their parents of their non-class attendance, and may at their discretion place the student on disciplinary probation. If the student continues to accumulate unexcused absences, he may be dropped from the class in question or be withdrawn from school through the office of the Dean of Student Life.

Parents or guardians who notify the college that a given student is ill or has been confined to a hospital should be referred to the Dean of Student Life. His office will notify the instructors involved of the student's illness or hospitalization.

For college-sponsored activities, the sponsor, coach, instructor, or supervisor submits to the Vice-President of Academic Affairs a list of participating students; and an absentee list is published by his office. Such absences then become approved. However, it is the responsibility of each student whose name appears on a given list to notify his instructors of such approved absences.

## **Cancelling Courses**

The College reserves the right to cancel any course enrolling an insufficient number of students (usually less than 10).

## **Commencement**

A student who completes all the requirements for a degree during either of the summer terms will have the degree conferred during the August commencement scheduled for Saturday, August 24.

## **FACILITIES**

Located on a campus of approximately 150 acres and valued in excess of \$30,000,000, the Lamar plant includes many new and functional buildings of modern design.

These structures include: Administration Building, Art Building, Biology-Geology Building, Bookstore, Business Building, Chemistry Building, Dining Hall, Educational Services Center, Engineering I, Engineering II, Health Center, Home Economics Building, Lamar Theatre, Liberal Arts Building, Library, Physics Building, McDonald Gymnasium, Cardinal Stadium, Music-Speech Building, Student Union, Vocations I, Vocations II, Vocations III, Vocations IV, and Women's Gymnasium.

On-campus dormitories include Campbell Hall, Combs Hall, Morris Hall, Plummer Hall, and Shivers Hall, all for men; and Brooks Hall, Gentry Hall, and Gray Hall, all for women. Also, three apartment buildings for married couples and upperclass students are located on campus.

A second Chemistry Building was opened for use in the Spring, and presently under construction are a new Liberal Arts Building, Chemistry Building, Biology Building, and a Sciences Lecture Auditorium, all to be available in the Fall.

Other new construction now in progress include a Women's Health and Physical Education Building, Engineering and Computer Science Building, School of Education Building, and a second Art Building.

In the immediate future, the Student Union Building will be enlarged and modernized at a cost of \$1,500,000.

### **Research Center**

The Research Center was formally organized in 1956. It is administered by a director who serves as chairman of the faculty research committee. Many National Science Foundation grants as well as private foundation grants have been received through this research organization.

The East Texas area is one of the most heavily industrialized sites of the world, and many industrial research problems are referred by industries of the area to the Lamar Research Center. Faculty members and advanced students often cooperate in seeking the solutions to these industrial problems.

### **Computer Center**

The College operates a computer laboratory-center as a division of the Research Center. This installation houses new computing facilities, digital and analog, valued in excess of \$750,000.

### **Religious Centers**

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

In addition to credit Bible courses, offered in the long term, the centers offer opportunities for worship, non-credit study and counseling in order to aid the student in developing a meaningful context for his college years.



## HOUSING

The dormitory housing program is part of the total educational plan of the college. The Board of Regents has committed the college to maintaining full occupancy of all rooms in the dormitories. For these reasons, students are required to live in a college dormitory and to take their meals in the college dining hall. Approval of housing is an official step in the student's registration process.

Permission to live off-campus can be granted only to:

- (1) Students who live with parents or relatives.
- (2) Married students who live with their wives or husbands.
- (3) Students whose health conditions demand special services.

If college housing is not available, upperclassmen will be permitted to live in approved off-campus housing until such time as they can be accommodated in a dormitory. The Assistant to the Dean of Student Life will review all requests for permission to live off campus. The college reserves the right to require campus residence of any student. A student who gives a false statement concerning his place of residence will be subject to suspension.

Dormitories for both men and women are ultra-modern, air-conditioned residence halls, each three stories high. Each room houses two students and is equipped with a dial telephone for inter-campus and Beaumont calls.

The Dining Hall serves three meals per day except on Sundays when only breakfast and lunch are available.

The semester room and board rates are \$60.00 and \$83.00, respectively. The board summary is subject to a 2 per cent state sales tax.

## RESERVATIONS

To reserve a room in the dormitories, direct a request to the Assistant to the Dean of Student Life, Lamar State College of Technology, Beaumont, Texas. A check for \$20 must accompany the reservation request. Room reservations may be cancelled with full refund until three weeks prior to the first day of classes. No refunds will be made on cancellations received after this date. Dormitory residents will be refunded deposits, less any breakage charges, at the end of the semester. The \$20 deposit will not be refunded if the student moves from the dormitory at any time other than at the end of the semester—or any other reason; this includes the student who is dropped from school for disciplinary reasons.

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 Life Office written instructions to hold the room for a longer period.

## **Instructional Buildings**

Classroom buildings are of modern design and conveniently located a short distance from the dormitories and the dining hall. Classes other than those necessitating special facilities, laboratory facilities, etc., are conducted in air-conditioned classroom buildings.

The student service buildings on the campus, including the Bookstore, Library, Student Union, Dining Hall, Health Center, etc., are also air-conditioned.

## **Library**

The Library is conveniently located among the instructional buildings on the campus. Students will find that it has seating room for several hundred, a reference room, a film supply room, a micro-film reader room, subscriptions to more than 2,000 periodicals, and over 160,000 volumes. A budget of sufficient size to increase the volumes by several thousand per year assures an adequate future of excellent service to Lamar Tech students and faculty.

Library hours for the Summer Session are: 8:00 a.m. to 9:00 p.m., Monday through Thursday; 8:00 a.m. to 5:00 p.m., Friday; 1:00 p.m. to 10:00 p.m., Sunday. The Library is closed on Saturdays and holidays.

## **Swimming Pool**

Lamar State College of Technology is one of the few schools that has an Olympic-size pool. This is 50 meters. The depth ranges from 4-1/2 feet to 13 feet. The diving area is shaped like an "L" and there are low and high boards.

This pool is restricted to college students, faculty members, and their guests. Guests must be registered at the pool.

Hours will be from 2:30 p.m. to 8:30 p.m. on Tuesday, Wednesday, Thursday, and Friday; Saturday from 1:00 p.m. to 8:30 p.m.; Sunday from 1:00 p.m. to 6:00 p.m. The pool will be closed Monday.

## **Bookstore**

For the convenience of faculty and students, the College 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.

## **SERVICES**

### **Counselors**

At registration each student is assigned a faculty counselor who is available for educational, vocational, and personal guidance. All students are expected to make appointments with counselors during each semester. Such arrangements are the responsibility of the student.

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

### **Testing and Placement Services**

The Testing and Placement Center is located in Room 102 of the Liberal Arts Building 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 who want it. Non-students wishing to use this service pay a fee depending upon the testing program desired.

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

### **Health Center**

The College 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 College physician or a registered nurse.

### **Veteran's Education**

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

Veterans and their dependents, who are interested in attending Lamar under federal laws which provide educational assistance, are directed to secure information and aid in planning their college work by consulting the Office for Veteran's Education, Room 102, Liberal Arts Building.

### **Teacher Certification**

Lamar is an approved teacher-certifying agency. All teacher education programs of the college are approved by the Texas Education Agency. Students seeking teacher certification should consult with the Dean of the School of Education regarding requirements, etc.

### **Loan Funds and Scholarships**

Financial assistance in the form of loans and scholarships is available for a limited number of students. Details may be obtained from the "Bulletin of Financial Aid and Awards" which can be obtained on request to the Dean of Student Life, Lamar State College, Beaumont, Texas.

## FEES AND EXPENSES

All fees and deposits are payable at the time of registration. The fees are as follows:

### Resident Students

Semester Hours	Tuition	S. S. Fee	Bldg. Use Fee	Total
8	\$35.00	\$6.00	\$12.00	\$ 53.00 / Lab
7	31.00	6.00	6.00	43.00 / Lab
6	27.00	6.00	6.00	39.00 / Lab
5	23.00	6.00	6.00	35.00 / Lab
4	19.00	6.00	6.00	31.00 / Lab
3 or less	15.00	6.00	6.00	27.00 / Lab

### Non-Resident Students

8	\$133.00	\$6.00	\$12.00	\$151.00 / Lab
7	117.00	6.00	6.00	129.00 / Lab
6	100.00	6.00	6.00	112.00 / Lab
5	83.00	6.00	6.00	95.00 / Lab
4	66.00	6.00	6.00	78.00 / Lab
3 or less	50.00	6.00	6.00	62.00 / Lab

### Residence and Dining Hall Fees

Room and Board (Summer)	
Each six weeks . . . . .	\$143.00
Short course, clinic, workshop, etc., rates:	
Per day, room and board . . . . .	3.50
Per day, room only . . . . .	1.25

### 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 \$2.00 is charged for each term. For such courses in which the credit is 4 semester hours or more, the laboratory fee is \$4.00 per term.

### Parking Fees

For students enrolled in either the Fall or Spring semesters and who have paid automobile registration fees, no additional charge is made for the Summer Session. New students will be required to pay parking fees of \$4.00 for both Summer Sessions, or \$2.00 for the second session only. These fees are paid at the time of registration.

### Refund of Fees

No refund is made for dropped courses. A refund of 60% of registration, service, and private lessons fees is made if the student withdraws during the first week of classes. No refund is made after that time.

The withdrawing student must request the refund after official withdrawal and before the end of the summer session.

The time required to process refunds is about 30 days.

# The Graduate School

## 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

The Master of Arts degree is offered in the fields of English and history.

The Master of Business Administration is granted by the School of Business.

The Master of Science degree is available in the fields of chemistry and mathematics.

The Master of Engineering Science is offered in the School of Engineering and combines graduate work in engineering with courses in science and mathematics.

The Master of Education degree is available in Elementary Education, Secondary Education and Special Education.

For specific degree requirements, the student should consult the Graduate Bulletin.

## 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 State College of Technology, Beaumont, Texas.

## **COURSE DESCRIPTIONS**

# School of Liberal Arts

## DEPARTMENT OF ENGLISH

### English (Eng)

**131—Rhetoric and Composition.** Intelligent and critical reading of mature exposition; correct and effective expository writing. Collateral readings; frequent themes. Class: 3 hours. Credit: 3 semester hours.

**132—Rhetoric and Composition.** A continuation of English 131. The research paper. Introduction to literary genres. Class: 3 hours. Credit: 3 semester hours.

**231, 232—Survey of British Literature.** A critical study of the literature of Great Britain from the Middle Ages to the present. Class: 3 hours. Credit: 3 semester hours.

**331, 332—Survey of American Literature.** A critical study of the literature of the United States from the colonial period to the present. Class: 3 hours. Credit: 3 semester hours.

**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.

**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.

**431—The Victorian Period.** An intensive study of the major authors of the period from Carlyle to Swinburne. Class: 3 hours. Credit: 3 semester hours.

**431—Chaucer.** A study of the poetry and language of Chaucer with emphasis on the *Canterbury Tales*. Class: 3 hours. Credit: 3 semester hours.

**434—Shakespeare.** Intensive study of selected major plays. Class: 3 hours. Credit: 3 semester hours.

**435—The Seventeenth Century.** The non-dramatic literature of England from the Metaphysical poets to Dryden. Class: 3 hours. Credit: 3 semester hours.

**530—Bibliography and Research Methods.** An introduction to graduate research methods and sources. Basic course for all beginning graduate students. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**538—Studies in Twentieth Century Literature.** An intensive study of an author or related authors selected from the period. Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**539—Studies in American Literature.** An intensive study of an author or related authors selected from the period. Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

## **DEPARTMENT OF GOVERNMENT**

### **Government (Gov)**

**231—The American Constitutional System, Federal and State.** A study of the background and composition of the national and state constitution; 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; the legislative and executive branches; functions of both national and state government; foreign policy. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

**3311—Group Politics.** Analysis and appraisal of the role of economic, social, and political 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.

**3318—Far Eastern Government and Politics.** A comparative study of the constitutions, governmental organization, and political developments in Japan, China, and India since World War II, considered against the social and economic background. Class: 3 hours. Credit: 3 semester hours.

**336—International Law and Organizations.** Elements of international law and principles and practices of international organizations. 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 modern American thought. Class: 3 hours. Credit: 3 semester hours.



## DEPARTMENT OF HISTORY

### 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 the present. 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.

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.

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.

432—The French Revolution and Napoleon. Western Europe from 1783 to 1815. Class: 3 hours. Credit: 3 semester hours.

4312—The American Revolution. 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.

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.

4326—Eighteenth Century England. England (Great Britain) from 1688 to 1815. Class: 3 hours. Credit: 3 semester hours.

4328—Contemporary America: The United States Since 1940. Class: 3 hours. Credit: 3 semester hours.

531—American Historiography. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

534—Readings in European History Since 1815. Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

669A-669B—Thesis. Prerequisite: admission to candidacy for the master's degree. Credit: 6 semester hours.

## DEPARTMENT OF MODERN LANGUAGES

### French (Fre)

**131—First Year French.** Pronunciation, conversation, reading, dictation, fundamentals. Use of recordings. Class: 3 hours. Credit: 3 semester hours per course.

**132—First Year French.** Reading, grammar, exercise in composition, conversation. Use of recordings. Prerequisite: French 131 or equivalent determined by examination. Class: 3 hours. Credit: 3 semester hours.

**231, 232—Reading, composition, conversation.** Prerequisite for French 231: French 132 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

### German (Ger)

**131—First Year German.** Pronunciation, conversation, reading, dictation, fundamentals. Use of recordings. Class: 3 hours. Credit: 3 semester hours.

**132—First Year German.** Reading, grammar, conversation, exercises in composition. Use of recordings. Prerequisite: German 131 or equivalent determined by examination. Class: 3 hours. Credit: 3 semester hours.

**231, 232—Reading, Composition, Conversation.** Prerequisite for German 231: German 132 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

### Spanish (Spa)

**131—First Year Spanish.** Pronunciation, conversation, reading, dictation, fundamentals. Use of recordings. Class: 3 hours. Credit: 3 semester hours.

**132—First Year Spanish.** Reading, grammar, conversation, exercises in composition. Use of recordings. Prerequisite: Spanish 131 or equivalent determined by examination. Class: 3 hours. Credit: 3 semester hours.

**231, 232—Reading, Composition, Conversation.** Prerequisite for Spanish 231: Spanish 132 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

**334—Introduction to Spanish-American Literature.** Survey of Spanish-American literature and civilization. Study of outstanding writers and their works. Lectures, readings, oral and written reports. Prerequisite: Spanish 232. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF PSYCHOLOGY

### Psychology (Psy)

**231—General Psychology.** Introduction to general psychology. Class: 3 hours. Credit: 3 semester hours.

**232—Introduction to Statistical Methods.** Statistical concepts and techniques used in psychological research. 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.

**331—Systems and History of Psychology.** Historical development of psychology. Emphasis on the evolution of major systems of psychology. Prerequisite: Psy 231 or recommendation of department head. 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 231 or recommendation of department head. Class: 3 hours. Credit: 3 semester hours.

**333—Psychological Tests and Measurements.** Theory and use of instruments for the measurement of intelligence, interests, aptitudes, and attitudes. Prerequisite: Psy 231 and 232. 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 333 or recommendation of department head. 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.

## DEPARTMENT OF SOCIOLOGY

### Anthropology (Ant)

**231—Introduction.** The nature, development, and differentiation of man as a biological organism, and of culture as his distinctive creation and possession. Class: 3 hours. Credit: 3 semester hours.

### **Geography (Geg)**

**230—Introduction.** Basic features of the earth; climate, landforms, earth-sun relations. Relationship of culture and physical environment in selected geographical areas. Class: 3 hours. Credit: 3 semester hours.

### **Philosophy (Phl)**

**231—Introduction.** 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.

**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.

### **Sociology (Soc)**

**131—Introduction.** Sociology as a field of knowledge. Basic terms, concepts, and 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.

**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.

**331—The Field of Social Welfare.** Historical development and current theory and practice of social welfare and social work. 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.

**338—Criminology.** Extent of and explanations 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.

**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.

## **COURSES IN BIBLE AND RELIGIOUS EDUCATION**

### **Bible (Bib)**

**111—Acts of the Apostles.** The history of the early Christian movement. Class: 1 hour. Credit: 1 semester hour.

**131—The Old Testament.** A critical study of the Old Testament and its relevance to Western culture. Class: 3 hours. Credit: 3 semester hours.

**132—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—The Life and Teachings of Jesus.** A critical study of the Gospels, the person and work of Jesus of Nazareth. Class: 3 hours. Credit: 3 semester hours.

**134—The Life and Letters of St. 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.

# School of Sciences

## DEPARTMENT OF BIOLOGY

### Biology (Bio)

**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: 4 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, premedical, 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—Microbiology for Nurses.** 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. Designed for students in nursing education. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

**341—Histology and Histological Technique.** Study of normal tissues of vertebrates. Technique 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.

**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.

**347—Genetics.** General principles of heredity, including human inheritance. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

531—Seminar in Biological Sciences. Designed to enhance the biological science background of non-science majors. Relevant biological concepts, library research and synoptic reports, lectures by staff on special topics. Class: 3 hours. Credit: 3 semester hours.

532—Mycology. Isolation, cultivation and identification of fungi with special emphasis on those of economic importance. Lecture: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF CHEMISTRY

### Chemistry (Chm)

141—General. General principles, problems, fundamental laws and theories. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

142—General. A continuation of Chem 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 Chem 143. A brief survey of qualitative analysis, elementary organic and physiological chemistry. Prerequisite: Chm 143 or 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

241—Quantitative Analysis. Theory and practice of analytical chemistry, utilizing gravimetric and titrimetric techniques. Prerequisite: Chm 142, Mth 133, 134, with a grade of C or better in each. Class: 3 hours. Laboratory: 5 hours. Credit: 4 semester hours.

333—Inorganic. Generalizations 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, with grade of C or better. Class: 3 hours. Credit: 3 semester hours.

341—Organic. Current theories and chemical principles that relate to the field of organic chemistry. Prerequisite: Chm 142 with grade of C or better. 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.

**431—Physical.** Thermodynamic principles; modern chemical theory as applied to gases, liquids and solids. Prerequisites: Chm 142, Phy 142 or 241, Mth 232 (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.

## DEPARTMENT OF GEOLOGY

### Geology (Geo)

**141—Physical Geology.** Earth materials, structure, 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.

**237—Physical Geography.** The fundamental concepts of local, regional, and global geography. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 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.

**360—Summer Field Course.** Description of stratigraphic sections, preparation of geologic maps and field reports. Duration: 6 weeks. Total cost: \$200-\$300. Prerequisites: Geo 342 and Egr 121. Credit: 6 semester hours.

## DEPARTMENT OF PHYSICS

### 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: 2 hours. Demonstration and discussion: 1 hour. Credit: 3 semester hours.

**141—General Physics—Mechanics, Sound, 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—Electricity, Magnetism, Light and Modern Physics.** A continuation of Phy 141. Prerequisite: Phy 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.



**241—Introductory Physics—Heat, Electricity and Magnetism.** Emphasis is placed on derivations, units, and problem-solving. Prerequisite: Phy 140 or Egr 132 and credit for or registration in Mth 231. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**242—Introductory Physics—Sound, Light, and Quanta.** Emphasis is placed on derivations, units, and problem-solving. Prerequisite: Phy 241. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

**335—Modern Physics.** Conservation laws; special relativity; quantum effects; atomic structure; X-rays; nuclear and solid state physics. Prerequisites: Phy 241-242 or Phy 141-142 and Mth 231. Class: 3 hours. Credit: 3 semester hours.

# School of Business

## DEPARTMENT OF ACCOUNTING

### 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.

**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.** Selected theories relative to business enterprises. Partnership operations; venture accounts; consignments; installment sales; insurance; receivership; interest; annuities. Prerequisite: Acc 332. Class: 3 hours. Credit: 3 semester hours.

**432—Advanced Accounting.** Continuation of Acc 431 including the preparation and interpretation of consolidated statements for related corporations. Estates and trusts; home office and branch records; parent and subsidiary relationships; consolidated statements. Class: 3 hours. Credit: 3 semester hours.

**534—Seminar in Accounting.** A course designed to broaden the student's concepts of current accounting theory and problems. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF BUSINESS ADMINISTRATION

### Business Administration (BA)

**134—Introduction to Business.** Survey of the functional areas of business and their interrelationships. Economics of industry; ownership and organization; marketing; production; personnel; finance; business controls. Class: 3 hours. Credit: 3 semester hours.

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

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

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

**334—Marketing.** The social and economic aspects of distribution as found in business organizations. Structures; functions; institutions; problems. Class: 3 hours. Credit: 3 semester hours.

**335—Industrial Management.** Scientific management as applied to productive processes in industry. Plant location and layout; organization; lighting, heating, and power; personnel; efficiency; motivation; purchasing; controls. Class: 3 hours. Credit: 3 semester hours.

**336—Personnel Management.** Problems of personnel relations in business and industry. Recruitment; job description and analysis; testing and training; morale; records. Class: 3 hours. Credit: 3 semester hours.

**337—Principles of Selling.** Precepts of effective selling in the American economy. Sales process; prospecting; presentation; objectives; close. Class: 3 hours. Credit: 3 semester hours.

**338—Retailing.** The nature and functions of retailing in the marketing structure. Development; organization; methods; policies of operation; problems. Class: 3 hours. Credit: 3 semester hours.

**431—Business Statistics.** Introduction to the quantitative methods of analysis as applied to business problems. Analysis; presentation; frequency distribution; index numbers; dispersion; correlation; time series. Prerequisite: 6 hours of mathematics. Class: 3 hours. Credit: 3 semester hours.

**432—Business Statistics.** Continuation of BA 431 including the theory and practical application of the normal curve, probable error, and sampling. Index numbers; secular trend; seasonal variations; correlation; marketing research; forecasting, budgeting; quality control and investment analysis. Class: 3 hours. Credit: 3 semester hours.

**433—Advertising.** Social and economic character of advertising. Production; administration; copy procedure; media; layout; budgets; organization; evaluation. Class: 3 hours. Credit: 3 semester hours.

**435—Human Relations.** Case-study approach to business problems in human relations. Recognition and analysis of problems; formulation and communication of proposed solutions; critique. Class: 3 hours. Credit: 3 semester hours.

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

**4311—Sales Management.** Planning, organization, and control of sales operations. Functions programs; production; development; distribution channels; contracts; campaigns; customer and price policies; administration. Class: 3 hours. Credit: 3 semester hours.

**4312—Marketing Problems.** Case problems in planning and controlling marketing organizations. Budgeting; operations; turnover; inventory; store promotion; research. 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. Class: 3 hours. Credit: 3 semester hours.

**532—Problems in Business Finance.** A comprehensive study of how financial problems affect all areas of business management. The case study approach is utilized in order to stimulate analysis and discussion of forms of organization, promotion of new firms, short-term and long-term sources of funds and financing, dividend policies, mergers, refinancing and recapitalization, reorganization, and comprehensive financial planning. Class: 3 hours. Credit: 3 semester hours.

**538—Business Problems and Organization.** Managerial decision-making in the areas of marketing, finance, production, and labor-management relations. General management perspectives are stressed in determining objectives, establishing policies, and planning and organizing the use of facilities, materials, and manpower; motivation of individuals and groups. The case-study approach is utilized. Class: 3 hours. Credit: 3 semester hours.

## **DEPARTMENT OF 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 231. 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—Corporation Finance.** Historical development and present organizational structure of the corporate form of business enterprise. Legal position; sources of capital; financial management; refunding; expansion. 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. 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. Class: 3 hours. Credit: 3 semester hours.

**432—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. Class: 3 hours. Credit: 3 semester hours.

**437—Intermediate Theory.** Economic analysis and methodology. Distribution; theory; price theory; imperfect competition and monopoly; national income analysis. Class: 3 hours. Credit: 3 semester hours.

**438—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. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF SECRETARIAL SCIENCE

### Secretarial Science (SS)

**135—Records.** Methods and procedures in classifying and storing business records. Filing systems; records management and retention; duplicating equipment; dictating, transcribing, and office machines; evaluation. Class: 3 hours. Credit: 3 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.

**331—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. Credit: 3 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.

**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.

# School of Engineering

## Engineering (Egr)

**121—Engineering Graphics.** Principles of orthographic projection combined with descriptive geometry to solve space problems graphically. Lettering and drafting technique emphasized. Laboratory: 6 hours. Credit: 2 semester hours.

**132—Mechanics I.** Utilizes vectors in the study of particle mechanics. Energy methods. Prerequisite: Egr 122 or concurrent; Mth 139 or concurrent. Class: 3 hours. Credit: 3 semester hours.

**221—Materials Science.** Basic principles underlying the behavior of solid, liquid and gaseous materials. Prerequisite: Mth 234 or concurrent; Phy 241; Chm 142. Class: 2 hours. Credit: 2 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 232. Class: 3 hours. Credit: 3 semester hours.

**234—Thermodynamics.** The fundamental laws of thermodynamics, Properties of systems, gases, vapors, thermodynamic tables, and cycles. Prerequisite: Chm 142; Phy 241; Mth 232 and Mth 234 or concurrent; Engr 122. Class: 3 hours. Credit: 3 semester hours.

**331, 332—Heat, Mass and Momentum Transfer.** Fluid dynamics, heat transfer and mass transfer. An integrated two semester sequence. Prerequisite: Egr 234; Mth 233 and 234. Class: 3 hours each semester. Credit: 3 semester hours each semester.

**333—Electronics.** A study of charged particles; metals and semi-conductors; vacuum tube and transistor characteristics; gaseous condition; rectifiers and power supplies. Prerequisite: Egr 233 and 221; Mth 232 and Mth 233. 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 221 and 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF CHEMICAL ENGINEERING

### Chemical Engineering (CHE)

**320—Engineering Statistics.** Advanced statistical methods, including analysis of variance, experimental design, and evolutionary operations. Prerequisite: Mth 234. Class: 2 hours. Credit: 2 semester hours.

**333—Thermodynamics II.** Properties of non-ideal substances. Maxwell relations, vapor pressure, latent heat, enthalpy-concentration diagrams, chemical equilibria, equilibrium constants, fugacity, and activity. Prerequisite: CHE 342. Class: 3 hours. Credit: 3 semester hours.

**342—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 balances, phase equilibria, and economic evaluations. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours. Prerequisite: Egr 234.

## **DEPARTMENT OF CIVIL ENGINEERING**

### **Civil Engineering (CE)**

**316—Experimental Fluid Mechanics II.** Boundary layer studies. Advanced problems in fluid flow. Flow nets. Prerequisite: CE 315. Laboratory: 3 hours. Credit: 1 semester hour.

**331—Environmental Science.** Introduction to fundamental microbiology and biochemistry related to stream pollution, water and waste treatment, study of aerobic and anerobic decomposition of wastes and the effect of oxygen balance on streams. Prerequisite: Chm 142. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

**334—Structural Mechanics.** Analysis of loadings for bridges and buildings. Dynamic effects of moving loads. Influence lines. Shear and moment diagrams. Analysis of indeterminate structures. Model analysis. Investigation of frames, girders, and bents. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

## **DEPARTMENT OF ELECTRICAL ENGINEERING**

### **Electrical Engineering (EE)**

**317—Junior E.E. Laboratory.** To be taken in parallel with EE 331. Laboratory: 3 hours per week. Credit: 1 semester hour.

**318—Junior E.E. Laboratory.** To be taken in parallel with EE 332. Class: 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. Prerequisite: Egr 233, Mth 232, and Mth 233. 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 transforma-



tion. 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. Prerequisite: Egr 233 and 234; parallel: Egr 333. Class: 3 hours. Credit: 3 semester hours.

**336—Energy Conversion II (Electromechanical).** A study of electro-mechanical energy conversion principles. Lagrange's equations; incremental motion transducers; rotating machines. Prerequisite: EE 331. Class: 3 hours. Credit: 3 semester hours.

## **DEPARTMENT OF INDUSTRIAL ENGINEERING**

### **Industrial Engineering (IE)**

**339—Manufacturing Processes.** Properties of engineering materials and methods of processing these materials. Class: 3 hours. Credit: 3 semester hours.

## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **Mechanical Engineering (ME)**

**435—Turbomachinery.** Flow problems encountered in the design of water, gas and steam turbines, centrifugal and axial-flow pumps and compressors. Prerequisite: ME 331. Class: 3 hours. Credit: 3 semester hours.

## DEPARTMENT OF MATHEMATICS

### Mathematics (Mth)

**131—Finite Mathematics I.** Algebra, logarithms, exponents and introductory concepts of coordinate geometry. Prerequisite: 2 units of high school mathematics. Class: 3 hours. Credit: 3 semester hours.

**132—Finite Mathematics II.** Introductory concept of sets, permutations and combinations, elementary principles of probability and statistics. Class: 3 hours. Credit: 3 semester hours.

**133—Analytical Trigonometry.** Trigonometric functions and their applications, trigonometric identities and equations. Prerequisite:  $1\frac{1}{2}$  units of high school algebra and 1 unit in plane geometry. Class: 3 hours. Credit: 3 semester hours.

**134—College Algebra.** Properties of real numbers, exponents, radicals, relations and functions, determinants, theory of equations, sequences and series. Prerequisite: 2 years of high school algebra. Class: 3 hours. Credit: 3 semester hours.

**135—Contemporary Mathematics I.** Sets, counting numbers, numeration systems, and integers. CUPM for Education majors only. Class: 3 hours. Credit: 3 semester hours.

**136—Contemporary Mathematics II.** Elementary number theory, rational numbers, decimals, real numbers and finite number systems. CUPM for Education majors only. Prerequisite: Mth 135. Class: 3 hours. Credit: 3 semester hours.

**137—Contemporary Mathematics III.** Experimental and informal geometry. The structure of 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.

**138—Analysis I.** Functions and graphs, slope, properties of limits, derivatives of algebraic functions and applications, integration. Class: 3 hours. Credit: 3 semester hours.

**139—Analysis II.** Applications of the definite integral, transcendental functions, methods of integration. Prerequisite: Analysis I. Class: 3 hours. Credit: 3 semester hours.

**231—Analysis III.** Plane analytic geometry, hyperbolic functions, polar coordinates, parametric equations, solid geometry, vectors. Prerequisite: Analysis II. Class: 3 hours. Credit: 3 semester hours.

**232—Analysis IV.** Partial differentiation, multiple integrals, infinite series, differential equations. Prerequisite: Analysis III. 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: Analysis II. Class: 3 hours. Credit: 3 semester hours.

**234—Probability and Statistics.** Permutations and combinations, factorials, elementary principles of probability, mathematical expectation, averages, curve fitting, engineering applications. Prerequisite: Analysis III. 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 232. Class: 3 hours. Credit: 3 semester hours.

**331—Differential Equations.** Analytical solution of ordinary differential equations in terms of elementary and classical functions. Application to problems in geometry, engineering, and physics. Introduction to solution by series. Prerequisite: Mth 232. 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 232. Class: 3 hours. Credit: 3 semester hours for each course.

**4301, 4302—Advanced Calculus for Engineers.** Linear ordinary differential equations, the Laplace Transform, series solutions of differential equations, boundary-value problems, orthogonal functions, introduction to vector analysis and functions of a complex variable, partial differential equations of mathematical physics. Prerequisites: Mth 232. 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.

**4312—Advanced Data Processing.** Application of computing machinery. Programming and operation. Prerequisite: Mth 3301. Class: 3 hours. Credit: 3 semester hours.

**530—Seminar in Mathematics for Teachers.** A review of basic mathematics through description and problem solving techniques. May not be taken for credit by science, engineering, or mathematics students. Class: 3 hours. Credit: 3 semester hours.

**532—Modern Algebra.** Numbers, sets, rings, fields, polynomials, and the theory of fields. The theory of fields includes the study of subfields, prime fields, simple field extensions, algebraic field extensions, and Galois fields. Class: 3 hours. Credit: 3 semester hours.

**537—Methods of Applied Mathematics.** The Dirichlet problem, solution of boundary-value problems, the Bergman kernel function, method of the minimum integral, applications of conformal mapping. Prerequisite: Mth 431. Class: 3 hours. Credit: 3 semester hours.

# School of Education

## DEPARTMENT OF EDUCATION

### Education (Edu)

**330—Teaching Media and Programed Instruction.** Observation, demonstration, and practice in utilizing modern teaching media, including teaching machines and programing. Class: 3 hours. Credit: 3 semester hours.

**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 and 332. Class: 3 hours. Credit: 3 semester hours.

**334—Curriculum and Materials in the Elementary School.** A survey of the elementary school including philosophy, grouping, class organization, curriculum plans, lesson plans, and materials for teaching. Prerequisite: Edu 331 and 332. 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 and 332. 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. Prerequisite: Edu 331 and 332. Class: 3 hours. Credit: 3 semester hours.

**337—Testing and Evaluation in the Public Schools.** Evaluation techniques used in the public schools. 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 and 332. 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 334. 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—Nature and Needs 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. Observation opportunities provided. Class: 3 hours. Credit: 3 semester hours.

**3312—Education of the Orthopedically Handicapped.** Curriculum development, methods and materials; school programs for the orthopedically handicapped in regular and special classes, hospitals and home instruction. Class: 3 hours. Credit: 3 semester hours.

**430—Education of the Mentally Retarded.** Problems in the selection, preparation, development, and use of curriculum materials. Use of resource, selection of equipment, employment opportunities, and a review of recent research. Opportunities provided for functional experiences. 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.

**434—Classroom Management and Evaluation—Elementary.** A study of problems relating to classroom management, pupil control, methods of evaluation, reporting to parents, and record keeping. Prerequisite: Edu 334 and senior standing. 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: Edu 334. 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—Nature and Needs of the Neurologically Impaired.** Causes and effects; facilities, resources and reports, guidance, administration, and planning for both the child and his environment to meet his special needs. Class: 3 hours. Credit: 3 semester hours.

**530—Structure and Organization of Public Education.** Analysis of the operation and functions of public education at the local, state, and national levels. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**531—Research in Elementary Education.** Familiarity with significant research in elementary education. Emphasis on terminology, methodology, and spirit of systematic research. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**532—Current Issues in Education.** Current controversies and trends in public education. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**533—Contemporary Philosophies of Education.** Influence of recent philosophies on education. Schools of educational philosophy and implications for curriculum development and teaching methods. Class: 3 hours. Credit: 3 semester hours.

**534—Advanced Study in Human Development.** A study of the development and nature of the human personality, especially as it affects the teaching-learning process. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**535—Advanced Educational Psychology.** Current theories and developments in the process of learning. Emphasis on motivation, transfer, and learning techniques. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**536—Problems in Teaching Language Arts and Social Studies.** Recent developments and trends with primary consideration given to individual teaching problems and individual research. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**537—The Elementary School Curriculum.** Analysis of the objectives, organization, and content of the different areas of the elementary school curriculum. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**538—Problems in Teaching Arithmetic and Science.** Study of current developments and trends with emphasis upon individual teaching programs. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**539—Developmental Reading.** Methods for extending and refining fundamental reading habits and attitudes, and for increasing reading efficiency. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**5301—Current Literature for Children and Adolescents.** Survey of recent literature for children and adolescents. Emphasis given to non-fiction in such areas as earth science and social science. Extensive reading of children's literature. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**5317—Secondary School Curriculum.** Analysis of the objectives, organization, and content of the different areas of the secondary school curriculum. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**5318—Research in Secondary Education.** Familiarity with significant research in secondary education. Emphasis on terminology, methodology, and spirit or systematic research. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**5319—Problems in Secondary School Instruction.** Consideration of the instructional problems encountered by experienced teachers in the secondary schools. Prerequisite: graduate standing and two years of teaching experience. Class: 3 hours. Credit: 3 semester hours.

## **DEPARTMENT OF HOME ECONOMICS**

### **Home Economics (HEc)**

**235—Meal Management.** Meal planning and food selection for nutritional adequacy throughout the life cycle for different socio-economic groups. Class: 1 hour. Laboratory: 4 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.

**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.

**330—Consumer Economics.** Consumer information and an analysis of problems in household economics and finance. Class: 3 hours. 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.** Management of home resources—human and material. Opportunities provided for group living and practical experiences in managerial processes in the Home Management residence. Housing fee: \$27.50 per month except married students not living in home, fee \$15.00 per month. Dormitory rent will be transferred for dormitory students. Class: 2 hours. Laboratory to be arranged. Credit: 4 semester hours.

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

### **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.

**211M-212M—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: 1 semester hour.

### Professional Courses

**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 student 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.

**233—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.

**320—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: 2 hours. Credit: 2 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.

**416—Student Teaching in Driver Education.** Supervised observation and teaching of driver education in actual class and behind-the-wheel training. Prerequisite: "B" in 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.



**531—Cultural Foundations of Physical Education.** A study of the historical and cultural foundations of sport and physical education activities, their origin and influence upon modern man. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**533—Organization and Administration of the School Health Program.** Administrative relationships and procedure in conduct of school health programs. General policies, state responsibilities, annual health examinations, classes for handicapped, sanitation of school plant, duties of personnel services of outside agencies and community relationships. Prerequisite: graduate standing. Class: 3 hours. Credit: 3 semester hours.

**534M—Scientific Basis of Exercise.** A study of the role of physical activities and their effects on the human organism through the use of professional literature and laboratory experimentation. Prerequisite: graduate standing; Bio 330 and HPE 333 or their equivalents. Class: 3 hours. Credit: 3 semester hours.

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

### **Physical and Health Education for Women (HPE)**

#### **Theory Courses**

**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.

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

**531—Cultural Foundations of Physical Education.** A study of history and cultural foundations of sport and physical education activities, their origin and influence upon modern man. Class: 3 hours. Credit: 3 semester hours.

**533—Organization and Administration of the School Health Program.** Administrative relationships and procedures in conducting school health programs. Class: 3 hours. Credit: 3 semester hours.

**535—Theories of Movement.** Movement theories of Delsarte and Laban, Graham, and exploration of current phenomenological approaches to movement.

### Activity Courses

**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.

**113—Beginning Swimming and Diving.** Demonstrations, lectures and practice in the basic techniques of swimming and diving. With principles of water safety for various levels of skill and emphasis on individual achievement of swimming, diving, and safety skills. Class: 3 hours. Credit: 1 semester hour.

**114—Intermediate Swimming and Diving.** Demonstrations, lectures and practice in the techniques and analysis of selected swimming strokes and dives. Class: 3 hours. Credit: 1 semester hour.

**115—Lifesaving.** Demonstrations, lectures and practice in lifesaving. The student may obtain the American Red Cross Lifesaving Certificate upon completion of specific requirements. Tryout required for admittance. Laboratory: 3 hours. Credit: 1 semester hour.

**211, 212—Activity.** Continuation of HPE 111 and 112. Class: 3 hours. Credit: 1 semester hour.

# School of Fine and Applied Arts

## DEPARTMENT OF COMMERCIAL ART

### 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, 132—Drawing and Painting: Sketching.** Drawing with pencil, pen and brush to train the eye and hand in visual recording. These sketches will be developed into opaque watercolor paintings. Class and laboratory: 6 hours. Credit: 3 semester hours per course.

**137, 138—The Language of Art.** An 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 per course.

**235, 236—Art Concepts.** An explanation of art history in terms of form, subject matter, ideology, related to the cultural periods. How the great art of the past expressed its various attitudes. Class: 3 hours. Credit: 3 semester hours per course.

**337, 338—Public School Art.** Teaching devices, techniques and media used in the elementary and secondary schools are studied and used in the laboratory. Special attention is given to skills in correlating art with other subjects in the elementary and secondary fields. Class and laboratory: 6 hours. Credit: 3 semester hours.

**437, 438—The Psychology of Art.** An investigation into the nature of the creative individual and how it is expressed graphically. Class and laboratory: 6 hours. Credit: 3 semester hours per course.

## DEPARTMENT OF MUSIC

### Music Literature (MLt)

**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 representatives of the art, music, and speech faculties. Class: 3 hours. Credit: 3 semester hours.

**331—Children's Music.** Techniques and materials in teaching of music in the elementary school. 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—Children's Music.** 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.

#### **Music Theory (MTy)**

**131—Elements of Music.** A study of scales, chords, musical terminology, signatures, sight singing and rhythms. Designed to prepare students for advanced study in music theory or 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.

**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.

#### **DEPARTMENT OF SPEECH**

##### **Speech (Spe)**

**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—Fundamentals of Effective Speech.** Instruction in the theory of the voice, articulation, pronunciation, bodily activity, language, and the elements of speech preparation. Practice in the presentation of speeches and printed material with emphasis on the use of the fundamentals of speech production. Class: 3 hours. Credit: 3 semester hours.

**133—Voice and Diction.** 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.

**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.

**333—Storytelling.** Study of stories for different ages of children; study of sources of stories; practice in adapting story material from various sources; building story-hour programs; practice in telling stories in laboratory and in nearby schools, hospitals, and homes; practice in writing stories for children. Class: 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.

**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. Class: 3 hours. Credit: 3 semester hours.

**433—Advanced 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. 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.) Class: 15 hours per week for 3 weeks, plus laboratory as arranged. 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.) Class: 15 hours per week for 3 weeks, plus laboratory as arranged. Credit: 3 hours.

## **COURSE OFFERINGS**

# DAY CLASSES

## Terms 1 and 2

COURSE NO.	COURSE DESCRIPTION	TERM(S)	SEM. HRS. CREDIT
ACCOUNTING			
231	Principles . . . . .	1 . . . . .	3
232	Principles . . . . .	2 . . . . .	3
331	Intermediate . . . . .	1 . . . . .	3
332	Intermediate . . . . .	2 . . . . .	3
334	Cost Accounting . . . . .	1 . . . . .	3
431	Advanced . . . . .	1 . . . . .	3
432	Advanced . . . . .	2 . . . . .	3
ANTHROPOLOGY			
231	Introduction . . . . .	1 & 2 . . . . .	3
BIBLE			
111	Acts of the Apostles . . . . .	1 . . . . .	1
132	The New Testament . . . . .	2 . . . . .	3
133	The Life and Teachings of Jesus . . . . .	1 & 2 . . . . .	3
BIOLOGY			
141	General Biology. . . . .	1 . . . . .	4
142	General Biology. . . . .	2 . . . . .	4
240	Comparative Anatomy . . . . .	1 . . . . .	4
243	Microbiology. . . . .	1 . . . . .	4
244	Microbiology. . . . .	2 . . . . .	4
245	Microbiology for Nurses. . . . .	1 . . . . .	4
341	Histology . . . . .	1 . . . . .	4
345	Botany . . . . .	2 . . . . .	4
531	Seminar in Biological Sciences . . . . .	1 . . . . .	3
532	Mycology . . . . .	1 . . . . .	3
BUSINESS ADMINISTRATION			
134	Introduction to Business . . . . .	1 . . . . .	3
331	Business Law . . . . .	1 . . . . .	3
332	Principles of Finance. . . . .	1 . . . . .	3
334	Marketing . . . . .	1 & 2 . . . . .	3
335	Industrial Management . . . . .	1 & 2 . . . . .	3
336	Personnel . . . . .	1 . . . . .	3
337	Principles of Selling . . . . .	2 . . . . .	3
338	Retailing . . . . .	2 . . . . .	3
3311	Labor Law . . . . .	1 . . . . .	3
431	Statistics . . . . .	1 . . . . .	3
432	Statistics . . . . .	2 . . . . .	3
433	Advertising . . . . .	1 . . . . .	3
435	Human Relations . . . . .	2 . . . . .	3
437	Investments . . . . .	2 . . . . .	3
4312	Marketing Problems . . . . .	2 . . . . .	3
4314	Administrative Policy . . . . .	1 . . . . .	3
532	Problems in Business Finance . . . . .	1 . . . . .	3

CHEMICAL ENGINEERING			
320	Engineering Statistics . . . . .	.1 . . . . .	.2
333	Thermodynamics II . . . . .	.2 . . . . .	.3
342	Chemical Process Principles I . . . . .	.1 . . . . .	.4

CHEMISTRY			
141	General . . . . .	.1 . . . . .	.4
142	General . . . . .	.2 . . . . .	.4
143	Introductory . . . . .	.1 . . . . .	.4
144	Introductory . . . . .	.2 . . . . .	.4
241	Quantitative Analysis . . . . .	.2 . . . . .	.4
333	Inorganic . . . . .	.2 . . . . .	.3
341	Organic . . . . .	.1 . . . . .	.4
342	Organic . . . . .	.2 . . . . .	.4
431	Physical . . . . .	.1 . . . . .	.3
432	Physical . . . . .	.2 . . . . .	.3

CIVIL ENGINEERING			
315	Experimental Fluid Mechanics . . . . .	.2 . . . . .	.1
326	Soil Science . . . . .	.1 . . . . .	.2
331	Environmental Science . . . . .	.2 . . . . .	.3
334	Structural Mechanics . . . . .	.1 . . . . .	.3
336	Hydrology . . . . .	.1 . . . . .	.3

COMMERCIAL ART			
130	Appreciation of Fine Arts . . . . .	.1 & 2 . . . . .	.3
131	Sketching . . . . .	.1 . . . . .	.3
132	Sketching . . . . .	.2 . . . . .	.3
137	Language of Art . . . . .	.1 . . . . .	.3
138	Language of Art . . . . .	.2 . . . . .	.3
235	Art Concepts . . . . .	.1 . . . . .	.3
236	Art Concepts . . . . .	.2 . . . . .	.3
337	Public School Art . . . . .	.1 & 2 . . . . .	.3
338	Public School Art . . . . .	.2 . . . . .	.3
437	Psychology of Art . . . . .	.1 . . . . .	.3
438	Psychology of Art . . . . .	.2 . . . . .	.3
439	Directed Individual Study . . . . .	.1 & 2 . . . . .	.3

ECONOMICS			
231	Principles . . . . .	.1 . . . . .	.3
232	Principles . . . . .	.2 . . . . .	.3
233	Principles . . . . .	.1 . . . . .	.3
333	Corporation Finance . . . . .	.2 . . . . .	.3
339	Economics of the Firm . . . . .	.2 . . . . .	.3
435	Economic Systems . . . . .	.1 . . . . .	.3
437	Intermediate Theory . . . . .	.1 . . . . .	.3
438	Macro Economics . . . . .	.1 . . . . .	.3

EDUCATION			
330	Teaching Media and Programed Inst . . . . .	.1 . . . . .	.3
331	Foundations in Education . . . . .	.1 & 2 . . . . .	.3
332	Educational Psychology . . . . .	.1 . . . . .	.3
333	Language Arts in Elem. Schools . . . . .	.1 & 2 . . . . .	.3
334	Curriculum and Materials in Elem. Schools . . . . .	.1 & 2 . . . . .	.3
335	Arithmetic in the Elem. Schools . . . . .	.1 . . . . .	.3
337	Testing and Evaluation in Public Schools . . . . .	.1 . . . . .	.3



338	Curriculum, Materials and Eval, Sec. Schools.	1 & 2	3
339	Reading in the Elem. Schools.	1 & 2	3
3301	Survey in Edu. of Except. Child	1	3
3311	Nature and Needs of Mentally Retarded	2	3
3312	Edu. of Orthopedically Handicapped	2	3
430	Edu. of the Mentally Retarded	2	3
431	Psychology of Exceptional Child	1	3
434	Classroom Mgt. and Eval. - Elementary	1 & 2	3
437	Science and Social Studies - Elementary	1 & 2	3
438	Classroom Management - Secondary	1 & 2	3
439	Nature and Needs Neuro. Impaired	2	3
530	Structure and Organ. Public Education	1	3
531	Research in Elementary Education	1	3
532	Current Issues in Education	2	3
534	Adv. Study in Human Development	1	3
535	Advanced Educational Psychology	1	3
536	Prob. in Teach. Lang. Arts and Soc. Studies	2	3
537	The Elementary School Curriculum	1 & 2	3
538	Prob. in Teaching Arithmetic and Science	2	3
539	Developmental Reading	1 & 2	3
5301	Current Literature for Child and Adol.	1	3
5318	Research in Secondary Education	2	3
5319	Problems in Secondary School Instruction	1	3

#### ELECTRICAL ENGINEERING

331	Circuits I	1	3
332	Circuits II	2	3
335	Energy Conversion I	1	3
336	Energy Conversion II	2	3

#### ENGINEERING

121	Graphics	1	2
132	Mechanics I	2	3
213	Engineering Measurements	2	1
231	Mechanics II	1	3
232	Mechanics III	2	3
233	Electric Circuits	1	3
234	Thermodynamics	1	3
331	Heat, Mass, and Momentum Transfer	2	3
5X01	Institute in Engineering	2	-

#### ENGLISH

131	Composition	1 & 2	3
132	Composition	1 & 2	3
231	Survey British Literature	1 & 2	3
232	Survey British Literature	1 & 2	3
331	Survey American Literature	1	3
332	Survey American Literature	2	3
334	Advanced Grammar	2	3
339	American Novel	2	3
3316	Poetic Analysis	1	3
431	Chaucer	2	3
434	Shakespeare	1	3
435	Seventeenth Century	1	3
4311	Victorian Period	2	3
530	Bibliography	1	3

538	Studies Modern Literature . . . . .	1 & 2 . . . . .	3
539	Studies American Literature . . . . .	1 & 2 . . . . .	3
FRENCH			
131	First Year French . . . . .	1 . . . . .	3
132	First Year French . . . . .	2 . . . . .	3
231	Read, Comp, Conversation . . . . .	1 . . . . .	3
232	Read, Comp, Conversation . . . . .	2 . . . . .	3
GEOGRAPHY			
230	Introduction . . . . .	1 & 2 . . . . .	3
GEOLOGY			
141	Physical Geology . . . . .	1 . . . . .	4
142	Historical Geology. . . . .	2 . . . . .	4
237	Physical Geography . . . . .	2 . . . . .	3
335	Earth Materials . . . . .	1 . . . . .	3
360	Field Geology . . . . .	1 . . . . .	6
GERMAN			
131	First Year German. . . . .	1 . . . . .	3
132	First Year German. . . . .	2 . . . . .	3
231	Read, Comp, Conversation . . . . .	1 . . . . .	3
232	Read, Comp, Conversation . . . . .	2 . . . . .	3
GOVERNMENT			
231	American Constitutional System . . . . .	1 & 2 . . . . .	3
232	American and State Government Organ . . . . .	1 & 2 . . . . .	3
336	International Law and Organ . . . . .	2 . . . . .	3
3311	Group Politics . . . . .	1 . . . . .	3
3318	Far Eastern Government Politics . . . . .	2 . . . . .	3
433	Political Thought III . . . . .	1 . . . . .	3
HISTORY			
131	History of World Civ . . . . .	1 & 2 . . . . .	3
132	History of World Civ . . . . .	1 & 2 . . . . .	3
134	History of Texas . . . . .	1 . . . . .	3
231	History of United States . . . . .	1 & 2 . . . . .	3
232	History of United States . . . . .	1 & 2 . . . . .	3
331	Soc. and Intel. Hist. - U.S. to 1865. . . . .	1 . . . . .	3
334	Military History of the U.S. . . . .	2 . . . . .	3
432	French Revolution and Napoleon . . . . .	1 . . . . .	3
4312	The American Revolution . . . . .	2 . . . . .	3
4319	Medieval Civilization . . . . .	2 . . . . .	3
4321	The Far East to 1800 . . . . .	1 . . . . .	3
4326	Eighteenth Century England . . . . .	1 . . . . .	3
531	American Historiography . . . . .	1 . . . . .	3
534	European History Since 1815 . . . . .	2 . . . . .	3
669	A & B Thesis. . . . .	1 & 2 . . . . .	6
HOME ECONOMICS			
235	Meal Management . . . . .	2 . . . . .	3
330	Consumer Economics. . . . .	2 . . . . .	3
332	Nutrition . . . . .	1 . . . . .	3
338	Phil. and Prin. Voc. HE . . . . .	1 . . . . .	3
438	Teaching, Methods and Materials . . . . .	2 . . . . .	3
444	Home Management . . . . .	1 . . . . .	4

INDUSTRIAL ENGINEERING			
339	Manufacturing Processes . . . . .	2 . . . . .	3
MATHEMATICS			
131	Finite I . . . . .	1 & 2 . . . . .	3
132	Finite II . . . . .	1 & 2 . . . . .	3
133	Analytical Trigonometry . . . . .	1 & 2 . . . . .	3
134	College Algebra . . . . .	1 & 2 . . . . .	3
135	Contemporary Mathematics I . . . . .	1 . . . . .	3
136	Contemporary Mathematics II . . . . .	2 . . . . .	3
137	Contemporary Mathematics III . . . . .	2 . . . . .	3
138	Analysis I . . . . .	1 & 2 . . . . .	3
139	Analysis II . . . . .	1 & 2 . . . . .	3
231	Analysis III . . . . .	1 & 2 . . . . .	3
232	Analysis IV . . . . .	1 & 2 . . . . .	3
233	Linear Algebra . . . . .	1 . . . . .	3
234	Probability and Statistics . . . . .	1 & 2 . . . . .	3
331	Differential Equations . . . . .	1 . . . . .	3
338	Advanced Calculus . . . . .	1 . . . . .	3
339	Advanced Calculus . . . . .	2 . . . . .	3
3301	Introduction to Data Processing . . . . .	1 . . . . .	3
431	Intro. Functions Complex Variable. . . . .	1 . . . . .	3
432	Intro. Functions Complex Variable . . . . .	2 . . . . .	3
4301	Adv. Calculus for Engineers . . . . .	1 . . . . .	3
4312	Adv. Data Processing. . . . .	2 . . . . .	3
530	Seminar in Math for Teachers . . . . .	1 . . . . .	3
532	Modern Algebra . . . . .	2 . . . . .	3
537	Methods of Applied Mathematics . . . . .	1 . . . . .	3
669A	Thesis . . . . .	1 & 2 . . . . .	-
669B	Thesis . . . . .	1 & 2 . . . . .	-
MECHANICAL ENGINEERING			
435	Turbomachinery . . . . .	1 . . . . .	3
MUSIC			
	Applied: Voice, Piano and All Inst . . . . .	1 & 2 . . . . .	2
130	Appreciation of Fine Arts . . . . .	1 & 2 . . . . .	3
131	Elements of Music . . . . .	1 & 2 . . . . .	3
132	Elementary Harmony . . . . .	1 . . . . .	3
133	Elementary Harmony . . . . .	1 . . . . .	3
331	Children's Music . . . . .	1 . . . . .	3
332	Children's Music . . . . .	1 . . . . .	3
PHILOSOPHY			
231	Introduction to Philosophy. . . . .	2 . . . . .	3
232	Logic . . . . .	1 . . . . .	3
331	American Philosophy . . . . .	1 . . . . .	3
PHYSICAL EDUCATION - MEN			
111M	Physical Fitness . . . . .	1 . . . . .	1
112M	Activity. . . . .	2 . . . . .	1
211M	Activity. . . . .	1 . . . . .	1
212M	Activity. . . . .	2 . . . . .	1
227M	Beginning Swimming . . . . .	1 & 2 . . . . .	2
228M	Life Saving . . . . .	1 & 2 . . . . .	2
229M	Water Safety Instructor . . . . .	1 . . . . .	2

233	Elementary Games . . . . .	1 & 2 . . . . .	.3
320	First Aid and Safety . . . . .	1 . . . . .	.2
334	Driver Education . . . . .	1 . . . . .	.3
416	Student Teach. in Driver Education . . . . .	2 . . . . .	.1
430	Special Problems in HPE . . . . .	1 & 2 . . . . .	.3
431	Recreational Leadership . . . . .	2 . . . . .	.3
435	Adapted Physical Education . . . . .	1 . . . . .	.3
531	Cultural Found. of Physical Ed. & Adm. . . . .	1 . . . . .	.3
533	Org. and Adm. Sch. Health Program . . . . .	2 . . . . .	.3
534	Scientific Basis of Exercise . . . . .	1 . . . . .	.3

#### PHYSICAL EDUCATION - WOMEN

111W	Tennis (Activity) . . . . .	1 & 2 . . . . .	.1
112W	Beginning Ballet (Activity) . . . . .	1 . . . . .	.1
113W	Beginning Swimming . . . . .	1 & 2 . . . . .	.1
114W	Intermediate Swimming . . . . .	1 & 2 . . . . .	.1
115W	Life Saving. . . . .	1 & 2 . . . . .	.1
212W	Golf (Activity) . . . . .	1 & 2 . . . . .	.1
212W	Ballet (Activity). . . . .	1 . . . . .	.1
331	Health Education in Elementary School . . . . .	1 . . . . .	.3
335	Phy. Edu. Recreation for Atypical Child . . . . .	2 . . . . .	.3
531	Cultural Found. of Phy. Edu. . . . .	1 . . . . .	.3
533	Org. and Adm. Sch. Health Program . . . . .	2 . . . . .	.3
535	Theories of Movement . . . . .	2 . . . . .	.3

#### PHYSICS

137	Descriptive Astronomy . . . . .	1 . . . . .	.3
141	General Physics . . . . .	1 . . . . .	.4
142	General Physics . . . . .	2 . . . . .	.4
241	Intro - Heat, Elect, Mgtsm . . . . .	1 . . . . .	.4
242	Intro - Sound, Light, Quanta . . . . .	2 . . . . .	.4
335	Modern Physics . . . . .	2 . . . . .	.3

#### PSYCHOLOGY

231	General Psychology. . . . .	1 & 2 . . . . .	.3
232	Statistics . . . . .	1 . . . . .	.3
234	Child Psychology . . . . .	1 . . . . .	.3
235	Adolescent Psychology . . . . .	1 . . . . .	.3
331	Systems and History . . . . .	2 . . . . .	.3
332	Personality . . . . .	1 . . . . .	.3
333	Tests and Measurement . . . . .	1 . . . . .	.3
334	Industrial Psychology . . . . .	2 . . . . .	.3
337	Adjustment . . . . .	2 . . . . .	.3

#### SECRETARIAL SCIENCE

135	Records . . . . .	2 . . . . .	.3
222	Production Typing . . . . .	1 . . . . .	.2
331	Office Procedures . . . . .	2 . . . . .	.3
332	Dictation and Transcription . . . . .	1 . . . . .	.3
344	Business Communications . . . . .	1 & 2 . . . . .	.4

#### SOCIOLOGY

131	Intro. to Sociology . . . . .	1 & 2 . . . . .	.3
132	Social Problems. . . . .	1 & 2 . . . . .	.3
233	Marriage . . . . .	2 . . . . .	.3
330	American Society . . . . .	2 . . . . .	.3
331	Field of Social Welfare . . . . .	1 . . . . .	.3

332	Social Psychology . . . . .	2	. . . . .	.3
333	Urban Sociology . . . . .	1	. . . . .	.3
334	Industrial Sociology . . . . .	1	. . . . .	.3
338	Criminology . . . . .	2	. . . . .	.3
339	Juvenile Delinquency . . . . .	2	. . . . .	.3
430	Seminar in Sociology . . . . .	2	. . . . .	.3
436	Social Movements . . . . .	1	. . . . .	.3

#### SPANISH

131	First Year Spanish . . . . .	1	. . . . .	.3
132	First Year Spanish . . . . .	1 & 2	. . . . .	.3
231	Read, Comp, Conversation . . . . .	1	. . . . .	.3
232	Read, Comp, Conversation . . . . .	2	. . . . .	.3
334	Intro. Spanish American Lit . . . . .	1	. . . . .	.3

#### SPEECH

130	Appreciation of Fine Arts . . . . .	1 & 2	. . . . .	.3
131	Fundamentals . . . . .	1 & 2	. . . . .	.3
133	Voice and Phonetics . . . . .	1	. . . . .	.3
134	Speech Correction - Survey . . . . .	2	. . . . .	.3
331	Business and Professional Speech . . . . .	1	. . . . .	.3
333	Storytelling . . . . .	1 & 2	. . . . .	.3
336	Creative Dramatics . . . . .	2	. . . . .	.3
339	Beg. Clinical Practice . . . . .	1	. . . . .	.3
433	Adv. Clinical Practice . . . . .	2	. . . . .	.3
437	Directing Secondary School Theatre . . . . .	1	. . . . .	.3
438	Directing Secondary School Speech . . . . .	1	. . . . .	.3

# EVENING CLASSES

Terms 1 and 2

COURSE NO.	COURSE DESCRIPTION	TERM(S)	SEM. HRS. CREDIT
BUSINESS ADMINISTRATION			
334	Marketing . . . . .	2 . . . . .	.3
336	Personnel Management . . . . .	1 . . . . .	.3
ECONOMICS			
231	Principles . . . . .	1 . . . . .	.3
232	Principles . . . . .	2 . . . . .	.3
EDUCATION			
331	Foundations in Education . . . . .	2 . . . . .	.3
ENGLISH			
131	Composition . . . . .	1 & 2 . . . . .	.3
132	Composition . . . . .	1 & 2 . . . . .	.3
231	Survey British Literature . . . . .	1 . . . . .	.3
232	Survey British Literature . . . . .	1 & 2 . . . . .	.3
GOVERNMENT			
231	Am. Constitutional System . . . . .	1 . . . . .	.3
232	Am. and State Govt. Organ . . . . .	2 . . . . .	.3
HISTORY			
231	History of United States . . . . .	1 . . . . .	.3
232	History of United States . . . . .	2 . . . . .	.3

## HOW TO ENTER LAMAR

### If You Have Graduated from High School

1. Submit application for admission on the official form.
2. Submit a completed Health Data Form properly executed by a physician. This requirement applies only to students entering DAY CLASSES for the first time.
3. Request that Lamar Tech be sent a copy of your record as soon as 7 semesters have been completed. Immediately after graduation a supplementary transcript covering the last semester of work and certifying your graduation should be supplied.
4. Take the Scholastic Aptitude Test of the College Entrance Examination Board and have a record of the test scores sent to the college admissions offices. A total score of 700 is required.
5. If you do not plan to live at home send your dormitory deposit (\$20.00) with request for space to Student Life Office, Lamar State College, Beaumont, Texas.

### If You are Transferring from Another College

1. Submit application on the official form.
2. Submit the Health Data Form properly executed by a physician. This requirement applies to students entering DAY CLASSES for the first time.
3. Submit transcripts from EACH college previously attended. This requirement applies regardless of whether credit was earned or is desired. Make sure transcripts are sent under your present name.
4. Submit SAT scores if less than 18 transferable semester hours have been earned. A total score of 700 is required.
5. If you do not plan to live at home send your dormitory deposit (\$20.00) with request for space to Student Life Office, Lamar State College, Beaumont, Texas.

### If You are Applying as a Transient for Summer Work Only

1. Submit application for Admission. Admission as a transient student is limited to students who were enrolled at another college during the spring semester immediately prior to the summer session for which admission is requested.

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