

Lamar University

College of Graduate Studies

1981-83 Bulletin Vol. 30 No. 2

Thirtieth annual catalog issue with announcements for 1981-83.

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

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

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

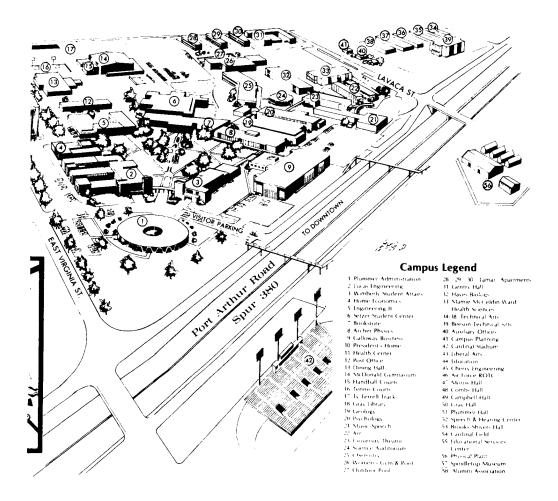
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The Campus

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

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



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

1981-83 Calendar

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

Fall Semester—1981

S M T W T F S AUGUST

1 2 3 4 5 6 7 8 9 1011 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

August 1981

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

19 Registration begins

20 Registration

21 Registration

24 Classes begin—late registration—no schedule revisions

25-27 Schedule revisions—late registration

27 Last day for schedule revisions and/or late registration

SEPTEMBER

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

September 1981

7 Labor Day—No classes

9 Twelfth Class Day

OCTOBER

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

October 1981

Last day to drop or withdraw without penalty

9 Last day to apply for December graduation Last day to pay for diploma; cap and gown

NOVEMBER

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

November 1981

23 Last day to drop or withdraw

25 Thanksgiving recess begins at 10 p.m.
Dining halls close at 6 p.m.
Dormitories close at 10 p.m.

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

30 Classes resume at 8 a.m.

DECEMBER

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

December 1981

9-15 Final examinations

16 Dining halls close at 6 p.m. Dormitories close at 10 p.m.

17 Grades for graduating students due by 4:30 p.m.

18 All grades due by noon

19 Commencement

Spring Semester—1982

S M T W T F S JANUARY

1 2 3 4 5 6 7 8 9 10111213141516 17181920212223 24252627282930 31

January 1982

- 5 Dormitories open at 1 p.m. Dining halls open at 4:30 p.m.
- 6 Registration begins
- 7 Registration
- 8 Registration
- 11 Classes begin—late registration—no schedule revisions
- 12-14 Schedule revisions—late registration
- 14 Last day for schedule revisions and/or late registration
- 26 Twelfth Class Day

FEBRUARY

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

February 1982

- 19 Last day to drop or withdraw without penalty
- 26 Last day to apply for May graduation
 Last day to pay for diploma; cap and gown

MARCH

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

March 1982

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

APRIL

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

April 1982

- 9 Good Friday—no classes
- 21 Last day to drop or withdraw

MAY

1 2 3 4 5 6 7 8 9 1011 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

May 1982

- 5-11 Final examinations
- 12 Dining halls close at 6 p.m. Dormitories close at 10 p.m.
- 13 Grades for graduating students due at 4:30 p.m.
- 14 All grades due at noon
- 15 Commencement

Summer Session 1982—First Term

S M T W T F S MAY

1 2 3 4 5 6 7 8 9 1011 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

JUNE

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

JULY

JULY

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

AUGUST

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

May 1982

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

June 1982

- 1 Registration
- 2 Classes begin
- 3 Last day for schedule revisions and/or late registration
- 7 Fourth Class Day
- 15 Last day to drop or withdraw without penalty
- 29 Last day to drop or withdraw
- 30 Last Day to apply for August graduation Last Day to pay for diploma; cap and gown

July 1982

- 5 Independence Day—no classes
- 7 Last class day
- 9 All grades due by noon

Summer Session 1982—Second Term

July 1982

- 8 Registration
- 9 Classes begin—schedule revisions—late registration
- 12 Last day for schedule revisions and/or late registration
- 14 Fourth Class Day
- 22 Last day to drop or withdraw without penalty

August 1982

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

Fall Semester—1982

S M T W T F S AUGUST

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

SEPTEMBER

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

OCTOBER

1 2 3 4 5 6 7 8 9 10111213141516 17181920212223 24252627282930 31

NOVEMBER

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

DECEMBER

1 2 3 4 5 6 7 8 9 1011 12131415161718 19202122232425 262728293031

August 1982

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

September 1982

- 6 Labor Day—no classes
- 8 Twelfth Class Day

October 1982

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

November 1982

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

December 1982

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

Spring Semester—1983

S M T W T F S JANUARY

1 2 3 4 5 6 7 8 9 1011 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

January 1983

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

FEBRUARY

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

February 1983

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

MARCH

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

March 1983

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

APRIL

1 2 3 4 5 6 7 8 9 10111213141516 17181920212223 24252627282930

MAY

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

293031

April 1983

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

May 1983

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

viii

Summer Session 1983—First Term

SMTWTFS

MAY

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

May 1983

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

Registration

June 1983

1

- JUNE
- 1 2 3 4 5 6 7 8 9 1011 12131415161718 19202122232425 2627282930
- Classes begin
- 2 Last day for schedule revisions and/or late registration
- 6 Fourth Class Day
- 14 Last day to drop or withdraw without penalty
- 28 Last day to drop or withdraw
- 30 Last day to apply for August graduation Last day to pay for diploma; cap and gown

JULY

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

July 1983

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

JULY

1 2 3 4 5 6 7 8 9 10111213141516 17181920212223 24252627282930 31

Summer Session 1983—Second Term

July 1983

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

AUGUST

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

August 1983

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

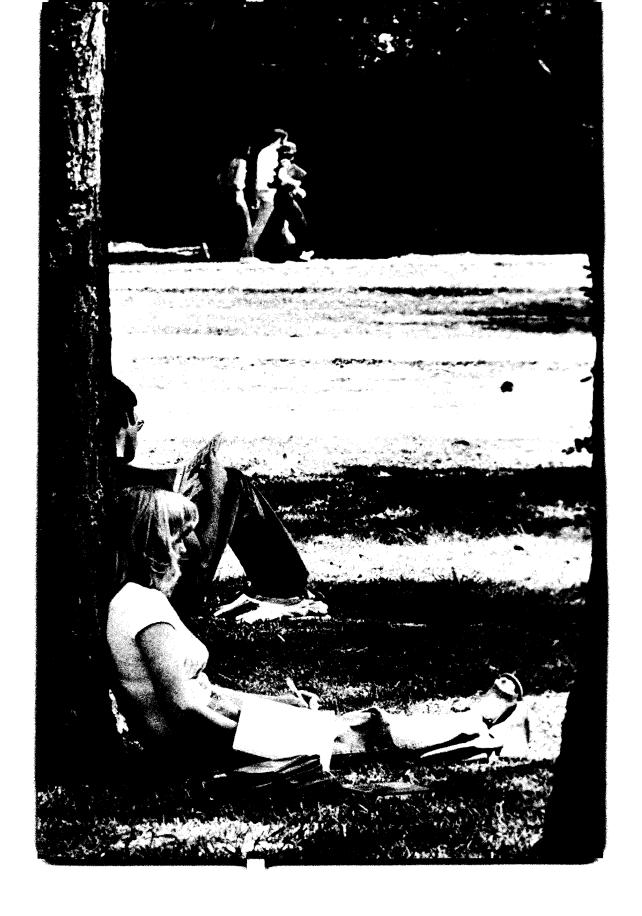


Table of Contents

General Information	1
Fees and Expenses	5
Housing	8
Academic Information	9
College of Graduate Studies Information	
Degrees Offered	13
Enrollment	14
Admission	14
Post Baccalaureate Admission	15
Registration	16
Regulations	17
General Requirements	18
Degree Requirements	18
Admission to Candidacy	19
Thesis Requirements	20
Final Examination	21
Biology	46
Business Administration	23
Chemistry	77
Communication (Speech)	59
Education	27
Elementary	29
Special Education	34
Secondary Education	29
Guidance and Counseling	30
Supervision	32
School Administration	33
Home Economics	43
Health and Physical Education	41
Engineering	45
English	69
Geology	78
Government	70
History	73
Mathematics	54
Music/Music Education	62
Physics	79
Psychology	65
Public Administration	71
Directory of Personnel	81
Index	89



General Information

Location

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

History

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

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

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

Movement to expand Lamar College into a four-year state-supported school culminated in the creation of Lamar State College of Technology on September 1, 1951. Since then, enrollment has increased to more than 12,800 students, and the curriculum has been expanded to include many areas of study. Graduate work in specified fields began in the academic year of 1960-61, and extension work became an integral part of the educational program in 1964. A doctoral program in engineering was added in 1971. Lamar University at Orange, offering first and second year courses, opened in 1969. Lamar University at Port Arthur, also offering first and second year courses, began operation in the fall of 1975. The University also owns 36 acres on Pleasure Island in Port Arthur.

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

Government

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

Accreditation and Approval

Lamar University is fully accredited by the Association of Texas Colleges and Universities and by the Southern Association of Colleges and Schools. The College of Graduate Studies is a member of the Council of Graduate Schools in the United States.

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

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

The Texas Education Agency has approved Professional Certification programs in a number of areas.

The Library

The eight-story Mary and John Gray Library building dominates the campus from its central location. Built to house a million volumes, the Library now occupies six floors with open access to 650,000 volumes. Seating accommodates 1200 students and faculty.

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

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

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

Research Office

A Research Office was formally organized in 1956. It is administered by a director who serves as the chairman of the faculty research committee. All state financed research projects are awarded through the research committee.

Computer Center

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

The Computer center has a Honeywell 66/20 computer with 256K words of 36 bit MOS memory and approximately 1.1 billion characters of on-line disk storage. The system supports one card reader, one card punch, two line printers and three tape drives at the main site. Over ninety terminals are available for interactive computer use. Extensive communication equipment can connect up to fourteen synchronous and forty-six asynchronous terminals to the computer concurrently. A remote job entry station which has one card reader and one printer is located in the Beeson Technical Arts Building.

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

Counseling and Testing Center

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

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

The Testing Office coordinates required testing by Lamar University and provides individual testing services which include administering and interpreting appropriate aptitude, vocational interest and personality tests as requested by the Counseling Center staff. Non-students in need of testing services pay a fee dependent upon the program and type of test taken. The Testing Office also acts as a National Testing Center for programs such as the Graduate Record Examinations,

Law School Admission Test, National Teacher Examinations, Graduate Management Admission Test, SAT, ACT, CLEP advanced standing test, GED high school equivalency test and numerous other tests. Information and application forms concerning these tests may be obtained from the Testing Office.

The Counseling and Testing Center is located in the Wimberly Student Affairs Building and observes the office hours of the University. A staff member is also available until 8 p.m. Monday through Thursday for the benefit of students who are attending extended day classes.

Placement Center

The Placement Center is a centralized operation responsible for placement activities for all colleges of the university. The placement services are available free of all costs to students, faculty, staff and all former students. The center keeps updated information in career fields and job areas, employers and the kind of employees being sought.

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

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

Health Center

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

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

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

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

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

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

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

Veterans 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 by consulting the Office of Veterans' Affairs, Wimberly Student Affairs Building.

This office advises veterans on program and training opportunities, academic assistance and counseling.

Loan Funds and Scholarships

Financial assistance in the form of loans, grants and scholarships is available for a number of qualified students. Details may be obtained on request from the Director of Student Aid.

Teaching Fellowships and Assistantships

A number of teaching fellowships and assistantships are available in the various departments of the College of Graduate Studies. Application forms and additional information may be obtained either from the department head or from the Dean of the College of Graduate Studies.

Fellowships and assistantships are awarded only to those individuals who meet all admission requirements to a graduate degree program, including satisfactory GRE/GMAT scores.

The stipend for a teaching fellow varies in accordance with the number of courses taught. Students must reduce their academic load in relation to their teaching assignment (the combined teaching and course load may not exceed fifteen load units in the long term). The maximum teaching responsibilities for a teaching fellow or assistant is six load units.

Tuition and fees are not waived for teaching fellows or assistants, but nonresidents of Texas are not required to pay out-of-state tuition.

Applications should be received by February 1 for the next academic year.

Teacher Certification

Lamar University has been approved by the Texas Education Agency to offer professional certification programs in administration, counseling and guidance, elementary, secondary, special education, reading, supervision and visiting teacher. Specific information concerning certification may be found in the College of Education section of this catalog or may be obtained from the director of certification in the College of Education.

Fees and Expenses

Payment of Fees

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

A student is not registered until all fees are paid in full. Payment may be made by check, money order or currency. Checks and money orders, not in excess of total fees, should be made payable to Lamar University and will be accepted subject to final payment.

Tuition and Fees

Tuition is based upon the number of hours for which the student registers, and is determined by the student's classification as a Texas resident; a nonresident U.S. citizen; or a citizen of another country.* Each student pays a student services fee of \$4.00 per semester hour, with a maximum of \$40 in a long session.

*Determination of legal residence for tuition purposes is made on the basis of statutes of the State of Texas. Refer to the Coordinating Board. Texas College and University System "Rules and Regulations for determining Residence Status" as revised, July 16, 1974, available in the Office of the Dean of Admissions and Registra

Student Responsibility for Residence Classification

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

Every student who is classified as a resident student but who becomes a nonresident at any time by virtue of a change of legal residence by his/her own action or by the person controlling the student's domicile, is required to notify the dean of admissions and records.

Publication of Thesis/Dissertation Abstracts

The Graduate Council requires thesis and dissertation abstracts be published by University Microfilms. Fees for this service are changed from year to year by University Microfilms. In 1980, these fees were \$20 for a master's thesis and \$35 for a doctoral dissertation. If copyrighting is desired, an additional fee is charged.

Refund of Fees

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

Fall or Spring Semester

Prior to the first class day, 100 per cent.

During the first five class days, 80 per cent.

During the second week of classes, 70 per cent.

During the third week of classes, 50 per cent.

During the fourth week of classes, 25 per cent.

After the fourth week of classes, none.

Summer Session

Prior to the first class day, 100 per cent.

During the first, second or third class day, 80 per cent.

During the fourth, fifth or sixth class day, 50 per cent.

Seventh class day and thereafter, none.

Ouestions regarding refunds should be referred to the Finance Office.

Summary of Fees

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

	No. of Semester	Tuition)	Student Services	General Use	Setzer Center	Health Center	Total Cha	rge
Term	Hours	A	В	Fee	Fee	Fee	Fee	A	В
Each	1	\$50	\$ 40	\$ 4.00	\$20	\$20.00	\$ 5.00	\$ 99.00	\$ 89.0
Fall	2	50	80	8.00	20	20.00	5.00	103.00	133.0
or	3	50	120	12.00	20	20.00	5,00	107.00	177.0
Spring	4	50	160	16.00	24	20.00	5.00	115.00	225.0
Semester	5	50	200	20.00	30	20.00	5	125.00	275.0
	6	50	240	24.00	36	20.00	6	136.00	326.0
	7	50	280	28.00	42	20.00	7	147.00	377.0
	8	50	320	32.00	48	20.00	8	158.00	428.0
	9	50	360	36.00	54	20.00	9	169.00	479.0
	10	50	400	40.00	60	20.00	10	180.00	530.0
	11	50	440	40.00	66	20.00	11	187.00	577.0
	12		480	40.00	72	20.00	12	194.00	624.0
	13	52	520	40.00	78	20.00	13	203.00	671.0
	14	56	560	40.00	84	20.00	14	214.00	718.0
	15	60	600	40.00	90	20.00	15	225.00	765.0
	16	64	640	40.00	90	20.00	15	229.00	805.0
	17	68	680	40.00	90	20.00	15	233.00	845.0
	18	72	720	40,00	90	20.00	15	237.00	885.0
	19	76	760	40.00	90	20.00	15	241.00	925.0
	20	80	800	40.00	90	20.00	15	245.00	965.0
Each	1	\$25	\$ 40	\$ 4,00	\$20	\$ 10.00	\$ 1	\$ 60.00	\$ 75.0
Six	2	25	80	8.00	20	10.00	2	65.00	120,0
Week	3	25	120	12.00	20	10.00	3	70.00	165.0
Summer	4	25	160	16.00	24	10.00	4	79.00	214.0
Session	5	25	200	20,00	30	10.00	5	90.00	265.0
	6	25	240	20.00	36	10.00	6	97.00	312.0
	7	28	280	20.00	42	10.00	7	107.00	359.0
	8	32	320	20.00	48	10.00	8	118.00	406.0
	9	36	360	20.00	54	10.00	9	129.00	453.0
	10	40	400	20.00	60	10.00	10	140.00	500.0

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

Laboratory Fees

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

Private Lessons in Voice and Instrumental Music

One half-hour lesson p	er week\$18	
Two half-hour lessons	per week36	

Late Registration Fee

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

Parking Fee

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

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

Health and Accident Insurance

Health and accident insurance coverage is available at registration for students carrying nine or more semester hours. The fee is estimated at \$36. This or similar insurance is required of all

Miscellaneous Fees

Binding Thesis (one copy required)	\$ 7.50
Master's Diploma	
Cap, Gown and Hood Rental (Master's)	15.00
Cap, Gown and Hood Rental (Doctor's)	17.50
Returned Checks (Bookstore)	7.50
Reentry Fee	5.00
Transcript Fee	2.00

Returned Check Fees

A student is automatically suspended from the University if a check is returned unpaid. The student may re-enter upon redemption of the check plus playment of the returned check fee of \$5.

Fine and Breakage Loss

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

Student Housing

The student housing program at Lamar is designed to supplement the academic program by providing opportunities for social and intellectual development and recreation in a pleasant living environment. The University recently completed a multi-million dollar renovation program, making its residence halls among the most modern in Texas. A variety of living styles are available and include modern furniture, semi-private rooms, carpet, central heating and air conditioning and various color schemes in the dormitories. Apartment accommodations in newly remodeled buildings also are available.

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

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



Academic Information

Course Numbering

Semesters of a course are numbered separately and each number contains three or more figures. Master's level courses are numbered 400G and 500. Doctoral level courses are numbered 500D and 600. Students who receive graduate credit for 400 (also 400G) level courses are expected to have completed extra assignments in the courses over and above what is required for undergraduate credit.

The second figure indicates the number of semester hours credit. The third figure or figures indicates the order in which the course normally is taken. The letter a or b following course numbers indicates partial credit in each course; full credit for such numbered courses will be granted only when the series has been completed.

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

Changing Schedules

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

Dropping Courses

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

Withdrawals

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

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

A student may not withdraw within seven calendar days of the beginning of final examinations or three calendar days before the end of a summer term. A student who leaves without withdrawing officially will receive a grade of "F" in all courses and forfeit all returnable

Enforced Withdrawal Due to Illness

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

Academic Records

Academic records are in the permanent custody of the Admissions and Records Office. Transcripts of academic records may be secured by an individual personally or will be released on the student's written authorization.

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

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

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

Educational Records and Student Rights

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

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

The types, locations and names of custodians of educational records maintained by the University are available from the dean of admissions and records.

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

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

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

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

Official Summons

An official summons takes precedence over other university activities of the student and should be answered promptly on the day and hour designated.

Discipline

It is assumed any student eligible for admission to the University is familiar enough with the ordinary rules of conduct for ladies and gentlemen to need no definite discipline regulations. The University reserves the right to place on disciplinary probation or to dismiss any student at any time for sufficient cause.

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

Penalty for False Statements

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

Student Debts

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

Students and student organizations are expected to honor contractual obligations promptly. Penalty for failure to clear up these obligations may be: (a) no readmission; (b) withholding of grades and transcripts; (c) withholding of degree.

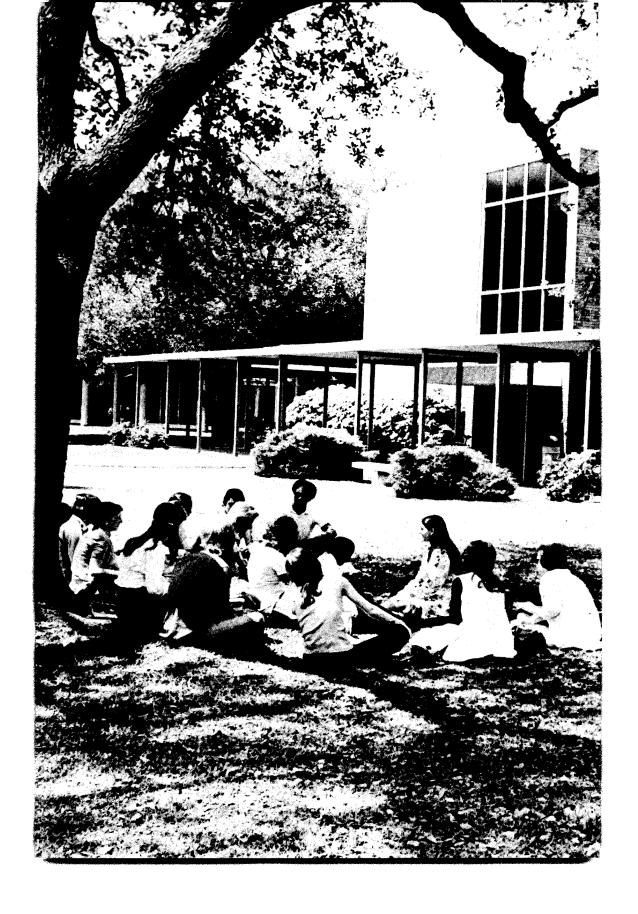
Parking Regulations

At registration, 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.

Change of Address or Name

Students are responsible for all communications addressed to them at the address on file in the Office of Student Development, in the Office of the College of Graduate Studies and in the Office of Admissions and Records. Any student who moves during a semester must immediately register the change of address in the above offices. Change of address forms are available in the Office of Admissions and Records and in the Office of the College of Graduate Studies.

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



The College of Graduate Studies

History

The College of Graduate Studies was instituted in the Fall 1960, with the offering of the Master of Arts degree in the fields of history and English.

In 1962, master's degrees were begun in mathematics, engineering and elementary education; in 1965, in business administration, chemistry, special education and secondary education; in 1968, in health and physical education, government, speech, guidance and counseling; in 1969, in biology, and in 1970, in education supervision. Also in 1970, a doctor's degree in engineering was authorized. In 1972, a master's degree in school administration was approved. Master's degrees in public administration and in Psychology were authorized for 1974. In 1975, master's degrees in music, music education and home economics were initiated.

Objectives

The objectives of the College of Graduates Studies are as follows:

Advancement of knowledge through research.

Intensification within a student's chosen field of specialization and allied areas.

Development of the student's skill in the methodology of research.

4. Promotion of the power of independent thought by making students responsible for their own scholarship.

Degrees Offered

Master of Arts

Master of Arts in English

Master of Arts in Government

Master of Arts in History

Master of Business Administration

Master of Education

Master of Education in Elementary Education

Master of Education in Guidance and Counseling

Master of Education in Secondary Education

Master of Education in Special Education

Master of Education in Supervision

Master of Education in School Administration

Master of Engineering

Master of Engineering Science

Master of Music

Master of Music Education

Master of Public Administration

Master of Science

Master of Science in Biology

Master of Science in Chemistry

Master of Science in Health and Physical Education

Master of Science in Home Economics

Master of Science in Mathematics

Master of Science in Psychology

Master of Science in Speech

Master of Science in Speech Pathology/Audiology/Deaf Education

Doctor of Engineering

Enrollment

Admission to a Degree Program

- For admission to a degree program the applicant must meet the following minimum standards and have submitted the following credentials to the office of Admissions and Records at least four weeks before registration.
 - A. An applicant must hold a bachelor's degree from an institution approved by a recognized accrediting agency.
 - B. Two official transcripts sent directly from each college previously attended.
 - C. Scores on the aptitude section of the Graduate Record Examination (GRE) are sent directly to the Office of Admissions and Records by the Educational Testing Service. The Lamar Testing and Counselling Center, located in the Wimberly Student Affairs Building, administers the GRE. Application forms and information about the GRE are available at this center. Applicants for the Master of Business Administration are not required to take the GRE, but are required to take the Graduate Management Admission Test. (See the College of Business section of this Bulletin for specific requirements).
 - D. Applicants for the Doctor of Engineering degree also should write a letter to the Dean of the College of Engineering. This letter should include information about the applicant, engineering experience, present employment and chief interests. Applicants also should indicate what type of work they would like to undertake for their field study.
 - E. All students are required to complete the University Health Form.
 - F. An application for admission sent to the Office of Admissions and Records.
 - G. The applicant's undergraduate grade point average and GRE scores must be above the minimum standard established by the college of Graduate Studies. For all students, except those wishing to pursue the Master of Business Administration degree, one of the following requirements for admission must be met:
 - (1) A minimum overall grade point average of 2.5 on a four point scale, and a minimum composite score, (verbal, quantitative and analytical), of 1100 on the aptitude section of the GRE.
 - (2) A minimum grade point average of 2.5 on the last 60 hours of undergraduate course work and a minimum composite score of 1100 on the aptitude section of the GRE.
 - (3) A grade point average lower than 2.5 but with a score of at least 540 on an appropriate section or the GRE aptitude test. A composite score of 1100 is also required. Departmental requirements are as follows:

540 in Either V or Q	540 in V	540 in Q
Biology	English	Audiology
Education	History	Chemistry
Government	Speech	Engineering
HPE (Men and Women)	Speech Pathology	Mathematics
Home Economics		

- Music
- Psychology
- **Public Administration**
- (4) A minimum overall grade point average of 2.5 on a four point scale and a score at or above the 25th percentile on the appropriate Advanced Test of the GRE, (appropriate test will be determined by the department in which the graduate program is offered), or, in the case of students applying to the College of Education, a score at or above the 25th percentile on the appropriate Area Exam of the National Teachers Examination. This does not exempt students from submitting GRE aptitude scores before admission.
- (5) A minimum overall grade point average of 3.0 on all work and the recommendation of the department in which the graduate program is offered. This does not exempt students from submitting GRE aptitude scores prior to admission.
- (6) The Graduate Council has approved higher standards for admission to some programs. These are stated in the particular departmental section of this Bulletin.

Students wishing to pursue the Master of Business Administration degree should refer to

the College of Business section of the bulletin for specific requirements.

Provisional admission to a degree program for one term may be granted to some applicants who show promise of the ability to successfully complete a graduate degree program, but who have not submitted the necessary credentials, (see above), four weeks before registration. Students admitted with provisional admission may not register for more than twelve hours graduate credit and must submit all required credentials and meet the minimum standards stated above during the first term. Provisional admissions may not be extended past one term, and students so admitted who do not meet the minimum standards will not be allowed to re-enroll. International students will not be admitted on a provisional

- Admissions requirements for international students are evaluated on an individual basis after the following information is received:
 - Two official transcripts from each college previously attended. Complete and official English translations must be furnished along with the certified copies of the transcripts.
 - Scores on the aptitude section of the GRE and scores on the Test of English as a Foreign Language, (TOEFL), must be submitted. In general, an international student whose native language is not English is expected to score 500 or above on the TOEFL and over 1100 on the aptitude section of the GRE. Application form, test scores, financial statement and complete educational records for international students must be on file by the dates indicated: term beginning in August, by June 15; January, by November 1; June by March 15.

An original statement of financial resources. The University provides a form for this purpose. Other forms will not be accepted.

- Any other applicant whose native language is not English and who attended foreign secondary schools, colleges, or universities must submit TOEFL scores of 500 or above in addition to the requirements stated above. Individual departments may require even higher
- A student who wishes to pursue graduate work in any area for which he/she has not had the prerequisites will be required to make up deficiencies as prescribed by the Graduate Council. In general, the student is required to have a minimum of 24 semester hours, (12 of which must be on the junior-senior level), of undergraduate work in the subject chosen as the graduate major. For a minor, 12 semester hours of undergraduate work are required.
- Admission to the College of Graduate Studies does not imply candidacy for a degree.
- The dean of admissions will notify the applicant upon admission to the College of Graduate Studies. All transcripts, certificates, etc. become the property of Lamar University
- Admission requirements stated above are minimum requirements. The applicant must also have the approval of the departments in which the degree program is offered.

Post Baccalaureate Admission

- Students who wish to take graduate courses but do not wish to be admitted to the College of Graduate Studies, or who have not met all requirements for admission to the College of Graduate Studies, may be admitted as Post Baccalaureate students in one of the undergraduate colleges under the following conditions:
 - The applicant must hold the bachelor's degree. A.
 - The applicant must submit an application for admission to the Post Baccalaureate program.
 - C. The applicant must submit official transcripts from each college previously attended.
 - The applicant must complete the University Health Form.
 - The applicant must be approved for admission by the dean of admissions.
 - International students will not be admitted to the Post Baccalaureate Program.
- If application for admission to a graduate degree is received in a subsequent semester and requirements for admission to the College of Graduate studies are completed, a maximum of 12 semester hours previously completed may be counted for degree credit with the approval of the department and the graduate dean.

4. No post baccalaureate student will be allowed to use hours in excess of this amount for

graduate degree credit.

 Post baccalaureate students pursuing the MBA degree are not permitted to enroll in Business courses for graduate credit. They may, however, take undergraduate courses to remove academic deficiencies.

Graduate Admissions Appeals Committee Procedures

 The Graduate Admissions Appeals Committee considers appeals of those denied admission to the College of Graduate Studies by the Office of Admissions and Records.

2. Consultation with (a) the Dean of Admissions and Registrar and (b) the Director of the College of Graduate Studies and/or the Dean of the College of Graduate Studies is required before instituting an appeal to the Graduate Admissions Appeals Committee.

One must apply to the dean of the College of Graduate Studies to institute an appeal to the Committee. The application must be filed with the Dean at least two weeks before the

Graduate Admissions Appeals Committee meeting date.

1. The Dean of the College of Graduate Studies will notify the chairman of the Graduate Admissions Appeals Committee of the pending appeal, and the chairman will place the

appeal on the agenda of the Graduate Admissions Appeals Committee.

5. In order for an appeals case to be placed on the Graduate Admissions Appeals Committee's agenda, the appellant is encouraged to file with the Dean of the College of Graduate Studies at least two weeks before the Graduate Admissions Appeals Committee's meeting date a written statement in support of admission and any other material the appellant feels pertinent to their case. The Dean of the College of Graduate Studies will forward copies of these materials to the chairman of the committee who will distribute them to the committee members for deliberation before the meeting.

5. The Graduate Admissions Appeals Committee will meet twice per academic year; the

second Wednesday in October and the first Wednesday in March.

7. The Graduate Admissions Appeals Committee is composed of seven members of the Graduate Faculty appointed by the Dean of the College of Graduate Studies in September of each academic year. Five members present at any meeting constitute a quorum.

8. The appellant may appear personally before the Graduate Admissions Appeals Committee, testify, and submit to questioning by committee members. The appellant may be accompanied by counsel but should afford the committee chairman at least 24 hours

advance notice of intent to bring counsel or other representative.

9. Following a full hearing, the Graduate Admissions Appeals Committee will make recommendations on the agenda cases to the Dean of the College of Graduate Studies. The alternative recommendations are (1) admission or (2) denial of admission. These recommendations will be made following an open hearing with any interested parties present. Following the open hearing, committee members will meet in closed session for formulation of recommendations. Recommendations will be based on a majority vote with the chairman voting only in case of a tie.

Written recommendations on each appeal case will be forwarded to the Dean of the College of Graduate Studies together with written reasons for the recommendations. These materials will be made available to the appellant through the Dean of the College of

Graduate Studies.

11. Minutes of Graduate Admissions Appeals Committee's hearings, deliberations, and recommendations will be filed with the Dean of the College of Graduate Studies with

copies maintained for one year.

12. Copies of these procedures will be on file in the office of the Dean of the College of Graduate Studies and the office of Admissions and Records and available to any interested party.

Registration

- A student who has been admitted to the College of Graduate Studies may register in August or January for the long sessions, or in June or July for the summer terms.
- 2. Graduate students who have completed all course work, but are working on their thesis, must be registered if they wish to obtain professional assistance from a faculty member.

College of Graduate Studies Regulations

 All course work applied toward a given degree, except the Doctor of Engineering, must be completed within a period of six years. This applies to all work on the graduate level, including any work transferred from another institution. Time spent in active military

service will not be used in computing the six-year limit.

2. No graduate student is permitted to carry more than 15 semester hours of graduate working during one semester of the long term nor more than 12 semester hours of graduate work during the summer session of 11 weeks, six semester hours each summer term. A graduate student is permitted to take seven semester hours in a summer term if the course has a lab section. A full-time graduate student is defined as a student carrying nine semester hours of graduate work, or being enrolled in both 669A and 669B thesis during the same semester, or enrolled in Egr 662. Students taking 4-5 hours of graduate work per semester will be considered half-time graduate students; students taking 6-8 hours of graduate work will be considered three-quarter time graduate students.

3. With the approval of the head of the major department and the graduate dean, an undergraduate student within 12 semester hours of graduation may take not more than six semester hours of graduate course to be applied toward the master's degree, provided the

total academic load does not exceed 15 semester hours.

4. With the approval of the head of the major department and the graduate dean, the student may transfer up to six semester hours of graduate work completed at another institution. The student must have received grades of A, B, or S. S is defined as equivalent to an A or B, or acceptable for graduate study at the institution where the work was taken.

5. The number of semester hours of off-campus courses taken from this institution which may count toward a graduate degree is determined by each college, provided the standards of the College of Graduate Studies regarding graduate faculty and instruction facilities are

consistent with those on the Lamar campus.

A maximum of six semester hours of work done in institutes may be approved for graduate

credit on a degree program.

A maximum of six semester hours taken for one master's degree may be counted toward
a second master's degree with the approval of the department in which the second master's
degree is sought.

8. A student may be required to drop either from any course or from the University temporarily, or permanently, for any of the following reasons:

A. Academic work below the standard as specified by the Graduate Council.

B. Academic dishonesty or misconduct on the part of the student.

9. The grading system for graduate students is A, B, C, D, F, I, S, U, Drop and Withdrawal. Graduate credit is allowed only for grades A, B, C and S. D, F, and U are all considered as failing grades for graduate students. An overall grade point average of B (3.0) on all graduate work attempted is required for graduation; however, a thesis grade may not be averaged with course grades to provide the required 3.0 average. Incomplete work must be finished during the next long semester, or the Office of Admissions and Records must change the grade of I to the grade of F, unless arrangments for a time extension are made. Under unusual circumstances, the student may apply, through the instructor, for an extension. The extension may be granted by the Dean of the College of Graduate Studies.

10. When a graduate student with regular admission status falls more than three grade points below a 3.0 (B) average, the student is placed on probation. If the student makes progress toward eliminating the grade point deficiency during the next semester in which the

student is registered, the student is removed from probation.

If the student remains at the same level of deficiency, i.e., three to six grade points below a 3.0(B) average, the student may continue registering for courses while on probation, until the semester before the student is within 9 (nine) hours of completing the degree requirements. Students who are on probation will be suspended if they drop or withdraw. Students with a grade point deficiency of more than three grade points and less than seven grade points at the end of the Fall or Spring semester and within 9 (nine) hours of completing the degree requirements shall be suspended for the following semester.

Students with a grade point deficiency of more than six grade points at the end of the Fall

Students suspended under this provision may be admitted to another department provided they meet the prescribed standards and are accepted through the normal change of major procedure.

A department may prescribe published academic requirements for its majors in addition to the minimum basic university grade point standard with the approval of the Dean of the College of Graduate Studies.

 Faculty members above the rank of Instructor will not be permitted to work toward a graduate degree at Lamar University.

12. Resignation from the College of Graduate Studies should be made in writing to the dean.

13. The University reserves the right to change any of its rules, requirements or course regulations without notice.

General Degree Requirements

1. A graduate student must earn 30 to 36 semester hours of graduate credit, depending upon the plan the student is following.

A minimum of 18 semester hours of the required 30 to 36 hours must be courses numbered 500 or above.

3. All candidates must pass a comprehensive oral examination if a thesis is written. If a thesis is not written, a comprehensive written or oral examination or a combination of both written and oral examinations is required.

4. The student must meet the specific requirements as set forth in this catalog for a particular degree program.

Master of Arts

Meet all general degree requirements.

2. Complete 30 semester hours of graduate work: 18 in the major field, six in thesis, six in an approved minor or six additional hours in the major.

3. Present evidence of a reading knowledge of at least one foreign language. This requirement may be satisfied by examination or by submitting college credit equivalent to that required for the degree of Bachelor of Arts in this institution.

4. If a thesis is not written, complete 36 hours of approved course work.

Master of Business Administration

1. Meet all general degree requirements.

2. Complete 30 semester hours of graduate work as specified under College of Business degree requirements if a thesis is written.

If a thesis is not written, complete 36 hours of graduate work as specified under College of Business degree requirements.

Master of Education

1. Meet all general degree requirements.

 Complete 30 semester hours of graduate work if a thesis is written or 36 semester hours if a nonthesis program is selected.

3. Meet the specific requirements listed in the College of Education section of this catalog for each degree program.

Master of Engineering

1. Meet all general degree requirements.

2. Complete 36 semester hours of graduate work or complete 30 hours of graduate work plus a three-hour design project.

Master of Engineering Science

Meet all general degree requirements.

2. Complete 30 semester hours of graduate work as follows: a minimum of 18 semester hours in 500 level engineering courses, including six semester hours in thesis; a minimum of nine semester hours in a combination of science and mathematics and three additional semester hours.

Master of Music

Meet all general degree requirements.

2. Complete 30 semester hours of graduate work: 24 in the major field, six in thesis or a recital and a research paper.

Master of Music Education

1. Meet all general degree requirements.

2. Complete 36 hours of graduate work which may include six in thesis.

Master of Public Administration

Meet all general degree requirements.

Complete 36 semester hours of graduate work as specified for the degree in the Department of Government section of this catalog.

Master of Science

1. Meet all general degree requirements.

2. Complete 30 semester hours of graduate work: 15 to 18 semester hours in the major field, six in thesis and six to nine semester hours in the minor field. On approval by the head of the major department, a student may elect to take all work in the major field.

If a thesis is not required, complete 36 hours of approved course work.

The graduate degree in psychology requires 36 hours in approved course work and six hours in thesis.

Doctor of Engineering

- Obtain credit for all courses required by the student's doctoral committee. The number and extent of these courses will depend upon the student's diagnostic examination, engineering experience and educational objectives. In general a minimum of 30 semester hours of 500 and 600 level course work, excluding Egr 632 and Egr 662, beyond the equivalent of a master's degree will be required.
- Satisfactorily pass candidacy examinations as required by the student's doctoral commit-
- Complete a field study, normally 30 semester hours, involving some technological 3. innovation.
- Submit and defend a formal engineering report on the field study.

Admission to Candidacy

Master's Degree

1. Prior to the time a graduate student is admitted to candidacy, the head of the major department or a person designated by the Head acts as the student's adviser.

A student must be admitted to candidacy after completing one-half of the course work, excluding the thesis, and after removing all undergraduate deficiencies. During this time the student must have demonstrated the ability and inclination to do graduate work before being admitted to candidacy. A student must have a 3.0 grade point average on all graduate work attempted before being admitted to candidacy.

The individual student is responsible for making an application for Admission to Candidacy. This is done in the office of the head of the major department or graduate

coordinator.

4. A departmental recommendation concerning the applicant's degree plan and the appointment of an advisory committee is then submitted to the dean of the College of Graduate Studies. If approved, the student is admitted to candidacy.

5. The graduate advisory committee will include a member of the graduate faculty designated as the supervising professor, chairman, or major professor, along with two other members of the graduate faculty. The graduate advisory committee will assist in planning the remainder of the student's program, including revision of the degree plan or program of study, thesis title and thesis approval, type of research problem, and administration and evaluation of the final comprehensive examination. The graduate dean has the option to appoint additional members to an advisory committee.

6. A student must complete at least nine semester hours after admission to candidacy.

Advanced GRE scores are required by specified departments.

8. Candidacy examinations are required by the departments of Psychology and Biology.

Doctor of Engineering

A student will be admitted to candidacy for the doctor of engineering degree only upon the recommendations of his/her doctoral committee. In general this committee will require the following:

Satisfactory progress in all course work.

Continuously pursuing his/her course work by earning at least three semester hours credit
in two consecutive long terms. Failure to do so will require the student to make application
to the graduate engineering faculty for permission to continue.

b. Prepare a proposal for a field study involving a technological innovation and defend this

proposal to a doctoral committee as part of the candidacy examinations.

Satisfactorily pass other examinations designed to determine if the student is ready to do
the field study.

A student who fails to be admitted to candidacy on the first attempt may take additional courses or otherwise prepare for an additional attempt as may be recommended by his/her doctoral committee. Failure to meet minimum requirements as established by the student's doctoral committee may require the student to withdraw from the doctoral program.

Advisory Committees

As noted above, members of advisory committees are appointed by the graduate dean at the time the student is admitted to candidacy. After admission to candidacy, but before the date of the final examination, the student may request a change in the committee composition with the approval of the supervising professor and one other committee member. Should the supervising professor and/or another committee member not approve a request for a committee change, the student may request the graduate dean to appoint a three member Review Committee. In the event the Review Committee fails to effect an agreement between the student and the original committee, a new committee may be selected for the student by the graduate dean, the dean of the student's academic college and two members of the graduate faculty of the student's academic college chosen by the graduate dean. The time period should not exceed 10 class days from the date of receipt by the graduate dean of a written request for review and arbitration by the student and the appointment of a new committee, should one be necessary.

Thesis Requirements

A thesis is optional in Master of Arts degree plans and may be a departmental requirement or option in other programs. A student who writes a thesis must:

 Register for the thesis course and begin research with the approval of the student's graduate advisor. The first registration is for Thesis Course 699A; subsequent registrations are for Thesis Course 669B. No Grade "NG" is assigned for each registration until the thesis is finally approved.

2. Register for a thesis course each semester or term the student works on research or writing.

3. Secure a copy of the approved manual of instructions for preparing a thesis from the

Graduate Office and follow it explicitly.

4. Write a thesis under the direction of the supervising professor. The thesis must be approved by the student's advisory committee, the department head, the academic dean, and the graduate dean. Six semester hours of credit will be granted for the successful completion of the thesis. No credit will be reported for the thesis course until the final copy of the thesis has been approved.

Submit a single, unbound copy of the thesis to the dean of the College of Graduate Studies

at least 10 days before the date of the oral examination.

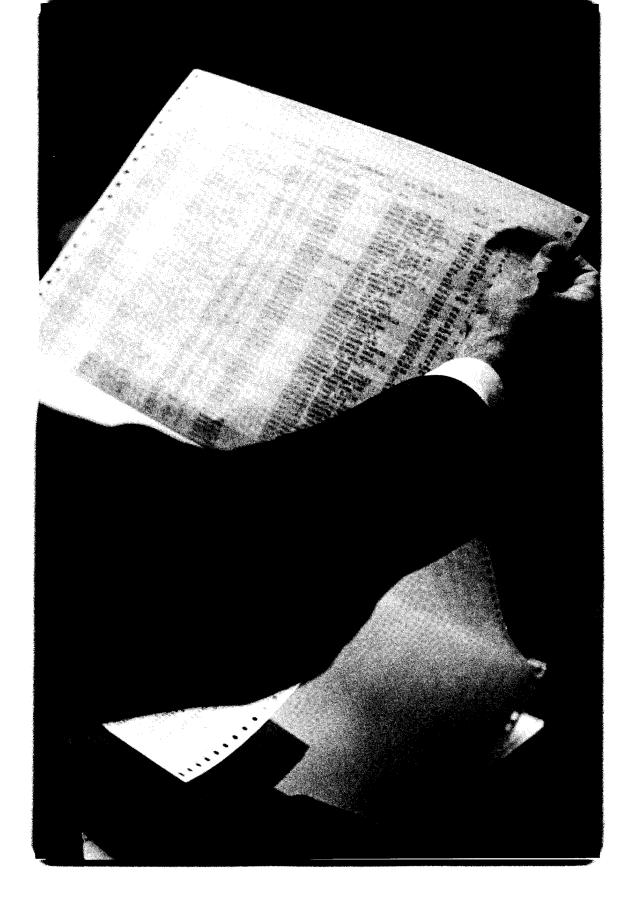
- 6. Submit three copies, (four if a personal copy is desired), of the finished thesis to the graduate dean no later than 10 days before the graduation date.
- 7. Submit abstracts of the thesis as required for publication in *Dissertation/Thesis Abstracts* published by University Microfilms.
- 8. Pay the thesis binding and abstract publication fees to the Lamar Bookstore no later than 10 days before the graduation date.

Final Examination

- 1. Each candidate for a master's degree is required to pass a final oral or written examination. This examination must be taken at least 15 days before conferral of the degree. The graduate dean may attend such examinations, or may send a representative to attend.
- 2. A student presenting a thesis as a part of the degree requirement must be enrolled and take an oral examination. This examination is confined to the thesis and background subject matter pertaining to the thesis.
- 3. A candidate not presenting a thesis as a part of the degree requirement must take a written or oral examination, or a combination of both written and oral examinations. The scope of this examination is determined by the student's advisory committee.
- 4. If all requirements for graduation except the comprehensive examination are completed during a semester for a nonthesis program, the oral or written examination may be administered the following semester without the student being enrolled in the College of Graduate Studies.
- 5. A calendar showing scheduled dates for oral and written examinations is prepared by the Dean of the College of Graduate Studies.
- 6. Failure to pass a final written or oral examination within a maximum of three times will result in permanent suspension from the degree program. This exam may be taken only once each term. Summer is considered as one term.
 - Students suspended under this provision may be admitted to another degree program or may be admitted as Post Baccalaureate students provided they meet the prescribed standards and are accepted through the normal change of major procedure.
 - A department may prescribe published academic requirements for its majors in addition to the minimum basic university final examination standards with the approval of the Dean of the College of Graduate Studies.

Graduation

- 1. A candidate for the master's degree or Doctor of Engineering must file an application for graduation in the office of graduate dean. This application must be made in accordance with the calendar published in this bulletin.
- The student is responsible for making the application, for securing official advice about study plans, and for checking compliance with all degree requirements with the office of the graduate dean.
- Candidates for graduate degrees must be present at graduation ceremonies unless they have been excused by the graduate dean. Requests to receive a degree in absentia must be filed in writing in the graduate dean's office at least four weeks before the commencement date.



College of Business

The College of Business offers a program of study leading to the Master of Business Administration degree (MBA). The objective of the MBA Program at Lamar University is to provide intensive, rigorous training to produce managerial professionals with a through conceptual understanding of the economic, legal, and ethical environment of public and private sector organizations and the capability of applying analytical, problem solving skills to a broad range of decision situations that may arise within on or a combination of functional areas within the organization.

Admission

Persons seeking admission to this program must meet the general requirements for admission outlined elsewhere in this Bulletin, with the following exceptions:

- 1. The student is not required to take the Graduate Record Examination.
- 2. The student is required to take the Graduate Management Admission Test, GMAT.
- 3. The applicant's undergraduate grade point average and GMAT scores must equal or exceed the minimum standards. The student must meet at least one of the following standards:
 - a. A total of at least 950 points based on the formula: 200 times the overall undergraduate GPA (4.0 system) plus the GMAT score.
 - b. A total of at least 1,000 points based on the formula: 200 times the GPA (4.0 system) of the last 60 hours of undergraduate work, plus the GMAT score.

 Note: Students must make a minimum score of 450 on the GMAT for unconditional acceptance, regardless of GPA. Students who make 400-450 will be admitted conditionally pending satisfactory completion of 9 hours with a 'B' (3.0) average. A student who makes less than 400 on the GMAT will not be admitted regardless of GPA
- A student whose native language is not English is expected to score over 500 on the TOEFL.
- 5. Post Baccalaureate students pursuing the MBA degree are **not** permitted to enroll in Business courses for graduate credit. They may, however, take undergraduate courses to remove academic deficiencies.

The Common Body of Knowledge in Business

The applicant must have completed the equivalent of the following undergraduate courses which comprise the common body of knowledge in business:

Acc 231 and 232 Principles of Accounting

Eco 131 and 132 Principles of Economics

BLW 331 Business Law

Fin 331 Principles of Finance

Mkt 331 Principles of Marketing

Mgt 331 Principles of Management

BAC 332 2nd semester of Business Analysis

OAS 335 Business Communications

Note: A student pursuing the MBA must be a fully admitted graduate student in Business and have completed all common body of knowledge courses before taking any degree requirements listed below.

Degree Requirements

The candidate for the Master of Business Administration degree must meet all the College of Graduate Studies general degree requirments as listed in this Bulletin. The student may follow either of two plans described below.

Plan I: 24 hours of course work and a six-hour thesis

Acc 537 Managerial Accounting

MGT 531 Seminar in Management

MKT 531 Seminar in Marketing

Fin 532 Problems in Business Finance

Three hours in Economics, must be 500-level

Nine (9) semester hours of graduate level courses in the College of Business, including at

least three semester hours of a 500-level course

BA 669A Thesis in Business Administration BA 669B Thesis in Business Administration

Plan II; 36 hours of course work, non-thesis

ACC 537 Managerial Accounting

MGT 531 Seminar in Management

MKT 531 Seminar in Marketing

Fin 532 Problems in Business Finance

Mgt 538 Business Research

Three hours in Economics, must be 500-level

Eighteen (18) hours of graduate level courses in the College of Business, including at least

three semester hours of a 500-level course

Requirements for Applicants With Degrees in Non-business Fields

Students whose baccalaureate degrees are in non-business fields are encouraged to earn the Master of Business Administration degree by completing the common body of knowledge in business listed above followed by either Plan I or Plan II. Descriptions of courses included in the common body of knowledge can be found in the undergraduate bulletin. The GMAT examination should be completed as soon as possible.

Graduate Faculty

Assistant Professor Charles L. Allen

Economics

Professor Richmond O. Bennett

Accounting

Assistant Professor Melvin F. Brust

Business administration

Assistant Professor David W. E. Cabell

Management

Assistant Professor P. K. Chandy

Finance

Professor Richard T. Cherry

Finance

Professor Nancy S. Darsey

Office administration

Assistant Professor Betty S. Johnson

Office Administration

Associate Professor Richard W. Jones

Accounting

Professor Hi K. Kim

Economics

Professor C. D. Kirksey

Business statistics

Professor Charles D. McCullough

Marketing

Professor Sam F. Parigi

Economics

Professor Charles A. Partin

Economics

Professor John A. Ryan

Marketing

Assistant Professor Walter D. Snider

Business Law

Associate Professor Larry W. Spradley

Business statistics

Associate Professor Robert A. Swerdlow

Marketing

Professor Malcolm W. Veuleman

Accounting

Associate Professor Charles W. White

Marketing

Associate Professor Kathryn White

Office administration

Associate Professor Bobby E. Wooten

Management

Business Courses

Accounting courses will be selected from the following list:

Seminar in Accounting 534

3:3:0

A course designed to broaden the student's concept of current accounting theory and problems. Prerequisite: Graduate standing.

Contemporary Accounting Theory

3:3:0

A comprehensive study of the contemporary approaches to the development of accounting theory. This will include a study of historical development as well as more recent contributions of present day scholars. Prerequisite: Graduate standing

Advanced Accounting Problems

3:3:0

An intensive study of accounting tecnniques and problems with emphasis placed on the concepts of income determination, asset valuation and cost analysis. Contemporary developments are reflected through a study of research materials and professional publications. Prerequisite: Graduate standing.

Managerial Accounting

3:3:0

Application of accounting data in decision making: cost analysis as applied in the development of budgets and standards; accounting as a tool for cost control and pricing; case problems. Prerequisite: Graduate standing.

Finance courses must be selected from the following list:

Capital Markets and Valuation

3:3:0

The structure and operation of U.S. capital markets, with emphasis on the markets for corporate stocks and bonds. Valuation of securities and the modifications in valuation approach are implied by the efficient market concept and capital market theory.

Problems in Business Finance

3:3:0

A comprehensive study of how financial problems affect all areas of business management. The case study approach is used 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. Prerequisite: Graduate standing.

Management courses must be selected from the following:

Seminar in Management

3:3:0

A course designed to give students an integrated theory of management which incorporates the significant contributions of the various approaches. Research papers are presented by each student as an inquiry in depth of certain sub-theories.

Prerequisite: MGT 331 and graduate standing.

Business Problems and Organization 532

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 used.

Prerequisite: Graduate standing.

Business Research

The student will design and carry out an individual research project under the supervision of a faculty member. Emphasis will be placed on research design and methodology, sources of business and economic data and the use of quantitative techniques to achieve substantive research results. Prerequisite: Graduate standing.

539 Management Science

A scientific approach to solving management problems. Special topics include applications taken from the areas of probability theory, linear programming, game theory, simulation, queuing theory, inventory theory, Markov chains and other areas of managment science.

Prerequisite: BAC 332 and graduate standing.

Marketing courses must be selected from the following:

Seminar in Marketing

3:3:0

An intensive study of specific marketing concepts, theories and strategies in the marketing effort. Emphasis is placed on reading from current journals and other related publications. Prerequisite: MKT 331 and graduate standing.

Seminar in Current Marketing Problems

3:3:0

A comprehensive overview and critical analysis of selected current problems relating to the field of marketing. Prerequisite: Graduate standing and six semester hours in marketing

Marketing Thought and Theory

A study of the contributions of outstanding marketing scholars to marketing thought. An evaluation of the principles and theories in marketing from the social and the firm's point of view. Prerequisite: Six semester hours in marketing and graduate standing

534 Legal Aspects of Marketing

3:3:0

A study of gevernmental controls which are intended to promote the free enterprise system. Several Supreme Court cases which have affected marketing practices will be briefed.

Prerequisite: Six semester hours in marketing and graduate standing.

Economics courses must be selected from the following list:

530 Seminar in Monetary and Fiscal Policy

3:3:0

A study of the theory and practice of monetary management and the taxing-borrowing-spending programs of the government as they affect growth, output, employment, prices and resource allocation.

Prerequisite: Graduate standing.

533 Contemporary Literature and Thought

3-3-0

Readings, special projects, studies and research in the current professional literature. The student will become acquainted with learned journals, economists, their current thinking, present issues and emphasis in the field. *Prerequisite: Graduate standing.*

534 Collective Bargaining

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Background ideologies, contract provisions, current legal and social developments, public employment and international labor practices.

Prerequisite: Graduate standing.

537 Managerial Economics

3:3:0

A study in depth of the principles and techniques of economic analysis applicable to the problems of business management.

Prerequisite: Six semester hours of economics and graduate standing.

538 Economics of Government and Business Relations

3:3:0

Promotion of business, market structures, antitrust and other forms of regulation. *Prerequisite: Graduate standing.*

5301 Money and Capital Markets

3:3:0

Survey of the functions and performances of financial institutions; analysis of the sources and uses of funds in financial markets; market structures of interests rates; and flow of funds analysis.

Prerequisite: Graduate standing.

Administrative Service courses must be selected from the following:

BAC 534 Advanced Statistical Analysis

3:3:0

Further development of the application of statistical methods to the process of making decisions in the face of uncertainty. The use of quantitative methods and models for management is emphasized. Topics include multiple correlations, sampling theory, queuing theory and statistical quality control.

Prerequisite: BAC 332 and graduate standing.

OAS 531 Contemporary Problems in Business Education

3-3-0

Problems and materials in teaching skills subjects; analysis of various teaching techniques; examiniation of recent research and experimentation. When courses are conducted in sufficiently different areas and with the approval of the department head, participants may repeat the course for credit.

Prerequisite: Suitable background and graduate standing.

Thesis courses necessary for graduation under Plan I.

BA 669A-669B Thesis

6:A:0

Prerequisite: Approval of graduate coordinator.

Courses numbered 400 level with a G designation may be taken as an elective in the MBA program. Courses taken at the 400 level must have the approval of the graduate coordinator and must be augmented by additional requirements. Course descriptions for 400 level courses are found in the *Bulletin of Lamar University*.

College of Education

Graduate degree and certification programs are offered by the departments of Elementary Education, Secondary Education, Special Education, Health and Physical Education and Home Economics.

Degrees Offered:

Master of Education in Elementary Education

Master of Education in Guidance and Counseling

Master of Education in School Administration

Master of Education in Secondary Education

Master of Education in Special Education

Master of Education in Supervision

Master of Science in Health and Physical Education

Master of Science in Home Economics

Professional Certificates Available:

Counselor Educational Diagnostician **Elementary Education** Mental Retardation Mid-management Administrator Reading Specialist School Administrator School Superintendent

Secondary Education

Special Education

Special Education Supervisor

Supervisor

Visiting Teacher

Master of Education (M.Ed.)

General Requirements

The student must fulfill the general requirements for admission and the general degree requirements that are stated elsewhere in this bulletin.

The applicant in elementary education must have completed 24 semester hours in education, including 12 semester hours in elementary education methods and materials courses.

The applicant in secondary education must have completed a minimum of 18 semester hours in education and hold a baccalaureate level teaching certificate or its equivalent in an approved discipline to be pursued at the graduate level, including a minimum of nine hours at the 300 level or higher.

The applicant in guidance and counseling, school administration, special education and

supervision must hold a Provisional Teaching Certificate, or its equivalent.

The student in fields other than guidance and counseling and school administration may elect to write a thesis. If so, the student is required to complete a minimum of 24 hours in addition to a thesis.

The student who does not choose to write a thesis must earn a minimum of 36 hours of graduate credit and is required to complete successfully a written examination.

Degree Plan in Elementary Education

To meet individual needs, considerable flexibility is allowed in planning the student's program; however, the usual pattern of course work is as follows:

Specialization Area. Six semester hours of courses must be taken for graduate credit from one or a combination of the following disciplines: history, English, foreign languages, mathematics, science, art, music, speech or health and physical education.

NOTE: To fulfill requirements concurrently for a Master's degree and for a Professional Certificate, a student may complete six additional hours in the area of specialization and substitute these hours for six hours in the elective area. The student also should elect a 36 hour nonthesis program.

Professional Development. Six semester hours must be selected from the following courses, (three semester hours if the student elects to write a thesis:)

Edu 530 Structure and Organization of Public Education

Edu 531 Research (Required)

Edu 532 Current Issues in Education

Edu 533 Contemporary Philosophies of Education

Edu 534 Advanced Study in Human Development

Edu 535 The Learning Process

Edu 537 Public School Curriculum

Edu 5307 History of Education

3. Resource Area. Twelve semester hours must be selected from the following courses, (nine semester hours if the student elects to write a thesis:)

Edu 536 Problems in Teaching Science and Social Studies in the Elementary School

Edu 538 Modern Mathematics in the Elementary School

Edu 539 Foundations of Reading

Edu 5303 Strategies for Individualizing Elementary Instruction

Edu 5310 Language Arts in the Elementary School

Edu 5329 Corrective Reading

4. Electives. Twelve semester hours, (six semester hours if student elects to write a thesis.) from any of courses listed below or in a concentrated area.

A. Reading Specialist

Edu 539 Foundations of Reading

Edu 5301 Current Literature for Children and Adolescents

Edu 5302 Practicum: Diagnosis and Remediation of Reading Difficulties

Edu 5329 Corrective Reading

Audio-Visual Specialist

Edu 433G Teaching Media and Audio-Visual Technology

Edu 435G Individualized Instruction Through Technology

Edu 5370 Technology Edu 5372 Film and Television as a System of Teaching

C. Early Childhood Education

Edu 4304G History and Philosophy of the Kindergarten

Edu 4305G Seminar in Early Childhood Educational Research

Edu 5351 Advanced Study in Early Childhood Curriculum

Edu 5352 Creative Activities in Early Childhood Education

Supervision

SpEd 5316 Administration & Supervision of Special Education Programs

Edu 5336 Leadership and Evaluation of Instruction

Edu 5337 Practicum and Seminar

Edu 5338 Instructional Supervision

Special Education

SpEd 5361 Survey of Learning Potentials of Exceptional Children

SpEd 5364 Behavior Modification and Contingency Management of Disabled Learners

SpEd 5365 Instructional Processes With Exceptional Children

SpEd 5366 Modification of Curriculum and Instruction for the Atypical Learner

Degree Plan in Elementary Education With Professional Certification in Reading

- To fulfill requirements concurrently for a Master's degree and Professional Certification in Reading, the student:
 - A. Must meet general requirements for a Master of Education degree.

B. Must hold a valid Texas Provisional Elementary or Secondary Certificate.

Must have completed a minimum of three years of creditable classroom teaching.

Should elect a 36 hour nonthesis program.

The usual pattern of coursework is as follows:

A. Professional Development Area. Six semester hours required.

Edu 531 Research (Required)

Edu 530 Structure and Organization of Public Education

Edu 532 Current Issues in Education

Edu 533 Contemporary Philosphies of Education

Edu 534 Advanced Study in Human Development

Edu 535 The Learning Process

Edu 537 Public School Curriculum

Edu 5307 History of Education

B. Resource Area. Twelve semester hours required.

Edu 536 Problems in Teaching Science and Social Studies in the Elementary School

Edu 538 Modern Mathematics in the Elementary School

Edu 539 Foundations of Reading (Required)

Edu 5303 Strategies for Individualizing Elementary Instruction

Edu 5310 Language Arts in the Elementary School

Edu 5329 Corrective Reading (Required)

C. Specialization Area. Six semester hours.

Soc 432G Educational Sociology

Eng 4312G Study in Language and Linguistics

Additional Requirements: Twelve semester hours. Edu 5301 Current Literature for Children and Adolescents (Required)

Edu 5302 Practicum: Diagnosis and Remediation of Reading Difficulties (Required)

Six (6) semester hours to be selected from:

(Required)

Edu 5319 Problems in Secondary School Instruction

Edu 5320 Adolescent Development

Edu 5321 Strategies for Individualizing Secondary Instruction

Professional Certificates in Elementary Education

The applicant should hold or be eligible for a Provisional Certificate before admission into a professional program and have three years of teaching experience before being recommended for the Professional Certificate.

Requirements for the Professional Certificate follow an outline prescribed by the Texas Education Agency; consequently, the format for the certificate and the format for the degree are not identical. By selecting a nonthesis program and with careful planning, a student may fulfill concurrently requirements for the Master's degree and requirements for a Professional Certificate in Elementary Education or the Reading Specialist Certificate. Specific information concerning these certificates may be obtained from the Director of Graduate Studies in the College of Education or the Department of Elementary Education.

Other Certificates

It is possible for students to complete part of all of the requirements for a Provisional Teaching Certificate or an endorsement to such a certificate while working on a Master of Education degree in Elementary Education. Endorsements in areas such as mental retardation, physically handicapped/minimally brain injured, emotionally disturbed, language and/or learning disabilities, early childhood/exceptional children and kindergarten may be adapted to such an arrangement. Specific information concerning these certificates may be obtained from the Director of Graduate Studies in the College of Education or from the Department of Elementary

Degree Plan in Secondary Education

To meet individual needs, considerable flexibility is allowed in developing the student's plan for a nonthesis or a thesis program; however, the usual pattern of course work is as follows:

1. Professional Development. Eighteen semester hours must be taken as follows:

Required: Six semester hours Edu 531 Research in Education Edu 5320 Adolescent Development

Electives: Twelve semester hours must be in one of the following areas:

Classroom Specialist Reading Specialist Foundations of Education Supervision

A list of specific courses required or recommended in each of the concentrations is available through the Office of the Director of Graduate Studies or the Department of Secondary Education.

2. Specialization Area. For the nonthesis route to the degree, 12-18 semester hours of graduate work must be completed in one of the approved disciplines. A minimum of 12 hours must be taken at the 500 level for the 18-hour specialization. If the student elects to write a thesis or chooses the route leading to the Professional Teaching Certificate which requires a six-hour resource area exclusive of professional education and the specialization, the specialization requirement is reduced to 12 semester hours with at least six at the 500 level.

A plan listing the specific courses required or recommended is available through the Office of the Director of Graduate Studies in the College of Education or the Department of Secondary Education. Specialization areas are available in the following disciplines:

Biology Physical Education

Chemistry History
Earth Science Mathematics
Physics English
Speech Government

Degree in Secondary Education With Professional Certification in Reading

With a valid junior high school or high school teaching certificate and three years of classroom teaching experience, a student may fulfill requirements for a Professional Reading Specialist Certificate, all levels, by completing six semester hours beyond the usual requirements for the degree. Specific information may be obtained from the head of the Department of Secondary Education.

Program Leading to Professional Teaching Certificate—Secondary

The Texas Education Agency issues a Professional Teaching Certificate to the candidate recommended by the college when he/she has completed an approved 30 semester hour program of credit beyond the bachelor's degree. This program must include work in professional development, in a teaching specialization area and in a resource area. Requirements also indicate that the candidate must hold a Provisional Teaching Certificate and have three years of teaching experience. Specific requirements for the certificate may be obtained in the Office of the Director of Graduate Studies in the College of Education or in the Department of Secondary Education.

Other Certificates

It is possible for graduate students to complete requirements for a Provisional Teaching Certificate while completing a Master of Education degree in Secondary Education. Specific information concerning these certificates may be obtained from the head of the Department of Secondary Education.

Degree Plan in Guidance and Counseling

To meet individual needs, some flexibility is allowed in planning the student's program; however, because of requirements for certification the usual pattern of course work is as follows:

The Guidance Program: Three semester hours.
 Edu 5322 Organization and Administration of Guidance Program

The Pupil Served: Six semester hours.

SpEd 431G Psychology of Exceptional Children

Edu 534 Advanced Studies in Human Development

Edu 535 The Learning Process

Soc 432G Sociology of Education (Required)

Resource Areas: Twenty-seven semester hours.

Required: 21 semester hours

Edu 531 Research

Edu 5323 Occupational and Vocational Guidance

Edu 5324 Individual and Group Counseling

Edu 5328 Practicum in Guidance and Counseling

Edu 5333 Individual Counseling Theories and Techniques

Edu 5334 Interpretation and Analysis of Tests and Measurements

Edu 5335 Individual Testing

Electives: (six semester hours)

Edu 5332 Guidance and Counseling in the Elementary School

SpEd 5361 Survey of Learning Potentials of Exceptional Children

SpEd 5362 Psychoeducational Evaluation of Exceptional Children

SpEd 5363 Practicum in Psychoeducational Procedures

Professional Counselor's Certificate

A student who completes requirements for a Master of Education degree in Guidance and Counseling will have fulfilled all curriculum requirements for a Professional School Counselor's Certificate. A student who desires the certificate, without fulfilling all degree requirements should check with the Director of Guidance and Counseling for specific information. Usually such a student who is otherwise eligible can meet these requirements by completing 30 semester hours. The Texas Education Agency issues a Professional Counselor's Certificate based upon completion of an approved program in guidance and counseling and three years of teaching experience in an accredited school system.

Professional Visiting Teacher's Certificate

The Visiting Teacher Professional Certificate is based upon a Provisional Teaching Certificate, three years experience in an acredited school or three years experience in an approved social agency, and the completion of an approved 36 semester hour graduate program.

The purpose of the Visiting Teacher professional preparation program is to qualify certified, experienced teachers for supportive staff positions and leadership responsibilities as liaisons between school-home-and community agencies. The program has been developed with flexibility to utilize the educational and experimental background of the student to develop and enhance competencies in interpersonal transactions, behavioral management, multi-cultural understanding and familiarity with the health, social and child welfare resources of the community and the state.

A student who desires to seek this certificate should consult with the Director of Guidance and Counseling or with the head of the Department of Secondary Education for information.

Note: to qualify for a Special Education Visiting Teacher Certificate, the student must have, or be eligible for, a Professional Visiting Teacher Certificate and must have completed six semester hours in graduate or undergraduate work in Special Education.

Completion of the Visiting Teacher Certificate program does not fulfill the requirements for a Master of Education degree. This certificate is planned as an adjunct or addition to an approved graduate degree program.

Certification Plan for the Visiting Teacher

To meet individual needs, some flexibility is allowed in planning the student's program; however, because of requirements for certification the usual pattern of course work is as follows:

1. Professional Development Area: Three semester hours. Edu 5318 School Management and School Services

Edu 5344 School Law

Specialization Area: Twenty-one semester hours.

Required: Twelve semester hours

Edu 5322 Organization and Administration of the Guidance Program

Edu 5334 Interpretation and Analysis of Tests and Measurement

Edu 5367 Psycho-Social Foundations of Educating the Culturally Different

Edu 5368 Practicum: Role and Responsibilities of the Visiting Teacher

Electives: Nine semester hours

Edu 534 Advanced Studies in Human Development

or

Edu 5320 Adolescent Development

Edu 5323 Occupational and Vocational Guidance

Edu 5324 Individual and Group Counseling

Edu 5332 Guidance and Counseling in the Elementary School

Edu 5333 Individual Counseling Theories and Techniques

Edu 537 Public School Curriculum

3. Resource Area: Twelve semester hours.

Edu 5326 School and Community Relations

SpEd 5316 Administration and Supervision of Special Education Programs

SpEd 5362 Psychoeducational Evaluation of Exceptional Children

SpEd 5364 Behavior Modification and Contingency Management of Disabled Learners

SpEd 5365 Instructional Processes with Exceptional Children

Psy 5310 Introduction to Social and Psychological Assessment

Psy 5311 Community Psychology

Soc 432G Sociology of Education (required)

Degree Plan in Supervision

Requirements for a Master of Education in Supervision may be met by completing a 36 semester hour nonthesis program or by completing a 30 semester hour plan that includes a thesis. The student is allowed some flexibility in planning his program; however, the usual pattern of course work is as follows:

1. Professional Development. Six semester hours.

Edu 531 Research (Required)

SpEd 5316 Administration and Supervision of Special Education Programs

Edu 5334 Interpretation and Analysis of Tests and Measurement

2. Specialization Area. Nine semester hours.

Edu 5336 Leadership and Evaluation of Instruction

Edu 5337 Practicum and Seminar: Supervision and Curriculum Development

Edu 5338 Instructional Supervision

3. Resource Area. Twenty-one semester hours, if thesis is written.

A. Learning Process. Three semester hours.

1. Edu 534 Advanced Study in Human Development

2. Edu 535 The Learning Process

3. SpEd 5364 Behavior Modification and Contingency Management of Disabled Learners

B. Electives. Eighteen semester hours, (12 if thesis is written).

If the student chooses to write a thesis, the number of electives is reduced to six hours in course work plus six hours in thesis. With approval, other graduate level courses applicable to professional certification sequences may be selected.

Professional Supervisor's Certificate

Curriculum requirements for a Professional Certificate in supervision may be met by completing a Master of Education degree in Supervision. A student who desires the certificate without fulfilling all degree requirements hould consult with the Director of Certification for specific information.

Degree Plan in School Administration

Requirements for a Master of Education degree in School Administration may be met by completing a 36 semester hour nonthesis program. The program is designed to provide the first 36 or the 45 semester hours required for the Mid-Management Administrators' Certificate. A plan listing the specific courses for the degree is available in the office of the Director of Graduate Studies in the College of Education or in the Department of Secondary Education.

To meet individual needs, some flexibility is allowed in planning the student's program; however, because of requirements for certification the usual pattern of course work is as follows:

1. Common Core for Administration: (24 semester hours)

General Administrative Competencies: 18 semester hours—all required

Edu 531 Research in Education

Edu 535 The Learning Process

Edu 537 The Public School Curriculum, K-12

Edu 5331 Theory and Practice in School Administration

Edu 5336 Leadership and Evaluation of Instruction

Edu 5344 School Law

Related Areas of Study: (6 semester hours)

Soc 432G Sociology of Education (required)

CS 5301 Computer Systems for Education Applications (required)

Specialized Preparation for School Administrators: (12 semester hours)

Edu 5317 Organization and Administration of Special Programs (required)

Edu 5318 School Management and School Services (required)

Edu 5339 The Public School Principal (required)

Plus three hours of electives from:

Edu 5324 Individual and Group Counseling

Edu 5326 School-Community Relations

Edu 5342 School Finance and Business Management

Edu 5345 Personnel Management

Edu 5347 Seminar in School Administration

Professional Certification for Mid-Management School Administrator and for School Superintendent

The standards presented in this catalog for certification as Mid-Management Administrator and the School Superintendent are based on the 1972 Revised Standards and are applicable to all Lamar students entering programs after September 1, 1973. Two certificates are available under these new standards.

1. The Mid-Management Administrator's Certificate requires the completion of the approved

45 semester hour plan of graduate credit.

The Professional School Superintendent's Certificate requires the completion of the Mid-Management Administrator's Certificate and an additional 15 semester hour approved plan of graduate credit.

To be eligible for recommendation for the Mid-Management Administrator's Certificate, the candidate completing the 45 hour approved plan must hold a Provisional Teaching Certificate, must hold a Master's degree, must have a minimum of two years of creditable classroom teaching experience, and must have completed an approved administrative internship experience.

To be eligible for recommendation for the Professional School Superintendent's Certificate, the candidate must have met all of the requirements for the Mid-Management Administrator's Certificate, plus the completion of the 15 semester hour plan of specialized graduate work for school superintendents.

Professional Certificate course requirements are as follows;

General Administrative Competencies: 18 semester hours — all required.

Edu 531 Research in Education

Edu 535 The Learning Process

Edu 537 The Public Šchool Curriculum, K-12

Edu 5331 Theory and Practice in School Administration

Edu 5336 Leadership and Eval of Instruction

Edu 5344 School Law

2. Related Areas of Study: Nine semester hours, Six required.

Soc 432G Sociology of Education (required)

CS 5301 Computer Systems for Educational Applications (required)

Three semester hours selected from the following:

Eco 534 Collective Bargaining

Gov 535 Seminar in Theory and Practice in Public Administration

Gov 5351 Seminar in Personnel Administration

3. Specialized Preparation for School Administrators: 18 semester hours

Edu 5317 Organization and Administration of Special Programs (required)

Edu 5318 School Management and School Service (required)

Edu 5339 The Public School Principal (required)

Edu 5348 Practicum in Educational Administration (required)

Six semester hours to be selected from:

Edu 5324 Individual and Group Counseling

Edu 5326 School-Community Relations

Edu 5342 Public School Finance

Edu 5343 Administration of the School Plant

Edu 5345 Personnel Administration

Edu 5347 Seminar in School Administration

4. Specialized Preparation for the School Superintendent. 15 semester hours required.

Edu 5326 School-Community Relations

Edu 5341 The School Superintendent (required)

Edu 5342 Public School Finance (required if not previously completed)

Edu 5343 Administration of the School Plant

Edu 5345 Personnel Managment

Edu 5349 Internship for the School Superintendent (required:

Three hours to be repeated once during consecutive long terms).

Degree Plan in Special Education

To meet individual needs, some flexibility is allowed in planning the student's program; however, the usual pattern of course work is indicated below. If a student desires, he/she may complete requirements for a Professional Certificate as an Educational Diagnostician or in Mental Retardation or in Supervision. Provisional Certification in Special Education-Generic is available, if desired, as part of the degree plan. This degree, if the student is pursuing one of the described certifications, is planned as a 36 semester hour nonthesis program. A student not seeking a certificate within the degree may complete a minimum of 24 semester hours in addition to a thesis.

To fulfill requirements concurrently for a Master's degree and Professional Certification in Supervision, the student also must have or complete a special education categorical area endorsement. The student should secure information concerning requirements for certification from the Department of Special Education. General information concerning Professional Certificates is presented in another portion of the College of Education section of the bulletin.

1. Professional Development Area: Nine semester hours must be selected from the following courses, three semester hours if the student elects to write a thesis:

Edu 530 Structure and Organization of Public Education

Edu 531 Research (required)

Edu 532 Current Issues in Education

Edu 533 Contemporary Philosophies of Education

Edu 534 Advanced Study in Human Development (required for Educational Diagnostician)

Edu 535 The Learning Process (required for Educational Diagnostician)

Edu 537 Public School Curriculum

SpEd 5364 Behavior Modification and Contingency Management of Disabled Learners

2. Resource Area: Twelve semester hours must be selected from the following courses (six semester hours if the student elects to write a thesis)

SpEd 431G Psychology of Exceptional Children

SpEd 439G Methods and Materials for Learning Disabilities

SpEd 4308G Appraisal Processes in Programming for the Exceptional Individual

SpEd 4309G Instruction of the Exceptional Learner (required for Special Education-Generic)

SpEd 4310G Practicum in Instructing the Exceptional Individual (with permission)

SpEd 5313 Learning Potentials in the Mentally Retarded

SpEd 5314 Instructional Processes with the Mentally Retarded

SpEd 5315 Problems and Issues in Special Education

SpEd 5316 Administration and Supervision of Special Education Programs

Edu 5334 Interpretation and Analysis of Tests and Measurements (required for Supervision)

Edu 5335 Individual Testing (required for Educational Diagnostician)

Edu 5351 Advanced Studies in Early Childhood Curriculum

SpEd 5361 Survey of Learning Potentials of Exceptional Children (required for Special Education-Generic)

Specialization Area: Fifteen semester hours must be selected from the following courses or in a concentrated area when attaining a specific certification:

Educational Diagnostician

SpEd 5362 Psychoeducational Evaluation of Exceptional Children

SpEd 5363 Practicum in Psychoeducational Procedures

SpEd 5364 Behavior Modification and Contingency Management of Disabled Learners

SpEd 5365 Instructional Processes with Exceptional Children

SpEd 5366 Modification of Curriculum and Instruction for the Atypical Learner

Mental Retardation

SpEd 431G Psychology of Exceptional Children

SpEd 5313 Learning Potentials in the Mentally Retarded

SpEd 5314 Instructional Processes with the Mentally Retarded

SpEd 5315 Problems and Issues in Special Education

SpEd 5364 Behavior Modification and Contingency Management of Disabled Learners

Supervision

Edu 5336 Leadership and Evaluation of Instruction

Edu 5337 Practicum and Seminar

Edu 5338 Instructional Supervision

SpEd 5316 Administration and Supervision of Special Education Programs

SpEd 5361 Survey of Learning Potentials of Exceptional Children

Special Education—Generic

SpEd 4307G Practicum in Instructional Alternatives in Reading and Language Arts

(with permission)

SpEd 4308G Appraisal Processes in Programming for the Exceptional Individual SpEd 4310G Practicum in Instructing the Exceptional Individual (with permission)

SpEd 5364 Behavior Modification and Contingency Management of Disabled

Learners

SpEd 5365 Instructional Processes with Exceptional Children

Professional Certificates in Special Education

Educational Diagnostician Mental Retardation Special Education Supervisor

With careful planning, a student may complete requirements for two of the professional certificates indicated above within the master's degree program. Specific information concerning these certificates may be obtained from the Director of Graduate Studies in the College of Education or the Department of Special Education.

Provisional Certificates in Special Education

Special Education—Generic Mental Retardation Physically Handicapped Language/Learning Disabilities **Emotionally Disturbed** Early Childhood/Exceptional Children

Students may obtain provisional certification in the above listed areas. A combination of graduate and undergradute courses leading to one or more certificates is possible. Specific information concerning these certificates may be obtained from the Department of Special Education.

General Information Concerning Professional Certificates

The Professional Certificate is valid for life unless cancelled by lawful authority, and gives the holder legal authority to perform duties in the public schools of Texas in the specialized areas designated on the face of the certificate.

Requirements

- 1. Have completed the requirements for a Provisional Certificate.
- Have at least three years of teaching experience.
- Have completed an approved teacher education program.
- 4. Be of good moral character.
- 5. Be a citizen, or in the process of becoming a naturalized citizen of the United States.
- 6. Believe in and uphold the Constitution of the United States and the State of Texas.
- Have completed, in a Texas institution of higher learning, a course or courses in which the Constitutions of the United States and the State of Texas have been given special emphasis.
- Have completed at least six semester hours of American history or three semester hours in American history plus three semester hours in Texas history.
- Pay an application fee of \$3.

Graduate Faculty

Professor Howard W. Adams

Secondary education, education research

Professor David L. Bost

Secondary education, guidance and counseling

Professor Kenneth R. Briggs

Secondary education, educational

psychology

Professor Charles M. Burke

Elementary education, elementary curriculum

Professor Betty Fay Coody

Elementary education, elementary curriculum

Professor Vernon H. Griffin

Elementary education, elementary

Professor W. Richard Hargrove

Elementary education, foundations of education

Assistant Professor Sandra Lee Haven Secondary education, math education

Professor Bradley B. Hogue

Elementary education, education psychology

Professor Harvey C. Johnson Secondary education, curriculum and administration

Professor Conrad Dell Mang Elementary education

Associate Professor Edward Roy McIntosh Elementary education, instructional

Professor M. L. McLaughlin

Elementary education, contemporary

Assistant Professor Stanton M. Morris Special education

Professor James O. Schnur

Elementary education, education for gifted, administration and supervision.

Professor E. Lee Self

Secondary education, public education

Associate Professor Phillip B. Snyder

Science education

Professor Monty Sontag

Special education

Associate Professor William H. Stanley Educational administration

Professor Richard E. Swain, III Secondary education, science education Associate Professor Jerry R. Tucker Secondary education
Associate Professor Curtis E. Wills
Secondary education, guidance and
counseling

Education Courses

530	Structure and Organization of Public Education	3:3:0
	Analysis of the operation and function of public education at the local, state and national levels.	
531	Research	3:3:0
	Introduction to skills and techniques necessary for research and problem solving in education. E	mphasis on
	terminology, methodology and spirit of systematic research.	2.2.0
532	Current Issues in Education	3:3:0
	Current controversies and trends in public education.	
533	Contemporary Philosophies of Education	3:3:0
	Influence of recent philosophies on education. Schools of educational philosophy and implications for	curriculum
	development and teaching methods.	
534	Advanced Study in Human Development	3:3:0
	A study of development and nature of the human personality. Emphasis on recent psychological and	d biological
	experiments.	
535	The Learning Process	3:3:0
	Dynamics, processes and systems of learning. Theoretical emphasis.	
536	Problems in Teaching Science and Social Studies in the Elementary School	3:3:0
	A study of current developments, recent trends and innovative methods of teaching science and social	al studies in
	the elementary school, with emphasis upon individual teaching problems and research.	
537	The Public School Curriculum	3:3:0
	Analysis of the objectives, organization and content of the different areas of the public school curriculu	ım in grades
	K-12. Emphasis is given to models of curriculum development and to techniques for curriculum imp	provement.
538	Modern Mathematics in the Elementary School	3:3:0
	Problems, research and innovative methods in elementary mathematics. This course is designed for	elementary
	teachers who wish to pursue individual problems, research and recent methods and trends of teaching	; elementary
	mathematics.	
539	Foundations of Reading	3:3:0
	Methods for extending and refining fundamental reading habits and attitudes, and for increas	ing reading
	efficiency. Attention will be given to all facets of the foundations of a reading program.	
510, 5	5201, 5401, 5601 Institute in Education	1-6:1-6:0
	Designed to advanced the professional competence of participants. For each institute, a descrip	
	particular area of study will be indicated. May be repeated for credit when nature of institute differs	sufficiently
	from one previously taken.	
5301	Current Literature for Children and Adolescents	3:3:0
	Survey of recent literature for children and adolescents. Emphasis is given to nonfiction in such an	eas as earth
	science and social science. Extensive reading of actual literature.	
5302	Practicum: Diagnosis and Remediation of Reading Difficulties	3:3:0
	Work with pupils in diagnosing and correcting reading disabilities. Students will determine the cause	s of reading
	disabilities, employ observation and interview procedures, use standard and informal tests and study m	naterials and
	methods of instruction.	
5303	Individualized Instruction in the Elementary School	3:3:0
	Basic concepts of individualized instruction will be covered in detail. Various innovative methods of in	dividualized
	instruction will be investigated. Particular attention will be given to types of school organization such as	s the "open"
	school.	
5304	Advanced Child Development	3:3:0
	A consideration of the contribution of scientific research to an understanding of child development as	nd behavior
	Emphasis on biological, social, cultural and psychological factors determining individual differences	in the child
5305	Problems in Elementary School Instruction	3:3:0
)30)	Consideration of the instructional problems encountered by teachers in the elementary schools.	
	Prerequisite: One year of teaching experience.	
5306	Institute in Education	3:3:0
7500	Designed to advance the professional competence of participants. A description of the institute will be	
	May be repeated for credit when nature of institute differs significantly from one previously taken.	
5307	History of Education	3:3:0
150/	A study of the evolution of educational theory traced from the time of primitive man to the present ag	
	the development of concepts and contributions leading to modern educational thought.	

5310	Language Arts in the Elementary School 3:3:0
,,,,	A study of developments and trends in the teaching of language arts with primary consideration given to individua
	teaching problems, individual research and recent innovative methods.
5111,	5211, 5311 Individual Study in Education 1-3:A:C
	Supervised investigation into special areas of education under the direction of a graduate faculty member. May be
	repeated for credit when topic of investigation differs.
	Prerequisite: Consent of department head.
5317	Organization and Administration of Special Programs 3:3:0
	Study of Principles, organization and administrative practices in special, compensatory and vocational education
	Attention is given to administrative competencies essential to the successful implementation of career education
	in all elements of the school program.
5318	School Management and School Services 3:3:0
	Study of principles of school business procedures related to fiscal accounting, including the preparation, analysis
	and control of the school fiscal budget. Study of building management, cafeteria programs, transportation services and textbook services.
5319	Problems in Secondary School Instruction 3:3:0
))19	Consideration of the instructional problems encountered by experienced teachers in the secondary schools.
	Prerequisite: One year of teaching experience.
5320	Adolescent Development 3:3:0
	Physical, mental, social and emotional characteristics of the adolescent; his/her interests and problems; his/her
	family and community relationships.
5321	Strategies for Individualizing Secondary Instruction 3:3:0
	An analysis of the strategies for individualizing instruction, including the techniques of diagnosis and prescription
	for learning problems. Studies of the open classroom, team teaching, independent study, learning modules
	nongraded programs and other organizations for instruction are included.
5322	Organization and Administration of the Guidance Program 3:3:0
	Essential services and management functions of guidance and counseling services for schools.
5323	Occupational and Vocational Guidance 3:3:0
	Survey of occupational fields, requirements and rewards. Concepts of vocational guidance.
5324	Individual and Group Counseling 3:3:0
	Processes of individual study. Counseling procedures and techniques for individuals and groups.
5325	Pupil Personnel Management 3:3:0
6336	Survey of student services in the public schools emphasizing principles, philosophy and operating procedures.
5326	School-Community Relations 3:3:0 Emphasizes the relationship of advectional and social naturals of living which exists in average annuality.
	Emphasizes the relationship of educational and social patterns of living which exists in every community, recognizes the burden of leadership which rests with the public school as it occupies the central position of
	influence in the community.
5327	College Teaching 3:3:0
,,,,	Designed for graduate students with little or no pedagogical training or experience. Application of learning
	principles and pedagogical procedures in college classes.
5328	Practicum in Guidance and Counseling 3:8:0
	Supervised observation and practice of guidance and counseling in a school setting.
	Prerequisite: Edu 5335 and approval of department head. Class: the number of hours equivalent to 8 hours per week for
	16 weeks.
5329	Corrective Reading 3:3:0
	Causes of reading disability, methods of diagnosis and remedial instruction.
5331	Theory and Practice in School Administration 3:3:0
	Introduction to theories of administration, organizational structures and current practices in educational
	administration. Emphasis is given to types of organizational designs, personnel titles and roles, line staff
5332	relationships and general theories of successful administrative practice. Guidance and Counseling in the Elementary School 3:3:0
7332	3:3:0 A course designed to provide an understanding of guidance principles and techniques applicable to the elementary
	school.
5333	To P. C. L. C.
,,,,,	Opportunities are provided for the student to enrich his/her background and experience in interviewing and in
	dealing with human relations problems in the counseling situation.
5334	Interpretation and Analysis of Tests and Measurement 3:3:0
	Analysis and evaluation of types of tests and measurement devices will be conducted. Methods of determining the
	reliability and validity of tests are investigated. Designs for testing programs and selection of appropriate tests will
	be included.
5335	Individual Testing 3:3:0
	Theoretical and practical study emphasizing the administration, scoring and basic interpretation and practice in the
	use of individual psychological tests. Students will be trained to administer the Wechsler tests, the Stanford Binet
	or other subsequently developed individual intelligence scales.
	Prerequisite: Edu 4337G or Edu 5334.

Study of the basic concepts of the production and use of educational television, still and motion pictures. Emphasis will be given to the production of pictorial teaching materials and to the use of such materials as a system of

Designed to facilitate instructional personnel who, directly or indirectly, work with/supervise student teachers to better understand their roles of supervision as they relate to student teaching. Emphasis is given to the cooperative endeavor and special relationships as they exist between state regulatory bodies, the supervising teacher and the University supervisor. Note: This course has been recognized by the Lamar Teacher Center as meeting the in-service

5372 Film and Television as a System of Teaching

Instructional Supervision of Student Teachers

requirement for supervising teachers as specified by state statue.

5380 Advanced Seminar in Secondary Instruction

3:0:0

Emphasis on contemporary secondary instructional techniques inclusive of such topics as computer assisted instruction, behavior modification/classroom discipline, gaming strategies, personal and performance analysis, and prescriptive teaching. Designed for professional growth of the career teacher.

Prerequisite: Three years teaching experience.

5381 Advanced Seminar in Counselor Relations

3:0:0

An intensive exploration of the dynamics of interpersonal relationships. A critical analysis of various approaches to counseling will be established. Development and demonstration of personal counseling skills will be of major concern.

Prerequisite: Edu 5333.

5390-9 Selected Topics

3:3:0

Significant topics in Elementary, Secondary and Special Education. The description of the particular area of study will appear on the printed semester schedule. A student may repeat for a maximum of six semester hours when topic varies.

669A-669B Thesis

6: A:

Prerequisite: Approval of graduate advisor.

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course Descriptions may be found in the *Bulletin of Lamar University*.

431G Diagnostic-Prescriptive Techniques in the Teaching of Reading

433G Teaching Media and Audio-Visual Technology

435G Individualized Instruction through Technology

4301G Institute or Workshop in Education

4304G History and Philosophy of the Kindergarten

4305G Seminar in Early Childhood Educational Research

4337G Tests and Measurements

439G Reading Practicum

Special Education Courses (SpEd)

5101, 5201, 5301, 5601 Institute or Workshop in Special Education

1-6:1-6:0

Designed to advance the professional competence of participants. For each institute or workshop a description of the particular area of study will be indicated. May be repeated for credit when institute or workshop differs sufficiently from one previously taken.

5121, 5221, 5321 Individual Study in Special Education

1-3:A-6

Investigation into special areas in special education under the direction of a faculty member. This course may be repeated for credit when topics of investigation differ.

Prerequisite: Consent of department head.

5313 Learning Potentials in the Mentally Retarded

3:3:0

Determining the degree of modifiability of pupil behaviors and identifying functioning levels; individual projects.

5314 Instruction Processes with the Mentally Retarded

Translating the behaviors of the mentally retarded into developmental categories and applied instructional modification processes.

5315 Problems and Issues in Special Education

3:3:0

Appraisal of current problems, trends and practices in the education and care of exceptional children.

Administration and Supervision of Special Education Programs

Analysis of the functions of special education in the administrative structure of the school; the principles and practices in administration and supervision in special education.

5361 Survey of Learning Potentials of Exceptional Children
General survey of the learning potentials of those children deficient in basic integrities which can be categorized into central peripheral nervous system dysfunction and/or behavioral disorder.

5362 Psychoeducational Evaluation of Exceptional Children
Simulated experiences in the use of formal and informal methods of appraising and communicating pupils' educational status and progress.

5363 Practicum in Psychoeducational Procedures
Practicum experience in the use of formal and informal instrume

3:3:0

Practicum experience in the use of formal and informal instruments in the evaluation of the psychoeducational and social development of children and the utilization of education and clinical data in individual teaching plans. *Prerequisite: SpEd 5362.*

Behavior Modification and Contingency Management of Disabled Learners

3:3:0

The description of specific types of learning, the sequence in learning school-related tasks and the competencies to manipulate events to effect desired learning.

3:3:0

5365	Instructional Processes with Exceptional Children 3	3:0
,,,,,	Competency in developing educational strategies for the remediation, amelioration or compensation exceptionality as it interferes with achievement or adjustment in school.	of
5366	Modification of Curriculum and Instruction for the Atypical Learner 3	3:0
	Information and familiarity with instructional materials necessary for meeting the special needs of exception learners. Utilization of Special Educational Instructional Materials Centers.	onal
5390		:3:0
	Study in the problems, trends and practices in the education and care of the pre-school child in special educat	ion.
5391		:3:0
	Study in the problems, trends and practices in the education and care of the elementary school age child in speeducation.	cial
5392	Special Education and the Secondary School Age Child 3	:3:0
	Study in the problems, trends and practices in the education and care of the secondary school age child in speeducation.	cial
5393	Mulliotteaming and the Exceptional China	:3:0
	Review of current problems, trends and practices in the education and care of exceptional children thromainstreaming.	ugh
669A-		A:0
	Prerequisite: Approval of graduate advisor.	

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

431G Psychology of Exceptional Children

436G Education of Gifted Children

438G Instructional Processes with the Severely and Profoundly Handicapped

439G Methods and Materials in Learning Disabilities

4101G, 4201G, 4301G, 4601G Institute or Workshop in Special Education

4307G Practicum in Instructional Alternatives in Reading and Language Arts for the Exceptional Individual (with permission)

4308G Appraisal Processes in Programming for the Exceptional Individual

4309G Instruction of the Exceptional Learner

4310G Practicum in Instructing the Exceptional Individual (with permission)

Graduate Resource Courses

These courses are not offered by the College of Education but are required or suggested for certain degree plans.

CS 5301 Computer Systems for Educational Applications

Functional units of computers including both hardware and firmware; software; analysis, design and evaluation of computing configurations for educational applications; cost estimation techniques for both academic and

administrative applications.

Soc 430G Seminar in Sociology 3:3:0

Basic concepts and principles of sociology as applied to the study of selected topics. Designed for education majors

or other non-sociology majors.

Soc 432G Sociology of Education

A study of the multi-cultural influences on the school system and the democratic society. Included will be an anslysis of educational problems in the multi-cultural society of Texas.

Eng 4312G Studies in Language and Linguistics 3:3:0

Special problems in linguistics, such as the history of American English, regional dialects, new grammars. May be taken for credit more than once if the topic varies.

Department of Health and Physical Education

Degree Requirements

The Master of Science degree in Health and Physical Education requires the completion of 30 semester hours of graduate work: 18 in Health and Physical Education, six in thesis and six in an approved supporting field. The supporting field must be approved by the student's graduate committee or with its appsoval six additional hours in Health and Physical Education may be substituted for the supporting field.

With the approval of the student's graduate committee in Health and Physical Education, 12 semester hours of course work may be substituted for the thesis. If the nonthesis option is selected, six hours must be taken in an approved supporting field. There are other core requirements contingent upon the option selected.

HPE 534, 536, and 538 are required of all students.

Graduate Faculty

Professor Alice C. Bell Health education Professor Vernon R. Crowder Exercise physiology Professor James B. Higgins Physical education Professor Belle Mead Holm Health education, administration Associate Professor Virginia R. Holt Physical education, health education

Associate Professor Sidney W. Jolly, Jr. Physical education Associate Professor Mildred A. Lowrey Physical education, motor learning, sports psychology Professor Leonard A. Yates Physical education, curriculum, administration.

Hea	alth and Physical Education Courses	
530	Problems in Health and Physical Education	3:A:0
	Biological, physiological, social, psychological and other purposes and outcomes; selection ar activities; teaching methods; facilities; teacher preparation; literature; research problems.	nd distribution of
	Prerequisite: Permission must be obtained from an active teaching member of the graduate faculty.	
531	Cultural Foundations of Physical Education	3:3:0
	A study of history and cultural foundations of sport and physical education activities, their ori	gin and influence
532	Seminar in Health and Physical Education	3:3:0
	Designed to develop abilities in locating and evaluating literature and research in physical education fields. Course may be repeated for a maximum of six semester hours as the topic varies.	ition and in allied
533	Organization and Administration of the School Health Program Administrative relationships and procedures in conducting school health programs.	3:3:0
34	Scientific Basis of Exercise	3:3:0
	A study of professional literature and laboratory experimentation on the role of physical activities on the human organism.	and their effects
35	Trends and Issues in Health and Physical Education	3:3:0
	Designed to assist the student to become knowledgeable on current trends and issues in the ar physical education. Study will include historical, analytical and projective approaches. Course may a maximum of six semester hours as the topic varies.	
36	Research Methods in Health and Physical Education	3:3:0
	Familiarity with types of research in Health and Physical Education with emphasis on tools a research and research design.	nd techniques of
37	Basis of Sports Medicine	3:3:0

Human environmental factors and their interrelationship in sports injury and their control; accident prevention and injury control in sports activities; philosophy of sports safety; contributions of sports medicine to safety and current trends and issues in sports medicine. 538 Motor Learning

A formalized and scientific study of learning, performance and related factors as applied to gross motor skills. 539 **Psychosocial Aspects of Sport** Psychological and sociological concepts related to physical activity. Major concepts and experimental evidence

pertaining to learning and behavior are discussed. 5101, 5201, 5301, 5601 Workshop in Health and Physical Education

This course is designed to advance the professional competence of graduate students in health and physical education. Topics will vary. A description of the particular area of study will be indicated. Course may be repeated for a maximum of six semester hours if topic varies. A maximum of six semester hours of workshop may be applied to a degree program.

5311 Curriculum Development in Physical Education Emphasis given to models of curriculum development and to techniques for curriculum improvement. Analysis of objectives, organization and content of physical education K-12.

5312 Independent Study

3:A:0 Intensive study in an area of special interest in health or physical education. Course may be repeated for a maximum of six semester hours as the topic varies.

Prerequisite: Demonstrated competency for independent work, research methods, and consent of active teaching member of the graduate faculty.
669A-669B Thesis

6:A:0

Prerequisite: Approval of graduate advisor.

Department of Home Economics

Degree Requirements

The Master of Science degree in Home Economics requires the completion of 30 semester hours of graduate work: 18 in home economics, six in thesis and six in an approved supporting field. With the approval of the student's graduate committee, 12 semester hours of course work may be subtstitued for the thesis. If the nonthesis option is selected, six hours must be taken in an approved supporting field.

The student's graduate program must include Home Economics 5314: Research Techniques.

Graduate Faculty

Assistant Professor Virginia Anderson Family life, housing and home furnishings Associate Professor Jane S. Davidson

Associate Professor Ferial A. El-Maguid Nutrition and food science Associate Professor LeBland McAdams Clothing and fashion merchandising

Home Economic Courses

Home economics education

HOL	ne Economic Courses	
530	Seminar in Home Economics 3:3:0	•
	An intensive study of selected problems and recent developments in Home Economics.	
531	Recent Advances in Foods and Nutrition 3:3:0	_
	Readings in and discussion of selected studies and recent developments in the field of nutrition and foods	i.
	Implications for dietitians, nutritionists, teachers, extension workers and others.	
532	Clothing Design and Merchandising 3:2:	-
	An application of couture costume design principles and techniques related to construction and merchandising	<u>, </u>
533	Heritage of Dress 3:3:0	0
	A survey of costume history and customs which have affected garment styles. An analysis of historic costume and its contribution to civilizations.	d
534	Problems in Clothing and Textiles 3:3:	0
,,,	Individual and group investigations and discussions of special problems in the various phases of clothing and textiles.	d
535	Cultural Aspects of Food 3:2:	3
,,,	The relationships of food acceptability and use to the cultural and social development of people over the world	i.
	Food preparation experiences as influenced by international food patterns.	
537	Family Management 3:3:	0
	Socio-economic changes, public policies and programs, and management practices related to family well-being	<u>;</u> .
538	Curriculum Development in Home Economics 3:3:	0
,,,,	Philosophy and development of home economics education programs for secondary schools, colleges of universities with emphasis on current curriculum developments and trends.	r
539	Experimental Foods 3:2:	2
739	Investigation into principles and problems of food preparation. Development of professional attitudes an	d
	techniques through laboratory groups and individual projects. Advanced Textiles 3:3:	n
5311	Analysis and comparison of recent scientific textile trends with reference to fiber content, yarn, fabrication, colo	-
	and finish. Resources in Home Economics Education 3:3:	0
5312	Creative development, selection and evaluation of instructional materials including preparation, selection and us	
	Creative development, selection and evaluation of instructional materials including preparation, selection and as	

669A-669B Thesis Prerequisite: Approval of graduate advisor.

Principles and application of standard techniques used in research.

of visual materials.

5314 Research Techniques

3:3:0 6:A:0 Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the *Bulletin of Lamar University*.

411G, 421G, 431G Special Topics 430G Quantity Food 432G Family Clothing 433G Household Equipment 434G Fashion and Production

435G Consumer Housing

436G Home and Fashion Merchandising

437G Individual Problems in Home Economics

4305G Advanced Interior Design

4307G Internship in Home Economics

College of Engineering

Graduate degree programs are offered cooperatively by the Departments of Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Engineering, Mathematics and Mechanical Engineering.

Degrees Offered

Engineering Departments

Master of Engineering
Master of Engineering Science

Doctor of Engineering

Mathematics Department

Master of Science in Mathematics

Master of Engineering Science (M.E.S.)

The Master of Engineering Science degree plan requires the completion of 30 semester hours of graduate work, including thesis. For admission to the program, the student must meet the following requirements:

1. The general requirements for admission to the College of Graduate Studies.

2. Hold a bachelor's degree in a field of engineering or applied science.

3. Have credit equivalent to that required for undergraduate engineering students at Lamar. It is assumed that all graduate students are proficient in the use of digital computers.

Degree Requirements

The candidate for the M.E.S. degree must meet all the College of Graduate Studies general degree requirements as listed in this catalog. Thirty semester hours of graduate work are required with the following restrictions:

1. A minimum of 18 semester hours of credit in engineering courses, including:

a. Six semester hours in thesis.

- b. Twelve additional semester hours of engineering courses of which at least nine semester hours must be on the 500 level.
- 2. From approved 400G-500 level courses, nine semester hours in a combination of mathematics and science.
- All course work presented for the M.E.S. degree must have the approval of the candidate's committee.

Master of Engineering (M.E.)

The Master of Engineering degree is designed to suit the needs of the practicing engineer. For admission to the program, the student must meet the following requirements.

1. The general requirement for admission to the College of Graduate Studies.

2. Hold a bachelor's degree with credit substantially equivalent to that required for an engineering degree at Lamar.

Degree Requirements

The candidate for the M.E. degree must meet all the general requirements of the College
of Graduate Studies as listed in this catalog.

The general requirement is 36 semester hours of graduate work. At least 18 semester hours
of this work must be engineering courses at the 500 level. The remainder will be selected
by the graduate student through consultation and agreement with his/her graduate
committee.

3. A graduate student holding an Engineering-in-Training EIT certificate or a graduate student is is a Professional Engineer registered in the State of Texas, or registered in another state where requirements do not conflict with the provisions of the Texas Engineering Practice Act and are of a standard not lower than those specified in Section 12 of that Act, may satisfy course requirements by completing 33 semester hours of graduate work providing Egr 631, Design Project, is included.

Doctor of Engineering (D.Egr.)

The Doctor of Engineering degree is designed as an extension of the Master of Engineering to allow a practicing engineer to work on practical engineering problems of considerable complexity.

For admission to the program, these requirements must be met:

- 1. Hold a master's degree in engineering or at least 30 semester hours of engineering, science or mathematics courses at the graduate level.
- 2. Submit a letter of application to the Dean of Engineering. This letter should include information about the applicant's engineering experience, present employment, chief interests and type of work to be undertaken for the field study.

An applicant who has been accepted into the College of Graduate Studies and whose application indicates he/she might be admitted to the program, will be notified and a graduate faculty committee will review the applicant's transcripts, tests scores and letter of application. The committee will then determine if a diagnostic examination is warranted. If such an examination is approved, the committee will then prepare and administer the examination during the first long semester after admission.

Diagnostic Examination

The objectives of the diagnostic examinations are threefold: (1) to determine the appropriateness of the student's background, (2) to help determine the student's qualifications for a doctoral program and (3) to provide guidance for the selection of a study program. The committee may decide to do any one of the following: (1) accept the student into the doctoral program, (2) not accept the student or (3) accept the student conditionally. If the student is accepted conditionally, the committee will specify what additional preparation the student must make. The committee also will specify whether the student is to retake the diagnostic exams, a portion of these exams, or may be accepted into the doctoral program upon completion of the additional preparation.

Study Program

After a student is accepted into the doctoral program he/she will meet with his/her committee to outline a program of study. This program of study would normally consist of a minimum of 30 semester hours of 500 and 600 level course work, excluding Egr 632 and Egr 662, beyond the equivalent of a master's degree.

The study program would be chosen in consultation with the student to suit the student's interests and abilities as nearly as the standards of the doctoral program and the interests of the faculty will allow. In addition to the study program the student will be expected to demonstrate a proficiency in at least one computer language.

Students are expected to pursue their study program in a continuous manner by earning a total of three semester hours credit in two consecutive long terms. Failure to do so will require an application to the Graduate Engineering Faculty to continue his/her program.

Candidacy Examination

Near the end of the study program the student will make written application to his/her doctoral committee to be allowed to take the candidacy examinations. The purpose of the candidacy examinations are threefold: (1) to test the ability of the student to comprehensively relate the subjects of his study program (2) to verify that the time taken to complete the study program has not been so long as to disassociate the student's graduate education and (3) ascertain that the student is ready to do the field study. The committee may again make any one of three decisions upon evaluation of these exams; (1) pass, (2) fail, (3) conditional pass.

A conditional pass would be accompanied by the requirements of the committee and the action to be taken upon the fulfillment of these requirements.

Field Study

After the student is admitted to candidacy he/she will be required to submit a formal engineering proposal conforming to a standard format outlining the field study. This field study normally would be expected to take a minimum of one man-year and should involve some technological innovation. A unanimous vote of the doctoral committee shall be required to

approve a field study. During the course of the field study the student would normally register for 30 semester hours of field study. Upon completion of the field study a formal engineering report with a standard format shall be submitted to the members of the doctoral committee and defended in an oral examination.

Graduate Faculty

Professor Luther A. Beale Structural analysis, design Professor Wendell C. Bean Automatic control systems, bioengineering Professor James J. Brennan Applied statistics, systems simulation, manufacturing processes and materials Professor Otto G. Brown Fluid mechanics in turbulent flow; bioengineering Associate Professor John A. Bruyere Materials science Associate Professor Carl Carruth Work design and measurement, human factors and motivation Professor James L. Cooke Process control; power system analysis Professor Floyd M. Crum Solid state devices in electronic circuits Professor Andrew P. Delflache Soil mechanics, foundations, ocean engineering, geophysics Professor David C. Gates Decision-making processes; plant layout, human factors Professor Jack R. Hopper Reaction kinetics, catalysis Assistant Professor Ku-Len Li Mass transfer, thermodynamics I, math

Assistant Professor Richard L. Long Process control, optimization, math modeling Professor Eugene P. Martinez Kinetice and thermal sciences of fluids Professor Harry T. Mei Computer applications, humidity control, solar energy Associate Professor William E. Morgan Environmental engineering Associate Professor William C. Nylin Computer science Assistant Professor Desmond N. Penny Civil engineering Associate Professor David R. Read Computer science, numerical analysis Professor Bruce G. Rogers Ultimate load characteristics of structures, stress analysis Associate Professor Ramchandra S. Singh Remote sensing, photogrammetry, geodesy, mapping Professor George G. Tims, Jr. Engineering management Professor William R. Wakeland Control systems design, computer-aided Associate Professor Bobby R. Waldron Mathematical statistics, computer science Professor Richard E. Walker Rheology, computer applications

Digital systems, control, and analog computers Professor Carl L. Yaws Physical and thermodynamic properties, solar energy

Associate Professor Joseph T. Watt

Professor Fred M. Young Fluid dynamics, heat transfer

Engineering Courses

3:3:0 **Materials Science** Principles underlying the behavior of materials existing in the solid, liquid and gaseous phases. Note: Core Course. May be repeated one time for graduate credit, upon prior approval, where course content varies. Computer Methods in Engineering Analysis Computer techniques will be introduced and employed. Numerical methods for solving transcendental equations,

polynomials, simultaneous linear algebraic equations and partial differential equations. Monte Carlo method, random numbers and simulation of engineering systems will be introduced. Note: Core Course. May be repeated one time for graduate credit, upon prior approval, where course content varies.

48	Lamar University
534	Nonlinear Analysis 3:3:0
	Various methods of solving nonlinear differential equations are studied. Analytical, graphical and computer solutions are included.
535	Control Theory 3:3:0
	Introduction to state variables; multiple-input-multiple-output systems; controlmability; performance criteria; choice of control strategy.
	Note: Core Course. May be repeated one time for graduate credit, upon prior approval, where course content varies.
536	Thermodynamics-Process Industry 3:3:0
	Thermodynamic laws are derived and applied to physical chemical phenomena. Ideal and non-ideal gas, liquid and solid solution behavior are developed for physical and chemical equilibria. Course credit in chemistry is optional. Note: Core Course. May be repeated one time for graduate credit, upon prior approval, where course content varies.
537	Thermodynamics-Energy Conversion 3:3:0
	The basic laws of thermodynamics are derived and applied in the analysis of power cycles, energy conversion and specific processes. Basic principles of irreversible thermodynamics and phenomenological relations are presented. An elementary statistical approach is presented with simple examples of the calculation of the transport properties of gases, liquids and solid.
	Note: Core course. May be repeated one time for graduate credit, upon prior approval, where course content varies.
538	Digital Control Systems 3:3:0
	Principles of digital control systems. Analysis of response, stability, and compensation by transforms, state variables and other methods. Special topics.
	Prerequisite: Undergraduate control theory.
5101,	5201, 5301 Special Topics 1-3:1-3:0
	An investigation into specialized study in advanced areas of engineering under guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.
5303	Regression Analysis 3:3:0
***	Review of regression analysis; theory of least squares; multivariate analysis; theory of the general linear hypothesis model.
5304	Nonlinear Programming 3:3:0
£20£	Theory of linear and nonlinear programming; the lambda and delta-form of the approximating problem; quadratic programming; gradient methods.
5305	Reliability 3:3:0
	Statistical theories pertinent to solution of engineering problems in reliability; distribtuion and failure theory
£ 200	including failure rate and mean time to failure for the exponential, log normal, gamma and Weibull distributions.
5308	Cost and Optimization Engineering 3:3:0
£210	Includes the mathematics of cost comparisons, profitability and optimization with emphasis on processing, cost estimation and control.
5310	Advanced Concrete Design 3:3:0
	Analysis and design of concrete members with consideration given to pre-stressing or post-stressing of beams and structural components.
5311	Heat Transfer Analysis

Fundamental principles of heat transfer by conduction, convection and radiation. Emphasis will be given to the

This course will be concerned with individual mechanisms of heat transfer. The mechanisms studied will be conduction, radiation, convection or boiling. The course may be repeated for credit as the mechanism studied

Fluid statics, fundamentals of fluid motion, systems and control volumes, basic laws, irrotational flow, similitude and dimensional analysis, incompressible viscous flow, boundary layer theory and an introduction to compressible

Design considerations of hydraulic systems including closed and open channel flow together with related hydraulic

General analysis of stress and strain, equations of equilibrium and compatibility, stress and strain relations, two

The use of advanced mathematical models for optimizing engineering problems with emphasis on management decision. Includes special techniques based on systems analysis, design of experiment, linear programming,

Shape and size-distribution of particles. Theories of sieving, grading and grinding. Surface properties. Chemical properties. Packing mechanics of particulate matter, statics, dynamics, behavior under stress, thermodynamics. Electrical, optical and sonic properties. Diffusion, transport, collection and separation of small particles.

3:3:0

analysis of problems combining the various heat transfer mechanisms.

dimensional stress problems, elastic energy principles, thermoclastic problems.

Heat Transfer Mechanisms.

flow. Vector methods will be employed.

queuing, simulation and probabilistic analysis.

varies.
5313 Fluid Mechanics

5314 Hydraulic Engineering

5316 Operations Research I

accessories.
5315 Theory of Elasticity

5317 Micromeritics

	College of Engineering 49
5318	Stress Analysis 3:3:0
7316	Use of reflection and refraction photoelastic apparatus to determine state of stress in opaque and transparent structural models. Demonstration of brittle coating techniques. Comparison of electrical resistance and mechanical
	strain gages. Investigation of dynamic loading with oscilloscopes and other recording apparatus.
5319	Design of Experiments
3319	Experimental design and analysis of experiments are developed as tools of the manufacturing and process industries. Exploratory and evolutionary EVOP designs, analysis of variance ANOVA, error and regression are
	treated in some detail.
	Prerequisite: Course in statistics or equivalent.
5320	Fundamentals of Air Pollution 5:5:0
	Pollutant sources, emissions and transport. Air pollution control methods. Particulate collection theory, gaseous pollutant removal theory. Atmospheric sampling and analysis methods.
5321	Quality Control Systems
	Application of statistical methods to industrial problems; regression and correlation theory; analysis of variance,
	use of control charts for control of manufacturing operations.
5322	Khaningu
	A study of non-Newtonian liquids with emphasis on principles and fundamentals. Methods of measuring rheological properties of non-elastic and elastic liquids are developed. Laminar and turbulent flow characteristics
	are reviewed.
5323	
	Analysis and design of structural members using light gauge cold formed steel. Consideration is given to elastic
	and inelastic buckling in beams and columns due to local, flexural, torsional and torsional flexural action. 3:3:0
5324	Wave Mechanics in Particulate Matter Propagation of elastic waves in semi-infinite media. Surface waves and body waves. Behavior of particulate masses
	under the effect of dynamic loading, impact and transient phenomena. Effect on substructures of waves from
	industrial, seismic and nuclear sources. Mechanical and electronic recording. 3:3:0
5325	Aspects applicable to all fields of engineering. Entropy as a measure of information; signal processing, channel
	capacity and coding theory. Waves and Coastal Processes 3:3:0
5326	Hydrodynamics of waves, wave generation, reflection, energy transmission and dissipation. Coastal phenomena, harbors and breakwaters, analysis of tides, and tidal currents. Salt water, fresh water interaction and diffusion in
	estuaries; erosion and shoaling in tidal waters.
5327	3030
) ,,,	Marrix methods applied to analysis of trusses, beams and frames.
5328	Inelastic Theory of Structures
	Investigation of structural behavior under conditions of overload. Design of structures using principles of ultimate
	strength and plastic design theories. Consideration of load and safety factors, stress redistribution and snakedown.
5329	Water and Waste Analysis Fundamental treatment of sanitary chemistry and microbiology; an intensive study of basic laboratory techniques
	and instrumentation.
5330	Wastewater Treatment 3:3:0
	Principles of treatment for domestic and industrial wastewaters with emphasis on process kinetics. 3:3:0
5331	Similifide and Model Design
	Dimensional analysis, data processes, prediction equations and model design, including a study of distorted and
	dissimlar models. Models studied include structural fluid flow, thermal, electrical, magnetic, acoustical and illumination types. Various analogues from second-order ordinary and partial differential equations are also
	discussed.
g 2 2 4	Prerequisite: Mth 434G recommended. 2 Operations Research II 3:3:0
5332	Advanced topics in operations research-linear programming, non-linear programming, advanced topics in queuing
	and inventory theories, sensitivity analysis and dynamic programming.
	Prerequisite: EGR 5316 or equivalent. 3:3:0
533	Production Control

Advanced topics in techniques employed in different types of manufacture for planning and controlling

A study of salary incentives, job evaluation and merit rating for engineering and scientific personnel, executive and

Study of the design, construction, testing and operation of process models for simulation. Starting with simple

5334 Salary Administration for Engineers and Scientists

Recent advances in the methodology and philosophy of operations research. Prerequisite: Consent of instructor.

managerial compensation.

5336 Operations Research II

5337 System Simulation

3:3:0

3:3:0

hand-computed simulations, the student progresses to relatively complex mode	Is requiring the use of a high speed
digital computer.	to requiring the use of a mgn-speed

5338 Reclamation Engineering Seminar
Investigations of the reclamation of water resources by multiple use, reuse and improvement of existing sources to meet quality requirements.

Signature 13:3:08

Rate equations are devloped by the application of statistical methods and the theory of absolute reaction rates. Partition functions and potential energy surfaces will be introduced. Considerable attention will be given to the measurement of reaction rates and the interpretation of experimental data. May be taken for graduate credit in chemistry or engineering.

5341 Mass-Transfer Operations
The principles of diffusion and mass transfer are considered. The study of gas-liquid operations includes humidification and design of equipment. Solid-fluid studies include adsorption, ion exchange, drying and leaching operations. Less conventional mass-transfer operations are also considered.

5343 Industrial Waste Treatment
Procedures for analysis of the industrial waste problem, methods of collecting experimental data and process design for required treatment. Case studies and special laboratory problems for translating experimental data to prototype design.

5344 Process Modeling

An introduction to the basic concepts of mathematics modeling. The subject matter is directed toward chemical and petroleum engineering design and operation. Development of models which form the framework of a quantitative and scientific approach to technical problems will be followed by analytical and/or numerical solutions to optimize output and p.ofitability.

Reactor Design I
 Basic principles of reactor design are presented. The primary goal is the successful design of chemical reactors.
 Major reactor types are treated, giving particular attention to their performance capabilities.

5346 Optimization Techniques 3:3:0
Analytical methods of constrained and unconstrained optimization. Geometric programming; linear programming. One-dimensional search techniques. Multivariable search techniques. Dynamic programming. Variational methods.

Manufacturing Analysis

The course is designed to provide the background analysis required to understand manufacturing operations and to predict manufacturing behavior. It includes material behavior, metal cutting, metal forming, new and unconventional cutting and forming techniques, machine tool vibration and manufacturing cost optimization.

Properties of Gases and Liquids
Properties of gases and liquids. Major physical, transport and thermodynamic properties of gases and liquids. Pure
Components and mixtures. Theory, correlation and estimation methods covered.

Theory of fluid and slurry movement under gravity and pressure systems, mixing processes, coagulation and flocculation of chemical treatment, separatory processes including flotation and sedimentation, and gas transfer and absorption of the biological systems. Selected laboratory assignments for model studies of these unit operations.

5351, 5352, 5353 Electric Power Systmes Analysis I, II, III 3:3:0
A three-semester sequence, selected from: symmetrical components, impedance and fault-current calculations, load-flow studies, economic operation, stability and control, system modeling, non-fossil fuel energy conversion. Both analytical and digital-computer methods may be employed as appropriate.

Nuclear Power Plans 3:3:0
Nuclear reactor neutron kinetics; core reactivity effects of control poisons, coolant and fuel temperatures, fission product poisons; self regulation, automatic control; startup and shut-down; types of nuclear plants foreseen in electric power generation; special problems and benefits of nuclear power plants.

Basic concepts of probability theory, correlation functions, power-density spectrum and mean-square error criteria as applied to stationary stochastic processes in linear systems; optimum filtering and prediction and other special topics depending upon class interest and time available, such as; nonlinear devices, time-varying systems, non-stationary processes.

5356 Modern Control Theory

Review of state variables; determining mathematical models from input-output data; on-off control systems; optimal control.

357 Electromagnetic Fields and Waves 3:3:0
Maxwell's equations and various field theorems derived from them. Boundary value problems including plane wave interaction with planar and cylindrical objects. Source-excited boundary value problems. Green's functions. Microwave optics.

	3:3:0
5358	Scientific Writing and Editing Supervised presentation of technical and scientific projects for students proficient in exposition. Projects subject
	to department's and instructor's approval.
***	Prerequisite: Instructor's consent and departmental approval. 3:3:0
5359	Seminar in Engineering Administration Direct reading, analysis and research in the classic and modern literature of engineering administration. May be repeated for credit where subject matter differs.
5360	Case Problems in Engineering Administration 5:3:0
7500	The case method applied to complex administration problems encountered by engineers. May be repeated for
e 2 / 1	credit where subject matter differs. Microelectronic Integrated Circuits 3:3:0
5361	A basic study of the synthesis of semiconductor and thin film integrated circuits using passive and active elements. The application of such devices to computers, signal processors and instruments.
5362	Decision Making Processes 3:3:0
,,,,,	A study of the bases and philosophical implications of executive decision-making. Elementary game theory, minimax and other strategies. Bayesian interference, subjective probability, teleology of measurement.
-262	Prerequisite: Consent of instructor. Administration Control Systems 3:3:0
5363	Administrative Control Systems Problems affecting the engineer in his/her design, analysis and control of information systems. 3:3:0
5364	Digital Hardware Design 3:3:0
,,,,,,	Problem formulation, dependency notation, programmable combinational circuits, designing for maintainability,
	algorithmic state machines.
	Prerequisite: Logical design, or consent of instructor. 3:3:0
5365	Industrial Planning Industrial planning and decisions. Plant location, design, evaluation. Symbolic logic, relative importance factors,
	probabilistic models, fiscal factors.
5366	Advanced Engineering Economy 3:3:0
	Special economic analyses based on risk, uncertainty and other probabilistic considerations. Bayesian attacks,
	influence of perfect information, competitive decisions and decisions under pressure. 3:3:0
5367	Nuclear Reactor Theory Nuclear fission; neutron diffusion, moderation and absorption; Fermi age treatment; reactor materials and
	shielding.
5371	Seminar in Administrative Practices 3:3:0
	Study of the interrelationships between the fields of economics, politics, physical science and social science and the effects upon the management of engineering work. May be repeated for credit where subject matter differs.
5391	Work Systems Engineering 3:3:0
,,,,	Study of current research in methods engineering and work measurement; work design; work systems, systems of
	standard data and predetermined motion time data, statistical treatment of work measurement.
5399	Human Factors Engineering The specialized adaptation of engineering designs to the human operator's role in man-machine systems.
631	Design Projects 3:A:0
051	Prerequisite: Admission to candidacy.
632	Justification of Engineering Projects 5:5:0
	The preparation of proposals for advanced engineering work. The student will be given individual assistance in preparing a proposal for his field study.
	Prerequisite: Approval of advisory committee.
6340	Distillation Material and energy-balance relationships are reviewed for multicomponent fractionation equipment and for batch
	stills. Various plate designs are presented from the standpoint of two-phase hydraulics and mass-transfer efficiency.
6341	Absorption 3:3:0
05.11	The theoretical aspects of gas-phase and liquid phase diffusion systems are presented, and empirical correlations
	for diffusion coefficients are critically surveyed. Equipment for gas-liquid operations, and the estimation of
	gas-liquid solubilities, are discussed. The principles of gas absorption will be applied to chemical reactions
	occurring on the surface of solid catalysts and on liquid surfaces. 3:3:0
6342	Extraction The thermodynamics of nonideal solutions is reviewed, and the prediction of ternary solubility relationships from
	binary solution data is thoroughly developed. The quantitative design of equipment for liquid-liquid extractions
	is given considerable emphasis. Both multistage and continuous contact equipment are considered.
6343	3:3:0
3343	Attention is devoted to chemical kinetics and catalysis as well
	the engineering espects of both homogeneous and neterogeneous reactors. Mixing problems
	terms of residence time distribution. The importance of temperature effects is stressed. Prerequisite: Egr 5345 or equivalent.
	Tieredunista -9. 5245 Jan.

6345 Professional Practice

The development of engineering as a profession. Code of ethics and their justification, licensing requirements, engineer-client relationships and responsibilities. Credit will be given only to students who have passed the professional part of a state engineering registration examination.

Advanced Engineering Analysis Methods of analysis based on finite differences, finite elements, matrices and special numerical techniques applied to engineering systems. The computer is used as a tool of investigation and optimization.

Reactor Plant Dynamics 6350 Operating characteristics of reactor systems; modeling of neutronic, fluid, heat transfer and fluid processes; dynamics, stability and control of reactor plant systems; engineered safeguards. Prerequisite: Egr 5354 or equivalent.

6351 Nuclear Reactor Kinetics Development of kinetics equations; special topics in space-time kinetics, noise analysis, rod oscillator tests, xenon stability, special control problems. Prerequisite: Egr 5354 or equivalent.

Solar Energy I 6361 3:3:0 Origin, nature and availability. Heat transfer considerations. Plate collectors, energy storage and thermal performance are discussed. Applications and experimentation are covered. Prerequisite: Egr 537 or equivalent.

6362 Solar Energy II 3:3:0 The design of solar heating and cooling systems. Performance estimates and economic analyses are included. Prerequisite: Egr 6361.

6364 Microcomputer Based Design Registers and data manipulation, computer organization, memory, input-output, algorithmic processes. Design Application. Prerequisite: Logical design, or consent of instructor.

Engineering Practice An internship period under personal supervision. Approval must be obtained from the student's graduate committee. Usually, a formal proposal will be required. May be taken for either 6 or 12 hours per semester. Must be repeated for credit until field study is completed. Total credit: 6 semester hours per section. 669A-669B Thesis

6:A:0

Prerequisite: Approval of graduate advisor.

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

ChE 435G Advanced Analysis

ChE 437G Computer Applications

ChE 4111G Seminar

ChE 4316G Stagewise Processes

ChE 4318G Advanced Distillation

ChE 4321G Process Economics

ChE 4322G Unit Operations

ChE 4323G Engineering Materials

ChE 4325G Introduction to Nuclear Engineering

CE 430G Indeterminate Structures

CE 433G Environmental Health Engineering

CE 434G Soil Engineering

CE 435G Water and Waste Water Treatment

CE 438G Reinforced Concrete Design

CE 439G Structural Steel Design

CE 4310G Soil-Structure Interaction

CE 4312G Advanced Structural Design

CS 439G Scientific Computer Application

CS 4101G Special Topics

CS 4201G Special Topics

CS 4301G Special Topics

CS 4302G System Analysis and Design

CS 4305G Introduction to Information Structure

CS 4306G Techniques of Information Processing and Retrieval

CS 4307G Survey of Programming Languages

CS 4308G Introduction to Compiler Theory

CS 4309G Introduction to Simulation Techniques

CS 4310G Computer Architecture

CS 4321G Computer Uses in Education

CS 4401G Special Topics

EE 432G Electronics III

EE 434G Network Synthesis

EE 436G Control Engineering

EE 437G Electromagnetic Fields II

EE 4302G Communication Theory

EE 4303G Logical Design of Switching Systems

EE 4304G Advanced Topics

EE 4305G Digital Systems

EE 4306G Minicomputers

EE 4307G Microcomputers

EE 4308G Automata Theory

EE 4310G Computer Architecture

Egr 438G Introductory Petroleum Engineering

IE 430G Quality Assurance and Control

IE 432G Statistical Decision Making for Engineers

IE 434G Design of Tools and Processes

IE 435G Production and Inventory Control

IE 437G Operations Research

IE 4302G System Analysis and Design

IE 4303G Linear Programming

IE 4313G Human Engineering

IE 4315G Organization and Management

MTH 4301G Differential Equations and Linear Algebra

MTH 4302G Partial Differential Equations

MTH 431G Complex Variables

MTH 4315G Numerical Analysis

MTH 4316G Mathematical Programming

MTH 4317G Modern Developments in Statistical Methodology

MTH 4321G Least Squares and Regression Analysis

MTH 4322G Analysis of Variance

MTH 433G Linear Algebra

MTH 437G Probability and Statistics

MTH 4386 Theory of Statistics

ME 431G Engineering Systems Design

ME 432G Mechanical Vibrations

ME 434G Internal Combustion Engines

ME 435G Turbomachinery

ME 438G Environmental Systems Engineering

ME 439G Advanced Strength of Materials

ME 4311G Controls Engineering

ME 4312G Gas Dynamics

ME 4313G Transport Theory II

ME 4315G Thermodynamics III

ME 4316G Engineering Project

ME 4317G Engineering Analysis II

Department of Mathematics

The Department of Mathematics offers a program of study leading to the Master of Science (MS) degree in Mathematics. It is designed to train students either for a professionally oriented career in industry or in government, for further graduate work in mathematics or to provide depth and breadth in Mathematics Education.

Opportunities in the areas listed above for students with a Master of Science in Mathematics are numerous. Such opportunities exist in all areas of pure and applied mathematics including computer science, statistics, operations research, numerical analysis, mathematical physics, administration/management science, engineering, secondary and elementary school teaching. These supporting areas are just a sample of excellent job opportunities for the graduate.

The department spends considerable time advising students in the Master's program. Once a student is admitted, the student's advisor will individually tailor the student's program to meet the needs of the supporting areas mentioned above or other areas of interest to the student. Consequently, students with a Bachelor's degree in Mathematics, Computer Science, Engineering, any of the Sciences, or Secondary Education will find appropriate opportunities in this M.S. program. Students will find a wide variety of courses listed in the program to make the above supporting areas available to them. Mth 5321 through 5338 have been primarily designed for teachers and others in mathematics education.

Those seeking admission to this program must first meet the general requirements as set forth in this catalog for admission to the College of Graduate Studies. In addition, the applicant must satisfy the special requirements as indicated below.

Admission to Candidacy

In order to be admitted to candidacy, students must:

1. Remove any deficiencies as provided in the section on admission in this catalog.

 Successfully complete at least 24 semester hours of approved undergraduate mathematics courses including calculus. Such approval lies with the student's advisor and the Department Head of Mathematics.

Completion of the Program

In order to complete the M.S. program students must demonstrate their general understanding of basic mathematical concepts by:

 Scoring in the 70th percentile or higher on the Advanced Mathematics part of the Graduate Record Examination or

Passing a general survey test to be developed by the Department of Mathematics.

The above mentioned survey tests will be offered each long semester and students will be encouraged to take it as soon as they have mastered the appropriate background material. Upon the failure of this test, developmental courses will be suggested. A student will be permitted to repeat this test no more than twice. An announcement detailing this background is available upon request from the Head of the Department of Mathematics.

In addition, one of the following options must be successfully completed:

- 3. Write a mathematical thesis and defend it before a committee of the graduate faculty. (This option requires 24 hours of course work and 6 hours of thesis),
- Satisfactory completion of 36 hours of course work, and a comprehensive written examination based upon this work, or
- 5. Preparation of a definitive paper and its presentation to a graduate faculty subcommittee. This paper is usually completed during the last semester. It describes the student's efforts in a practicum experience or in the development of a creative mathematical project of an advanced nature. (This option requires 36 hours of course work including three to six hours associated with the practicum courses Mth 5360, 5361).

If a practicum experience or creative project is elected, the defense of the resulting report will constitute the student's final oral examination. The practicum involves the student in a one on one problem solving relationship with a faculty member in the resolution of some practical problem.

A creative mathematical project (especially geared for people in mathematics education) may involve the development of course materials, curricula and related topics under the guidance of an advisor. The decision to elect the practicum or a thesis should be made when approximately one-third of the required semester hours for the degree is completed. It must be started no later than mid-semester of the next to last semester of study.

Graduate Faculty

Professor Richard A. Alo Analysis, topology, algebraic structures Associate Professor Joseph A. Baj, II Topology, analysis Professor George Berzsenyi Analysis, problem solving Professor Russell W. Cowan Differential equations, applied mathematics Professor Sterling C. Crim Applied mathematics Associate Professor Michael A. Laidacker Professor Sterling W. McGuire Statistics, applied mathematics Associate Professor Richard L. Price Mathematics education Professor Jeremiah M. Stark Analysis, applied mathematics Professor Howard C. Vanzant Applied mathematics Associate Professor Sam M. Wood, Jr. Analysis, abstract algebra

Mathematics Courses

Topology, applied mathematics

Theory of Functions of Real Variable Analytical functions, pathological functions, set functions, Riemann integral, measure theory, Lebesque integral, Riemann-Stieltjes and Lebesque-Stieltjes integral. 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. Prerequisite: Mth 335 or its equivalent.

3:3:0 Topology Sets, compact spaces, topological spaces, embedding and metrization and Urysohn lemma. Uniform spaces and function spaces as time permits. Prerequisite: Mth 435 or its equivalent.

535 Introduction to Advanced Analysis The Riemann mapping theorem, prime number theorem, functions of finite order, Turan's proof of Fabry gap theorem, other topics as time permits. Prerequisite: Mth 431G.

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 431G.

3:3:0 Fourier Series Expansion of functions in Fourier series, Fourier Theorems, orthogonal sets of functions, orthnormality, Parseval's theorem. Integration and differentiation of Fourier series. Fourier integrals. Application to boundary value problems arising from partial differential equations of physics and engineering.

539 Infinite Series Sequences, power series, series of functions, complex series, expansion of functions, tests for convergence, uniform convergence, conditions for rearranging terms in a series. Fourier series. Lambert series. Weirstrass theorem on double series, asymptotic expansions, summation of series.

Operational Mathematics Ordinary differential equations, the Laplace Transform, elementary properties; Inverse Transforms, applications of the Laplace Transform to ordinary differential equations.

Modeling Theory Study of techniques of building and applying mathematical models. Applications in biology, ecology, economics and sociology.

3:3:0 5304 **Functional Analysis** Study of linear topological spaces, convexity, Hilbert spaces and spectral theory. Applications in linear programming and solutions of partial differential equations. Prerequisite: Mth 435 or its equivalent.

56 L	amar University
5310	Numerical Analysis 3:3:0
7310	Numerical Analysis Stiff and nonstiff ordinary differential equations. Steady state solutions. Finite element and finite difference
	approximations of elliptic boundary value problems. Direct and iterative methods. Extensions to parabolic
	equations. Finite differences schemes for hyperbolic equations.
	Prerequisite: Mth 4315 or its equivalent.
5311	Complex Variables 3:3:0
	Conformal mapping and analytic continuation, calculus or residues, hydrodynamics and asymptotic expansions.
	Prerequisite: Mth 431 or its equivalent.
5321	Foundation I 3:3:0
	Introduction to mathematical logic and basic set theory. Constructive foundation for the real number system, basic
	properties, its algebraic and topological properties.
5322	Foundation II 3:3:0
	The first year of calculus reviewed from the epsilon delta geometric and topological approach. Introduction to
	basic algebraic structures; groups, rings.
	Prerequisite: Mth 5321.
5325	Linear and Modern Algebra 3:3:0
	Vector spaces with special emphasis on the algebraic structures of R1, R2, and R3. Continuation of the algebraic
	structures in Foundation II; Euclidean rings, division rings, integral domains, fields.
5226	Prerequisite: Mth 5322.
5326	Probability and Statistics 3:3:0
	Permutations, combinations and factorials, elementary principles of probability, mathematical expectations,
5327	elementary statistical inference.
))Z/	Data Processing A course of higher level because and an assemble because it is the second of the se
	A survey of higher level languages and an assembly language with applications to advanced programming
5328	techniques. Syntax, semantics and numerical techniques as applied to programming applications. History of Mathematics 3:3:0
7520	History of Mathematics 3:3:0 Historical origin of mathematical concepts, lives and achievements of great men of mathematics, balance kept
	between ancient and modern developments.
5329	e : : M i : 10: '
,,,,	Seminar in Mathematical Discovery 3:3:0 Case histories studied in detail, inductive and heuristic reasoning, teaching by the discovery method.
5330	Enrichment Topics in Mathematics 3:3:0
	This course parallels the usual courses in algebra and geometry, showing interesting additional applications of the
	methods developed therein. The topics selected will be chosen reflecting the needs of individual talented students.
5331	Special Topics in the Mathematical Sciences 3:3:0
	Advanced topics in mathematics to suit the needs of individual classes of graduate students. Course may be
	repeated for a maximum of six semester hours credit when the topic varies.
5332	Seminar in Geometry 3:3:0
	Transformational geometry, the topological and group theoretical aspect of geometry, the vector approach and
	other current trends.
5333	Seminar in Number Theory 3:3:0
	An in-depth study of prime numbers, Diophantine equations, figurate numbers, special sequences and other topics
	suitable for introducing the flavor of number theory.
5334	Seminar in Problem Solving 3:3:0
	Patterns of problem solving with emphasis on methodology, the roles of extreme cases, similar problems,
	continuity, generalizations and transformations.

An individual research project under supervision with emphasis placed on concepts and methods.

Treats problems, recent techniques and developments in an identified area of Mathematics Education. May be

A practical experience for individual students in the methods and practices of mathematics. The gradute student under faculty supervision will be required to identify, analyze and construct a mathematical model of an appropriate

This course is a sequel to Mth 5360. A grade for both courses will be given at the completion of all the requirements

3:3:0

3:3:0

3:3:0

3:3:0

6:A:0

5335 Seminar in Mathematical Research

Prerequisite: Consent of instructor.

5360 Practicum in Applied Mathematics I

problem in a chosen field.

Prerequisite: Approval of graduate advisor.

5361 Practicum in Applied Mathematics II

Prerequisite: Approval of graduate advisor.

Prerequisite: Approval of graduate advisor and Mth 5360.

repeated for credit.

for this course.

669A-669B Thesis

Special Topics in Mathematics Education

The approved list of 400G level courses may be taken for graduate credit, with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

Mth 4202G Partial Differential Equations Mth 4203G Vector Analysis Mth 4315G Numerical Analysis

Mth 4316G Mathematical Programming

Mth 4317G Modern Developments in Statistical Methodology

Mth 4321G Least Squares and Regression Analysis

Mth 4322G Analysis of Variance

Mth 4325G Finite Element Analysis Mth 433G Linear Algebra

Mth 435G Introductory Topology

Mth 4351G Cultural Approach to Mathematics Mth 437G Mathematical Theory of Probability

-Mth 438G Statistical Methods



College of Fine and Applied Arts

The College of Fine and Applied Arts offers graduate programs of study leading to the Master of Science degree in the fields of public address, theater, speech pathology, audiology and deaf education, and the Master of Music and Master of Music Education degrees.

Persons seeking admission to these programs must meet the requirements specified by the College of Graduate Studies and the individual department. Admission to a degree program is not an admission to candidacy.

Department of Communication

A master of Science degree in Speech is offered by the Department of Communication in Public Address, Theater, Speech Pathology, Audiology, or Deaf Education. The master's program is designed to help students deepen and expand their knowledge and provide them with the opportunity to develop skills and comcepts which may be applied to the several vocational ends relating to the above fields of study. Persons seeking admission to these programs must meet the general requirements for admission that are outlined in this bulletin. Generally, an applicant should have completed 24 semester hours of undergraduate courses in the speech curriculum. Each student's curriculum choices will be guided by a graduate advisor.

Specializations in Speech Pathology/Audiology/Audiology-Deaf Education

The candidate for the Master of Science degree in any one of the above areas of specialization must meet all of the College of Graduate Studies' general degree requirements as listed in this catalog. The candidate must complete a total of 36 semester hours, including six semester hours of electives and, in addition, obtain a minumum of 150 supervised clock hours of clinical experience. An optional thesis program may be substituted for the six hours of electives, with faculty approval and advisement.

Students who have completed their Bachelor's degree in one of the above areas at Lamar will have completed the undergraduate core in Speech and Hearing and are eligible for admission into the graduate program if they meet the minimum entrance requirements of the College of Graduate Studies. All other applications must be reviewed by a committee of the graduate faculty of the Speech and Hearing Center. The committee will follow the criteria for student/faculty ratios as established by the American Speech and Hearing Association and individual decisions for admission will be made based on: 1 space available; 2 the student's undergraduate GPA; 3 the student's undergraduate curricular preparation; 4 the student's letters of recommendation and 5 GRE scores. Students admitted to the graduate program with specific curricular deficiencies will be expected to remove the deficiencies before graduation.

Students completing the graduate programs in Speech Pathology or Audiology will be eligible for membership in the American Speech and Hearing Association and will have completed the academic and supervised clinical practicum requirements for the Certificate of Clinical Competence. Speech Pathology and Deaf Education students wishing to work in the public schools of Texas must meet the requirements for certification set down by the Texas Education Agency. Students not certified at the undergraduate level may meet requirements through completion of graduate work except student teaching credit may be earned only at the undergraduate level. Student teaching is a requirement for Teacher Certification and may be completed during the period of graduate study. However, it will not bear graduate credit nor may credit earned through it be counted toward the thirty six semester hours required for the master's

Professional Certification Requirements of the American Speech & Hearing Association Including Undergraduate Work

The Certificate of Clinical Competence in Speech Pathology or Audiology requires the completion of 60 semester hours that includes 18 hours in fundamentals and 42 hours in the management of disorders of communication. Of these 42 hours, 24 not including thesis must be in courses in either Speech Pathology or Audiology, and no fewer than six in either. Furthermore, 30 of the 42 semester hours must be in the courses acceptable toward a graduate degree. Certification also requires verification of 300 hours of supervised clinical practice.

Specialization in Public Address/Theater

Thirty semester hours are required to complete programs in these areas, 18 of which will come as a result of course work in either of these two fields, six hours in thesis and six hours of course work in an approved minor field. At least 12 semester hours, exclusive of the thesis, must be in speech courses numbered 500 or above. With the approval of the head of the Department of Communication, 12 semester hours of course work may be substituted for the thesis.

Graduate Faculty

Professor Robert F. Achilles Speech pathology Professor W. Brock Brentlinger Speech, mass media Associate Professor W. Patrick Harrigan, III Theater, oral interpretation Professor DeWitte T. Holland Public address Professor S. Walker James Theater

Assistant Professor Jess Freeman King Deaf Education Associate Professor John P. Johnson Speech pathology Associate Professor Robert Moulton Speech pathology, education of the deaf Professor Ölen Pederson Audiology, speech pathology Assistant Professor Lane Roth Communication theory, film criticism

Spe	eech Courses	
	5201 5201 5401 5501 5601 Institute in Communication	1-6:1-6:0
, 101,	Credit for participation in summer or other institutes. Subject of each institute to be noted on the scl	nedule. May
	be repeated for credit when topic varies.	
515, 5		1-2:A:0
, .	Independent study of special problems in disorders of communication.	
5301	Aphasia and Neurogenic Disorders	3:3:0
,,,,,	Theory and treatment for organic speech disorders or neurologic origin.	
5302	Stuttering	3:3:0
	Nature, evaluation and treatment of fluency disorders.	
5303	Voice Disorders	3:3:0
	Functional and organic voice disorders, diagnosis and treatment.	
5304	Cleft Palate	3:3:0
	Nature, evaluation and treatment of speech disorders related to orofacila anomalies.	
5305	Diagnostics and Counseling	3:3:0
	Evaluation and counseling procedures in communication disorders.	
5306	Language Disorders and Mental Retardation	3:3:0
	Two topics: a) language disorders and b) communication problems relating to the mentally retarded	l.
5307	Articulation Disorders	3:3:0
	Nature, evaluation and treatment of articulation disorders.	
5308	Advanced Speech Science	3:3:0
	Acoustic nature of speech perceptual processes. Project on spectrography required.	
5309	Advanced Clinical Practice	3:0:10
	Advanced diagnostics and therapy. May be repeated for credit.	
5310	American Public Address	3:3:0
	Studies of significant American oral rhetoric from colonial times to the present. May be repeated fo	r credit when
	topic varies.	
5311	Instructional Methods in Education of Deaf Children	3:3:0
	Methods, curriculum and classroom procedures for the teacher of the deaf.	
5312	Advanced Manual Communication	3:3:0
	Advanced sign language including Ameslan and interpreting.	
5313	Speech Development in the Hearing Impaired	3:3:0
	Speech for the young hearing handicapped, home training and therapy plans.	
5314	· · · · · · · · · · · · · · · · · · ·	3:3:0
)J1 1	Curricular and methodological considerations for improving the speech of the deaf.	
5315		3:3:0
,,,,	The application of the principles of logic and motivation to the argumentative process. A review of	f the place of
	forensics in the high school and how such a program is developed and maintained.	
5316		3:3:0
,,,,	Language development theory applied to the hearing impaired.	
	mangembe as recolumn and all all and a large and a lar	

	College of Fine and Applied Arts	61		
	Administration of the Doof	3:3:0		
5317	Advanced Language for the Deaf Language development and correction in the older deaf child and adult.	3.3.0		
5318	Special Audiometric Tests	3:3:0		
5319	Test batteries for peripheral vs. central site of lesion, non-organicity, electrophysiological assessment. Bone Conduction and Masking	3:3:0		
,,,,	Test procedures for determining individual ear status, includes impedance audiometry.			
5320	Pediatric Audiology	3:3:0		
	Hearing evaluation in the young patient, method and theory.			
5321	Contemporary Problems-Audiology	3:3:0		
5322	Seminar, controversial issues in audiology, private practice, hearing-aid dispensing. Medical Audiology	3:3:0		
	Study of otologic pathology and influence upon auditory/vestibular systems.			
5323	Electronystagmography	3:3:0		
5324	Study of vestibular system-physiology and assessment. Advanced Hearing Aids	3:3:0		
5324	Contemporary amplification for the hearing impaired, design, testing, and counseling.	3.3.0		
5325	Theater Advanced Directing	3:2:3		
,,,,	Theory and problems in directing plays of different periods and styles including musical comedy. Prerequisite: The 335 or equivalent.			
5326	Psychology of Deafness	3:3:0		
	Psychological, personal and social impact of deafness.			
5327	Advanced Audiotry Rehabilitation	3:3:0		
	Speech reading, auditory training, amplification and counseling for the aurally impaired.	• • •		
5340	Theater Studies in Modern Theater	3:3:0		
	Trends in theater production, theory, practice and techniques from Adolph Appia to the present.			
5341	Prerequisite: The 233 or equivalent. Seminar in Oral Interpretation	3:3:0		
,,,,,	A study of the history of oral interpretation and its contributions to the field of communication. Experie			
	studies in literary analysis, rhetorical principles and performance skills.			
5345	Rhetorical Criticism	3:3:0		
	Theories and criteria of rhetorical criticism from Aristotle to the present.			
5346	Theater Dramatic Criticism	3:3:0		
	Theories and criteria of dramatics from Classical Greek period to the present.	3:A:0		
535	Individual Study Independent study of special problems in disorders of communication. May be repeated once for credit.	3.A.U		
5350	Individual Study	3:A:0		
,,,,	Independent study of special problems in speech under faculty guidance.			
5350	Theater Individual Study	3:A:0		
	Independent study of special problems in theater under faculty guidance.			
669A	669B Thesis	6:A:0		
	Prerequisite: Approval of graduate advisor.	,		
	Below is the approved list of 400G level courses which may be taken with augm			
	rements for graduate credit, subject to approval by the graduate advisor. Course descrip	otions		
may	be found in the Bulletin of Lamar University.			
	430G Creative Communication (Theater)			
	430G Problems and Projects in Speech (Speech)			
	4301G Advanced Speech Pathology			
	4302G Advanced Audiology			
	4303G Clinical Practicum			
	4304G Intermediate Manual Communication			
	431G Problems and Projects in Theater (Theater)			
	431G Laws and Ethics of Mass Media (Communication)			
	432G History and Principles of American Journalism (Communication)			
	434G Advanced Stagecraft (Theater)			
	434G Persuasion (Speech)			
	436G History of Theater (Theater)			
	437G Italian Rhetoric (Speech)			
	437G Directing Secondary School Theater Activities (Theater)			
	438G Directing Secondary School Speech Activities (Speech)			
438G Broadcast News (Communication)				
	438G History of Theater in Italy (Theater)			
	439G Seminar in Fine Arts (Humanities)			

439G Rhetoric and Public Address (Speech)

4311G Theory and Practice of Scenery and Lighting Design (Theater)

4312G Costume Design and Construction (Theater)

4371G Advanced Oral Interpretation (Speech)

4381G Rhetoric of Social Movements (Speech)

4383G Print Advertising (Communication)

4391G Advanced Television Production (Communication)

Department of Music

The Master of Music and the Master of Music Education degrees are offered by the Department of Music. The master's program is designed to help performers and specialists in the several areas of the music program to develop skills and concepts which may be applied to their particular fields of endeavor. Persons seeking admission to these programs must meet the general requirements for admission that are outlined in this catalog. Generally, an applicant should hold a Bachelor of Music degree or its equivalent in music courses, this equivalency to be determined by the Department of Music.

Degree Requirements

The candidate for the Master of Music degree must meet all the College of Graduate Studies general degree requirements as listed in this catalog. The Master of Music in performance requires 30 semester hours of course work, of which six hours consist of a thesis, or a recital and a research paper. The Master of Music Education degree requires 36 hours of course work, which may include six hours of thesis work. All degree candidates must take MEd 532, Seminar in Special Problems. An oral examination is required for all students before completion of a degree.

Graduate Faculty

Professor Joseph B. Carlucci Single reed woodwinds Associate Professor J. N. Collier Musicology Associate Professor Paul W. Holmes Theory and compositon Professor Hubert B. Kaszynski Piano, organ

Assistant Professor John R. LeBlanc Voice, choral Professor George L. Parks Voice, music education Associate Professor Joseph Truncale Voice, opera Professor Charles A. Wiley Double reed woodwinds

Applied Music (AM)

521, 522, 523, 524, 525 Graduate Applied Music

For music education majors only. Graduate applied music in any instrument category, including composition. No more than eight hours may be applied to the music education degree toward graduation.

541, 542, 543, 544, 545 Graduate Applied Music

Graduate applied music in any instrument category, including composition. No more than 12 hours may be applied to the Master of Music degree.

Music Education (MEd)

Piano Accompanying

2:2:0

A study of the techniques of accompanying, with practical experience. 521 Seminar in Music Education

2:15:20 Research dealing with special problems related to field work for professional music teachers. Course may be repeated for credit. Class: 15 clock hours. Laboratory: 20 clock hours.

Advanced Instrumental Organization and Administration Organization and administration of public school bands and orchestras, with emphasis on rehearsal methods and techniques, library systems, program building, publicity procedures, contest preparation, techniques of class instruction and budget.

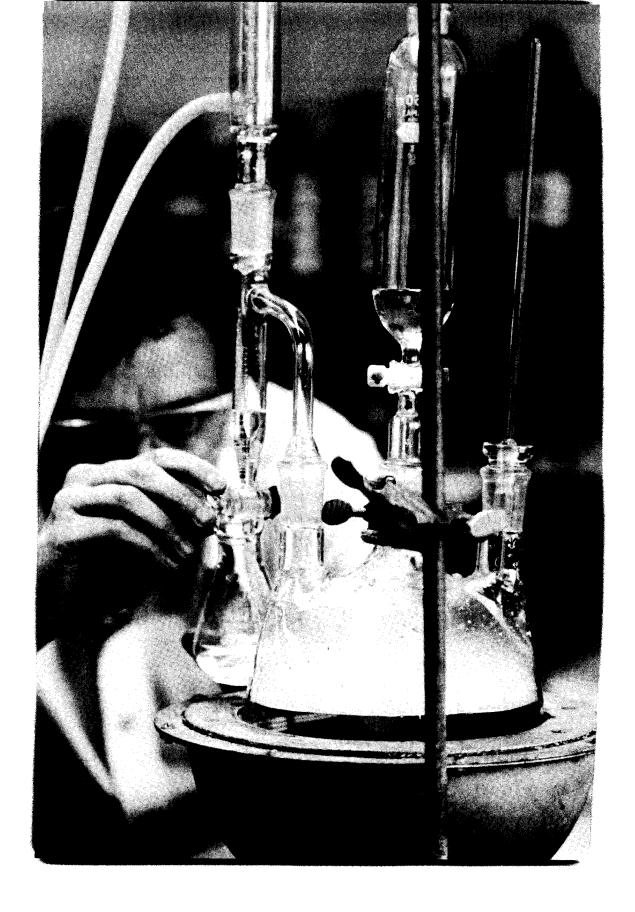
Advanced Choral Organization and Administration 3:3:0 Philosophy, organization and administration of vocal music programs at the public school level; emphasis similar to MEd 530.

Seminar in Special Problems Research problems of special interest to students whose major emphasis is in the graduate field of music. Research paper required.

Basic Concepts in Music Education The historical, philosophical and psychological bases of music education.

3:3:0

Prerequisite: Approval of graduate advisor.



College of Health and Behavioral Sciences

Department of Psychology

The Department of Psychology offers a program of study leading to the Master of Science degree in Psychology. It is designed to prepare professional personnel for employment in industry or in the area of community mental health. Those seeking admission to this program must meet the general requirements as set forth in the catalog for admission to the College of Graduate Studies. Special attention is called to the requirement that GRE scores must be on record in the graduate dean's office and that provisional students will not receive credit for more than 12 semester hours. In addition, the applicant must offer the substantial equivalent of the courses in statistics and experimental psychology required of undergraduate students in the psychology curriculum.

Degree Requirements

The candidate for the Master of Science degree in Psychology must meet all of the College of Graduate Studies general degree requirements as listed in the catalog. Additional specific degree requirements are as follows:

Twenty-three semester hours of course work in psychology which must include nine semester hours in Psychology 530, 531, and 532. For the Community Psychology Program, the additional 14 semester hours must be in Psychology 510, 5310, 5311, 5312 and 5313. For the Industrial Psychology Program, the additional required 14 semester hours must be in

Psychology 512, 5320, 5321, 5322 and 5323.

Satisfactorily pass candidacy examinations as devised by the Psychology Department Graduate Faculty. For the Community Psychology Program, a student may request and be administered both the written and oral examinations upon completion of 23 semester hours of graduate credit in Psychology 510, 530, 531, 532, 5310, 5311, 5312 and 5313 with a grade point averrage of 3.0 (B) and consent of the graduate advisor. For the Industrial Psychology Program, a student may request and be administered both the written and oral examinations upon completion of 20 semester hours of graduate credit in Psychology 512, 530, 531, 532, 5320, 5321 and 5322 with a grade point average of 3.0 (B) and consent of the graduate advisor. A student must have satisfactorily passed candidacy examinations prior to enrolling in Psychology 5330.

Seven additional semester hours of 400G and/or 500 level courses in an approved field of

4. Six semester hours of Psychology 5330 and 5331 or six additional hours in 400G and/or 500 level courses if this requirement is waived for a student in the Industrial Psychology

Thesis: Submission of an acceptable thesis and satisfactory performance on a final written

comprehensive and/or oral examination.

Departmental Policies

Special attention is called to the following departmental policies:

Graduate students are prohibited from providing psychological services except when supervised by a faculty member as part of a course requirement or when regularly employed by an exempt agency as defined by the Psychologists' Certification and Licensing Act. A violation of this policy will result in the student's dismissal from the program.

More than six hours of "C" level work will result in the student's dismissal from the

program.

Students may not enroll in a course more than twice.

Qualifying and/or Final Examinations may be repeated once if failure occurs. In general, a student repeating any portion of the examinations must do so at the next administration of the examination.

After admission to candidacy, a student must be enrolled in a thesis course each regular semester until requirements for the degree are completed. In addition a student must be registered for a thesis course each session of the summer term if the student is to receive the degree in August or is involved in research or writing.

Under unusual circumstances and with the approval of the department head and the student's supervising professor, a student may postpone registration for the thesis course for one or more semesters. Unless special permission has been granted, a student who is not continuously enrolled in a thesis course must apply for re-admission to candidacy.

Graduate Faculty

Professor Billy Ray Barrington
Individual and group psychotherapy
Professor Myrtle Lee Bell
Developmental psychology, child
psychology

Assistant Professor Ann M. Die Individual and group psychotherapy Associate Professor Otto R. Flocke Individual and group psychotherapy Professor James R. Hawker Industrial-organizational psychology, communications,

Assistant Professor Richard G. Marriott Physiology, learning, psychopharmacology

Associate Professor James E. Schroeder Animal learning, motivation Associate Professor James L. Walker, Jr. Psychological measurement, statistics

Psychology Courses

10 Clinic Practice 1:A:0

Prepracticum experience which provides the training and skills necessary for the first practicum course. Required of all community psychology majors for a minimum of two semesters prior to registration for Psy 5330 with a maximum credit of 3 semester hours allowed.

Prerequisite: Regular admission to the program and approval of the graduate advisor.

State Research Practicum: Industrial-Organizational Psychology
Individualized laboratory or field research activities in industrial-organizational psychology. Assignments are designed to supplement the more formal course work by a variety of pre-professional activities such as assisting in research, teaching and working on field projects under staff supervision. Required of all industrial-organizational graduate students prior to eligibility for Psy 5330 with a maximum credit of 3 semester hours allowed.

Advanced General Psychology I

3:3:0

A comprehensive overview of the history of psychology, systems of psychological thought, and the areas of physiological psychology, sensation and perception, learning and cognition. Emphasis will be placed on both background material and current research. May be taken out of sequence.

Advanced General Psychology II

a comprehensive overview of the following areas of psychology; personality, motivation, developmental, social and abnormal. Emphasis will be placed on both background material and current research. May be taken out of sequence.

532 Experimental Design
A study of the research procedures and techniques commonly used by the applied and theoretical psychologist in the design, execution, control and evaluation of experiments.

533 Individual Study
Independent study of special problems in industry or in the community. May be repeated for credit.

Prerequisite: Consent of instructor.

534 Special Topics in Psychology
Topics in developmental, physiological, social, differential, experimental, quantitative, cognitive or clinical psychology. Includes library and/or laboratory work and conferences with a staff member. A description of the particular area of study will be indicated. A student may repeat the course for credit when the area of study varies. Prerequisite: Consent of instructor.

535 Seminar in Psychology
An intensive study of selected areas of psychological thought and/or research. Emphasis will be on locating and evaluating literature in a selected area of psychology. Description of course content will appear in the schedule of classes. May be repeated for credit when topic varies.

Prerequisite: Consent of instructor.

5310 Introduction to Psychological Assessment
An introduction to psychological evaluation techniques including test construction, statistics and administration and scoring techniques for selected objective and projective tests.

Prerequisite: Acceptance to pscyhology graduate program.

College of Health and Behavioral Sciences Community Psychology: Introduction to Psychotherapy Psychotherapy skills are introduced through didactic, demonstration and experiential learning situations. Students will study their own behavior by participating as a member of a group. Emphasis is placed upon each student developing greater self awareness while being exposed to psychotherapeutic techniques by the instructor. 5312 Advanced Psychological Assessment A study of evaluative procedures stressing test interpretation and report writing with field experience included. Prerequisite: Psy 5310. 5313 Community Psychology: Advanced Psychotherapy The emphasis shifts toward the student taking on greater responsibility as a therapist. Each student will assume a client case load to practice psychotherapy techniques under the supervision of a faculty member. In addition, students will alternate between being a member of a group and being a group facilitator. Prereauisite: Psy 5311. 3:3:0

Theory and Techniques of Psychological Measurement Theory of measurement of human behavior; survey of representative tests of intelligence, aptitudes, interests, personality, etc. 3:3:0

A critical examination of the social and organizational factors in the work situation. Primary emphasis on human relations, leadership and organizational influences on behavior. Advanced Industrial Psychology II

Psychological principles and techniques applied to job analysis, selection and placement of workers, training and organizational efficiency. Prerequisite: Psy 5320.

Advanced Experimental Psychology Theory and application of experimental design in psychological research. Students will have an opportunity to design and conduct an original research study. Prerequisite: Psy 532.

5330 Practicum I Supervised training and experience in a local, state or regional agency, institution or employment setting. The specific nature of the practicum depends on the professional background and goals of the candidate and will be determined by the candidate, his/her faculty advisor and a member of the cooperating agency. Under unusual circumstances, this course may be waived by the graduate faculty of the Psychology Department for students in the Industrial Program if they elect three additional hours from the approved program courses. Prerequisite: Admission to candidacy.

Practicum II Supervised work in an area of particular interest to the student. The practicum includes both a close relationship with a faculty member and a member of the cooperating agency. Under unusual circumstances, this course may be waived by the graduate faculty of the Psychology Department for students in the Industrial Psychology program if they elect three additional hours from the approved program courses. Prerequisite: Psy 5330.

3:A:0 5332 Practicum III Supervised internship in the area of particular interest to the student upon approval of the graduate advisor. The practicum includes teaching and training other graduate students who are in the process of developing community mental health intervention skills and diagnostic abilities. Prerequisite: Psy 5331 and consent of instructor.

6:A:0

669A-669B Thesis Prerequisite: Approval of graduate advisor.

Advanced Industrial Psychology I

Below is the list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

431G Sensation and Perception 433G Differential Psychology

434G An Introduction to Psychotherapy

435G Leadership and Group Dynamics

436G Learning

437G Quantitative Psychology 438G Physiological Psychology

439G Contemporary Problems in Psychology

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College of Liberal Arts

The College of Liberal Arts offers programs of study leading to the Master of Arts degree in the fields of English, government and history and to the Master of Public Administration degree.

Persons seeking admission to these programs must meet the requirements specified by the College of Graduate Studies and the individual department. Admission to a degree program is not an admission to candidacy.

Department of English and Foreign Languages

Degree Requirements

The degree of Master of Arts in English requires the completion of 30 semester hours of graduate work: 18 in English, six in thesis and six in an approved minor. With the approval of the head of the Department of English, 12 semester hours of course work may be substituted for the thesis. At least 18 semester hours, including the thesis, must be in English courses numbered 500 or above. The minor must be approved by the head of the Department of English, or, with the department head's approval, six additional hours in English may be substituted for the minor.

Professional Certification Requirements (Texas) in English

The plan for the Professional Certificate—Secondary requires the completion of 36 semester hours of graduate work: 18 in English, six in resource areas and twelve in approved teacher education. At least 12 semester hours must be in English courses numbered 500 or above. The courses in the resource areas must be approved by the head of the Department of English; such approval will be given on the basis of the support they can give to the major and on the specific needs of the graduate student. The twelve semester hours of teacher education must be taken in courses specifically approved for the Professional Certificate—Secondary.

Depending on the student's undergraduate course work, his or her graduate program in English will include English 4327G, 533, 539, and one course from either 535, 536, 537, 538, or 5311.

Graduate Faculty

Professor Robert J. Barnes British and Continental literature: 1840 to the present Professor Winfred S. Emmons, Jr. Middle English language and literature, American literature Professor Harry L. Frissell Seventeenth century British literature Professor Marilyn D. Georgas Renaissance and Victorian literature Associate Professor Kirkland C. Jones Medieval and Renaissance literature Professor Elizabeth M. Meeks American literature and English education

Professor Robert C. Olson Eighteenth century British literature Assistant Professor Annette E. Platt English education, 18th century and romantic British literature. Associate Professor Jack N. Renfrow Renaissance literature: dramatic Professor Henry B. Rule American literature: 1840 to the present Professor Arney L. Strickland Linguistics and English education Professor Robert Blaine Thomas Seventeenth and eighteenth century British literature, short story

English Courses

- 533 Special Topics in Old and Middle English Language and Literature
 Intensive study of the language necessary for reading literature of the period focused on. Course may be repeated for a maximum of six semester hours credit when the topic varies.

 Prerequisite: Graduate standing and Eng 430G or 431G.
- 535 Special Topics in Renaissance and Seventeenth Century English Literature 3:3:0

 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.
- Special Topics in Restoration and Eighteenth Century English 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.
- 537 Special Topics in Nineteenth Century English 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.
- 538 Special Topics 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.
- 539 Special Topics 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.
- 5311 Special Topics in Comparative Literature

 Intensive study of an author or authors, genre or period selected from the range of world literature. Emphasis on analysis and literary method. Course may be repeated for a maximum of six semester hours credit when the topic varies.
- 669A-669 B Thesis
 Prerequisite: Approval of graduate advisor.
 6:A:0

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the *Bulletin of Lamar University*.

- 430G History of the English Language
- 432G Studies in Sixteenth Century Literature
- 434G Shakespeare
- 435G Studies in Seventeenth Century Literature
- 438G Studies in Eighteenth Century Literature
- 439G Studies in Romantic Literature
- 4311G Studies in Victorian Literature
- 4317G Contemporary Drama
- 4318G Contemporary Poetry
- 4319G Contemporary Fiction
- 4322G Russian Literature
- 4325G Language: Sound and Meaning
- 4326G Expository Writing
- 4327G Bibliography and Methods of Research
- 4328G Early American Literature
- 4329G Modern American Literature
- 4333G Studies in a Particular Author
- 4334G Critical Studies in Literature
- 4336G Directed Studies in American Literature
- 4337G Directed Studies in British Literature

Department of Government

The Department of Government offers programs of study leading to the Master of Arts in Government degree and the Master of Public Administration degree. Persons seeking admission

to either program must meet the general requirements for admission that are outlined in the graduate catalog. An applicant must have completed a bachelor's degree in government or political science, or if the degree is in another area, a minimum of 24 semester hours of undergraduate courses in government. Twelve of the 24 hours must be on the junior and senior level.

Degree Requirements

The degree of Master of Arts in Government requires the completion of 30 semester hours of graduate work: 18 in government, six in thesis and six in an approved minor. With the approval of the head of the Department of Government, 12 semester hours of course work may be substituted for the thesis. At least 18 semester hours, including the thesis, must be in government courses numbered 500 or above. The minor must be approved by the head of the Department of Government or with the department head's approval six additional hours in government may be substituted for the minor.

The student's graduate program must include Government 530.

The degree of Master of Public Administration requires the completion of 36 semester hours of graduate work: 21 in the core curriculum (Gov 535, 5351, 5352, 5353, 5354, 5358 and 5359) and 15 from the approved list of courses. The applicant must have completed the following undergraduate courses or their equivalents: urban politics, three semester hours; introduction to public administration, three semester hours; statistics for social scientists, three semester hours. A foreign language is not required.

Graduate Faculty

Associate Professor Bruce Drury Latin American governments Assistant Professor Elbert T. Dubose, Jr. Public administration Associate Professor Boyd Lanier International relations Associate Professor William M. Pearson Public administration Assistant Professor L. Thomas Sanders Urban politics, public policy

Professor Manfred Stevens Comparative government, Europe Assistant Professor Ronald Stidham Consititutional law Professor William R. Tucker Political thought Associate Professor Glenn Utter Theory and methodology

Government Courses

Scope and Methods of Political Science

The study of depth of selected topics concerning the theoretical foundations underlying a scientific approach to the study of political phenomena and analytical techniques to be applied to a study of political behavior. Prerequisite: Graduate standing.

Seminar in Political Theory 531

Selected issues in political thought with emphasis on the classical thinkers and their relationship to contemporary political, economic and social problems. Prerequisite: Graduate standing.

Directed Reading

Graduate students may study individually with an instructor in an area of mutual interest to the student and the

Prerequisite: Graduate standing and approval of head of the Department of Government.

3:3:0

Seminar in American Government and Politics A survey of the literature in the field of American government and politics. Classical and contemporary works are examined, with emphasis on the modern approaches to the study of American government and politics. Prerequisite: Graduate standing.

Seminar in Administrative Theory

An examination of major theories dealing with organizations and their characteristics, scope and effect on public administration and executive behavior. Emphasis will be placed on the relationships between theories and supporting empirical research.

Prerequisite: Graduate standing.

Seminar in Personnel Administration

Personnel theory and practice in the public setting. The basic methods and functions of personnel administration in the context of public organizations; employee motivation, employee relations and collective bargaining will be emphasized.

Prerequisite: Graduate standing.

Seminar in Fiscal Administration

The study of formulation and administration of government budgeting, including the role of the budget in the policy process, approaches to budget formulation and analysis, the development of the PPB approach and other basic concepts and practices in government budget and finance administration. Prerequisite: Graduate standing.

Seminar in Public Policy Formulation

3:3:0

The process of policy-making within governmental agencies and within the total political process. Emphasis will be placed on decision-making, public policy analysis and policy implementation. Prerequisite: Graduate standing.

5354 Seminar in Special Studies in Public Administration

Analysis of selected problems in public administration; urban and regional planning and management, administrative reorganization, the environment and related problems. Prerequisite: Graduate standing.

5358 Internship

Practical administrative experience in a local, state, regional or federal office or agency that is the equivalent of one-half time for one semester, full-time in a summer semester. Examinations and reports on practices and problems in agencies are required. This course may be waived for students already employed in an administrative capacity in a governmental agency if they elect three additional hours from the approved program courses. Prerequisite: Graduate standing.

Internship

Practical administrative experience in a local, state, regional or federal office or agency that is the equivalent of one-half time for one semester, full-time in a summer semester. Examinations and reports on practices and problems in agencies are required. This course may be waived for students already employed in an administrative capacity in a governmental agency if they elect three additional hours from the approved program courses. Prerequisite: Gov 5358 and graduate standing.

Seminar in Comparative Study of Political Systems

Study of the theory and method of comparative political analysis; systematic examination and explanation of the structure and function of Western and non-Western political systems. Prerequisite: Graduate standing.

669A-669B Thesis

6:A:0

Prerequisite: Approval of graduate advisor.

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

430G Organization Theory and Behavior

433G Contemporary Political Thought

434G Formulation of Public Policy

435G The International System

436G American Constitutional Law and Development

437G American Constitutional Law and Development

439G Special Topics in Public Administration

4310G Directed Study

4312G American State Government

4381G Government and Politics of the Soviet Union

4382G Government and Politics of East Asia

4383G Government and Politics of Latin America

Department of History

Degree Requirements

The degree of Master of Arts in History requires the completion of 30 semester hours of graduate work: 18 in history, six in thesis and six in an approved minor. At least 12 semester hours, exclusive of thesis, must be in history courses numbered 500 or above, and six of these must be in seminar courses. With the approval of the head of the Department of History, 12 semester hours of course work may be substituted for the thesis. In this latter program, at least 21 semester hours of course work must be in courses numbered 500 or above, and nine of these must be in seminar courses. The minor must be approved by the head of the Department of History; such approval will be given on the basis of the support the minor can give to the major. With the approval of the head of the Department of History, six additional hours in history may be substituted for the minor.

Graduate Faculty

Professor Adrian N. Anderson
United States history, revolution, early
national
Associate Professor John M. Carroll
United States history, diplomatic, the
South
Professor Howell Holmes Gwin, Jr.
European history, ancient, classical and
medieval
Professor Paul E. Isaac
United States history, recent, the West
Professor William M. MacDonald
Modern European history, Great Britain
Professor Howard Mackey
Modern European history, Great Britain
Professor Ra
United States Professor Ra

Professor L. Wesley Norton United States history, social and intellectual Professor R. Beeler Satterfield United States history, middle period Professor John W. Storey United States history, urban, social and intellectual Professor Walter A. Sutton United States history, diplomatic Professor Preston B. Williams Modern European history, Central and Western Europe Professor Ralph A. Wooster United States history, Civil War, the South

History Courses

530	Classical and European Historiography	3:3:0
	Prerequisite: Graduate standing.	
531	American Historiography	3:3:0
	Prerequisite: Graduate standing.	
532	Readings in American History	3:3:0
	Course may be repeated for a maximum of six semester hours credit when topic varies. Prerequisite: Graduate standing.	
533	Readings in European History Before 1815	3:3:0
,,,,	Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: Graduate standing.	
534	Readings in European History Since 1815	3:3:0
	Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: Graduate standing.	
535	Seminar in Texas History	3:3:0
,,,	Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: Graduate standing.	
536	Seminar in Southern History	3:3:0
,,,,	Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: Graduate standing.	
537	Seminar in United States History	3:3:0
,,,,	Course may be repeated for a maximum of six semester hour credit when the topic varies. Prerequisite: Graduate standing.	
539	Seminar in the American West	3:3:0
<i>)</i>	Course may be repeated for a maximum of six semester hours credit when the topic varies. Prerequisite: Graduate standing.	

74 Lamar University

5311 Seminar in European History

Course may be repeated for a maximum of six semester hours credit when the topic varies.

Prerequisite: Graduate standing.

5312 Directed Readings in History

2. 4.0

3:3:0

3:A:0 Directed readings arranged with instructor in area of mutual interest. Will not apply to 500 level course requirement in program. Under limited and special circumstances, course may be repeated but only with specific approval of History graduate Committee.

669A-669B Thesis

Prerequisite: Approval of graduate advisor.

6:A:0

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the *Bulletin of Lamar University*.

430G Era of the Renaissance and Reformation

431G The Old Regime

432G The French Revolution and Napoleon

433G Russian and Eastern Europe to 1860

434G Nineteenth Century Europe

435G Twentieth Century Europe

436G The American West

437G The Old South

438G The New South

4311G Colonial America

4312G The American Revolution

4313G The Age of Jackson 4314G The American Civil War

4315G Reconstruction and Industrialization: The United States from 1865 to 1898

4316G World Power and Reform: The United States from 1898 to 1920

4317G New Deal and World Leadership: The United States from 1920 to 1940

4318G Classical Civilization

4319G Medieval Civilization

4321G The Far East to 1800

4322G The Far East Since 1800

4323G Latin America to 1810

4324G Latin America Since 1810

4325G Tudor and Stuart England

4326G Eighteenth Century England

4327G Victorian England

4328G Contemporary America: The United States Since 1940

4329G Modern European Intellectual History

4331G Russia Since 1860

4332G Afro-American History to 1865

4333G Afro-American History Since 1865

4334G Early National Period

4335G Topics in History

4336G Ancient Near East

College of Sciences

The College of Sciences offers programs of study leading to the Master of Science degree in the fields of biology and chemistry. In addition, graduate study is available in geology and physics as areas of support or specialization in other advanced degree programs.

Persons seeking admission to these programs must meet the requirements specified by the College of Graduate Studies and the individual department. Admission to a degree program is not an admission to candidacy.

Department of Biology

The Department of Biology offers a program of study leading to the Master of Science in Biology degree. It is designed to enhance the professional competence of graduates in biology or closely related disciplines who are presently engaged in or planning to enter secondary school or college teaching, or who expect to be employed by private or governmental agencies in biologically oriented fields.

Applicants must have completed: 1) a minimum of 24 semester hours in the biological sciences; 2) a minimum of one semester of organic chemistry; 3) remove any deficiencies as provided in the section on admission; 4) score a total of 950 on the Graduate Record Examination, sum of verbal plus quantitative score, or when GRE scores V + Q fall between 720 and 949, obtain a majority vote of the biology graduate faculty.

Degree Requirements

The candidate for the M.S. in Biology must meet all the College of Graduate Studies general requirements as listed in this catalog. Additional specific requirements are:

- 1. Thirty-three hours of graduate credit which may include a maximum of 16 semester hours in approved 400G level courses with augmented requirements. All course work will be in biology. Exceptions must be approved by major advisor and head of department.
- Submit a written proposal for the thesis. After the thesis proposal is written, but before actual research is begun, take an oral examination before the biology graduate faculty over general biological concepts and on the experimental design of the proposed thesis and related disciplines. Weaknesses shown by this examination will result in recommended remedial formal course work or informal study, and a second exam will be held over these areas. Failure in the second exam results in rejection. The preliminary examination must be completed within the first two years of graduate study.

Graduate Faculty

Professor Richard C. Harrel Limnology, environmental science Assistant Professor Phillip Malnassy Botany, plant physiology Professor J. Leon McGraw, Jr. Ichthyology, cellular biology, invertebrate zoology Professor Jed L. J. Ramsey Ornithology, comparative physiology Associate Professor Philip B. Robertson Marine biology

Assistant Professor William C. Runnels Botany, algology Professor W. Russell Smith Microbiology Associate Professor Charles P. Turco Parasitology, invertebrate zoology Professor Henry T. Waddell Mycology, genetics Professor Michael E. Warren Entomology, biochemical systematics

1:1:0

Biology Courses

1:1:0 Materials and Techniques of Research Survey of laboratory and library research techniques, instrumentation and materials requisite to scientific investigation. Required of all entering graduate students.

Graduate Seminar Current topics in biological research. May be repeated for credit.

Prerequisite: Bio 345. 20 hours credit in Biology and consent of instructor. 5101, 5201, 5301, 5401 Special Topics

1-4:A:0

Research in areas other than thesis.

Prerequisite: Approval of graduate advisor. May be repeated when topic changes.

5333, 5666 Institute in Biological Sciences

3:3:0 or 6:6:0

Designed to provide credit for participation in summer or in-service institutes. Credit varies with duration. May be repeated for credit when nature of institute differs from those taken previously.

669A-669B Thesis 6:A:0

Prerequisite: Approval of graduate advisor.

From the list before a maximum of 16 semester hours of 400G level courses with augmented requirements may be taken for graduate credit, subject to approval by the graduate advisor and department head. Course descriptions may be found in the *Bulletin of Lamar University*.

440G Ornithology

441G Parasitology

442G Entomology

443G Limnology

444G Vertebrate Natural History

445G Marine Biology

446G Ecology

447G Cellular Biology

449G Protistology

460G Field Biology

4101G-4401G Special Topics in Biology

4302G Cellular Physiology

4303G Principles of Electron Microscopy

4304G Electron Microscope Techniques

4402G Taxonomy of Vascular Plants

Department of Chemistry

The Department of Chemistry offers a program of study leading to the Master of Science degree in Chemistry. Those seeking admission to this program must meet the general requirements as set forth in this catalog for admission to the College of Graduate Studies. In addition, the applicant must offer the substantial equivalent of the course in general chemistry, inorganic chemistry, analytical chemistry, organic chemistry and physical chemistry required of undergraduate students in the chemistry curriculum. The applicant also must have completed one year of college physics and mathematics through integral calculus.

Students working toward the graduate degree in chemistry will take a set of four proficiency examinations, one in each of the fields of chemistry; analytical, inorganic, organic and physical. These examinations are taken on entrance and are offered in the fall and again during the beginning of the spring semester. The results of these examinations are used for orientation and guidance.

Degree Requirements

The candidate for the M.S. degree in Chemistry must meet all the College of Graduate Studies general degree requirements as listed in the catalog. Additional specific degree requirements are as follows:

- 1. Fifteen to 18 semester hours of course work in Chemistry which must include Chm 531, 533, 535, 537 and at least one 500 level Selected Topics course in Chemistry with a grade point average of 3.0 B in these courses.
- Presentation of a thesis.
- Six to nine additional semester hours of 400G or 500 level courses in an approved field of
- A reading knowledge of a modern foreign language (German, French or Russian) or Computer Science 439.
- Examination results on the chemistry section of the GRE must be submitted before graduation.

Graduate Faculty

Associate Professor Hugh A. Akers Biochemistry Professor Harold T. Baker Physical chemistry Professor Margaret D. Cameron Organic chemistry Associate Professor Kenneth L. Dorris Physical chemistry Professor Ewin A. Eads Inorganic chemistry

Professor Keith C. Hansen Organic chemistry Associate Professor J. Dale Ortego Inorganic chemistry Associate Professor John A. Whittle Organic chemistry, biochemistry Professor Roger E. Yerick Analytical chemistry

Chemistry Courses

531	Advanced Analytical	3:3:0
,,,	Prerequisite: Graduate standing or consent of instructor.	3:3:0
533	Advanced Inorganic	5:5:0
	Prerequisite: Graduate standing or consent of instructor.	3:3:0
535	Advanced Organic	5:5:0
	Prerequisite: Graduate standing or consent of instructor.	3:3:0
537	Advanced Physical	5,5.0
	Prerequisite: Graduate standing or consent of instructor.	2 (1 2
539,	ECO Conducto Problems in Chemistry	3 or 6:A:0
,,,,	May be repeated for credit. Techniques of research under close supervision of instru	ictor; individual consultations;
	reports. May not be substituted for required courses.	
	Prerequisite: Graduate standing and consent of instructor and department head.	

5101, 5201, 5301, 5401, 5501, 5610 Special Topics	1-6:1-6:0-6
the course is designed to meet special needs of stuc demand requires. Prerequisite: Departmental approval.	ents. Each topic is offered on an irregular schedule as the
5311 Selected Topics in Analytical Chemistry	3:3:0
May be repeated for credit when topic varies. Descrip Prerequisite: Chm 531 or consent of instructor.	tion of course content will appear in schedule of classes.
5331 Selected Topics in Inorganic Chemistry	3:3:0
May be repeated for credit when topic varies. Descrip Prerequisite: Chm 535 or consent of instructor.	tion of course content will appear in schedule of classes.
5352 Modern Synthetic Organic	3:3:0
Selected topics in modern synthetic organic chemistry Prerequisite: Graduate standing.	7.
5371 Selected Topics in Physical Chemistry	3:3:0
May be repeated for credit when topic varies. Descrip Prerequisite: Chm 537 or consent of instructor.	513:0 tion of course content will appear in schedule of classes.
669A-669B Thesis	6:A:0
Prerequisite: Approval of avaduate advisor	5.12.0

Below is the list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

411G Chemical Literature 412G Senior Seminar 430G Organic Polymers 433G Modern Physical 436G Inorganic 438G Radiochemistry 441G Biochemistry I

Prerequisite: Approval of graduate advisor.

442G Biochemistry II 444G Qualitative Organic Analysis 446G Instrumental Methods of Analysis

Department of Geology

The Department of Geology offers the following graduate courses to be used primarily as a support to other advanced degree programs.

Graduate Faculty

Professor H. E. Eveland
Geomorphology, glacial geology
Professor William H. Matthews, III
Paleontology, stratigraphy
Professor William R. Pampe
Paleontology, meteorology, stratigraphy
Professor Anthony C. Tennissen
Mineralogy, economic geology

Geology Courses

530 Survey of Earth Science

A survey of earth materials and processes, earth history, astronomy and meteorology. Identification of mineral, rock and fossil specimens and cloud formations. Demonstrations of topographic, geologic and weather maps. Field trip required

3:3:0

Environmental Geology
The geological aspects of the environment. The environmental significance of man's use of natural resources. Field and laboratory studies of the local environment. Field trip required. Term paper based on laboratory, library or field studies.

Prerequisite: Geo 530 or equivalent.

534 Fossils and Earth History

3:0

The evolution and history of life as recorded by fossils. Laboratory identification of common fossils. Demonstration of "hands-on" approach to the use of materials that illustrate the fossil record. Field trip required. Term paper based on laboratory, library or field studies.

Society

Summer, in-service or other institute for earth science teachers patterned after the inquiry-oriented Earth Science
Curriculum Project approach to earth science. The course includes laboratory and field investigations in astrospace science, geology, meteorology and oceanography and "hands-on" experience with rocks, minerals, fossils, maps and other earth science materials and techniques. Field trips required.

Below is the list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the *Bulletin of Lamar University*.

4350G Earth Materials 4370G Meteorology 4380G Oceanography

Department of Physics

The Department of Physics offers the following graduate courses to provide an area of specialization for the Master of Education degree in Secondary Education and as support to other advanced degree programs. For the M.S. degree in Mathematics, a nine semester-hour minor in Physics is accepted; in addition, the subject of the thesis may be mathematical problems from physics.

Graduate Faculty

Associate Professor Hugh O. Peebles, Jr.
Astrophysics
Professor Joseph F. Pizzo, Jr.
Theoretical physics, relativity
Professor Carl J. Rigney
Thermal physics

Physics Courses

5101, 5201, 5301, 5401 and 5601 Institute in Physics 1-6:1-6:2-4 Designed to provide credit for participantion in summer, in-service or other institutes. Credit varies with duration. The description of the area of study of each institute will appear on the printed schedule. May be repeated for credit when nature of institute differs sufficiently from those taken previously.

Seminar in Physical Science

Designed for non-science majors. Measurement, light, the solar system and stars, force and motion, work and energy, heat, weather, lightning, electric charge and current, magnetism, batteries, atoms and molecules. Credit in this course may not be applied toward a degree in science, engineering or mathematics.

531 Theoretical Physics 3:3:0
The application of typical mathematical techniques, with emphasis on field and potential concepts.
532 Relativity 3:3:0

Brief introduction to the special and general theory followed by detailed study of a particular topic.

533 Seminar 3:3:0
Selected topics pertaining to the research reported in contemporary publications. Course may be repeated for credit when the topic varies, but only six semester hours credit in this seminar may be applied toward a degree.

Below is the approved list of 440G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the *Bulletin of Lamar University*.

431G Classical Mechanics

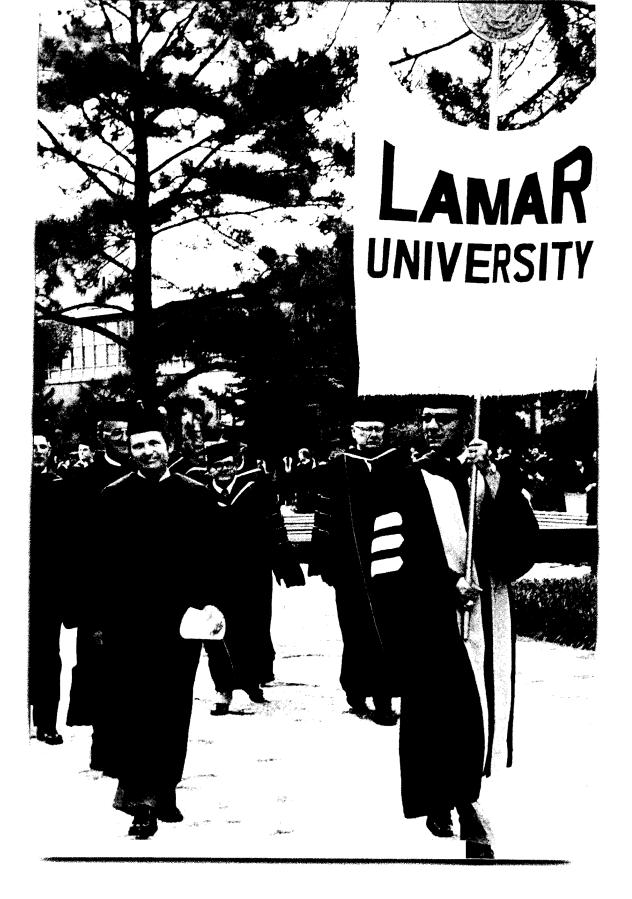
432G Introductory Quantum Mechanics

433G Solid State Physics

436G Nuclear Physics

437G Astrophysics

448G Optics



Directory of Personnel 1981-83

Board of Regents Lloyd Hayes, Chairman Port Arthur A.H. (Bob) Montagne, Vice-Chairman Orangefield Hubert Oxford, III, Secretary Beaumont W. Donham Crawford Beaumont B.A. (Mark) Steinhagen Beaumont

Administration

Kemble, C. Robert, Ph.D., President Johnson, Andrew J., Ph.D., Vice President for Administration and Planning Geddes, David D., Ph.D., Vice President for Academic Affairs Leonard, W. S., M.S., Vice President for University Relations Baxley, Oscar K., M.B.A., Vice President for Finance McLaughlin, George E., Ed.D., Vice President for Student Affairs

Council of Deans

Bell, Myrtle L., Ed.D., Dean, College of Health and Behavioral Sciences Brentlinger, W. Brock, Ph.D., Dean, College of Fine and Applied Arts Hargrove, W. Richard, Ed.D., Dean for Academic Services Johnston, Maxine, M.L.S., Director of Library Services Monroe, W. Sam, LL.D., Dean, Lamar University at Port Arthur Rode, Elmer G., Jr., M.Ed., Dean of Admissions and Registrar Ryan, John A., Ph.D., Dean, College of Business Schnur, James O., Ed.D., Dean, College of Education Shipper, Kenneth E., Ph.D., Dean, College of Technical Arts Welch, Joe Ben, Ed.D., Dean, Lamar University at Orange Williams, Preston B., Ph.D., Dean, College of Liberal Arts Wooster, Ralph A., Ph.D., Dean of Faculties Yerick, Roger E., Ph.D., Dean, College of Graduate Studies and Dean, College of Sciences Young, Fred M., Ph.D., Dean, College of Engineering

The Graduate Council

Yerick, Roger E. Dean, College of Graduate Studies and Dean, College of Sciences Carlucci, Joseph Professor of Music Griffin, Vernon H. Professor of Elementary Education and Director of Certification and Graduate Studies Hopper, Jack R. Professor of Chemical Engineering and Head, Department of Chemical Engineering Marriott, Richard G. Assistant Professor of Psychology and Head, Department of Psychology Pearson, William M. Associate Professor of Government Swerdlow, Robert A. Associate Professor of Marketing and Graduate Coordinator of MBA Program Gwin, Howell H., Jr. Professor of History and Director of Graduate Studies

The Graduate Faculty 1981-82

The following list reflects the status of the graduate faculty of Lamar University as of May, 1981. The date following each name is the academic year of first service to the University and does not necessarily imply continuous service since that time.

Achilles, Robert F. 1963, Regents' Professor of Speech

B.S., McPherson College; M.A., Ph.D., Wichita State University

Adams, Howard W. 1956, Professor of Secondary Education

B.A., Wayne State College; M.A., Ed.D., University of Nebraska

Akers, Hugh A. 1977, Associate Professor of Chemistry

B.S., University of California at Riverside; Ph.D., University of California at Berkley

Allen, Charles L. 1979, Assistant Professor of Economics

B.A., East Texas State University; M.A., Ph.D., University of Arkansas

Alo, Richard A. 1976, Professor of Mathematics and Head, Department of Mathematics

B.A., Gannon College; M.S., Ph.D., Pennsylvania State University

Anderson, Adrian N. 1967, Professor of History and Head, Department of History

B.S., M.A., Ph.D., Texas Tech University

Anderson, Virginia N. 1960, Assistant Professor of Home Economics and acting Head, Home Economics Department

B.S., Georgia State College for Women; M.Ed., Trinity University

Baj, Joseph A. II 1964, Associate Professor of Mathematics

B.A., Kent State University; M.A., The University of Texas

Baker, Harold T. 1962, Professor of Chemistry

B.S., University of Minnesota; Ph.D., State University of Iowa

Barnes, Robert J. 1960, Regents' Professor of English

B.A., M.A., The University of Kansas; Ph.D., The University of Texas

Barrington, Billy Ray 1967, Professor of Psychology

B.S., Southwest Texas State University; M.Ed., Sam Houston State University; Ph.D., University of Houston

Beale, Luther A. 1955, Professor of Civil Engineering and Head, Department of Civil Engineering B.S., M.S., Georgia Institute of Technology, Ph.D., The University of Texas, Registered Professional Engineer

Bean, Wendell C. 1968, Professor of Electrical and Nuclear Engineering

B.A., B.S., Lamar University; M.S., Ph.D., University of Pittsburgh; Registered Professional Engineer Bell, Alice C. 1971, Professor of Health and Physical Education for Women, Director of Professional

B.S., M.A., Ph.D., Texas Woman's University

Bell, Myrtle L. 1963, Professor of Psychology and Dean, College of Health and Behavioral Sciences B.S., M.S., Texas A&I University; Ed.D., the University of Texas

Bennett, Richmond O. 1957, Professor of Accounting and Head, Department of Accounting B.S., M.S., Texas A&M University; Ph.D., The University of Texas; Certified Public Accountant

Berzsenyi, George 1969, Professor of Mathematics

B.A., M.S., University of Dallas; M.S., Ph.D., Texas Christian University

Bost, David L. 1949, Professor of Secondary Education

B.A., Hardin-Simmons University; M.J., The University of Texas; Ph.D., East Texas State University; Licensed Psychologist

Brennan, James J. 1968, Professor of Industrial Engineering

B.S.E.E., Iowa State University of Science and Technology; M.S.I.E., University of Arkansas; Ph.D., The University of Texas; Registered Professional Engineer

Brentlinger, W. Brock 1969, Professor of Speech and Dean, College of Fine and Applied Arts B.A., Greenville College; M.A., Indiana State University; Ph.D., University of Illinois

Briggs, Kenneth R. 1966, Regents' Professor of Secondary Education

B.S., M.Ed., Ed.D., North Texas State University

Brown, Otto George 1962, Professor of Mechanical Engineering and Head, Department of Mechanical Engineering

B.S., The University of Oklahoma; M.S., Ph.D., The University of Texas; Registered Professional Engineer

Brust, Melvin R. 1978, Assistant Professor of Management and Finance

B.S.E.E., M.S.E.E., University of Texas; Ph.D., North Texas State University; Registered Professional Engineer

Bruyere, John A. 1957, Associate Professor of Mechanical Engineering B.S., M.S., The University of Texas; Registered Professional Engineer Burke, Charles M. 1970, Professor of Elementary Education and Head, Department of Elementary Education

B.A., Southeastern Louisiana University; M.Ed., Louisiana State University; Ed.D., The University of Southern Mississippi

Cameron, Margaret D. 1956, Regents' Professor of Chemistry

B.A., Texas Woman's University; M.S., University of Houston; Ph.D., Tulane University

Carlucci, Joseph B. 1971, Professor of Music

B.M., M.M., Yale University, D.M.A., Eastman School of Music, University of Rochester

Carroll, John M. 1972, Associate Professor of History
A.B., Brown University; M.A., Providence College; Ph.D., University of Kentucky

Carruth, Carl 1966, Associate Professor of Industrial Engineering

B.S., Lamar University; M.S., University of Houston; Ph.D., The University of Texas at Arlington; Registered Professional Engineer

Cherry, Richard T. 1966, Regents' Professor of Finance

B.A., Texas A&M University; M.A., Ph.D., The University of Texas

Collier, J. N. 1955, Associate Professor of Music

B.M., University of Houston: M.M., Southern Methodist University

Coody, Betty Fay Regents' Professor of Elementary Education B.A., East Texas State University; M.Ed., Ph.D., The University of Texas

Cooke, James L. 1956, Regents' Professor of Electrical Engineering

B.S. Target Tech University, M.S. The University of Texas: Ph.D. Northwestern

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Index

A	L
Absentia, Graduation in21	Library Facilities2
Accreditation1	Liberal Arts69
Administration, Officers of81	Loan Fund and Scholarships4
Admissions14	Location1
Assistantships4	M
В	Master of Arts69
В	Master of Business Administration23
Biology75	Master of Education27
Business Administration23	Master of Engineering45
Board of Regents81	Master of Engineering Science45
	Master of Music/Master of Music Education62
C	Master of Public Administration71
Condidate Admission to	Master of Science45
Candidacy, Admission to	Mathematics54
Chemistry77	Music62
Computer Center2	_
Communication (Speech)59	О
Conferring of Degrees14	Objectives13
Contenting of Degrees	
D	P
Degree Requirements18	Physical Education41
Degrees Offered	Physics79
	Post Baccalaureate Students15
Doctor of Engineering46	Professional Certificate 27, 28
E	Psychology65
Elementary Education29	R
Engineering45	
English	Registration16
Enrollment	Research Office2
Linoiment	£
F	S
	Scholastic Records Required10
Faculty, Graduate82	School Administration33
Fees and Expenses4	Sciences75
Final Examination21	Secondary Education29
Fine and Applied Arts59	Special Education34
	Supervision32
G	T
General Information1	T
General Requirements18	Testing, Counseling and2
Geology78	Thesis Requirements20
Government70	
Graduate Council81	${f U}$
Graduation21	University Regulations, Academic and General 9, 17
Guidance and Counseling30	Cinversity regulations, results and a secondary, se
***	V
Н	Veterans' Education3
Health Center3	****
History73	W
Home Economics43	Withdrawals9
Housing7	

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