

LAMAR UNIVERSITY

Beaumont, Texas

1973-74 Bulletin



LAMAR UNIVERSITY

1973 - 74 Bulletin

Vol. 23 No. 4 February 1973

Twenty-Third Annual Catalog Issue

With Announcements for 1973-74

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

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

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

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

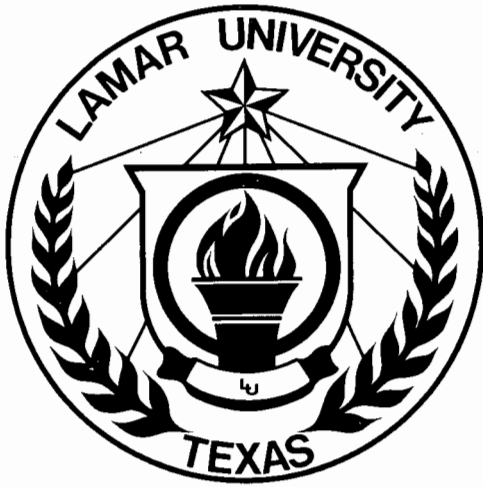
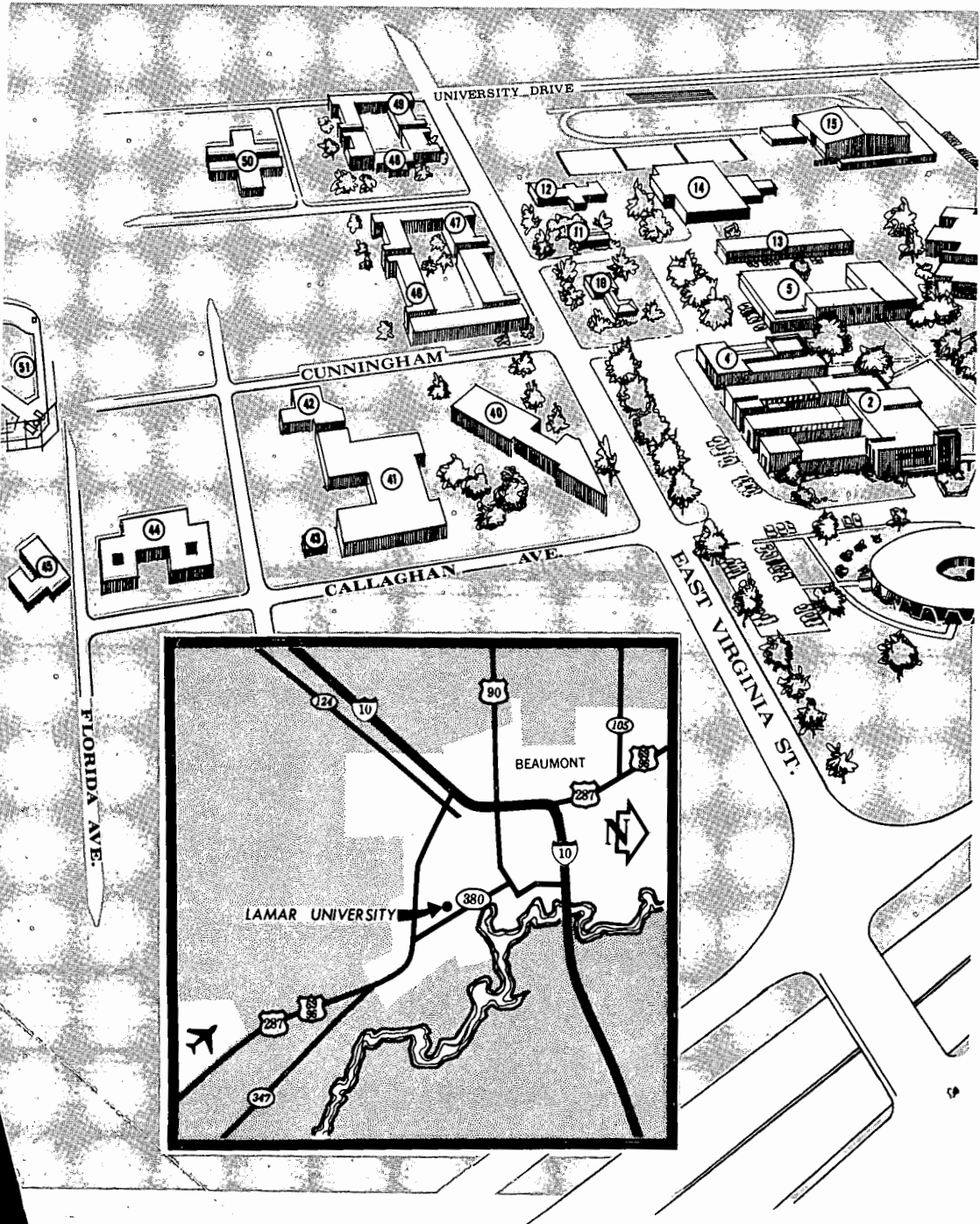
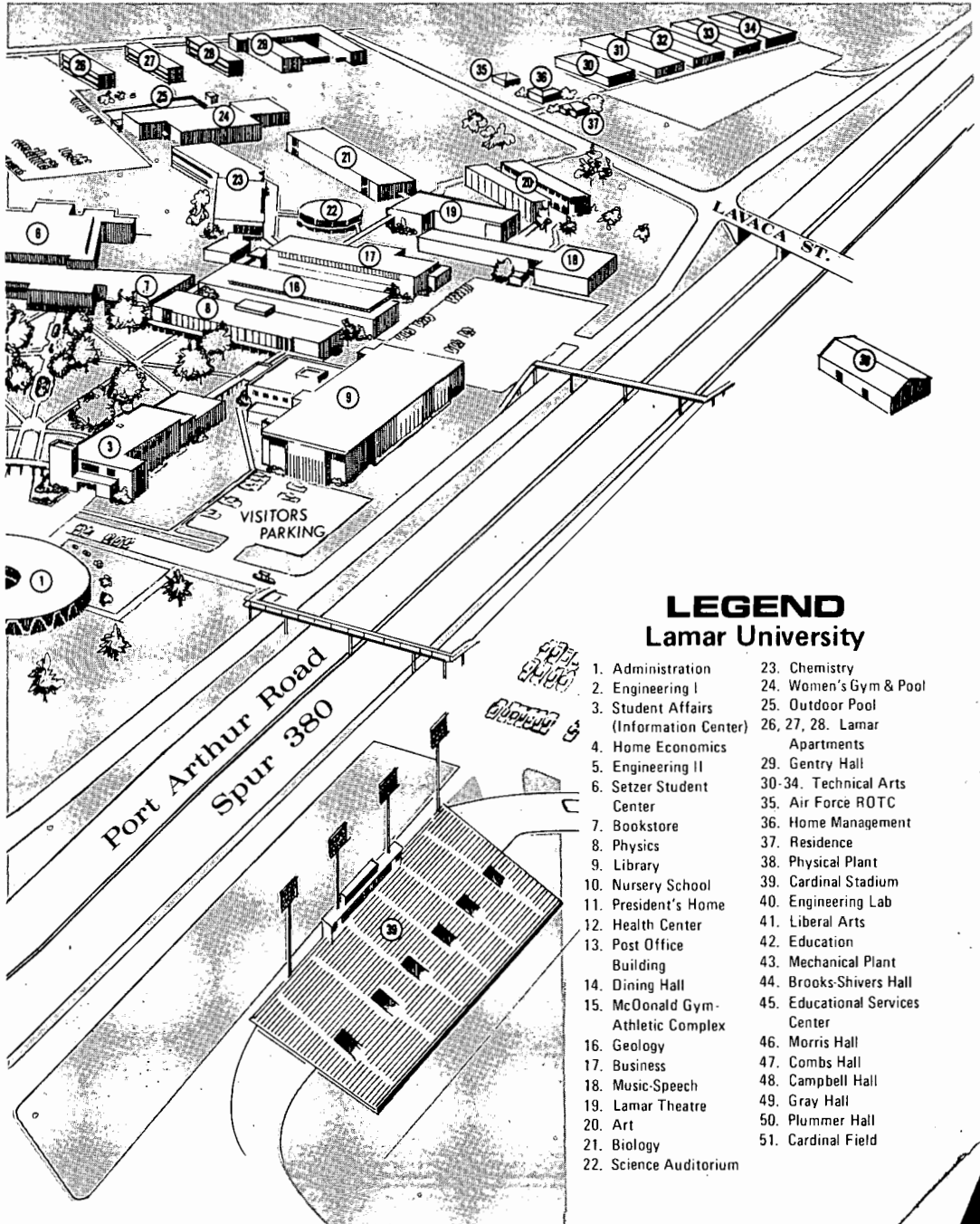


Table of Contents

Campus Map	iv
Calendar	vi
Board of Regents	1
Officers of Administration	2
Faculty	5
General Information	40
Admission Requirements	47
Fees and Expenses	55
Student Housing	69
Financial Aids and Awards	70
Academic Regulations	73
Degree Requirements	78
Academic Progress	81
Graduation	84
General Regulations	86
Student Activities	89
Colleges	91
Business	91
Education	113
Engineering	145
Fine and Applied Arts	181
Liberal Arts	211
Sciences	239
Technical Arts	271
Graduate Studies	273
Directory for Correspondence	276

iv CAMPUS MAP





LEGEND Lamar University

- | | |
|---|---------------------------------|
| 1. Administration | 23. Chemistry |
| 2. Engineering I | 24. Women's Gym & Pool |
| 3. Student Affairs (Information Center) | 25. Outdoor Pool |
| 4. Home Economics | 26, 27, 28. Lamar Apartments |
| 5. Engineering II | 29. Gentry Hall |
| 6. Setzer Student Center | 30-34. Technical Arts |
| 7. Bookstore | 35. Air Force ROTC |
| 8. Physics | 36. Home Management |
| 9. Library | 37. Residence |
| 10. Nursery School | 38. Physical Plant |
| 11. President's Home | 39. Cardinal Stadium |
| 12. Health Center | 40. Engineering Lab |
| 13. Post Office Building | 41. Liberal Arts |
| 14. Dining Hall | 42. Education |
| 15. McDonald Gym-Athletic Complex | 43. Mechanical Plant |
| 16. Geology | 44. Brooks-Shivers Hall |
| 17. Business | 45. Educational Services Center |
| 18. Music-Speech | 46. Morris Hall |
| 19. Lamar Theatre | 47. Combs Hall |
| 20. Art | 48. Campbell Hall |
| 21. Biology | 49. Gray Hall |
| 22. Science Auditorium | 50. Plummer Hall |
| | 51. Cardinal Field |

1973 - 74 Calendar

FALL SEMESTER

AUGUST 1973

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

- 28 Faculty Meetings.
Dormitories open.
- 29 Dining halls open.
Registration of students who have
completed entrance procedures.
- 30—31 Continued registration.

Registration after this date limited to available classes. Late registration (penalty fee charged). Payment of fees is part of registration.

SEPTEMBER

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

- 4 Classes begin, 8 a.m. No Adds/Drops
on First class day.
- 5 Second day of classes: Adds/Drops.
- 6 Last date for registration or for adding courses.
- 17 General Convocation, 9—11 a.m.
- 20 Twelfth class day.
Period of application for December
graduation begins.

OCTOBER

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

- 22—26 Mid-semester week.
- 30 Mid-semester grades due in
Office of Admissions and Records.

NOVEMBER

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

- 5 Pre-registration begins.
- 9 Last date for dropping courses
or for withdrawing without penalty.
- 20 Last date for approval for
December graduation.

- 21 End — Pre-registration program.
Dining halls close.
Dormitories close.
Thanksgiving holidays begin, 10 p.m.
- 25 Dormitories open, 12 noon.
- 26 Dining halls open.
Classes resume, 8 a.m.

DECEMBER

- | | |
|--|---|
| <p>S M T W T F S
1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31</p> | <ul style="list-style-type: none"> 7 Last date for dropping courses
or for withdrawing. 13—20 Final examinations. 21 All grades in by 4 p.m. 22 Commencement exercises. |
|--|---|

SPRING SEMESTER

JANUARY 1974

- | | |
|--|---|
| <p>S M T W T F S
1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31</p> | <ul style="list-style-type: none"> 8 General Faculty Meetings.
Dormitories open. 9 Dining halls open.
Registration of students who have
completed entrance procedures. 10—11 Continued registration. |
|--|---|

Registration after this date limited to available classes. Late registration (penalty fee charged). Payment of fees is part of registration.

- 14 Classes begin, 8 a.m. No Adds/Drops
on First class day.
- 16 Last date for registration or
for adding courses.
- 29 Twelfth class day.
- 31 Period of application for
May graduation begins.

MARCH

- | | |
|--|---|
| <p>S M T W T F S
1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31</p> | <ul style="list-style-type: none"> 4—8 Mid-semester week. 13 Mid-semester grades due in
Office of Admissions and Records. 22 Last date for dropping courses
or for withdrawing without penalty. 25 Pre-registration begins. |
|--|---|

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

- APRIL**
- 5 End — Pre-registration program.
Last date for approval for
May graduation.
Dining halls close.
Dormitories close.
Spring holidays begin, 10 p.m.
 - 14 Dormitories open, 12 noon.
 - 15 Classes resume, 8 a.m.
Dining halls open.

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

- MAY**
- 1 Period of application for
August graduation begins.
 - 3 Last date for dropping courses
or for withdrawing.
 - 8—17 Final examinations.
 - 18 Commencement exercises.

SUMMER SESSION
FIRST TERM

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

- JUNE**
- 2 Limited operation of dormitories.
 - 3 Dining halls open.
Registration.

Registration after this date limited to available classes. Late registration (penalty fee charged). Payment of fees is part of registration.

- 4 Classes begin, 8 a.m. No Adds/Drops
on First Class Day.
- 5 Last date for registration or
for adding courses.
- 7 Fourth Class Day.
- 24 Last day for approval for
August graduation.
Last date for dropping courses
or for withdrawing without penalty.

JULY

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

- 4 Independence Day holiday.
- 8 Last date for dropping courses or for withdrawing.
- 10 Last Class Day.
- 12 Term grades due in Office of Admissions and Records.

SECOND TERM

- 11 Registration.

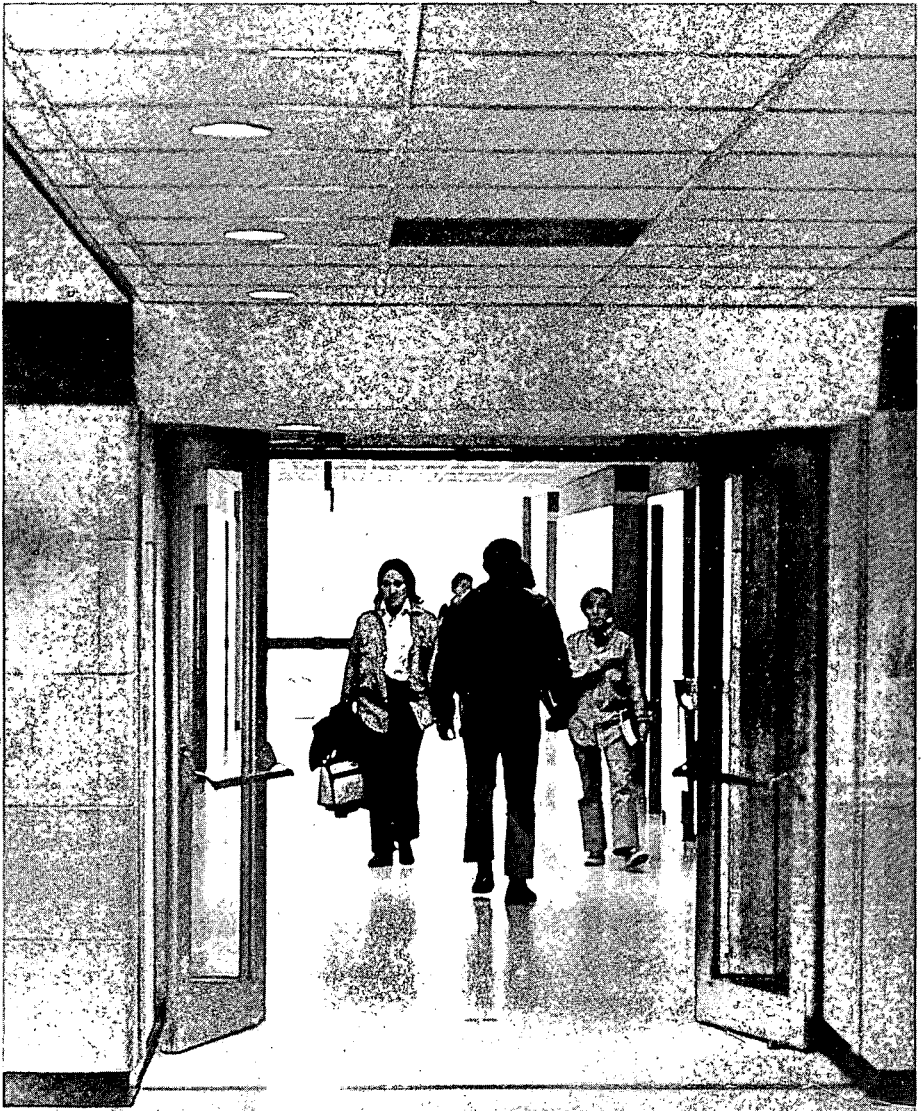
Registration after this date limited to available classes. Late registration (penalty fee charged). Payment of fees is part of registration.

- 12 First Class Day. No Adds/Drops on First Class Day.
- 15 Last date to register or to add courses.
- 17 Fourth Class Day.

AUGUST

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

- 7 Last date for dropping courses or for withdrawing without penalty.
- 12 Last date for dropping courses or for withdrawing.
- 16 Last Class Day.
 Final date for submitting semester grades of graduating seniors to Office of Admissions and Records.
- 17 Commencement exercises.
 Final date for submitting semester grades other than for graduating seniors to Office of Admissions and Records.



Board of Regents

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

1972 - 73 Directory

Officers of Administration

GENERAL

JOHN E. GRAY, B.A., M.A., LL.D., President
ANDREW J. JOHNSON, B.A., M.A., Ph.D., Vice-President for Academic Affairs
H. C. GALLOWAY, JR., B.S., M.Ed., Vice-President for Finance
G. A. WIMBERLY, SR., B.S., Assistant to the President and Personnel Officer
NORRIS H. KELTON, B.A., M.A., Dean of Admissions and Records
OSCAR K. BAXLEY, B.B.A., Business Manager
GEORGE E. McLAUGHLIN, B.S., Dean of Student Affairs
ROBERT BLAINE THOMAS, B.S., M.A., M.S., Ph.D., Director of Library Services

COLLEGES

E. B. BLACKBURN, JR., B.S., M.Ed., Ed.D., Dean, College of Graduate Studies
W. BROCK BRENTLINGER, B.A., M.A., Ph.D., Dean, College of Fine and Applied Arts
LLOYD B. CHERRY, B.S., B.A., M.A., Dean, College of Engineering
EDWIN S. HAYES, B.S., Ph.D., Dean, College of Sciences
J. D. LANDES, B.S., M.S., Ph.D., Dean, College of Business
M. L. McLAUGHLIN, B.S., M.Ed., Ed.D., Dean, College of Education
KENNETH E. SHIPPER, B.S., M.A., Ph.D., Dean, College of Technical Arts
PRESTON B. WILLIAMS, B.A., M.A., Ph.D., Dean, College of Liberal Arts

OTHER ADMINISTRATIVE OFFICERS AND STAFF

B. P. AGRAWAL, M.E.S., Computer Programmer
O. B. ARCHER, B.S., M.S., Dean Emeritus, Executive Secretary, The Ex-Students Association
MRS. ANITA BROWNING, B.A., M.Ed., Dean of Student Development
EUGENE W. CARPENTER, B.S., Director, University Police
WILLIAM JAMES CARTER, B.S., Assistant Director for Programs, Setzer Center
REGINA F. CHAISSON, Senior Secretary, Office of the Vice-President for Academic Affairs
KATY CLAUNCH, Senior Secretary, Office of the President
BERNIE COOK, B.B.A., Supervisor of Inventory
THURMAN R. CRAWFORD, B.S., Director of Setzer Student Center
BILLY G. CROCKETT, B.B.A., Accountant
JESS R. DAVIS, B.B.A., B.S., M.Ed., Director, Student Financial Aids
GEORGE M. DENMAN, Supervisor of Post Office
RUSSELL DeVILLIER, Director of Public Information

RICHARD L. DIXON, B.S., Media Director of Setzer Student Center and Director,
Student Publications

OTTO R. FLOCKE, B.A., M.A., Dean of Student Services and Director of Coun-
seling Center

MARY FONTENOT, Computer Operator

RUSSELL FOX, B.B.A., Accountant

CHARLES F. GOODE, JR., B.A., Assistant Director of Public Information

ANTHONY L. GRIFFIN, B.S., Assistant Dean of Student Development

JACK HILL, B.B.A., M.B.A., Director of Institutional Studies and Programs

C. H. HUNT, Auditor

CHERYL ISENHOWER, B.S., Photographic Laboratory Technician

JACKIE F. JAMES, Director of Photographic Services

JOHN H. KEY, Head, Software Development

KENNETH KOCH, Horticulturist

BILLY LING, B.B.A., Purchasing Agent

MARY MALONE, Cashier

BOB MARTINDALE, Building Superintendent of Setzer Student Center

JANE ANN MAXWELL, B.J., B.A., Assistant Director of Public Information,
Director of Publications

SHIRLEY M. MAYES, Record Control Clerk

MARYANN MELTON, Computer Programmer

LEE ROY MYERS, Director of Physical Plant

MRS. WILLA V. NEWTON, Senior Secretary, Office of the Dean, College of
Technical Arts

MRS. BETTY NEVILLE, Secretary, Office of the Vice President for Academic Af-
fairs

HAROLD PACE, B.S., M.S., Assistant Dean of Admissions and Records

VERNON PIKE, Assistant Personnel Officer

MRS. FRANKIE PLETZER, Senior Secretary, Office of the Assistant to the
President

CHRISTOPHER PRINCE, B.M., M.S., Counselor

DANA M. RANSOM, B.S., M.S., Assistant Dean of Admissions and Records

JOSEPH D. REHO, B.S., M.Ed., Director of Continuing Education

ELMER G. RODE, JR., B.B.A., M.Ed., Associate Dean of Admissions and Records

DAN ROGAS, B.S., M.S., Athletic Business Manager

ANN SHAW, B.S., M.Ed., Associate Dean of Student Development

KYLE SHOOK, Inventory Clerk

WALLACE V. SISK, JR., B.S., Media Coordinator

JOE LEE SMITH, B.A., Sports Information Director

JAMES SPENCER, Supervisor of Continuing Education Programs

BRUCE E. STRACENER, B.A., M.Ed., Associate Dean of Student Development

HARVEY STRIEGLER, B.S., M. Ed., Assistant Dean of Admissions and Records

JOE B. THRASH, B.S., M.A., Director, Testing and Placement Center

MRS. GLORIA TOLER, Senior Secretary, Office of the Vice-President for Finance

RUDY TRAHAN, Investigator, University Police

CHARLES P. TURCO, B.S., M.S., Ph.D., Director, Research and Development

EDWIN R. VANZANDT, Assistant Director of Research and Development

BOBBY R. WALDRON, B.S., M.S., Ph.D., Director of Computer Center

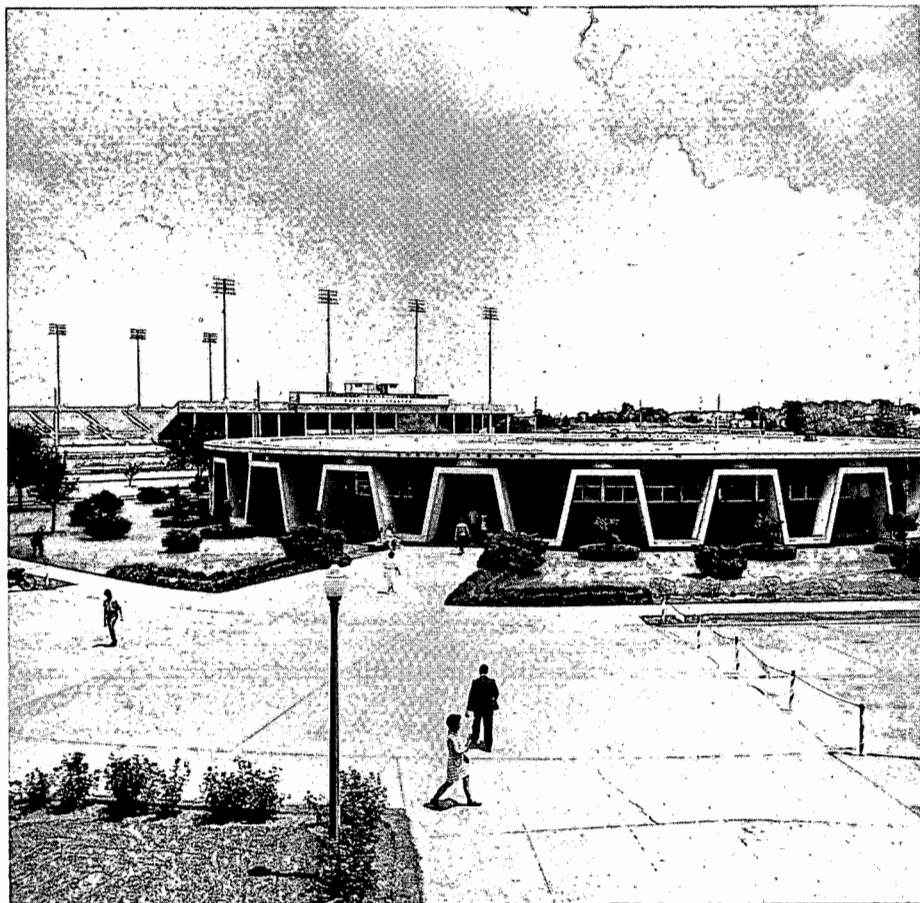
4 OFFICERS OF ADMINISTRATION

PAT WEAVER, B.B.A., Accountant

MRS. LOLA WILLIAMS, Senior Secretary, Office of the President

G. A. WIMBERLY, JR., B.B.A., Loan Officer

MRS. ALICE E. WRAY, Assistant Director of Operations, Setzer Student Center



1972 - 73 Faculty

- ROBERT F. ACHILLES, Professor of Speech, Director of Speech Pathology, 1963, 1968
 B.S., McPherson College
 M.A., Ph.D., Wichita State University
- HOWARD W. ADAMS, Professor of Secondary Education, Director of Certification, 1956, 1962
 B.A., Wayne State College
 M.A., Ed.D., The University of Nebraska
- WILLIAM F. ADAMS, JR., Assistant Professor of Modern Languages, 1970
 B.A., The University of Southern Mississippi
 M.A., Ph.D., Louisiana State University
- MRS. NINA ADKINS, Instructor I of Vocational Nursing, 1970
 B.S.N., University of New Mexico
 Registered Nurse, State of Texas
- A.M. ALI, Associate Professor of Industrial Engineering, 1966, 1967
 B.S., Alexandria University
 M.S., Ph.D., Oklahoma State University
- JOEL L. ALLEN, Assistant Professor of Economics, 1960, 1963
 B.S., Arkansas Agricultural and Mechanical College
 M.S., Baylor University
- ADRIAN N. ANDERSON, Associate Professor of History, Head, Department of History, 1967, 1970
 B.S., M.A., Ph.D., Texas Tech University
- ARNOLD C. ANDERSON, Associate Professor of Speech, 1956, 1962
 B.S., Northern State College
 M.A., University of South Dakota
- MRS. VIRGINIA L. ANDERSON, Assistant Professor of Home Economics, 1960, 1965
 B.S., Georgia State College for Women
 M.Ed., Trinity University
- SAUL ARONOW, Professor of Geology, 1955, 1962
 B.A., Brooklyn College
 M.S., State University of Iowa
 Ph.D., The University of Wisconsin
- MRS. NORMA M. AYCOCK, Instructor II of Vocational Nursing, 1962, 1972
 Registered Nurse, State of Texas
- LOUIS RANDOLPH BABIN, Instructor of Music, 1968
 B.M.Ed., M.M.Ed., Louisiana State University
- JOSEPH A. BAJ, II, Associate Professor of Mathematics, 1964, 1969
 B.A., Kent State University
 M.A., The University of Texas
- MRS. DIANNE M. BAKER, Associate Professor of Health and Physical Education for Women, 1951, 1955
 B.S., M.S., Texas Woman's University

6 FACULTY

- HAROLD T. BAKER, Professor of Chemistry, Head, Department of Chemistry, 1962
B.S., The University of Minnesota
Ph.D., State University of Iowa
- MARY ALICE BAKER, Assistant Professor of Speech, Director of Forensics, 1969
B.S., M.A., The University of Oklahoma
- MELANIE BANDY, Instructor of English, 1972
B.A., California State University at Sacramento
M.A., University of Idaho
Ph.D., University of New Mexico
- H.A. BARLOW, Associate Professor of Accounting, 1951, 1958
B.S., Louisiana Tech University
M.B.A., Louisiana State University
Certified Public Accountant
- ROBERT J. BARNES, Professor of English, 1960, 1961
B.A., M.A., The University of Kansas
Ph.D., The University of Texas
- MARY FRENCH BARRETT, Assistant Professor of Music, 1959
B.M., M.M., Eastman School of Music
Performer's Certificate
- BILLY RAY BARRINGTON, Associate Professor of Psychology, 1967
B.S., Southwest Texas State University
M.Ed., Sam Houston State University
Ph.D., University of Houston
- JOYCE M. BAUMAN, Instructor of Home Economics, 1972
B.S., Kansas State University
M.S., Iowa State University
- LUTHER A. BEALE, Professor of Civil Engineering, Head, Department of Civil Engineering, 1955
B.S., M.S., Georgia Institute of Technology
Ph.D., The University of Texas
Registered Professional Engineer
- WENDELL C. BEAN, Professor of Electrical Engineering, Head, Department of Electrical Engineering, 1968
B.A., B.S., Lamar University
M.S., Ph.D., University of Pittsburgh
Registered Professional Engineer
- WENDELL BEDICHEK, Associate Professor of Government, 1965, 1971
B.A., Abilene Christian College
M.P.A., Ph.D., The University of Texas
- DENNIS E. BEHM, Instructor of Music, 1972
B.A., M.F.A., University of Iowa
- ALICE C. BELL, Associate Professor of Health and Physical Education for Women, 1971, 1972
B.S., M.A., Ph.D., Texas Woman's University
- LAWRENCE D. BELL, Assistant Professor of Mathematics, 1956
B.E., C.E., North Carolina State University at Raleigh
LL.B., Saint John's University
Registered Professional Engineer (New York, North Carolina)
Member of New York Bar

- MRS. MARY KATHERINE BELL, Assistant Professor of Mathematics, 1962
 B.S., Florida State University
 M.A., University of Cincinnati
- MYRTLE LEE BELL, Professor of Psychology, 1963, 1967
 B.S., M.S., Texas A&I University
 Ed.D., The University of Texas
- CHARLES T. BENNETT, Instructor of Business Administration, 1970
 B.B.A., M.B.A., Lamar University
- RICHMOND O. BENNETT, Professor of Accounting, Head, Department of Accounting, 1957, 1970
 B.S., M.S., Texas A&M University
 Ph.D., The University of Texas
 Certified Public Accountant
- WALTER W. BENNETT, Professor of Business Administration, 1967
 B.S., The University of Maryland
 M.B.A., The George Washington University
 Ph.D., University of Florida
- JAMES V. BERRYHILL, Professor of Aerospace Studies, 1972
 B.S., Wisconsin State University
 M.A., University of Southern California
 Lieutenant Colonel, U. S. Air Force
- GEORGE BERZSENYI, Assistant Professor of Mathematics, 1969
 B.A., University of Dallas
 M.S., Ph.D., Texas Christian University
- DOYLE BICE, Instructor I of Diesel Mechanics, 1969, 1970
 A.A.S., Lamar University
 Chief Engineer, U.S. Maritime Service
- J. MICHAEL BIGGS, Assistant Professor of Business Administration, 1971
 B.B.A., The University of Texas
 M.B.A., Texas Tech University
- ROY H. BISER, Professor of Physics, 1946, 1965
 B.A., William Marsh Rice University
 M.S., The University of Michigan
- EMMETT S. BLACK, Instructor II of Machine Tools, 1964, 1970
- E. B. BLACKBURN, JR., Professor of Elementary Education, Dean, College of Graduate Studies, 1962, 1969
 B.S., North Texas State University
 M.Ed., Hardin-Simmons University
 Ed.D., University of Colorado
- MRS. JEWEL D. BLANTON, Associate Professor of Speech, 1942, 1951
 B.A., Texas Christian University
 M.A., Northwestern University
- LYLE E. BOHRER, Assistant Professor of Electrical Engineering, 1946, 1954
 B.S., William Marsh Rice University
 M.S., University of Colorado
 Registered Professional Engineer

8 FACULTY

- CLAUDE B. BOREN**, Professor of Sociology, 1955, 1961
B.A., Texas Tech University
M.A., Washington State University
Ph.D., The University of Texas
- DAVID L. BOST**, Professor of Secondary Education, 1972
B.A., Hardin-Simmons University
M.J., The University of Texas
Ph.D., East Texas State University
- WILLIAM H. BOUGHTON**, Professor of Art, 1954, 1957
B.A., State University of Iowa
M.A., University of California
- THOMAS F. BRADY**, Instructor of English, 1972
B.A., M.A., Midwestern University
- CLARINE E. BRANOM**, Associate Professor of English, 1946, 1953
B.A., East Texas State University
M.A., The University of Texas
- JOAN E. BRENIZER**, Associate Professor of Mathematics, 1957, 1967
B.S., Lamar University
M.A., The University of Texas
- JAMES J. BRENNAN**, Associate Professor of Industrial Engineering, 1968
B.S.E.E., University of Northern Iowa
M.S.I.E., University of Arkansas
Ph.D., The University of Texas
Registered Professional Engineer (Arkansas and Texas)
- W. BROCK BRENTLINGER**, Professor of Speech, Dean, College of Fine and Applied Arts, 1969
B.A., Greenville College
M.A., Indiana State University
Ph.D., University of Illinois
- KENNETH R. BRIGGS**, Associate Professor of Secondary Education, 1966, 1969
B.S., M.Ed., Ed.D., North Texas State University
- SPENCER L. BRINKERHOFF, JR.**, Assistant Professor of Civil Engineering, 1971, 1972
B.S.C.E., University of Arizona
M.S., Ph.D., Arizona State University
Registered Professional Engineer
- EDNA BROOKS**, Associate Professor of Music, 1963, 1965
B.M., Louisiana State University
M.M., The University of Texas
- EUGENE G. BROUSSARD**, Instructor I of Industrial Electricity & Electronics Technology, 1969, 1970
- MELVIN R. BROWN**, Instructor of Sociology, 1971
B.A., M.A., Texas Tech University
- OTTO GEORGE BROWN**, Professor of Mechanical Engineering, Head, Department of Mechanical Engineering, 1962
B.S., The University of Oklahoma
M.S., Ph.D., The University of Texas
Registered Professional Engineer

- DAVID K. BRUCE, Instructor II of Police Science, Acting Director of Criminal Justice Program, 1972
 B.S., Central Missouri State University
 M.S., California State University at San Jose
- JOHN ALAN BRUYERE, Associate Professor of Mechanical Engineering, 1957, 1961
 B.S., M.S., The University of Texas
 Registered Professional Engineer
- GEORGE A. BRYAN, JR., Assistant Professor of Biology, 1964
 B.S., The University of Texas at El Paso
 M.S., The Pennsylvania State University
- DONALD E. BRYSON, Instructor of Health and Physical Education for Men, Assistant Basketball Coach, 1971
 B.S., Lamar University
 M.Ed., McNeese State University
- RONALD R. BUCKMASTER, Instructor of Art, 1972
 B.F.A., Kansas City Art Institute
 M.F.A., University of Utah
- HENRY P. BULLER, Assistant Professor of Psychology, 1961
 B.A., Bethel College
 M.Ed., The University of Kansas
- CHARLES M. BURKE, Assistant Professor of Elementary Education, 1970
 B.A., Southeastern Louisiana University
 M.Ed., Louisiana State University
 Ed.D., The University of Southern Mississippi
- CHARLES T. BUTLER, Assistant Professor of Sociology, 1970
 B.A., M.A., The University of Texas
- VICTOR S. BUTTS, Instructor I of Police Science, 1972
 B.S., Lamar University
- MARGARET D. CAMERON, Professor of Chemistry, 1956, 1958
 B.A., Texas Woman's University
 M.S., University of Houston
 Ph.D., Tulane University
- VERA H. CAMPBELL, Assistant Professor of Speech, 1966
 B.A., Morningside College
 M.A., University of Northern Colorado
- DEWEY R. CARLIN, JR., Assistant Professor of Electrical Engineering, 1958, 1965
 B.S., Lamar University
 M.S., The University of Texas
- GUS A. CARLSEN, Instructor IV of Machine Tools, Assistant Dean, College of Technical Arts, 1941, 1971
 I.E., The University of Texas at Arlington
- JOSEPH B. CARLUCCI, Professor of Music, 1971
 B.M., M.M., Yale University
 D.M.A., Eastman University of Rochester

10 FACULTY

- JOHN M. CARROLL, Instructor of History, 1972
A.B., Brown University
M.A., Providence College
Ph.D., University of Kentucky
- CARL CARRUTH, Assistant Professor of Industrial Engineering, 1966
B.S., Lamar University
M.S., University of Houston
Registered Professional Engineer
- LLOYD B. CHERRY, Professor of Electrical Engineering, Dean, College of
Engineering, 1946, 1968
B.S., Oklahoma State University
B.A., M.A., The University of Texas
Registered Professional Engineer
- RICHARD T. CHERRY, Professor of Business Administration, 1966
B.A., Texas A&M University
M.A., Ph.D., The University of Texas
- TOM M. CHRISTIAN, Instructor II of Drafting Technology, 1970
B.S., Georgia Institute of Technology
Registered Professional Engineer
- MRS. ESTHER CHURAN, Acquisitions Librarian (Instructor), 1961
B.A., B.S. in Library Science, Texas Woman's University
- LYNNWOOD M. CLARK, Instructor I of Business Data Processing, 1972
B.S., Lamar University
- RICHARD C. CLARK, Instructor of Music, 1972
B.M., The University of Texas at El Paso
M.M., North Texas State University
- JAY N. COLLIER, Assistant Professor of Music, 1955, 1960
B.M., University of Houston
M.M., Southern Methodist University
- MRS. BETTY F. COODY, Professor of Elementary Education, 1963, 1971
B.A., East Texas State University
M.Ed., Ph.D., The University of Texas
- JAMES L. COOKE, Professor of Electrical Engineering, 1956, 1962
B.S., Texas Tech University
M.S., The University of Texas
Ph.D., Northwestern University
Registered Professional Engineer
- MRS. PATRICIA J. COOKE, Instructor of English, 1970
B.S., University of Wisconsin
M.S., University of Houston
- RUSSELL W. COWAN, Professor of Mathematics, 1966
A.B., M.A., Ph.D., University of California
- STERLING C. CRIM, Professor of Mathematics, 1964, 1969
B.S., Baylor University
M.Ed., North Texas State University
M.A., George Peabody College for Teachers
Ph.D., The University of Texas

- VERNON ROY CROWDER, Associate Professor of Health and Physical Education
for Men, 1967, 1972
B.S., Lamar University
M.S., Ph.D., Louisiana State University
- FLOYD M. CRUM, Professor of Electrical Engineering, 1955, 1958
B.S., M.S., Louisiana State University
Registered Professional Engineer
- WILLIAM H. CULLOTY, Instructor of English, 1972
B.A., Belmont Abbey College
M.A., University of Detroit
M.A., Southern Illinois University
- CAROL W. CURTIS, Instructor of English, 1972
B.A., M.A., Northwestern State University
- T.J. DAIGLE, Instructor III of Industrial Electricity & Electronics Technology,
1951, 1971
B.S., University of Southwestern Louisiana
- *NANCY S. DARSEY, Assistant Professor of Secretarial Science, 1955, 1959
B.B.A., M.B.A., Texas Tech University
- MRS. JANE DAVIDSON, Assistant Professor of Home Economics, 1970
B.S., Texas Woman's University
M.A., Sam Houston State University
- DARRELL E. DAVIS, Assistant Professor of Geology, 1957, 1960
B.S., Lamar University
M.S., The University of Kansas
- DORIS DAVIS, Assistant Professor of Home Economics, 1954
B.S., Sam Houston State University
M.Ed., The University of Texas
- ELVIS C. DAVIS, Associate Professor of Accounting, 1956, 1963
B.B.A., Lamar University
M.B.A., University of Arkansas
Certified Public Accountant
- ANDRE P. DELFLACHE, Professor of Civil Engineering, 1958, 1964
B.S., M.S., Sc.D., University of Brussels
Registered Professional Engineer
- DOCK B. DeMENT, Assistant Professor of Mathematics, 1955, 1958
B.A., Henderson State Teachers College
M.A., Louisiana State University
- GEORGE W. DE SCHWEINITZ, Professor of English, 1966
B.A., University of Colorado
M.A., Ph.D., State University of Iowa
- WALTER DEZELLE, JR., Associate Professor of Special Education, 1968
B.S., M.Ed., Southwest Texas State University
Ed.D., University of Houston
- ROBERT L. DINGLE, Associate Professor of Mathematics, 1959, 1964
B.S., M.Ed., University of Houston
M.S., University of Arkansas

*On Leave

12 FACULTY

- MRS. JEAN T. DORRELL, Assistant Professor of Secretarial Science, 1968
B.S., Northwestern State University
M.S., Louisiana State University
- KENNETH L. DORRIS, Associate Professor of Chemistry, 1965, 1969
B.S., Ph.D., The University of Texas
- RAYMOND L. DRENAN, Assistant Professor of Sociology, 1962
B.S., University of Illinois
M.P.S., University of Colorado
- MRS. IRIS S. DRODDY, Instructor I of Drafting Technology, 1969, 1971
Senior Engineering Technician
- BRUCE R. DRURY, Instructor of Government, 1971
B.A., M.A., University of Nebraska
Ph.D., University of Florida
- LINDA J. DUGGER, Catalog Librarian, (Instructor), 1970
B.A., M.L.S., North Texas State University
- EWIN A. EADS, Professor of Chemistry, Director of Environmental Science
Program, 1946, 1969
B.S., M.S., North Texas State University
Ph.D., Tulane University
- EDWIN O. EISEN, Associate Professor of Chemical Engineering, 1964, 1968
B.S., M.S., Eng.Sc.D., Newark College of Engineering
Registered Professional Engineer
- JOHN M. ELLIS, Professor of Sociology, 1963, 1965
B.A., Sam Houston State University
M.A., Ph.D., The University of Texas
- M. LEROY ELLIS, Professor of Modern Languages, Head, Department of Modern
Languages, 1969
B.A., M.A., The University of South Carolina
Ph.D., University of Aix-Marseille
- FERIAL A. EL-MAGUID, Assistant Professor of Home Economics, 1972
B.S., University of Alexandria
M.S., Ph.D., Texas A&M University
- MRS. KATHERINE ELSEY, Assistant Professor of Music, 1965
B.S., The University of Missouri
M.Ed., University of Houston
- MRS. GAY EMMONS, Instructor of Art, 1971
B.A., North Texas State University
M.Ed., Eastern Washington State College
- WINFRED S. EMMONS, JR., Professor of English, 1955, 1960
B.A., Louisiana Tech University
M.A., The University of Virginia
Ph.D., Louisiana State University
- ERNEST L. ESTES, III, Assistant Professor of Geology, 1972
B.A., Lawrence University
M.A., Duke University
Ph.D., University of North Carolina

- H.E. EVELAND, Professor of Geology, Head, Department of Geology, Director of Oceanographic Technology, 1951
B.S., M.S., Ph.D., University of Illinois
- WILLIAM J. FAHRENBACH, Instructor of English, 1972
B.A., Bowdoin College
M.A., Ph.D., University of Toronto
- W. FRED FARRAR, Associate Professor of Accounting, 1967
B.A., Louisiana Tech University
M.B.A., The University of Texas
Certified Public Accountant
- PAUL J. FEELEY, Instructor I of Refrigeration and Air Conditioning Technology, 1972
- JOE N. FIELDS, Associate Professor of Chemistry, 1946, 1960
B.A., Bethel College
M.A., The University of Texas
- MRS. MEREDITH K. FITZGERALD, Instructor of Elementary Education, 1970
B.A., Bethel College
M.A., George Peabody College for Teachers
- WILLIAM T. FITZGERALD, Associate Professor of Biology, 1951, 1962
B.S., Bethel College
M.A., George Peabody College for Teachers
- MRS. CORINE FLETCHER, Instructor I of Vocational Nursing, 1969, 1970
Registered Nurse, State of Texas
- RAYMOND L. FLETCHER, Assistant Professor of Health and Physical Education for Men, Director of Men's Intramurals, 1971
B.S., M.Ed., Sam Houston State University
Ph.D., Texas A&M University
- OTTO R. FLOCKE, Associate Professor of Psychology, Dean of Student Services, Director of Counseling Services, 1954, 1972
B.A., M.A., North Texas State University
- NATHAN TRAVIS FRANCIS, Assistant Professor of Modern Languages, 1962, 1964
B.A., Texas Tech University
M.A., Texas Christian University
- HELEN B. FRANK, Assistant Professor of Speech, 1972
B.A., M.Ed., Bishop College
- JAMES FRANKLIN, Instructor of Health and Physical Education for Women, 1972
B.A., M.A., Butler University
- BOB FREDERICK, Assistant Professor of Health and Physical Education for Men, Assistant Football Coach, 1965
B.S., Lamar University
M.Ed., The University of Texas
- HARRY L. FRISSELL, Professor of English, 1958, 1969
B.A., Southwestern University
M.A., Ph.D., Vanderbilt University
- CARL FROMMHERZ, Associate Director of Library Services, Head, Technical Services (Assistant Professor), 1967, 1972
A.B., The University of Chicago
B.S. in Library Science, Columbia University

14 FACULTY

- RICHARD A. GAGNE, Instructor of Modern Languages, 1970
B.A., Providence College
M.A., University of Alabama
- HOWARD V. GALLIHER, Assistant Professor of Accounting, 1954, 1958
B.B.A., Centenary College of Louisiana
M.B.A., University of Houston
- NELDA C. GARCIA, Associate Professor of Secretarial Science, 1969, 1972
B.S., M.A., Texas Woman's University
Ph.D., Michigan State University
- DAVID G. GATES, Professor of Industrial Engineering, Head, Department of Industrial Engineering, 1963, 1966
B.S., M.S., University of Arkansas
Ph.D., Oklahoma State University
Registered Professional Engineer
- GILBERT W. GATLIN, Assistant Professor of Biology, 1964, 1968
B.S., M.S., Texas A&M University
- ROBERT A. GAY, Assistant Professor of Psychology, 1969
B.A., The University of Texas at Arlington
Ph.D., The University of Texas
- MRS. MARILYN D. GEORGAS, Associate Professor of English, 1963, 1972
B.A., Sam Houston State University
M.A., Lamar University
Ph.D., The University of Texas
- BERNARD J. GIARRATANO, Assistant Professor of Social Work, 1969
B.A., Lamar University
M.S.W., Tulane University
- D. L. GIBSON, Professor of Sociology, Head, Department of Sociology, 1959, 1969
B.A., Baylor University
Th.M., Southwestern Baptist Theological Seminary
M.A., Ph.D., The University of Texas
- JAMES P. GILLIGAN, Instructor of Health and Physical Education for Men, Baseball Coach, 1972
B.S., M.S., Lamar University
- VERNON M. GLASS, Associate Professor of Health and Physical Education for Men, Head Football Coach, 1963, 1965
B.S., William Marsh Rice University
- GEORGE R. GOETZ, Assistant Professor of Business Administration, 1967, 1968
B.S., Saint Edward's University
M.B.A., Lamar University
- OSCAR T. GOINES, Assistant Professor of Physics, 1961
B.S., Stephen F. Austin State University
M.S., Texas A&M University
- DAVID W. GRANITZ, Assistant Professor of Speech, 1970
B.S., East Carolina University
M.A., Ohio State University
Ph.D., Louisiana State University

- MRS. ANNIE SUE GREEN, Assistant Professor of Mathematics, 1964, 1968
 B.S., M.S., Lamar University
- MARCIA L. GREEN, Instructor I of Related Arts, 1972
 B.A., Bishop College
 M.A., Stephen F. Austin State University
- THOMAS JETHRO GREENE, Associate Professor of Mechanical Engineering,
 1960, 1961
 B.S., United States Naval Academy
 M.S., Massachusetts Institute of Technology
 Registered Professional Engineer
- MRS. FLONELLE B. GREER, Instructor of English, 1965
 B.A., North Texas State University
 M.Ed., University of Houston
- RAE R. GREMILLION, Assistant Professor of Health and Physical Education for
 Women, 1961, 1963
 B.S., M.S., Northwestern State University of Louisiana
- VERNON H. GRIFFIN, Associate Professor of Elementary Education, 1970
 B.S., M.Ed., Sam Houston State University
 Ed.D., University of Houston
- HOWELL H. GWIN, JR., Associate Professor of History, 1962, 1969
 B.A., M.A., Ph.D., Mississippi State University
- MRS. NORMA S. HALL, Professor of Secretarial Science, Head, Department of
 Secretarial Science, 1941, 1955
 B.S., M.S., The University of Texas
- HARVEY E. HAMBURGH, Instructor of Art, 1971
 B.F.A., Philadelphia College of Art
 M.A., University of Iowa
- KEITH C. HANSEN, Assistant Professor of Chemistry, 1967
 B.S., Lamar University
 Ph.D., Tulane University
- W. RICHARD HARGROVE, Professor of Elementary Education, 1964
 B.S., M.Ed., North Texas State University
 Ed.D., George Peabody College for Teachers
- ANNE HARMON, Assistant Professor of Chemistry, 1959, 1961
 B.S., Monmouth College
 M.S., Baylor University
- RICHARD C. HARREL, Assistant Professor of Biology, 1966
 B.S., East Central State College
 M.S., The University of Georgia
 Ph.D., Oklahoma State University
- W. PATRICK HARRIGAN, III, Assistant Professor of Speech, 1969
 B.S., Loyola University
 M.F.A., Tulane University
 Ph.D., Louisiana State University
- DONALD HART, Instructor II of Drafting Technology, 1969, 1970
 B.S., M.Ed., Sam Houston State University
- WILLIAM HARTFORD, Instructor III of Job Relations, 1947, 1971

16 FACULTY

- JOHN F. HARVILL, Assistant Professor of Mathematics, 1965, 1967
B.S., M.S., Northwestern State University of Louisiana
- MRS. OLGA D. HARVILL, Assistant Professor of English, 1962, 1966
B.A., M.A., Lamar University
Ph.D., University of Houston
- MARY JANE HASKINS, Associate Professor of Health and Physical Education for Women, 1965
B.S., M.A., Ph.D., The Ohio State University
- JAMES R. HAWKER, Professor of Psychology, Head, Department of Psychology, 1967
B.S., University of Southern Mississippi
Ph.D., The University of Texas
- CHARLES F. HAWKINS, Assistant Professor of Economics, 1966
B.A., Lamar University
M.A., Louisiana State University
- EDWIN S. HAYES, Professor of Biology, Dean, College of Sciences, 1942, 1966
B.S., North Texas State University
Ph.D., The University of Texas
- FLORENCE A. HEFFRON, Assistant Professor of Government, 1972
B.A., State University of New York at Albany
M.A., New York University
Ph.D., University of Colorado
- B. R. HENRY, Associate Professor of Civil Engineering, 1946, 1967.
B.S., M.S., East Texas State University
- JAMES B. HIGGINS, Professor of Health and Physical Education for Men, Head, Department of Health and Physical Education for Men, Athletic Director, 1949, 1963
B.A., Trinity University
M.Ed., University of Houston
- JACK HILL, Assistant Professor of Business Administration, Director of Institutional Studies and Programs 1955, 1972
B.B.A., Sam Houston State University
M.B.A., University of Houston
- MARY KATE HILL, Instructor of English, 1970
B.A., M.A., Southern Methodist University
- MRS. REBECCA O. HILL, Assistant Professor of Health and Physical Education for Women, 1965, 1967
B.A., Butler University
M.A., The University of Michigan
- MRS. JANE A. HINCHEY, Instructor of Home Economics, 1970
B.S., Winthrop College
M.S., University of Tennessee
- MARVIN H. HOGAN, Instructor I of Industrial Electricity & Electronics Technology, 1970
- BRADLEY B. HOGUE, Professor of Elementary Education, 1967
B.A., M.Ed., Southern Methodist University
Ed.D., North Texas State University

- DeWITTE T. HOLLAND, Associate Professor of Speech, Head, Department of Speech, 1971
 B.S., United States Merchant Marine Academy
 A.B., Howard College
 M.A., University of Alabama
 B.D., Southern Baptist Theological Seminary
 Ph.D., Northwestern University
- BELLE MEAD HOLM, Professor of Health and Physical Education for Women, Head, Department of Health and Physical Education for Women, 1963
 B.S., M.A., George Peabody College for Teachers
 Ph.D., Texas Woman's University
- PAUL W. HOLMES, Associate Professor of Music, 1953, 1965
 B.M., Hardin-Simmons University
 M.M., The University of Texas
- MRS. E. MARION HOLT, Assistant Professor of History, 1960
 B.A., Hendrix College
 M.A., Louisiana State University
- JACK R. HOPPER, Associate Professor of Chemical Engineering, 1969, 1972
 B.S., Texas A&M University
 M.Ch.E., University of Delaware
 Ph.D., Louisiana State University
 Registered Professional Engineer
- MRS. JEAN MARIE HUDSON, Assistant Professor of Mathematics, 1951, 1955
 B.A., Carleton College
 M.A., The University of Oklahoma
- JERRY C. HUDSON, Instructor of Speech, 1972
 B.S., M.A., West Texas State University
- THOMAS E. HUFF, Assistant Professor of Secondary Education, 1972
 B.S., East Texas Baptist College
 M.Ed., University of Houston
- HENRY HUTCHINGS, III, Assistant Professor of English, 1964, 1968
 B.A., M.A., Southern Methodist University
- DELMAS L. HYBARGER, Associate Professor of Secondary Education, 1958
 B.S., Stephen F. Austin State University
 M.Ed., University of Houston
- PAUL E. ISAAC, Professor of History, 1960, 1967
 B.A., Pepperdine College
 M.A., Ph.D., The University of Texas
- FRED M. JACOB, Assistant Professor of Health and Physical Education for Men, Assistant Football Coach, 1963
 B.S., William Marsh Rice University
 M.Ed., University of Houston
- WHITE A. JACOB, Assistant Professor of Speech, 1965
 B.A., B.S., Kansas State Teachers College
 M.A., Iowa State University
- S. WALKER JAMES, Professor of Speech, Director of Theatre, 1965, 1969
 B.A., M.A., Baylor University
 M.F.A., Case Western Reserve University
 Ph.D., University of Denver

18 FACULTY

- FREDERIC C. JELEN, Professor of Chemical Engineering, 1961
S.B., S.M., Massachusetts Institute of Technology
M.A., Ph.D., Harvard University
Registered Professional Engineer
- * MRS. NADINE F. JENKINS, Instructor of Special Education, 1970
B.S., M.Ed., Lamar University
- ANDREW J. JOHNSON, Professor of History, Vice-President for Academic Affairs,
1958, 1969
B.A., The University of Texas
M.A., The University of Chicago
M.A., Ph.D., Indiana University
- HARVEY C. JOHNSON, Professor of Secondary Education, 1971
B.A., Texas College
M.A., University of Michigan
Ed.D., University of Southern California
- MAXINE JOHNSTON, Associate Director of Library Services, Public Services
Division Head, (Assistant Professor), 1955, 1970
B.S., Sam Houston State University
M.L.S., The University of Texas
- SIDNEY W. JOLLY, JR., Assistant Professor of Health and Physical Education for
Men, Head Track Coach, 1971
B.S., Lamar University
M.Ed., Stephen F. Austin State University
- MRS. ANN D. JONES, Assistant Professor of Business Administration, 1957, 1960
B.S., M.S., University of Arkansas
- MRS. DOLORES JONES, Instructor IV of Vocational Nursing, Head, Department
of Health Services, 1962, 1971
A.S., Meridian Municipal College
Registered Nurse, State of Texas
- MRS. BETTY JORDAN, Instructor I of Vocational Nursing, 1971
Registered Nurse
- JOE I. JUAREZ, Instructor II of Basic Communications, Acting Head, Department
of Related Arts, 1968, 1972
B.F.A., University of Houston
B.S., Lamar University
M.Ed., University of Houston
- HUBERT B. KASZYNSKI, Professor of Music, 1955, 1968
B.M.Ed., Sherwood Music School
M.M., Chicago Musical College
- MRS. ANN KEEN, Instructor II of Vocational Nursing, 1958, 1971
Registered Nurse, State of Texas
- MELVIN A. KEENE, Instructor of English, 1972
B.A., M.A., Sam Houston State University

* On Leave

- JOHN C. KILMAN, Instructor of English, 1970
B.A., M.A., Texas Christian University
- HI K. KIM, Associate Professor of Economics, 1968, 1969
B.B.A., M.B.A., Southern Methodist University
Ph.D., University of Houston
- C. D. KIRKSEY, Professor of Business Administration, Head, Department of
Business Administration, 1946, 1970
B.S., M.S., North Texas State University
Ph.D., The University of Texas
- JOHN MICHAEL KRAMER, Assistant Professor of Mechanical Engineering, 1969
B.S., M.S., Ph.D., The University of Wisconsin
- MICHAEL A. LAIDACKER, Assistant Professor of Mathematics, 1967, 1971
B.S., M.S., Lamar University
- JOSEPH C. LAMBERT, Assistant Professor of History, 1962, 1967
B.A., Millsaps College
M.A., Louisiana State University
- NICHOLAS V. LAMPSON, Instructor I of Related Arts, 1971
B.S., Lamar University
- G. F. LANDEGREN, Associate Professor of Physics, 1946, 1957
B.S., Texas A&I University
M.A., The University of Texas
- J. D. LANDES, Professor of Accounting, Dean, College of Business, 1946, 1961
B.S., M.S., North Texas State University
Ph.D., The University of North Carolina
- BOYD L. LANIER, Assistant Professor of Government, 1970
B.A., M.S., Ph.D., Florida State University
- MICHAEL J. LARocca, Assistant Professor of Aerospace Studies, 1972
B.S., Bradley University
M.A., St. Mary's University of San Antonio
Captain, U. S. Air Force
- PHILIP W. LATIMER, Associate Professor of Mathematics, Director of Freshman
Mathematics, 1946, 1956
B.A., Baylor University
M.S., North Texas State University
- CHARLES H. LAUFFER, Assistant Professor of Mathematics, 1962, 1965
B.S., M.A., Auburn University
- ROBERT J. LAWRENCE, Instructor III of Industrial Electricity & Electronics
Technology, Head, Technical Department, 1958, 1971
- JOHN R. LeBLANC, Assistant Professor of Music, 1971
B.M.E., McNeese State University
M.S.M., Southwestern Baptist Theological Seminary
M.M., Louisiana State University
Ph.D., University of Southern Mississippi
- MRS. NORA B. LEITCH, Assistant Professor of English, Director of Freshman
English, 1949, 1969
B.A., Meredith College
M.A., Lamar University

20 FACULTY

- JOHN HOMER LOCKHART, Associate Professor of Modern Languages, 1952, 1959
B.A., Baylor University
M.A., The University of Texas
- RUSSELL J. LONG, Professor of Biology, 1951, 1958
B.A., Ohio Northern University
M.A., Miami University
Ph.D., The Ohio State University
- NORMAN E. LOWREY, Supervisor, Adult Training Programs, 1967, 1970
- SAM LUCIA, Instructor IV of Diesel Mechanics, 1954, 1970
- MRS. LLEWELLA JEAN LUSK, Assistant Professor of Modern Languages, 1963, 1965
B.A., M.A., Birmingham-Southern College
- LI-CHEN MA, Assistant Professor of Sociology, 1972
B.S., M.S., National Taiwan University
Ph.D., University of Georgia
- WILLIAM W. MacDONALD, Associate Professor of History, 1965, 1972
B.S., Boston University
M.A., Ph.D., New York University
- HOWARD MACKEY, Professor of History, 1963, 1967
B.A., The University of Toledo
M.A., Ph.D., Lehigh University
- J. ROBERT MADDEN, Assistant Professor of Art, 1959, 1961
B.A., Centenary College of Louisiana
M.F.A., University of Arkansas
- JOHN W. MADES, Instructor of Mathematics, 1964
B.A., Millikin University
M.A., The University of Missouri
- CONRAD MANG, Professor of Elementary Education, Head, Department of Elementary Education, 1969, 1970
B.S., M.Ed., M.L., University of Houston
Ed.D., The University of Texas
- RONALD I. MARBLE, Instructor I of Welding, 1967, 1970
C.C., Lamar University
- JACK T. MARTIN, Associate Professor of Health and Physical Education for Men, Head Basketball Coach, 1951, 1957
B.S., M.S., Hardin-Simmons University
- EUGENE PAUL MARTINEZ, Associate Professor of Mechanical Engineering, 1959, 1967
B.S., Lamar University
M.S., William Marsh Rice University
Ph.D., University of Houston
- * WILLIAM H. MATTHEWS, III, Professor of Geology, 1955, 1962
B.A., M.A., Texas Christian University

* On Leave

- MRS. LeBLAND McADAMS, Assistant Professor of Home Economics, 1968
 B.S., Sam Houston State University
 M.Ed., University of Houston
- MRS. DOROTHY W. McALISTER, Professor of Home Economics, Head, Department of Home Economics, 1971
 B.S., Mary Hardin-Baylor College
 M.S., Ph.D., Texas Woman's University
- ROBERT A. McALLISTER, Professor of Chemical Engineering, Head, Department of Chemical Engineering, 1957, 1958
 B.Ch.E., North Carolina State University at Raleigh
 M.S., The University of Wisconsin
 S.M., Massachusetts Institute of Technology
 Ph.D., Georgia Institute of Technology
 Registered Professional Engineer
- THOMAS R. McCLELLAN, Instructor of English, 1970
 B.A., Southwestern University
 M.A., Texas A&M University
- CHARLES D. McCULLOUGH, Assistant Professor of Business Administration, 1971
 B.B.A., M.B.A., Texas Tech University
- J. LEON McGRAW, JR., Assistant Professor of Biology, 1967
 B.S., Lamar University
 M.S., Ph.D., Texas A&M University
- STERLING W. McGUIRE, Professor of Mathematics, 1956, 1969
 B.S., M.A., Sam Houston State University
 Ph.D., Texas A&M University
- EDWARD R. McINTOSH, Associate Professor of Elementary Education, 1971
 B.S., University of Florida
 M.S., Florida State University
 Ed.D., Michigan State University
- * BERYL R. McKINNERNEY, Instructor II of Mathematics, Head, Related Arts Department, 1970, 1971
 B.S., Tarleton State College
 M.S., Lamar University
- MARVIN L. McLAUGHLIN, Professor of Elementary Education, Dean, College of Education, 1946, 1969
 B.S., Sam Houston State University
 M.Ed., The University of Texas
 Ed.D., University of Houston
- VERNON E. McMANUS, Instructor of Health and Physical Education for Men, Assistant Football Coach, 1971
 B.S., M.S., Lamar University
- MRS. JANA WHITE McNEILL, Instructor of Mathematics, 1966
 B.A., The University of Texas
 M.S., Lamar University

* On Leave

22 FACULTY

- ELIZABETH M. MEEKS, Associate Professor of English, 1966
B.A. Union University
M.A., George Peabody College for Teachers
Ed.D., University of Houston
- HARRY T. MEI, Professor of Mechanical Engineering, 1960, 1966
B.S., National Taiwan University
M.S., Ph.D., The University of Texas
Registered Professional Engineer (Louisiana and Texas)
- JOE M. MEJIA, Associate Professor of Chemistry, 1960, 1965
B.S., M.S., Texas A&M University
- ALLEN G. MELTON, Instructor II of Business Data Processing, 1967, 1972
B.S., M.S., Lamar University
- MIETZL J. MILLER, Professor of Economics, 1965, 1972
B.A., M.A., Texas Woman's University
Ph.D., Ball State University
- RALPH K. MOCK, Instructor III of Drafting Technology, 1966, 1971
- MRS. GEORGE ANNE MONGER, Social Sciences and Government Documents
Librarian (Instructor), 1971
B.A., Baylor University
B.S., Western Reserve University
- OLIVER P. MONK, Professor of Secondary Education, Head, Department of
Secondary Education, 1967, 1970
B.S., M.Ed., North Texas State University
Ed.D., University of Houston
- CLAUDE E. MONROE, Associate Professor of Economics, 1970
B.A., The University of Texas
M.A., Ph.D., University of Missouri
- MRS. VERNICE M. MONROE, Instructor of Social Work, 1970
M.S., M.S.W., University of Missouri
- ALOUISIA MOORE, Reference Department Head, (Assistant Professor), 1955,
1970
B.A., The University of Texas
B.S. in Library Science, University of Denver
- JERRY B. MOSELEY, Instructor I of Basic Communications, 1969, 1970
B.S., M.Ed., Lamar University
- MYRON M. MYRICK, Instructor II of Drafting Technology, 1967, 1971
Certified Engineering Technician
- JERRY A. NEWMAN, Assistant Professor of Art, 1962, 1965
B.F.A.; The University of Texas
M.F.A., University of Southern California
- L. WESLEY NORTON, Professor of History, 1959, 1965
A.B., Olivet College
M.A., Ph.D., University of Illinois
- ROBERT C. OLSON, Professor of English, 1962, 1968
B.S., Northwestern University
M.A., Ph.D., University of Colorado

- ROBERT G. O'NEILL, Associate Professor of Art, 1962, 1972
 B.F.A., The University of Nebraska at Omaha
 M.F.A., University of Colorado
- ANDRES JOSE ORDONO, Catalog Librarian, (Instructor), 1969
 B.A., Belen College
 M.L.S., Kansas State Teachers College
 Ph.D., Madrid University
 Ph.D., Havana University
- RAUL S. ORNELAS, Instructor of Music, 1972
 B.M., The University of Texas
 M.M., McNeese State University
- JAMES DALE ORTEGO, Assistant Professor of Chemistry, 1968
 B.S., University of Southwestern Louisiana
 Ph.D., Louisiana State University
- RALPH G. O'SULLIVAN, Instructor of Sociology, 1972
 B.S., M.A., Eastern Illinois University
- WILLIAM R. PAMPE, Associate Professor of Geology, 1966, 1969
 A.B., M.S., University of Illinois
 Ph.D., The University of Nebraska
- SAM F. PARIGI, Professor of Economics, 1961, 1969
 B.S., Saint Edward's University
 M.B.A., Ph.D., The University of Texas
- PATRICIA ALAN PARK, Instructor of Health and Physical Education for Women,
 Director of Women's Intramurals, 1969
 B.S., The University of New Mexico
 M.S., Lamar University
- EDWARD L. PARKER, Instructor II of Law Enforcement, 1971
 B.S., Lamar University
- SHERYL A. PARKER, Instructor of Secretarial Science, 1971, 1972
 B.B.A., M.B.A., Lamar University
- GEORGE L. PARKS, Professor of Music, Head, Department of Music, 1947, 1951
 B.S., Northwestern State College
 M.A., University of Northern Colorado
 Ed.D., University of Houston
- MRS. RETA G. PARRISH, Assistant Professor of Mathematics, 1964
 B.A., Southern Methodist University
 M.A., Texas Woman's University
- CHARLES A. PARTIN, Professor of Economics, Head, Department of Economics,
 1964, 1967
 B.S., Stephen F. Austin State University
 M.A., Ph.D., The University of Texas
- LARRY T. PATTERSON, Assistant Professor of Business Administration, 1970
 B.B.A., M.B.A., Texas Tech University
- JOHN E. PAYTON, Instructor of Health and Physical Education for Men, Assistant
 Football Coach, 1970
 B.S., M.S., Prairie View A&M College
- MRS. GENEVIEVE C. PEARCE, Assistant Professor of Elementary Education,
 1959, 1964
 B.S., Lamar University
 M.A., Columbia University

- JAMES M. PEARSON, Associate Professor of Economics, 1962, 1966
 B.B.A., M.S., Baylor University
- WILLIAM M. PEARSON, Assistant Professor of Government, 1969
 B.S., Sam Houston State University
 M.A., Texas A&M University
 Ph.D., Louisiana State University
- HUGH O. PEEBLES, JR., Associate Professor of Physics, 1963, 1965
 B.S., The University of Texas
 M.S., Ph.D., Oklahoma State University
- HOWARD A. PERKINS, Instructor of English, 1972
 B.A., Lamar University
 M.A., Louisiana State University
- MRS. MARIANELLA M. PERMENTER, Assistant Professor of Secondary Education, 1960
 B.A., Stephen F. Austin State University
 M.A., M.Ed., University of Houston
- CLAUDIA K. PERRY, Instructor of Health and Physical Education for Women, 1968
 B.S., The Ohio State University
 M.Ed., Lamar University
- ANTONIO DE J. PINEDA, Assistant Professor of Modern Languages, 1965
 B.A., Instituto de Santa Clara
 M.A., Ph.D., Universidad de la Habana
- MRS. MARY VIRGINIA PIPES, Instructor of Elementary Education, 1972
 B.S., University of Houston
 M.Ed., Stephen F. Austin State University
- JOSEPH F. PIZZO, JR., Associate Professor of Physics, 1964, 1968
 B.A., The University of Saint Thomas
 Ph.D., University of Florida
- MRS. ANNETTE E. PLATT, Instructor of English, 1963
 B.A., M.A., The University of Texas
- RICHARD L. PRICE, Associate Professor of Mathematics, 1970
 B.S., Prairie View A&M College
 M.A., The University of Texas
 M.A.R., Yale Divinity School
 Ph.D., Ohio State University
- DANA M. RANSOM, Instructor of Secondary Education, Assistant Dean of Admissions and Records, 1968
 B.S., M.S., East Texas State University
- JED J. RAMSEY, Professor of Biology, 1965, 1972
 B.S., Kansas State University of Agriculture and Applied Science
 M.S., Kansas State Teachers College
 Ph.D., Oklahoma State University
- ANN L. RAYSON, Instructor of English, 1972
 B.A., Ph.D., Northern Illinois University
 M.A., Northwestern University

- BILLY D. READ**, Assistant Professor of Mathematics, 1964, 1967
 B.S., Lamar University
 M.S., North Texas State University
- DAVID R. READ**, Assistant Professor of Mathematics, 1965, 1967
 B.S., Lamar University
 M.S., North Texas State University
 Ph.D., University of Houston
- IRVIN L. REIS**, Professor of Industrial Engineering, 1970
 B.S., M.S., University of Nebraska
 Ph.D., University of Illinois
 Registered Professional Engineer (Kansas)
- JACK N. RENFROW**, Associate Professor of English, 1959, 1966
 B.A., Louisiana Tech University
 M.A., University of Denver
 Ph.D., Louisiana State University
- MRS. LINDA CAROL REYNARD**, Instructor I of Dental Hygiene, 1971
 B.S., Baylor University
- ROGER PHILLIP RICHEY**, Instructor of Government, 1971
 B.S., Lamar University
 M.A., University of Houston
- CARL J. RIGNEY**, Professor of Physics, Head, Department of Physics, 1957
 B.S., University of Louisville
 M.S., Ph.D., Northwestern University
- PHILIP B. ROBERTSON**, Assistant Professor of Biology, 1970
 B.S., Concord College
 M.S., Ph.D., University of Miami
- ROBERT C. ROGAN**, Professor of Art, Head, Department of Art, 1961, 1970
 B.A., Washburn University
 M.F.A., State University of Iowa
 Ed.D., The University of Kansas
- DAN ROGAS**, Assistant Professor of Health and Physical Education for Men,
 Athletic Business Manager, 1955, 1971
 B.S., Tulane University
 M.S., Lamar University
- BRUCE G. ROGERS**, Professor of Civil Engineering, 1961, 1967
 B.S., University of Houston
 M.S., Ph.D., University of Illinois
 Registered Professional Engineer
- M. PAUL ROY**, Instructor III of Machine Tools, Head, Industrial Department,
 1963, 1971
- MRS. VIRGINIA RUDLOFF**, Instructor I of Vocational Nursing, 1970
 Registered Nurse, State of Texas
- HENRY B. RULE**, Professor of English, 1960, 1964
 B.A., The University of Texas
 M.A., Columbia University
 Ph.D., University of Colorado

26 FACULTY

- WILLIAM CHESTER RUNNELS**, Assistant Professor of Biology, 1965
B.S., M.S., Texas A&I University
Ph.D., Texas A&M University
- REGINALD RUSHING**, Professor of Accounting, 1971
B.A., Southwestern University
M.B.A., Ph.D., The University of Texas
Certified Public Accountant
- R. BEELER SATTERFIELD**, Associate Professor of History, 1963, 1967
B.A., M.A., Vanderbilt University
Ph.D., Johns Hopkins University
- RAMON S. SATTERWHITE**, Assistant Professor of Electrical Engineering, 1969
B.S., University of Arkansas
M.S., The University of New Mexico
Ph.D., The Ohio State University
- RONALD J. SCRUDATO**, Assistant Professor of Geology, 1971
B.S., Clemson University
M.S., Tulane University
Ph.D., University of North Carolina
- WAYNE CLEMENT SEELBACH**, Instructor of Sociology, 1971
B.A., Lamar University
M.A., Stephen F. Austin State University
- E. LEE SELF**, Professor of Secondary Education, Director, Student Teaching, 1959, 1967
B.S., M.S., Northwestern State University of Louisiana
Ph.D., Louisiana State University
- MRS. JOAN SETZER**, Instructor of English, 1969
A.B., Duke University
M.A., George Peabody College for Teachers
- J. C. SHANKLES**, Instructor III of Welding, 1952, 1971
- J. G. SHEPHERD**, Associate Professor of Physics, 1957, 1967
B.S., M.A., North Texas State University
- KENNETH E. SHIPPER**, Dean, College of Technical Arts, 1971
B.S., Sam Houston State University
M.A., Ph.D., The University of Texas
- LENOX SIGLER**, Instructor II of Industrial Electricity and Electronics Technology, 1965, 1970
- JAMES M. SIMMONS**, Instructor of Music, 1970
B.S., Memphis State University
M.M., University of Houston
- MRS. DORIS R. SIMPSON**, Instructor of Psychology, 1969
B.S., Mary Washington College of The University of Virginia
M.A., Texas Christian University
- SARAH E. SIMS**, Assistant Professor of Elementary Education, 1971
B.S., Lamar University
M.Ed., Sam Houston State University
- GENEVIEVE Z. SMITH**, Assistant Professor of Modern Languages, 1959, 1963
B.A., Milton College
M.A., Instituto Tecnologico de Monterrey

- JAMES H. SMITH, Instructor I of Diesel Mechanics, 1968, 1970
A.A.S., Lamar University
- W. RUSSELL SMITH, Professor of Biology, 1946, 1958
B.S., M.S., North Texas State University
Ph.D., The University of Texas
- MAX K. SNIFFEN, Instructor II of Related Arts, 1972
B.S., B.A., Ohio State University
M.B.A., Lamar University
- PHILLIP B. SNYDER, Assistant Professor of Geology, 1972
B.S., Trinity University
M.Ed., Ph.D., The University of Texas
- TIMOTHY SONNENBERG, Instructor of Special Education, 1971
B.S., M.Ed., University of Houston
- MONTY L. SONTAG, Professor of Special Education, Head, Department of Special Education, 1972
B.A., University of Denver
M.A., Ed.D., Columbia University
- JAMES D. SPENCER, Supervisor of Continuing Education, 1970
B.S., M.Ed., Texas A&M University
- LARRY W. SPRADLEY, Assistant Professor of Business Administration, 1972
B.A., Stephen F. Austin State University
M.Th., Southern Methodist University
M.S., Lamar University
Ph.D., Texas A&M University
- DEANNA K. STAHL, Instructor II of Technical Mathematics, 1972
B.A., M.S., Lamar University
- J. M. STARK, Professor of Mathematics, Head, Department of Mathematics, 1956
B.S., United States Coast Guard Academy
B.S., North Texas State University
S.M., Ph.D., Massachusetts Institute of Technology
- A. F. STEIERT, Assistant Professor of Business Administration, 1966
B.S., M.B.A., University of Florida
- A. F. STELLEY, Associate Professor of Business Administration, 1954, 1965
J.D., Baylor University
- JAMES B. STEVENS, Assistant Professor of Geology, 1970
B.S., M.S., The University of Michigan
Ph.D., The University of Texas
- MANFRED STEVENS, Professor of Government, 1960, 1966
B.A., M.A., The University of Oklahoma
Ph.D., The University of Michigan
- RONALD STIDHAM, Instructor of Government, 1970
B.S., M.A., East Tennessee State University
- JoANN K. STILES, Instructor of History, 1966
B.A., M.A., The University of Texas
- MICHAEL L. STOKESBURY, Instructor of English, 1972
B.A., Lamar University
M.A., M.F.A., University of Arkansas

28 FACULTY

- MRS. FAYE N. STONE, Instructor I of Vocational Nursing, 1969, 1970
Registered Nurse, State of Texas
- JOHN W. STOREY, Assistant Professor of History, 1968
B.A., Lamar University
M.A., Baylor University
Ph.D., University of Kentucky
- ARNEY L. STRICKLAND, Assistant Professor of English, Head, Department of English, 1969, 1970
B.A., M.A., Lamar University
Ed.D., Ball State University
- MRS. BERNICE STURROCK, Instructor II of Vocational Nursing, 1963, 1971
Registered Nurse, State of Texas
- WALTER A. SUTTON, Associate Professor of History, 1963, 1970
B.A., William Marsh Rice University
M.A., Ph.D., The University of Texas
- RICHARD E. SWAIN, III, Assistant Professor of Secondary Education, 1970
B.S., M.Ed., Ed.D., North Texas State University
- DAVID G. TAYLOR, Associate Professor of Business Administration, 1955, 1957
B.A., M.A., Baylor University
- ANNE L. TAXTER, Instructor of English, 1970
B.A., Little Rock University
M.A., University of Arkansas
- ANTHONY C. TENNISSEN, Associate Professor of Geology, 1963, 1965
B.S., The University of Tulsa
M.S., Syracuse University
Ph.D., The University of Missouri at Rolla
- MRS. EDNA MARY TERRELL, Instructor I of Vocational Nursing, 1968, 1970
Registered Nurse, State of Texas
- FRANK A. THOMAS, JR., Professor of Mechanical Engineering, Regents' Professor, 1958, 1972
B.S., Purdue University
M.S., Ph.D., Georgia Institute of Technology
Registered Professional Engineer (Texas and Georgia)
- ROBERT BLAINE THOMAS, Professor of English, Director of Library Services, 1960, 1972
B.S., Virginia Polytechnic Institute and State University
M.A., M.S., Ph.D., Louisiana State University
- ELLIS THOMPSON, Instructor III of Refrigeration & Air Conditioning Technology, 1956, 1971
- GEORGE B. TIMS, JR., Professor of Industrial Engineering, Associate Dean, College of Engineering, Director of Cooperative Education, 1951, 1966
B.S., M.S., Oklahoma State University
Registered Professional Engineer
- NORMA TOMPKINS, Assistant Professor of Special Education, 1972
B.S., M.A., Ph.D., Texas Woman's University

- JOSEPH TRUNCALE, Associate Professor of Music, 1947, 1965
 B.M., North Texas State University
 M.L., University of Houston
- CONN M. TRUSSELL, Instructor of Art, 1971
 B.A., M.F.A., Louisiana Tech University
- JERRY R. TUCKER, Assistant Professor of Secondary Education, 1971
 B.S., The University of Texas
 M.Ed., Trinity University
- WILLIAM R. TUCKER, Professor of Government, Head, Department of Government, 1956, 1971
 B.A., M.A., The University of Oklahoma
 Ph.D., The University of Geneva
- CHARLES P. TURCO, Associate Professor of Biology, Director of Research and Development, 1965, 1972
 B.S., Saint John's College
 M.S., M.S.Ed., Saint John's University
 Ph.D., Texas A&M University
- VICTORIA EUGENIA URBANO, Associate Professor of Modern Languages, 1966, 1969
 B.A., Colegio Superior
 M.A., Ph.D., Universidad de Madrid
- GLENN H. UTTER, Instructor of Government, 1972
 A.A., Jamestown Community College
 B.A., State University of New York at Binghamton
 M.A., State University of New York at Buffalo
- HOWARD C. VANZANT, Professor of Mathematics, 1966
 B.S., The University of Texas at El Paso
 M.S., Ph.D., University of Florida
- MRS. JEANNETTE W. VAUGHN, Assistant Professor of Secretarial Science, 1954, 1957
 B.A., Texas Woman's University
 M.B.A., The University of Texas
- MALCOLM W. VEULEMAN, Associate Professor of Accounting, 1970
 B.S., McNeese State University
 M.B.A., Ph.D., University of Arkansas
 Certified Public Accountant (Texas)
- WILLIAM H. VINCENT, Instructor of Health and Physical Education for Men, Assistant Football Coach, 1968
 B.S., M.Ed., Lamar University
- HENRY T. WADDELL, Professor of Biology, 1963, 1965
 B.S., M.A., George Peabody College for Teachers
 Ph.D., University of Florida
- BOBBY R. WALDRON, Associate Professor of Industrial Engineering, Director of Computer Center, 1970, 1972
 B.S., Louisiana College
 M.S., Northwestern State College
 Ph.D., Texas A&M University

30 FACULTY

- JAMES L. WALKER, JR., Assistant Professor of Psychology, 1969
B.A., Baylor University
Ph.D., Texas Tech University
- RICHARD E. WALKER, Professor of Chemical Engineering, 1963
B.S., Purdue University
M.S., Bucknell University
Ph.D., Iowa State University of Science and Technology
Registered Professional Engineer
- GEORGE B. WALL, Associate Professor of Philosophy, 1965, 1967
B.A., Occidental College
B.D., Fuller Theological Seminary
Ph.D., University of Southern California
- MICHAEL E. WARREN, Associate Professor of Biology, Head, Department of Biology, 1966, 1971
B.A., M.A., Ph.D., The University of Texas
- JOSEPH T. WATT, JR., Associate Professor of Electrical Engineering, 1965, 1967
B.A., B.S., William Marsh Rice University
M.S., Ph.D., The University of Texas
Registered Professional Engineer
- RONALD WESBROOKS, Instructor of Health and Physical Education for Men, Tennis Coach, 1970
B.S., Eastern New Mexico University
M.S., Lamar University
- CAREY B. WESLEY, Instructor II of Welding, 1966, 1970
A.A.S., Lamar University
- MRS. MARJORIE WHEELER, Science-Technology Librarian, (Instructor), 1970
A.B., Smith College
M.A., Johns Hopkins University
- ROBERT R. WHEELER, Associate Professor of Geology, 1967, 1972
A.B., Johns Hopkins University
Ph.D., Harvard University
- JOHN A. WHITTLE, Assistant Professor of Chemistry, 1969
B.S., University of Glasgow
Ph.D., University of London
- CHARLES A. WILEY, Professor of Music, Director of Bands, 1952, 1962
B.S., Texas Tech University
M.M., The University of Texas
Ed.D., University of Colorado
- ROBERT H. WILKERSON, Assistant Professor of Communications, 1964, 1969
B.A., M.A., The University of Oklahoma
- DONALD E. WILLIAMS, Associate Professor of Business Administration, 1952, 1958
B.A., M.A., Ed.D., North Texas State University
- HARRY L. WILLIAMS, Instructor II of Business Data Processing, Counselor, 1968, 1972
B.B.A., Stephen F. Austin State University
M.Ed., Lamar University

- PRESTON B. WILLIAMS, Professor of History, Dean, College of Liberal Arts,
1950, 1966
B.A., M.A., North Texas State University
Ph.D., The University of Texas
- CURTIS E. WILLS, Assistant Professor of Secondary Education, 1971
B.S., M.Ed., Sam Houston State University
Ed.D., North Texas State University
- JERRY L. WILSON, Instructor II of Industrial Electricity & Electronics
Technology, 1970
B.S., Lamar University
- MRS. LOIS J. WILSON, Assistant Professor of Health and Physical Education for
Women, 1955, 1960
B.S., M.A., Texas Woman's University
- MRS. BETTY WINNEY, Instructor of Speech and Hearing, 1967, 1969
B.S., M.S., Lamar University
Certificate in Audiology
- JACOB A. WOLKEAU, Associate Professor of Mathematics, 1957, 1961
B.A., University of Pennsylvania
M.S., University of Pittsburgh
- SAM M. WOOD, JR., Associate Professor of Mathematics, 1958, 1965
B.A., The University of Texas
M.S., Texas A&M University
- NAAMAN J. WOODLAND, JR., Associate Professor of History, 1957, 1969
B.A., B.S., Louisiana State University
M.A., Northwestern University
- GEORGE A. WOODWARD, Associate Professor of Sociology, 1967
B.S., M.A., University of Houston
Ph.D., The University of Oklahoma
- RALPH A. WOOSTER, Professor of History, 1955, 1962
B.A., M.A., University of Houston
Ph.D., The University of Texas
- WILLIAM L. WORSHAM, Instructor of Health and Physical Education for Men,
Assistant Track Coach, 1972
B.S., M.Ed., Lamar University
- LEONARD A. YATES, Associate Professor of Health and Physical Education for
Men, 1966
B.S., M.S., Louisiana State University
Ed.D., University of Houston
- A. W. YEATS, Professor of English, 1961, 1966
B.A., McMurry College
M.A., Ph.D., The University of Texas
- ROGER E. YERICK, Professor of Chemistry, Associate Dean, College of Sciences,
1958, 1970
B.S., Texas A&I University
Ph.D., Iowa State University
- FRED MICHAEL YOUNG, Associate Professor of Mechanical Engineering, 1967,
1969
B.S., M.S., Ph.D., Southern Methodist University

32 FACULTY

- PAUL T. ZEEK, Instructor of Health and Physical Education for Men, Athletic Trainer, 1971
B.A., The University of Texas at El Paso
- DAVID D. ZINK, Professor of English, 1965, 1972
B.A., The University of Texas
M.A., Ph.D., University of Colorado

PART-TIME FACULTY

- JACK C. AULBAUGH, Lecturer of Real Estate, 1966
B.S., Lamar University
- DON A. BAKER, Teaching Fellow of Business Administration, 1972
B.S., Lamar University
- F. L. BARGA, Lecturer of Industrial Supervision, 1971
- CHERYL A. BARTHELL, Teaching Fellow of English, 1972
B.A., Lamar University
- BRUCE BELVIN, Teaching Fellow of Government, 1972
B.S., Lamar University
- PEGGY BENTON, Lecturer of Adult Education, 1972
B.S., Texas Christian University
- STEPHEN J. BEVERDING, Teaching Fellow of Business Administration, 1972
B.S., Lamar University
- WILLIAM BLACKSHEAR, Teaching Fellow of Health and Physical Education for Men, 1972
B.A., Hendrix College
- HERMAN BLANTON, Lecturer of Real Estate, 1965
- WALTER W. BOLTON, Lecturer of Mathematics, 1971
B.S., William Marsh Rice University
M.S., Lamar University
- WILBUR C. BREINING, Instructor of Secondary Education, 1971
B.S., M.S., North Texas State University
- RALPH J. BROOKNER, Associate Professor of Mathematics, 1962
B.A., William Marsh Rice University
M.A., The University of Michigan
Ph.D., Columbia University
- JAMES N. BROWN, Lecturer and Adjunct Professor of Dental Hygiene, 1971
B.S., Lamar University
D.D.S., The University of Texas
- MRS. BARBARA Y. BURRIS, Lecturer of Related Arts, 1971
B.A., Lamar University
- HAROLD D. CAMP, Teaching Fellow of Mathematics, 1972
B.S., Lamar University
- KING A. CAMPBELL, Instructor of Accounting, 1972
B.B.A., M.B.A., Lamar University
- SARA JANE CARLSEN, Teaching Fellow of Mathematics, 1972
B.S., Lamar University

- CLIFF CAVETT, Instructor of Accounting, 1972
 B.B.A., Lamar University
 Certified Public Accountant
- PATSY R. COLLINS, Teaching Fellow of English, 1972
 B.A., Lamar University
- ROYDAN C. CONLEY, Teaching Fellow of Industrial Engineering, 1972
 B.S., Lamar University
- JOHN COVILLE, Instructor of Accounting, 1972
 B.B.A., Lamar University
 Certified Public Accountant
- MARGARET E. CRABTREE, Teaching Fellow of Business Administration, 1972
 B.B.A., Lamar University
- OTTIS CRENSHAW, Lecturer of Industrial Electricity and Electronics
 Technology, 1972
- LEROY E. DANIELS, Instructor of Accounting, 1972
 B.B.A., Lamar University
 Certified Public Accountant
- JOHN C. DANNA, Lecturer of Drafting Technology, 1971
- GERALDINE DUBOSE, Lecturer of Dental Hygiene, 1972
 Registered Dental Hygienist
- JAMES O. ELLIS, Teaching Fellow of Government, 1972
 B.A., Lamar University
- HORACE EPPERHART, Lecturer of Industrial Electricity & Electronics
 Technology, 1970
- ROY C. ESQUIVEL, Teaching Fellow of Health and Physical Education for Men,
 1972
 B.S., Lamar University
- JOHN E. FLANNERY, Teaching Fellow of Chemistry, 1972
 B.S., Lamar University
- L. W. FOWLER, Instructor of Accounting, 1972
 B.B.A., University of Oklahoma
 Certified Public Accountant
- LYNNE FRINK, Teaching Fellow of English, 1972
 B.A., Pennsylvania State University
- JOSEPH GIARRATANO, Teaching Fellow of English, 1972
 B.A., Lamar University
- D. REX GOODE, Instructor of Civil Engineering, 1970
 B.S., Georgia Institute of Technology
 B. of Arch., Georgia Institute of Technology
 Registered Architect
- JoANN GOODWIN, Teaching Fellow of Mathematics, 1972
 B.A., Lamar University
- KAREN GREENOCKLE, Teaching Fellow of Health and Physical Education for
 Women, 1972
 B.S., Texas Christian University
- SHERMAN GUYON, Lecturer of Mid-Management, 1969
 B.B.A., University of Houston
- WILLARD HALL, Lecturer of Real Estate, 1955

- STEVEN G. HARRIS, Teaching Fellow of Business Administration, 1972
 B.B.A., Lamar University
- LENIS HARVEY, Lecturer of Business Data Processing, 1971
- JEFFREY L. HAVEN, Teaching Fellow of History, 1972
 B.S., M.A., Lamar University
- MURRAY HENDRICK, Instructor of Business Administration, 1970
 B.S., Michigan Technological University
 M.B.A., Lamar University
- GARY R. HIDALGO, Teaching Fellow of History, 1972
 B.A., Lamar University
- EMMA J. HOLLINGSHEAD, Instructor of Accounting, 1972
 B.B.A., Lamar University
- MRS. VIRGINIA G. HORSMAN, Instructor of Secondary Education, 1971
 B.A., M.A., Ph.D., Texas Tech University
- CHARLES N. ISLER, Lecturer of Industrial Supervision, 1972
 B.A., M.Ed., University of Pittsburgh
- FRANK JAMESON, Lecturer of Real Estate, 1969
- H. CLAY JOFFRIAN, Instructor of Accounting, 1971
 B.A., Lamar University
- MARGARET O. JOHNSON, Teaching Fellow of Biology, 1972
 B.A., The University of Texas
- STEVEN JOHNSON, Teaching Fellow of Economics, 1972
 B.B.A., Lamar University
- CARL D. JONES, Instructor of Business Administration, 1971
 B.A., Texas A&M University
- MRS. KAY JONES, Lecturer of Distributive Education, 1971
 B.A., Mississippi Woman's College
- JOHN H. KASZYNSKI, Teaching Fellow of Business Administration, 1972
 B.B.A., Lamar University
- ROBERT A. KIRKLAND, Lecturer of Mathematics, 1971
 B.S., Lamar University
- CURTIS L. LACY, Teaching Fellow of History, 1972
 B.A., Lamar University
- JAMES E. LANE, Assistant Professor of Special Education, 1967, 1970
 B.A., Abilene Christian College
 M.Ed., Lamar University
- LUKE LATINO, JR., Lecturer of Refrigeration and Air Conditioning Technology,
 1971
 C.C., Lamar University
- STEPHEN P. LEWIS, Teaching Fellow of Biology, 1972
 B.S., Lamar University
- MRS. CAROLE J. LITTLER, Teaching Fellow of English, 1972
 B.A., Lamar University
- BOBBY G. MARSHALL, Lecturer of Diesel Mechanics, 1971
- THOMAS MARTINDALE, Lecturer of Welding, 1971
- CAROL A. McCLELLAND, Lecturer of Radiologic Technology, 1972
- KENNETH MCGILL, Teaching Fellow of Business Administration, 1972
 B.B.A., Lamar University

- CALVIN McKAY, Lecturer of Industrial Supervision, 1966
B.S., University of Southwestern Louisiana
- J. PAUL McNEILL, Instructor of Business Administration, 1967
B.A., Elon College
M.A., Southern Methodist University
- RAJARATHNAM MOHAN, Instructor of Civil Engineering, 1971
B.E., P.S.G. Technology
M.S., Government College of Technology
M.E.S., Lamar University
- RICHARD E. MONTE, Teaching Fellow of Health and Physical Education for Men, 1972
B.S., Lamar University
- WILLIAM E. MORGAN, Assistant Professor of Civil Engineering, 1972
B.S., U. S. Naval Academy
M.S., University of Alaska
Ph.D., The University of Texas
- ROBERT M. MOSS, Lecturer of Machine Tools, 1971
C.C., Lamar University
- GEORGE H. NORMAN, Teaching Fellow of Chemical Engineering, 1972
B.S., Lamar University
- NORMAN OLIVER, Instructor of Business Administration, 1970
B.S., B.B.A., M.B.A., Texas A&M University
- KAREN R. OLSON, Instructor of Biology, 1966
B.A., William Marsh Rice University
M.Ed., Lamar University
- TERRANCE ONO, Teaching Fellow of Health and Physical Education for Men, 1971
B.A., Western New Mexico University
- ERNEST L. OSBORNE, Teaching Fellow of English, 1972
B.A., Lamar University
- CATHERINE B. PACE, Teaching Fellow of Mathematics, 1972
B.S., Louisiana Tech University
- JULIA ANN PARKER, Teaching Fellow of Health and Physical Education for Women, 1972
B.S., Northwestern State College
- DEXTER PATTERSON, Instructor of Business Administration, 1970
B.S., Lamar University
J.D., Baylor University
- WILLIAM C. PETERS, Lecturer of Business Data Processing, 1967
- VICKI R. PRICE, Teaching Fellow of English, 1972
A.B., Tift College
M.Ed., Lamar University
- MICHAEL J. QUICK, Teaching Fellow of Chemistry, 1972
B.S., Lamar University
- JOHN C. READ, Lecturer of Refrigeration and Air Conditioning Technology, 1972
- DONALD A. RICKETT, Instructor of Mathematics, 1966
B.S., M.S., Lamar University

36 FACULTY

- ROBY D. ROBERTSON, Teaching Fellow of Government, 1972
B.A., Lamar University
- ROBBIE L. ROMERO, Teaching Fellow of Economics, 1972
B.B.A., Lamar University
- ANITA SANDEFUR, Instructor of Speech, 1972
- EDDIE R. SCHROEDER, Lecturer of Real Estate, 1972
B.B.A., North Texas State University
J.D., Baylor University
- GEORGE D. SCHULDT, Lecturer of Police Science, 1971
B.S., Lamar University
- GEORGE C. SCULLEY, JR., Instructor of Accounting, 1972
B.B.A., M.B.A., Lamar University
Certified Public Accountant
- DOUGLAS T. SIMPSON, Teaching Fellow of Biology, 1972
B.S., Lamar University
- GAYLE SIMS, Teaching Fellow of Secretarial Science, 1972
B.B.A., Lamar University
- HYMAN K. TAYLOR, Lecturer of Drafting Technology, 1972
- JAMES S. TEMPLE, Lecturer of Machine Tools, 1971
C.C., Lamar University
- D. FAYE THAMES, Assistant Professor of Mathematics, 1957, 1960
A.B., Birmingham-Southern College
M.A., George Peabody College for Teachers
- WILSON TRAHAN, Lecturer of Secondary Education, 1971
B.A., M.Ed., The University of Texas
- MAX V. TRENCK, JR., Teaching Fellow of Computer Science, 1972
B.S., Lamar University
- MAX V. TRENCK, SR., Lecturer of Industrial Supervision, 1952
- CHARLES H. VAUGHN, JR., Teaching Fellow of Business Administration, 1972
B.B.A., Texas A&M University
- BENNO M. WALLACH, Adjunct Professor of Modern Languages, 1972
B.A., Western Reserve University
B.H.L., M.H.L., Hebrew Union College
D.D., Carter Bible
- LESLIE WALLEY, Lecturer of Industrial Electricity & Electronics Technology,
1970
- MRS. DOROTHY WEATHERLY, Instructor of English, 1961
B.A., M.A., Stephen F. Austin State University
- WARREN WEBER, Teaching Fellow of Government, 1972
B.S., Lamar University
- JOHN C. WEST, SR., Lecturer of Plant Maintenance, 1969
B.S., Drexel Institute of Technology
- JOHN C. WILSON, Lecturer of Refrigeration and Air Conditioning Technology,
1970
B.S., Texas A&M University
- PAMELA A. WOLFE, Teaching Fellow of History, 1972
B.A., Lamar University

- MRS. ANITA WOOD, Lecturer of Basic Communications, 1971
 B.A., Sam Houston State University
- LEONARD E. WRIGHT, Lecturer of Refrigeration and Air Conditioning
 Technology, 1971
 C.C., Lamar University
- HAROLD B. YARDLEY, Teaching Fellow of Business Administration, 1972
 B.S., Tulane University

LAMAR UNIVERSITY AT ORANGE COUNTY

FULL-TIME

- MARILYN CHITWOOD, Instructor I of Radiologic Technology, 1971
- LARKIN C. FRANKLIN, Instructor of English, 1970
 B.A., Lamar University
 M.A., Brigham Young University
- ROBERT H. PEEBLES, Instructor of History, 1970
 B.S., Lamar University
 M.A., Sam Houston State University
- JAMES C. RONNING, Assistant Professor of Psychology, 1970, 1972
 B.S., Lamar University
 M.Ed., Abilene Christian College
 Ed.D., McNeese State University
- SHELLEY ANN THRASHER, Instructor of English, 1971
 B.A., M.A., North Texas State University
- JOE BEN WELCH, Assistant Professor of Mathematics, Director of Lamar University at Orange County, 1969, 1972
 B.S., Louisiana Tech University
 M.Ed., Lamar University

PART-TIME

- MRS. JUDITH ARONOW, Instructor of Mathematics, 1971
 B.S., The University of North Dakota
 M.S., Lamar University
- KATHRYN ANN CARLTON, Instructor of History, 1972
 B.S., Hardin-Simmons University
 M.Ed., University of North Carolina
- LOUIS DUGAS, Instructor of Government, 1972
 B.A., J.D., The University of Texas
- ROBERT E. FRANK, Instructor of Health and Physical Education for Men, 1972
 B.S., Lamar University
 M.Ed., McNeese State University
- MARIA DOLORES GARCIA, Instructor of Modern Languages, 1969
 B.S., Lamar University
 M.A., Stephen F. Austin State University

- CECIL D. GRIFFIN, Instructor of Mathematics, 1972
B.S., Lamar University
M.A., Northwestern University
- RUTH HARRIS, Instructor of Music, 1972
B.M., M.M., North Texas State University
- JOSE R. LEON, Instructor of Mathematics, 1969
B.S., Ohio University
M.S., Texas Tech University
- CHARLES H. OWENS, Instructor of Accounting, 1970
B.B.A., Lamar University
Certified Public Accountant
- GEORGE PALLESEN, Instructor of Bible, 1972
B.A., Dana College
B.D., Trinity Lutheran Seminary
- DONALD C. PEVETO, Instructor of Drafting Technology, 1972
- ANNE J. SIMMONS, Instructor of Business Communications, 1972
B.A., Prairie View A&M College
M.A., Atlanta University
- SAMUEL STANSBURY, Instructor of History, 1971
B.A., Lamar University
- MARGARET STEVENS, Instructor of Geology, 1972
B.A., Central Michigan University
M.S., University of Michigan
- H. K. TAYLOR, Instructor of Drafting Technology, 1972
- MARTIN K. THOMEN, Instructor of Radiologic Technology, 1972
B.S., Kansas University
- BILL E. WILLS, Instructor of Geology and Physics, 1971
B.S., M.A., The University of Texas

CAMPUS MINISTERS

- JIM CHATHAM, Campus Minister, Rothwell Methodist Center and Wesley Foundation
- CHARLES ECKERT, Campus Minister, Lutheran Ministry
- JOSEPH GOSS, O.P., Director, Newman Center
- EDWARD D. JONES, Director, Church of Christ Bible Chair
- B. H. McCOY, Campus Minister, Pentecostal Students Fellowship
- DON PIKELL, O.P., Campus Minister, Catholic Student Center
- JOHN M. PURCELL, Campus Minister, United Christian Fellowship Center
- EARL SHEFFIELD, Priest-in-Charge, Episcopal University Center and St. Matthew's Church
- JAMES A. WRAY, Director, Baptist Student Center

STUDENT HEALTH CENTER

- R.V. HITT, M.D., University Physician
- CONRADO B. GARCIA, M.D., University Physician
- DAN KOHLER, M.D., University Physician

DON R. WEBB, M.D., University Physician
MABLE LOMONTE, R.N., Director of Health Center
MRS. RUTH BECK, L.V.N.
MRS. GRACE GRAHAM, L.V.N.
KATHLEEN PREJEAN, L.V.N.
MRS. LUDIE RICHARDS, L.V.N.
MRS. OPAL WELLS, L.V.N.

UNIVERSITY BOOKSTORE

PETER PLOTTS, Manager
GEORGE ADAMS, Assistant Manager
MRS. EDITH MINTER, Storekeeper
KEITH PENBY, Storekeeper
MYRTIE SANDEFER, Secretary

DORMITORY SUPERVISORS

MRS. GEORGIA AVANT, Campbell Hall
MRS. MARY BRUNS, Brooks Hall
MRS. FRANCES CHIONSINI, Morris Hall
MRS. RUTH K. AARON, Gentry Hall
MRS. JUANITA PHARR, Gray Hall
TERRY ONO, Shivers Hall

FOOD SERVICES

MRS. JOANN BOURGEOIS, B.S., Manager, Main Dining Hall
MICHAEL CAYTON, Director of Food Service
MELVIN BUSBY, Associate Director of Food Service
TOMMIE BROWN, Supervisor, Gentry Hall
FRANCIS YOUNG, Supervisor, Brooks & Shivers Halls

PRINT SHOP

EDWIN PEARSON, B.B.A., Director
WELDON McBRIDE, Printer II
SHEILA K. McKINNEY, Printer II
VIOLA RICHARDS, Printer I
PATRICIA KAY LaFORGE, Secretary

General Information

LOCATION

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

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

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

HISTORY

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

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

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

A movement to expand Lamar College into a four-year state-supported school culminated in the creation of Lamar State College of Technology on September 1, 1951. Since that time, enrollment has increased to more than 10,000 students, and the curriculum has been expanded and liberalized to include many areas of study. Graduate work in specified fields began in the academic year of 1960-61, and extension work became an integral part of the educational program in 1964. A doctoral program in engineering was added in 1971. Lamar University at Orange County, offering first and second year courses, opened in 1969 as an extension center. The branch campus was authorized by the 62nd Texas Legislature. The University also owns the old Sabine Pass Lighthouse and 45.56 acres of surrounding land and 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

The government of the University is vested in a board of nine regents appointed by the Governor and approved by the Senate for terms of six years. The Board of Regents delegates the direction of academic affairs to the President, administrative officers and faculty.

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

OBJECTIVES

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

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

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

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

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

Maintain in all areas of the University, on the main campus, branch campuses and in extension work, a joint quest by faculty and students for truth through creative study and research;

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

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

ACCREDITATION

Lamar is accredited by the Association of Texas Colleges and Universities and the Southern Association of Colleges and Schools. It is approved by the Texas Education Agency and for the training of Veterans under all classifications.

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

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

DEGREE OFFERINGS

Associate of Arts

Associate of Science

Associate of Applied Science

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

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

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

Master of Arts in English, Government and History.

Master of Business Administration (undifferentiated).

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

Master of Engineering.

Master of Engineering Science in Engineering.

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

Doctor of Engineering.

ORGANIZATION

The University is organized into eight colleges, each administered by a dean.

Colleges

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

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

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

TEACHER CERTIFICATION

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

ENTERING DATES

Courses and schedules have been arranged so that students may enter Lamar four times each year. The approximate entering dates are June 3, July 11, August 29, and January 9. The current University Calendar contains information regarding registration periods and exact entering dates.

Facilities

BUILDINGS AND GROUNDS

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

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

The Richard W. Setzer Student Center, opened in 1971, represents an investment of \$2,800,000 in expansion, renovation and furnishing of the former Student Union Building. Refurbishing of the Student Affairs Building (formerly Liberal Arts) and Engineering Buildings 1 and 2 also has been completed.

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

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

THE LIBRARY

The Lamar Library has developed a strong collection of over 250,000 volumes in support of continuously expanding academic programs. Approximately 25,000 volumes are added annually to the present collection and over 3,000 periodicals are received. Library resources are further enriched by some 30,000 state and federal documents and microform materials. Additional resources are available to faculty, graduate students and advanced research students through the Library's membership in a statewide teletype network. Construction of a new, multi-story Library is to begin in the Fall of 1973.

HEALTH CENTER

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

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

It is not possible for the University to provide unlimited medical service. Special medicines, examinations, treatments, X-rays and laboratory tests are not furnished.

No charge is made, however, for up to 10 days care each semester in the Health Center. A small fee for drugs, supplies, and special services may be charged students required to remain in the Health Center for more than 10 days.

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

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

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

Students who are ill should report promptly to the Center for diagnosis and treatment. They will not be treated in the dormitory or in rooming houses.

BOOKSTORE

For the convenience of faculty and students, the University operates a bookstore where supplies and books, new and used, may be purchased.

Used books, which are currently approved, may be sold to the bookstore. Books which must be discontinued are not purchased by the Bookstore except at a salvage price.

The Bookstore reserves the right to require the seller to prove ownership.

DINING HALLS

A dining hall is located on the main campus (see map on page iv). Dining Halls also are maintained in Brooks-Shivers and Gentry Halls for their residents. Owned by the University, the food service is operated by ARA-Slater, a national catering firm.

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

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

HOUSING

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

COMPUTER CENTER

The University operates a Computer Center as a service to faculty, administration, students, researchers and others. The computer center has modern, high-speed digital and analog equipment valued in excess of \$750,000.

RESEARCH AND DEVELOPMENT

A Research Office was formally organized in 1956. In August 1970, it became the Office of Research and Programs, and in July 1972, the Office of Research and Development. 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.

In development, the office works closely with the President and Board of Regents in raising funds for many worthwhile programs for which appropriations are not received from the Legislature.

CAMPUS POST OFFICE

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

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

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

TESTING AND PLACEMENT SERVICE

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

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

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

EXTENDED DAY CLASSES

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

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

VOCATIONAL-TECHNICAL COURSES

The College of Technical Arts offers vocational-technical programs in business data processing, dental hygiene, drafting technology, diesel mechanics, industrial electricity and electronics, machine tools, mid-management, police science, radiologic technology, refrigeration and air conditioning technology, and welding.

46 GENERAL INFORMATION

Vocational nursing is a one-year program while the others extend over a period of two years.

The College also offers supplementary courses in apprenticeship training, distributive education, industrial supervision and leadership, and trade extensions.

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



Admissions

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

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

Information on admission to the undergraduate program at Lamar is listed in the following sections and applies to the Orange County Branch campus as well as to the main campus in Beaumont. Students seeking admission should study the requirements carefully and follow the procedure outlined for making application for admission. Requests for application forms or admission information should be directed to the Office of Admissions and Records, Lamar University, Lamar University Station, Box 10009, Beaumont, Texas 77710.

REQUIREMENTS FOR STUDENTS ENTERING FROM HIGH SCHOOLS

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

Entrance Examination Requirement

Applicants may submit either SAT or ACT scores in fulfillment of the entrance examination requirement. Both tests are given several times each year at test centers throughout the United States and in many foreign countries. It is recommended that Summer and Fall applicants take one of the tests early in the senior year and if possible, no later than February. Location of test centers, test dates, fees, test application forms, sample question booklets, etc. may be obtained without charge from high school counselors or by writing to the testing agency. SAT inquiries should be directed to the College Entrance Examination Board, Box 1025, Berkeley, California 94704. ACT inquiries should be directed to the American College Testing Program, Box 168, Iowa City, Iowa 52240.

The Level I Mathematics Test of the College Entrance Examination Board must be taken by all students entering the College of Engineering. It is strongly recommended for students planning to major in any of the physical sciences. Students planning to continue a language started in high school must take the CEEB reading test in the language for placement purposes. Otherwise, achievement tests are not required but in many cases are recommended. Students whose high school records are outstanding should consider taking achievement tests for advanced placement (see page 49).

Recommended High School Preparation

Although specific high school credits are not required for admission, the University expects each applicant to be adequately prepared to do academic work above the high school level. It is strongly recommended that the following credits be included in the high school program.

English	4
Natural Sciences	2
Algebra	1
Geometry	1
Social Sciences	2

In some fields, foreign language is desirable. Applicants to the College of Engineering are required to have completed a minimum of two credits in algebra and one credit in geometry. In addition, engineers should have one-half credit in trigonometry, one credit in chemistry and one credit in physics. Any deficiencies must be made up after enrollment at the University.

Health Record Requirement

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

How to Apply for Admission

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

When to Apply

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

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

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

receipt of the transcript. Students on temporary admission, who are subsequently found to be ineligible for admission, will be withdrawn.

Acceptance Notices

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

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

FRESHMAN REGISTRATION

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

Advanced Placement

The two optional testing programs listed below are offered to enable first time university students to qualify for advanced standing and/or college credit. These tests must be taken prior to enrollment. Applicants who have been out of high school for some time may qualify for credit through CLEP (College Level Examination Program). See page 74.

1. Advanced Placement Examinations (Optional)

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

50 ADMISSION REQUIREMENTS

Subject Area	Required Score	Credit Granted
Chemistry	Score of 3 or above	Chemistry 141
English	Score of 3 or above	Eng. 1311-1312
	Score of 2	Eng. 1311 (Student receiving such credit must enroll in Eng. 1316)
Foreign Language	Score of 4 or 5	Six semester hours of foreign language
	Score of 3	Three semester hours of foreign language
American History	Score of 3 or above	History 231-232*
European History	Score of 3 or above	History 131-132
Biology	Score of 3 or above	Biology 141-142
Calculus		
AB Test	Score of 3 or above	Mth 133,134,1381,1391
BC Test	Score of 3 or above	Mth 133-134,1381, 1391,2311
Physics	Score of 3 or above	Physics 141
Art	Score of 3 or above	Art 131,133
Music	Score of 3 or above	MLt 111,112

2. Achievement Tests (Optional)

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

Achievement Tests are given on the regularly scheduled test dates in December, January, March, May, and July. Application is made directly to CEEB.

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

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

REQUIREMENTS OF STUDENTS ENTERING FROM OTHER COLLEGES

To be eligible for unconditional admission, a transfer student must (1) be eligible to re-enter all colleges previously attended, and (2) have an over-all grade point average of C (2.0). Four grade points are counted for each semester hour completed with a grade of A, three for B, two for C, one for D and none for F.

The records of transfer applicants who meet requirement (1) above who are deficient in grade points are evaluated for admission purposes on the same basis as if the work had been taken at Lamar. A student admitted on probation must remove deficiencies in accordance with the provisions of the section on academic probation and suspension on page 83.

Transfer students who have earned less than 18 semester hours of transferable credit also must submit SAT and/or ACT scores, and meet the same requirements (see page 47) as a student entering directly from high school. The University reserves the right to require tests of any student if it appears that scores would be helpful in making the admission decision or would be beneficial for counseling purposes.

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

Transfer of Credit

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

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

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

Credit By Examination

Credit by examination also is available through CLEP (College Level Examination Program). See page 74.

How to Apply for Admission

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

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

When to Apply

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

The application form should be submitted before transcripts are sent. Transcripts normally should be sent after all work to be transferred is completed. A temporary admission may be granted if the time interval between the end of a semester elsewhere and the beginning of a subsequent semester at this university is too short for the transcript to be submitted prior to registration. Students on temporary admission, who are subsequently found to be ineligible for admission, will be withdrawn.

In some cases, questions regarding transfer need to be clarified while work is still in progress at another institution and can be resolved only by the evaluation of a partial transcript. Under these circumstances, the partial transcript should be submitted and a supplementary transcript furnished at the end of the semester.

FORMER STUDENTS RETURNING FROM ANOTHER INSTITUTION

A former student who has attended another college is required to submit a complete record of all work done subsequent to the last date of attendance at Lamar University, and to meet the academic requirements for other transfer students outlined on page 51 of this catalog.

SUMMER TRANSIENTS

Students in attendance at another college during the Spring Semester who wish to do Summer work only at Lamar University, may be admitted as transient students. A student applying for admission under this classification is required to submit only the regular application for admission. No credentials are required unless specifically requested in individual cases. Transient students who later apply for regular long term admission must meet all entrance requirements and supply all necessary admission credentials.

ADMISSION BY INDIVIDUAL APPROVAL

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

Applicants are required (1) to take the entrance examination (see page 47), (2) to submit a record of the high school work which was completed, and (3) to appear for a personal interview. Educational records and test scores must be on file well in advance of the proposed registration date. Arrangements for the interview should be made after records and scores are received by the University but well in advance of registration. Individual approval applications cannot be considered during the registration period.

ADMISSION OF STUDENTS FROM OTHER COUNTRIES

Physical facilities limit the number of students which may be accepted from other countries. A small number of admissions are granted every year, and applications are welcome. Approximately 175 students from 25 different countries currently are enrolled.

Applicants are required to have completed secondary schools with above average marks and to have been issued appropriate college entrance certificates, to be proficient in written and spoken English, to have adequate financial resources and to be in good physical condition. Candidates for admission are required to take the Scholastic Aptitude Test of the College Entrance Examination Board, or the American College Testing Program's exams. The Test of English as a Foreign Language (TOEFL) is required if the applicant's native language is one other than English. These tests are given several times a year at test centers throughout the world. Information on the SAT and TOEFL may be secured by writing to the College Entrance Examination Board, Box 592, Princeton, New Jersey, U.S.A. Information on the ACT may be obtained by writing to the American College Testing

Program, Box 168, Iowa City, Iowa 52240, U.S.A. Application forms, test scores and complete educational records must be on file three months in advance of the proposed registration date.

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



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

SUMMARY OF REGISTRATION EXPENSES

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

Texas residents taking a 15 hour academic work load*:

Tuition	\$60
Student Services Fee	30
Building Use Fee	26
Setzer Student Center Fee	10
Parking Fee (if desired).....	10
Health Insurance (if desired)	25
Books and Incidentals (estimated).....	55
	<u>\$216</u>

+ lab fees

Part-time Student (Six semester hours):

Tuition	\$50
Student Services Fee.....	18
Building Use Fee	13
Setzer Student Center Fee	10
Parking Fee (if desired).....	10
Books and Incidentals (estimated).....	20
	<u>\$121</u>

+ lab fees

The tuition fee varies with the semester hours carried so that the total may differ from this estimate, according to the schedule shown in the section, "Summary of Fees".

TUITION AND FEES

Tuition is based upon the number of hours for which the student registers, and is determined by the student's classification as a Texas resident; a nonresident U.S. citizen; or nonresident who is a citizen of another country (foreign or alien students).

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

56 FEES AND EXPENSES

Texas residents taking 12 hours or less pay \$50 tuition per semester. Each additional hour is \$4 per hour. Tuition for nonresident U.S. citizens is \$40 per semester hour. Nonresident U.S. citizens who were enrolled in the Spring 1971 Semester and are maintaining qualifications, will pay the same tuition charges as they paid in that semester. Nonresidents who are citizens of another country pay a minimum of \$200 for up to 14 semester hours. Each additional semester hour is \$14 per hour.

Each student pays a Student Services Fee of \$3 per semester hour, with a maximum of \$30 in a long session.

SUMMARY OF FEES

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

Term	No. of Semester Hours	Tuition				Student Services Fee	Building Use Fee	Setzer Center Fee	Total Charge			
		A	B	C	D				A	B	C	D
Each Fall or Spring Semester	1	\$50	\$ 40	\$ 50	\$200	\$ 3	\$13	\$10	\$ 76	\$ 66	\$ 76	226
	2	50	80	50	200	6	13	10	79	109	79	229
	3	50	120	50	200	9	13	10	82	152	82	232
	4	50	160	66	200	12	13	10	85	195	101	235
	5	50	200	83	200	15	13	10	88	238	121	238
	6	50	240	100	200	18	13	10	91	281	141	241
	7	50	280	117	200	21	13	10	94	324	161	244
	8	50	320	133	200	24	26	10	110	380	193	260
	9	50	360	150	200	27	26	10	113	423	213	263
	10	50	400	167	200	30	26	10	116	466	233	266
	11	50	440	183	200	30	26	10	116	506	249	266
	12	50	480	200	200	30	26	10	116	546	266	266
	13	52	520	200	200	30	26	10	118	586	266	266
	14	56	560	200	200	30	26	10	122	626	266	266
	15	60	600	200	210	30	26	10	126	666	266	276
	16	64	640	200	224	30	26	10	130	706	266	290
	17	68	680	200	238	30	26	10	134	746	266	304
	18	72	720	200	252	30	26	10	138	786	266	318
	19	76	760	200	266	30	26	10	142	826	266	332
	20	80	800	200	280	30	26	10	146	866	266	346
Each Six-Week Summer Session	1	\$25	\$ 40	\$ 50	\$100	\$ 3	\$13	\$5	\$46	\$ 61	\$ 71	\$121
	2	25	80	50	100	6	13	5	49	104	74	124
	3	25	120	50	100	9	13	5	52	147	77	127
	4	25	160	66	100	12	13	5	55	190	96	130
	5	25	200	83	100	15	13	5	58	233	116	133
	6	25	240	100	100	15	13	5	58	273	133	133
	7	28	280	117	100	15	13	5	61	313	150	133
	8	32	320	133	112	15	13	5	65	353	166	145
	9	36	360	150	126	15	13	5	69	393	183	159
	10	40	400	167	140	15	13	5	73	433	200	173

Code: **A.** Texas residents; **B.** nonresidents who are U.S. citizens; **C.** nonresidents who are U.S. citizens and who were enrolled in the Spring Semester 1971 and are maintaining qualifications; and **D.** nonresidents who are citizens of another country.

Laboratory Fees

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

Private Lessons in Voice and Instrumental Music

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

Parking Fee

Charges for parking on campus are made at the time a student is registered. In each instance, a student's parking fee is honored up to the end of Summer Session II.

Registration of an automobile in August is \$10. The January fee is \$6. A student registering for the first Summer Session is charged \$4, and for the second Summer Session the fee is \$2. Only one registration is required for one school year.

Health and Accident Insurance

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

Special Fees

For courses in which special plans must be prepared and for which specialists must be secured as instructors, fees will be set by the University administration subject to the approval of the president.

Exemption 1 — Scholarships to High School Honor Graduates

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

Exemption 2 — Veterans

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

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

The above exemption also extends to children of members of the Armed Forces who were killed in action or died while in the service in World War II, the Korean Conflict or the Vietnam War.

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

Refund of Fees

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

Long Session

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

Summer Session

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

No refunds are made when dropping courses.

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

It takes about 30 days to process these refunds.

Returned Check Fees

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

Miscellaneous Fees

Associate Diploma	\$4.50
Certificate of Completion.....	4.50
Bachelor's Diploma	7.50
Cap and Gown Rental.....	7.00
Late Registration.....	5.00
Returned Checks	2.00
Re-entry Fee	5.00
Transcript Fee50
Advanced Standing Examination	(per course) 5.00
Photo Identification.....	2.00
Swimming Pools (suits and towels)	2.00

Fine and Breakage Loss

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

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

RULES AND REGULATIONS FOR DETERMINING RESIDENCE STATUS

Pursuant to Title 3, Texas Education Code. Effective August 15, 1971

I — Minors

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

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

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

A. Death or Divorce of Parents

The legal residence of a minor under 21 years of age is usually that of the father. Upon the death of the father, the legal residence of the minor is that of the mother. Upon divorce or legal separation of the parents, the residence of the minor is determined by the residence of the parent with whom the minor is making his home at the time of registration.

B. Custody by Court Order

If the custody of the minor has been granted by court order (e.g., divorce decree, child custody action, guardianship or adoption proceedings) to some person other than the parent, the residence of that person shall control; provided, however, that such grant of custody was not ordered during or within a year prior to the minor's enrollment in an institution of higher education (defined as any public junior college, public senior college or university, medical or dental unit or other agency of higher education) and was granted under circumstances indicating that such guardianship was not for the purpose of obtaining status as a resident student.

If the minor is not making his home with either parent, and there is no court-appointed guardian, the residence of the parent with whom the minor last resided shall be presumed to control. If, however, the minor has made his home with, and

has been dependent upon a grandparent for more than a year prior to enrollment in an institution of higher education, the residence of that natural guardian shall be regarded as his residence. The residence of a person other than a parent or a natural or legal guardian, who may furnish funds for payment of tuition, fees or living expenses shall in no way affect the residence classification of a minor.

C. Abandoned Child

In the case of an abandoned child, the residence of a person who has stood *in loco parentis* for a period of time may determine the residence of such abandoned child. The fact of abandonment must be clearly established and must not have been for the purpose of affecting the residence of the minor, and the minor must have actually resided in the home of such person for two years immediately prior to registering in an institution of higher education in Texas and must have received substantially all of his support from such person. In the event that the *in loco parentis* relationship has not existed for the full two year period, a lesser period of time is acceptable in unusual hardship cases, such as death of both parents.

D. Orphan

An orphan who has lived for longer than a year in an established orphan's home in Texas operated by a fraternal, religious, or civic organization and has been graduated from the orphan's home shall be considered a resident of Texas provided he remains in Texas from the time of such graduation until he enters an institution of higher education.

E. Emancipated Child

Under certain circumstances, a minor may become emancipated or freed from parental control. If the minor has broken completely with his parents, is in fact residing apart from them, and has been entirely independent and wholly self-supporting, he may establish that he is "emancipated." If emancipation is clearly proved, the residence classification of the minor is determined by the residence of the minor rather than the residence of the parents, and after 12 months in Texas under such circumstances, the minor may be classified as a resident, if he otherwise satisfies the statutory requirements applicable to those over 21 (e.g., see presumption arising from residence while a student). Proof of his emancipation is the responsibility of the minor.

F. Married Minors

A minor male who is married shall have the power and capacity of a single person of full age and is entitled to select his own place of legal residence. After 12 months' residence in Texas under such circumstances the minor may be classified as a resident if he otherwise satisfies the statutory requirements applicable to those over 21 years of age. The legal residence of a minor female who is married is controlled by the legal residence of her husband. The residence classification for tuition purposes of either a nonresident male or female who marries a Texas resident shall be governed by the provisions of the tuition statute and of these rules and regulations as hereinafter set out.

G. Minors Whose Parents Moved to Another State or Foreign Country

If the parents of a minor who is enrolled as a resident student move their legal residence to another state or foreign country on, or after August 15, 1971, the minor shall be classified as a nonresident at all subsequent registration periods. Under the provisions of Section 54.055, the minor will be entitled to pay the resident tuition

fee as long as he remains continuously enrolled in a regular session in a public institution of higher education. The minor student must re-enroll for the next available regular semester immediately following the parents' change of legal residence to another state.

If the parents of a minor move to another state or foreign country, or reside outside the state or in a foreign country at the time of enrolling in an institution of higher education, but claim legal residence in Texas, conclusive evidence must be presented that the father is still claiming legal residence in the State of Texas and that he has the present intent to return to the state. A certificate from the employer of the parents that the move outside the state was temporary and that there are definite plans to return the parents to Texas by a determinable future date may be considered in this connection.

If a minor whose parents have moved their legal residence to another state or foreign country resides in Texas for 12 consecutive months following his 21st birthday and by his actions clearly indicates that his intention is to establish permanent residence in the state, he may be classified as a resident student effective with the beginning of the term or semester following his 22nd birthday despite the fact that his entire period of residence in Texas has been as a student.

When the parents of a minor who have established their legal residence in another state or foreign country return and reestablish their legal residence in Texas the minor must be classified as a nonresident until the first registration after the parents have resided in the state for a 12-month period following their return.

2 — Residence of Individuals Over Twenty-One

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

Section 54.052(e) An individual twenty-one years of age or over who resides out of the state or who has come from outside Texas and who registers in an educational institution before having resided in Texas for a 12-month period shall be classified as a nonresident student.

Section 54.054 A nonresident student classification is presumed to be correct as long as the residence of the individual in the state is primarily for the purpose of attending an educational institution. After residing in Texas for at least twelve (12) months, a nonresident student may be reclassified as a resident student as provided in the rules and regulations adopted by the Coordinating Board, Texas College and University System. Any individual reclassified as a resident student is entitled to pay the tuition fee for a resident of Texas at any subsequent registration as long as he continues to maintain his legal residence in Texas.

Establishment of Residence

Any individual 21 years of age or over who moves into the state and who is gainfully employed within the state for a period of 12 months prior to enrolling in an educational institution (defined as any institution of higher education, public or private, above the high school level), is entitled to classification as a resident. If such

12 months' residence, however, can be shown not to have been for the purpose of establishing legal residence in the state but to have been for some other purpose, the individual is not entitled to be classified as a resident. Any student registering in an educational institution prior to having resided in the state for 12 months shall be classified as a nonresident for tuition purposes.

A person classified as a nonresident student upon his first enrollment in an institution of higher education is presumed to be a nonresident for the period during which he continues as a student. If such nonresident student withdraws from school and resides in the state while gainfully employed for a period of 12 months, upon re-entry into an institution of higher education he will be entitled to be reclassified as a resident for tuition purposes. Accumulations of summer and other vacation periods do not satisfy this requirement. A student is not entitled to reclassification after a residence in the state for 12 months merely on the basis of his or his wife's employment, registration to vote, registration of a motor vehicle and payment of personal property taxes thereon, or the securing of a Texas driver's license. The presumption of a "nonresident" is not a conclusive presumption, however, and other facts may be considered to determine if the presumption has been overcome. Material to this determination are business or personal facts or actions unequivocally indicative of a fixed intention to reside permanently in the state including, but not limited to, the length of residence and full-time employment prior to registering in the institution, the fact of full-time employment and the nature of such employment (regular industrial, business or professional employment as distinguished from student-type employment) while a student, purchase of a homestead with substantial down-payment, and marriage to a resident of Texas. All of these facts are weighed in the light of the fact that a student's residence while in school is primarily for the purpose of education and not to establish residence, and that decisions of an individual as to residence are generally made after the completion of an education and not before.

3 — Married Students

Statute: Section 54.056 A nonresident who marries and remains married to a resident of Texas, classified as such under this Act at the time of the marriage and at the time the nonresident registers, is entitled to pay the resident tuition fee regardless of the length of time he has lived in Texas, and any student who is a resident of Texas who marries a nonresident is entitled to pay the resident tuition fee as long as he does not adopt the legal residence of the spouse in another state.

Nonresident Who Marries A Resident of Texas

The nonresident male or female student who marries a resident of Texas is entitled to pay the resident tuition at the registration period next following the date of marriage upon submission of evidence of such marriage and of the spouse's legal residence in Texas. The legal residence of a wife, regardless of her age, follows that of her husband. Therefore, a woman who is a resident of Texas and who marries a nonresident shall be classified as a nonresident for all enrollment periods subsequent to her marriage; provided, however, that she shall be permitted to pay the resident tuition so long as she does not affirmatively by her actions adopt the legal residence of her husband (for example, registering to vote in another state).

In the event a nonresident male or female student who marries a resident of Texas, and subsequently, is divorced, such nonresident student shall be classified as a nonresident for all enrollment periods subsequent to the date of such divorce.

4 — Military Personnel and Veterans

Statute: Section 54.058(a) Military personnel are classified as provided by this section in the following manner:

(b) An officer, enlisted man or woman, selectee or draftee of the Army, Army Reserve, Army National Guard, Air National Guard, Texas State Guard, Air Force, Air Force Reserve, Navy, Navy Reserve, Marine Corps, Marine Corps Reserve, Coast Guard, or Coast Guard Reserve of the United States, who is assigned to duty in Texas is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required of Texas residents, without regard to the length of time he has been assigned to duty or resided within the state. However, out-of-state Army National Guard or Air National Guard members attending training with Texas Army or Air National Guard members under National Guard Bureau regulations may not be exempted from nonresident tuition by virtue of that training status nor may out-of-state Army, Air Force, Navy, Marine Corps, or Coast Guard Reserves training with units in Texas under similar regulations be exempted from nonresident tuition by virtue of such training status. It is the intent of the legislature that only those members of the Army or Air National Guard, Texas State Guard, or other reserve forces mentioned above be exempted from the nonresident tuition fee and other fees and charges only when they become members of Texas units of the military organizations mentioned above.

(c) As long as they reside continuously in Texas, the spouse and children of a member of the Armed Forces of the United States who has been assigned to duty elsewhere immediately following assignment to duty in Texas are entitled to pay the tuition fees and other fees or charges provided for Texas residents.

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

(e) A Texas institution of higher education may charge to the United States Government the nonresident tuition fee for a veteran enrolled under the provisions of a Federal law or regulation authorizing educational or training benefits for veterans;

(f) The spouse and children of a member of the Armed Forces of the United States who dies or is killed are entitled to pay the resident tuition fee, if the wife and children become residents of Texas within 60 days of the date of death; and

(g) If a member of the Armed Forces of the United States is stationed outside Texas and his spouse and children establish residence in Texas by residing in Texas and by filing with the Texas institution of higher education at which they plan to register a letter of intent to establish residence in Texas, the institution of higher education shall permit the spouse and children to pay the tuition, fees, and other charges provided for Texas residents without regard to length of time that they have resided within the State.

A. Certification of Assignment to Duty in Texas

Subsection (b) provides that military personnel assigned to duty within the State of Texas, their husband or wife as the case may be and their children, shall be entitled to pay the same tuition as a resident of Texas regardless of the length of their physical presence in the state. To be entitled to pay the resident tuition fees, such military personnel shall submit at the time of each registration a statement from his commanding officer or personnel officer certifying that he is then assigned to duty in Texas and that same will be in effect at the time of such registration in an institution of higher education. This subsection also provides that a nonresident member of an out-of-state National Guard unit who is temporarily training with a Texas National Guard unit will not be entitled to pay the resident tuition.

B. Spouse and Children of Member of Armed Services

Subsection (c) provides that the spouse and children of a member of the armed forces assigned to duty outside the State of Texas immediately after assignment in Texas may be entitled to pay the resident tuition as long as they reside continuously in Texas.

Subsection (g) provides that the spouse and children of a member of the armed forces who is assigned to duty outside the State of Texas and sends his family to the State of Texas may be entitled to pay the resident tuition if they file with the institution of higher education at which the student intends to register a letter of intent, an affidavit or other evidence satisfactory to the institution stating that they intend to become permanent residents of Texas.

Subsection (f) provides that a member of the immediate family (which shall include spouse or children) of a member of the armed forces who dies or is killed in action while in military service may qualify to pay the resident tuition if they become residents of Texas within 60 days of the date of death. To qualify under this provision, the student shall submit to the institution of higher education satisfactory evidence establishing the date of death and residence in Texas.

The military personnel spouse and children enumerated in (b), (c), (f), and (g) are classified as nonresidents but shall be entitled to pay the resident tuition regardless of their length of residence in Texas if they comply with the provisions of the statute and these rules and regulations.

C. Nonresident Military Personnel Attending College Under Contract

Subsection (d) provides that nonresident military personnel attending an institution of higher education under a contract with any branch of the armed forces where the tuition is paid in full under the provisions of such contract shall be charged nonresident tuition even though such military personnel may be assigned to duty pursuant to military orders at an institution of higher education.

D. Nonresidents Attending College Under Federal Benefits Programs for Veterans

Subsection (e) provides that the institution of higher education may charge the nonresident tuition fee for a nonresident veteran to the United States Government under the provisions of any federal law or regulation authorizing educational or training benefits for veterans.

E. Legal Residence of Person in Military Service

A person in military service is presumed to maintain during his entire period of active service the same legal residence which was in effect at the time he entered

military service. A person stationed in a state on military service is presumed not to establish a legal residence in that state because his presence is not voluntary but under military orders. It is possible for a member of the military service to abandon his domicile of original entry into the service and to select another, but to show establishment of a new domicile during the term of active service, there must be clear and unequivocal proof of such intent. An extended period of service alone is not sufficient. The purchase of residential property is not conclusive evidence unless coupled with other facts indicating an intent to put down roots in the community and to reside there after termination of military service. Evidence which will be considered in determining this requisite intent includes, but is not limited to a substantial investment in a residence and the claiming of a homestead exemption thereon, registration to vote, and voting in local elections, registration of an automobile in Texas and payment of personal property taxes thereon, obtaining a Texas driver's license, maintaining checking accounts, savings accounts, and safety deposit boxes in Texas banks, existence of wills or other legal documents indicating residence in Texas, change of home-of-record and designation of Texas as the place of legal residence for income tax purposes on military personnel records, business transactions or activities not normally engaged in by military personnel, membership in professional or other state organizations, and marriage to a resident of Texas. Purchase of property during terminal years of military service preceding retirement generally is given greater weight than a similar purchase made prior to such terminal period.

F. Residence Classification of Veterans Upon Separation from Military Service

A person who enrolls in an institution of higher education following his separation from military service must be classified as a nonresident student unless, (1) he was a legal resident of Texas at the time he entered military service and has not relinquished that residence, (2) he can prove that during his military service he has, in fact, established a bona fide, legal residence in Texas at a time at least 12 months prior to his registration, or (3) he has resided in Texas other than as a student for 12 months prior to his registration and subsequent to his discharge from service.

5 — Employees of Institutions of Higher Education Other Than Students

Statute: Section 54.059 A teacher, professor, or other employees of a Texas institution of higher education is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fee and other fees or charges required for Texas residents without regard to the length of time he has resided in Texas. A teacher, professor, or other employee of a Texas institution of higher education is any person employed at least one-half time on a regular monthly salary basis by a state institution of higher education.

A person employed at least half-time on a regular monthly salary basis (not an hourly employee) by any public institution of higher education, with an effective date of employment on or before the 12th class day of a regular semester or the 4th class day of a summer term, may pay the same tuition as a resident of Texas for himself, his husband or wife as the case may be and their children, regardless of the length of residence in the state. To be entitled to pay the resident tuition fees such employee must submit prior to the time of each registration a statement from the

Director of Personnel or a designated representative of the institution of higher education for which he is employed certifying that such employment will be in effect at the time of registration.

6 — Student Employees

Statute: Section 54.051(o) A teaching assistant, research assistant, or other student employee of any institution covered by this section is entitled to register himself, his spouse, and their children in a state institution of higher education by paying the tuition fees and other fees or charges required for Texas residents, without regard to the length of time he had resided in Texas; provided that said student employee is employed at least one-half time in a position which relates to his degree program under rules and regulations established by the employer institution. This exemption shall continue for students employed two consecutive semesters through the summer session following such employment if the institution is unable to provide employment and, as determined under standards established by the institution, if the employee has satisfactorily completed his employment.

A student employed at least half-time by any public institution of higher education in a position which relates to his degree program, with an effective date of employment on or before the 12th class day of a regular semester, or the 4th class day of a summer term, may pay the same tuition as a resident of Texas for himself, his husband or wife as the case may be, and their children regardless of the length of residence in the state. The institution which employs the student shall determine whether or not the student's job relates to his degree program. If a student is employed by an institution of higher education for consecutive Fall and Spring semesters and he was further eligible to pay the tuition charged to Texas residents during those Fall and Spring semesters because of the provisions of this subsection, then the student may continue to pay the resident tuition rate during the summer session following the Spring employment if the institution is unable to provide employment and if the student has satisfactorily completed his employment.

7 — Competitive Scholarships

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

An official scholarship committee or committees of a public institution of higher education may award competitive scholarships in amounts of \$200 or more for the academic year, the summer session or both. If a nonresident student obtains one of these competitive scholarships, he may pay the same tuition as a resident of Texas during the registration period in which the scholarship is in effect. The student must present a statement from the official scholarship committee certifying that such scholarship will be in effect at the time of registration.

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

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

Citizens of any country other than the United States of America who are in this country on a student visa or a visa other than one entitling them to immigrant status and who enroll in an institution of higher education covered by Section 54.051 of the Texas Education Code shall be classified as "... students who are citizens of any country other than the United States of America . . ." for purposes of Section 1 (a)(7) of Article 2654c, V T. C. S. Such a student who is in this country on an immigrant visa can be classified as a resident student if he has resided in the state for a period of 12 months under circumstances indicating his intention to reside permanently in Texas and not merely to complete his education. To this extent a citizen of any country other than the United States of America residing in Texas on an immigrant visa shall be in no different position than the citizen of the United States who has been a resident of another state. A citizen of any country other than the United States of America residing in the United States of America in a State other than Texas on an immigrant visa and has established his intent to reside permanently in such other State shall be classified as a nonresident.

9 — Reciprocity Clause Applicable to Junior Colleges

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

10 — Student Responsibilities

A. Student Responsibility to Register Under Proper Classification

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

B. Notification Upon Becoming a Nonresident

Every student who is classified as a resident student but who becomes a nonresident at any time by virtue of a change of legal residence by his own action or

by the person controlling his domicile is required to notify the proper administrative officials of his institution at once.

11 — Official Change of Residence Status

A. Application for Reclassification

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

B. Reclassification as a Nonresident

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

C. Reclassification as a Resident

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

12 — Penalties

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

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

Student Compliance with Institutional Rules and Regulations

Each institution has been authorized by statute to assess and collect from each nonresident student failing to comply with the provisions of the tuition statute and with these interpretations concerning nonresident fees a penalty not to exceed \$10.00 a semester. In addition, if a student has obtained residence classification by virtue of deliberate concealment of facts, or misrepresentation of fact, he may be subject to appropriate disciplinary action, in accordance with the rules and regulations that may be adopted by the governing boards of the respective institutions of higher education.

Student Housing

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

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

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

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

The adjustment from high school to college frequently is difficult for the first-year student. Therefore, it is recommended that freshmen who do not live with parents or other relatives reside on the campus. Here they will have ready access to the Library, to contacts with upperclassmen in their major fields and to professional counseling.

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

RESERVATIONS AND ASSIGNMENTS

Reservations

To reserve a room in the residence halls or an apartment, write to the Housing Office, Lamar University, P.O. Box 10041, Lamar University Station, Beaumont, Texas 77710. A check or money order for \$30 must accompany the reservation request. Reservations may be cancelled with full refund until three weeks prior to the first day of classes. No refunds will be issued on cancellations received after this date.

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

Assignments

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

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

Financial Aids and Awards

FINANCIAL AIDS

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

When to Apply

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

Uniform Applications

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

Minimum Qualifications

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

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

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

Loans

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

Scholarships

Scholarships are grants which cover a portion of the student's expenses. There are two types: those administered solely by the University, including the selection of recipients, and those administered by the University at the request of donors who choose students to receive them. The scholarship program at Lamar is financed solely by public donation. The average award is valued at about \$200 per year.

Valedictorians

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

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

Employment

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

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

Educational Opportunity Grants

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

Students with Physical Handicaps (Vocational Rehabilitation)

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

AWARDS

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

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



Academic Regulations

COURSE NUMBERING

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

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

Semester Hour

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

Course

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

REGISTRATION PROCEDURE

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

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

Course Load

Entering students may carry a load of 15 semester hours or the amount regularly scheduled for the first semester of the program being followed. Students entering on probation may carry no more than 13 semester hours.

Maximum Course Loads

1. Full-time students — no student will be allowed to enroll for more than 21 semester hours regardless of the number of grade points earned the preceding semester.
2. Summer session — The normal course load for a six week Summer term is six to eight (6-8) semester hours. Overloads must be approved by the student's academic dean.

Admission to Class

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

ABSENCES

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

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

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

Postponed Examinations

Arrangements for taking postponed examinations are made with the instructor concerned, but must be approved by the instructor's department head. Such arrangements should be made at least 48 hours before the examinations.

ADVANCED STANDING EXAMINATIONS

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

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

Advanced standing examinations will not be approved for skill courses.

A fee of \$5 must be paid to the Finance Office.

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

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

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

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

Except for satisfying the coursework-in-residence and the state-mandated American History and American Government requirements, credit earned by examination is equivalent to credit earned by taking the course. Credit will be awarded only when the student is already enrolled at Lamar at the time of the examination or when the student enrolls at Lamar after taking the examination.

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

REGISTRATION FOR NO GRADE

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

Repetition of a Course

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

GRADE POINT AVERAGE

A grade, once earned and entered upon a student's record, cannot be removed. If a student repeats a course which may not be taken for additional credit, the last grade received is the official grade and is the only one used in figuring GPA.

The repetition of a Lamar University course at another institution, in residence or by correspondence, will not remove a "grade" from the GPA computation of Lamar University courses.

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

Interchange and Recognition of Credits

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

CORRESPONDENCE WORK

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

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

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

- (a) A course required for graduation is not offered by Lamar.
- (b) The student has a schedule conflict between required courses.
- (c) A nonresident senior who is six semester hours or less short of graduation and who has filed a statement of intent to complete his work by correspondence.

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

Seniors must file correspondence transcripts 14 days before graduation.

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

COOPERATIVE PROGRAMS

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

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

1. Must have completed all freshman work in a core program, of which the last 15 semester hours credit must have been earned at Lamar.
2. Must have an over-all grade point average of 2.5 or higher.

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

TRANSFER FROM ONE DEPARTMENT TO ANOTHER

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

TRANSFER STUDENTS

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

CHANGING SCHEDULES

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

DROPPING COURSE

A student may drop a course without penalty during the first 10 weeks (three weeks of the summer session) of the semester. The last date is published in the official university calendar.

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

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

WITHDRAWALS

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

Three copies of the withdrawal form signed by the department head, the Director of Library Services and 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. This refund is made only to persons withdrawing and only if requested before the end of the current semester or Summer Session.

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

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

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

ENFORCED WITHDRAWAL DUE TO ILLNESS

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

ENGLISH REQUIREMENT

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

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

PHYSICAL ACTIVITY COURSE REQUIREMENT

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

1. Those who are unable to participate in a regular or modified activity course because of physical handicaps (must have written exemption from the University physician.)
2. Those who choose active participation in the band for four Fall Semesters . . . or AFROTC.
3. Students who are 25 or more years of age may be exempted from this requirement at their option.

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

BIBLE COURSES

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

Degree Requirements

BACHELOR DEGREE — GENERAL

1. Remove all admission conditions.
2. Have the following minimums:
 - (a) 30 semester hours in residence at Lamar. Twenty-four semester hours of this minimum must be earned during the senior year, except for the special degree programs which apply to biology, law and medical technology.
 - (b) a grade point average of at least 2.0 on all courses in the major field and a grade point average of at least 2.0 on all work required and acceptable to the established degree program.
 - (c) 120 semester hours not including required activity courses in health and physical education, marching band and AFROTC.
 - (d) a major of 24 semester hours, 12 of which must be in advanced courses.
 - (e) six semester hours in Government (231-232).
 - (f) six semester hours in United States History (231-232).
 - (g) six semester hours of freshman English composition.
 - (h) three semester hours of literature and an additional three semester hours of literature, speech or technical report writing.
 - (i) four semesters of required physical activity and/or marching band and/or AFROTC.
 - (j) 30 semester hours in courses on the 300 and 400 levels.
 - (k) four courses in math or laboratory science, with no more than three courses in math or three in science.
3. A maximum of 66 semester hours from the area of concentration may be counted toward a degree. In the professional programs, the area of concentration is composed of the professional courses (i.e., engineering, art, education, home economics and business). In the non-professional programs, the area of concentration is composed of the combined major and minor.
4. Complete the program of study as listed in the Catalog.
5. No more than a total of 30 semester hours of correspondence and extension credit may be applied toward the bachelor's degree. Eighteen semester hours is the maximum for correspondence work only.
6. Make final application for graduation exercises and pay the designated fee.
7. Attend the official graduation exercises or receive prior approval from the Dean of Admissions and Records to be excused from them.

When another bachelor's degree is taken simultaneously, or has been taken previously, the second bachelor's degree may be granted upon the completion of all required work for the second degree. A total of 30 semester hours above the number required for the degree having the greater semester hours requirement must be completed.

BACHELOR OF ARTS DEGREE

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

BACHELOR OF SCIENCE DEGREE

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

BACHELOR OF BUSINESS ADMINISTRATION DEGREE

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

SPECIAL DEGREE PROGRAMS

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

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

Plan I:

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

Plan II:

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

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

The following minimums are required:

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

ASSOCIATE DEGREE — GENERAL

1. Remove all admission conditions.
2. Have the following minimums:
 - (a) 12 semester hours in residence at Lamar University after May 1972.
 - (b) a grade point average of at least 2.0 on all work required and acceptable to the established degree program.
 - (c) 60 semester hours not including required activity courses in health and physical education, marching band and AFROTC.
 - (d) six semester hours in Government (231-232).
 - (e) six semester hours in United States History (231-232).
 - (f) six semester hours of freshman English composition.
 - (g) three semester hours of literature and an additional three semester hours of literature, speech, or technical report writing.
 - (h) four semesters of required physical activity and/or marching band and/or AFROTC.
 - (i) four courses in mathematics or laboratory science, with no more than three courses in mathematics or three in science.
3. No more than a total of 30 semester hours of correspondence and extension credit may be applied toward the degree. Eighteen semester hours is the maximum for correspondence work only.
4. Make application for the associate degree and pay all designated fees.

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

ASSOCIATE OF ARTS DEGREE — (A.A.)

1. Meet the general requirements of all associate degree programs.
2. Complete the courses numbered 232 in a foreign language.
3. Complete six hours of literature.

ASSOCIATE OF SCIENCE DEGREE — (A.S.)

Meet the general requirements of all associate degree programs.

DEGREES

The *ASSOCIATE OF ARTS* degree will be awarded upon completion of the following semester-by-semester curriculum for the proposed program:

First Year	
First Semester	Second Semester
Eng Comp.....3	Eng Comp.....3
Language.....4	Language.....4
Mathematics.....3	Mathematics.....3
History.....3	History.....3
Elective.....3	Elective.....3
HPE.....1	HPE.....1
Total Semester Hours 17	Total Semester Hours 17

Second Year

Third Semester		Fourth Semester	
Literature	3	Literature.....	3
Language	3	Language.....	3
Science	4	Science	4
Government.....	3	Government.....	3
Elective.....	3	HPE.....	2
HPE	2		
Total Semester Hours 18		Total Semester Hours 15	

The *ASSOCIATE OF SCIENCE* degree will be awarded upon completion of the following semester-by-semester curriculum for the proposed program:

First Year

First Semester		Second Semester	
Eng Comp.....	3	Eng Comp.....	3
Science.....	4	Science	4
History.....	3	History.....	3
Elective.....	3-6	Elective.....	3-6
HPE	1	HPE.....	1
Total Semester Hours 14-17		Total Semester Hours 14-17	

Second Year

Third Semester		Fourth Semester	
Literature	3	Literature or Speech	3
Mathematics.....	3	Mathematics	3
Government.....	3	Government.....	3
Elective	3-6	Elective.....	3-6
HPE	2	HPE.....	2
Total Semester Hours 14-17		Total Semester Hours 14-17	

ACADEMIC PROGRESS**Classification of Students**

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

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

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

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

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

Special Student: must meet all entrance requirements.

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

Grading System

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

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

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

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

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

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

Grade Points

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

A grade, once earned and entered upon a student's record, cannot be removed. If a student repeats a course which may not be taken for additional credit, the last grade received is the official grade and is the only one used in figuring GPA.

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

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

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

Reports

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

Dean's List

At the end of each semester the Office of Admissions and Records prepares a list of all full-time (those who complete 12 or more semester hours) freshman and sophomore students who have earned for that semester a grade point average of 3.25 or above and junior and senior students who have earned for that semester a grade point average of 3.45 or above. This list is known as the Dean's List and is announced by the academic dean of each college.

Scholarship Honors

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

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

Advisors and Counselors

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

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

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

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

Scholastic Probation and Suspension

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

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

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

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

Removal of Scholastic Probation and Suspension

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

GRADUATION

Application for Graduation

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

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

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

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

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

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

Graduation Under a Particular Catalog

A student may complete his work for graduation according to the requirements of the catalog of the year in which he is accepted as a major by a department.

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

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

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

Graduation Honors

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

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

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



General Regulations

NEW COURSES

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

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

Minimum Class Enrollment

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

CHANGE OF ADDRESS

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

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

OFFICIAL SUMMONS

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

DISCIPLINE

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

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

Disciplinary Probation

A student may be placed on disciplinary probation for unacceptable behavior at any time or place. **The Dean of Student Affairs may classify behavior as unacceptable and may set the period of probation.** The student has the privilege of ap-

pealing the decision to the Disciplinary Committee of the University. This appeal is made through the office of the Dean of Student Affairs.

Hazing

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

Penalty for False Statements

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

ELIGIBILITY FOR EXTRACURRICULAR ACTIVITIES

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

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

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

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

ELIGIBILITY FOR INTERCOLLEGIATE ACTIVITIES

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

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

STUDENT DEBTS

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

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

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

TELEPHONE SERVICE

Public telephone pay stations have been installed in all academic classroom buildings, the Library and the Setzer Student Center. Students are expected to use

these telephones for their personal calls. Office telephones are for the use of faculty and administrative personnel. **Incoming telephone calls for students are transmitted to the students only in cases of emergency.**

PARKING REGULATIONS

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



Student Activities

STUDENT GOVERNMENT ASSOCIATION

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

PUBLICATIONS

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

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

A Student Handbook is published primarily for the benefit of new students. Information concerning the University and student activities is given in this publication.

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

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

Interface is a quarterly magazine published by students. It accepts copy from all colleges in the University.

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

ARTIST SERIES

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

SETZER STUDENT CENTER

The Richard W. Setzer Student Center provides facilities for leisure-time recreation and is the campus center for many extracurricular activities. Completed in 1971 at a cost of \$2,800,000 the center includes lounges, snack bars, recreation areas, bookstore, ballroom, barber shop, meeting rooms and facilities for student organizations. Offices are located there for Student Government, Setzer Student Center Council, activities program counselors and the Center director.

STUDENT ORGANIZATIONS

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

INTRAMURAL SPORTS PROGRAM

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

RELIGIOUS CENTERS

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

In addition to credit Bible courses, the centers offer opportunities for worship, noncredit study and counseling to aid the student in developing a meaningful context for his university years.

EX-STUDENTS ASSOCIATION

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

College of Business

Departments: Accounting, Business Administration, Economics, Secretarial Science

J. D. Landes, Ph.D., Dean
Teresa Parish, Janet
Tannehill, secretaries

The College of Business was established by the University in 1972. Prior to this time, degrees in business and economics were granted by the Division of Business which began in 1951 and the School of Business established in 1954.

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

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

OBJECTIVES

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

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

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

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

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

The attainment of these objectives requires not only a given pattern of courses but also successful teaching and research. In classroom presentation, the College utilizes many approaches including lecture, discussion, case method, individual research projects, etc. Lower level courses are presented primarily from historic and descriptive points of view, while the upper level courses are designed to develop the student's ability to analyze and utilize research findings in problem-solving situations.

DEGREES

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

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

I. Curriculum Requirements

Plan I

- A. Non-professional education courses (63 semester hours)
 - Eco 231, 232—Principles of Economics
 - English Composition—six semester hours
 - Gov 231, 232—State and National
 - His 231, 232—United States
 - Literature—three semester hours
 - Mth 134, 1341—Algebra and Elements of Analysis
 - Physical Education or Band—four semesters
 - Science—eight semester hours
 - Soc, Phl, or Ant—three semester hours
 - Spc 131—Speech Communication
 - Approved non-professional education electives — 12 semester hours — not to exceed six semester hours in any subject area.
- B. Pre-professional courses (four semester hours)
 - CS 133—Introduction to Computer Programming
 - BA 210—Computer Programming (Fortran)
- C. Professional core courses (33 semester hours)*
 - Acc 231, 232—Principles of Accounting
 - BA 331—Business Law
 - BA 332—Principles of Finance
 - BA 334—Principles of Marketing
 - BA 335—Principles of Management
 - BA 3301, 3302—Business Statistics
 - Eco 334—Macro Economics
 - Eco 339—Economics of the Firm
 - SS 334—Business Communications
- D. Professional Specialization (21-24 semester hours)

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

Acc Major (21 sem. hours)

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

Gen Bus Major (21 sem. hours)

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

Marketing Major (21 sem. hours)

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

Economics Major

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

Management Major (21 sem. hours)

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

Sec Sci Major (23 sem. hours)

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

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

BBA — GENERAL BUSINESS**Plan II**

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

- A. Non-professional education courses (77 semester hours)
 Eco 233 — Prin and Policies
 English Composition — six semester hours
 *Foreign Language — 14 semester hours

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

- Gov 231, 232 — State and National
- His 231, 232 — United States
- Literature — six semester hours
- Mth — 12 semester hours
(including six semester hours of Calculus)
- Phl 231 — Introduction or Phl 232 — Logic
- Physical Education or Band — four semesters
- Psy 231 — General
- Science — eight semester hours (in same science)
- Soc 330 — American Society
- Spc 331 — Professional Speech
- B. Professional core courses (27 semester hours)
 - Acc 231, 232 — Prin of Acc
 - BA 331 — Bus Law
 - BA 332 — Prin of Finance
 - BA 334 — Prin of Marketing
 - BA 335 — Prin of Mgmt
 - BA 3301, 3302 — Business Statistics
 - SS 334 — Business Communications
- C. Professional specialization (18 semester hours)
 - Acc 331, 332 — Inter
 - BA 336 — Per Management
 - BA 4314 — Admin Policies
 - Eco 333 — Inter Theory
 - Eco 433 — Hist of Eco Thought
- D. Approved electives (upper level courses including six hours of economics) to complete a total of 128 semester hours.

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

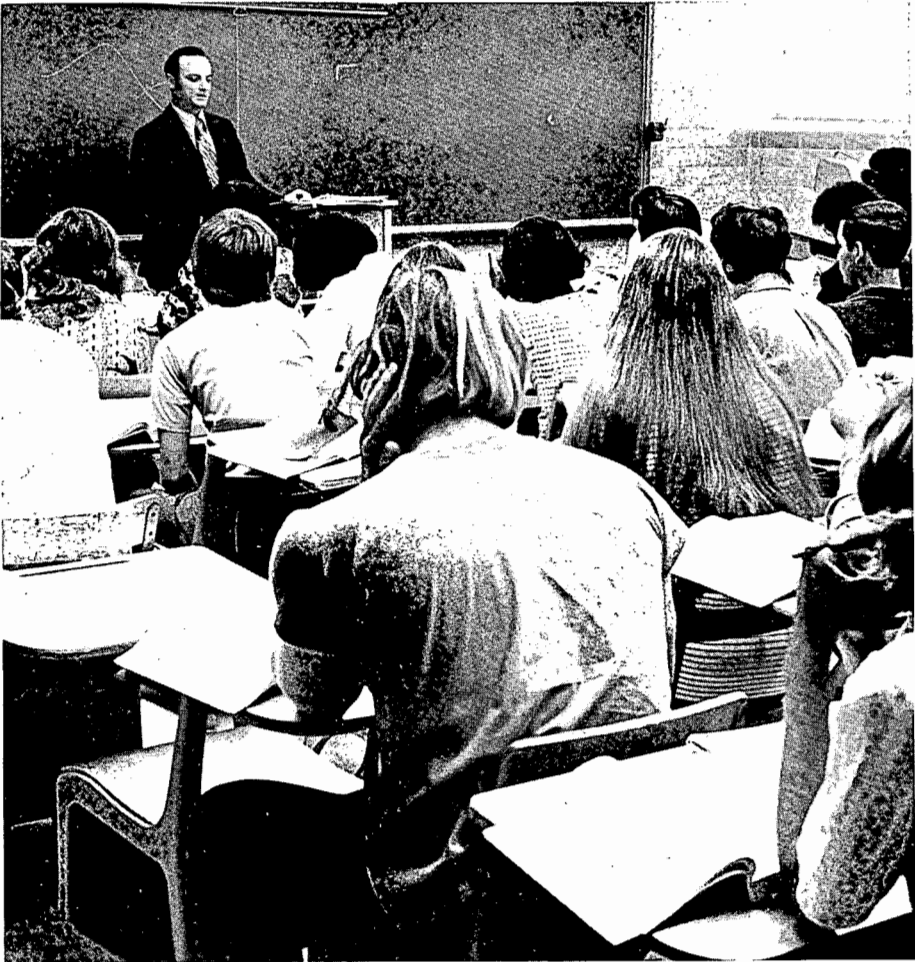
The **Bachelor of Arts** degree in economics will be awarded upon completion of the following requirements:

- I. The specific course requirements as set forth in the Department of Economics for the degree. (See Department of Economics in this catalog.)
- II. A minimum grade point average of 2.00 in all economics courses.
- III. A minimum grade point average of 2.00 in all work required for the degree.
- IV. A minimum of 124 semester hours exclusive of physical education and band.
- V. A minimum of 30 semester hours in the field of economics.
- VI. A minor of 18 semester hours, six of which must be 300 or 400 level courses.

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

SELECTION OF A MAJOR

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



Department of Accounting

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

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

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

Program of Study

Bachelor of Business Administration — Accounting Major

First Year	Second Year
CS 133—Int to Comp Prog 3	Acc 231, 232—Prin 6
Eng—Composition 6	BA 210—Comp Prog-Fortran 1
Mth 134, 1341 6	Eco 231, 232—Prin 6
Science 8	Eng—Literature 3
Soc, Phl, Psy or Ant 3	Gov 231, 232—State and Natl 6
Spc 3	His 231, 232—United States 6
HPE—Activity 2	HPE—Activity 2
31	Electives 3
	33
Third Year	Fourth Year
Acc 331, 332—Interm 6	Acc 430—Auditing 3
Acc 338—Tax Acc. 3	Acc 431—Advanced 3
BA 331—Bus Law 3	Acc 334—Elem Cost 3
BA 332—Prin of Finance 3	BA 334—Marketing 3
BA 3301, 3302 Bus Ststes 6	BA 335—Prin of Mgmt 3
Eco 339—Eco of Firm 3	Eco 334—Macro Eco 3
Electives 9	SS 334—Bus Commun 3
33	Electives 10
	31

ACCOUNTING (ACC)

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

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

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

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

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

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

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

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

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

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

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

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

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

Department of Business Administration

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

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

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

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

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

Pre-Law

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

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

Program of Study

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

First Year	Second Year
CS 133—Intro to Comp Prog 3	Acc 231, 232—Prin 6
BA 210—Comp Prog-Fortran 1	Eco 231, 232—Prin 6
Eng—Composition 6	Eng—Literature 3
Mth 134, 1341 6	Gov 231, 232—State & Natl. 6
Science 8	His 231, 232—United States 6
Soc, Phl, Ant, or Psy 3	HPE—Activity 4
Spc 3	
HPE—Activity 2	
Elective 3	
	31

Third Year

BA 331—Bus Law	3
BA 332—Prin of Finance	3
BA 334—Prin of Marketing	3
BA 3301, 3302 Bus Stctcs	6
Eco 333—Interm Theory	3
Eco 334—Macro Econ	3
SS 334—Bus Commun	3
Electives	6
	<hr/>
	30

Fourth Year

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

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

First Year

Eng—Composition	6
Foreign Language	8
Mth	6
Phl 231 or 232	3
Psy 231—General	3
Science	8
HPE—Activity	2
	<hr/>
	36

Second Year

Acc 231, 232—Prin	6
Eco 233—Prin	3
Foreign Language or Science	6
His 231, 232—United States	6
Mth (Calculus)	6
Elective	3
HPE—Activity	4
	<hr/>
	34

Third Year

Acc 331, 332—Inter	6
BA 331—Bus Law	3
BA 334—Prin of Marketing	3
Eco 333—Interm Theory	3
Eng—Literature	3
Gov 231, 232—State & Natl	6
Spc 331—Professional	3
Electives*	3
	<hr/>
	30

Fourth Year

BA 332—Prin of Finance	3
BA 3301, 3302 Bus Stctcs	6
BA 336—Personnel Mgmt	3
BA 335—Prin of Mgmt	3
BA 4314—Adm Policy	3
Eco 433—Hist Eco Tht	3
SS 334—Bus Commun	3
Electives*	5
	<hr/>
	29

Bachelor of Business Administration — Management Major

First Year

CS 133—Intro to Comp Prog	3
BA 210—Comp Prog-Fortran	1
Eng—Composition	6
Mth 134, 1341	6
Science	8
Soc, Phl, Ant, or Psy	3
Spc	3
HPE—Activity	2
Electives (non-business)	3
	<hr/>
	35

Second Year

Acc 231, 232—Prin	6
Eco 231, 232—Prin	6
Eng—Literature	3
Gov 231, 232—State & Natl	6
His 231, 232—United States	6
HPE—Activity	4
	<hr/>
	31

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

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

Third Year	Fourth Year
BA 331—Bus Law	Acc 334—Cost Acc
BA 332—Prin of Finance	BA 336—Personnel Mgmt
BA 334—Prin of Marketing	BA3311—Labor Law or
BA 335—Prin of Mgmt	Eco 336
BA 3301, 3302 Bus Stctcs	BA 436—Production Mgmt
Eco 334—Macro Eco	BA 4314—Admin Policy
SS 334—Bus Commun	BA 4310—Mktg Mgmt
Electives (non-business)	BA 4315—Budgetary Control
—	Eco 339—Eco of Firm
30	Electives (Bus or Eco 300 or
	400 Level)
	8
	<u>32</u>

Program of Study

Bachelor of Business Administration — Marketing Major

First Year	Second Year
CS 133—Intro to Comp Prog	Acc 231, 232—Prin
BA 210—Comp Prog-Fortran	Eco 231, 232—Prin
Eng—Composition	Eng—Literature
Mth 134, 1341	Gov 231, 232—State and Natl
Science	His 231, 232—United States
Soc, Phl, Psy or Ant	HPE—Activity
Spc	31
HPE—Activity	
Elective (non-business)	
—	
35	
Third Year	Fourth Year
BA 331—Bus Law	BA 338—Prob in Ret & Whl
BA 332—Prin of Finance	BA 4303—Inter Bus Stctcs
BA 334—Prin of Marketing	BA 339—Sales Promotion
BA 335—Prin of Mgmt	BA 4310—Mktg-Mgmt
BA 3301, 3302 Bus Stctcs	BA 4314—Adm Policy
Eco 334—Macro Eco	BA 4318—Mkt Research
SS 334—Bus Commun	BA 4319—Adv Mktg Problems
Electives (non-business)	Eco 339—Eco of Firm
—	Electives (Bus or Eco 300 or
30	400 Level)
	8
	<u>32</u>

Program of Study

Bachelor of Business Administration—Pre-Law

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

Requirements:

1. Complete 96 hours exclusive of HPE and Band.
2. Grade point average of 2.5 on all college work taken.
3. Application for degree at end of first year of law school.

First Year	Second Year
CS 133—Intro to Comp Prog 3	Acc 231, 232—Prin 6
BA 210—Comp Prog-Fortran 1	Eco 231, 232—Prin 6
Bio 141, 142—General 8	Eng—Literature 3
Eng—Composition 6	Gov 231, 232—State and Natl 6
Mth 134, 1341 6	His 231, 232—United States 6
Elective (non-business) 3	HPE—Activity 4
Soc 131 3	<u>31</u>
Spc 131 3	
HPE—Activity 2	
<u>35</u>	
Third Year	
Acc 331, 332—Interm 6	
BA 332—Prin of Finance 3	
BA 334—Prin of Marketing 3	
BA 335—Prin of Mgmt 3	
BA 3301, 3302 Bus Ststes 6	
Eco 339—Eco of Firm 3	
Eco 334—Macro Eco 3	
SS 334—Bus Commun 3	
Electives (Bus or Eco 300 or 400 Level)* 6	
<u>36</u>	

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

BUSINESS ADMINISTRATION (BA)

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

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

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

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

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

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

334 — Marketing. The social and economic aspects of distribution as found in business organizations. Structures; functions; institutions; problems. Prerequisites: Eco 232 or Eco 233. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

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

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

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

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

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

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

4315 — Budgetary Control. Theories, problems and techniques of internal financial and budgetary controls. Financial planning; budgetary construction; evaluation;

performance rating; replanning. Prerequisite: BA 335. Class: 3 hours. Credit: 3 semester hours.

4316 — Business Simulation, Modeling and Decision Theory. The use of the computer in the solution of problems concerning pricing, inventory control, production scheduling, sales forecasting and related business decisions. Prerequisites: BA 3302 and BA 210. Class: 3 hours. Credit: 3 semester hours.

4317 — Computers in Business Management. Concepts of computers information systems, capabilities and limitations, managerial implications in the introduction and use of computers, feasibility study and evaluation of computer systems. Methods of data storage, display and retrieval. Prerequisite: CS 133 and BA 210. Class: 3 hours. Credit: 3 semester hours.

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

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

Department of Economics

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

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

Programs of Study

Bachelor of Arts — Economics Major

Requirements:

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

First Year

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

Second Year

Eco 231, 232 Prin.....	6
Eng—Literature	3
Foreign Language	6
Gov 231, 232—State & Natl.....	6
His 231, 232—United States	6
BA 210—Comp Prog	1
HPE—Activity	2
	30

Third Year

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

Fourth Year

Eco 332—Mon & Bkg	3
Eco 433—Hist of Eco Thot	3
**Electives	28
	34

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

Bachelor of Business Administration — Economics Major

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

First Year	Second Year
Eng—Composition 6	Eco 231, 232—Prin 6
Mth 134, 1341—Alg & Analysis 6	Acc 231, 232—Prin 6
Science 8	Eng—Literature 3
CS 133—Intro to Comp Prog 3	Gov 231, 232—State & Natl. 6
Spc 3	His 231, 232—United States 6
HPE—Activity 2	HPE—Activity 2
Soc, Phl, or Ant 3	BA 210 1
<u>31</u>	**Elective 3
	<u>33</u>
Third Year	Fourth Year
BA 331—Bus Law 3	Eco 332—Mon & Bkg 3
BA 332—Prin of Finance 3	BA 335—Prin of Mgmt 3
BA 334—Marketing 3	BA 336—Per Mgmt 3
BA 3301, 3302—Bus Ststcs 6	SS 334—Bus Commun 3
Eco 333—Interm Theory 3	**Electives 19
Eco 334—Macro Eco 3	<u>31</u>
Eco 339—Eco of Firm 3	
**Electives 9	
<u>33</u>	

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

ECONOMICS (Eco)

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

232 — Principles. Continuation of Eco 231. Allocation of resources; determination of output and prices; distribution; and managerial economics. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

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

339 — Economics of the Firm. The application of the techniques of economic analysis of the managerial problems of business enterprises utilizing a problem-solving or case study approach. Goals of the firm; business forecasting; demand analyses; cost analyses; game theory; pricing policies; governmental relations. Prerequisites: 6 hours of Economics. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

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

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

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

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

Department of Secretarial Science

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

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

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

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

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

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

Program of Study

First Year	Second Year
CS 133 — Int to Comp Prog 3	Acc 231-232 — Prin 6
Eco 231, 232 Prin 6	BA 210 — Comp Prog Fortran 1
Eng — Composition 6	Eng — Literature 3
Mth 134, 134I — Algebra & Analysis 6	Gov. 231 — Const & State 3
SS 123 — Interm Typing 2	His 231, 232 — United States 6
Science 8	HPE — Activity 2
HPE — Activity 2	Spc 3
33	Elec 6
	30
Third Year	Fourth Year
BA 331 — Bus Law 3	BA 335 — Ind Mgmt 3
BA 332 — Prin of Finance 3	BA 336 — Pers Mgmt 3
BA 334 — Marketing 3	BA 437 — Investments 3
BA 3301, 3302 — Bus Stctcs 6	SS 222 — Prod Typing 2
Gov 232 — Natl 3	Eco 339 — Eco of Firm 3
SS 363 — Adv Shorthand 6	Eco 334 — Macro Eco 3
SS 334 — Bus Commun 3	SS 341 — Sec. Off Proc 4
Electives 3	SS 332 — Dict & Trans 3
SS 125 2	Electives 9
32	33

Teacher Certification — Secretarial Science Major

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

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

Two-Year Terminal Program in Secretarial Science

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

SECRETARIAL SCIENCE (SS)

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

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

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

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

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

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

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

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

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

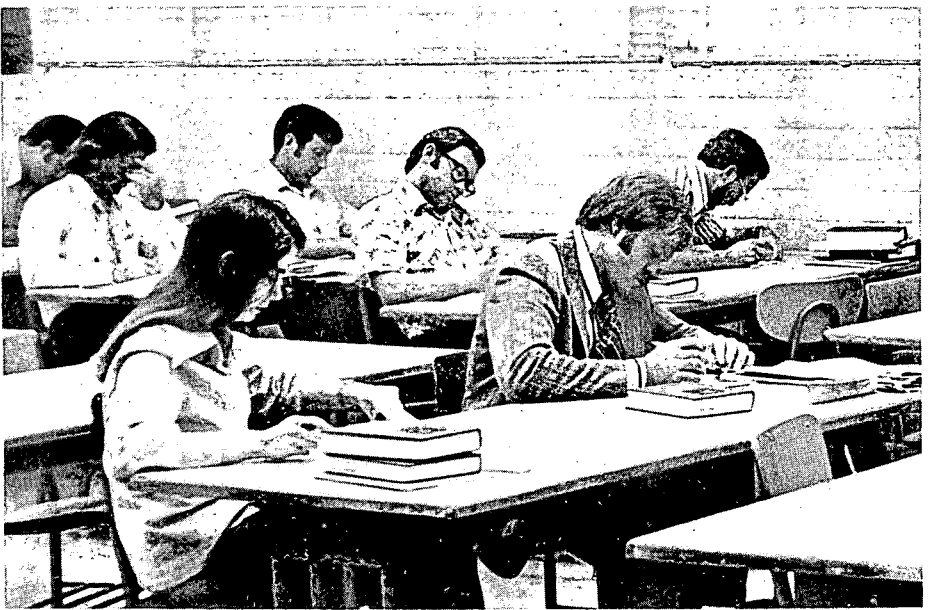
332 — Dictation and Transcription. Continuation of SS 363 with stress on building shorthand speed and improving transcription skill. Vocabulary development; sustained dictation; volume production. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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



College of Education

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

M.L. McLaughlin, Ed.D., Dean
Howard W. Adams, Ed.D., Director of Certification and Graduate Studies

E. Lee Self, Ph.D., Director of Student Teaching

Mrs. Nelda Castleman, Secretary

The College of Education was established in 1959 and includes the departments of Elementary Education, Secondary Education, Special Education, Health and Physical Education for Women, Health and Physical Education for Men and Home Economics.

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

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

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

DEGREES OFFERED

Bachelor of Science with majors in the following fields:

Elementary Education

Health and Physical Education

Secondary Education

Home Economics

OBJECTIVES

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

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

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

Teacher Education — A Shared Responsibility

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

Teacher Education Programs

Lamar University provides undergraduate programs of teacher education which fulfill the curriculum requirements for the following Provisional Certificates in the State of Texas: Elementary Education, Secondary Education, Mental Retardation, Physically Handicapped, Emotionally Disturbed, Language and/or Learning Disabilities, Education of the Deaf, Speech and Hearing Therapy, Driver Education, All-levels Music, All-levels Art, Kindergarten Education, and Vocational Home Economics.

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

Admission to Teacher Education

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

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

Admission to Student Teaching

Students wishing to enroll in student teaching must be selected and approved in order to be eligible to register for this course. Applications for student teaching must be submitted to the Director of Student Teaching by May 1, prior to the academic

year for which student teaching is planned. This includes applications for the Spring Semester as well as applications for the Fall. Failure to follow this procedure may delay admission to the student teaching program by at least one semester.

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

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

Certification Policies

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

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

Provisional Certificate and Degree Requirements

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

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

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

Academic Foundations (60 semester hours)

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

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

2. Foundations electives and degree requirements 18 hours

These hours must be selected from approved courses in the following groups with courses included from a minimum of three groups:

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

Group II: Art, Music, Speech.

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

Group IV: History, Government, Economics, Geography.

Group V: Sociology, Anthropology, Psychology.

SPECIAL CERTIFICATES AND ENDORSEMENTS

All-levels Art degree and certificate.

Described in the "Art" section of this catalog.

Driver education

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

HPE 320 — Safety and First Aid

HPE 334 — Driver Education

HPE 416 — Student Teaching in Driver Education

Kindergarten education endorsement

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

All-levels Music degree and certificate

Described in the "Music" section of this catalog.

Special education certificate endorsements

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

Education of the deaf and speech and hearing therapy

Described in the "Speech" section of this catalog.

Vocational Home Economics degree and certificate

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

Certification for Persons with Baccalaureate Degree (or higher)

Who Are Not Certified to Teach in Texas

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

Certification for Persons With Texas Teaching Certificates

Who Desire Additional Endorsements

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

Professional Certificates

Requirements for Professional Certificates are described in the Graduate Bulletin.

Department of Elementary Education

Accredited by the National Council for the Accreditation of Teacher Education

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

Bachelor of Science in Education — Elementary

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

In addition to completing the 60 hours required in the academic foundations program (previously described), students must fulfill the requirements in the area of specialization, professional education, and elective courses. This plan allows an overlap of six semester hours between academic foundations and the area of specialization, thus allowing 12 semester hours of free electives. If the area of specialization is in a discipline other than English, mathematics, science or history, the free electives may be reduced to six semester hours.

Academic Foundations (60 Semester Hours)

(Described in Prior Section)

Academic Specialization (36 Hours)

A. Specialization in one subject (18 hours, nine advanced). Courses must be in one of the following areas: English, history, mathematics, one science, one foreign language, speech, art, music or physical education. Courses may include six hours (eight in science) taken as part of the academic foundations. A listing of course sequences is available in the office of the Head of the Department of Elementary Education.

B. Work in a combination of subjects (18 semester hours). Specific requirements are:

Geo 237 — Physical Geography or Geo 238 — Cultural Geography

Art 3371 — Elementary Art Education

Spc 333 — Interpre. Child. Lit. or Spc 336 — Creative Dramatics

HPE 339 — Physical Education in the Elementary School

MEd 131 — Elements of Music

His 134 — History of Texas

Professional Development (30 semester hours)

Edu 331—Foundations in Education

Edu 332—Educational Psychology

Edu 333—Language Arts in the Elementary School

- Edu 334—Child Development and Evaluation
- Edu 335—Arithmetic in the Elementary School
- Edu 339—Reading in the Elementary School
- Edu 434—Classroom Management
- Edu 437—Science & Social Studies in the Elementary School
- Edu 465—Student Teaching in the Elementary School

Free Electives (six semester hours)

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

Program of Study

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

First Year	Second Year
Eng—Composition6	Eng—Literature6
Science—Laboratory8	His 231-232—United States6
Mth 135, 136—Con Mth6	Gov 231-232—St & Natl6
MEd 131—Ele of Music3	Science3
His 134—Texas3	HPE 339—P.E. in Elem Sch3
HPE—Activity2	HPE—Activity2
Acad Found—Elect3	Specialization3
Geo 237 or 2383	Mth 3313—Mod Ele Geom3
34	32
Third Year	Fourth Year
Art 3371—Elem Schl Art3	Edu 437—Sci & Soc Stud3
Edu 331—Foundations3	Edu 465—Student Teaching6
Edu 332—Edu Psy3	Area of Specialization6
Edu 333—Lang Arts3	Acad Found—Elect9
Edu 334—Child Dev & Eval3	Free Electives6
Edu 335—Arith in Elem Sch3	30
Edu 339—Read in Elem Sch3	
Edu 434—Clsrm Mgt3	
Spc 333—Interp Child Lit3	
Area of Specialization9	
36	

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

Kindergarten Certificate Requirements

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

Edu 4302 — Early Childhood Development3	
Edu 4303 — Instruction in Early Childhood3	
Edu 4304 — History and Philosophy of Kindergarten3	
Edu 463 — Student Teaching (3 hrs. Elementary, 3 hrs. Kindergarten)6	
Total	15

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

Department of Secondary Education

Accredited by the National Council for the Accreditation of Teacher Education

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

Bachelor of Science in Education — Secondary

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

Bachelor of Science in Secondary Education

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

Bachelor's Degree in a Particular Discipline

Art (All Levels)
Business (Secretarial Science)
Earth Science
English
French
Government
Health and Physical Education
(Men)
Health and Physical Education
(Women)
History
Home Economics
Mathematics
Music (All Levels)
Physics
Spanish
Speech

In addition to completing the academic foundations program (described previously in the explanation for certification), students must fulfill the requirements in the areas of specialization, professional education, and elective courses. These plans allow for an overlap of six semester hours (eight in case of sciences) taken in academic foundations which may be included in any one teaching field. This allows an increase of free electives to 12 semester hours if there is an overlap in one field (14 in the area of science) and to 18 semester hours (20 if one field is science) if there is an overlap in each field. Of course, if there is no overlap between the 60 hour academic foundations and the teaching fields then the free electives are limited to six semester hours. These requirements are explained in the four following areas.

1. Academic Foundation (60 Semester Hours)

(Described in introductory section for College of Education).

2. Academic Specialization (48 Semester Hours — Minimum)

All curricula leading to certification in secondary fields require a minimum of 24 semester hours (12 advanced) in each of the two teaching fields or a minimum of 48 semester hours (18 advanced) in a single area of specialization. All programs at this University except Secretarial Science, General Science, Home Economics, All-Levels Art, All-Levels Music, and Social Studies require two teaching fields

Students certifying under Plan I (two teaching fields) are required to select one academic field as being of greatest interest. Details concerning specific requirements in the various specialization areas may be found in the sequences below:

Art

Specialization: (24 semester hours) Art 131, 133, 134, 231, 3381, 4341, 4371, 4381.

(Academic foundation must include Art 235 and Art 236).

Art (All Levels)

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

Biology

Specialization: (24 semester hours) Bio 141, 142, 345, 347, plus eight hours to be selected from Bio 245, 346, 440, 441, 442, 443, 444, 445, 446, 447, 449. Also required: Chm 141-142 or 143-144.

(When selected as area of greatest interest program must also include eight additional hours of biology).

Business (Plan II — Composite Field)

Specialization: (48 semester hours) Acc 231, 232, BA 120, 210, 331, 332, 334, 335, 431, Sec 123, 222, 341, 332, 344, 363, 438.

(Academic Foundations must include Eco 131-132, Spc 131, plus three hours Sociology, Philosophy, or Anthropology).

Chemistry

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

Drama (See Theater)

Earth Science

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

Economics

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

English

Specialization: (27 semester hours) Six hours of sophomore literature selected from 2311, 2314, 2315, or 2316; six hours of advanced British Literature; six hours of advanced American Literature; Eng 4331 or 4332; Eng 3321; Eng 334 or 430 or 3312. Foundations program must include a foreign language through 232 for students who had foreign language in high school and a foreign language through 142 for students who had no foreign language in high school.
(When selected as area of greatest interest program must include a foreign language through 232).

French

Specialization: (24 semester hours) Fre 231, 232, 321, 337, 338, 411, plus nine hours of Advanced French.

General Science (Plan II — Composite Field)

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

German

Specialization: (24 semester hours) German 231, 232, 411, plus 17 hours of courses on the 300 or 400 level.

Government

Specialization: (24 semester hours) Gov 233 and at least one advanced Government course from each of five fields: American government; political philosophy; international relations; comparative government; public administration (See Government Department in this catalog for listing of courses). Also required: Gov 231 — 232, which are included in core requirements of academic foundations.

(When selected as area of greatest interest, program must include a foreign language through 232).

Health and Physical Education (Men)

Specialization: (24 semester hours) HPE 132, 235, 236, 331 or 332, 333, 336, 436, plus three elective hours in HPE-M from HPE 237, 331 or 332, 335, 431, 432, and 435.

(Foundations program must include Bio 141, 142). (When selected as area of greatest interest program must include Bio 330, and Spc. 131).

Health and Physical Education (Women)

Specialization: (24 semester hours) HPE 132, 133, 236, 237, 332, 333, 433; and three advanced elective hours in HPE-W (Foundations program must include Bio 141, 142).

(When selected as area of greatest interest program must include four additional hours of HPE activity courses, Bio 330, and Spc 131).

Health Education

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

History

Specialization: (24 semester hours) His 131, 132, six hours advanced American History, six hours advanced World History, plus His 231, 232 which are included in foundations program.

(When selected as area of greatest interest program must include History 339 and Foreign Language through 232.)

Home Economics (Vocational)

Specialization: (48 semester hours) See page 141 of this catalog for complete description of certification plan in this area.

Mathematics

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

Music (All Levels)

See Music Department in this Catalog.

Physics

Specialization: (24 semester hours) Phy 141, 142, 448 or Phy 140, 241, 242, 333; 335; plus six hours to be selected from 324, 436, 338, 436, 414, 416 and 417.

Foundations program must include Mth 1381, 1391, 2311, 2321, 331, Chm 141, 142.

Social Studies (Plan II — Composite Field)

Specialization: (48 semester hours as follows):

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

Spanish

Specialization: (24 semester hours) Spa 231, 232, 335, 321, 411, plus 12 hours of advanced Spanish.

Speech

Specialization: (24 semester hours) Spc 132, 133, 234, 238, 330, 434, 438, plus three hours selected from 332, or 337, or 338.

(When selected as area of greatest interest foundations program must include Spc 131 and 233).

Theater (Drama)

Specialization: (24 semester hours) Spc 133, 233, 235, 237, 334, 335, 437, plus three hours selected from 336, 3360, 337, or 436.

(When selected as area of greatest interest foundations program must include Spc 131 and Spc 132.)

3. Professional Development (18 semester hours)

Edu 331 — Foundations in Education

- Edu 332 — Educational Psychology
- Edu 338 — Curriculum, Materials, and Evaluation in the Secondary School
- Edu 438 — Classroom Management
- Edu 462 — Student Teaching in the Secondary School

4. **Free Electives** (six semester hours)

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

Program of Study

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

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

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

Department of Special Education

Department Head — Monty Sontag. *Associate Professor* — Walter Dezelle. *Assistant Professor* — James E. Lane. *Instructors* — *Nadine Jenkins, Timothy O. Sonnenberg. *Secretary* — Patricia Baird.
(*On leave.)

Special Education Certificate Requirements

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

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

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

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

Mental Retardation

- Edu 3301 — Survey in the Education of Exceptional Children
- Edu 3311 — Identification and Habilitation of the Mentally Retarded
- Edu 430 — Education of the Mentally Retarded
- Edu 431 — Psychology of Exceptional Children
- Edu 463 — Student Teaching — Special*

Physically Handicapped /Minimal Brain Injury

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

Emotionally Disturbed

- Edu 3301 — Survey in the Education of Exceptional Children
- Edu 3313 — Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed

- Edu 4314 — Educational Needs of the Emotionally Disturbed
- Edu 4315 — Practicum Experiences with the Emotionally Disturbed
- Edu 463 — Student Teaching — Special *

Language and/or Learning Disabilities

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

*Secondary students, see restrictions listed under "Student Teaching" in the following section.

Educational Diagnostician

This is a graduate program and fulfills requirements for a Professional Certificate. Additional information may be found in the Graduate Bulletin, however, students may use Education 430, 431, and 439 as a part of this program.

With an additional six to 12 hours from certification programs for Mental Retardation, Physically Handicapped/Minimally Brain Injured, or Language and/or Learning Disabilities over and above the 12 hours required for the completion of one area will entitle the student to two and/or three certificates in Special Education, along with certification in Elementary or Secondary Education.

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

STUDENT TEACHING IN SPECIAL EDUCATION

Elementary and Special Education

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

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

Secondary Education Students

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

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

EDUCATION (EDU)

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

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

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

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

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

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

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

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

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

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

3312 — Education of the Physically Handicapped. Description and characteristics of children with physical disabilities. Consideration of etiological factors and limitations in regular and special classes, hospital and homebound instruction. Includes 18-hour field experience in observing the behavior of physically handicapped children. Class: 3 hours. Credit: 3 semester hours.

3313 — Behavioral Characteristics and Learning Procedures of the Emotionally Disturbed. The principles of normal and abnormal child growth and development, including biological and socio-cultural determinants of growth;

classification and description of relevant psychological terminology as related to the behavior of the emotionally disturbed. Class: 3 hours. Credit: 3 semester hours.

3316 — Identification of Language and Learning Disorders. The identification of specific behavioral characteristics that interfere with adequate learning, with special emphasis on techniques to alter behavior. Discussion and presentation of theories of perception and cognition. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

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

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

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

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

4101, 4201, 4301, 4601 — Institute or Workshop in Education. A number of institutes or workshops are designed to advance the professional competence of teachers. For each, a description of the particular area of study will be indicated.

May be repeated for credit when nature of workshop or institute differs sufficiently from one previously taken. Class: 1 to 6 hours. Credit: 1 to 6 semester hours.

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

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

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

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

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

4314 — Educational Needs of the Emotionally Disturbed. Programming possibilities based on the characteristics and severity of the individual's emotional problems. Integration of knowledge and competencies to provide an instructional program to meet the needs of emotionally disturbed children. Class: 3 hours. Credit: 3 semester hours.

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

4317 — Practicum in the Identification of Language and Learning Disorders. Includes 45 hours of practicum experience in public and/or private schools, plus group or individual conferences as arranged by the instructor. Prerequisite: Edu 3316. Credit: 3 semester hours.

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

Department of Health and Physical Education for Men

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

Program of Study

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

Bachelor of Science in Health & Physical Education (MEN)

First Year	Second Year
Eng — Composition6	Eng — Literature6
Bio 141-142 — Gen Biology8	Gov 231-232 — State and Natl.....6
Mth 131-132 — Finite6	His 231-232 — United States.....6
Spc 131 — Spc Comm3	HPE 235M — Health Edu3
HPE 132M — Principles.....3	HPE — Activity4
HPE 236M — PE Sec Sch.....3	*Electives.....9
HPE — Activity2	34
*Electives3	
34	
Third Year	Fourth Year
Bio 330 — App Anat and Kinesiolo3	Edu 438 — Classroom Mgt Sec.....3
Edu 331 — Foundation.....3	Edu 462 — Stu Tchng Sec Sch.....6
Edu 332 — Edu Psy3	HPE — M — Advanced Elective.....3
Edu 338 — Curr Mat-Sec Sch3	HPE 436 — Org and Admin3
HPE 331 — Coaching-Major Spt	*Electives.....18
or	33
HPE 332 — Coaching-Major Spt3	
HPE 333 — Physiology of Exer3	
HPE 336 — Tests & Msrments.....3	
*Electives12	
33	

*Electives must include the following:

1. An approved additional teaching field of 24 semester hours.
(Consult this catalog, Department of Secondary Education, for requirements for additional teaching fields.)
2. Twelve semester hours of electives from the five groups described under "Academic Foundations"(see page 116)with courses included from a minimum of three groups.

PHYSICAL EDUCATION (HPE)

ACTIVITY COURSES FOR MEN

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

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

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

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

PROFESSIONAL COURSES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Driver Education Certification Requirements

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

HPE 320 — Safety and First Aid

HPE 334 — Driver Education

HPE 416 — Student Teaching in Driver Education

Department of Health and Physical Education for Women

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

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

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

Bachelor of Science Degree in Health and Physical Education

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

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

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

*Electives must include the following:

1. Additional teaching field of 24 semester hours. (See Department of Secondary Education in this catalog for requirements for additional teaching fields).
2. Twelve semester hours of electives from the five groups described under "Academic Foundations" (see page 116) with courses included from a minimum of three groups.

Third Year

Bio 330 — Anatomy.....	3
Spc 131 — Spc Comm.....	3
Edu 331 — Foundations.....	3
Edu 332 — Edu Psy.....	3
Edu 338 — Curr Mat.....	3
HPE 332W — Meas Eval P Edu.....	3
HPE 333W — Physiology.....	3
HPE — Activity.....	2
*Electives.....	12
	<u>35</u>

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

First Year

Bio 141-142 — General.....	8
Eng — Composition.....	6
Mth.....	6
HPE 123 — Basic Movement.....	2
HPE 127 — Folk Dance or HPE 128 — Modern Dance.....	2
HPE 131 — Emergency Care, Safety and Survival.....	3
HPE 132 — Principles.....	3
HPE 223 — Basketball and Volleyball or HPE 224 — Flag Football and Softball.....	2
	<u>35</u>

Third Year

Bio 330 — Anatomy.....	3
Spc 131 — Spc Comm.....	3
Edu 331 — Foundations.....	3
Edu 332 — Edu Psy.....	3
Edu 338 — Curr Mat.....	3
HPE 331 — Meas Eval Hlth Edu.....	3
HPE 332W — Meas Eval Procedures in P Edu.....	3
HPE 333W — Physiology.....	3
HPE 337 — Contemporary Health Problems.....	3
HPE — Activity.....	2
*Electives.....	6
	<u>35</u>

Fourth Year

Edu 438 — Classroom Mgt.....	3
Edu 462 — Stu Teaching.....	6
HPE 433 — Sport Theory.....	3
HPE — W — Adv Elective.....	3
*Electives.....	18
	<u>33</u>

Second Year

Eng — Literature.....	6
Gov 231-232 — St & Nat.....	6
His 231-232 — United States.....	6
HPE 2201 — Tennis or HPE 227 — Badminton.....	2
HPE 234 — Public & Consumer Hlth.....	3
HPE 236 — P Edu — Sec Sch.....	3
HPE 237 — Hlth Edu — Sec Sch.....	3
HPE 2251 — Tumbling and Gymnastics.....	2
*Electives.....	3
	<u>34</u>

Fourth Year.

Edu 438 — Classroom Mgt.....	3
Edu 462 — Stu Teaching.....	6
HPE 433 — Sport Theory.....	3
HPE 434 — Hlth Human Ecology.....	3
HPE 437 — Hlth Science and Epidemiology.....	3
HPE — Adv Elective (W).....	9
*Electives.....	3
	<u>30</u>

THEORY COURSES

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

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

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

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

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

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

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

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

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

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

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

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

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

339 — Physical Education in the Elementary School. The theory of teaching physical education activities in the elementary grades. Classroom instruction and

field laboratory assignments are included for demonstration and practice. Stress is placed on games of low organization. Classified as elementary physical education for purposes of teacher certification. Class: 3 hours. Credit: 3 semester hours.

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

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

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

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

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

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

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

ACTIVITY COURSES FOR WOMEN

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

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

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

Activity:

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

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

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

Aquatics:

120 — Swimming. Demonstrations, lectures and practice in the basic techniques of swimming and water safety skills. Class: 3 hours. Credit: 2 semester hours.

121 — Swimming and Diving. Demonstrations, lectures and practice in the techniques and analysis of selected swimming strokes and dives. Class: 3 hours. Credit: 2 semester hours.

220 — Advanced Aquatic Sports. Lecture, demonstration, and practice in synchronized and competitive swimming, water games, springboard and scuba diving. Gulf reef field trip and swimming proficiency test required. Class: 3 hours. Credit: 2 semester hours.

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

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

Dance:

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

128 — Modern Dance. An introductory course in modern dance. Instructions and practice in the techniques of modern dance and beginning work in composition. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

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

216 — Musical Comedy Dance. A laboratory course providing both background study and practical work in the specialized field of musical comedy including participation in the presentation of full production. Open by audition or by consent of the instructor to students from all departments who are interested in dance as applied to musical comedy. Laboratory: 3 hours. Credit: 1 semester hour. May be repeated for credit up to 3 hours.

Sports:

The following courses are planned to develop in the student an appreciation and knowledge of the activity, as well as to develop skills for the enjoyment of participation. Class: 3 hours. Credit: 1 semester hour.

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

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

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

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

2251 — Tumbling and Gymnastics. Development of tumbling skills with knowledge of movement principles, spotting techniques and class organization. Instruction and practice on gymnastics apparatus and floor exercise. Emphasis on spotting techniques and teaching methods. Lecture: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.



Department of Home Economics

Department Head — Dorothy W. McAlister. *Assistant Professors* — Virginia Anderson, Jane S. Davidson, Doris Davis, Ferial El-Maguid, LeBland McAdams. *Instructors* — Joyce Bauman, Jane Hinchey. *Secretary* — Susan Schmidt.

Bachelor of Science in Home Economics

Home Economics is a field of study concerned with all aspects of home and family living and their interrelationships. Home Economics draws from the basic disciplines of the physical, biological and social sciences and the arts. The courses preparing professional home economists are built upon relevant knowledge from these areas.

Students may pursue either of two degree programs, the vocational teacher certification program or the general home economics program. The teacher education plan prepares the student to teach any home economics program in the public schools. The general Home Economics curriculum is planned to meet the individual needs and professional interests of the student. Guidance will be given in the choice of electives to meet professional requirements for the home economists in extension, business, social welfare, food service, and nursery school programs.

Students may minor in Home Economics by earning 18 hours of credit from the following courses or from other courses in Home Economics approved by the department head: HEc 131, 132, 133, 137, 232, 330, 332, 333, 335.

Courses in Home Economics are required as follows:

Child Development and Family Relations — nine semester hours.

HEc 137 — Marriage and Family Relationships

HEc 333 — Early Childhood Development

HEc 334 — Early Childhood Laboratory School

Clothing and Textiles — nine semester hours.

HEc 132 — Clothing Selection and Construction

HEc 231 — Textiles

HEc 331 — Advanced Clothing Construction

Food and Nutrition — nine semester hours.

HEc 131 — Food Selection and Preparation

HEc 235 — Meal Management

HEc 332 — Human Nutrition

Home Equipment, Furnishings, Management, and Economics — 13 semester hours.

HEc 330 — Consumer Economics

HEc 335 — Housing and Home Furnishings

HEc 433 — Household Equipment

HEc 444 — Home Management

Related Art — Six semester hours.

HEc 133 — Art in Home Economics

HEc 232 — Dress Design

Specialization — Five semester hours.

HEc — Foundations in Home Economics

HEc 437 — Seminar in Home Economics — General Home Economics Only

Programs of Study

General Home Economics

This curriculum qualifies for Home Economics in Business and Extension Service.

First Year

Eng — Composition	6
Chem — Intro or	
Bio — Gen Biology	8
HEc 124 — Found in HEc	2
HEc 131 — Food Prep	3
HEc 132 — Beg Clothing	3
HEc 133 — Art in HEc	3
HEc 137 — Family Rel	3
Acad Found — Electives	3
HPE — Activity	2
	<u>33</u>

Second Year

Eng — Literature	6
Gov 231-232 — State and Natl	6
HEc 231 — Textiles	3
HEc 232 — Dress Design	3
HEc 235 — Meal Mgt	3
Science or Math	8-6
Acad Found — Electives	3
HPE — Activity	2
	<u>34-32</u>

Third Year

Edu 331 — Found in Edu Cur	3
HEc 330 — Consumer Eco	3
HEc 331 — Clothing Const	3
HEc 332 — Nutrition	3
HEc 333 — Early Chld Dev	3
HEc 334 — Early Chld Lab Sch	3
HEc 335 — Home Furn	3
Hist. 231-232 — United States	6
Acad Found — Electives	3
Free Electives	3
	<u>33</u>

Fourth Year

HEc 433 — Household Equipment	3
HEc 437 — Seminar in HEc	3
HEc 444 — Home Mgt	4
Free Electives	21
	<u>31</u>

Home Economics Education

This plan fulfills curriculum requirements for the Provisional Vocational Homemaking Certificate, coded 164 by the Texas Education Agency.

First Year

Eng — Composition	6
Chm — Intro or	
Bio — Gen Biology	8
HEc 124 — Found in HEc	2
HEc 131 — Food Prep	3
HEc 132 — Beg Clothing	3
HEc 133 — Art in HEc	3
HEc 137 — Family Rel	3
Acad Found — Electives	3
HPE — Activity	2
	<u>33</u>

Second Year

Eng-Literature	6
Gov 231-232 — State and Natl	6
HEc 231 — Textiles	3
HEc 232 — Dress Design	3
HEc 235 — Meal Mgt	3
Mth	6
Acad Found — Electives	6
HPE — Activity	2
	<u>35</u>

Third Year	Fourth Year
Edu 331 — Found in Edu Cur.....3	HEc 433 — Household Equip.....3
Edu 332 — Edu Psy.....3	HEc 438 — Tchng Mtds and Mtls.....3
HEc 330 — Consumer Eco.....3	HEc 444 — Home Mgt.....4
HEc 331 — Clothing Const.....3	HEc 462 — Std Tchng in HEc.....6
HEc 332 — Nutrition.....3	Acad Found — Electives.....9
HEc 333 — Early Chld Dev.....3	Free Electives.....3
HEc 334 — Early Chld Lab Sch.....3	28
HEc 335 — Home Furn.....3	
HEc 338 — Phil Prin Voc.....3	
His 231-232 — United States.....6	
Free Electives.....3	
36	

HOME ECONOMICS (HEc)

124 — Foundations in Home Economics. A study of the historical development and contemporary philosophy of the Home Economics profession. Class: 2 hours. Credit: 2 semester hours.

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

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

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

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

138 — Principles of Nutrition. Basic principles of nutrition in health and disease. Food selection and quality of nutrients in normal and therapeutic diets related to physiological and psychological needs of individuals considering socio-economic background. Class: 3 hours. Credit: 3 semester hours.

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

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

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

239 — Nutrition and Health. Nutrition related to fundamental health habits and the essentials of an adequate diet. Emphasis on nutrition education in school and community. Class: 3 hours. Credit: 3 semester hours.

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

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

332 — Human Nutrition. Nutrition and functions of nutrients related to the chemistry and physiology of the human body throughout the life cycle. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

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

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

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

336 — Therapeutic Nutrition. Concepts of abnormal nutrition and disease treated by dietary modifications. Prerequisite: HEc 332; Bio 141 and 142 or Chm 143 and 144. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

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

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

421, 431, 461 — Special Topics. Special topics, including workshops and institutes, in home economics. A description of the particular area of study will appear on the printed semester schedule. May be repeated for a maximum of six semester hours when the area of study is different. Class: 2-6 hours. Credit: 1-6 semester hours.

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

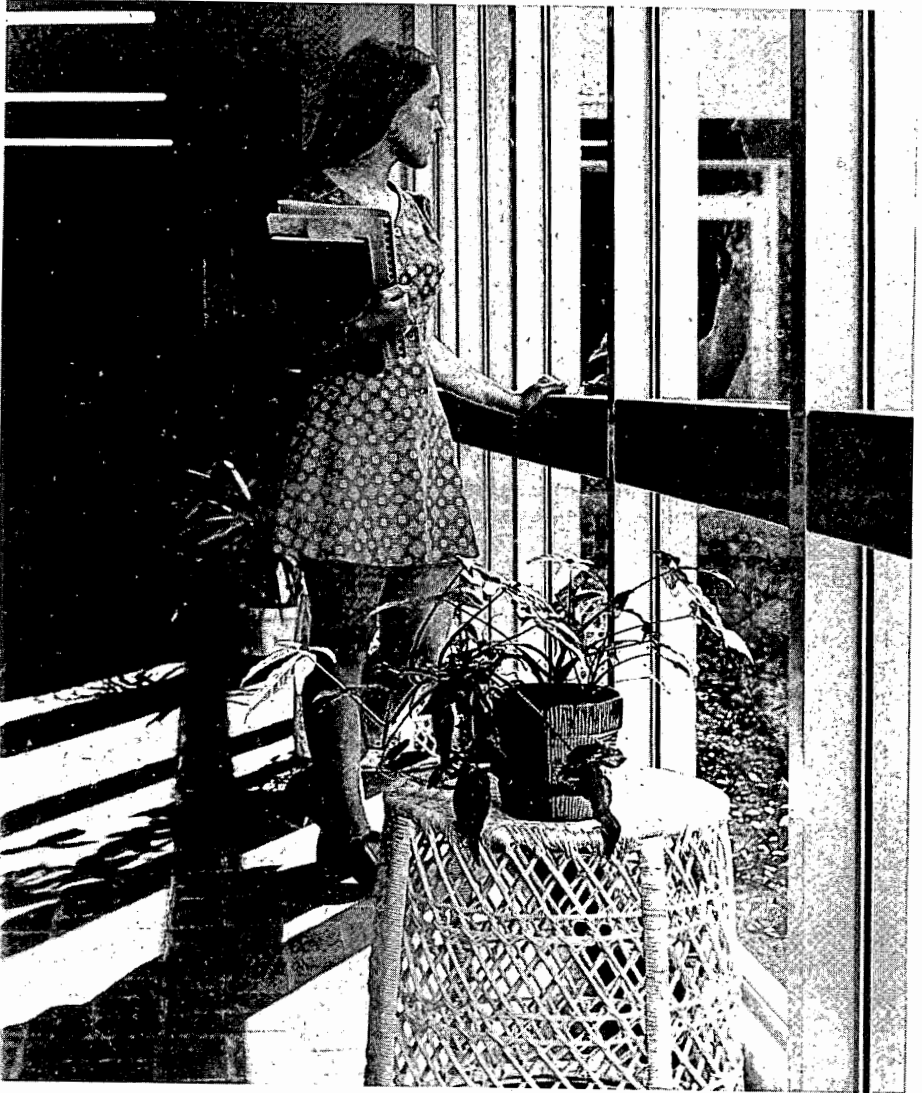
437 — Individual Problems in Home Economics. Designed to afford research opportunities and work experience for senior students. Under supervision, the students pursue individual interests in the profession of home economics. Credit: 3 semester hours.

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

444 — Home Management. Residence in the home management house where information gained from previous courses is put into practice. Housing fee, payable in advance, is determined by Vice-President of Finance. Additional expenses will in-

clude cost of food and supplies. Class: 2 hours. Laboratory to be arranged. Credit: 4 semester hours.

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



College of Engineering

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

Lloyd B. Cherry, P.E., Dean
George B. Tims, Jr., P.E.,
Associate Dean
Mrs. Virginia McBryde,
Secretary

The College of Engineering offers five undergraduate curricula in engineering and two in mathematics. Graduate curricula at the master level is offered in both engineering and mathematics together with curricula leading to the Doctor of Engineering degree. These curricula are designed to prepare graduating students for positions of leadership as they become professional engineers, administrators, investigators, applied mathematicians or teachers; yet, the basic knowledge and mental discipline gained from these educational programs is sufficiently broad and fundamental to constitute excellent preparation for other careers.

The Texas Engineering Practice Act of 1965 contains the following:

“... In recognition of the vital impact which the rapid advance of knowledge of the mathematical, physical and engineering science as applied in the practice of engineering is having upon the lives, property, economy and security of our people and the national defense, it is the intent of the Legislature, in order to protect the public health, safety and welfare, that the privilege of practicing engineering be entrusted only to those persons duly licensed, registered and practicing under the provisions of this Act . . .

“... In furtherance of such intent and purpose of the Legislature, the practice of engineering is hereby declared a learned profession to be practiced and regulated as such, and its practitioners in this state shall be held accountable to the state and members of the public by high professional standards in keeping with the ethics and practices of the other learned professions in this state . . .

“The term ‘Professional Engineer’ when construed by the Board shall mean a person who, by reason of his knowledge of mathematics, the physical sciences, and the principles of Engineering acquired by professional education and practical experience, is qualified to engage in Engineering practice.

“The term ‘Professional Engineering’ when construed by the Board shall mean professional service which may include consultation, investigation, evaluation, planning, designing, or responsible supervision of construction, in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works or projects wherein the public welfare, or the safeguarding of life, health and property is concerned or involved, when such professional service requires the application of Engineering principles and the interpretation of Engineering data . . .”

The law specifically states the qualities of engineering practice and thus defines the general scope of engineering education. Thus, only through continued practice and exercise of judgment can the stature of an engineer be attained. Consequently,

laboratory work under the supervision of those who have had professional experience as well as a full scientific background is an important part of the various engineering curricula. Emphasis, however, is placed upon creative, analytical thinking rather than upon the acquisition of factual information or the attainment of manual skills.

All engineering curricula and, to some extent, the mathematics curricula leading to the bachelor of science degree with an engineering minor, have been designed upon a common core of subjects rich in mathematics and science which appear throughout each curriculum. The first two years of study are common for all engineering curricula, thus until the engineering student completes the first two years of work, he will be classed as an engineering student without departmental designation. Because of the variety of mathematics programs, all mathematics majors are admitted directly to the mathematics department upon matriculation.

Each student in the College of Engineering is assigned to a member of the faculty who serves as his counselor. Through his counselor, the student will be able to determine his ultimate professional interests as well as obtain help and guidance in his academic life.

The entrance requirements from high school for the College of Engineering are:

1. English.....	4 units
2. Mathematics	
Algebra	2 units
Geometry	1 unit
Trigonometry.....	1/2 unit
3. Natural Sciences	
Chemistry	1 unit
Physics.....	1 unit
4. Social Sciences	2 units
5. Electives.....	4-1/2 units
Total	16 units

Students who meet the general entrance requirements of the University, but lack in specific requirements for the engineering curricula may, upon consultation with the Dean, be permitted to enroll in the College of Engineering; however, all deficiencies must be removed before the end of the second academic year. Students having entrance deficiencies or weaknesses are urged to use the summer terms preceding the freshman year in college to remove them.

Attention is directed to the section in this Catalog on admission requirements and, in particular, to the requirement that each person desiring to enter the College of Engineering must take the Level I Mathematics Test.

In addition to instruction in the various branches of engineering, the functions of the College of Engineering include research, both on fundamental and applied problems, development of a technological library, extension activities, provision of a center of technical meetings and activities, and the management of a cooperative program.

A cooperative (co-op) program is offered to a limited number of qualified students enrolled in the College of Engineering, whereby the student spends alternate terms at work or study.

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

1. Must have completed all freshman work in the core program, of which the last 15 semester hours credit must have been earned at Lamar.
2. Must have an over-all grade point average of 2.5 or higher.

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

The period during which a student may participate in the co-op program extends through the regular sophomore and junior years. Co-op privileges are not extended to freshman or senior students. By participating in the co-op program throughout his eligibility a student extends the time required to obtain a degree to five years, but in doing so gains the equivalent of almost two years experience in industry.

A student may apply for admission to the co-op program through the office of the Dean of Engineering.

Core Program — Engineering

First Year

First Semester	Second Semester
Chm 141 — Gen Chem.....3-3-4	Chm 142 — Gen Chem.....3-3-4
Eng Comp.....3-0-3	Eng Comp.....3-0-3
Egr 114.....0-3-1	Egr 132 — Mechanics I.....3-0-3
Egr 133 — Int Data Proc.....3-0-3	Hist 231 — United States.....3-0-3
Mth 1381 — Anal Geom.....3-0-3	Mth 1391 — Calculus I.....3-0-3
HPE — Activity..... <u>0-3-1</u>	HPE — Activity..... <u>0-3-1</u>
15	17

Second Year

First Semester	Second Semester
Egr 231 — Mechanics II.....3-0-3	Gov 232 Amer & State.....3-0-3
Gov 231 — Constitutions.....3-0-3	Major Requirement *.....3-0-3
Literature.....3-0-3	Mth 2321 Calculus III.....3-0-3
Mth 2311 — Calculus II.....3-0-3	Phy 242 Lt, Snd, Qua.....3-3-4
Phy 241 — Ht, Elec, Mag.....3-3-4	Hist 232 United States**.....3-0-3
HPE Activity..... <u>0-3-1</u>	HPE Activity..... <u>0-3-1</u>
17	17

*Various majors enroll in course indicated:

- Chemical Engineering ----- EGR 234 Thermodynamics
- Civil Engineering ----- EGR 232 Mechanics III
- Electrical Engineering ----- EGR 233 Elec Cir & Fields
- Industrial Engineering ----- EGR 235 Digital Com
- Mechanical Engineering ----- EGR 234 Thermodynamics

**Electrical Engineering majors take Egr. 234 and delay U.S. History until third year.

Three and one-half units of high school mathematics and the Level I Mathematics Achievement Test are required for registration in Mth 1381. Students deficient in algebra or trigonometry should take 1334. Geometry deficiencies must be eliminated in high school or by correspondence from the University of Texas.

One unit of high school physics as well as completion of or enrollment in Mth 1391 are required for enrolling in Egr 132. Students deficient in high school physics are required to take Phy 141.

ENGINEERING (EGR)

114 — Engineering Graphics. Principles of orthographic projection combined with descriptive geometry to solve space problems graphically. Lettering and drafting technique emphasized. Laboratory: 3 hours. Credit: 1 semester hour. This course is the same as DFT 137.

132 — Mechanics I. Utilizes vectors in the study of particle mechanics. Energy methods. Prerequisite: Mth 1391 or concurrent. Class: 3 hours. Credit: 3 semester hours.

133 — Introduction to Engineering Computation. Introduction to engineering practice, decision-making, the slide rule, flow charting, digital computers, FORTRAN, FORTRAN programming. Class: 3 hours. Credit: 3 semester hours.

137 — Advanced Graphics. Study of lines and planes in space, true length lines, true size and slope of oblique planes, mining problems, intersections and developments, vectors, and special problems selected by the student and approved by the instructor. Prerequisite: Egr 114 or one year of high school drawing. Class: 4 hours. Laboratory: 2 hours. Credit: 3 semester hours.

212 — Production and Fabrication Processes. Machinery, welding, casting, forming, and joining operations on materials of engineering importance. Demonstrations, lectures and laboratory exercises. Laboratory: 3 hours. Credit: 1 semester hour.

214 — Industrial Projects. Special assignments in the major areas of engineering under guidance of a faculty member. Presentation of oral and written reports. May be repeated for credit. Prerequisite: Approval of academic dean. Credit: 1 semester hour.

231 — Mechanics II. Kinematics of rigid bodies, kinetics of rigid bodies, work and energy, impulse and momentum. Prerequisite: Egr 132, Mth 2311 or concurrent. Class: 3 hours. Credit: 3 semester hours.

232 — Mechanics III. Effect of loads on deformable bodies. Uniaxial and biaxial stress-strain relationships, statically indeterminate systems. Equations developed for torsion, bending and buckling. Prerequisite: Egr 231 and Mth 2321. Class: 3 hours. Credit: 3 semester hours.

233 — Electric Circuits and Fields. Electrical and magnetic units; heating effects. basic circuit analysis; electric and magnetic fields; ferromagnetic circuits; inductance and capacitance; principles of energy conversion and measurements. Prerequisite: Phy 241; Mth 2321 or concurrent. Class: 3 hours. Credit: 3 semester hours.

234 — Thermodynamics. The fundamental laws of thermodynamics, properties of systems, gases, vapors and thermodynamics tables. Prerequisite: Chm 142, Phy 241; Mth 2321; Egr 122. Class: 3 hours. Credit: 3 semester hours.

235 — Digital Computation. Continuation of Egr 122. Problem theory, flow charting, solution of advanced problems from the various engineering disciplines. Class: 3 hours. Credit: 3 semester hours.

331 — Momentum Transfer. Fluid-flow concepts are presented through the derivation of the basic equations of continuity, energy, and momentum. Engineering aspects of flow measurement, pressure-drop calculations, and pumping requirements are considered. Prerequisite: Egr 234. Class: 3 hours. Credit: 3 semester hours.

333 — Electronics. A study of charged particles; metals and semiconductors; vacuum tube and transistor characteristics; gaseous conduction; rectifiers and power supplies. Prerequisite: Egr 233. Class: 3 hours. Credit: 3 semester hours.

334 — Mechanics IV. Generalized stress-strain relationships, theories of material failure. Unsymmetrical bending, torsion of non-circular sections; buckling. Elastic and inelastic behavior compared. Laboratory demonstrations to illustrate theory. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

339 — Materials Science and Manufacturing Processes. Basic principles underlying the behavior of engineering materials and methods of processing these materials. Prerequisite: Chm 141 and Phy 241. Class: 3 hours. Credit: 3 semester hours.

4101, 4201, 4301, 4401 — Special Problems. An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ. Credit: 1-4 semester hours.

421 — Data Processing. A study of AM, FM, and pulse width modulation for telemetry of data and use of analog and digital computers for storing and analyzing the data. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

Bachelor of Science in Engineering Technology

On April 21, 1972, the Coordinating Board, Texas College and University System, authorized favorable action on the Bachelor of Science in Engineering Technology.

The following is a semester-by-semester outline of the curriculum leading to a Bachelor of Science in Engineering Technology (Electro-Mechanical Engineering Technology):

First year, Fall		First year, Spring	
Mth 134 — Algebra.....	3-0-3	Mth 133 — Trigonometry	3-0-3
Eng Composition.....	3-0-3	Eng Composition	3-0-3
Chm 143 or 141 — Chemistry.....	3-3-4	Chm 144 or 142 — Chemistry	3-3-4
Egr 114 — Graphics.....	0-3-1	Egr 137 — Adv. Graphics.....	0-6-3
Spc 131 — Speech.....	3-0-3	Eco 233 — Economics.....	3-0-3
HPE 111 — Activity.....	0-1-1	HPE 112 — Activity	0-1-1
	15		16
Second year, Fall		Second year, Spring	
Mth 1381 — Analytics.....	3-0-3	Mth 1391 — Calculus.....	3-0-3
Phy 141 — Mechanics.....	3-3-4	Eng — Literature	3-0-3
Egr — Computer I	- 3	Phy 142 — Heat	3-3-4
Egr — Ind. Graphics.....	0-6-3	Egr — Computer II	- 3
HPE 221 — Activity.....	0-3-2	HPE 222 — Activity	0-3-2
	15		15
Third year, Fall		Third year, Spring	
Gov 231 — American.....	3-0-3	Gov 232 — American.....	3-0-3
IE 333 — Egr. Eco.....	3-0-3	IE 334 — Indus. Rela.....	3-0-3
ETT — Elec. Systems I.....	1-3-3	ETT — Elect. Sys. II.....	1-3-3
ETT — Electronics.....	3-0-3	ETM — Material Test	1-3-3
Elective.....	3-0-3	ETM — Material Proc.....	1-4-4
	15		16

Fourth year, Fall

His 231 — United States	3-0-3
ETM — Material Proc.	0-4-4
EET — Electrical Mea.	1-3-3
ETM — Heat/Power Lab	0-3-3
Elective	3-0-3
	16

Fourth year, Spring

His 232 — United States.....	3-0-3
Eng 3311 — Report Writing	3-0-3
ETM — Fluid Mech.....	0-3-3
ETM — Kin & Design	1-3-4
EET — Elec. Instru.....	0-3-4
	17



Department of Chemical Engineering

Department Head — Robert A. McAllister. *Professors* — Frederic C. Jelen, Richard E. Walker. *Associate Professor* — Edwin O. Eisen. *Assistant Professor* — Jack R. Hopper. *Laboratory Technician* — John Read. *Secretary* — Mrs. Katy Rankin.

The growth of the American chemical industry since the first World War has been nothing short of phenomenal. While industry as a whole has made great strides, the chemical field has literally gone ahead in tremendous leaps.

The work of the chemical engineer is the changing of raw materials into finished products with efficiency and economy. He is concerned primarily with the design, construction and operation of equipment and plants in which chemical or physical changes of materials are involved. The work of the chemical engineer enters into almost every modern industry. From petroleum to synthetic rubber, from steel to medicines, the chemical engineer engages in design, research, development, production, sales, and management. Among the fields in which the chemical engineer is of prime importance are petroleum, petro-chemicals, metals, agricultural pesticides and fertilizers, plastics, paints, foods, paper, glass, dyes, synthetic fibers, and a host of others. There is virtually no field which offers a greater opportunity than chemical engineering.

Program of Study

Bachelor of Science in Chemical Engineering

Accredited by Engineers' Council for Professional Development

First and Second Year

(See Core Program)

Third Year

First Semester	Second Semester
CHE 334 — Chem Proc Prin I.....3-0-3	CHE 313 — Laboratory I.....0-3-1
CHE 343 — Thermodynamics II.....3-3-4	CHE 332 — Chem Proc Prin II.....3-0-3
CHM 341 — Organic.....3-4-4	CHE 432 — Kinetics.....3-0-3
EGR 331 — Mom Transfer.....3-0-3	MTH 438 — Prob & Statistics.....3-0-3
CHE 314 — Instrumentation.....1-0-1	CHM 342 — Organic.....3-4-4
CHE 315 — Process Econ.....1-0-1	Technical Elective.....3-0-3
CHE 316 — Calculations.....1-0-1	
	<u>15-7-17</u>
<u>15-7-17</u>	

Fourth Year

First Semester	Second Semester
CHE 414 — Seminar.....1-0-1	CHE 423 — Laboratory III.....0-6-2
CHE 431 — Laboratory II.....1-6-3	CHE 433 — Process Dynamics.....3-0-3
CHE 442 — Chm Proc Prin III.....3-3-4	CHE 434 — Design.....1-6-3
CHM Elective *.....3-0-3	CHE 435 — Exptl Design.....3-0-3
ENG 3311 — Tech Report Writ.....3-0-3	CHM 432 — Physical.....3-0-3
Elective.....3-0-3	Elective.....3-0-3
	<u>13-12-17</u>
<u>14-9-17</u>	

*May be four semester hours if a laboratory is required with the course.

CHEMICAL ENGINEERING (ChE)

313 — Laboratory. Lab work based on CHE 334 and Engineering core courses. Prerequisites: CHE 334 and EGR 331. Laboratory: 3 hours. Credit: 1 semester hour.

314 — Instrumentation. Introduction to industrial instrumentation and chemical process measurements. Prerequisite: EGR 331 and CHE 334 or concurrent. Class: 1 hour. Credit: 1 semester hour.

315 — Process Economics. Topics presented include equivalence in cost comparisons using both discrete and continuous interest, depreciation, taxes, profitability, and components of total product cost. Prerequisite: Junior standing. Class: 1 hour. Credit: 1 semester hour.

316 — Calculations. Calculations typical of the chemical process industries. More advanced use of the digital computer. Prerequisites: CHE 333 and 334 or concurrent. Class: 1 hour. Credit: 1 semester hour.

332 — Chemical Process Principles II. Generalized approach to heat transfer, conduction, convection, and radiation will be considered. An introduction to mass transfer will be made. Prerequisite: EGR 331. Class: 3 hours. Credit: 3 semester hours.

334 — Chemical Process Principles I. The application of mathematics, chemistry, and physics to solution of problems in industrial chemistry. Included are topics on mass and energy balance, phase equilibria, and economic evaluations. Prerequisite: EGR 234. Class: 3 hours. Credit: 3 semester hours.

343 — Thermodynamics II. Properties of non-ideal substances. Maxwell relations, enthalpy-concentration diagrams, physical and chemical equilibria. Prerequisite: EGR 234. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

414 — Seminar. An oral and written presentation of selected topics in chemical engineering from recent technical publications. Class: 1 hour. Credit: 1 semester hour.

423 — Laboratory III. Laboratory work based on Egr 331, ChE 332, ChE 432, and ChE 442. Prerequisite: ChE 442. Laboratory: 6 hours. Credit: 2 semester hours.

431 — Laboratory II. Laboratory work based on Egr 331 and ChE 332 and ChE 442. Prerequisite: ChE 442 or concurrent. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

432 — Kinetics. Introduction to the kinetics of chemical reactions with a study of the rates and mechanisms of such reactions. Thermal and catalytic reactions, both homogeneous and heterogeneous, are considered. Application of fundamental principles to the design and operation of commercial reactors is covered. Prerequisite: ChE 343. Class: 3 hours. Credit: 3 semester hours.

433 — Process Dynamics and Control. Fundamental principles of process dynamics and instruments used for measurement and control of process variables such as pressure, temperature, and flow rate. Class: 3 hours. Credit: 3 semester hours.

434 — Design. Application of chemical engineering fundamentals to the design and development of chemical processing plants. Includes calculations of capacity, economic evaluation of processes and equipment, equipment layout, specifications, cost estimates, and equipment design. Prerequisites: ChE 432, ChE 442. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

435 — Experimental Design. Advanced statistical methods, including analysis of variance and experimental design. Prerequisite: Mth 438. Class: 3 hours. Credit: 3 semester hours.

442 — Chemical Process Principles III. A continuation of ChE 332. Includes mass transfer operations and stagewise processing. Topics include diffusional operations, absorption, distillation, extraction and humidification. Prerequisite: ChE 332, ChE 343. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

4111 — Seminar. Oral presentation of advanced topics or research work in chemical engineering. Class: 1 hour. Credit: 1 semester hour.

4316 — Stagewise Processes. Graphical and analytical solutions of difference equations, and applications to the stagewise processes of engineering. Class: 3 hours. Credit: 3 semester hours.

4318 — Advanced Distillation. A study of the various design procedures used in multicomponent distillation and batch fractionation. Prerequisite: ChE 442. Class: 3 hours. Credit: 3 semester hours.

4321 — Chemical Engineering Economics. Calculations involving process and control as determined by least cost or maximum profit. Based on unit operations and unit processes. Class: 3 hours. Credit: 3 semester hours.

4322 — Advanced Unit Operations. The application of chemical engineering fundamentals to special problems selected for advanced study. Course may be repeated for credit when subject matter varies. Class: 3 hours. Credit: 3 semester hours.

4323 — Materials. Basic principles underlying the behavior of solid, liquid, and gaseous materials. Engineering properties and deterioration of the materials in an industrial environment will be treated. Class: 3 hours. Credit: 3 semester hours.

4325 — Introduction to Nuclear Engineering. Interaction of neutrons with matter, nuclear properties of materials, shielding and control of reactors, production of neutrons by nuclear fission, discussion of the various types of reactors and introduction to reactor theory and design. Class: 3 hours. Credit: 3 semester hours.

Department of Civil Engineering

Department Head — Luther A. Beale. *Professors* — Andre P. Delflache, Bruce G. Rogers. *Associate Professor* — Bill R. Henry. *Assistant Professor* — David G. Parker, Spencer L. Brinkerhoff, Jr. *Instructor* — D. Rex Goode. *Laboratory Technician* — Charles C. Cowart. *Secretary* — Frances Bourland.

Civil Engineering is vital to man's economic, political, and social well-being. Modern technological developments are ever widening the vistas of this profession and deepening its scientific roots. These trends are accentuating and creating needs that can be met only by truly professional people whose education has the breadth of a liberal education and the depth of a firm foundation in mathematics and science. This curriculum is designed to meet these requirements. It is strong in the engineering sciences including the natural and earth sciences. It embraces a sound core of mathematics, physics and chemistry. Completion of this curriculum will enable a student to enter the professional field of practice or to pursue an advanced program of study leading to a graduate degree in Civil Engineering. Areas of activity include soil, structural, hydraulic, sanitary, transportation, surveying and mapping, and power engineering. This curriculum is modern and designed to meet the requirements of the space and atomic age. Options are provided to fit the individual interest of the Civil Engineering student.

Program of Study

Bachelor of Science in Civil Engineering

BASIC PROGRAM

Accredited by Engineers' Council for Professional Development

First and Second Year (See Core Program)

Third Year

First Semester	Second Semester
CE 313 Egr Meas.....0-3-1	CE 314 Surveying.....0-3-1
CE 331 Env Sci.....2-3-3	CE 336 Hydrology.....3-0-3
CE 334 Struc Mech.....3-0-3	CE 337 Wtr Utl Sys.....3-0-3
CE 335 Hydraulics.....2-3-3	CE 339 Soil Science.....2-3-3
CE 338 Egr Spec & Law.....3-0-3	CE 430 Indet. Struc.....3-0-3
Egr 334 Mechanics IV.....2-3-3	CE 439 Struc Stl Des.....3-0-3
Geo 220 Egr Geo.....1-3-2	<u>16</u>
<u>18</u>	

15
17
17
17
18
16
17
16

Fourth Year

First Semester		Second Semester	
CE 410 Thesis Research.....	1-0-1	CE 411 Seminar	1-0-1
CE 413 Photogrammetry.....	0-3-1	CE 437 Trans Egr	3-0-3
CE 434 Soil Egr.....	2-3-3	CE 4312 Adv Struc Des.....	3-0-3
CE 438 Re Con Des.....	3-0-3	Mth 234 Prob & State.....	3-0-3
Egr 233 Elec Cir & Flds	3-0-3	Egr 234 Thermo.....	3-0-3
Spc 331 Prof Spc.....	3-0-3	*Technical Elective.....	3
Free Elective.....	3		16
	<u>17</u>		

Total 133 Semester Hours

*Departmental approval required.

Environmental Engineering Option

First Year

(See Core Program)

Note: Core students planning to take the Environmental Option should transfer to CE Dept. at the end of the Freshman year.

Second Year

First Semester		Second Semester	
Bio 141 Gen Geology.....	3-3-4	Bio 142 Gen Biology.....	3-3-4
Egr 231 Mechanics II.....	3-0-3	Egr 232 Mechanics III.....	3-0-3
Mth 234 Prob & State.....	3-0-3	Egr 233 Elec Cir & Fld.....	3-0-3
Mth 2311 Calculus II.....	3-0-3	Mth 2321 Calculus III.....	3-0-3
Phy 241 Ht, Elec, Mag.....	3-3-4	Phy 242 Snd, Lt, Quanta.....	3-3-4
HPE Activity.....	1	HPE Activity.....	1
	<u>18</u>		18

Third Year

First Semester		Second Semester	
CE 313 Egr Meas.....	0-3-1	Bio 243 Microbiology.....	3-3-4
CE 334 Struc Mech.....	3-0-3	CE 326 Hydrology.....	3-0-3
CE 331 Env Egr.....	3-0-3	CE 337 Wtr Util Sys.....	2-3-3
CE 338 Egr Specs & Law.....	3-0-3	Egr 234 Thermo.....	3-0-3
Chm 243 Organic.....	3-3-4	IE 333 Egr Eco.....	3-0-3
CE 335 Hydraulics.....	2-3-3		16
	<u>17</u>		

Fourth Year

First Semester		Second Semester	
CE 410 Thesis Research.....	1-0-1	CE 411 Seminar	1-0-1
CE 435 Wtr Sup Egr.....	3-0-3	CE 433 Env Hlth Egr.....	3-0-3
Chm 334 Air Analysis.....	2-3-3	Gov 232 State & Natl.....	3-0-3
Gov 231 Constitutions.....	3-0-3	His 232 United States.....	3-0-3
Spc 331 Prof Spc.....	3-0-3	Eng Lit Elective.....	3-0-3
Elective.....	3	Elective.....	3
	<u>16</u>		16

Total 135 Semester Hours

Electives

Bio 433 — Limnology

Bio 445 — Marine Biology

Chm 241 — Quantitative Analysis

Chm 333 — Inorganic

Chm 434 — Air Pollution Control

Geo 141 — Physical Geology

Geo 220 — Geology for Engineers

CIVIL ENGINEERING (CE)

313 — Engineering Measurements. Science of data collection applied to measurement of horizontal and vertical angles; horizontal and vertical distances; and site adaptation. Field layouts of tangents, simple curves, parabolic curves and clothoid spirals. Computation procedures utilize rotary and digital computers. Laboratory: 3 hours. Credit: 1 semester hour.

314 — Surveying. Applications of measurement principles to civil engineering layout problems. Prerequisite: CE 313. Laboratory: 3 hours. Credit: 1 semester hour.

331 — Environmental Science. Introduction to the hydrologic cycle and the chemistry and microbiology of the natural aquatic environment, with emphasis on the physical, chemical, and biological aspects of water and waste water systems in relation to man's environment. Laboratory work in the physical, chemical, and biological analysis of water and waste water. Prerequisite: Chm 142. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

334 — Structural Mechanics. Analysis of loadings for bridges and buildings. Dynamics effects of moving loads. Influence lines. Shear and moment diagrams. Analysis of indeterminate structures. Model analysis. Introduction to structural design, investigation of frames, girders, and bents. Prerequisite: Egr 232. Class: 3 hours. Credit: 3 semester hours.

335 — Hydraulics. Basic principles of fluid flow. Friction and drag studies. Calibration of flow measuring devices. Flow characteristics of open channels and closed conduits. Boundary Layer Theory. Prerequisite: Egr 231. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

336 — Hydrology. Precipitation, surface water, infiltration, sub-surface water. Analysis of rainfall and runoff data. Collection studies. Hydraulics of wells. Net storm rain; peak discharge and flood runoff. Prerequisite Geo 220. Class: 3 hours. Credit: 3 semester hours.

337 — Water Utility Systems. The ecosystem of man as influenced by the water utility. Population evaluation and forecasting; factors influencing water demand and waste water flow; application of fluid mechanics to pressure and open channel flow of water systems and storage requirements. Design considerations of fluid transportation facilities including hydraulic, structural, and environmental elements. Class: 3 hours. Credit: 3 semester hours.

338 — Engineering Specifications and Law. Specification writing and interpretation for engineering projects. Legal significance of specifications. Economic principles applied to engineering construction. Class: 3 hours. Credit: 3 semester hours.

339 — Soil Science. Basic principles of soil behavior under load. Soil properties and classification. Study of Hydraulics as applied to Soil Mechanics. Prerequisite: Geo 220. Class: 3 hours. Credit: 3 semester hours.

410 — Thesis Research. Class devoted to discussion of research methods and techniques of literature search. Progress reports on thesis work required. Prerequisite: an approved thesis proposal. Class: 1 hour. Credit: 1 semester hour.

411 — Seminar. Discussion of professional topics. Study of technical journals and transactions. Presentation of oral and written reports. Completed thesis required. Prerequisite: CE 410. Class: 1 hour. Credit: 1 semester hour.

413 — Photogrammetry. Principles of aerial photography applied to map making, route locations and ground control. Introduction to use of photogrammetry equipment, including stereoscopes and plotters. Prerequisite: CE 314. Laboratory: 3 hours. Credit: 1 semester hour.

430 — Indeterminate Structures. Basic principles of structural analysis and design, based upon requirements of equilibrium and continuity. Classical methods of strain energy, slope deflection and moment distribution used for analysis of frames, trusses and beams. Digital computer methods stressed. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

433 — Environmental Health Engineering. Problems of public health in rural, urban, and industrial centers with water, housing, heating, cooling, ventilation, milk food, insects and rodents. Bio-statistics and public health laws, ordinances, and regulations. Prerequisite: Chm 244 and Bio 243, or CE 331. Class: 3 hours. Credit: 3 semester hours.

434 — Soil Engineering. Compressibility and strength characteristics. Stress distribution. Shallow and deep foundations, earth pressure theories, retaining walls, stability of slopes. Prerequisite: CE 339. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

435 — Water Supply Engineering. Water resources, analysis, planning, and design of the processes required for the supply of potable water to urban centers and optimization processes for selection of most economical and reliable system. Special problems and application of model studies for treatment process design. Prerequisite: CE 337. Class: 3 hours. Credit: 3 semester hours.

437 — Transportation Engineering. Study of highway pavements. History and development of transportation facilities. Drainage requirements. Fundamentals of highway location, design, construction, and maintenance. Prerequisite: CE 434. Class 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

438 — Reinforced Concrete Design. The design of structural concrete members based upon elastic and plastic theory. Study of standard specifications. Introduction to prestressed concrete. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

439 — Structural Steel Design. The elastic design of buildings and bridge components according to standard specifications. Plastic design of steel structures. Prerequisite: CE 334. Class: 3 hours. Credit: 3 semester hours.

4310 — Soil-Structure Interaction. Analysis of the mechanical behavior of soil-structure systems under the effect of static and dynamic loading, impact and stress wave propagation. Applications to structures supported by shallow and deep sub-structure, and underground structures. Computer techniques are employed. Prerequisite: CE 434. Class: 3 hours. Credit: 3 semester hours.

4312 — Advanced Structural Design. Design principles associated with plastic design of steel, pre-stressed concrete, composite structures, hybrid girders and thin shell concrete. Computer methods of analysis utilized. Prerequisite: CE 430. Class: 3 hours. Credit: 3 semester hours.



Department of Electrical Engineering

Department Head — Wendell C. Bean. *Professors* — Lloyd B. Cherry, James L. Cooke, Floyd M. Crum. *Associate Professor* — Joseph T. Watt, Jr. *Assistant Professors* — Lyle E. Bohrer, D. Robert Carlin, Ramon S. Satterwhite. *Laboratory Technicians* — Nicholas Accardo, George Vivier. *Secretary* — Sherry Barnes.

Electrical engineering is a rapidly changing profession which promises to bring significant changes to our society within the next decade. Electrical engineers are involved in research, development, design, manufacturing and applications in areas as varied as microelectronic devices, information science, power systems, computers, digital systems, and communications systems.

In each of the electrical engineering courses emphasis is placed upon creative thinking and an analytical approach. The specified curriculum lays a broad foundation in the relevant electrical sciences, and electives allow pursuit of the student's special interests. In-depth specialization is possible in graduate school, industry, or research.

Program of Study

Bachelor of Science in Electrical Engineering

Accredited by Engineers' Council for Professional Development

First and Second Year

(See Core Program)

Third Year

First Semester	Second Semester
EE 317 — Jr. EE Lab.....0-3-1	EE 318 — Jr. EE Lab.....0-3-1
EE 331 — Circuits I.....3-0-3	EE 332 — Circuits II.....3-0-3
EE Elective.....3-0-3	EE 336 — Energy Convers II.....3-0-3
U.S. Hist.3-0-3	EE 337 — Elec & Mag Flds.....3-0-3
EGR 333 — Electronics.....3-0-3	EGR 331 — Momen Transfer.....3-0-3
MTH 4301 — Adv. Cal Egrs.....3-0-3	PHY 335 — Modern.....3-0-3
16	16

Fourth Year

First Semester	Second Semester
EE 411 — Seminar.....1-0-1	EE 412 — Seminar.....1-0-1
EE 415 — Proj Lab.....0-3-1	EE 416 — Proj Lab.....0-3-1
EE 417 — Proj Lab.....0-3-1	EE 418 — Proj Lab.....0-3-1
EE 431 — Electronics II.....3-0-3	EE 436 — Control EGR.....3-0-3
EE 433 — Net Anal.....3-0-3	EE — Elective.....3-0-3
EE — Elective.....3-0-3	EE — Elective.....3-0-3
SPC or Tech Writing.....3-0-3	Elective (non-EGR).....3-0-3
Elective.....3-0-3	Human/Soc Sci Elective.....3-0-3
18	18

Total 134 Semester Hours

ELECTRICAL ENGINEERING (EE)

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

318 — Junior EE Laboratory. To be taken in parallel with EE 332 and EE 336. Laboratory: 3 hours per week. Credit: 1 semester hour.

331 — Circuits I. A study of instantaneous current and voltage, the impedance function, complex algebra in circuit analysis, average power and effective current, equivalent networks, resonance, graphical methods, loop and node network equations, matrix solutions, and network theorems. Prerequisites: Egr 233, Mth 2321. Class: 3 hours. Credit: 3 semester hours.

332 — Circuits II. Coupled circuits, balanced and unbalanced polyphase circuits, symmetrical components, non-linear elements. Fourier series and integral, transient response, complex frequency plane. Laplace transformation. Prerequisite: EE 331. Class: 3 hours. Credit: 3 semester hours.

335 — Energy Conversion I (Direct). An introductory study of direct heat to electrical energy conversion methods such as those employed by thermoelectric devices, thermionic converters, magnetohydrodynamic engines, solar and fuel cells. Prerequisites: Egr 234; parallel: Egr 333. Class: 3 hours. Credit: 3 semester hours.

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

337 — Electromagnetic Fields I. Vector analysis, coordinate systems, static electric fields, electric potential, dielectrics, conductors, capacitance, current, static magnetic fields, magnetic materials, magnetic potentials, inductance, electromagnetic forces, Maxwell's equations, time varying fields, plane waves. Prerequisites: Egr 233, Mth 2321. Class: 3 hours. Credit: 3 semester hours.

411 — Electrical Engineering Seminar I. A study of the literature of electrical and related engineering fields; preparation and presentation of papers on electrical subjects. Parallel: EE 431. Class: 1 hour. Credit: 1 semester hour.

412 — Electrical Engineering Seminar II. Preparation, presentation, and discussion of material on the engineering profession, the interface between technology and society, and new areas of engineering involvement. Class: 1 hour. Credit: 1 semester hour.

415-417 — Projects Laboratory. Laboratory studies selected from machines, vacuum-tube and semiconductor electronics, digital logic, and communication theory. Laboratory: 3 hours. Credit: 1 semester hour for each course.

416-418 — Projects Laboratory. Laboratory studies selected from automatic control systems, computers, vacuum-tube and semiconductor electronics, microwave devices. Laboratory: 3 hours. Credit: 1 semester hour for each course.

431 — Electronics II. Vacuum tubes and semi-conductors as circuit elements, untuned voltage and power amplifiers, and electronic computing circuits. Prerequisite: Egr 333, EE 331. Class: 3 hours. Credit: 3 semester hours.

432 — Electronics III. A study of bipolar field effect transistor and tunnel diode devices as circuit elements in integrated circuits. Applications to digital systems, high frequency analog systems and measuring instruments are analyzed. Discrete elements in electronic circuits as signal processing devices are also studied. Prerequisite: EE 431. Class 3 hours. Credit: 3 semester hours.

433 — Network Analysis. Properties of linear systems, excitation and response in the time domain, excitation and response in the frequency domain, generalized function, differential equations applied to network analysis, network analysis functions, differential equations applied to network analysis; network analysis domain. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

434 — Network Synthesis. Mathematical foundation needed for synthesis. Driving point synthesis with LC elements. Driving point synthesis with RC and RL elements. Two port synthesis. Filter design. Prerequisite: EE 433. Class: 3 hours. Credit 3 semester hours.

436 — Control Engineering. Transfer functions; state variables; time response; frequency response; stability; observability and controllability; special topics. Prerequisite: EE 332. Class: 3 hours. Credit 3 semester hours.

437 — Electromagnetic Fields II. Transmission lines, waveguides, cavities, and antennas. Prerequisite: EE 337. Class: 3 hours. Credit: 3 semester hours.

438 — Instrumentation. A study of analog and digital electronic instruments in making measurements. Instruments studied are oscilloscopes, strip recorders, oscillators, frequency counters, PDR's, PGR's, digital (voltmeters, ohmmeters) and transducers. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

4302 — Communication Theory. Principles of modulation; random signal theory and network analysis; basic information theory; and analysis of noise. Prerequisite: EE 332. Class: 3 hours. Credit: 3 semester hours.

4303 — Logical Design of Switching Systems. Switching algebra necessary for formulating and manipulating switching functions. Circuit realization using relay logic, diode logic, transistor gates and core gates. Derivation and simplification of state tables for sequential circuits. State assignments for the design of computing systems. Asynchronous circuits. Prerequisite: Egr 333. Class: 3 hours. Credit: 3 semester hours.

4304 — Advanced Topics. Topics are selected on the basis of the needs of an adequate number of students. Topic areas include analog computation; digital machines, languages, and algorithms; optimization techniques; power systems analysis; advanced fields problems. May be repeated for credit when topics vary. Prerequisite: EE 331 or concurrent. Class: 3 hours. Credit: 3 semester hours.

Department of Industrial Engineering

Department Head — David G. Gates. *Professors* — Irvin L. Reis, George B. Tims, Jr. *Associate Professors* — Ali M. Ali, James J. Brennan, Bobby R. Waldron. *Assistant Professor* — Carl Carruth. *Laboratory Technician* — Herbert W. Deaton. *Secretary* — Velma Wisenbaker.

The Department of Industrial Engineering offers the Bachelor of Science degree in both Engineering and Computer Science.

Industrial Engineering is concerned with the design and operation of systems of men, materials and equipment. The curriculum is basically engineering with its foundation in mathematics and the physical sciences, but with additional emphasis on the human and economic factors essential in all engineering activity.

Industrial engineers may serve either as managers or as technical specialists in such areas as production or production control, systems analysis, statistical quality control, economic analysis and sales engineering. Industrial Engineering has become increasingly important in manufacturing, medical, financial, governmental, military and other types of organizations.

The essential tool which the industrial engineer uses in order to maintain his systems is the computer. For those who wish to concentrate upon the use of the computer in organizations, the systems engineering option is offered. The systems engineering option decreases emphasis somewhat upon manufacturing management and increases emphasis upon mathematics and computing.

Lamar University, through its program in Computer Science, offers an opportunity for students to immediately begin an educational experience which may lead to an exciting and rewarding career. The program which leads to a Bachelor of Science degree in Computer Science is designed to prepare graduates to choose one of the following options:

1. Pursue graduate work in Computer Science without having to first take remedial courses in Computer Science.
2. Accept a position as a computer professional and become a productive employee without undergoing extensive training programs.
3. Pursue graduate work or accept a position in the area of their academic minor.

Students in this program will have an opportunity to work with a variety of computers including mini-computers, analog computers, special purpose computers and the general purpose CDC 3300 computer. Although the degree is administered by the department of Industrial Engineering in the College of Engineering, this is not a program in Engineering or Mathematics.

Program of Study

Bachelor of Science in Industrial Engineering

BASIC PROGRAM

Accredited by Engineers' Council for Professional Development
First and Second Year

(See Core Program)

Third Year

First Semester		Second Semester	
IE 311 — Seminar I.....	1-0-1	IE 334 — Industrial Relations.....	3-0-3
IE 330 — Principles of IE.....	3-0-3	IE 335 — Acctg for Egrs.....	3-0-3
IE 333 — Egr Economy.....	3-0-3	IE 338 — Methods Egr.....	2-3-3
EGR 212 — Prod & Fab Proc.....	0-3-1	Egr 233 — Elec Circ Fields.....	3-0-3
Egr 234 — Thermodynamics.....	3-0-3	Egr 331 — Momentum Trans.....	3-0-3
Egr 339 — Mat Sci & Mfg Proc.....	3-0-3	Approved Elective ¹	3-0-3
Mth 234 — Prob & State.....	3-0-3		18
	<u>17</u>		

Fourth Year

First Semester		Second Semester	
IE 411 — Seminar II.....	1-0-1	IE 430 — Stat Qual Control.....	2-3-3
IE 432 — Ind Statistics.....	3-0-3	IE 436 — Prod Syst Design.....	1-6-3
IE 435 — Prod & Inv. Control.....	3-0-3	IE 437 — Operations Research.....	3-0-3
IE 4315 — Org & Mgt.....	3-0-3	Approved Elective ³	3-0-3
IE 4303 — Linear Prog.....	3-0-3	Free Elective.....	3-0-3
Humanities ²	3-0-3		15
	<u>16</u>		

Total 132 Semester Hours

¹Approved Science or Technical Elective

²Spc 131, Spc 331 or Eng 3311

³Approved Humanistic—Social Elective

Systems Engineering Option

First and Second Year

(See Core Program)

Third Year

First Semester		Second Semester	
IE 333 — Egr Economy.....	3-0-3	IE 338 — Methods EGR.....	2-3-3
IE 3302 — Funct Char Dig Comp.....	3-0-3	IE 3303 — Comp Tech Sci Egr.....	3-0-3
Egr 234 — Thermodynamics.....	3-0-3	Egr 233 — Elec Cir Fields.....	3-0-3
Mth 233 — Linear Algebra.....	3-0-3	Mth 331 — Diff Equa.....	3-0-3
Mth 234 — Prob & Stat.....	3-0-3	Mth 4315 — Numer Anal.....	3-0-3
	<u>15</u>	Approved Elective ¹	3-0-3
			18

Fourth Year

First Semester		Second Semester	
IE 4303 — Linear Prog.....	3-0-3	CS 4305 — Intro Info Struct.....	3-0-3
IE 432 — Ind Statistics.....	3-0-3	IE 430 — Stat Qual Control.....	2-3-3
IE 435 — Prod & Inv Control.....	3-0-3	IE 437 — Operations Research.....	3-0-3
IE 4302 — Syst Anal & Des.....	3-0-3	Humanities ³	3-0-3
IE 4315 — Org & Mgt.....	3-0-3	Free Elective.....	3-0-3
Approved Elective ²	3-0-3		15
	<u>18</u>		

Total 132 Semester hours

¹Approved Science or Technical Elective

²Approved Humanities — Social Elective

³Spc 131, Spc 331, or Eng 3311

INDUSTRIAL ENGINEERING (IE)

311 — Seminar. Current problems related to industrial engineering. Class: 1 hour. Credit: 1 semester hour.

330 — Principles of Industrial Engineering. The function of the industrial engineer in industry. The introduction of the various industrial control systems designed, improved and installed by the industrial engineer. Class 3 hours. Credit: 3 semester hours.

333 — Engineering Economy. Economic evaluation of engineering alternatives. Interest, depreciation, valuation, cost control, replacement theory, taxation. Prerequisite: Mth 1391. Class: 3 hours. Credit: 3 semester hours.

334 — Industrial Relations. Application of the behavioral sciences to the problem of industrial organization and operation. Class: 3 hours. Credit: 3 semester hours.

335 — Accounting for Engineers. Elements of accounting, cost accounting systems and budget systems. Class: 3 hours. Credit: 3 semester hours.

338 — Methods Engineering and Work Measurement. Analysis and improvement of manual work methods. Time measurement of work and methods of establishing performance evaluation standards. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3302 — Functional Characteristics of Digital Computers. Machine, assembler level and macro languages, data representation, instruction formats, addressing, computer structure. Prerequisite: CS 132 or Egr 235. Class: 3 hours. Credit: 3 semester hours.

3303 — Computer Techniques for Science and Engineering. Development and application of numerical algorithms, seminumerical algorithms, statistical techniques, other pertinent techniques for students in Engineering and/or Sciences. Prerequisite: Egr 235 or CS 132. Math 234. Class: 3 hours. Credit: 3 semester hours.

411 — Seminar. Advanced methodologies, professional problems and current research in industrial engineering. Class: 1 hour. Credit: 1 semester hour.

430 — Statistical Quality Control The use of statistics in the design, installation and operation of systems for the design of quality, the prevention of defects and the assurance of given quality levels. Prerequisite: Mth 234. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

432 — Industrial Statistics. Significance tests, confidence intervals, tests of hypotheses, correlation, experimental design. Prerequisite: Mth 234. Class: 3 hours. Credit: 3 semester hours.

434 — Manufacturing Engineering. The design of products for quality production, the design of tools, gauges, jigs and fixtures. Analysis, design and selection of materials handling equipment. Prerequisite: IE 338, 333. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

435 — Production and Inventory Control. Techniques employed in continuous process and job lot manufacture for planning and controlling production. Procurement, inventory control, scheduling, facilities, loading routing, dispatching. Prerequisite: Mth 234, IE 330. Class: 3 hours. Credit: 3 semester hours.

436 — Production Systems Design. Principles and methods of designing and locating industrial plants. The design and location of a factory as the result of technical and economic analysis. Prerequisite: Egr 212, 339, IE 330, 333, 338. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

437 — Operations Research. Introduction to the major techniques of operations research and their application to managerial decision-making. Transportation method, linear programming, allocation models, Monte Carlo technique. Prerequisite: Mth 234, IE 333. Class: 3 hours. Credit: 3 semester hours. Class: 3 hours. Credit: 3 semester hours.

4302 — System Analysis and Design. Multiprocessing and real time systems, timesharing, core management systems, interfacing, analysis and design of systems to meet specific requirements, management systems, system programming. Prerequisites: IE 3302. Class: 3 hours. Credit: 3 semester hours.

4303 — Linear Programming. Selected topics from Linear Algebra; general linear programming problems; techniques for solving GLP; degeneracy procedures; transportation problems; applications. Prerequisite: CS/132, or Egr. 235. Class: 3 hours. Credit: 3 semester hours.

4313 — Human Engineering. The specialized adaptation of engineering designs to meet human physiological and psychological needs. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

4315 — Organization and Management. Theory of the organization, the relationship of human efforts for effective and efficient coordinated activity. Investigation of the executive functions, planning, decision-making, policy formulation, motivation, communication, control. Class: 3 hours. Credit: 3 semester hours.

Program of Study

Bachelor of Science in Computer Science

First Year

First Semester		Second Semester	
CS 131 — Intro Comp & Info Sci	3-0-3	CS 132 — Program Dig Comp.....	3-0-3
Eng Composition.....	3-0-3	Eng Composition	3-0-3
HPE — Activity	0-3-1	HPE — Activity.....	0-3-1
Mth 1381.....	3-0-3	Mth 1391 — Calculus I.....	3-0-3
Electives*.....	6-0-6	Electives*.....	6-0-6
	16		16

Second Year

First Semester		Second Semester	
CS 3304 — Comp Tech	3-0-3	IE 3302 — Funct Char Dig Comp.....	3-0-3
Mth 233 — Linear Algebra	3-0-3	Mth 234 — Prob & Stat.....	3-0-3
HPE — Activity	0-3-1	HPE — Activity.....	0-3-1
English Literature	3-0-3	Speech or Eng Lit.....	3-0-3
History 231 — United States	3-0-3	History 232 — United States.....	3-0-3
Electives*.....	3-0-3	Electives*.....	3-0-3
	16		16

Third Year

First Semester		Second Semester	
Mth 4315 — Numer Anal	3-0-3	Mth Elective.....	3-0-3
IE 330 — Principles of IE	3-0-3	CS 3305 — Logic & Algorithms	3-0-3
IE 3303 — Comp Tech Sci & Egr.....	3-0-3	IE 432 — Ind Statistics.....	3-0-3
Electives*.....	3-0-3	IE 4302 — System Anal Design	3-0-3
Gov 231 — Constitutions.....	3-0-3	Electives*.....	3-0-3
	15		15

Fourth Year

First Semester		Second Semester	
CS 4303 — Linear Programming.....	3-0-3	CS 4304 — Prog Languages	3-0-3
CS 4305 — Intro Info Struct	3-0-3	CS 4306 — Tech Info Process.....	3-0-3
Gov 232 — Constitutions.....	3-0-3	Electives*.....	3-0-3
Electives*.....	9-0-9	IE 335 — Acctg for Egrs.....	3-0-3
	18	IE 4315 — Org & Mgt	3-0-3

15

Total 127 Semester Hours

*Chosen to satisfy general college requirements and minor requirements.

COMPUTER SCIENCE (CS)

131 — Introduction to Computer and Information Science. Structure and operational characteristics of computing systems, survey of computer languages and their usages, software, computer applications; information systems. Class: 3 hours. Credit: 3 semester hours.

132 — Programming of Digital Computers. Utilization of digital computers to solve both numeric and nonnumeric problems by means of procedural and/or conversational languages. Prerequisite: CS 131 or consent of the instructor. Class: 3 hours. Credit: 3 semester hours.

133 — Introduction to Computers (COBOL). Introduces the student to historical evolution of computers; internal design; associated hardware including input/output, internal and secondary storage; and their social implications. A familiarity with the COBOL language is gained through the execution of several business oriented problems. Class: 3 hours. Credit: 3 semester hours.

3304 — Computing Techniques. Principles and application of computers to problems from disciplines other than Engineering. Utilization of various problem oriented languages, techniques of writing and/or utilizing subprograms. Prerequisite: CS 131, 132. Class: 3 hours. Credit: 3 semester hours.

3305 — Logic and Algorithms. Boolean algebra and propositional logic, algorithmic processes, logical structure of computer components such as adders, registers, counters, switching networks. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

4304 — Programming Languages. Formal definition of programming languages, including specifications of syntax, semantics, statements, notations used in construction of compilers, structure of translators and compilers. Prerequisite: IE 3302 and CS 4305. Class: 3 hours. Credit: 3 semester hours.

4305 — Introduction to Information Structures. Data bases and their structures; concepts of functions, arrays, files, records, lists, trees, storage systems and structure; symbol tables and search techniques, multilinked files. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

4306 — Techniques of Information Processing and Retrieval. Continuation of CS 4305. Keyword and descriptive indexing, decision tables, real time information processing and total information systems. Prerequisite: CS 4305. Class: 3 hours. Credit: 3 semester hours.

Department of Mechanical Engineering

Department Head — Otto G. Brown. *Regents/Professor* — Frank A. Thomas, Jr. *Professor* — Harry T. Mei. *Associate Professors* — John A. Bruyere, Thomas J. Greene, Eugene P. Martinez, Fred M. Young. *Assistant Professor* — John M. Kramer. *Laboratory Technician* — George E. Hundley, Jr. *Secretary* — DiAnna Cannan.

Mechanical Engineering embraces the analysis, design, synthesis and selection of materials for mechanical and thermal processes and engineering systems. Such a broad field must of necessity require a firm foundation in the fundamental sciences and mathematics as well as in the engineering sciences.

Application of the sciences to diverse areas of mechanical engineering are studied in the junior year. Opportunity is provided the student at the senior level to examine certain aspects of Mechanical Engineering in more detail or to prepare for graduate study.

Mechanical engineers are found in virtually every phase of industry. They are engaged in professional engineering, research, management and public services. The end products resulting from the application of their knowledge and professional skills are many, and a list would include, for example, all forms of transportation, central power plants, nuclear reactors, space vehicles, computers and complex systems.

Few fields of endeavor offer more to the individual in challenge and opportunity or require better preparation than does mechanical engineering.

Successful completion of the curriculum leads to the degree of Bachelor of Science in Mechanical Engineering.

Program of Study

Bachelor of Science in Mechanical Engineering

First and Second Year

(See Core Program)

Third Year

First Semester	Second Semester
Egr 212 — Prod and Fab Proc.....0-3-1	Egr 333 — Electronics.....3-0-3
Egr 232 — Mechanics III.....3-0-3	ME 321 — Instrmt and Test Lab.....0-6-2
Egr 233 — Elec Circ, Fields.....3-0-3	ME 331 — Transport Theory I.....3-0-3
Egr 331 — Momentum Transfer.....3-0-3	ME 332 — Elem Mech Des I.....2-3-3
Mth 331 — Diff Eqns.....3-0-3	ME 334 — Engr Anal I.....3-0-3
ME 338 — Thermo II.....3-0-3	Spc 131 — Spc Comm or Spc 331 — Prof Spc.....3-0-3
15-3-16	14-9-17

Fourth Year

First Semester	Second Semester
Eng 3311 — Tech Report	ME 431 — Egr Sys Des.....2-3-3
Writing.....3-0-3	ME 4316 — Egr Project.....1-6-3
ME 411 — Seminar.....1-0-1	ME 4319 — Mat Sci.....2-3-3
ME 4313 — Trans Theo II.....3-0-3	Electives.....9
ME 4323 — Elem Mech	18
Des II.....2-3-3	
Phy 335 — Modern Phy.....3-0-3	
Electives.....3	
16	

Total 133 Semester Hours

Suggested ME Block Electives

(12 Semester Hours Minimum)

Aero-Space, Thermal, Design

A block of a minimum of 12 hours of approved electives with at least six in the specialty area.

Professional

A block of a minimum of 12 hours of approved electives with at least nine in the major field.

Graduate School Preparatory

A block of a minimum of 12 hours of approved electives with at least six in the major field.

MECHANICAL ENGINEERING (ME)

321 — Instrumentation and Testing Laboratory. Various instruments with mechanical engineering applications are studied and tests are made. Emphasis is on pressure, temperature, speed, power, torque, frequency, and various types of flow measurements. Prerequisites: ME 338, ME 331 in parallel. Laboratory: 6 hours. Credit: 2 semester hours.

331 — Transport Theory I. Theory of conduction and potential flow, radiation, and convection with engineering techniques and applications. Prerequisites: Egr 331, ME 334 in parallel. Class: 3 hours. Credit: 3 semester hours.

332 — Elements of Mechanical Design I. The design of machine components including shafting, columns, springs and frames with regard to static and dynamic forces employing analytical and graphical analysis. Prerequisite: Egr 232. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

334 — Engineering Analysis I. Methods of analysis of engineering situations requiring application of fundamentals of engineering science and mathematics are studied. Mathematical methods of engineering analysis are presented and applied. Prerequisites: Egr 331 in parallel. Class: 3 hours. Credit: 3 semester hours.

338 — Thermodynamics II. A continuation of Egr 234 including vapor and gas cycles, mixtures of gases, thermodynamics of chemical systems and psychrometrics. Prerequisite: Egr 234. Class: 3 hours. Credit: 3 semester hours.

411 — Seminar. Oral and written presentation and discussion of selected topics including those from current literature of fields related to mechanical engineering. Professional activities are encouraged. Class: 1 hour. Credit: 1 semester hour.

431 — Engineering Systems Design. The design techniques of integrated component systems are treated. The student is required to utilize these techniques by designing such a system. Prerequisite ME 334 and senior standing. Class: 3 hours. Credit: 3 semester hours.

432 — Mechanical Vibrations. The theory of vibrating systems, including kinematics or vibrations, harmonic and non-harmonic, single and multiple degrees of freedom; free and forced vibrations, with and without damping. Applications to crank and slider, rotating machinery, balancing, vibration isolation and absorption, and instrumentation. Prerequisites: ME 332 and ME 334. Class: 3 hours. Credit: 3 semester hours.

433 — Aerodynamics. Topics include circulation and curl, irrotational flow, velocity potential, vortex theorems; the equations of motion, flow about a body, and the thin airfoil. Vector and complex rotation is used. Prerequisite: ME 331. Class: 3 hours. Credit: 3 semester hours.

434 — Internal Combustion Engines. The principles of design and analysis of various types of internal combustion engines. Prerequisites: ME 331 and ME 338. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

435 — Turbomachinery. Flow problems encountered in the design of water, gas and steam turbines, centrifugal and axial-flow pumps and compressors. Prerequisites: ME 331 and ME 338. Class: 3 hours. Credit: 3 semester hours.

436 — Dynamics of Machinery. Kinematics of mechanisms, gears, and epicyclic gear trains. Synthesis of linkages. Calculation of inertia forces and shaking forces on machines. Multicylinder engine balancing. Graphical and analytical methods are employed. Prerequisite: ME 332. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

437 — Advanced Machine Design. The application of machine design principles to an integrated design of a complete machine, including fabrication and economic consideration. Prerequisite: ME 4323. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

438 — Environmental Systems Engineering. Design of refrigeration and air-conditioning systems including selection of mechanical equipment, controls, piping, and duct layout. Prerequisite: ME 331; 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

439 — Advanced Strength of Materials. Introduction to the fundamental theory of three dimensional elasticity. Specialization of the general theory to provide the theory of plane stress and plane strain. Determination of stress and deflections in a beam on elastic foundations, plates, shells, and cylinders. Study of torsion of bars and cylinders. Prerequisite: Egr 232. Class: 3 hours. Credit: 3 semester hours.

4311 — Controls Engineering. The theory of integrated automatic controls systems with application to combustion, temperature, pressure, flow and humidity control. Industrial control systems are considered. Prerequisites: ME 331 and ME 334. Class: 3 hours. Credit: 3 semester hours.

4312 — Gas Dynamics. Fundamentals of one-dimensional compressible flow. An introduction to multi-dimensional wave phenomena with various applications. Prerequisite: ME 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

4313 — Transport Theory II. Transport processes in incompressible boundary layers. Transport with change of phase. Compressible flow in nozzles, ducts, and turbomachines. High speed compressible boundary layer flow. Slip and free molecule flow. Prerequisite: 334. Class: 3 hours. Credit: 3 semester hours.

4314 — Fundamentals of Physical Metallurgy. Fundamental and scientific principles of physical metallurgy to include nucleation theory of solidification, behavior of single and polycrystalline solids under stress and heat treatment — plastic deformation and recrystallization and basic principles of X-ray diffraction used in physical metallurgy. Prerequisite: ME 4319 or parallel. Class: 3 hours. Credit: 3 semester hours.

4315 — Thermodynamics III. An introduction to the kinetic theory of gases, statistical mechanics, and quantum theory. Prerequisites: ME 338 and ME 334. Class: 3 hours. Credit: 3 semester hours.

4316 — Engineering Project. Individual student professional or research projects are planned, scheduled, designed, and evaluated. Experience is gained in the execution of an engineering project and a formal technical report is required. Prerequisites: ME 321 and senior standing. Class: 1 hour. Laboratory: 6 hours. Credit: 3 semester hours.

4317 — Engineering Analysis II. A continuation of ME 334 with some emphasis being placed on analog methods and computer techniques in solving engineering problems. Prerequisite: ME 334. Class: 3 hours. Credit: 3 semester hours.

4319 — Materials Science. Properties of materials. Aspects of elastic behavior, as well as stress and strain measurement, yield phenomena, tensions, torsion, hardness, and assorted effects are considered. Criteria for selecting proper engineering materials are discussed. Prerequisite: Egr 232, Egr 234. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

4320 — Propulsion Systems. Space mission parameters. Basic elements of propulsion systems and propulsion system parameters. Selected problems of thermochemical systems and electro-magneto-thermal systems. Prerequisites: ME 338 and ME 331. Class: 3 hours. Credit: 3 semester hours.

4321 — Space Dynamics. An analytical treatment of the mechanics of orbital motion, with applications to the trajectories of astronomical objects and space vehicles. Prerequisite: ME 4313 or parallel. Class: 3 hours. Credit: 3 semester hours.

4323 — Elements of Mechanical Design II. The design of power transmission machinery. Complete design of some assigned machine. Prerequisite: ME 332. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

Department of Mathematics

Department Head — Jeremiah M. Stark. *Director of Freshman Mathematics* — Philip W. Latimer. *Professors* — Russell W. Cowan, Sterling C. Crim, Sterling W. McGuire, Howard C. Vanzant. *Associate Professors* — Joseph A. Baj, II, Ralph J. Brookner, Joan E. Brenizer, Robert L. Dingle, Richard L. Price, Jacob A. Wolkeau, Sam M. Wood, Jr. *Assistant Professors* — Lawrence D. Bell, Mary Katherine Bell, George Berzsenyi, Dock B. DeMent, Annie Sue Green, John F. Harvill, Jean Marie Hudson, *Michael A. Laidacker, Charles H. Lauffer, Reta G. Parrish, Billy D. Read, David R. Read, Dorothy Faye Thames. *Instructors* — John W. Mades, Jana W. McNeill, Donald A. Rickett. *Secretary* — Mrs. Alma Baize. (*On leave)

The importance of mathematics to the ambitious scientist and engineer of the present day cannot be overemphasized. Many phenomena of nature can be understood adequately only when translated into the language of mathematics. In a day when inventions are sought almost on schedule, a student majoring in science or engineering at a technological college may expect to find an emphasis on the basic tool of mathematics.

Mathematicians with adequate training and background find a variety of opportunities in industry, in government service, in the actuarial profession as statisticians, and of course, as teachers of mathematics on the secondary school, college or university levels. For further information along these lines, the reader is invited to confer with faculty members and is referred to the publication "Professional Opportunities in Mathematics," obtainable from the Mathematical Association of America.

The Mathematics Department offers programs leading to the Bachelor of Science degree, the Bachelor of Arts degree, and the Master of Science degree. The Bachelor of Arts degree is primarily for those who plan to teach mathematics in secondary schools. The Bachelor of Science degree is recommended for those undergraduate students who plan to do industrial work in mathematics or to enter graduate school for an advanced degree in mathematics.

Those wishing to secure the Bachelor of Arts degree in mathematics while fulfilling the requirements for a provisional secondary school certificate with a teaching field in mathematics, will find below the details of such a program. Also given below are programs of study for the Bachelor of Arts degree with major in mathematics and minor unspecified, the Bachelor of Science degree with major in mathematics and minor in engineering, the Bachelor of Science degree with major in mathematics and minor in physics, the Bachelor of Science degree with major in mathematics and a computer concentration, and the Bachelor of Science degree in mathematics with minor unspecified.

For information concerning the Master of Science and Doctor of Engineering degrees, refer to the Graduate Bulletin.

Programs of Study

Bachelor of Arts — Mathematics Major

1. General requirements:
 - (1) Eng — Composition — six semester hours.
 - (2) Eng — Literature — six semester hours.
 - (3) Laboratory science — eight semester hours (same science).
 - (4) Gov 231, 232 — State and National.
 - (5) His 231, 232 — United States
 - (6) Foreign Language through 232 (same Lang.).
 - (7) HPE (Activity) — four semester hours.
2. Major requirements:
 - (1) A minimum of 27 semester hours of mathematics including 1 of advanced courses approved by the department.
3. Minor requirements:
 - (1) A minor of 18 hours approved by the department.
4. Electives — (approved).

Bachelor of Arts — Mathematics Major

First Year

First Semester	Second Semester
Mth 1381 — Anal Geom3	Mth 1391 — Cal I3
Eng — Composition3	Eng — Composition.....3
Science4	Science4
Minor.....3	Minor3
*Elective.....3	*Elective3
HPE — Activity.....1	HPE — Activity1
<u>17</u>	<u>17</u>

Second Year

First Semester	Second Semester
Mth 2311 — Cal II3	Mth 2321 — Cal III3
Eng — Literature.....3	Eng — Literature3
His 231 — United States.....3	His 232 — United States3
For Lang 1414	For Lang 142.....4
*Elective.....3	*Elective3
HPE — Activity.....1	HPE — Activity1
<u>17</u>	<u>17</u>

Third Year

First Semester	Second Semester
Mth 331 — Diff Equa3	Mth — (Adv.).....3
Mth — (Adv.).....3	Gov 232 — St and Ntl.....3
Gov 231 — St and Ntl3	For Lang 232.....3
Minor.....3	*Elective3
For Lang 2313	Minor3
<u>15</u>	<u>15</u>

Fourth Year

First Semester		Second Semester	
Mth — (Adv.)	3	Mth — (Adv.)	3
Minor	3	Minor	3
*Electives	9	*Electives	9
	<u>15</u>		<u>15</u>

*Approved by the Mathematics Department.

Teacher Certification — Mathematics

Those wishing to secure the Bachelor of Arts degree in mathematics and at the same time certify for a provisional certificate — secondary with a teaching field in mathematics must include in their degree program the following:

- (1) 18 hours of professional education as follows:
Edu 331, 332, 338, 438, and 462.
- (2) Minor to be expanded to include an approved 24 hours teaching field other than mathematics. (Consult this catalog — College of Education.)
- (3) CS 131 and Mth 234.
- (4) 12 hours of advanced mathematics as follows: Mth 330 or 338, 3311, 333 or 334, 335 or 336 or 337.
- (5) Approved electives sufficient to make a total of 132 semester hours.

Bachelor of Science — Mathematics Major

Program I — Engineering Minor

First Year

First Semester		Second Semester	
Eng Comp	3	Eng Comp	3
Chm 141 — General	4	Chm 142 — General	4
Mth 1381—Anal Geom	3	Mth 1391—Cal I	3
Egr 114—Graphics	1	Egr 132—Mech I	3
Gov 231—St and Natl	3	Egr 133—Intro Egr Comp	3
HPE—Activity	1	HPE—Activity	1
	<u>15</u>		<u>17</u>

Second Year

First Semester		Second Semester	
Mth 2311 — Cal II	3	Mth 2321—Cal III	3
Mth 233 — Linear Algebra	3	Phy 242 — Snd Lt Qua	4
Egr 231 — Mech II	3	Egr 233 — Elet Cit & Fld	3
Phy 241 — Heat El Mag	4	Mth 3311 — Set Theory	3
Gov 232 — St and Natl	3	*Lib Arts Elec	3
HPE — Activity	1	HPE—Activity	1
	<u>17</u>		<u>17</u>

Third Year

First Semester		Second Semester	
Mth 331 — Diff Equa.....	3	Mth 234 — Prob and Stat.....	3
Mth 338 — Adv Cal.....	3	Mth 339 — Adv Cal.....	3
Egr Elec (Adv).....	3	Eng Lit.....	3
Eng — Literature.....	3	His 232 — U.S.....	3
His 231 — U.S.....	3	Egr Elec (Adv).....	3
	<u>15</u>		<u>15</u>

Fourth Year

First Semester		Second Semester	
Mth 431 — Complex Var.....	3	Mth 432 — Complex Var.....	3
Mth Elective (Adv).....	3	Mth Elective (Adv).....	3
*Liberal Arts Elect.....	6	*Electives.....	9
*Electives.....	<u>6</u>		<u>15</u>
	<u>18</u>		

*Approved by department head.

Program II — Physics Minor

First Year

First Semester		Second Semester	
Chm 141 — Gen.....	4	Chm 142 — Gen.....	4
Eng — Composition.....	3	Eng — Composition.....	3
Mth 1381 — Analy Geom.....	3	Mth 1391 — Cal I.....	3
*Liberal Arts Elective.....	3	Phy 140 — Intro Mech.....	4
HPE — Activity.....	1	HPE — Activity.....	1
	<u>14</u>		<u>15</u>

*Approved by department head.

Second Year

First Semester		Second Semester	
Eng — Literature.....	3	Eng Lit.....	3
His 231 — U.S.....	3	His 232 — U.S.....	3
Mth 2311 — Cal II.....	3	Mth 2321 — Cal III.....	3
Mth 233 — Linear Alg.....	3	Mth 3311 — Set Theory.....	3
Phy 241 — Heat El Mag.....	4	Phy 242 — Snd Lt Qua.....	4
HPE — Activity.....	1	HPE — Activity.....	1
	<u>17</u>		<u>17</u>

Third Year

First Semester		Second Semester	
Gov 231 — St and Natl.....	3	Gov 232 — St and Natl.....	3
Mth 331 — Diff Equations.....	3	Mth 234 — Prob and Stat.....	3
Mth 338 — Adv Cal.....	3	Mth 339 — Adv Cal.....	3
Phy 335 — Modern.....	3	Phy Elect (Adv).....	3
*Liberal Arts Elective.....	3	*Lib Arts Elect.....	3
*Elective.....	<u>3</u>		<u>15</u>
	<u>18</u>		

Fourth Year

First Semester		Second Semester	
Mth 431 — Complex Var	3	Mth 432 — Complex Var	3
Phy Elective (Adv).....	3	Mth Elective (Adv).....	3
Mth Elective (Adv).....	3	*Electives.....	9
*Electives	9		15
	<u>18</u>		

*Approved by the Mathematics Department.

Program III — Computer Concentration

First Year

First Semester		Second Semester	
Eng Comp.....	3	Eng — Composition.....	3
Lab Science	4	Lab Science.....	4
Mth 1381 — Anal Geom	3	Mth 1391 — Cal I	3
CS 132 — Prog Dig Comp.....	3	*Liberal Arts Elective.....	3
*Lib Arts Elect	3	*Elective	3
HPE — Activity.....	1	HPE — Activity	1
	<u>17</u>		17

*Approved by the Mathematics Department.

Second Year

First Semester		Second Semester	
Mth 2311 — Cal II	3	Mth 2321 — Cal III.....	3
Mth 233 — Linear Alg	3	Mth 3311 — Set Theory.....	3
Eng Lit.....	3	Eng Lit.....	3
His 231 — U.S.....	3	His 232 — U.S.....	3
IE 3303 — Comp Tech	3	CS 3304 — Comp Tech.....	3
Sci & Egr.....	3	HPE — Activity.....	1
HPE — Activity.....	1		16
	<u>16</u>		

Third Year

First Semester		Second Semester	
Mth 331 — Diff Equa	3	Mth 234 — Prob and Stat	3
Mth 338 — Adv Cal.....	3	Mth 339 — Adv Cal.....	3
Gov 231 — St and Natl.....	3	Mth 4315 — Numer Analy	3
IE 3302 — Funct Char Dig Comp	3	Gov 232 — St and Natl.....	3
Elective.....	3	CS (Adv).....	3
	15	*Elective.....	3
			18

Fourth Year

First Semester		Second Semester	
Mth 437 — Prob and Stat	3	Mth 438 — Prob and Stat	3
Mth Elective (Adv).....	3	Mth Elective (Adv).....	3
CS (Adv).....	3	*Lib Arts Elect.....	3
*Electives	6	*Electives.....	6
	<u>15</u>		15

*Approved by the Mathematics Department.

Program IV — Other Minors

First Year

First Semester	Second Semester
Eng — Composition3	Eng — Composition3
Science4	Science4
Mth 1381 — Anal Geom3	Mth 1391 — Cal I3
*Liberal Arts Elec3	Minor3
Minor3	*Liberal Arts Elec3
HPE — Activity1	HPE — Activity1
<u>17</u>	<u>17</u>

*Approved by the Mathematics Department.

Second Year

First Semester	Second Semester
Mth 2311 — Cal II3	Mth 2321 — Cal III3
Mth 233 — Linear Alg3	Mth 3311 — Set Theory3
Eng — Literature3	Eng Lit3
Minor3	Minor3
*Elective3	*Elective3
HPE — Activity1	HPE — Activity3
<u>16</u>	<u>16</u>

Third Year

First Semester	Second Semester
Mth 331 — Diff Equa3	Mth 234 — Prob and Stat3
Mth 338 — Adv Cal3	Mth 339 — Adv Cal3
Gov 231 — St and Natl3	Gov 232 — St and Natl3
Minor3	Minor3
*Electives6	*Lib Arts Elect3
<u>18</u>	<u>15</u>

Fourth Year

First Semester	Second Semester
Mth 431 — Complex Var3	Mth 432 — Complex Var3
Mth Elective (Adv)3	Mth Elective (Adv)3
His 231 — U.S.3	His 232 — U.S.3
*Electives6	*Electives6
<u>15</u>	<u>15</u>

*Approved by the Mathematics Department.

Mth 133, 1334, and 134 may be counted as free electives toward a degree in mathematics provided they are taken before credit is received for Mth 1381.

MATHEMATICS (Mth)

131 — Finite Mathematics I. Selected topics in modern finite mathematics. Class: 3 hours. Credit: 3 semester hours.

132 — Finite Mathematics II. Selected topics in modern finite mathematics. Class: 3 hours. Credit: 3 semester hours.

1321 — Advanced Finite Mathematics. An accelerated course for those exceptionally well prepared at time of matriculation. Various topics from the literature of mathematics; an introduction to the spirit and aesthetic values of mathematics. Offered to freshmen, fall semester only. Satisfactory completion of this course satisfies mathematics requirement for degree programs requiring Mth 131-132. Class: 3 hours. Credit: 3 hours.

133 — Analytical Trigonometry. Trigonometric functions and their applications, trigonometric identities and equations. Prerequisite: 1 unit of high school algebra and 1 unit in plane geometry. Class: 3 hours. Credit: 3 semester hours.

1334 — Algebra and Trigonometry. A precalculus course in the fundamentals of algebra and trigonometry. Designed to prepare students for Mth 1381 and Mth 1391. Class: 3 hours. Credit: 3 semester hours.

134 — College Algebra. Linear equations, linear systems, linear inequalities, linear programming, vectors, matrices and logarithms. Class: 3 hours. Credit: 3 semester hours.

1341 — Elements of Analysis. Probability, differential and integral calculus. Prerequisite: Mth 134. Class: 3 hours. Credit: 3 semester hours.

135 — Contemporary Mathematics I. Logic and an introduction to mathematical reasoning, sets and relations, the system of whole numbers, numeration systems, system of integers and elementary number theory. Class: 3 hours. Credit: 3 semester hours.

136 — Contemporary Mathematics II. Fractions and rational numbers, decimals and real numbers, concepts of probability, introduction to statistics, some concepts from algebra. Class: 3 hours. Credit: 3 semester hours.

1381 — Analytic Geometry. Straight lines, conic sections, transformation of coordinates, polar coordinates, and solid analytic geometry. Prerequisite: Mth 133 or 1334 or high school trigonometry. Class: 3 hours. Credit: 3 semester hours.

1391 — Calculus I. Limits, derivatives, applications of derivatives, integration with applications, and transcendental functions. Prerequisite: Mth 1381. Class: 3 hours. Credit: 3 semester hours.

2311 — Calculus II. Methods of integration, hyperbolic functions, vectors and parametric equations, and solid geometry and vectors. Prerequisite: Mth 1391. Class: 3 hours. Credit: 3 semester hours.

2321 — Calculus III. Partial differentiation, multiple integrals, infinite series, differential equations. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

233 — Linear Algebra. Set notation, number fields, groups, vectors, geometry of space, vector spaces, determinants, linear transformations, matrices. Prerequisite: Mth 1391 or concurrently. Class: 3 hours. Credit: 3 semester hours.

234 — Probability and Statistics. Empirical, frequency distributions, probability theoretical distributions, sampling distributions, and statistical application. Prerequisite: Mth 2321 or concurrently. Class: 3 hours. Credit: 3 semester hours.

330 — Principles of Mathematics. Techniques and the psychology of mathematical problem solving are studied from a higher viewpoint. Case histories of problems, pattern recognition, construction of new problems, generalizations are emphasized. Class: 3 hours. Credit: 3 semester hours.

331 — Differential Equations. Analytical solution of ordinary differential equations in terms of elementary and classical functions. Application to problems in geometry, engineering, and physics. Introduction to solution by series. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

3311 — Set Theory. Set Theory. Infinite sets, cardinal and ordinal arithmetic. Axiom of choice. Transfinite induction. Applications in the topology of the real line, complex plane, and simple closed curves. Class: 3 hours. Credit: 3 semester hours.

3313 — Modern Elementary Geometry. A study of the structure of geometry with primary emphasis on the needs of the elementary teacher. Prerequisite: Mth 136. Class: 3 hours. Credit: 3 semester hours.

3315 — Number Theory. A development of the elementary theory of numbers with emphasis on the needs of teachers. Class: 3 hours. Credit: 3 semester hours.

333 — Higher Geometry. An axiomatic treatment of one or more of the important types of space — projective, metric, Euclidean, or topologic. Emphasis on the method rather than on the content. Class: 3 hours. Credit: 3 semester hours.

334 — Higher Geometry. Advanced topics in Euclidean geometry followed by a brief study of satellites. Constructible elements, problem of Apollonius, geometrical transformations. Euler line, Feuerbach Theorem, geometry of the triangle, Dandelin spheres, conic sections. Class: 3 hours. Credit: 3 semester hours.

335,336 — Modern Algebra. Postulates for the system of positive integers. Systems of integers, rational numbers, real numbers, and complex numbers by embedding. Dedekind cuts. Groups, rings, fields, Diophantine equations, congruences, matrix theory. Mth 335 is not a prerequisite for Mth 336. Class: 3 hours. Credit: 3 semester hours for each course.

337 — Theory of Equations. Complex numbers, general theorems on algebraic equations, solution cubic and quartic equations. Determinants and matrices. Cramer's Rule. Symmetric functions, resultants, discriminants and elimination, the Graeffe method. Prerequisite: Mth 2311. Class: 3 hours. Credit: 3 semester hours.

338, 339 — Advanced Calculus. The number system, the concept of a function, limits, sequences, continuity, differentiability, the Riemann integral, functions of several variables, differentiable functions of several variables, multiple integrals, improper integrals, infinite series. Taylor's series, and Fourier series. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours for each course.

4131, 4231, 4331 — Special Problems. Special advanced problems in mathematics to suit the needs of individual students. Class: 1 to 3 hours. Credit: 1 to 3 semester hours.

4301 — Advanced Calculus for Engineers. Linear ordinary differential equations, the Laplace Transform, series solutions of differential equations, boundary-value problems. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

431, 432 — Introduction to Functions of a Complex Variable. Review of theorems from analysis and point set theory followed by a study of analytic functions from the Cauchy-Riemann and Weierstrass points of view. Compact acts, uniform convergence, Taylor Expansion Theorem, analytic continuation, Laurent expansions, calculus of residues, conformal mapping. Prerequisite: Mth 3311. Class: 3 hours. Credit: 3 semester hours each course.

4311 — Numerical Solution of Differential Equations. Analytical foundations. Methods for ordinary and partial differential equations. Prerequisite: Mth 331. Class: 3 hours. Credit: 3 semester hours.

4315 — Numerical Analysis. Approximations, interpolations, finite differences, numerical integration, curve fitting. Prerequisite: IE 3302. Class: 3 hours. Credit: 3 semester hours.

433 — Vector Analysis. The algebra and calculus of vectors with applications. Scalar and vector fields, operators, Green's, Stokes', and Divergence Theorems; curvilinear coordinates. Other topics as time permits. Prerequisite: Mth 2321. Class: 3 hours. Credit: 3 semester hours.

434 — Partial Differential Equations. General and particular solutions, boundary conditions. Fourier series, Bessel functions, harmonic analysis, numerical solutions, conditions of heat, flow of electricity. Prerequisite: Mth 331. Class: 3 hours. Credit: 3 semester hours.

435 — Introductory Topology. Topological spaces, metric spaces, product spaces, connected spaces, and compact spaces. Open sets, closed sets, neighborhoods, limit points, closure, interior, boundary, continuity, homeomorphism, subspaces, components, and open coverings. Some applications to analysis. Prerequisite: Mth 3311. Class: 3 hours. Credit: 3 semester hours.

437 — Probability and Statistics. A continuation of the introduction to mathematical statistics begun in Mth 234. The theoretical background of tests of significance, estimation, least square theory, and various other topics is covered as well as practical problems to illustrate the theories. Prerequisite: Mth 234. Class: 3 hours. Credit: 3 semester hours.

438 — Statistical Methods. Concepts of random sampling and statistical inference; estimation and testing hypotheses; regression analysis; analysis of variance. Class: 3 hours. Credit: 3 semester hours.



College of Fine and Applied Arts

Departments: Art, Music, Speech
W. Brock Brentlinger, Ph.D., Dean
Mary Trammell, Secretary

AIMS AND PURPOSES

In Relation to the University: Within the context of a philosophy that suggests that art may improve upon nature, the College of Fine and Applied Arts provides work on a professional level in several creative disciplines. The College also assumes the role of contributing to the education of the "whole" man; therefore, with the possible exception of some of the upper level courses, all of the work available in the College is open to and within the capabilities of most students enrolled in the University. It is the purpose of these courses to confront the unknown from a non-science oriented approach to knowledge, to encourage the development of aesthetic sensitivity, and to provide for an enriching experience within the fine arts. In this respect the aims and purposes of the College of Fine and Applied Arts agree with and complement those of Lamar University.

In Relation to the Departments: The College of Fine and Applied Arts offers the following basic degree programs:

1. Bachelor of Science — Commercial Art
 - a. Plan I — Commercial Art
 - b. Plan II — Fine Arts
 - c. Plan III — All Level Teacher Certification
2. Bachelor of Science — Music Major, Performance Certificate
 - a. Instrumental Major
 - b. Piano Major
 - c. Vocal Major
3. Bachelor of Science — Music Major, Teacher Certification (all levels)
 - a. Instrumental Major
 - b. Piano Major
 - c. Vocal Major
4. Bachelor of Science — Speech Major
 - a. Plan I — Teacher Certification in Speech or Theater
 - b. Plan II — Teacher Certification in Speech and Hearing Therapy
 - c. Plan III — Teacher Certification in Deaf Education
 - d. Plan IV — Speech and Hearing Therapy, Public Address or Theater
5. Bachelor of Arts — Speech Major, available in all four plans listed
6. Bachelor of Science — Communication Major

Descriptions of graduate programs are included in the Graduate Bulletin.

Department of Art

Department Head — Robert C. Rogan. *Professor* — William H. Boughton. *Associate Professor* — Robert G. O'Neill. *Assistant Professors* — Joseph R. Madden, Jerry A. Newman. *Instructors* — Ronald R. Buckmaster, Gay C. Emmons, Harvey E. Hamburg, Conn M. Trussell. *Secretary* — Mrs. Phyllis L. Freeman.

Program of Study

Bachelor of Science — Commercial Art — Plan I

This program is designed for those students seeking professional careers in commercial art.

First Year	
First Semester	Second Semester
Art 131.....3	Art 132.....3
Art 133.....3	Art 134.....3
Eng — Composition.....3	Eng — Composition.....3
HPE — Activity.....1	HPE — Activity.....1
Mth.....3	Mth.....3
Elective.....3	Elective.....3
<u>16</u>	<u>16</u>

Second Year	
First Semester	Second Semester
Art 231 — Life Drawing.....3	Art 232 — Life Drawing.....3
Art 233 — Inter. Design.....3	Art 234 — Inter. Design.....3
Art 235 — Art History.....3	Art 236 — Art History.....3
HPE — Activity.....1	Art 239 — Photography.....3
*Eng — Literature.....3	*Eng — Literature.....3
Elective.....3	HPE — Activity.....1
<u>16</u>	<u>16</u>

Third Year**	
First Semester	Second Semester
Art 3313 — Illustration.....3	Art 3323 — Illustration.....3
Art 3333 — Advt. Design.....3	Art 3343 — Advt. Design.....3
His 231 — United States.....3	His 232 — United States.....3
Science (lab).....4	Science (lab).....4
Elective.....3	Elective.....3
<u>16</u>	<u>16</u>

*Speech 131 may be substituted for 3 hours of literature.

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Fourth Year

First Semester		Second Semester	
Art 4333 — Prob. Advt. Art.....	3	Art 4343 — Prob. Advt. Art.....	3
Art 4353 — Spec. Prob.....	3	Art 4363 — Spec. Prob.....	3
Gov. 232 — State and Natl.....	3	Gov. 232 — State and Natl.....	3
Electives.....	9	Electives.....	9
	18		18

Plan II

This program is designed for those students seeking careers in Fine Art.

First Year

First Semester		Second Semester	
Mlt 130.....	3	Art 132.....	3
Art 131.....	3	Art 134.....	3
Art 133.....	3	Art 139.....	3
Eng — Composition.....	3	Eng — Composition.....	3
HPE — Activity.....	1	HPE — Activity.....	1
Mth.....	3	Mth.....	3
	16		16

Second Year

First Semester		Second Semester	
Art 231.....	3	Art 232.....	3
Art 233.....	3	Art 234.....	3
Art 235.....	3	Art 236.....	3
HPE — Activity.....	1	HPE — Activity.....	1
*Eng — Literature.....	3	*Eng — Literature.....	2
Science (lab).....	4	Science (lab).....	4
	17		17

Third Year**

First Semester		Second Semester	
Art 3316.....	3	Art 3327.....	3
Art 3317.....	3	His 232.....	3
Art 3355.....	3	Electives.....	9
His 231.....	3		15
Electives.....	3		
	15		

Fourth Year

First Semester		Second Semester	
Art — History.....	3	Art — History.....	3
Gov. 231.....	3	Gov. 232.....	3
Electives.....	12	Electives.....	12
	18		18

*Speech 131 may be substituted for 3 hours of Literature.

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

Plan III

All-Level Certification

Fulfilling the requirements for Plan III qualifies a student for teacher certification in art all levels.

First Year

First Semester		Second Semester	
Elective.....	3	Art 132.....	3
Art 131.....	3	Art 134.....	3
Art 133.....	3	Eng — Composition.....	3
Eng — Composition.....	3	HPE — Activity.....	1
HPE — Activity.....	1	Mth.....	3
Mth.....	3	Elective.....	3
	<u>16</u>		<u>16</u>

Second Year

First Semester		Second Semester	
Art 231.....	3	Art 236.....	3
Art 233.....	3	Eng — Literature.....	3
Art 235.....	3	HPE — Activity.....	1
Eng — Literature.....	3	Science (lab).....	4
HPE — Activity.....	1	Elective.....	6
Science (lab).....	4		<u>17</u>
	<u>17</u>		

Third Year**

First Semester		Second Semester	
Art 3371.....	3	Art 3381.....	3
Edu 331.....	3	Edu 334.....	3
Edu 332.....	3	Gov. 232.....	3
Gov. 231.....	3	His 232.....	3
His 231.....	3	Elective.....	6
Elective.....	3		<u>16</u>
	<u>18</u>		

Fourth Year

First Semester		Second Semester	
Art 4331 — Crafts Elem Edu.....	3	Art 4341 — Crafts Sec. Edu.....	3
Edu 438 — Classroom Mngt.....	3	Edu 463 — Stu. Teaching.....	6
Electives.....	9	Electives.....	6
	<u>15</u>		<u>15</u>

**Art 235-236 prerequisite to all Art 300-400 level courses for art majors.

During the senior year, a candidate for a degree in Art will be required to prepare a one-man exhibit or to participate in a group exhibit.

The Art Department reserves the right to retain a selected work from each graduate for its departmental collection.

ART

130 — Appreciation of the Fine Arts. (Same as Spc 130 and MLt 130). A survey course covering the areas of a. art, b. music, c. theater. To be taught by representatives of the art, music and speech faculties. Class: 3 hours. Credit: 3 semester hours.

131 — Drawing. Exploration of various media and techniques used in drawing. Class and Studio: 6 hours. Credit: 3 semester hours.

132 — Drawing. Continuation of Art 131. Prerequisite: Art 131. Class and Studio: 6 hours. Credit: 3 semester hours.

133 — Design. Theory and practice of two-dimensional design principles. Class and Studio: 6 hours. Credit: 3 semester hours.

134 — Design. Theory and practice of three-dimensional design principles. Prerequisite: Art 133. Class and Studio: 6 hours. Credit: 3 semester hours.

139 — Introduction to the Visual Arts. An analysis of art form: Line, value, texture, volume, color and their application to the production of art. Class: 3 hours. Credit: 3 semester hours.

231 — Life Drawing. Problems in drawing and construction of the human figure in various media. Prerequisite: Art 132 and Art 134. Class and Studio: 6 hours. Credit: 3 semester hours.

232 — Life Drawing. Continuation of 231. Prerequisite 231. Class and Studio: 6 hours. Credit: 3 semester hours.

233 — Intermediate Design. Expansion of two-dimensional principles introduced in Design Art 133. Prerequisite: Art 134. Class and Studio: 6 hours. Credit: 3 semester hours.

234 — Intermediate Design. Expansion of three-dimensional principles introduced in Design Art 134. Prerequisite: Art 233. Class and Studio: 6 hours. Credit: 3 semester hours.

235 — Survey of Western Art History. Survey of art history of the Western World from pre-historic times through the Gothic Period. Class: 3 hours. Credit: 3 semester hours.

236 — Survey of Western Art History. Survey of art history of the Western World from the Renaissance to the present. Class: 3 hours. Credit: 3 semester hours.

239 — Photography. A basic course designed to teach students the operation of various types of cameras. Included is a study of the theory and practical application of darkroom laboratory processes. Prerequisite: consent of the instructor. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

3313 — Illustration. A media course. The preparation and execution of graphic material for reproduction. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3315 — Advanced Drawing. Continuation of drawing. Experimentation with various media and their adaptability to drawing principles. Prerequisite: Art 234 and Art 236. Class and Studio: 6 hours. Credit: 3 semester hours.

3316 — Watercolor. Study and practice in the planning and execution of paintings in transparent and opaque watercolor. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3317 — Painting. Introduction to painting techniques and use of materials. Prerequisite: Art 232 and Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3323 — Illustration. Experimentation with various techniques and/or media. Continuation of Art 3313. Class and Studio: 6 hours. Credit: 3 semester hours.

3325 — Advanced Drawing. Continuation of Art 3315. Prerequisite: Art 3315. Class and studio: 6 hours. Credit: 3 semester hours.

3326 — Watercolor. Continuation of 3316. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3327 — Painting. Continuation of 3317. Prerequisite: Art 3317. Class and Studio: 6 hours. Credit: 3 semester hours.

3333 — Advertising Design. The study of basic layout, advertising design and commercial reproduction techniques. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3335 — Crafts. Basic processes of textile design, weaving, leather and jewelry. May be repeated for credit. Prerequisite: Art 234 and Art 236. Class and Studio: 6 hours. Credit: 3 semester hours.

3343 — Advertising Design. Continuation of Art 3333. Prerequisite: Art 3333. Class and Studio: 6 hours. Credit: 3 semester hours.

3355 — Graphics. An introduction to print-making with an emphasis on intaglio and relief processes. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3365 — Graphics. A continuation of Art 3355 with emphasis on planographic and serigraphic techniques. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3371 — Elementary Art Education. Contemporary concepts of art in the elementary school program. Experience with a variety of techniques and media appropriate for the elementary classroom teacher. Class and Studio: 6 hours. Credit: 3 semester hours.

3375 — Sculpture. Application of the principles of sculpture through experiment in clay, plaster, and various materials. May be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

3376 — Pottery. Investigation and practice in pottery construction: throwing and hand-building. May be repeated for credit. Prerequisite: Art 234. Class and Studio: 6 hours. Credit: 3 semester hours.

3381 — Secondary Art Education. Problems involved in building a significant art program for the contemporary secondary school: studio experience with techniques and media appropriate for the secondary school. Class and studio: 6 hours. Credit: 3 semester hours.

4311 — Oil Painting. The planning and producing of original oil paintings either as commercial art subjects or as fine art paintings. Their presentation for publication and exhibition. Class and Studio: 6 hours. Credit: 3 semester hours.

4315 — Advanced Life Drawing. Specialized problems in studio area. May be repeated for credit. Prerequisite: Art 232. Class and Studio: 6 hours. Credit: 3 semester hours.

4316 — Advanced Painting. Specialized problems in studio area. May be repeated for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

4321 — Oil Painting. Continuation of 4311. Class and Studio: 6 hours. Credit: 3 semester hours.

4331 — Crafts Elementary Education. An introduction to various craft materials and techniques used in the elementary school. Prerequisite: Art 3371. Course may be taken twice for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

4333 — Problems in Advertising Art. Further study of commercial art techniques and typography. Prerequisite: Art 3333 and 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

4338 — Renaissance Art. Study of fifteenth and sixteenth century art in the western world. Class: 3 hours. Credit: 3 semester hours.

4341 — Crafts Secondary Education. An introduction to the various craft materials and techniques used in the secondary school. Prerequisite: Art 3381. Course may be taken over for credit. Class and Studio: 6 hours. Credit: 3 semester hours.

4343 — Problems in Advertising Art. Continuation of Art 4333. Class and Studio: 6 hours. Credit: 3 semester hours.

4353 — Special Problems in Advertising Design. Investigation of problems, methods and other considerations relevant to designing an advertising campaign. Prerequisite: Art 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

4355 — Advanced Graphics. Specialized problems in studio area. May be repeated for credit. Prerequisite: Art 3365. Class and Studio: 6 hours. Credit: 3 semester hours.

4358 — American Art. The development of painting, sculpture, and architecture in the United States from Colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

4363 — Special Problems in Advertising Design. Continuation of 4353. Prerequisite: Art 3343. Class and Studio: 6 hours. Credit: 3 semester hours.

4368 — Contemporary Art. A historical and critical analysis of painting, sculpture and architecture in Europe and the Americas from 1900 to the present. Class: 3 hours. Credit: 3 semester hours.

4371 — Curriculum and Instruction in Art Education. Problems in selecting, evaluation and guiding art activities; reading, discussion and lectures dedicated toward research of past and contemporary art educators. Study of children's development in art as background for teaching. Class: 3 hours. Credit: 3 semester hours.

4373 — Field Study in Advertising Design. Familiarization with the overall commercial art field through actual experience. Students will be placed in various studios, agencies and/or associated business in order to encounter and handle numerous problems, techniques and media involved in the commercial and art field through actual working experience. Time to be arranged, 6 hours per week. Permission of Department Head and Instructor. Credit: 3 semester hours.

4375 — Advanced Sculpture. Specialized problems in studio areas. May be repeated for credit. Prerequisite: Art 3375. Class and Studio: 6 hours. Credit: 3 semester hours.

4376 — Advanced Pottery. Specialized problems in studio area. May be repeated for credit. Prerequisite: Art 3376. Class and Studio: 6 hours. Credit: 3 semester hours.

4378 — Ethnic Art. A study of the development and nature of ethnic art, designed to recognize the formative influences of social backgrounds to present the artistic life of the communities and to analyze the aesthetic forms of their art. Class: 3 hours. Credit: 3 semester hours.

4381 — Problems: Art Education. Individual projects to be completed under faculty supervision. Prerequisite: Art 4371. Class and Studio: 6 hours. Credit: 3 semester hours.

4391 — Directed Individual Study. Directed individual study of a specialized area within the art education field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

4393 — Directed Individual Study. Directed individual study of a specialized area within the commercial art field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.

4395 — Directed Individual Study. Directed individual study of a specialized area within the fine arts field. By permission of Department Head and Instructor. Time to be arranged. May be repeated for credit. Credit: 3 semester hours.



Department of Music

Department Head — George L. Parks. *Professors* — Joseph Carlucci, Hubert B. Kaszynski, Charles A. Wiley. *Associate Professors* — Edna M. Brooks, Paul W. Holmes, Joseph Truncale. *Assistant Professors* — Mary French Barrett, Jay N. Collier, Katherine J. Elsey, John LeBlanc. *Instructors* — Randolph Babin, James Simmons, Richard C. Clark, Raul Ornelas. *Staff Accompanist* — Susan Michael. *Secretary* — Mrs. Carol Clinger.

The degree of Bachelor of Science — Music Major (voice, piano, theory and composition or instrumental major) is granted under the following conditions:

1. Meet the basic requirements for all degree programs.
2. Complete one of the programs of study listed below.
3. Pass a department qualifying examination given by the music faculty before the end of the first semester of the senior year.
4. All students must continue to take secondary piano for as many consecutive semesters as are required for the completion of the barrier. Application for the piano barrier exam may be made during any semester of the student's enrollment except when otherwise specified.
5. Participate in student recitals as recommended by the department. A minimum of 10 hours of practice per week in the university practice hall.
6. For graduation all music majors must present a recital as recommended by the department head, during the senior year.
7. All students, including transfers, must show adequate proficiency in their areas of specialization as determined by the music faculty.

All students must take a placement examination during their first semester.

Program of Study

Bachelor of Science — Music Major

Plan I (Qualifies for teacher certification — music, all levels.)

Instrumental Major

First Year

First Semester	Second Semester
Eng — Composition3	Eng — Composition3
Mth 131 — Finite3	Mth 132 — Finite3
MA — Applied2	MA — Applied2
MA — Piano1	Mlt112 — Music Principles1
Mlt 111 — Music Principles1	Mty 133 — Elementary Harmony3
Mty 132 — Elementary Harmony3	MLb 114 — Band1
HPE — Activity or	Science — Laboratory4
MLb 114 — Band1	17
Science — Laboratory4	

190 COLLEGE OF FINE AND APPLIED ARTS

Second Year

First Semester		Second Semester	
Eng — Literature.....	3	Eng — Literature.....	3
His 231 — United States.....	3	His 232 — United States.....	3
Gov 231 — State.....	3	Gov 232 — National.....	3
MA — Applied.....	2	MA — Applied.....	2
MTy 232 — Advanced Harmony.....	3	MTy 233 — Advanced Harmony.....	3
Elective (Free).....	3	Elective (Free).....	3
HPE — Activity or		MLb 115 — Band.....	1
MLb 114 — Band.....	1		18
	<u>18</u>		

Third Year

First Semester		Second Semester	
Edu 331-332.....	6	Edu 334.....	3
MA — Applied.....	2	MA — Applied.....	2
MEd 311 — Brass.....	1	MEd 312 — Brass.....	1
MLt 323 — Music History.....	2	MLt 324 — Music History.....	2
MEd 336 — Instrumental Music.....	3	MTy 322 — Counterpoint.....	2
MEd 317 — Marching Methods.....	1	MLb 115 — Band.....	1
MTy 321 — Counterpoint.....	2	MEd 313-314 — Strings.....	2
HPE — Activity or		MEd 315 — Percussion.....	1
MLb 114 — Band.....	1	MEd 338 — Instrumental Conducting.....	3
	<u>18</u>		17

Fourth Year

First Semester		Second Semester	
Edu 438.....	3	Edu 464.....	6
MTy 421 — Form and Analysis.....	2	MTy 425 — Band Arranging	
MA — Applied.....	2	or 422 Orchestration.....	2
Elective — Music.....	1	MA — Applied.....	2
Elective (Free — Non-music).....	4	MLb 115 — Band.....	1
HPE — Activity or		MEd 412 — Woodwinds.....	1
MLb 114 — Band.....	1		12
MEd 411 — Woodwinds.....	1		<u>14</u>
	<u>14</u>		TOTAL.....132

The six elective hours must be chosen from the academic foundations groups. (see page 116).

Piano and Organ Major

First Year

First Semester		Second Semester	
Eng — Composition.....	3	Eng — Composition.....	3
HPE — Activity.....	1	HPE — Activity.....	1
MA 1183 — Voice.....	1	MA 1184 — Voice.....	1
MA 1241 — Piano.....	2	MA 1242 — Piano.....	2
MLb — Choir or Orchestra.....	1	MLb — Orchestra or Choir.....	1
MLt 111 — Music Principles.....	1	MLt 112 — Music Principles.....	1
MTy 132 — Elementary Harmony.....	3	MTy 133 — Elementary Harmony.....	3
Science — Laboratory.....	4	Science — Laboratory.....	4
	<u>16</u>		<u>16</u>

Second Year

First Semester		Second Semester	
Eng — Literature.....	3	Eng — Literature	3
His 231 — United States.....	3	His 232 — United States	3
HPE — Activity	1	HPE — Activity	1
MA 2241 — Piano.....	2	MA 2242 — Piano.....	2
MLb — Choir or Orchestra.....	1	MLb — Choir or Orchestra.....	1
MLb 210 — Opera.....	1	MLt 213 — Piano Pedagogy.....	1
Mth — Math.....	3	Mth — Math.....	3
MTy 232 — Advanced Harmony.....	3	MTy 233 — Advanced Harmony.....	3
	17		17

Third Year

First Semester		Second Semester	
Edu 331.....	3	Edu 334.....	3
Edu 330—Edu Psy.....	3	MA 3243—Piano.....	2
MA 3241—Piano.....	2	MEd 332—Technique and Materials.....	3
MEd 331—Elementary Meth.....	3	MEd 337—Choral Conducting.....	3
MEd 335—Choral Music.....	3	MLb—Choir or Orchestra.....	1
MLb—Choir or Orchestra.....	1	MLt 324—Music History.....	2
MLt 323—Music History.....	2	MTy 322—Counterpoint.....	2
MTy 321—Counterpoint.....	2	Elective.....	3
	19		19

Fourth Year

First Semester		Second Semester	
Edu 438.....	3	Edu 464.....	6
Gov 231—State.....	3	Gov 232—National.....	3
MA 4241—Piano.....	2	MA 4241—Piano.....	2
MLb—Choir or Orchestra.....	1	MLb—Choir or Orchestra.....	1
MTy 421—Form and Analysis.....	2	MTy 422—Orchestration.....	2
Elective.....	3		14
	14		

The six elective hours must be chosen from the academic foundations groups. (see page 116).

If the student is an organ major, substitute MA organ for all MA piano.

Piano or organ majors must take at least four semesters of their eight semesters of laboratory in choir.

String Major

First Year

First Semester		Second Semester	
Eng—Composition.....	3	Eng—Composition.....	3
Mth 131—Finite.....	3	Mth 132—Finite.....	3
Science—Laboratory.....	4	Science—Laboratory.....	4
MLt 111—Music Principles.....	1	MLt 112—Music Principles.....	1
MTy 132—Elementary Harmony.....	3	MTy 133—Elementary Harmony.....	3
MA—Major Instrument.....	2	MA—Major Instruments.....	2
MLb 112—Orchestra.....	1	MLb 112—Orchestra.....	1
HPE—Activity.....	1	HPE—Activity.....	1
	18		18

Second Year

First Semester		Second Semester	
Eng—Literature	3	Eng—Literature.....	3
Gov 231—State.....	3	Gov 232—National.....	3
His 231—United States.....	3	His 232—United States.....	3
MTy 231—Advanced Harmony.....	3	MTy 232—Advanced Harmony.....	3
MEd 313 or 314—Strings.....	1	MA—Violin or Cello	1
MA—Major Instrument	2	MA—Major Instrument.....	2
MLb 112—Orchestra.....	1	MLb 112—Orchestra.....	1
HPE—Activity	1	HPE—Activity.....	1
	17		17

Third Year

First Semester		Second Semester	
Edu 331, 332	6	Edu 334	3
MEd 331—Brass.....	1	MEd 338—Instrumental Conduct.....	3
MEd 336—Instrumental Music	3	MLt 324—Music History	2
MLt 332—Music History.....	2	MTy 322—Counterpoint	2
MTy 321—Counterpoint.....	2	MA—Major Instrument.....	2
MA—Major Instrument	2	MLb 112—Orchestra	1
MLb 112 —Orchestra	1	MA—Piano.....	1
	17	Elective—Music	2
			16

Fourth Year

First Semester		Second Semester	
Edu 438.....	3	Edu 464	6
MEd 411—Woodwinds.....	1	MTy 422—Orchestration.....	2
MEd 332—Techniques and Materials.....	3	MA—Major Instrument.....	2
MTy 421—Form and Analysis	2	MLb 112—Orchestra.....	1
MA—Major Instrument	2	Elective (Free).....	3
MLb 112—Orchestra	1		14
Elective (Free).....	3		
	15		
		TOTAL	132

The six elective hours must be chosen from the academic foundations groups. (see page 116).

Theory and Composition Major

First Year

First Semester		Second Semester	
Eng—Composition.....	3	Eng—Composition.....	3
Mth 131—Finite.....	3	Mth 132—Finite.....	3
Science—Laboratory.....	4	Science—Laboratory.....	4
MA—Major Instrument	2	MA—Major Instrument.....	2
MTy 132—Elementary Harmony	3	MTy 133—Elementary Harmony.....	3
MLt 111—Music Principles	1	MLt 112—Music Principles.....	1
MLb—Band, Orchestra, Chorus	1	MLb	1
HPE—Activity	1	HPE—Activity.....	1
	18		18

Second Year

First Semester		Second Semester	
Eng—Literature.....	3	Eng—Literature.....	3
His 231—United States.....	3	His 232—United States.....	3
Gov 231—State.....	3	Gov 232—National.....	3
MA—Piano.....	2	MA—Piano.....	2
MTy 232—Advanced Harmony.....	3	MTy 233—Advanced Harmony.....	3
MLb.....	1	MLb.....	1
HPE—Activity.....	1	HPE—Activity.....	1
	<u>16</u>	Elective.....	<u>3</u>
			<u>19</u>

Third Year

First Semester		Second Semester	
Edu 331.....	3	Edu 334.....	3
Edu 332.....	3	MA 3284—Composition.....	2
MA 3283—Composition.....	2	MTy 322—Counterpoint.....	2
MTy 321—Counterpoint.....	2	MEd 337—Choral Conducting.....	3
MLt 323—Music History.....	2	MEd 338—Instrument Conduct.....	3
MEd 331—Elementary Methods.....	3	MLt 324—Music History.....	2
MLb.....	1	MTy 425—Band Arr.....	2
Music Elective.....	<u>1</u>	MLb.....	<u>1</u>
	<u>17</u>		<u>18</u>

Fourth Year

First Semester		Second Semester	
Edu 438.....	3	Edu 463.....	6
MEd 332—Techniques and Materials.....	3	MTy 422—Orchestration.....	2
MTy 421—Form and Analy.....	2	MA 4284—Composition.....	2
MA 4283—Composition.....	2	Elective.....	3
Music Elective.....	1	MLb.....	<u>1</u>
MLb.....	<u>1</u>		<u>14</u>
	<u>12</u>		

Total.....132

The six elective hours must be chosen from the academic foundations groups. (see page 116).

Theory and Composition majors may elect six hours from Percussion 315, Brass 311, 312, Strings, 313, 314, or Woodwinds 411, 412, in place of Music Education 331, and 332.

Vocal Major

First Year

First Semester		Second Semester	
Eng—Composition.....	3	Eng—Composition.....	3
HPE—Activity.....	1	HPE—Activity.....	1
MA 1143—Piano.....	1	MA 1143—Piano.....	1
MA 1281—Voice.....	2	MA 1282—Voice.....	2
MLb—Choir.....	1	MLb—Choir.....	1
MLt 111—Music Principles.....	1	MLt 112—Music Principles.....	1
MTy 132—Elementary Harmony.....	3	MTy 133—Elementary Harmony.....	3
Science—Laboratory.....	<u>4</u>	Science—Laboratory.....	<u>4</u>
	<u>16</u>		<u>16</u>

Second Year

First Semester	Second Semester
Eng—Literature.....3	Eng—Literature.....3
His 231—United States.....3	His 232—United States.....3
HPE—Activity.....1	HPE—Activity.....1
MA 2281—Voice.....2	MA 2282—Voice.....2
MLb—Choir.....1	MLb—Choir.....1
MLb 210—Opera.....1	MLb 210—Opera.....1
Mth—Math.....3	Mth—Math.....3
MTy 232—Advanced Harmony.....3	MTy 233—Advanced Harmony.....3
<u>17</u>	<u>17</u>

Third Year

First Semester	Second Semester
Edu 331.....3	Edu 334.....3
Edu 332.....3	MA 3282 — Voice.....2
MA 3281 — Voice.....2	MEd 332 — Techniques and Mater.....3
MEd 331 — Elementary Methods.....3	MEd 337 — Choral Conducting.....3
MEd 335 — Choral Music.....3	MLb — Choir.....1
MLb — Choir.....1	MLt 324 — Music History.....2
MLt 323 — Music History.....2	MTy 322 — Counterpoint.....2
MTy 321 — Counterpoint.....2	Elective.....3
<u>19</u>	<u>19</u>

Fourth Year

First Semester	Second Semester
Edu 438.....3	Edu 463.....6
Gov 231 — State.....3	Gov 232 — National.....3
MA 4281 — Voice.....2	MA 4282 — Voice.....2
MLb — Choir.....1	MLb — Choir.....1
MTy — Form and Analysis.....2	MTy 422 — Orchestration.....2
Elective.....3	<u>14</u>
<u>14</u>	TOTAL.....132

Voice majors will take two semesters of private piano lessons. These may not be waived by a barrier exam.

The six elective hours must be chosen from the academic foundations groups. (see page 116).

Plan II

BS — Music

Meet all of the specifications and requirements for the Bachelor of Science Degree — music major, with the following additional requirements:

The education hours for Plan I may be regarded as elective hours for Plan II with the permission of the head of the department.

The Performance Certificate will be issued only after a junior recital before the faculty. This recital may qualify a student for a senior recital for the Performance Certificate.

APPLIED MUSIC (AM)

1101 — Beginning Band or Orchestral Instruments. Basic fundamentals of articulation and tone production. Scales and arpeggios. Elementary methods and easy solo materials. Freshman students must audition before registering for placement in MA. Class: One-half hour lessons per week. Credit: One semester hour per course.

1143 — Secondary Piano. Study of scale systems and application, intervals, chord structure, harmonization of melody, and other elements of keyboard harmony. Two octave scales and cadences. Maximum of four students per class. Class: 1 hour. Credit: 1 semester hour.

1183, 1184 — Secondary Voice. Music majors not majoring in voice will learn to use the singing voice. Study of breathing and vocalization. Songs will be studied. Prerequisite: Ability to read music, and some knowledge of the keyboard. One lesson per week. Credit: One semester hour per course.

1203, 1204, 2203, 2204, 3203, 3204, 4203, 4204 — Bassoon. Practical studies. Weissenborn, scale studies. Pare, Reveirie, Jancourt, Romanze, Klakhardt, The Carnival, Hume. Two one-half hour lessons per week. Credit: 2 semester hours per course.

1211, 1212, 2211, 2212, 3211, 3212, 4211, 4212 — Cello. An approach to the left and right hand techniques using materials and literature suitable to the level of the individual student. Auditions will determine the level of proficiency of each new student. Two half-hour lessons per week. Credit: 2 semester hours per course.

1215, 1216, 2215, 2216, 3215, 3216, 4215, 4216 — Clarinet. Scales and arpeggios from Baermann Langenus Vol. III. Rose Forty Studies Canzonetta, Pierne, Concertino, Tartini-Jacob, Adagio-Tarantella, Cavallini; Fantasy Pieces, Schumann. Last 6 semesters will include Voxman, Polastchek, Perier Etudes; Advanced Solos and Orchestra Studies. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

1217, 1218, 2217, 2218, 3217, 3218, 4217, 4218 — Cornet-Trumpet. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition. Methods: St. Jacome, Arban, Hering, Sachse, Schlossberg. Representative solos: Ropartz, Andante and Allegro; Balay, Petite Piece Concertante. Performance on student recitals once a semester. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

1221, 1222, 2221, 2222, 3221, 3222, 4221, 4222 — Flute. Modern method of Boehm Flute, Book; Sonata No. 3; Handel; 24 Caprices, Boehm; Fourth Sonata, Bach; Orchestral studies, Minuet in D, Mozart; Concertino, Chaminade. Two one-half hour lessons per week. Credit: 2 semester hours per course.

1223, 1224, 2223, 2224, 3223, 3224, 4223, 4224 — French Horn. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Transposition. Band and orchestral repertoire. Methods: Alphonse, Koprash, Sansone. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

1231, 1232, 2231, 2232, 3231, 3232, 4231, 4232 — Oboe. Complete method for Oboe, Barrett, scales studies, Pare; three Romanances, Schumann; Niemann; 16 daily exercise, Labate; Orchestral Studies, Reed making; Pastorale, Labate; Niedell's Sonata No. 1. Two one-half hour lessons per week. Credit: 2 semester hours per course.

1233, 1234, 2233, 2234, 3233, 3234, 4233, 4234 — Organ. Organ instruction includes a study of the techniques needed to prepare and project publicly the literature of the keyboard representing organ literature of all periods in both small and large forms. Particular emphasis will be placed on manual and pedal technique, analysis of literature, thorough knowledge of registration, ability to adapt piano accompaniments, hymn playing and proficiency in accompanying, ensemble, chamber music and solo recital playing. Two one-half hour lessons per week. Credit: 2 semester hours per course.

1241, 1242, 2241, 2242, 3241, 3242, 4241, 4242 — Piano. To develop musicianship, through technical proficiency and ability to assimilate music without guidance. A study of the various techniques needed to prepare and project publicly the literature of the keyboard representing piano literature of all periods in both small and large forms. Particular emphasis will be placed on scale and arpeggio playing, formal exercises, use of the pedals, analysis of the literature, programming, ability to employ and develop creative techniques for individual requirements, and proficiency in accompanying, ensemble, chamber music and solo recital playing. Two one-half hour lessons per week. Credit: 2 semester hours per course.

1251, 1252, 2251, 2252, 3251, 3252, 4251, 4252 — Saxophone. Method for Saxophone by DeVille. Air from Suite in D by Bach-Leeson. Jota by Gurewich. Two one-half hour lessons per week. Credit: 2 semester hours per course.

1253, 1254, 2253, 2254, 3253, 3254, 4253, 4254 — Percussion. Garner, Goodman, Harr, and Rubank. Methods, standard solos, band and orchestra repertoire. Performance on student recital once a semester. Two half-hour lessons per week. Credit: 2 semester hours.

1257, 1258, 2257, 2258, 3257, 3258, 4257, 4258 — String Bass. Through the use of appropriate methods, e.g., Simandl, the technique of the student will be developed. Scales and arpeggios will also form a vital part of the study. Two half-hour lessons per week. Credit: 2 semester hours per course.

1261, 1262, 2261, 2262, 3261, 3262, 4261, 4262 — Trombone or Baritone. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Methods: Mueller, Rochut, Clarke, Vobaron, Kopprasch. Representative solos. Performance on student recital once a semester. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

1263, 1264, 2263, 2264, 3263, 3264, 4263, 4264 — Tuba. Basic fundamentals of articulation and tone production. Major and minor scales and arpeggios. Band and orchestral repertoire. Methods: Eby, Bell, Slama, Solos. Prerequisite: Audition. Class: Two one-half hour lessons per week. Credit: 2 semester hours per course.

1271, 1272, 2271, 2272, 3271, 3272, 4271, 4272 — Viola. Scales and arpeggios. Studies and exercises selected according to the individual needs of the student. Sonata, concertos and short solo pieces. Minimum practice: two hours daily. Two half-hour lessons per week. Credit: 2 semester hours per course.

1273, 1274, 2273, 2274, 3273, 3274, 4273, 4274 — Violin. Scales and arpeggios. Studies and exercises selected according to individual needs of the student. Sonatas and concerts selected for technical and musical advancement. Minimum practice: 2 hours daily. Two half-hour lessons per week. Credit: 2 semester hours per course.

1281, 1282, 2281, 2282, 3281, 3282, 4281, 4282 — Voice. Study of breathing and vocalization. A balanced repertoire of songs will be studied each semester. Course offered to both music and non-music majors. Prerequisite: Ability to read music, and some knowledge of the keyboard. Two private half-hour lessons per week. Credit: 2 semester hours per course.

3283, 3284, 4283, 4284 — Composition. Creative writing ranging from solo and small ensemble works to more extended composition for orchestra, band or chorus. Prerequisite: MTy 233. Two half-hour lessons a week. Credit: 2 semester hours.

MUSIC EDUCATION (MEd)

131 — Elements of Music. Designed to familiarize non-music majors with the meaning of musical notation and the harmonic, melodic, and rhythmic structure of music. Class: 3 hours. Credit: 3 semester hours.

311 — Brass. Techniques and materials in the teaching of instrumental music in the elementary school. Trumpet and Horn. Class: 1 hour. Credit: 1 semester hour.

312 — Brass. Techniques and materials in the teaching of instrumental music in the elementary school. Trombone, Baritone and Tuba. Class: 1 hour. Credit: 1 semester hour.

313 — Strings. Techniques and materials in the teaching of instrumental music in the elementary school. Violin and Viola. Class: 1 hour. Credit: 1 semester hour.

314 — Strings. Techniques and materials in the teaching of instrumental music in the elementary school. Cello and Bass. Class: 1 hour. Credit: 1 semester hour.

315 — Percussion. Materials for the percussion instruments. Performance on all percussion instruments. Class: 1 hour. Laboratory: 1 hour. Credit: 1 semester hour.

317 — Marching Methods. Basic marching maneuvers. Charting various types of half-time shows for football games, such as the pageant type and the precision drills, and arranging the music for these shows. Term project: a completely charted half-time show with music. Class: 2 hours. Credit: 1 semester hour.

331 — Elementary Methods and Materials. Techniques and materials in teaching of music in the lower elementary grades. The child's voice, rote singing; rhythmic, introduction of notation, creative music activities. Prerequisite: MTy 131 or equivalent. Class: 3 hours. Credit: 3 semester hours.

332 — Techniques and Materials in Teaching of Music in the Upper Elementary Grades. Creative music, rhythmic activity, rote singing, reading of notation, and effective use of materials. Class: 3 hours. Credit: 3 semester hours.

335 — Choral Music. A detailed study, primarily at the secondary level, of the organization and administration of choirs, glee clubs, small ensembles, and vocal problems encountered in the choral music class. Class: 3 hours. Credit: 3 semester hours.

336 — Instrumental Music. Materials and problems encountered in the instrumental music field of the high school. A detailed study of the organization and administration of bands, orchestras, etc. Class: 3 hours. Credit: 3 semester hours.

337 — Choral Conducting. Basic patterns and rudiments of choral techniques as applied to secondary school choral groups. Limited to music majors. Prerequisite: Some vocal study, piano keyboard, one year of vocal laboratory, and music theory. Class: 3 hours. Credit: 3 semester hours.

338 — Instrumental Conducting. The rudiments of conducting as applied to high school instrumental groups, phrasing interpretation, etc. of the instrumental field, both band and orchestra. Class: 3 hours. Credit: 3 semester hours.

339 — Choral Conducting. Basic patterns and rudiments of choral conducting; choral techniques as applied to elementary school classroom instruction and choral performances. Limited to non-music majors. Class: 3 hours. Credit: 3 semester hours.

410 — Seminar. A general study of the problems encountered in music. Class: 1 hour. Credit: 1 semester hour.

411 — Woodwinds. Techniques and materials in the teaching of instrumental music in the elementary school. Flute, Clarinet, and Saxophone.

412 — Woodwinds. Techniques and materials in the teaching of instrumental music in the elementary school. Oboe and Bassoon.

MUSIC LABORATORY (MLb)*

117 — Dance Band. Organized to furnish training in all styles of dance band performance. Open to any student who can qualify. Laboratory: 3 hours. Credit: 1 semester hour per course.

122 — Orchestra. A performing ensemble open to all university students who can qualify. Required of any student majoring in a string instrument. Laboratory: 6 hours. Credit: 2 semester hours per course.

124 — Marching Band. The study and performance of march music and military drill. Open to any student who can qualify. Four semesters completes P.E. requirement. Laboratory: 4 hours per week. Credit: 2 semester hours.

125 — Symphonic Band. Performs symphonic wind ensemble and band repertoire. Tryout required for admittance. Laboratory: 6 hours. Credit: 2 semester hours per course.

423 — Chamber Music Ensemble. String ensemble, woodwind ensemble, brass ensemble and percussion ensemble. A course designed to give the student an opportunity to study and perform music written for the smaller instrumental ensembles. These groups will participate in various recital programs throughout the year. Open to any student upon recommendation of the instructor. Laboratory: 5 hours per week. Credit: 2 semester hours.

1101 — Concert Choir. A course in choral singing, organized to furnish training in the more important works of choral literature. Presentation of selection in public throughout the year. Audition required. Open to qualified students from other departments. Laboratory: 6 hours. Credit: 1 semester hour per course.

1102 — Cardinal Singers. Performing choral ensemble with instrumental combo accompaniment specializing in popular and folk repertoire. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

1103 — Chamber Singers. A performing choral ensemble specializing in music especially suited for chamber performances. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

*Courses in Music Laboratory may be repeated for credit. Total credit not to exceed eight semester hours for any one course.

1104 — Grand Chorus. A course in choral singing designed to acquaint the student with the larger works in choral literature. A public concert is given each semester. Audition required. Open to qualified students from other departments. Laboratory: 3 hours. Credit: 1 semester hour per course.

210 — Opera. A laboratory class for advanced voice students providing study of complete operatic roles, scenes and excerpts for presentation in the opera-theatre. Annual full scale opera production. Auditions open to all qualified students. Laboratory: 3 hours. Credit: 1 semester hour per course.

216 — Musical Comedy. A laboratory course providing both background study and practical work in the specialized field of musical comedy, including participation in the presentation of a full production. Open to both vocalists and instrumentalists from all departments by audition or by consent of instructor. Laboratory: 3 hours. Credit: 1 semester hour. May be repeated for credit up to 3 hours.

MUSIC LITERATURE (MLt)

111, 112 — Music Principles. An appraisal of the important events in Music History with emphasis upon those aspects of music associated with style, form, and performance. Familiarization of the student with music terminology and a thorough briefing on score reading through the use of recordings from the significant periods of Music History. Class: 2 hours. Credit: 1 semester hour per course.

130 — Appreciation of the Fine Arts. (Same as Spc 130 and Art 130). A survey course covering the areas of a. art, b. music, c. theater. To be taught by any representative of the art, music, and speech faculties. Class: 3 hours. Credit: 3 semester hours.

213 — Piano Pedagogy. A brief, chronological survey and analysis of the styles and forms of compositions in relation to keyboard instruments. Minimum knowledge of all keyboard instruments will be required. Special emphasis will be placed on the contribution of the performers, composers, and compositions in the field of piano literature. Class: 2 hours. Credit: 1 semester hour per course.

323 — Music History. A survey of the literature and advances made in music from ancient times to 1800. Three hours of listening required per week in addition to class lecture. Prerequisite: MLt 111-112. Class: 3 hours. Credit: 2 semester hours.

324 — Music History. A survey of the literature and advances made in music from 1800 through early 20th century. Three hours of listening required per week in addition to class lecture. Prerequisite: Music History 323. Class: 3 hours. Credit: 2 semester hours.

335 — Music of the Afro-American. A general study of the present day American Negro music and a study of the Afro-American music historical background. Class: 3 hours. Credit: 3 semester hours.

MUSIC THEORY (MTy)

131 — Elements of Music. Designed to prepare students for advanced study in music theory. A study of scales, chords, musical terminology, signature, sight singing, rhythms, musical notation and the harmonic, melodic, and rhythmic structure of music. Class: 3 hours. Credit: 3 semester hours.

132, 133 — Elementary Harmony. Elementary keyboard and written harmony, sight singing; ear training. Prerequisite: MTy 131 or by advanced standing exam. Class: 5 hours. Credit: 3 semester hours.

232, 233 — Advanced Harmony. Advanced keyboard and written harmony; sight singing; ear training. Prerequisite: MTy 133. Class: 5 hours. Credit: 3 semester hours.

321, 322 — Counterpoint. 16th and 18th century contrapuntal techniques through analysis and creative writing. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

421 — Form and Analysis. Analytical study of musical forms and styles. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

422 — Orchestration. Techniques of writing and arranging for orchestral instruments in small combinations and for full orchestra. Prerequisite: MTy 233. Class: 2 hours. Credit: 2 semester hours.

425 — Band Arranging. Techniques of writing, transcribing from orchestra score and arranging for the instrumentation of the high school marching and concert bands. Class: 2 hours. Credit: 2 semester hours.



Department of Speech

Department Head — DeWitte T. Holland. *Professors* — Robert F. Achilles, W. Brock Brentlinger, S. Walker James. *Associate Professors* — Arnold C. Anderson, Jewel D. Blanton. *Assistant Professors* — Mary Alice Baker, Vera Hays Campbell, Helen B. Frank, David W. Granitz, W. Patrick Harrigan, III, White A. Jacob, Robert H. Wilkerson. *Instructors* — Jerry Hudson, Betty Winney. *Secretaries* — Kathy Hobbs, Olga Nelson.

Bachelor of Science — Speech Major

Program of Study

Plan I (For those who wish to qualify for a teacher's certificate)

First Year

First Semester		Second Semester	
Eng — Composition	3	Eng — Composition	3
HPE — Activity	1	HPE — Activity	1
Lab Science	4	Lab Science	4
Mth	3	Mth	3
Spc — Required	6	Spc — Required	6
	17		17

Second Year

First Semester		Second Semester	
Eng — Literature	3	Eng — Literature	3
His 231 — United States	1	His 232 — United States	3
HPE — Activity	1	HPE — Activity	1
Spc — Required	6	Spc — Required	3
Electives	3	Electives	6
	16		16

Third Year

First Semester		Second Semester	
Edu 331 — Foundations	3	Edu 338 — Cur and Mat	3
Edu 332 — Edu Psy	3	Gov 232	3
Gov 231	3	Spc Adv	6
Spc — Adv	3	Teaching Field Two and/or	
Teaching Field Two and/or		Electives	6
Electives	6		18
	18		

Fourth Year

First Semester		Second Semester	
Edu 438 — Classroom Mgmt	3	Edu 462 — Student Teaching	6
Spc — Adv	3	Teaching Field Two and/or	
Teaching Field Two and/or		Electives	6
Electives	6		12
	18		

TOTAL.....132

202 COLLEGE OF FINE AND APPLIED ARTS

Teacher's certificate is available in either Speech or Theater (Drama) under Plan I.

Courses included under Public Address specialization are as follows: 132, 133, 234, 238, 434, 438, 439, plus three advanced hours. In addition, 131 and 233 are degree requirements.

Courses included under Theater specialization are as follows: 133, 233, 235, 237, 334, 335, plus three advanced hours. In addition, 131 and 132 are degree requirements.

Plan II (For those who wish to qualify for a teacher's certificate in speech and hearing therapy — all levels)

First Year

First Semester		Second Semester	
Bio 141	4	Bio 142	4
Eng — Composition	3	Art 130 — Appr of Fine Arts	3
HPE — Activity	1	Eng — Composition	3
Mth	3	Hpe — Activity	1
Spc 131 — Spc Comm	3	Mth	3
Spc 133 — Voice and Phonetics	3	Spc 134 — Spc Cor: A Survey	3
	<u>17</u>		<u>17</u>

Second Year

First Semester		Second Semester	
Eng — Literature	3	Eng — Literature	3
His 231 — United States	3	His 232 — United States	3
HPE — Activity	1	HPE — Activity	1
Spc 230 — Spc Cor, Pract and Theory I	3	Psy 131 — Intro to Hum Beh	3
Spc 231 — Audiology	3	Spc 232 — P and T II	3
Elective	3	Elective	3
	<u>16</u>		<u>16</u>

Third Year

First Semester		Second Semester	
Edu 331 — Foundation	3	Bio 332 — Anat and Physical Spc and Hrng	3
Edu 332 — Edu Psy	3	Edu 3301 — Edu Excpt Child	3
Gov 231	3	Edu 334 — Cur Mat Elem	3
Psy 234 — Child	3	Gov 232	3
Spc 339 — Beg Clinical Practice	3	Spc 3391 — Spc Read and Trng	3
Elective	3	Elective	3
	<u>18</u>		<u>18</u>

Fourth Year

First Semester		Second Semester	
Edu 434 — Classroom Mgmt	3	Edu 463 — Student Teaching	6
Phy 338 — Individual Testing	3	Phy 337 — Adjustment	3
Spc 435 — Spc and Lang Disords	3	Spc 432 — Psy of Spc	3
Electives	9		<u>12</u>
	<u>18</u>		

Total.....132

Plan III (For those who desire to qualify for a teacher's certificate in deaf education)

First Year
Same as Plan II

Second Year

First Semester	3	Second Semester	3
Eng — Literature.....	3	Eng — Literature.....	3
His 231 — United States.....	3	His 232 — United States.....	3
HPE — Activity.....	1	HPE — Activity.....	1
Psy 131 — Intro to Hum Beh.....	3	Psy 234 — Child.....	3
Spc 136 — Nor Lng Dev.....	3	Spc 239 — Lang for Deaf.....	3
Spc 231 — Audiology.....	3	Electives.....	3
	16		16

Third Year

First Semester	3	Second Semester	3
Edu 331 — Foundations.....	3	Bio 332 — Anat and Physiology	3
Edu 332 — Edu Psy.....	3	Spc and Hrng.....	3
Gov 231.....	3	Educ 3301 — Edu Except Child.....	3
Spc 3392 — Spc for Deaf.....	3	Gov 232.....	3
Electives.....	3	Psy 337 — Adjustment.....	3
	18	Spc 3391 — Spc Read Aud Trng.....	3
			18

Fourth Year

First Semester	3	Second Semester	3
Edu 434 — Classroom Mgmt.....	3	Edu 463 — Student Teaching.....	6
Edu 335 — Arith in Elem School.....	3	Spc 4321 — Adv Lang.....	3
Edu 339 — Read in Elem School.....	3	Spc 4332 — Adv Spc.....	3
Edu 437 — Sci and Soc Stud.....	3		12
Electives.....	6		
	18	TOTAL.....	132

Plan IV (For those not desiring the teacher's certificate)

This degree plan is designed for those wishing to emphasize public address, theater, or speech and hearing therapy, for purposes other than teaching certification. The plan provides a maximum of flexibility in the composition of the speech courses for the speech major. The first and second years of Plan IV are, of course, essentially the same as Plan I. Students interested in concentrating in any of these areas of study apart from teacher certification, should contact the departmental chairman for further assistance.

Bachelor of Arts — Speech Major

Same as any of the above programs except for the completion of the course numbered 232 in a foreign language.

Bachelor of Science — Mass Communication

The purpose of this degree program is to provide a broadly-based preparation for university students who are interested in professional careers in mass communication, e.g., radio, television, newspaper, magazine, public relations and advertising. In its attempt to prepare students for the communications industry as a whole, rather than for a specific position, the program focuses attention upon significant concepts of the mass communication process in contrast to efforts to refine and perfect specific skills. The program does, however, give attention to the development of basic speech, art and writing proficiency. Thus, a unique characteristic of this degree is its purpose to provide the student with an interdisciplinary experience in the study of communication involving several departments. For this reason, the major requirement is 43 hours instead of the usual 24 or 30 hours. Within this total requirement, 27 hours of specific course work is required, and the student will complete the 43-hour total by selecting 16 hours from a second group of related courses referred to in the degree plan as 'major electives.'

First Year

First Semester		Second Semester	
English Composition	3	English Composition	3
Laboratory Science	4	Laboratory Science	4
Speech 131	3	Economics 233	3
Communication 131	3	Communication 132	3
Commercial Art 130	3	CS 131	3
Physical Education	1	Physical Education	1
	<u>17</u>		<u>17</u>

Second Year

First Semester		Second Semester	
English Literature	3	Speech 235	3
Mathematics/Science	3-4	Mathematics	3
History 231	3	Government 232	3
Government 231	3	History 232	3
Communication 231	3	Major Elective	3
Physical Education	1	Physical Education	1
	<u>16-17</u>		<u>16</u>

Third Year

First Semester		Second Semester	
Speech 234	3	Communication 3383	3
Foundation Elective	3	Foundation Elective	3
Communication 331	3	Major Elective	3
English 3311	3	Major Elective	3
Foundation Elective	3	Foundation Elective	3
	<u>15</u>		<u>15</u>

Fourth Year

First Semester		Second Semester	
Foundation Elective	3	Major Elective	7
Foundation Elective	3	General Electives	8
Major Elective	3		<u>15</u>
General Electives	6		
	<u>15</u>		

SPEECH (Spc)

130 — Appreciation of the Fine Arts. (Same as M. Lit. 130 and Art 130). A survey course covering the areas of a. art, b. music, c. theater. To be taught by representatives of the art, music and speech faculties. Class: 3 hours. Credit: 3 semester hours.

131 — Speech Communication. Instruction in the theory of speech communication as an effective force in human behavior. Emphasis upon the development of the student's skill as an initiator in the communication cycle. Students will participate in informative and persuasive communicative situations by way of public address, group discussion, reading from manuscript and informal speaking activities. Class: 3 hours. Credit: 3 semester hours.

132 — Fundamentals of Effective Speech. Continuation of Speech 131. A study of speech construction, including the use of outlining and supporting material. Practice is given in outlining, preparing, and presenting special types of speeches with emphasis placed on extemporaneous speaking. Prerequisite: Speech 131. Class: 3 hours. Credit: 3 semester hours.

133 — Voice and Phonetics. Phonetic transcription, regional and foreign dialects, and application of phonetic study to speech correction. Class: 3 hours. Credit: 3 semester hours.

134 — Speech Correction: A Survey. An introduction to the study of speech correction. A survey of the defects of speech with particular emphasis on articulation defects and voice problems. Class: 3 hours. Credit: 3 semester hours.

135 — Children's Theater. Instruction and practice in the beginning principles of theater as applied to plays for children's audiences. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

136 — Normal Language Development. A study of the normal developmental processes in children. Class: 3 hours. Credit: 3 semester hours.

216 — Musical Comedy. A laboratory course providing background study and practical work in the field of musical comedy, including participation in the presentation of a full production. Open by audition or by consent of the instructor to students from all departments who are interested in acting or technical work in the theater, especially as applied to musical comedy. Laboratory: 3 hours. Credit: 1 semester hour. May be repeated for credit up to 3 hours.

230 — Speech Correction: Pathology and Therapy I. A technical and professional course in the causes, nature, symptoms and rehabilitation of disordered speech and language. Prerequisite: Spc 134. Class: 3 hours. Credit: 3 semester hours.

231 — Audiology. Study of the human ear and its abnormalities. Administration and interpretation of hearing tests; clinical observation. Credit: 3 semester hours.

232 — Speech Correction: Pathology and Therapy II. A technical and professional course in the causes, nature, symptoms and rehabilitation with emphasis on disorders of fluency, voice, and language. Class: 3 hours. Credit: 3 semester hours.

233 — Introduction to Theater. A general survey of the major fields of theater art. For students who have a limited theatrical experience or knowledge. Emphasis on the various types and styles of plays, elementary theory and practice of acting and directing, basic principles of voice development, movement and interpretation for the stage. An introduction of technical production: methods of construction and han-

ding of scenery, elementary problems in scene design, stage lighting, costume and costume design. Participation in major productions. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

234 — Introduction to Radio and Television. A general survey of the principles involved in radio broadcasting and television, including a study of station and network organization and control. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

235 — Oral Interpretation of Literature. Instruction and practice in the principles of speech applied to performance in the interpretation of prose and poetry. Class: 3 hours. Credit: 3 semester hours.

237 — Acting. Detailed study of characterization and styles of acting through class assignments of individuals and group scenes. Course may be taken twice for credit. Class: 2 hours. Laboratory: 3 hours and participation in department productions. Credit: 3 semester hours.

238 — Argumentation and Debate. The principles of argument, analysis, evidence, reasoning, fallacies, briefing, and delivery, as well as their applications in speech situations. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

239 — Language for the Deaf. Survey of systems of teaching language to the deaf; emphasis on language development in the nursery and pre-school age child. Class: 3 hours. Credit: 3 semester hours.

331 — Business and Professional Speech. Application of the fundamentals of speech production to the needs of the professional man or woman. Practice in gathering and organizing material for speeches for special occasions. Emphasis is given to extemporaneous speaking, conferences and discussion group speaking, and report presentations. Class: 3 hours. Credit: 3 semester hours.

332 — Discussion Methods. Instruction in the types, principles, and methods of oral discussion. Practice in all forms of parliamentary procedure and various forms of group discussion. Class: 3 hours. Credit: 3 semester hours.

333 — Interpretation of Children's Literature. Study of materials for different ages of children; sources of program material; practice in adapting material into programs; practice in presenting programs in laboratory and in nearby schools, hospitals and homes. Class: 3 hours. Credit: 3 semester hours.

334 — Stagecraft. To give the student a theoretical and working knowledge of the crafts of the theater; designing, building, and handling of scenery; technical plotting of scenery; lighting the stage; physical requirements of a theater; nomenclature of the crafts of theater. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

335 — Directing. To give the student a background knowledge in directing from the viewpoint of the interpreter, the planner, the organizer, and the businessman, the technician, the actor, the psychologist, and the artist with specific problems in directing scenes from plays. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

336 — Creative Dramatics. Instruction in the methods of introducing creative dramatics into the elementary and junior high schools, and the presentation of projects related to the development of creative play-making in the home, community, and school. Class: 3 hours. Credit: 3 semester hours.

3360 — Advanced Children's Theater. Instruction and practice in advanced principles of theater as applied to plays for children's audiences. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

337 — Advanced Oral Interpretation of Literature. Instruction and practice in the principles of speech applied to performance in the interpretation of dramatic literature. Class: 3 hours. Credit: 3 semester hours.

338 — Radio and Television Production. Activities in writing, acting, directing, producing, announcing, and engineering various types of radio and television programs. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

339 — Clinical Practice in Speech and Hearing/or Deaf Therapy. Diagnostic, therapeutic and directed teaching in both individual and classroom situations. Course may be taken four times with emphasis in Speech and Hearing and/or Deaf Education. One hour of clinical practice per week per credit hour. Prerequisite: Speech Therapy—230 or Deaf Education—239.

3391 — Speech Reading and Auditory Training. Techniques of teaching speech reading to deaf children and deafened persons. Class: 3 hours. Credit: 3 semester hours.

3392 — Speech for the Deaf. Study of various methods of developing speech in the young deaf child. Class: 3 hours. Credit: 3 semester hours.

3393 — Manual Communication. Study of finger spelling and the language of signs in developing total communication in deafened children and adults. Prerequisite: Permission of instructor. Class: 3 hours. Credit: 3 semester hours.

430 — Problems and Projects in Speech. These problems are discussed and analyzed through discussion and research. Each student elects a project or problem on which he does extensive research and presents a report to the department faculty. Credit: 3 semester hours. Course may be repeated once for credit.

431 — Problems and Projects in Theater. Students will perform activities in one of the following areas: acting, directing, producing, designing, and constructing costumes and stage settings for the school theater. Credit: 3 semester hours. Course may be repeated once for credit.

4311 — Theory and Practice of Scenery and Lighting Design. Study and practice of the principles and techniques of stage scenery and lighting design with an emphasis on coordinating the two. Prerequisite: Spc 334. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

4312 — Costume Design and Construction. Study and practice of the principles and techniques involved in designing and constructing costumes for the principle periods encountered in theater production. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

432 — The Psychology of Speech. The study of the nature and origin of speech in terms of its psychological and neurological aspects. Class: 3 hours. Credit: 3 semester hours.

4321 — Advanced Language for the Deaf. Principles and techniques for systematic development of language from first through sixth grades. Class: 3 hours. Credit: 3 semester hours.

4322 — Advanced Speech for the Deaf. Designed to study problems of speech development along with maintaining intelligible speech. Class: 3 hours. Credit: 3 semester hours.

4324 — Advanced Audiology. Assessment of auditory functions by special pure tone techniques and speech audiometry and hearing aid evaluation. Class: 3 hours. Credit: 3 semester hours.

4325 — Instrumentation. A study of the behavior of sound waves, basic recording and analysis of sound, use and maintenance of equipment used in speech and hearing clinics or for research projects. Credit: 3 semester hours.

434 — Persuasion. The psychological and emotional principles involved in influencing individuals and groups. An analysis and practice with the speech devices and techniques in effectively motivating audience reaction. Class: 3 hours. Credit: 3 semester hours.

435 — Organic Speech and Voice Disorders. Diagnosis and therapy of disorders and communication that are organic in nature, with emphasis on structural disorders and disorders of voice. Credit: 3 semester hours.

436 — History of Theater. A survey of theater from 5th C.B.C. to the present day, with emphasis on methods and styles of presentation. Class: 3 hours. Credit: 3 semester hours.

437 — Directing Secondary School Theater Activities. Principles involved in extracurricular theater activities. Practical experience with workshop students constitutes a part of this course. (Offered in summer terms only.) Credit: 3 semester hours.

438 — Directing Secondary School Speech Activities. Principles involved in extracurricular activities such as debate, extemporaneous speaking, radio and television. Practical experience with workshop students constitutes a part of this course. (Offered in summer terms only) Credit: 3 semester hours.

439 — Rhetoric and Public Address. A study and analysis of some of the world's great speeches with application of the principles of original speeches of special types. Class: 3 hours. Credit: 3 semester hours.

COMMUNICATION (Com)

131 — Introduction to Mass Communication. A study of mass communication and the media involved in the dissemination of news. Emphasis is given to methods of gathering, writing, and presenting the news by newspapers, magazines, and other media. Class: 3 hours. Credit: 3 semester hours.

132 — Introduction to Mass Communication. A continuation of Communication 131, with detailed study of newspapers, television and radio, magazines, book publishing, motion pictures, advertising, public relations and mass communication research. Class: 3 hours. Credit: 3 semester hours.

231 — News Reporting. A basic course in gathering material and writing news stories for publication. Proficiency in typewriting is required. Course may be repeated for a maximum of six semester hours. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

232 — Editing and Copyreading. The development and use of printing, type recognition, type harmony, preparing editorial material, writing headlines, and correcting copy. Prerequisite: COM 231. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

331 — Laws and Ethics of the Mass Media. A study of the responsibilities of the media, including ethical responsibilities to news sources, persons in the news, readers and employers and legal rights and restrictions. Class: 3 hours. Credit: 3 semester hours.

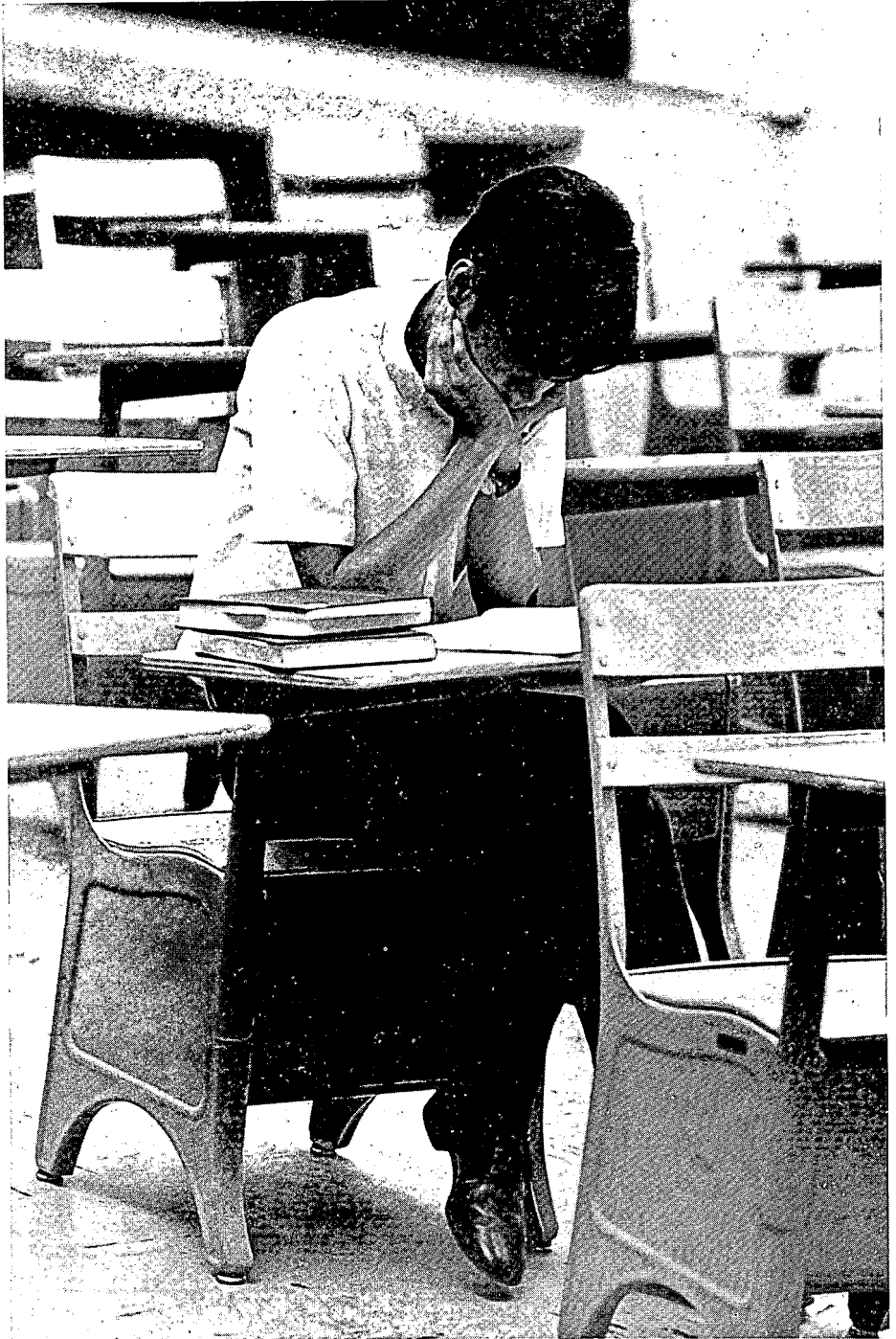
332 — History and Principles of American Journalism. The growth of modern newspapers, with emphasis on important persons in American journalism and the influence of their publications on the history of the United States. Class: 3 hours. Credit: 3 semester hours.

3234 — Practice in Communication Techniques. A course designed to give students an off-campus laboratory experience in an actual setting demanding the use of communicative techniques. Under the direction of an academic advisor within the program, students will be provided with specific, on-the-job assignments in radio-television stations, advertising agencies, and newspaper and magazine offices. Credit: 2 semester hours. Course may be repeated once for credit.

3381 — Principles of Film Communication. The study of the medium of film as employed by communication experts in the field of drama, education, industry, advertising, and as an adjunct to television. The history of film development, technical aspects of film story structure, the basic skills of photography through a mastery of the still camera and the development of subliminal motivation through visual means. Class: 3 hours. Credit: 3 semester hours.

3382 — Principles of Film Communication. Application of theory of film communication to the actual production of film units as advertising tools and story telling devices, using still and motion picture cameras. Credit: 3 semester hours.

3383 — Introduction to Advertising. A study of advertising theory and techniques in relation to the economic and social order and the organization and management of advertising and its relationship to the marketing process. Class: 3 hours. Credit: 3 semester hours.



College of Liberal Arts

Departments: English,
Government, History, Modern
Languages, Sociology

Preston B. Williams, Ph.D.,
Dean
Mrs. Patricia Wakefield,
Secretary

DEGREE OFFERINGS

Bachelor of Arts with majors in the following fields:

English	History
French	Sociology
Government	Spanish

Bachelor of Science with majors in the following fields:

Government — Criminal Justice

Information concerning graduate programs in English, government and history may be obtained in the Graduate Bulletin.

THE LIBERAL ARTS

Lamar University accepts the philosophy that higher education involves the whole mind of man and thus should not be limited merely to job preparation. Thus, every student in the University takes a substantial portion of his first two years of work in courses offered by the College of Liberal Arts.

The liberal arts are those fields which "liberate" the mind and give the student an opportunity to learn about and to criticize the various facts and assumptions about man, his society, and the relationship between the individual and that society. Broadly speaking, the area may be divided into the Humanities (English, History, Journalism, Modern Languages and Philosophy) and the Social Sciences (Government, Sociology, Anthropology, Economics, and Psychology).

Specialization in one or more of these disciplines provides an excellent liberal education and the best possible pre-professional preparation.

To increase and strengthen its programs of education for public service, Lamar University has established in the College of Liberal Arts two programs designed for those students who wish to enter the public service areas of social welfare and criminal justice. A student may earn a minor in social welfare which will qualify him

for employment in social agencies or he may earn a Bachelor of Science in government with a criminal justice emphasis.

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



Department of English

Department Head — Arney L. Strickland. *Director of Freshman English* — Nora B. Leitch. *Professors* — Robert J. Barnes, George W. de Schweinitz, Winfred S. Emmons, Harry L. Frissell, Robert C. Olson, Henry B. Rule, R. Blaine Thomas, A. W. Yeats, David D. Zink. *Associate Professors* — Clarine Branom, Marilyn D. Georgas, Elizabeth Meeks, Jack N. Renfrow. *Assistant Professors* — Olga D. Harvill, Henry Hutchings, III. *Instructors* — Melanie J. Bandy, Patricia J. Cooke, William Culloty, Carol W. Curtis, William J. Fahrenbach, Flonelle B. Greer, Mary K. Hill, Melvin A. Kenne, John C. Kilman, Thomas R. McClellan, Howard A. Perkins, Annette E. Platt, Ann C. Rayson, Joan B. Setzer, M. Leon Stokesbury, Anne L. Taxter. *Secretary* — Mrs. Audrey Wynn.

Bachelor of Arts — English Major

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

A. General Requirements

Freshman Composition — six semester hours.

Mathematics and Laboratory Science — four semester courses, at least one in Mathematics and one in Laboratory Science

Completion of the 232 course in a foreign language

History 131-132 — World History

History 231-232 — United States History

Government 231-232 — State and National

Physical Education — four semesters

B. Major

Sophomore literature — six semester hours, preferably selected from 2311, 2314, 2315, and 2316.

Six hours of advanced American literature.

Nine hours of advanced British literature, including either 4331 or 4332. English 430.

C. Minor

An approved minor of 18 semester hours, including at least six advanced semester hours.

D. Sufficient approved electives to complete a total of 126 semester hours.

Teacher Certification — English

Students wishing to secure the Bachelor of Arts degree in English and at the same time to certify for a provisional certificate-secondary with a teaching field in English, must include in their degree program the following:

1. Six hours of mathematics and eight hours of science.
2. A 24-hour approved additional teaching field in the place of the minor (consult this catalog, College of Education).
3. English 334, 3312, or 430.
4. English 3321.

5. Eighteen hours of education: 331, 332, 338, 438, 462.
6. Approved electives sufficient to bring the total number of hours to 132.

Suggested Program of Study

First Year	Second Year
Eng — Composition6	Eng — Sophomore Lit6
His. 131-132 — World Civilization.....6	His 231-232 — United States.....6
Foreign Language — 141-1428	Gov 231-232 — State and National6
*Mth6	Foreign Languages — 231-2326
Electives6	Electives.....6
HPE — Activity.....2	HPE — Activity2
<u>34</u>	<u>32</u>
Third Year	Fourth Year
Eng.....9	Eng 430 — History of the
*Laboratory Science8	English Language3
Minor.....9	Eng6
Electives6	Minor9
<u>32</u>	Electives9-12
	<u>27-30</u>

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

ENGLISH (Eng)

1311 — Composition. Detailed study of composition and reading skills. Frequent short themes. Recommended for students who score low on entrance tests or who have completed 1317. Class: 3 hours. Credit: 3 semester hours.

1312 — Composition. Intensive study and practice in the basic forms and principles of expository writing. Frequent themes. Collateral reading in articles and essays of a factual and informative type. Class: 3 hours. Credit: 3 semester hours.

1313 — Composition. Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from wide reading in the area of prose fiction. Class: 3 hours. Credit: 3 semester hours.

1314 — Composition. Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from wide readings in the areas of poetry and drama. Class: 3 hours. Credit: 3 semester hours.

1315 — Composition. Intensive study and practice in the basic forms of expository writing, with frequent themes. Topics for composition suggested from a wide survey of the various communications media — films, tapes, radio, television, etc. Class: 3 hours. Credit: 3 semester hours.

(Note: Various schools and departments may counsel their majors into certain of the courses listed above; otherwise the student may satisfy his freshman English requirement by any combination of the courses above, in any sequence.)

1316 — Composition and Rhetoric. An accelerated program for those exceptionally well prepared at time of enrollment. Extensive writing; introduction to literary genres. Offered fall semester only. Satisfactory completion of this course meets requirement for freshman English. Class: 3 hours. Credit: 3 semester hours.

1317 — Developmental Reading & Writing. Designed to develop writing skills, broaden reading background, and improve reading comprehension. Emphasis on individualized instruction in composition. This course does not satisfy General Degree requirements for Freshman English. Class: 3 hours. Laboratory: 2 hours. Credit: 3 semester hours.

2311 — Masterworks of World Literature. Critical study of six to ten major monuments of world literature, from classical antiquity to the present century. Class: 3 hours. Credit: 3 semester hours.

2312 — Masterworks of American Literature. Critical study of six to ten major works of American literature, including both the nineteenth and twentieth centuries. Class: 3 hours. Credit: 3 semester hours.

2313 — Masterworks of British Literature. Critical study of six to ten major works of British literature, including writers from most of the important periods. Class: 3 hours. Credit: 3 semester hours.

2314 — Thematic Approaches to Literature. Critical study of significant literature related to a particular theme or concept. Works to be studied will be drawn from various genres and various national literatures. Class: 3 hours. Credit: 3 semester hours.

2315 — The Literature of Africa. Major writers of Africa, including various genres and works translated from languages other than English. Class: 3 hours. Credit: 3 semester hours.

2316 — Black Writers of America. Significant contributions to American literature from colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

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

333 — Shakespeare. Rapid reading of the histories, comedies, and tragedies. The development of Shakespeare as a dramatist; his relationship to the Elizabethan theater; his social, political, and literary background in the Tudor-Stuart era. Class: 3 hours. Credit: 3 semester hours.

334 — Advanced Grammar. Intensive analysis of sentences, the concept of structural meaning. Prerequisite: foreign language through 132. Class: 3 hours. Credit: 3 semester hours.

335 — Creative Writing. A workshop approach to the writing of poetry, fiction, and drama. Prerequisite: recommendation by the department head. Class: 3 hours. Credit: 3 semester hours.

336 — The Short Story. The technique of the short story; its historical development; study and analysis of great short stories. Class: 3 hours. Credit: 3 semester hours.

337 — The Drama. The historical development of the drama from Aeschylus to the present. Intensive study of selected plays. Class: 3 hours. Credit: 3 semester hours.

338 — Studies in the British Novel. Wide reading and critical study in some particular aspect or period of the British novel. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

339 — American Novel. A study of the history, growth, and technique of the American novel, with emphasis on the novels of the twentieth century. Class: 3 hours. Credit: 3 semester hours.

3311 — Technical Report Writing. Supervised preparation of technical and scientific reports according to standard usage recommended by scientific and engineering societies. May not be counted for English major credit. Class: 3 hours. Credit: 3 semester hours.

3312 — Introduction to Linguistics. A survey of descriptive and historical linguistics intended to provide some understanding of the nature of language and linguistic change, of the current methods used in describing and comparing languages, and of the interaction of language and culture. Class: 3 hours. Credit: 3 semester hours.

3313 — Mythology. Classical, Scandinavian, German, and Oriental mythology emphasizing the myths, deities, and great legendary characters of Greek, Roman, Scandinavian, Teutonic, and Oriental civilizations most frequently referred to in the literature of the western world. Class: 3 hours. Credit: 3 semester hours.

3316 — Poetic Analysis. A study of the forms and techniques and the critical evaluation of poetry. Class: 3 hours. Credit: 3 semester hours.

3319 — Studies in Language and Linguistics. Special problems in linguistics, such as the history of American English, regional dialects, new grammars. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

3321 — Methods of Teaching English. Methods of teaching reading and composition at the secondary level, with special attention to the assigning and evaluating of written work. Class: 3 hours. Credit: 3 semester hours.

3322 — The American Literary Renaissance: 1820-1860. An intensive study of the major authors of the period from Poe to Melville. Class: 3 hours. Credit: 3 semester hours.

3324 — The Development of American Realism: 1860-1900. An intensive study of the major authors of the period from Whitman to Norris. Class: 3 hours. Credit: 3 semester hours.

430 — History of the English Language. Theory and nature of language. Studies in the growth of English and American forms. Prerequisite: foreign language through 232. Class: 3 hours. Credit: 3 semester hours.

432 — Studies in Sixteenth Century Literature. Critical studies in the poetry, prose, and drama of the age. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

434 — Shakespeare. Intensive study of selected major plays. Prerequisite: English 333 or permission of the instructor. Class: 3 hours. Credit: 3 semester hours.

435 — Studies in Seventeenth Century Literature. Critical studies in the poetry, prose, and drama of the period 1600-1660. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

438 — Studies in Eighteenth Century Literature. Critical studies in the poetry, prose, and drama of the period 1660-1800. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

439 — Studies in Romantic Literature. Critical studies in the poetry, prose, and drama of the Romantic Period. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

4311 — Studies in Victorian Literature. Critical studies in the poetry and prose of the Victorian Period. May be taken for credit more than once if the topic varies. Class: 3 hours. Credit: 3 semester hours.

4317 — Contemporary Drama. A study of dramatic trends and representative plays from Ibsen to the present. Class: 3 hours. Credit: 3 semester hours.

4318 — Contemporary Poetry. A study of poetic developments in England and America with emphasis on representative poets from Hardy to the present. Class: 3 hours. Credit: 3 semester hours.

4319 — Contemporary Fiction. A study of prose fiction representative of modern ideas and trends, with emphasis on English and Continental authors. Class: 3 hours. Credit: 3 semester hours.

4322 — Russian Literature. Selected works from nineteenth and twentieth century Russian literature in translation, Pushkin to Sholokov. Class: 3 hours. Credit: 3 semester hours.

4123, 4223, 4323, 4423, 4523, 4623 — Institute in English. The theory and practice of traditional, structural and generative grammar; the theory and practice of composition; and the critical analysis of literature. Class: 1-4 hours. Laboratory: 2-4 hours. Credit: 1-6 semester hours.

4325 — Language: Sound and Meaning. Theory of language for non-English majors. A study of meaning as related to words and to grammatical features. English phonology as applied to orthography. May not be counted for English major credit. Class: 3 hours. Credit: 3 semester hours.

4326 — Expository Writing. The practical application of the techniques of mature exposition; classification, explanation, evaluation. Class: 3 hours. Credit: 3 semester hours.

4327 — Bibliography and Methods of Research. An introduction to research methods and sources. Recommended for those planning or beginning graduate study. Class: 3 hours. Credit: 3 semester hours.

4328 — Colonial American Literature. A survey of all significant writers from the beginnings to the American Revolution. Class: 3 hours. Credit: 3 semester hours.

4329 — Modern American Literature. A critical survey of major American writers of the twentieth century. Class: 3 hours. Credit: 3 semester hours.

4331 — Advanced Survey of British Literature. Intensive survey of British literature from the beginnings to 1800, with wide collateral reading in literary history. Class: 3 hours. Credit: 3 semester hours.

4332 — Advanced Survey of British Literature. Intensive survey of British literature from 1800 to the present, with wide collateral reading in literary history. Class: 3 hours. Credit: 3 semester hours.

4333 — Studies in a Particular Author. Intensive critical study of a major writer such as Chaucer, Milton, Hawthorne, Faulkner. May be taken for credit more than once when the topic varies. Class: 3 hours. Credit: 3 semester hours.

4334 — Critical Studies in Literature. Intensive critical study of a particular genre or theme in comparative literature or criticism. May be taken more than once for credit when the topic varies. Class: 3 hours. Credit: 3 semester hours.

Department of Government

Department Head—William R. Tucker. *Professor* — Manfred Stevens. *Associate Professor* — Wendell M. Bedichek. *Assistant Professors* — Florence Heffron, Boyd L. Lanier, William Pearson. *Instructors* — Bruce R. Drury, R. Philip Richey, Ronald Stidham, Glenn Utter. *Secretary* — Pauline Wedel.

Bachelor of Arts — Government Major

The degree of Bachelor of Arts in Government may be awarded upon the completion of the following requirements:

- A. General Requirements
 - Freshman English — six semester hours
 - Literature — six semester hours
 - *Mathematics — six semester hours
 - *Science — laboratory — eight semester hours
 - Completion of the 232 course in a foreign language
 - History 231-232 — United States History
 - Physical activity courses or Band — four semesters
 - Psychology 241 — Introduction to Statistical Methods
- B. Major
 - Government 231-232—American State and National
 - Government 233 — Political Behavior
 - Advanced Government (at least one from each of five fields) — 15 semester hours. The fields are: American government (Gov. 334, 335, 339, 436, 437, 3301, 3311, 3312, 3313, 3315); political philosophy (Gov. 431, 432, 433); international relations (Gov. 332, 336, 337, 435); comparative government (Gov. 331, 333, 338, 3317, 3318); public administration (Gov. 3316, 430, 434, 439).
- C. Minor
 - An approved minor of 18 semester hours, including at least six advanced hours.
- D. Electives
 - Sufficient approved electives to complete a total of 126 semester hours.

*For science and mathematics the general degree requirements may be followed.

Teacher Certification — Government

Students wishing to secure the Bachelor of Arts degree in Government and at the same time certify for a provisional certificate — secondary with a teaching field in Government, must include in their degree program the following:

1. Six hours of mathematics and eight hours of science.
2. An approved 24 hour additional teaching field in place of the minor (consult this catalog, College of Education).
3. Education 331, 332, 338, 438, and 462.
4. Sufficient electives to complete a total of 132 semester hours.

Suggested Program of Study

First Year		Second Year	
Eng — Composition	6	Eng — Literature	6
Foreign Language	8	Foreign Language	6
Mth	6	HPE Activity	4
HPE Activity	2	His 231-232	6
Electives*	9	Psy 241	4
	<u>31</u>	Gov 233	3
		Gov 231-232	6
			<u>35</u>
*Gov 131 is recommended			
Third Year		Fourth Year	
Gov (Adv.)	9	Gov (Adv.)	6
Electives or Edu 331, 332, 338	9	Electives or Edu 438 and 462	9
Laboratory Science	8	Minor (or other teaching field) and	
Minor (or other teaching field) and Electives	4-7	Electives	15-18
	<u>30-33</u>		<u>30-33</u>

Bachelor of Science — Government Major

(Criminal Justice Emphasis)

Students pursuing this program may during their first two years enroll in the Police Science Program in the College of Technical Arts or may enroll in the Department of Government in the College of Liberal Arts.

First Year		Second Year	
Eng — Composition	6	Gov. 231-232	6
Mth	6	Soc 131-132	6
Psy 131	3	Speech 131	3
Police Science*	15	Policy Science*	9
	<u>30</u>	Approved Electives	6
			<u>30</u>

*These 24 semester hours of Police Science must conform to the core curriculum approved by the Coordinating Board, Texas College and University System.

Third Year		Fourth Year	
Psy 241	4	Eng — Literature	3
Gov 3313	3	Gov 430	3
Gov 3316	3	Gov 437	3
Science	8	Gov 339	3
HPE — Activity	2	Gov (selected from 431, 432, 433	3
Soc 333	3	HPE — Activity	4
Soc 336	3	Electives	6
Psy 432	3	Soc 339	3
Elective	3	His 231-232	6
	<u>32</u>		<u>34</u>

GOVERNMENT (Gov)

131 — Elements of Political Science. History of political institutions and ideas; power and cultural setting of modern governments. Class: 3 hours. Credit: 3 semester hours.

231 — The American Constitutional System, Federal and State. A study of the background and content of the national and state constitutions; local government; the federal and state judiciaries; civil liberties. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

232 — American and State Government, Organization and Functions. A study of political parties and pressure groups; the legislative and executive branches; functions of both national and state government; foreign policy. Prerequisite: sophomore standing. Class: 3 hours. Credit: 3 semester hours.

233 — Political Behavior. Economic, psychological, and social dimensions of political behavior; political participation, leadership and elites; ways of analyzing political attitudes, voting behavior and the decision-making process. Class: 3 hours. Credit: 3 semester hours.

331 — Political Systems of Western Europe. An analysis of the political systems of Great Britain, France, and Germany emphasizing their political culture, socio-economic conditions, recruitment of leadership, pressure groups, political parties and decision-making process. Class: 3 hours. Credit: 3 semester hours.

332 — Studies in International Politics. A study of the concepts underlying the Western State system; nationalism and imperialism; the techniques and instruments of power politics; and the foreign policies of selected states. Class: 3 hours. Credit: 3 semester hours.

333 — Government and Politics of the Soviet Union. A study of the origin, development, structures, functions and behavior of the Soviet decision-making organs. Class: 3 hours. Credit: 3 semester hours.

334 — American Political Parties and Pressure Groups. A study of political parties in terms of their theory, their history, and their place in contemporary American politics; analysis of the role of economic and other groups in American politics; group organization and techniques of political influence. Class: 3 hours. Credit: 3 semester hours.

335 — The American Presidency. The role of the office in political and diplomatic, social and economic terms, as well as in the policy making aspects. Class: 3 hours. Credit: 3 semester hours.

336 — International Institutions. An analysis of the political and legal foundations of international organizations with emphasis on the procedure and machinery for the peaceful settlement of international disputes. The League of Nations, the United Nations, specialized agencies, disarmament, and regional arrangements will be considered. Class: 3 hours. Credit: 3 semester hours.

337 — The Politics of American Foreign Policy. An analytical and historical view of United States foreign policy; its domestic sources; the instruments of American diplomacy; United States involvement in world politics; and the limitations and potentials of American foreign policy. Class: 3 hours. Credit: 3 semester hours.

338 — Latin American Political Systems. An intensive comparative analysis of the political systems of Latin America with special emphasis on political culture,

constitutional development, authoritative decision-making activities and agencies, interest identification, leadership selection, political socialization, and conflict resolution. Class: 3 hours. Credit: 3 semester hours.

339 — Urban Politics. Analysis of the organization and development of urban governments in the United States. Interrelationships among urban problems, political behavior, and policy will be examined. Class: 3 hours. Credit: 3 semester hours.

3301 — The Legislative Process. The structure, functioning, and political control of legislative bodies. Class: 3 hours. Credit: 3 semester hours.

3312 — American State Politics. A survey of American state political patterns, with special reference to Texas. Class: 3 hours. Credit: 3 semester hours.

3313 — Elementary Jurisprudence and the Judicial Process. A survey of major modes of legal thought; structure and processes of American courts; judicial voting behavior; and relation of judicial processes to the total criminal justice system. Class: 3 hours. Credit: 3 semester hours.

3315 — Ethnic Politics in the United States. Analysis and appraisal of ethnic political action in the American political process; political socialization and voting behavior; techniques of participation and problems of public policy. Class: 3 hours. Credit: 3 semester hours.

3316 — Introduction to Public Administration. A survey of American public administration, with emphasis upon modern problems and trends. Class: 3 hours. Credit: 3 semester hours.

3317 — Politics of Developing Areas. An analysis of the political systems of Latin America, Africa, the Middle East, and Asia, focusing on ideologies, interest groups, political parties, elites, and problems in political development. Class: 3 hours. Credit: 3 semester hours.

3318 — East Asian Governments and Politics. An introduction to the political ideas, institutions, and processes of China and Japan considered against their social and economic development with special emphasis on contemporary political problems. Class: 3 hours. Credit: 3 semester hours.

430 — Organization Theory and Behavior. A study of the structural and management aspects of public administration, theory and practice; policy formation processes and techniques. Class: 3 hours. Credit: 3 semester hours.

431 — History of Political Thought I. The chief concepts of outstanding political thinkers from the Greeks to the Reformation. Class: 3 hours. Credit: 3 semester hours.

432 — History of Political Thought II. A continuation of Government 431 from the Reformation to Karl Marx. Class: 3 hours. Credit: 3 semester hours.

433 — History of Political Thought III. A continuation of Government 432 from Karl Marx to the present with attention given to contemporary thought. Class: 3 hours. Credit: 3 semester hours.

434 — Formulation of Public Policy. The demands for public action on policy issues; organization and nature of political support; processes and problems of decision-making in the formulation of public policy at the national, state, and local levels. The subject will vary from semester to semester. Class: 3 hours. Credit: 3 semester hours.

435 — The International System. The study of the legal bases of the modern international system and the political and legal characteristics of developing world or-

der. Class: 3 hours. Credit: 3 semester hours.

436 — American Constitutional Law and Development. Development of the American Constitution through judicial interpretations, with particular emphasis on cases dealing with federalism, commerce, Congress, and the executive. Class: 3 hours. Credit: 3 semester hours.

437 — American Constitutional Law and Development. A continuation of Government 436 with particular emphasis upon cases dealing with due process and civil rights. Class: 3 hours. Credit: 3 semester hours.

439 — Comparative Public Administration. A study of bureaucratic structures and functions of advanced and developing nations, emphasizing comparison of relationships between environments and administrative processes. Class: 3 hours. Credit: 3 semester hours.



Department of History

Department Chairman — Adrian Anderson. *Professors* — Paul E. Isaac, Howard Mackey, L. Wesley Norton, Preston B. Williams, Ralph A. Wooster. *Associate Professors* — Howell Gwin, William A. MacDonald, R. Beeler Satterfield, Walter Sutton, Naaman Woodland. *Assistant Professors* — Marion Holt, Joseph C. Lambert, J. W. Storey. *Instructors* — John Carroll, JoAnn Stiles. *Departmental Secretary* — Gayle Weaver.

Bachelor of Arts — History Major

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

A. General Requirements

Freshman English — six semester hours
 Literature — six semester hours (including English 2311)
 Mathematics — six semester hours
 Science — laboratory — eight semester hours
 Completion of the 232 course in a foreign language
 Government 231-232 — State and National
 Physical Education or Band — four semesters

B. Major

History 131-132 — World History
 History 231-232 — United States History
 History 339 — Historical Research
 Advanced United States History — six semester hours
 Advanced World (non-United States) History — six semester hours

C. Minor

An approved minor of 18 semester hours, including at least six advanced semester hours.

D. Electives

Sufficient approved electives to complete a total of 126 semester hours.

Teacher Certification — History

Students wishing to secure the Bachelor of Arts degree in history and at the same time certify for a provisional certificate — secondary with a teaching field in history, must include in their degree program the following:

1. An approved 24 hour additional teaching field (See College of Education section of this catalog for a list of approved teaching fields).
2. Education 331, 332, 328, 438, and 462.
3. Sufficient approved electives to complete a total of 132 semester hours.

Suggested Program of Study

First Year		Second Year	
His 131-132 — World History.....	6	His 231-232 — United States.....	6
Freshman English	6	Literature (including Eng 2311)	6
Foreign Language	8	Foreign Language.....	6
Mth.....	6	Science	8
Electives	6	Gov 231-232 — St and Natl.....	6
HPE — Activity.....	2	HPE — Activity.....	4
	34		36
Third Year		Fourth Year	
His 339.....	3	His (Adv.).....	6
His (Adv.)	6	Edu 438 and 462 or	
Electives.....	9	Minor (or other Teaching	
Minor or other Teaching		Field) and Electives.....	15-17
Field) and Electives.....	12-14		30-32
	30-32		

HISTORY (His)

131 — History of World Civilization. Survey of world history to 1660. Class: 3 hours. Credit: 3 semester hours.

132 — History of World Civilization. Survey of world history from 1660 to 1965. Class: 3 hours. Credit: 3 semester hours.

134 — History of Texas. Survey of Texas history from the beginning to the present time. Class: 3 hours. Credit: 3 semester hours.

231 — History of the United States. Survey of United States history to 1865. Class: 3 hours. Credit: 3 semester hours.

232 — History of the United States. Survey of United States history from 1865 to the present. Class: 3 hours. Credit: 3 semester hours.

330 — History of Ideas. The Judeo-Christian and Greco-Roman elements in the Western intellectual tradition. Class: 3 hours. Credit: 3 semester hours.

331 — Social and Intellectual History of the United States to 1865. Life and thought in the United States prior to 1865. Class: 3 hours. Credit: 3 semester hours.

332 — Social and Intellectual History of the United States Since 1865. Life and thought in the United States since 1865. Class: 3 hours. Credit: 3 semester hours.

333 — History of American Economic Life. Origin and development of American economic institutions. Class: 3 hours. Credit: 3 semester hours.

334 — Military History of the United States. History of American warfare and the development of American military institutions and practices. Class: 3 hours. Credit: 3 semester hours.

337 — Diplomatic History of the United States. Historical development of American diplomacy. Class: 3 hours. Credit: 3 semester hours.

338 — Urban History of the United States. The origin and development of cities in the United States. Class: 3 hours. Credit: 3 semester hours.

339 — Historical Research. Principles and methods of historical research. Class: 3 hours. Credit: 3 semester hours.

430 — Era of the Renaissance and Reformation. Western Europe from 1453 to 1610. Class: 3 hours. Credit: 3 semester hours.

431 — The Old Regime. Western Europe from 1610 to 1783. Class: 3 hours. Credit: 3 semester hours.

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

433 — Russia and Eastern Europe to 1860. Russia, Poland, and the Balkans from the period of the Byzantine Empire to 1860. Class: 3 hours. Credit: 3 semester hours.

434 — Nineteenth Century Europe. Europe from 1815 to 1914. Class: 3 hours. Credit: 3 semester hours.

435 — Twentieth Century Europe. Europe since 1914. Class: 3 hours. Credit: 3 semester hours.

436 — The American West. The American West from colonial times to the present. Class: 3 hours. Credit: 3 semester hours.

437 — The Old South. The American South from colonial times to the Civil War. Class: 3 hours. Credit: 3 semester hours.

438 — The New South. The American South from the Civil War to the present. Class: 3 hours. Credit: 3 semester hours.

439 — Honors Program. A tutorial program for honors seniors. Admission by invitation only. Credit: 3 semester hours.

4311 — Colonial America. Class: 3 hours. Credit: 3 semester hours.

4312 — The American Revolution. Class: 3 hours. Credit: 3 semester hours.

4313 — The Age of Jackson. Class: 3 hours. Credit: 3 semester hours.

4314 — The American Civil War. Class: 3 hours. Credit: 3 semester hours.

4315 — Reconstruction and Industrialization: The United States from 1865 to 1898. Class: 3 hours. Credit: 3 semester hours.

4316 — World Power and Reform: The United States from 1898 to 1920. Class: 3 hours. Credit: 3 semester hours.

4317 — New Deal and World Leadership: The United States from 1920 to 1940. Class: 3 hours. Credit: 3 semester hours.

4318 — Classical Civilization. Greece and Rome from earliest times to the fall of the Roman Empire in the West. Class: 3 hours. Credit: 3 semester hours.

4319 — Medieval Civilization. Western Europe and the Mediterranean area from the late Roman period to 1453. Class: 3 hours. Credit: 3 semester hours.

4321 — The Far East to 1800. Japan, China, Indo-China, and India to 1800. Class: 3 hours. Credit: 3 semester hours.

4322 — The Far East Since 1800. Japan, China, Indo-China and India since 1800. Class: 3 hours. Credit: 3 semester hours.

4323 — Latin America to 1810. Class: 3 hours. Credit: 3 semester hours.

4324 — Latin America Since 1810. Class: 3 hours. Credit: 3 semester hours.

4325 — Tudor and Stuart England. England from 1485 to 1688. Class: 3 hours. Credit: 3 semester hours.

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

4327 — Victorian England. Great Britain from 1815 to 1914. Class: 3 hours. Credit: 3 semester hours.

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

4329 — Modern European Intellectual History. An examination of the major European intellectual movements and thinkers from the Renaissance to the present. Class: 3 hours. Credit: 3 semester hours.

4331 — Russia Since 1860. The development of modern Russia, from 1860 to the present. Class: 3 hours. Credit: 3 semester hours.

4332 — Afro-American History to 1865. The black experience in Africa and in the Western hemisphere prior to emancipation. Class: 3 hours. Credit: 3 semester hours.

4333 — Afro-American History since 1865. The black experience toward achieving freedom in the United States. Class: 3 hours. Credit: 3 semester hours.

4334 — Early National Period. The United States from 1789 to 1820. Class: 3 hours. Credit: 3 semester hours.

4335 — Topics in History. Selected special topics in major areas of history. Course may be repeated for a maximum of six semester hours credit when the topic varies. Class: 3 hours. Credit: 3 semester hours.



Department of Modern Languages

Department Head — M. LeRoy Ellis. *Associate Professors* — John H. Lockhart, Victoria E. Urbano. *Assistant Professors* — William F. Adams, Jr., Nathan T. Francis, Llewella J. Lusk, Antônio de J. Pineda, Genevieve Smith. *Instructor* — Richard A. Gagne. *Departmental Secretary* — Mrs. Morfydd Timmerman.

The language requirement for a Bachelor of Arts degree is the completion of the 232 course.

Students who plan to do graduate work are advised to study two foreign languages while earning the Bachelor of Arts degree.

Placement and Advanced Status. Students with a background in a foreign language are placed according to CEEB scores submitted. A student not submitting a CEEB test score may take the CEEB Achievement Test (not the Supplementary Achievement Test) in the language either during the summer orientation program or at a designated time just prior to registration. All students are urged to take the CEEB language achievement test in high school as an additional fee will be required if the test is taken after entering Lamar University.

- A. Students with one year of language in high school:
 - 1. CEEB test scores submitted
 - a. Advanced placement if score is high enough
 - b. Placed in language 141 for credit if score is too low
 - 2. No CEEB test score submitted
 - Placed in language 141 for credit
- B. Students with two years or more of language in high school:
 - 1. CEEB test scores submitted
 - a. Advanced placement if score is high enough
 - b. Placed in language 143 if score is too low
 - c. May choose to take language 141, but without credit
 - 2. No CEEB test score submitted
 - a. Placed in language 143 for credit
 - b. May choose to take language 141, but without credit
- C. Foreign students
 - 1. Those whose native language is French, German or Spanish and who wish to continue the formal study of the language will be placed according to CEEB test scores submitted.
 - 2. Those who want to study a language other than native language will be placed as any other student studying a foreign language.

Any student placing in an intermediate or advanced course will receive credit for the 142 course and intermediate courses circumvented, up to a maximum of 10 semester hours, provided that he take the next higher course and earn a grade of "C" or better.

Americans or foreign citizens who speak a foreign language but have had no formal training in the language will be treated as any other student with no formal training in the language.

Advanced Placement Examination

(See *Admissions*, this catalog)

Bachelor of Arts—French Major or Spanish Major

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

- A. General Requirements
 - Freshman English — six semester hours
 - Literature — six semester hours
 - *Mathematics — six semester hours
 - *Science — laboratory — eight semester hours
 - History 231-232 — United States History
 - Government 231-232 — State and National
 - Physical Education or Band — four semesters
- B. Major:
 - French
 - French 231-232 — Reading, Composition, Conversation
 - French 321 — French Conversation
 - French 337 — Advanced Grammar and Composition
 - French 338 — French Phonetics
 - French 411 — Techniques of Teaching Foreign Languages
 - Advanced French — nine semester hours
 - Spanish
 - Spanish 231-232 — Reading, Composition, Conversation
 - Spanish 321 — Spanish Conversation
 - Spanish 335 — Advanced Composition
 - Spanish 411 — Techniques of Teaching Foreign Languages
 - Advanced Spanish — 12 semester hours
- C. Minor
 - An approved minor of 18 semester hours, including at least six advanced semester hours.
- D. Electives
 - Sufficient approved electives to complete a total of 126 semester hours.

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

Suggested Program of Study

First Year	Second Year
*Maj Lang 141-142 — Elementary8	Maj Lang 231, 232 — Intermediate6
Eng — Composition6	Eng — Literature6
**Mth6	His 231, 232 — United States6
HPE — Activity2	*Sci8
Elec12	HPE4
34	Elec2
	32

Third Year

Maj Lang: Fre 321, 337, 338, 411	9
Fre (Adv)	3
or	
Maj Lang: Spa 321, 335, 411	6
Spa (Adv)	6
Gov 231-232	6
Elec (incl. minor)	12
	30

Fourth Year

Maj Lang (Adv)	6
Elec (incl. Minor)	24
	30

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

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

Teacher Certification — French, German, Spanish

Students wishing to obtain the Bachelor of Arts degree in French or Spanish and at the same time certify for a provisional certificate-secondary with a teaching field in French or Spanish, must include in their degree program the following:

1. An approved 24 hour additional teaching field (See College of Education section of this catalog for a list of approved teaching fields).
2. Education 331, 332, 338, 438, and 462.
3. Sufficient approved electives to complete a total of 132 semester hours.

Students wishing to certify for a provisional certificate-secondary with a teaching field in German may do so by completing the following courses:

Ger 231-232	6 hours
Ger 411	1 hour
Ger—Advanced courses to be selected from the following:	17 hours

- 321—German Conversation *
- 335—Advanced Composition
- 337—German Culture and Civilization
- 338—The German Novelle
- 431—German Literature to the Mid-eighteenth Century
- 432—German Literature since the Mid-eighteenth Century
- 434—History of the German Language
- 435—Directed Readings in German Literature

24 hours

*18 semester hours of German are required if Ger 321 is not selected.

FRENCH (Fre)

141 — Elementary French. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. (Students with two or more years of high school French may not take this course for credit. Such students should register for 143 — First Year French.) Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

142 — Elementary French. Prerequisite: Fre 141 or equivalent determined by examination. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

143 — First Year French. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

231, 232 — Reading, Composition, Conversation. Prerequisite for Fre 231: Fre 142 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

321 — French Conversation. Required of majors and of students desiring teacher certification in French. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Fre 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Fre 231 or equivalent. Class: 2 hours. Credit: 2 semester hours.

331 — Contemporary French Drama. A study of representative plays of the twentieth century with emphasis on the theater of post World War II. Dramatists studied include Giraudoux, Sartre, Camus, Ionesco, Beckett, Arrabal. Prerequisite: Fre 232. Class: 3 hours. Credit: 3 semester hours.

332 — Contemporary French Novel. A study of representative novels of the twentieth century, including such writers as Gide, Mauriac, Sartre, Camus, and the masters of the New Novel. Prerequisite: Fre 232. Class: 3 hours. Credit: 3 semester hours.

337 — Advanced Grammar and Composition. A thorough study of French grammar with extensive written composition. Secondary stress on pronunciation. Prerequisite: Fre 232. Class: 3 hours. Laboratory: 3 semester hours.

338 — French Phonetics. A study of the French sound system. Laboratory exercises to improve pronunciation. Prerequisite: Fre 232. Class: 3 hours. Laboratory: 3 semester hours.

339 — French Culture and Civilization. A survey of the intellectual, philosophic, political and social development of France. Readings of significant works in these areas. Lectures, readings, oral and written reports. Prerequisite: French 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

411 — Techniques of Teaching Foreign Languages. A study of methods and materials for teaching foreign languages. Open to all language majors and students desiring teacher certification in French, German and Spanish. Prerequisite: 6 advanced hours in a modern language. Class: 1 hour. Credit: 1 semester hour.

431 — The Nineteenth Century French Novel. Prerequisite: 6 hours of advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

432 — Nineteenth Century French Drama. Prerequisite: 6 hours of advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

433 — 17th Century French Literature. A study of representative plays of Corneille, Racine, and Moliere, with secondary stress on the prose and poetry of the period. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

435 — Survey of French Literature through the 18th Century. Readings from significant works. Lectures, readings, oral and written reports. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

436 — Survey of French Literature Since the 18th Century. Readings from significant works. Lectures, readings, oral and written reports. Prerequisite: 6 hours advanced courses in French. Class: 3 hours. Credit: 3 semester hours.

GERMAN (Ger)

141 — Elementary German. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. (Students with two or more years of high school German may not take this course for credit. Such students should register for 143 — First Year German.) Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

142 — Elementary German. Prerequisite: Ger 141 or equivalent determined by examination. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

143 — First Year German. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses. Class: 4 hours. Laboratory: Two 30 minute sessions. Credit: 4 semester hours.

230 — Technical Translation. Translation of technical textbook and selected articles in technical and scientific journals. (Ger 230 with a prerequisite of Ger 142 does not meet the requirement for a BA degree. Science majors working towards a BA degree may substitute Ger 230 for Ger 231.) Prerequisite: Ger 142. Class: 3 hours. Credit: 3 semester hours.

231, 232 — Reading, Composition, Conversation. Prerequisite for Ger 231: Ger 142 or equivalent. Class: 3 hours. Credit: 3 semester hours per course. (Note: Science majors working towards a Bachelor of Arts degree may substitute Ger 230 for Ger 231.)

321 — German Conversation. Required of students desiring teacher certification in German. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Ger 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Ger 231 or equivalent. Class: 2 hours. Credit: 2 semester hours.

335 — Advanced Composition. Prerequisite: Ger 232. Class: 3 hours. Credit: 3 semester hours.

337 — German Culture and Civilization. A survey of the intellectual, philosophic, political, and social development of Germany. Readings of significant works in these areas. Lectures, readings, oral and written reports. Prerequisite: Ger 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

338 — The German Novelle. A study of the development of the German *Novelle*. Lectures, reading of selected works, oral and written reports. Prerequisite: Ger 232 or equivalent. Class: 3 hours. Credit: 3 semester hours.

411 — Techniques of Teaching Foreign Languages. A study of methods and materials for teaching foreign languages. Open to all language majors and students desiring teacher certification in French, German, and Spanish. Prerequisite: 6 advanced hours in a modern foreign language. Class: 1 hour. Credit: 1 semester hour.

431 — German Literature to the Mid-eighteenth Century. A study of major literary movements, authors, and works from the ninth to the mid-eighteenth century. Lectures, readings, oral and written reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

432 — German Literature Since the Mid-eighteenth Century. A study of major literary movements, authors, and works from the mid-eighteenth century to the present. Lectures, readings, oral and written reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

434 — The History of the German Language. A study of the development of modern German from its Indo-European sources. Lectures, readings, reports. Prerequisite: Three hours of advanced German. Class: 3 hours. Credit: 3 semester hours.

435 — Directed Readings in German Literature. Intensive readings in the works of an author, a genre, or a literary movement. Discussion, oral and written reports. Approval of department head required. May be taken more than once for credit when the topic varies. Prerequisite: Ger 232 or equivalent, approval of department head and instructor. Class: 3 hours. Credit: 3 hours.

SPANISH (Spa)

141 — Elementary Spanish. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. (Students with two or more years of high school Spanish may not take this course for credit. Such students should register for 143 — First Year Spanish.) Class: 4 hours. Laboratory: Two 30-minute sessions. Credit: 4 semester hours.

142 — Elementary Spanish. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. Prerequisite: Spa 141 or equivalent determined by examination. Class: 4 hours. Laboratory: Two 30-minute sessions. Credit: 4 semester hours.

143 — First Year Spanish. Pronunciation, conversation, reading, dictation, grammar. Use of tapes. This course is designed for students who have had two or more years of the language in high school but who are not ready to go into the intermediate courses. Students who take this course will finish the entire first year of the language in one semester and will then be eligible to enter the intermediate courses. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

231, 232 — Reading, Composition, Conversation. Prerequisite for Spa 231: Spa 142 or equivalent. Class: 3 hours. Credit: 3 semester hours per course.

321 — Spanish Conversation. Required of majors and of students desiring teacher certification in Spanish. With approval of department head, the course may be repeated for credit. (This course may not be substituted for Spa 232 to meet the language requirement for the Bachelor of Arts degree.) Prerequisite: Spa 231 or equivalent. Class: 2 hours. Credit: 2 semester hours.

331 — Spanish-American Culture and Civilization. A study of the geography, history, government, art and psychology of Spanish-America. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

334 — Survey of Spanish-American Literature. A study of outstanding writers and their works. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

335 — Advanced Composition. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

337 — Contemporary Spanish-American Short Story. The authors chosen are among the best interpreters of the spiritual and intellectual climate of Spanish America. Lectures, readings, oral and written reports. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

338 — Contemporary Theater of Spain. Emphasis will be given to the theater of Lorca, Casona, Buero Vallejo, Calvo Sotelo, Alfonso Sastre and other major authors of today. Prerequisite: Spa 232. Class: 3 hours. Credit: 3 semester hours.

411 — Techniques of Teaching Foreign Languages. A study of methods and materials for teaching foreign languages. Open to all language majors and students desiring teacher certification in French, German, and Spanish. Prerequisite: 6 advanced hours in a modern foreign language. Class: 1 hour. Credit: 1 semester hour.

431 — Contemporary Spanish Literature. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

432 — Development of Spanish Novel. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

433 — Survey of Spanish Literature Through the 17th Century. A study of the most significant works of Spanish literature through the seventeenth century. Readings from *El Cid*, *El Conde Lucanor*, *La Celestina* poetry of the Renaissance, Cervantes' prose, and the Golden Age drama. Lectures, readings, oral and written reports. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

434 — Survey of Spanish Literature Since the 17th Century. A study of the most significant works of Spanish literature from the eighteenth century through the twentieth century. Readings with emphasis on the drama and the novel. Lectures, readings, oral and written reports. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

436 — Spanish American Novel. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

437 — Drama and Poetry of Spanish America. Prerequisite: 6 hours of advanced Spanish. Class: 3 hours. Credit: 3 semester hours.

Department of Sociology

Department Head — Delbert L. Gibson. *Professors* — Claude B. Boren, John M. Ellis. *Associate Professors* — George B. Wall, George A. Woodward. *Assistant Professors* — Charles T. Butler, Raymond L. Drenan, Bernard J. Giarratano, Lichen Ma. *Instructors* — Melvin R. Brown, Vernice M. Monroe, Ralph G. O'Sullivan, Wayne C. Seelbach. *Secretary* — Sandy French.

Bachelor of Arts — Sociology Major

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

- A. General Requirements.
 - Freshman English — six semester hours.
 - Literature — six semester hours.
 - Math-Science — four courses in math or laboratory science, with no more than three courses in math or three in science.
 - Completion of the 232 course in a foreign language.
 - Government 231-232 — State and National.
 - History 231-232 — United States.
 - Physical Education or Band — four semesters.
- B. Major — 30 semester hours, but not more than 36 semester hours.
 - Sociology 131 — Introduction to Sociology
 - Sociology 438 — Research Methods.
 - Sociology 439 — Social Theory.
- C. Minor — 18 semester hours, but not more than 24 semester hours.
 - An approved minor of 18 semester hours, including at least six advanced semester hours.
- D. Electives.
 - Sufficient approved electives to complete a total of 126 semester hours.

Suggested Program of Study

First Year	Second Year
Eng — Composition.....6	Eng — Literature.....6
Liberal Arts Elective.....6	His 231, 232 — United States.....6
Language.....8	Language.....6
Mth.....6	Science.....8
Soc.....3-6	Soc.....3
HPE — Activity.....2	Elective or minor field.....3
31-34	HPE — Activity.....4
	36

Third Year	
Gov 231, 232 — St and Nat.....	6
Soc.....	6-9
Minor field.....	6-9
Electives.....	6-9
	30

Fourth Year	
Soc 438 — Research Methods.....	3
Soc 439 — Social Theory.....	3
Minor field.....	6-12
Electives.....	3-9
Soc.....	6-9
	30

Total — 126 semester hours

ANTHROPOLOGY (Ant)

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

233 — Ethnology. Analysis of culture and its development. Class: 3 hours. Credit: 3 semester hours.

330 — Peoples and Cultures. Intensive analysis of designated peoples and their cultures. Prerequisite: Ant 231 or Ant 233. Class: 3 hours. Credit: 3 semester hours. The course may be repeated for credit when the designated topics are varied.

PHILOSOPHY (Phl)

131 — Introduction to Philosophy. General characteristics of philosophy as a field of knowledge and as a method of inquiry. Class: 3 hours. Credit: 3 semester hours.

232 — Logic. Nature and methods of correct reasoning; deductive and inductive proof; logical fallacies. Class: 3 hours. Credit: 3 semester hours.

233 — History of Philosophy I, Ancient and Medieval Philosophy. The development of Western philosophic thought from the inception in Greece to the end of the Medieval period. Class: 3 hours. Credit: 3 semester hours.

234 — History of Philosophy II, Modern Philosophy. The development of philosophic thought from the Renaissance through the nineteenth century; emphasis upon philosophers of the seventeenth and eighteenth centuries. Class: 3 hours. Credit: 3 semester hours.

330 — Philosophy of Science. A critical analysis of the basic concepts and procedures of science. Prerequisite: Phl 131. Class: 3 hours. Credit: 3 semester hours.

331 — American Philosophy. Major philosophies and philosophers of American society from the colonial period to the twentieth century. Class: 3 hours. Credit: 3 semester hours.

332 — Ethics. A critical analysis of the concepts, methodology, and theories of ethics. Class: 3 hours. Credit: 3 semester hours.

SOCIAL WELFARE (Swf)

231 — Introduction to Social Welfare. History and philosophy of social welfare and social work. Class: 3 hours. Credit: 3 semester hours.

332 — Behavioral Foundations. Analysis of human behavior and development as derived from the social processes and institutions of man. Class: 3 hours. Credit: 3 semester hours.

333 — Methods of Intervention. Methods of intervention for problem solving as employed by the social-work profession. Class: 3 hours. Credit: 3 semester hours.

334 — Social Welfare Planning. Program and process of social welfare within American society. Class: 3 hours. Credit: 3 semester hours.

461 — Social Welfare Field Experience. Work experience in a community agency under supervision. Consent of the instructor required for registration. Class: 8 hours daily for two days a week plus one hour of seminar instruction. Credit: 6 semester hours. Prerequisites: 6 semester hours of SWF including SWF 333.

432 — Seminar. Current topics in social work. Class: 3 hours. Credit: 3 semester hours. (May be repeated for credit when the topic is varied.)

SOCIOLOGY (Soc)

131 — Introduction to Sociology. Sociology as a field of knowledge. Basic terms, concepts, theories of sociology applied to an explanation of human behavior, personality, groups, and society. Class: 3 hours. Credit: 3 semester hours.

132 — Social Problems. Attributes of society and of persons which are subject to disapproval; the causes, extent, and consequences of these problems; programs and prospects of their resolution. Class: 3 hours. Credit: 3 semester hours.

230 — Urban Problems. The study of contemporary urban problems in America. Attention is given to problems of poverty, transportation, disorganization, and city planning and reconstruction. Class: 3 hours. Credit: 3 semester hours.

231 — Deviant Behavior. The study of the major areas of social maladjustment from the standpoint of the processes underlying social and individual disorganization, such as alcoholism, illegitimacy, suicide, drug addiction and other personal deviations. Class: 3 hours. Credit: 3 semester hours.

233 — Marriage and the Family. Characteristics of and problems within courtship, marriage, and family in American society. Class: 3 hours. Credit: 3 semester hours.

330 — American Society. Description and analysis of structural and functional characteristics of American society and culture. Class: 3 hours. Credit: 3 semester hours.

332 — Social Psychology. Social and cultural influences upon individual behavior and personality; inter-personal and inter-group relations and collective behavior. Class: 3 hours. Credit: 3 semester hours.

333 — Urban Sociology. Social and ecological processes in the urbanization movement; characteristics of urban society and culture. Class: 3 hours. Credit: 3 semester hours.

334 — Industrial Sociology. The social structure of industry and of the trade union; inter-relationships of industry, union, and society; personal, social, and cultural factors in industrial organization and operation. Class: 3 hours. Credit: 3 semester hours.

335 — The Family. Structural and functional characteristics of the family as a basic institution. Class: 3 hours. Credit: 3 semester hours.

336 — Race Relations. Racial and cultural minority groups within society; causes and consequences of prejudice and discrimination and of changes in the relationship between minority and dominant groups. Class: 3 hours. Credit: 3 semester hours.

338 — Criminology. Extent of and explanation for crime in American society; agencies dealing with crime and criminals; programs for control and prevention of crime and delinquency. Class: 3 hours. Credit: 3 semester hours.

339 — Juvenile Delinquency. The nature, incidence, and explanations for juvenile delinquency in American society; agencies and programs for prevention and control of delinquency. Class: 3 hours. Credit: 3 semester hours.

430 — Seminar in Sociology. Basic concepts and general principles of sociology as applied to the study of selected topics. Class: 3 hours. Credit: 3 semester hours. The course may be repeated for credit when the designated topics are varied.

431 — Population Problems. The growth and composition of population with emphasis on social, economic, and political problems. Class: 3 hours. Credit: 3 semester hours.

436 — Social Movements. Historical, structural, and tactical considerations in the development of major systems of belief and practice within society; political movements in American society. Class: 3 hours. Credit: 3 semester hours.

437 — Public Opinion. Factors and processes in formation and change of public opinion; influence of the mass media on communication; analysis and evaluation of propaganda. Class: 3 hours. Credit: 3 semester hours.

438 — Research Methods. Techniques of scientific research in sociology. Class: 3 hours. Credit: 3 semester hours.

439 — Social Theory. A survey of major social and sociological theories. Class: 3 hours. Credit: 3 semester hours.



Courses in Bible and Religious Education

Instructors — Jim Chatham, Charles Eckert, Joseph Goss, Allen Hudgens, B. H. McCoy, John M. Purcell, Earl Sheffield, James A. Wray.

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

BIBLE (Bib)

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

132 — Survey of the New Testament. A critical study of the New Testament, its historical context, and the beginnings of the Christian Church. Class: 3 hours. Credit: 3 semester hours.

133 — New Testament: Gospels. A critical study of the Gospels, the person and work of Jesus of Nazareth. Class: 3 hours. Credit: 3 semester hours.

134 — New Testament: Paul. A study of the life and ministry of St. Paul and the major portion of the Pauline letters. Class: 3 hours. Credit: 3 semester hours.

135 — Introduction to Christian Thought. A course designed to acquaint the student with the major concepts of the Christian faith: to explore their Biblical basis and their relevance for the present day. Class: 3 hours. Credit: 3 semester hours.

212 — Current Issues in Religion. An interpretation of religious events through the reading of current religious and secular periodicals. Class: 1 hour. Credit: 1 semester hour.

231 — Church History. The history of the Christian Church, including the General Councils, the missionary movements, the Reformation, and the transition to the modern scene. Class: 3 hours. Credit: 3 semester hours.

232 — Christian Ethics. The relation of the Christian Faith to daily living, with particular emphasis on vocation, courtship and marriage, the person, and society. Class: 3 hours. Credit: 3 semester hours.

233 — Old Testament: Prophets. A study of the major and minor prophets and the role they played in the development of the religion of Israel. Class: 3 hours. Credit: 3 semester hours.

331 — Philosophy of Religion. Planned to describe the points of view in religious philosophy which are of vigorous contemporary influence, and to analyze the basic issues between them, including a study of religion as such, its historical development, and some emphasis on major contemporary religions. Class: 3 hours. Credit: 3 semester hours.

332 — Major Themes of the Bible. Planned to present Biblical concepts of God, man, history, covenant, prophecy, vocation, and related ideas. Class: 3 hours. Credit: 3 semester hours.

College of Sciences

Departments: Aerospace
Studies, Biology,
Chemistry, Geology,
Physics, Psychology

Edwin S. Hayes, Ph.D.,
Dean
Roger E. Yerrick, Ph.D.,
Associate Dean
Mrs. Hazel M. Pounders,
Secretary

The College of Sciences, formerly the School of Sciences, was established by the University in 1966 and comprises the departments of Aerospace Studies, Biology, Chemistry, Geology, Physics and Psychology. Prior to this reorganization, degrees had been granted in these areas by the School of Arts and Sciences, formed in 1952.

The Bachelor of Science degree is granted in Biology, Chemistry, Geology, Physics, Psychology, Medical Technology, Oceanographic Technology, and Environmental Science. The Bachelor of Arts degree is offered in Biology, Chemistry, Geology, and Psychology.

Information concerning graduate programs in Biology and Chemistry may be found in the Graduate Bulletin.

General Statement

Success in scientific pursuits requires an inquiring mind, thorough grounding in fundamental theory, and manipulative skill. The ultimate of success is attained when these qualities are developed against a broad background of liberal education.

Through a specialized curriculum, the student prepares himself for a career in business or industry, government service, teaching, research, advanced study, and other professional fields.

Pre-professional training geared to the biological sciences curriculum, prepares the student for careers in nursing, medical technology, medicine, dentistry, pharmacy, physical therapy, and veterinary medicine.

The pre-medical and pre-dental curricula have been programmed to satisfy requirements for admission to medical and dental schools. Completion of suggested curriculum leads to the Bachelor of Science in Biology degree from Lamar University after successful completion of one year in such a professional college.

Degree Offerings

Bachelor of Arts with majors in the following fields:

Biology

Geology

Chemistry

Psychology

Bachelor of Science with majors in the following fields:

Biology

Chemistry

Environmental Science

Geology

Oceanographic Technology

Medical Technology

Physics

Psychology



Department of Aerospace Studies

Department Head — Lt. Col. James V. Berryhill. *Assistant Professor* — Capt. Michael J. LaRocca. *Detachment Sergeant-Major* — T/Sgt. B. B. Davis. *Non-commissioned-officer-in-charge of Administration* — S/Sgt. M. P. Woods. *Department Secretary* — Linda Crosson.

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

There are two different programs in Air Force ROTC. The four-year program is recommended for entering freshmen. The two-year program is available for those students with a minimum of two years remaining of undergraduate or graduate study in the University. The four-year program is divided into two phases: a general military course (GMC) for freshmen and sophomores and a professional officers course (POC) for juniors and seniors. Two-year students take only the professional officers course, but are required to complete successfully a six-week field training program prior to acceptance into the POC.

AFROTC students receive free uniforms and textbooks, and all members of the professional officers course receive \$100 per month while participating in the program. Scholarships also are available, and those students interested should consult the head of the Department of Aerospace Studies.

Professional officer cadets are deferred from selective service. In unusual circumstances, general military cadets also may be deferred.

Four semesters of aerospace studies satisfy the requirements for physical education activity courses in all degree programs.

Additional courses in aerospace studies may be used as electives in degree programs.

AEROSPACE STUDIES (AER)

121 — First Year GMC. A study of the doctrine, mission and organization of the United States Air Force; U.S. strategic offensive and defensive forces: their mission, function and employment of nuclear weapons: civil defense. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

122 — First Year GMC. Aerospace defense; missile defense; U.S. general purpose and aerospace forces; the mission resources, and operation of tactical air forces with special attention to limited war; review of Army, Navy, and Marine general preparation forces. Class: 1 hour. Laboratory: 2 hours. Credit: 2 semester hours.

221 — Second Year GMC. Defense policies, theories of general war; policies and strategies of the Soviet Union and China, the role of alliances in U.S. defense policies. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

222 — Second Year GMC. Defense organizations and decision-making; organization and function of the department of defense; role of the military in United States national policies; the elements and processes of decision-making. Class: 1 hour. Laboratory: 1 hour. Credit: 2 semester hours.

331 — First Year POC. A study of communicative skills development; historical evaluation of air power; Aerospace power today; future of manned aircraft; history of space program; the spatial environment; space orbit and trajectories; space vehicle systems; space operations; future developments in space. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

332 — First Year POC. Growth and development of aerospace power. A continuation of AER 331. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

431 — Second Year POC. A study of professional leadership, and management with specific emphasis on Air Force leadership, Air Force discipline; variables affecting leadership; the pre-execution and execution phases of management planning, organizing, coordinating, directing and control; preparation for active duty. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.

432 — Second Year POC. The Professional Officer. A continuation of AER 431. Class: 3 hours. Laboratory: 1 hour. Credit: 3 semester hours.



Department of Biology

Department Head — Michael E. Warren. *Professors* — Edwin S. Hayes, Russell J. Long, Jed J. Ramsey, W. Russell Smith, Henry T. Waddell. *Associate Professors* — William T. Fitzgerald. *Assistant Professors* — George A. Bryan, Jr., Gilbert W. Gatlin, Richard C. Harrel, J. Leon McGraw, Philip B. Robertson, William C. Runnels. *Instructor* — Mrs. Karen Olson.

Program of Study

Bachelor of Science — Biology Major

First Semester	Second Semester
Eng — Composition3	Eng — Composition3
Bio 141 — General4	Bio 142 — General4
Chem 141 — General4	Chm 142 — General4
Mth 134 — Algebra3	Mth 133 — Trigonometry3
Elective3	Elective3
HPE — Activity1	HPE — Activity1
18	18
Second Year	Third Year
Eng — Literature6	Bio — Electives16
Bio — Elective8	Chm 343 — Quantitative4
Chm 341, 342 — Organic8	Chm 443 — Biological4
Phy 141, 142 — General8	Gov 231, 232 — State and Natl.6
His 231, 232 — American6	Electives6
HPE — Activity2	36
38	
Fourth Year	
Bio 416, 417 — Bio Lit2	
Bio — Electives8	
Electives20	
30	

Pre-Medical and Pre-Dental Recommended Program

First Year	Second Year
Same as for First Year of B.S. in Biology	Eng — Literature6
	Bio 240 — Comp Anatomy4
	Bio 243, 244 — Microbiology8
	Chm 341, 342 — Organic8
	His 231, 232 — American6
	Mth 1381 — Analyt Geom.3
	HPE — Activity2
	37

Professional Nurse Program

Two years of training in an approved hospital nursing school preceded by courses shown in this program of study qualifies a student to take the examination for becoming a registered nurse.

First Year

First Semester	Second Semester
Eng — Composition3	Eng — Composition3
Bio 133 — Anat and Physiol3	Bio 134 — Anat and Physiol3
Chm 143 — Introductory4	Bio 245 — Microbiology4
Psy 131 — Intr Human Behavior3	HEc 138 — Prin of Nutrition3
Soc 131 — Introduction3	Psy 234 — Child Psychology3
HPE — Activity1	HPE — Activity1
17	17

Bachelor of Science in Nursing Program

The following two-year program has been recommended for the student who plans to get a degree in nursing. For specific information consult the catalog of the college where the degree is to be given, and plan work at Lamar accordingly.

First Year

First Semester	Second Semester
Bio 133 — Anat & Physiology3	Bio 134 — Anat & Physiology3
Eng — Composition3	Eng — Composition3
Psy 131 — Intr Human Behavior3	Psy 234 — Child Psychology3
Elective3	Soc 131 — Introduction3
Elective*3	Elective*3
HPE — Activity1	HPE — Activity1
16	16

Second Year

First Semester	Second Semester
Bio Elective 3-4	Bio 245 — Microbiology4
Psy 241 — Intr Stat Mthds3	Elective3
His 231 — United States3	His 232 — United States3
Gov 231 — State and Natl3	Gov 232 — State and Natl3
Elective*3	Elective*3
HPE — Activity2	HPE — Activity2
17-18	18

*Advised Electives:

- HEc 138 (Nutrition)
- Eng. Lit. 2312-2316 (Sophomore Literature)
- Bio 130 (Fund. Mod Bio)

Pharmacy

First Year	Second Year
Bio 141, 142 — General8	Chm 341, 342 — Organic8
Chm 141, 142 — General8	Eco 233 — Principles3
Eng — Composition6	Eng — Literature6
His 231, 232 — United States6	Gov 231, 232 — State and Natl6
Mth 133, 134 — Trig, Alg6	Phy 141, 142 — General8
HPE — Activity2	HPE — Activity2
36	Electives3
	36

All colleges of pharmacy have a five year program, two pre-professional and three professional years. Students following the plan outlined above will be admitted to the first professional year of many colleges of pharmacy, including those at The University of Texas and The University of Houston. Consult the catalog of school of choice for specific requirements.

Physical Therapy

First Year	Second Year
Same as for First Year of B.S. in Biology. (Chm 143 and 144 recommended)	Eng — Literature6
Third Year	Bio 240 — Comp Anatomy4
Gov 231, 232 — State and Natl6	Bio 347 — Genetics4
Phy 141, 142 — General8	His 231, 232 — American6
Soc 132 — Social Problems3	Psy 131 — Intr Human Behavior3
Electives15	Psy 234 — Child Psychology3
<u>32</u>	Soc 131 — Introduction3
	HPE — Activity2
	<u>31</u>

The program outlined above will prepare the student for admission in a School of Physical Therapy such as that of The University of Texas Medical Branch at Galveston. Upon completion of the fourth year there, the student is awarded by that institution the B.S. in Physical Therapy and a Certificate of Proficiency. Consult the professional school of your choice for specific admission requirements.

Veterinary Medicine

First Year	Second Year
Eng — Composition6	Eng — Literature6
Bio 141, 142 — General8	Bio 345 — General Botany4
Chm 141, 142 — General8	Chm 341, 342 — Organic8
His 231, 232 — United States6	Gov 231, 232 — State and Natl6
Mth 133 — Trigonometry3	Phy 141 — Mechanics4
Mth 134 — Algebra3	Phy 142 — Electricity, etc.4
HPE — Activity2	Elective3
<u>36</u>	HPE — Activity2
	<u>37</u>

Bachelor of Science — Environmental Science

Fall Semester	First Year	Spring Semester
Bio 141 — General4	Bio 142 — General4	Bio 142 — General4
Chm 141 — General4	Chm 142 — General4	Chm 142 — General4
Eng — Composition3	Eng — Composition3	Eng — Composition3
Mth 133 (1381) — Trig (Analyt Geom)3	Mth 134 (1391) — Alg (Cal I)3	Mth 134 (1391) — Alg (Cal I)3
His 231 — American3	His 232 — American3	His 232 — American3
HPE — Activity1	HPE — Activity1	HPE — Activity1
<u>18</u>		<u>18</u>

Second Year

Fall Semester	Spring Semester
Bio 243 — Microbiology.....4	Bio 244 — Microbiology.....4
Chm 343 — Quant Analysis.....4	Eng — Literature.....3
Eng — Literature.....3	Phy 142 — General.....4
Mth 1381 (2311) — An Geom (Calc II)....3	HPE — Activity.....1
Phy 141 — General.....4	Electives.....6
HPE — Activity.....1	18
19	

Third Year

Fall Semester	Spring Semester
Bio 446 — Terrestrial Ecology.....4	Chm 342 (244) — Organic (Phys).....4
Chm 341 (243) — Organic.....4	Chm 334 — Air Analysis.....3
CE 331 — Env Sci.....3	Gov 232 — State and Natl.....3
Eng 3311 — Tech Writing.....3	Electives.....7
Gov 231 — State and Natl.....3	17
17	

Fourth Year

Fall Semester	Spring Semester
Bio 443 — Limnology.....4	Chm 443 — Biochemistry.....4
Chm 410 — Sem Env Sci.....1	CE 433 — Env Hlth Egr.....3
Chm 434 — Air Poll Surveys.....3	Electives.....8
Electives.....7	15
15	

Completion of this program will qualify graduates for governmental and industrial positions concerned with the prevention, detection and abatement of pollution detrimental to the quality of the environment. Interdisciplinary by design, the curriculum affords latitude in the selection of electives, thus providing for the enhancement of competence in fields of primary interest.

BIOLOGY (Bio)

130 — Fundamentals of Modern Biology. Basic biological concepts relevant to human welfare and the quality of life. Emphasis on approach to social problems through environmental and population control, conservation of natural resources, and the genetic basis for human betterment. A student may not receive credit for Bio 130 and Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

133-134 — Human Anatomy and Physiology. Human anatomy and physiology with special emphasis on problems in nursing. Laboratory includes experiments in vertebrate physiology, and the dissection of a mammal. Class: 3 hours. Laboratory: 2 hours. Credit: 3 semester hours for each semester.

141-142 — General Biology. A brief survey of living things; a comparison of structural and functional adaptations for fundamental life processes; principles of reproduction, inheritance, development and phylogenetic relationships; interactions of organisms with the environment. Credit for first semester prerequisite for enrollment in second. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours per semester.

240 — Comparative Anatomy of the Vertebrates. Comparative anatomy presented from systemic viewpoint. Designed primarily for biology majors, pre-medical, and pre-dental students. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

243-244 — Microbiology. Micro-organisms with emphasis on bacteria in soil, water, milk, and sewage. Laboratory includes the isolation, cultivation, and identification of common bacteria. The last half of the second semester is devoted to the study of bacteria, rickettsiae and viruses in relation to disease; theories of antigen-antibody responses; and the immunization of a laboratory animal. Recommended for biology majors, pre-medical, pre-dental, and medical technology students. Credit for first semester prerequisite for enrollment in second. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours per semester.

245 — Introductory Microbiology. Micro-organisms with emphasis on those of medical significance. Special consideration is given to problems of personal and community health. Laboratory includes the sterilization of culture media and glassware, cultivation and study of common bacteria. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

330 — Applied Anatomy and Kinesiology. Structural organization of the human body and the analysis of human motion. Includes skeletal system, attachments and actions of muscles. Emphasis is placed on the mechanics of support and of motion. Prerequisite: Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

332 — Anatomy and Physiology of Speech and Hearing. Human structure and function with special emphasis on respiration and hearing. Designed for majors in speech and hearing pathology. Prerequisite: Bio 141-142. Class: 3 hours. Credit: 3 semester hours.

341 — Histology and Histological Technique. Study of normal tissues of vertebrates. Technical phase of the course includes fixation and staining of tissues, paraffin sections, conventional mounting. Designed for biology majors, pre-medical, pre-dental, and medical technology students. Prerequisite: Bio 141-142 and 240 or 243-244. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

342 — Embryology. Comparative study of the development of vertebrates, including meiosis, fertilization, cleavage, and early embryology. Detailed organogeny of the chick. Recommended for biology majors, pre-medical and pre-dental students. Prerequisite: Bio 141-142, 240. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

343 — Introduction to Medical Technology. Survey of procedures used in clinical laboratories, including practice in hematology, serology, and urinalysis. Designed for medical technology students. Prerequisite: Bio 141-142, 243-244. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

344 — Advanced Physiology. Principles of general physiology, with special reference to cell metabolism, muscle-nerve relations, digestive, circulatory, respiratory, excretory, nervous, and endocrine systems. Designed primarily for biology majors, pre-medical and pre-dental students. Prerequisite: Bio 141-142, 240 or 243-244 and Chm 243-244 or Chm 341-342. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

345 — General Botany. Introduction to plant structure and functions with emphasis on the seed plants. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

346 — Invertebrate Zoology. Detailed study of the invertebrate phyla. Classification, natural history, phylogenetic relationships, and economic importance. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

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

416-417 — Current Biological Literature. Reports by advanced students on research published in current professional periodicals. Required for biology majors. Recommended by pre-medical and pre-dental students. Prerequisite: 16 semester hours of biology. Class: 1 hour. Credit: 1 semester hour per semester.

430 — Undergraduate Problems. Designed to afford opportunity for senior students to pursue individual interests in the investigation of problems in biology. Research to be directed by staff, and approval of department head required. Credit: 3 semester hours.

440 — Ornithology. Natural history, taxonomy and ecology of birds. Lecture: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

441 — Parasitology. A study of animal parasites including morphology, life history, and host-parasite relationships. Special emphasis on helminthic parasites of man and other vertebrates. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

442 — Entomology. Physiology, morphology, life history, and control of insects, with emphasis on collection, identification, and classification. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

443 — Limnology. Fauna, flora, ecology and productivity of fresh water. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

444 — Vertebrate Natural History. Fish, amphibians, reptiles, birds, and mammals, with emphasis on collection, identification, and natural history of area forms. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

445 — Marine Biology. Ecology of marine plants and animals. Emphasis on habitats and community relationships. Recommended for biology majors. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

446 — Terrestrial Ecology. A study of the interrelationships of terrestrial organisms and their environment. Laboratory stresses quantitative approach to both field and experimental studies. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

447 — Cellular Biology. Structure and function of the cell and its organelles. Prerequisites: Bio 341, Chm 341-342. Lecture: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

449 — Protistology. Morphology, taxonomy and ecology of protozoa, algae and fungi. Prerequisite: Bio 141-142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

4101, 4201, 4301 — Institute in Biological Sciences. Designed to provide credit for participation in summer, in-service or other institutes. Credit varies with duration. May be repeated for credit when nature of institute differs sufficiently from those taken previously. Class: 1-3 hours. Credit: 1-3 semester hours.

Department of Chemistry

Department Head — Harold T. Baker. *Director of Environmental Science* — Ewin A. Eads. *Professors* — Margaret D. Cameron, Roger E. Yerick. *Associate Professors* — Kenneth L. Dorris, Joe N. Fields, Joe M. Mejia. *Assistant Professors* — Keith C. Hansen, Anne Harmon, J. Dale Ortego, John A. Whittle. *Stockroom Supervisor* — Horace L. Grayson. *Secretary* — Mrs. June Braquet.

The Department of Chemistry has been approved by the Professional Committee of the American Chemical Society. The following B.S. program is recommended as preparatory to graduate work in chemistry:

Bachelor of Science — Chemistry Major

First Year	Second Year
Chm 141, 142 — General.....8	Chm 341, 342 — Organic.....8
Eng — Composition *.....6	Eng — Literature.....6
Mth 1381 — Anal. Geom.....3	Mth 2311, 2321 — Calculus II & III.....6
Mth 1391 — Calculus I.....3	Phy 140 — Mechanics.....4
Bio or Geo 141, 142 — General.....8	Phy 241 — Heat, Elect, Mag.....4
HPE — Activity.....2	His 231, 232 — United States.....6
30	34
Third Year	Fourth Year
Chm 343 — Quantitative.....4	Chm 433 — Modern Physical.....3
Chm 431, 432 — Physical.....6	Chm 446 — Instrumental.....4
Chm 413 — Physical Lab.....1	Chm 411 — Chm Literature.....1
Chm 414 — Physical Lab.....1	Chm 436 — Inorganic.....3
Phy 242 — Sound, Light, Quanta.....4	Chm 444 — Organic Analysis.....4
Ger 141, 142 — First Year.....8	Chm 412 — Senior Seminar.....1
Gov 231, 232 — State and Natl.....6	Ger 230 — Technical Transl.....3
HPE.....4	Electives.....11
34	30

Bachelor of Arts — Chemistry Major

A pre-medical or pre-dental program in chemistry. A minor in biology is recommended for these programs.

First Year	Second Year
Chm 141, 142 — General.....8	Chm 343 — Quantitative.....4
Eng — Composition *.....6	Chm 333 — Inorganic.....3
Mth 1381 — Anal. Geom.....3	Eng — Literature.....6
Mth 1391 — Calculus I.....3	Mth 2311, 2321 — Calculus II & III.....6
Language 141, 142 — Frst. Yr.....8	Language — Second Year.....6
HPE — Activity.....2	Phy 141, 142 — General.....8
30	33

* Selected with approval of department.

Third Year

Chm 341, 342 — Organic	8
Chm 431, 432 — Physical.....	6
Chm 413, 414 — Physical Lab.....	2
Bio or Geo 141, 142 — General.....	8
Minor or Electives.....	6
HPE	4
	<u>34</u>

Fourth Year

His 231, 232 — United States.....	6
Gov 231, 232 — State and Natl.....	6
Minor or Electives.....	19
	<u>31</u>

**Bachelor of Science in Biology
Bachelor of Science in Chemistry**

First Year

Bio 141, 142 — General	8
Chm 141, 142 — General.....	8
Eng — Composition *	6
Mth 1381 — Anal. Geom.	3
Mth 1391 — Calculus I	3
HPE	2
Electives	6
	<u>36</u>

Second Year

Chm 341, 342 — Organic.....	8
Bio 243 — Microbiology.....	4
Bio 244 — Microbiology	
or	
Bio 240 — Comparative.....	4
Mth 2311 — Calculus II.....	3
Eng. — Literature	6
Phy 141-142 — General.....	8
Chm 333 — Inorganic	3
	<u>36</u>

Summer

Chm 431 — Physical	3
Gov 231, 232 — St. & Nat'l.	6
HPE	2
Electives	3
	<u>14</u>

* Selected with approval of department.

Third Year

His 231, 232 — U.S.....	6
Bio 344 — Adv. Physiology.....	4
Bio 341 — Histology.....	4
Bio 342 — Embryology.....	4
Chm 413 — Physical Lab	1
Chm 343 — Quant. Anal.	4
Phy 335 — Modern	3
Electives	6
HPE	4
	<u>36</u>

Fourth Year

Bio 416 or 417 — Bio. Lit.....	1
Bio 441 — Parasitology.....	4
Bio 347 — Genetics.....	4
Chm 443 — Biochem.....	4
8 Semester Hours	
Chosen From	
Chm 432 — Physical	}
Chm 414 — Physical Lab	
Chm 444 — Org. Qual.	
Chm 446 — Instr. Anal.	
Electives	11
	<u>32</u>

Both degrees must be awarded simultaneously.

CHEMISTRY (Chm)

130 — Introductory Environmental Science. Fundamental concepts of environmental systems as related to urban affairs and man's environment. Air, water and soil pollution with control methods related to the modern technological society. Class: 3 hours. Credit: 3 semester hours.

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

142 — General. A continuation of Chm 141. Elementary qualitative analysis and theories of solutions and equilibrium. Properties of the elements. Prerequisite: Chm 141. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

143 — Introductory. For non-science majors. A survey course in elementary chemistry. Lecture and laboratory work in inorganic chemistry. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

144 — Introductory. For non-science majors. Continuation of Chm 143. Nuclear science, elementary organic and physiological chemistry. Prerequisite: Chm 143 or 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

243 — Organic. Fundamental principles of chemistry of aliphatic and aromatic compounds. Prerequisite: Chm 144 or 142. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

244 — Physiological. An elementary course in physiological chemistry. Prerequisite: Chm 243 or 341. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

331 — Radiochemistry. Basic concepts of nuclear science. Principles and use of radiation measuring devices. Prerequisite: Chm 141, 142 or equivalent; or Phy 141, 142 or equivalent. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

333 — Inorganic. Generalization involving atomic and nuclear theory. Properties of the elements, with emphasis on similarities and differences within and between groups and transitional series. Non-aqueous solvents, acids, bases, oxidation-reduction, etc. Prerequisite: Chm 142. Class: 3 hours. Credit: 3 semester hours.

334 — Air Analysis. Theory and practice of chemistry as required in determination of ambient air quality. Prerequisite: Chm 241, Mth 1381. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

341 — Organic. Current theories and chemical principles that relate to the field of organic chemistry. Prerequisite: Chm 142. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

342 — Organic. A continuation of Chm 341. Prerequisite: Chm 341. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

343 — Quantitative Analysis. Theory and practice of analytical chemistry, utilizing gravimetric and titrimetric techniques. Prerequisite: Chm 142, Mth 133, 134. Class: 3 hours. Laboratory: 5 hours. Credit: 4 semester hours.

410 — Seminar in Environmental Science. Reports and assigned reading. Prerequisite: senior standing. Class: 1 hour. Credit: 1 semester hour.

411 — Chemical Literature. Lecture and assigned reading in the chemical literature. Chemical literature search on an advanced level. Prerequisite: Chm 342, reading knowledge of German. Class: 1 hour. Credit: 1 semester hour.

412 — Senior Seminar. Reports and assigned reading. Prerequisite: senior standing in Chemistry. Class: 1 hour. Credit: 1 semester hour.

413 — Physical Laboratory. Laboratory applications of modern theory in physical chemistry. Prerequisite: Chm 343, Chm 431 (or parallel). Laboratory: 4 hours. Credit: 1 semester hour.

414 — Physical Laboratory. Continuation of Chm 413. Prerequisite: Chm 413. Laboratory: 4 hours. Credit: 1 semester hour.

431 — Physical. Thermodynamic principles; modern chemical theory as applied to gases, liquids and solids. Prerequisites: Chm 142, Phy 142 or 241, Mth 2321 (or parallel). Class: 3 hours. Credit: 3 semester hours.

432 — Physical. A continuation of Chm 431. Prerequisite: Chm 431. Class: 3 hours. Credit: 3 semester hours.

433 — Modern Physical. Selected topics in modern physical chemistry. Prerequisite: Chm 432 (or parallel). Class: 3 hours. Credit: 3 semester hours.

434 — Air Pollution Surveys. Chemical, physical, meteorological, biological, bacteriological and epidemiological factors as applied to determine the extent of environmental damage from air pollution. Prerequisites: Chm 334 and senior standing. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

436 — Inorganic. Study of the quantized atom, periodicity, characteristics of the extra-nuclear structure. Valency and the chemical bond, complexions and coordination compounds. Prerequisite: Chm 432 (or parallel). Class: 3 hours. Credit: 3 semester hours.

443 — Biochemistry. Principles of biochemistry. Current theories of chemistry as applied to biochemical materials. Prerequisite: Chm 342, 343 (or parallel). Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

444 — Qualitative Organic Analysis. A systematic study of methods for the identification of organic compounds and mixtures of organic compounds. Prerequisite: Chm 341 and 342. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours.

427, 437, 447 — Introduction to Research. Junior and senior chemistry students. Problems are on the undergraduate level and emphasize research techniques. With approval of the department head, these courses may be repeated for credit. Prerequisite: B average in all previous chemistry courses. Credit: 2, 3, or 4 semester hours.

446 — Instrumental Methods of Analysis. Instrumental techniques in modern analytical chemistry. Theory and practice in optical, electrometric, and chromatographic methods. Prerequisite: Chm 343, 432 (or parallel), Mth 2311, Phy 142 or 241. Class: 3 hours. Laboratory: 4 hours. Credit: 4 semester hours.

4101, 4201, 4301, 4401 — Special Topics in Chemistry. Topics in undergraduate analytical, inorganic, organic, or physical chemistry. Library and/or laboratory work and conferences with a staff member. The description of the particular area of study will appear on the printed semester schedule. A student may repeat the course for credit when the area of study is different. Credit: 1-4 semester hours.

Department of Geology

Department Head — H. E. Eveland. *Professors* — Saul Aronow, William H. Matthews. * *Associate Professors* — William R. Pampe, Anthony C. Tennissen, Robert R. Wheeler. *Assistant Professors* — Darrell E. Davis, Ernest L. Estes, Ronald J. Scrudato, P. B. Snyder, James B. Stevens. *on leave.

Program of Study

Bachelor of Science — Geology Major

First Year	
First Semester	Second Semester
Geo 141 — Physical.....4	Geo 142 — Historical.....4
Chem 141 or 143.....4	Chm 142 or 144.....4
Mth 1334 — Algebra-Trig.....3	Mth 1381 — Analyt Geom.....3
Eng — Composition.....3	Eng — Composition.....3
HPE — Activity.....1	HPE — Activity.....1
<u>15</u>	<u>15</u>

Second Year	
First Semester	Second Semester
Geo 241 — Mineralogy.....4	Geo 242 — Petrology.....4
Bio 141 — General.....4	Bio 142 — General.....4
Mth 1391 — Calculus I.....3	CS 131 — Computers.....3
Eng — Literature.....3	Spc 131 or 331.....3
HPE — Activity.....1	Egr 114 — Graphics.....1
<u>15</u>	HPE — Activity.....1
	<u>16</u>

Third Year	
First Semester	Second Semester
Geo 343 — Paleontology.....4	Geo 342 — Structure.....4
Phy 141 — General.....4	Phy 142 — General.....4
Gov 231 — Constitutions.....3	Gov 232 — State-National.....3
Electives.....6	Psy 241 — Statistics.....4
<u>17</u>	<u>15</u>

Summer
Geo 360 — Field Camp.....6

Fourth Year	
First Semester	Second Semester
Senior Geology.....3	Senior Geology.....3
His 231 — United States.....3	Senior Geology.....3
Advanced Science*.....3	Geo 419 — Seminar.....1
Advanced Arts**.....3	His 232 — United States.....3
Elective.....3	Electives.....6
<u>15</u>	<u>16</u>

Bachelor of Arts — Geology Major

First Year

First Semester		Second Semester	
Geo 141 — Physical.....	4	Geo 142 — Historical.....	4
Chm 143 — Introductory.....	4	Bio 141 — General.....	4
Mth 1334 — Algebra-Trig.....	3	Phy 137 — Astronomy.....	3
Eng — Composition.....	3	Eng — Composition.....	3
HPE — Activity.....	1	HPE — Activity.....	1
	<u>15</u>		<u>15</u>

Second Year

First Semester		Second Semester	
Geo 241 — Mineralogy.....	4	Geo 242 — Petrology.....	4
Foreign Language.....	4	Egr 114 — Graphics.....	1
Gov 231 — Constitutions.....	3	Foreign Language.....	4
Eng — Literature.....	3	Gov 232 — State-National.....	3
HPE — Activity.....	1	Eng — Literature.....	3
	<u>15</u>	HPE — Activity.....	1
			<u>16</u>

Third Year

First Semester		Second Semester	
Geo 343 — Paleontology.....	4	Geo 342 — Structure.....	4
Foreign Language.....	3	Foreign Language.....	3
His 231 — United States.....	3	His 232 — United States.....	3
Electives.....	6	Psy 241 — Statistics.....	4
	<u>16</u>	Elective.....	3
			<u>17</u>

Fourth Year

First Semester		Second Semester	
Senior Geology.....	3	Senior Geology.....	3
Advanced Science*.....	3	Senior Geology.....	3
Advanced Arts**.....	3	Geo 419 — Seminar.....	1
Advanced Arts**.....	3	Advanced Arts**.....	3
Elective.....	3	Electives.....	6
	<u>15</u>		<u>16</u>

* A junior or senior course selected from Bio, Chm, Phy, Mth, or Egr.

** A junior or senior course selected from Eng, Soc, Gov, His, Phi, Ant, Eco, Spc, or Art.

Bachelor of Science — Oceanographic Technology — Generalized Option

First Year

First Semester		Second Semester	
Chm 141 or 143.....	4	Chm 142 or 144.....	4
Bio 141 — General.....	4	Bio 142 — General.....	4
Mth 1334 — Algebra-Trig.....	3	Mth 1381 — Analyt Geom.....	3
Eng — Composition.....	3	Eng — Composition.....	3
HPE — Activity.....	1	HPE — Activity.....	1
	<u>15</u>		<u>15</u>

Second Year

First Semester		Second Semester	
Phy 141 — General	4	Phy 142 — General	4
CS 131 — Computers	3	Geo 141 — Physical	4
Mth 1391 — Calculus I	3	Egr 114 — Graphics	1
Eng — Literature	3	Egr 233 — Circets-Flds	3
HPE 227 — Swimming	2	Spc 131 — Fundamentals	3
	<u>15</u>	HPE 228 — Life Saving	2
			<u>17</u>

Third Year

First Semester		Second Semester	
Geo 337 — Meteorology	3	Bio 445 — Marine Bio	4
Geo 344 — Gnr1 Oceanography	4	CE 331 or CE 339	3
His 231 — United States	3	Gov 231 — Constitutions	3
Electives	6	His 232 — United States	3
	<u>16</u>	Elective	3
			<u>16</u>

Summer

Geo 361 — Field Course.....6

Fourth Year

First Semester		Second Semester	
Egr 212 — Machine Shop	1	Geo 417 — Ocean Seminar	1
Eng 3311 — Tech Report Writing	3	Geo 423 — Shipboard Op	2
Science Electives	8	Geo 433 — Geophysics	3
Gov 232 — State and Natl	3	Geo 421 — Physical Oceanography	2
	<u>15</u>	Mth 438 — Probability and Statistics	3
		EE 438 — Instrumentation	3
			<u>14</u>

Bachelor of Science — Oceanographic Technology — Marine Biology Option

First Year

First Semester		Second Semester	
Bio 141 — General	4	Bio 142 — General	4
Chm 141 — General	4	Chm 142 — General	4
Mth 1334 — Algebra-Trig	3	Mth 1381 — Analyt Geom	3
Eng — Composition	3	Eng — Composition	3
HPE 111 — Activity	1	HPE 112 — Activity	1
	<u>15</u>		<u>15</u>

Second Year

First Semester		Second Semester	
Bio 444 — Vert Nat Hist	4	Geo 141 — Physical	4
Phy 141 — General	4	Phy 142 — General	4
Mth 1391 — Calculus I	3	His 231 — American	3
Eng — Literature	3	Psy 241 — Statistics	4
HPE 227 — Swimming	2	HPE 228 — Life Saving	2
	<u>16</u>		<u>17</u>

Third Year

First Semester		Second Semester	
Bio 346 — Invert Zool	4	Bio 445 — Marine Biol.....	4
Geo 344 — Gnrl Oceanography.....	4	Bio 449 — Protistology.....	4
Chm 243 — Organic.....	4	Chm 244 — Organic.....	4
His 232 — American.....	3	Elective.....	3
	<u>15</u>		<u>15</u>

Summer

Geo 361 — Field Course . . . 6

Fourth Year

First Semester		Second Semester	
Bio 344 — Adv. Physiol.....	4	Bio 443 — Limnology.....	4
Bio 446 — Ecology.....	4	Bio 417 — Bio. Lit.....	1
Geo 337 — Meteorology.....	3	Gov 232 — State-Nation.....	3
Eng 3311 — Tech Writing.....	3	Geo 417 — Ocean Seminar.....	1
Gov 231 — Constitution.....	3	Geo 421 — Phys Ocean.....	2
	<u>17</u>	Geo 423 — Shipboard Op.....	2
		Elective.....	3
			<u>16</u>

Bachelor of Science — Oceanographic Technology — Marine Geology Option

First Year

First Semester		Second Semester	
Geo 141 — Physical.....	4	Geo 142 — Historical.....	4
Chm 141 or 143.....	4	Chm 142 or 144.....	4
Mth 1334 — Algebra-Trig.....	3	Mth 1381 — Analyt.....	3
Eng — Composition.....	3	Eng — Composition.....	3
HPE 111 — Activity.....	1	HPE 112 — Activity.....	1
	<u>15</u>		<u>15</u>

Second Year

First Semester		Second Semester	
Geo 241 — Mineralogy.....	4	Geo 242 — Petrology.....	4
Bio 141 — General.....	4	Bio 142 — General.....	4
Mth 1391 — Calculus I.....	3	Gov 231 — Constitution.....	3
Eng — Literature.....	3	Egr 114 — Graphics.....	1
HPE 227 — Swimming.....	2	CS 131 — Comput & Info Sci.....	3
	<u>16</u>	HPE 228 — Life Saving.....	2
			<u>17</u>

Third Year

First Semester		Second Semester	
Geo 337 — Meteorology.....	3	Geo 342 — Structure.....	4
Phy 141 — General.....	4	Phy 142 — General.....	4
Geo 344 — Gnrl Oceanography.....	4	His 231 — American.....	3
Gov 232 — State-National.....	3	CE 339 — Soils Science.....	3
Elective.....	3	Elective.....	3
	<u>17</u>		<u>17</u>

Summer

Geo 361 — Field Course . . . 6

Fourth Year

First Semester	Second Semester
His 232 — American.....3	Bio 445 — Marine Biology.....4
Eng 3311 — Tech Writing.....3	Mth 438 — Prob. Statist.....3
Senior Geology.....3	Geo 417 — Ocean Seminar.....1
Electives.....6	Geo 421 — Phys. Ocean.....2
15	Geo 423 — Shipboard Op.....2
	Geo 433 — Geophysics.....3
	15

Bachelor of Science — Oceanographic Technology — Ocean Engineering Option

First Year

Fall	Spring
Chm. 141 or 143.....4	Chm 142 or 144.....4
Geo 141 — Physical.....4	Phy 241 — General.....4
Mth 1381 — Anal. Geometry.....3	Mth 1391 — Calculus I.....3
Eng — Composition.....3	Eng — Composition.....3
HPE 111 — Activity.....1	HPE 112 — Activity.....1
15	15

Second Year

Fall	Spring
Phy 242 — General.....4	Mth 2321 — Calculus III.....3
Mth 2311 — Calculus II.....3	Egr 231 — Dynamics.....3
Egr 132 — Statics.....3	CS 131 — Comput & Info Sci.....3
Egr 114 — Graphics.....1	CE 314 — Surveying.....1
CE 313 — Measurements.....1	His 231 — American.....3
Eng — Literature.....3	HPE 228 — Life Saving.....2
HPE 227 — Swimming.....2	15
17	

Third Year

Fall	Spring
Egr 232 — Strength Materials.....3	Egr 234 — Thermodynamics.....3
Egr 233 — Circuits-fields.....3	IE 333 — Egr Economics.....3
CE 331 — Environ. Science.....3	CE 339 — Soils Sciences.....3
Gov 231 — Constitutions.....3	Gov 232 — State-Nation.....3
His 232 — American.....3	Elective.....3
18	15

Summer

Geo 361 — Field Course . . . 6

Fourth Year

Fall	Spring
CE 413 — Photogrametry.....1	Egr 331 — Fluid Mechanics.....3
Geo 337 — Meteorology.....3	Egr 4101 — Egr Seminar.....1
Egr 334 — Stress Anal.....3	Geo 417 — Ocean Seminar.....1
Eng 3311 — Tech. Writing.....3	Geo 421 — Phys. Oceanography.....2
Electives.....6	Geo 423 — Shipboard Operations.....2
16	Geo 433 — Geophysics.....3
	Mth 438 — Prob-Statistics.....3
	15

GEOLOGY (Geo)

141 — Physical Geology. Earth materials, structures, land forms, mineral resources, and the processes which have formed them. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

142 — Historical Geology. History of the earth and its life. Prerequisite: Geo 141. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

220 — Geology for Engineers. A survey of physical geology with emphasis on geologic problems in engineering practice. Primarily for engineering students. A student may not receive credit for both Geo 220 and Geo 141. Class: 2 hours. Laboratory: 2 hours. Credit: 2 semester hours.

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

238 — Cultural Geography. History and distribution of cultural groups with emphasis upon the interaction between geographic environment and human cultures. Class: 3 hours. Credit: 3 semester hours.

239 — History of Life. History of the earth and its inhabitants, with emphasis on the life forms and their development. Includes the study of geologic time, fossils, and prehistoric man. A student may not receive credit for both Geo 239 and Geo 142. Class: 3 hours. Credit: 3 semester hours.

241 — Mineralogy. The classification, properties, occurrence, and identification of minerals. Field trip required. Prerequisite: Geo 141 and Chm 141 or 143. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

242 — Petrology. The classification, properties, occurrence, and identification of igneous, sedimentary and metamorphic rocks. Field trip required. Prerequisite: Geo 241. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

335 — Earth Materials. The identification, classification, occurrence, and economic significance of minerals and rocks. Field trip required. A student may not receive credit for both Geo 335 and Geo 241-242. Prerequisite: Geo 141, Geo 237, or Geo 239. Class: 3 hours. Credit: 3 semester hours.

336 — Geology of Texas. The topography, physiography, structure, geologic history, and mineral deposits of Texas. Field trip required. Prerequisite: Geo 142 or Geo 239. Class: 3 hours. Credit: 3 semester hours.

337 — Meteorology. The structure, properties, and processes of the atmosphere. The role of climate and weather in the total environment. Prerequisite: 6 hours of elementary science. Class: 3 hours. Credit: 3 semester hours.

338 — Oceanography. The structure, properties, and processes of the hydrosphere. The role of the seas and oceans in the total environment. Prerequisite: 6 hours of elementary science. Class: 3 hours. Credit: 3 semester hours.

339 — Environmental Geography. The environmental significance of man's development, abuse and conservation of his atmospheric, aquatic and mineral resources. Field trips required. Prerequisite: one of these: Geo 141, 237, 238, or 239. Class: 3 hours. Credit: 3 semester hours.

342 — Structural Geology. Rock deformation and the resulting structures. Field trip required. Prerequisite: Geo 142 and Mth 133. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

343 — Paleontology. The classification, morphology, and identification of invertebrate fossils. Field trip required. Prerequisite: Geo 142 or 239. Class: 3 hours. Laboratory: 3 hours. Credit: 3 semester hours.

344 — General Oceanography. Introduction to principles of oceanography. Geology of ocean basins, near shore processes, chemistry of sea water, physics of the sea, and biological environments of the ocean. Prerequisite: Geo 141, Chm 142 or 144. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

360 — Summer Field Course. Description of stratigraphic sections, preparation of geologic maps and field reports. Duration: 6 weeks. Total cost: \$200-\$300. Prerequisite: Geo 342 and Egr 114. Class: 5 hours. Laboratory: 40 hours. Credit: 6 semester hours.

361 — Field Course in Estuarine and Coastal Oceanography. Studies in near shore geological processes. The application of standard sampling devices. Field work along the coast and on shore. Laboratory analysis of samples. Small boat handling. Duration: 6 weeks. Prerequisite: Geo 344. Class: 5 hours. Laboratory: 40 hours. Credit: 6 semester hours.

417 — Oceanographic Technology Seminar. Reports on current literature in oceanography. Prerequisite: Geo 344. Class: 1 hour. Credit: 1 semester hour.

418 — Earth Science Literature. Reports on current source materials. Not open to geology majors. Prerequisite: 12 hours of Geology. Class: 1 hour. Credit: 1 semester hour.

419 — Seminar. Reports on current literature. Prerequisite: 24 hours of Geology. Class: 1 hour. Credit: 1 semester hour. (May be repeated for credit.)

421 — Physical Oceanography. Physical processes and properties of oceans; their relationships to atmosphere and solid earth. Dynamics of oceanic current systems. Wind currents, waves, and tides. Prerequisite: Geo 344. Class: 2 hours. Credit: 2 semester hours.

422 — X-ray Crystallography. Use of X-ray diffraction techniques to identify minerals and other crystalline substances. For advanced science and engineering students. Prerequisite: one year of Chemistry or Physics. Laboratory: 6 hours. Credit: 2 semester hours.

423 — Shipboard Operations. Designed to familiarize students in technical operations undertaken on oceanographic vessels. Concurrent registration in EE 438 required. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

427, 428 — Special Project. An individual library, laboratory, or field project. To receive credit, an acceptable typewritten report is required. Credit: maximum of 4 semester hours.

431 — Sedimentation. The derivation, transportation, and deposition of sediments, with emphasis on environmental factors. Laboratory techniques for the study of sediments. Field trip required. Prerequisite: Geo 242. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

432 — Stratigraphy. The history, distribution, and correlation of sedimentary strata. Field trip required. Prerequisite: Geo 343. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

433 — Geophysics. Application of the principles of physics to geologic problems. Use of geophysical techniques in petroleum exploration. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

434 — Geology of the United States. A regional study of the geomorphology, structural geology, and geologic history of the United States. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

435 — Geomorphology. The development and classification of land forms. Field trip required. Prerequisite: Geo 342. Class: 3 hours. Credit: 3 semester hours.

436 — Optical Mineralogy. Optical properties of minerals. Use of the polarizing microscope in the identification of minerals and rocks. Prerequisite: Geo 242. Class: 2 hours. Laboratory: 3 hours. Credit: 3 semester hours.

437 — Economic Geology. Occurrence and origin of commercially valuable metallic and non-metallic minerals and rocks. Exploration and development of deposits. Field trip required. Prerequisite: Geo 242 and 342. Class: 3 hours. Credit: 3 semester hours.



Department of Physics

Department Head — Carl J. Rigney. *Professors* — Roy H. Biser. *Associate Professors* — G. F. Landegren, Hugh O. Peebles, Joseph F. Pizzo, J. G. Shepherd. *Assistant Professor* — Oscar T. Goines. *Stockroom Supervisor* — Horace Boudreaux. *Departmental Secretary* — Donna Fore.

High school preparation for the physics major must include 2 units of algebra and 1/2 unit of trigonometry. Those having inadequate high school mathematics must take Math 133 and/or Math 134 to make up the deficiency, preferably in the summer session preceding the freshman year of college.

Physics is the fundamental science. A major in physics can serve as an excellent basis for almost any career. Accordingly, the program of study in physics at Lamar University is offered with many possible options. The individual student may choose a listed option or plan an alternative with the departmental counselor.

Bachelor of Science — Physics Major

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

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

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

Suggested Program of Study

Fall Semester		Spring Semester	
Eng Composition	3	Eng Composition	3
Mth 1381—Analyt.....	3	Mth 1391—Calc. I.....	3
Chm 141—General.....	4	Chm 142—General.....	4
Phy 110—Phy Today.....	1	Phy 140—Introductory.....	4
Electives.....	3-6	Elective.....	3
HPE.....	1	HPE.....	1
	15-18		18
Fall Semester		Spring Semester	
Eng Literature.....	3	Eng Literature.....	3
Mth 2311 — Calc. II.....	3	Mth 2312 — Calc. III.....	3
Phy 241 — Introductory.....	4	Phy 242 — General.....	4
Bio 141 — General.....	4	Bio 142 — General.....	4
His 231 — United States.....	3	His 232 — United States.....	3
HPE.....	2	HPE.....	2
	19		19

Third Year

Fall Semester		Spring Semester	
Phy 335 — Modern Physics.....	3	Physics.....	3-4
Mth 331 — Diff Equations.....	3	Option.....	6-9
Option.....	6-9	Elective.....	3
Gov 231 — St and Nat.....	3	Gov 232 — St and Nat.....	3
	15-18		15-19

Fourth Year

Fall Semester		Spring Semester	
Physics.....	3-5	Physics.....	3-4
Option.....	6-9	Option.....	6-9
Electives.....	3-6	Electives.....	3-6
	15-19		15-19

List of options:

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

Pre-Medical: 16-20 hours additional Biology, 8-16 hours additional Chemistry. Suggested electives: Psychology and Sociology.

Life Science: 16 hours additional Biology, 8-12 hours Geology, 8-12 hours additional Chemistry. Electives unrestricted.

Oceanography: 8-12 hours additional Biology, eight hours additional Chemistry, 16 hours of Geology. Suggested electives: electronics, fluid mechanics.

Teaching: 18 hours Education, completion of 24 hours for second teaching field. Suggested electives: Psychology and Sociology.

Chemistry: 16-24 hours additional Chemistry. 8-12 hours additional Biology. Electives unrestricted.

Liberal Arts: 24-36 hours from English, History, Government, Sociology, or Philosophy. Electives unrestricted.

Environmental Science: 16-20 hours additional Chemistry, 8-12 hours additional Biology, three hours of Civil Engineering. Suggested electives: Psychology and Sociology.

Engineering: 12 hours of Engineering (Egr) 12-24 hours of advanced engineering. Suggested electives: Economics and Sociology.

Geology: 20 hours Geology, eight hours additional Biology, three-nine hours of electronics. Electives unrestricted.

PHYSICS (Phy)

110 — Physics Today. A descriptive introduction to recent developments and noteworthy current problems, such as gravitational collapse. Class: 1 hour. Credit: 1 semester hour.

111 — Astronomy Laboratory. Measurements with astronomical instruments such as telescopes and spectroscopes. Use of photographs from astronomical observatories to identify variable stars and classify individual stars according to spectra and magnitudes. Prerequisite: Credit for or registration in Phy 137. Laboratory: 2 hours. Credit: 1 semester hour.

137 — Descriptive Astronomy. A survey of facts and an introduction to important astronomical theories. The solar system, stars, nebulae, and star systems. Class: 3 hours. Credit: 3 semester hours.

140 — Introductory Mechanics. Emphasis is placed on derivation, units, and problem-solving. Prerequisite: credit for or registration in Mth 1391. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

141 — General Physics—Mechanics and Heat. Designed for majors in the physical or natural sciences. Emphasis placed upon understanding and application of basic physical laws. Prerequisite: credit for Mth 133 and 134. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

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

143, 144 — Physical Science. Designed for non-science majors. Appropriate topics from physics and chemistry are covered using the inquiry approach. A student with acceptable credit for Phy 140, 141, 142, 241, or 242 may not receive credit for Phy 143. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours per semester.

233 — Modern General Physics. Content will include electronics, the photoelectric effect, atomic structure, X-rays, molecular and crystal structure, radioactivity and nuclear reactions. A student may not receive credit for both Phy 335 and Phy 233. Prerequisite: Phy 142. Class: 3 hours. Credit: 3 semester hours.

241 — Introductory Physics — Heat, Electricity and Magnetism. Emphasis is placed on derivations, units, and problem-solving. Prerequisite: Phy 140 or Egr 132 and credit for or registration in Mth 2311. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

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

324 — Modern Physics Laboratory. Selected experiments such as determination of the electronic charge and mass, and of Planck's constant; blackbody radiation; gamma ray spectroscopy; specific heats of crystalline solids, mobility of electrons in semiconductors. Prerequisite: Registration in or credit for Phy 335. Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

333 — Analytical Mechanics. Use of vector notation in formulating and applying Newton's laws and the principles of momentum and energy. Dynamics of particles and rigid bodies emphasized. Statics treated briefly. Prerequisite: Phy 140 or 141-142 and credit for or registration in Mth 331. Class: 3 hours. Credit: 3 semester hours.

335 — Modern Physics. Conservation laws; special relativity; quantum effects; atomic structure; X-rays, nuclear and solid state physics. Prerequisites: Phy 241-242 or Phy 141-142 and Mth 2311. Class: 3 hours. Credit: 3 semester hours.

338 — Electricity and Magnetism. Electrostatic fields; magnetic fields; potential; capacitance; dielectrics; electromagnetic waves. Maxwell's equations; conduction in gases; thermoelectricity. Prerequisite: Phy 241-242 or 141-142 and credit for or registration in Mth 331. Class: 3 hours. Credit: 3 semester hours.

339 — Thermal Physics. Temperature and thermometry; internal energy, entropy, and thermodynamic potentials; introduction to the kinetic theory of gases and the Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics. Prerequisite: Phy 241-242 or Phy 141-142 and Mth 2321. Class: 3 hours. Credit: 3 semester hours.

346 — Electrical Measurements. Theoretical and practical definitions of electrical units; data handling and analysis; precision D. C. measurement of resistance, potential difference, and current; galvanometer characteristics; A. C. bridge measurement of self and mutual inductance, capacitance, and frequency; magnetic measurements. Prerequisite: Phy 241-242 or 141-142 and Mth 2311. Class: 2 hours. Laboratory: 4 hours. Credit: 4 semester hours.

414, 415 — Experimental Projects. Building of experimental apparatus under the supervision of a faculty member. Prerequisite: 6 hours of physics numbered above 300. Laboratory: 3 hours. Credit: 1 semester hour per course.

416, 417 — Seminar. Reports on current publications and on topics not treated in other physics courses. Prerequisite: 6 hours of physics numbered above 300. Class: 2 hours. Credit: 1 semester hour per course.

431 — Classical Mechanics. Variational principles and Lagrange's equations; the kinematics of rigid body motion; the Hamilton equations of motion; small oscillations. Prerequisite: Mth 331 and Phy 333 or Egr 231. Class: 3 hours. Credit: 3 semester hours.

432 — Introductory Quantum Mechanics. Basic concepts of quantum mechanics. Schrodinger's equation; wave functions. Prerequisite: Phy 333 or 431, Phy 335, and Mth 331. Class: 3 hours. Credit: 3 semester hours.

433 — Solid State Physics. Crystal structure; binding forces; mechanical and thermal properties; electrical conductivity; semiconductors; dielectric properties; magnetic properties; surface effects; phosphors and photoconductivity. Prerequisite: Phy 335. Class: 3 hours. Credit: 3 semester hours.

436 — Nuclear Physics. Natural radioactivity; the positron; the neutron; artificial disintegration; central forces; nuclear scattering of alpha particles; charged particle accelerators; nuclear fission; isotope separation; cosmic rays; the meson; particles and waves. Prerequisite: Phy 335. Class: 3 hours. Credit: 3 semester hours.

437 — Astrophysics. Analysis of light; stellar spectroscopy; atomic theory as applied to stars, double stars; luminosities; temperature and diameters of stars; variable stars; star clusters; the nebulae; stellar atmospheres and interiors; evolution of the stars. Prerequisite: Phy 141-142 or Phy 241-242. Class: 3 hours. Credit: 3 semester hours.

448 — Optics. Physical and Quantum Optics. Propagation of light; interference; diffraction; optics of solids; thermal radiation and light quanta; optical spectra; lasers. Prerequisite: Phy 241-242 or Phy 141-142 and Mth 2311. Class: 3 hours. Laboratory: 3 hours. Credit: 4 semester hours.

Department of Psychology

Department Head — James R. Hawker. *Professor* — Myrtle Bell. *Associate Professors* — Billy R. Barrington, Otto R. Flocke. *Assistant Professors* — Henry P. Buller, Robert A. Gay, James L. Walker, Jr. *Instructor* — Doris A. Simpson. *Secretary* — Linda McCormick.

Bachelor of Arts — Psychology Major

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

1. General Requirements
 - English — Composition — six semester hours
 - Literature — six semester hours
 - Mathematics — six semester hours
 - Biology 141-142 — General — eight semester hours
 - Foreign Language — 14 semester hours (completion of the 232 course in a foreign language)
 - Government 231-232 — State and National — six semester hours
 - History 231-232 — United States — six semester hours
 - Physical Activity — four semester hours
2. Major
 - Psychology 131 — Introduction to Psychology
 - Psychology 241 — Statistical Methods in Psychology
 - Psychology 242 — Methods in Psychology
 - Psychology — Additional 15 semester hours — a minimum of nine semester hours must be on the advanced level
3. Minor
 - An approved minor of 18 semester hours — a minimum of six semester hours must be on the advanced level
4. Electives
 - A sufficient number of approved electives to complete a total of 126 semester hours

Suggested Program of Study

First Year	Second Year
Bio 141, 142 — General.....8	Eng — Literature.....6
Eng — Composition.....6	Foreign Language.....6
Foreign Language.....8	His 231, 232 — United States.....6
Mth.....6	Psy 241 — Intro Stat Methods.....4
Psy 131.....3	Electives.....8
HPE — Activity.....2	HPE — Activity.....2
33	32

Third Year	Fourth Year
Gov 231, 232—State and Natl.....6	Psy (Advanced).....9
Psy 242—Methods in Psychology.....4	Minor.....9
Psy (Advanced).....6	Electives.....12
Minor.....9	30
Electives.....6	
31	Total 126 Hours

Bachelor of Science — Psychology Major

The degree of Bachelor of Science in Psychology will be awarded upon completion of the requirements for the Bachelor of Arts in Psychology with the following modifications:

1. Eight semester hours of physical science and Math 1381-1391 (six hours) substituted for the foreign language requirement.
2. Psychology 131—Introduction to Psychology
Psychology 241—Statistical Methods in Psychology
Psychology 242—Methods in Psychology
Psychology 343—Experimental Psychology
Psychology—Additional 15 semester hours—a minimum of nine semester hours must be on the advanced level
3. Electives
A sufficient number of approved electives to complete a total of 128 semester hours.

Suggested Program of Study

First Year	Second Year
Bio 141, 142—General.....8	Eng—Literature.....6
Eng—Composition.....6	Mth 1381, 1391.....6
Mth 133, 134—Trig & Algebra.....6	Physical Science.....4
Physical Science.....4	Psy 242—Methods in Psychology.....4
Psy 131—Intro to Psy.....3	Minor.....6
Psy 241—Intro Stat Methods.....4	Electives.....3
HPE—Activity.....2	HPE—Activity.....2
33	31
Third Year	Fourth Year
Gov 231, 232—State & Natl.....6	His 231, 232—United States.....6
Psy 343—Experimental Psy.....4	Psy (Advanced).....9
Psy (Advanced).....6	Minor.....6
Minor.....6	Electives.....12
Electives.....9	33
31	

Total 128 Hours

PSYCHOLOGY (Psy)

131 — Introduction to Psychology. An introductory survey of the major areas of psychology such as learning, personality, social, testing, developmental, and physiological. Emphasis is on psychology as the scientific study of behavior and includes both human and animal behavior. Class: 3 hours. Credit: 3 semester hours.

234 — Child Psychology. A study of the growth and development of behavior patterns in children. Class: 3 hours. Credit: 3 semester hours.

235 — Adolescent Psychology. A study of the growth and development of behavior patterns in adolescents. Class: 3 hours. Credit: 3 semester hours.

241 — Introduction to Statistical Methods. Statistical concepts and techniques used in psychological research. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

242 — Methods in Psychology. An introduction to the methods of research employed in the scientific study of behavior. Topics include nature and philosophy of science, experimental design, data analysis, and report writing. Several experiments are designed, conducted, and reported by students. Prerequisites: Psy 131 and 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

330 — Psychology of Communication. A study of the theory, structure, and function of communication patterns in various group settings. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

331 — Systems and History of Psychology. Historical development of psychology. Emphasis on the evolution of major systems of psychology. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

332 — Psychology of Personality. A study of several of the major theories of personality organization and adjustment processes. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

333 — Psychology of Group Behavior. Investigation of psychological basis of group behavior. Emphasis is on the study of individual experience and behavior in relation to the social environment, and how individual behavior both affects and is affected by social interaction. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

334 — Industrial Psychology. An introduction to the application of psychological tools and techniques in industrial settings. Stress will be placed on selecting, training, and evaluating workers. Prerequisite: Psy 241. Class: 3 hours. Credit: 3 semester hours.

335 — Motivation. A study of contemporary concepts theories, and research in motivation. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

337 — Psychology of Adjustment. A study of normal adjustment and commonly used defenses against anxieties. Class: 3 hours. Credit: 3 semester hours.

338 — Individual Psychological Testing. An introduction to individual psychological testing for speech therapy students only. Stress will be placed on administering and interpreting the WISC, the Binet and the Vineland. Class: 3 hours. Credit: 3 semester hours.

339 — Human Factors. A survey of human functions in man-machine systems with consideration of human abilities and limitations in relation to equipment design and work environments. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

341 — Psychological Tests and Measurements. Theory and use of instruments for the measurement of intelligence, interests, aptitude, and attitudes. Prerequisite: Psy 131 and 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

342 — Statistical Methods. A continuation of Psy 241 with emphasis upon design and analysis of experiments. Includes Chi square, Student's *t*, analysis of variance, and linear regression. Prerequisite: Psy 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

343 — Experimental Psychology. Techniques to demonstrate and investigate concepts in psychology. Prerequisite: Psy 242. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

410, 420, 430—Undergraduate Research. Designed to provide an opportunity for advanced psychology students to pursue an individual research project under the direction and supervision of a faculty member. Prerequisite: 9 hours of psychology. Credit: 1, 2, or 3 semester hours.

431 — Sensation and Perception. A review of research and theory regarding the structure and function of the basic sensory processes, and sensory perception. Prerequisite: 9 hours in Psy. Class: 3 hours. Credit: 3 semester hours.

432 — Abnormal Psychology. A study of abnormal behavior. Special emphasis on the symptomatology, etiology, and therapeutic approaches. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

433 — Differential Psychology. Individual and group behavior differences and similarities. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

435 — Leadership and Group Dynamics. A study of the nature, evaluation, and utilization of intra- and inter-personal forces producing behavior in various group structures. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

436 — Learning. Theories and research concerning learning processes, with a consideration of practical implications. Prerequisite: Psy 131. Class: 3 hours. Credit: 3 semester hours.

437 — Quantitative Psychology. Theory and application of psychophysical and psychological scaling methods. Prerequisite: Psy 241. Class: 3 hours. Credit: 3 semester hours.

438 — Physiological Psychology. Survey of the physiological bases of behavior with emphasis on the mechanisms in the central nervous system. Prerequisite: 9 hours in Psychology. Class: 3 hours. Credit: 3 semester hours.

439 — Contemporary Problems in Psychology. A critical and comprehensive examination of current problems in selected areas of psychology. Topics will vary from semester to semester. Prerequisite: 12 hours in Psychology. Class: 3 hours. Credit: 3 semester hours. May be repeated for credit when topics vary.



College of Technical Arts

Departments: Health Services,
Industrial, Related Arts,
Technical, Adult Training

Kenneth E. Shipper, Ph.D., Dean
Mrs. Willa V. Newton, Secretary

The College of Technical Arts offers a Bachelor of Science degree in Industrial Technology and two-year Associate of Applied Science degrees in Business Data Processing, Dental Hygiene, Diesel Mechanics, Drafting Technology, Industrial Electricity and Electronics Technology, Machine Tools, Mid-Management, Police Science, Radiologic Technology, Refrigeration and Air Conditioning Technology and Welding. A one-year Certificate of Completion is offered in Vocational Nursing and in five Adult Training Programs.

Course descriptions and further information about the College of Technical Arts are included in a separate bulletin. Requests for copies of the College of Technical Arts catalog should be addressed to the Office of the Dean, College of Technical Arts, Box 10043, Lamar University Station, Beaumont, Texas 77710.





College of Graduate Studies

E. B. Blackburn, Jr., Ed.D.,
Dean
Mrs. Louise Mullin,
Secretary

The Graduate Council

The Graduate Program is administered by the Graduate Council. The membership of the Council consists of representatives from each College offering graduate degrees, with the Dean of the College of Graduate Studies acting as chairman. The Council determines the academic policies of the College of Graduate Studies.

Degrees Offered

Master of Arts

- Master of Arts in English
- Master of Arts in Government
- Master of Arts in History

Master of Business Administration

Master of Science

- Master of Science in Biology
- Master of Science in Chemistry
- Master of Science in Health and Physical Education
- Master of Science in Mathematics
- Master of Science in Speech
- Master of Science in Speech (Audiology and Pathology)

Master of Engineering

Master of Engineering Science

Doctor of Engineering

Master of Education

- Master of Education in Elementary Education
- Master of Education in Guidance and Counseling
- Master of Education in Secondary Education
- Master of Education in Special Education
- Master of Education in Supervision

The Graduate Bulletin

The Graduate Bulletin contains a complete listing of courses, admission requirements, and other information of value to graduate students. Requests for copies should be directed to the Office of the Dean of the College of Graduate Studies, Lamar University, Box 10004, Lamar University Station, Beaumont, Texas 77710.

Admission

Applicants seeking admission to the College of Graduate Studies must present evidence that their academic record and personal attributes indicate the ability to pursue graduate work successfully. Admission to the College of Graduate Studies is administered by the Graduate Dean. In general, the policies set forth by the Graduate Council for admission are as follows:

1. An applicant must hold a bachelor's degree from an institution approved by a recognized accrediting agency.
2. The following official credentials should be filed with the Dean of Graduate Studies at least four weeks before registration.
 - A. Two official transcripts sent directly from each college previously attended.
 - B. Two completed copies of the application for admission to the College of Graduate Studies.
 - C. Scores on the aptitude and the appropriate subject matter area of the Graduate Record Examination (sent directly to the Dean of the College of Graduate Studies by the Educational Testing Service). The College Testing and Placement Center, located in the Educational Services Building, administers the Graduate Record Examination. Application forms and information about the Graduate Record Examination are available at this Center.
3. The applicant's undergraduate grade point average and Graduate Record Examination scores must be above the minimum standard established by the College of Graduate Studies.
 - A. For regular admission **both** of the following requirements must be met:
 1. A minimum overall grade point average of 2.5 on a four-point scale.
 2. A minimum composite score (verbal + quantitative) of 720 on the aptitude section of the Graduate Record Examination and a minimum verbal score of 350.
 - B. For admission on probation **one** of the following requirements must be met:
 1. A minimum grade point average of 2.5 on junior and senior work and acceptable scores on the Graduate Record Examination — a composite score (V + Q) of 720 and a verbal score of 350.
 2. A grade point average lower than 2.5, but with a score of at least 540 on an appropriate section of the G.R.E. aptitude test. (Some departments use the verbal score; some use the quantitative score; and some use either.)
 3. A minimum overall grade point of 3.0 and a minimum verbal score of 350 on the G.R.E.

NOTE: Probation is removed automatically without notification after the student completes nine semester hours of graduate work with grades of B or better.

 - C. Admission Requirements for Foreign Students:
 Applications of foreign students are evaluated on an individual basis after the following information is received: (1) Official transcripts from colleges previously attended, (2) scores on the Graduate Record Examination, and (3) scores on the Test of English as a Foreign Language. In general, a

foreign student whose native language is not English is expected to score over 500 on the TOEFL and fulfill the composite requirement (V + Q=720) on the GRE.

Special Students

An applicant who wishes to register for graduate work without enrolling in a degree program may do so under the following conditions:

1. He must hold a bachelor's degree.
2. He must be approved for admission by the Dean of the College of Graduate Studies.
3. With departmental approval, courses taken by a Special Student may be used for graduate degree credit under the following conditions:
 - (1) If requirements for admission to a degree program are met during his initial semester of enrollment.
 - (2) If requirements for admission are met in a subsequent semester, a maximum of six semester hours previously completed may be approved for degree credit.

Undergraduates Taking Graduate Courses

With the approval of the head of the major department and the Graduate Dean, an undergraduate student within 12 semester hours of graduation, may take not more than six semester hours of graduate courses to be applied toward the master's degree, provided the total academic load does not exceed 15 semester hours.

Registration

A student who has been admitted to the College of Graduate Studies may register in August or January for the long session, or in June or July for the summer terms.

DIRECTORY FOR CORRESPONDENCE

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

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

Academic Program	Andrew J. Johnson, Vice-President, P. O. Box 10002
Admissions and Records.....	Norris H. Kelton, Dean, P. O. Box 10009
Athletics	J. B. Higgins, Director, P. O. Box 10038
Books/Supplies	P. B. Plotts, Bookstore Manager, P. O. Box 10019
Continuing Education/Extended Day Classes	Joseph D. Reho, Director, P. O. Box 10008
Development and Research	Charles P. Turco, Director, P. O. Box 10078
Financial Affairs	H.C. Galloway, Vice-President, P. O. Box 10003
Financial Aid/Awards.....	Jess R. Davis, Director, P. O. Box 10042
Information/Publications	Russell DeVillier, Director, P. O. Box 10011
Library	R. B. Thomas, Director, P. O. Box 10021
Institutional Studies and Programs	Jack Hill, Director, P. O. Box 10068
Student Activities	W. James Carter, Director, P. O. Box 10018
Student Affairs.....	George E. McLaughlin, Dean, P. O. Box 10006
Student Health	Mable Lomonte, R.N., P. O. Box 10015
Student Housing	Bruce E. Stracener, Director, P. O. Box 10041
Teacher Certification	Howard W. Adams, Director, P. O. Box 10034
Traffic/Security	Gene Carpenter, Director, P. O. Box 10013
Tuition/Fees/Expenses	Finance Office, P. O. Box 10003
Testing/Veterans' Affairs	Joe B. Thrash, Director, P. O. Box 10012
College of Business	J. D. Landes, Dean, P. O. Box 10059
College of Education.....	M. L. McLaughlin, Dean, P. O. Box 10034
College of Engineering	Lloyd B. Cherry, Dean, P. O. Box 10057
College of Fine/Applied Arts.....	W. Brock Brentlinger, Dean, P. O. Box 10197
College of Liberal Arts	Preston B. Williams, Dean, P. O. Box 10058
College of Sciences.....	Edwin S. Hayes, Dean, P. O. Box 10022
College of Graduate Studies	E. B. Blackburn, Jr., Dean, P. O. Box 10004
College of Technical Arts.....	Kenneth E. Shipper, Dean, P. O. Box 10043

INDEX FOR THIS CATALOG ON BACK COVER





INDEX

Academic Regulations	73-85
Advanced Standing Exam.....	74
Change of Major.....	76
Class Absences.....	74
Classification of Students.....	81
CLEP.....	74
Correspondence Work.....	75
Counselors.....	83
Course Load.....	73
Dean's List.....	83
Dropping Course.....	76
English Requirement.....	77
Examinations.....	74
Grade Points.....	82
Grade Reports.....	82
Grading System.....	82
Physical Edu. Requirements.....	77
Probation.....	83
Registration.....	73
Suspension.....	83
Withdrawals.....	76
Administration-Faculty	2-39
Admissions	47-54
Advanced Placements Tests.....	49
High School Graduates.....	47
Entrance Tests.....	47
General Requirements.....	47
Transfer Students.....	51
Freshman Registration.....	49
Calendar	vi-ix
Departments of Instruction	91-275
Accounting.....	96
Aerospace Studies.....	241
Art.....	182
Biology.....	243
Business Administration.....	98
Chemical Engineering.....	151
Chemistry.....	250
Civil Engineering.....	154
Economics.....	105
Electrical Engineering.....	159
Elementary Education.....	118
English.....	213
Geology.....	254
Government.....	218
Health and Physical Edu. (M).....	130
Health and Physical Edu. (W).....	134
History.....	223
Home Economics.....	140
Industrial Engineering.....	162
Mathematics.....	171
Mechanical Engineering.....	167
Modern Languages.....	227
Music.....	189
Physics.....	262
Psychology.....	266
Secondary Education.....	120
Secretarial Science.....	109
Sociology.....	234
Special Education.....	125
Speech.....	201
Degrees	78-81
Degree Requirements (Gen.).....	78
Directory for Correspondence	276
Extended Day Classes	45
Fees and Expenses	55-58
Refunds.....	58
Residence Classification.....	59
Student Insurance.....	57
Tuition and Fees.....	56
Facilities	43-46
Buildings and Grounds.....	43
Bookstore.....	44
Computer Center.....	44
Dining Halls.....	44
Health Center.....	43
Library.....	43
Research and Development.....	45
Post Office.....	45
Financial Aids and Awards	70-72
Part-time Employment.....	71
General Information	40-46
Accreditation.....	41
Degrees Offered.....	41
Entering Dates.....	42
History.....	40
Location.....	40
Objectives.....	41
Placement.....	45
Testing Center.....	45
General Regulations	86-88
Change of Address.....	86
Discipline.....	86
Eligibility.....	87
Hazing.....	87
Official Summons.....	86
Parking Regulations.....	88
Students Debts.....	87
Graduate Studies	273-275
Graduation	84-85
General Requirements.....	84
Honors.....	85
Housing	69
Student Activities	89-90
Student Government.....	89
Student Organizations.....	90
Student Loans	70
Technical Arts	271
Veterans' Assistance	57