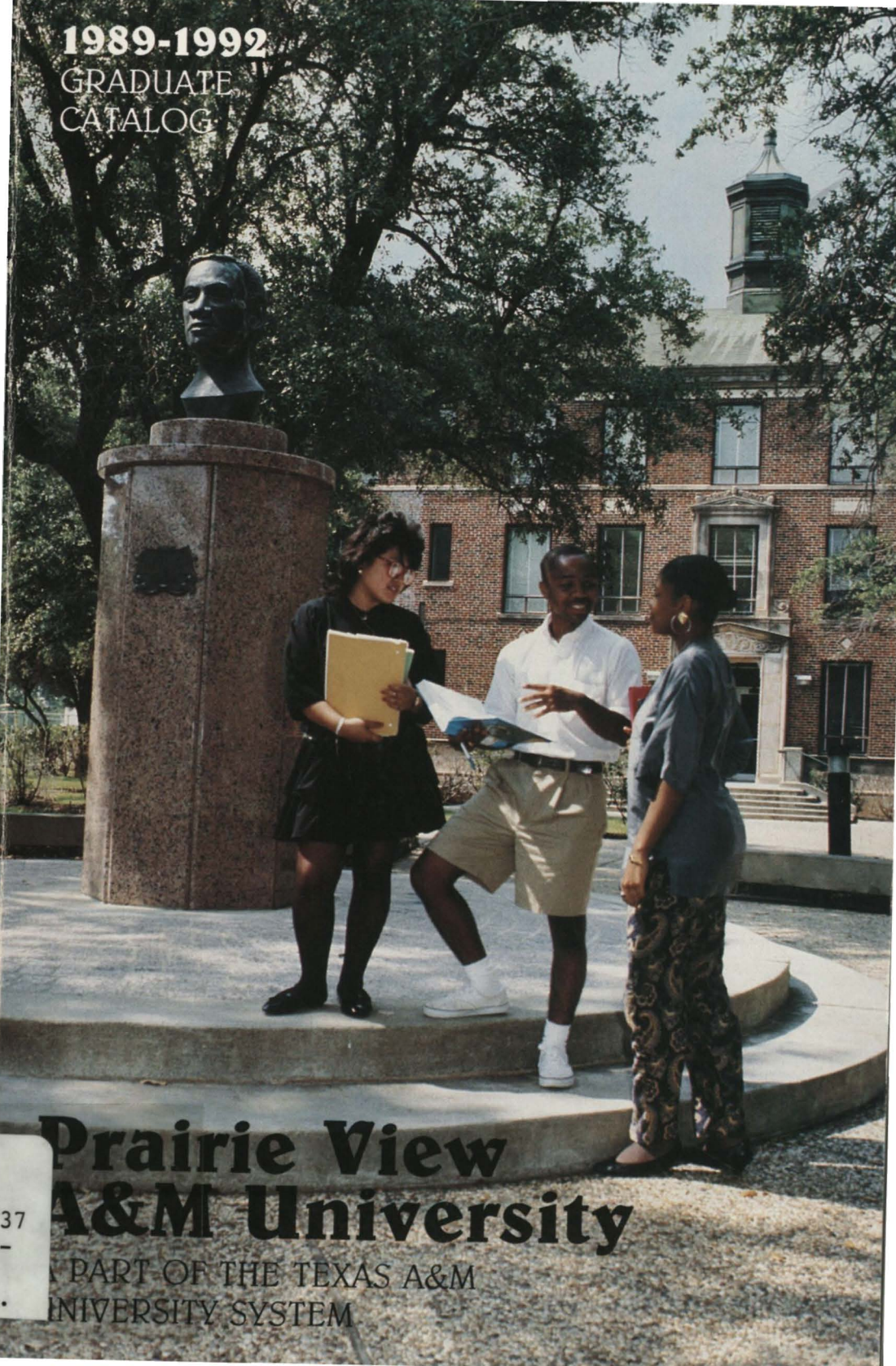
1992

Graduate Catalog - The School Year 1989-1992

Prairie View A&M University


1989-1992
GRADUATE
CATALOG
Prairie View
A&M University
A PART OF THE TEXAS A&M
UNIVERSITY SYSTEM

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BULLETIN OF
PRAIRIE VIEW A&M UNIVERSITY
PRAIRIE VIEW, TEXAS

Established by the Texas State Legislature in the Year 1876

VOLUME 75 NO.1

THE ONE HUNDRED AND SIXTH GENERAL CATALOG
ISSUED WITH
ANNOUNCEMENTS FOR THE ACADEMIC YEARS
1989 - 1992

GRADUATE CATALOG

PRAIRIE VIEW A&M UNIVERSITY IS PART OF THE TEXAS A&M UNIVERSITY SYSTEM AND IS ACCREDITED BY THE SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS.

Institutional Memberships

Accreditation Board of Engineering & Technology
American Association of Colleges of Nursing (AACN)
American Association of Colleges for Teacher Education
American Association of Collegiate Registrars and Admissions Officers
American College Theatre Festival
American Council on Education
American Home Economics Association (Agency Member Unit)
American Society for Engineering Education
American Theatre Association
Association for Communication Administration
Association for Education in Journalism and Mass Communication
Association of Administrators of Home Economics
Association of American Colleges
Association of Colleges and Schools of Education in State Universities and Land Grant Colleges and Affiliated Private Universities
Association of Collegiate Schools of Architecture
Association of NROTC Colleges
Association of Social Science Teachers
Association of State University and Land Grant Colleges
Association of Texas Colleges and Universities
Association of Texas Graduate Schools
Central Association of College and University Business Officers
College and University Personnel Association
Conference of Southern Graduate Schools
Council for Advancement and Support of Education
Council of 1890 Presidents
Council of Presidents for the Public Senior Colleges and Universities of Texas
Council on Social Work Education
National Association of Broadcasters
National Association of Collegiate Deans and Registrars
National Association of Educational Buyers
National Association of State Universities and Land-Grant Colleges
National Association of Student Financial Aid Administrators
National Association of Student Personnel Administrators
National Black Media Coalition
National Commission for Cooperative Education
National Commission on Accrediting
National Council for the Accreditation of Teacher Education
National Council of Teachers of English
National Forensic Association
National League for Nursing
Southern Association of Colleges and University Business Officers
Southern Association of Colleges and Schools, Inc.
Southern Association of Land-Grant Colleges and Universities
Southern Council of Collegiate Education for Nursing (SCCEN)
Southwest Theatre Conference
Speech Communication Association
Texas Association of Collegiate Registrars and Admission Officers
Texas Association of State Senior College and University Business Officers
Texas Association of Colleges for Teacher Education

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Academic Year Calendars 1990-92

FALL SEMESTER 1990

Dining Hall opens.....August 19, Saturday
Residence Halls
Open for new students.....August 19, Saturday (9 a.m.-5 p.m.)
Returning students.....August 23, Wednesday (9 p.m.-5 p.m.)
Orientation for New Students.....August 21-23, Monday-Wednesday
Registration for New Students.....August 22-23, Tuesday-Wednesday
Regular Registration.....August 24-25, Thursday-Friday
Registration for Weekend and Off-Campus Classes.....August 26, Saturday (9 a.m.-2 p.m.)
Instruction Begins/Late Registration/Adding & Dropping with Fee Begin.....August 28, Monday
Late Registration and Adding Courses End.....September 2, Saturday (2 p.m.)
Labor Day (Holiday).....September 4, Monday
Dropping Courses without Record Ends.....September 13, Wednesday (5 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins.....September 14, Thursday
Application for Fall Graduation Ends.....September 29, Friday (5 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/After This Date Student Will Receive "WP" or "WF".....October 13, Friday (5 p.m.)
Midsemester Examination Period.....October 19-21, Thursday-Saturday
Midsemester Grades Due in Office of Admissions and Records.....October 24, Tuesday (2 p.m.)
Early Registration for Spring Semester Begins.....November 6, Monday (9 a.m.)
Thanksgiving (Holiday).....November 23-25, Thursday-Saturday
Instruction Resumes.....November 27, Monday
Final Examination Period for Candidates for Graduation.....December 7-9, Thursday-Saturday
Last Day to Withdraw from Any Course(s).....December 8, Friday (5 p.m.)
Early Registration Ends and Required Registration Fees Due.....December 8, Friday (3 p.m.)
Final Examination Period.....December 11-16, Monday-Saturday
Semester Ends.....December 16, Saturday
Final Grade Reports Due in Office of Admissions and Records.....December 18, Monday (3 p.m.)
Christmas/New Year's Holiday (University Closed).....December 24, 1988 — January 1, 1989

SPRING SEMESTER 1990

Dining Hall opens.....January 6, Saturday
Residence Halls open for:
New students.....January 6, Saturday (9 a.m.-5 p.m.)
Returning students.....January 10, Wednesday (9 a.m.-5 p.m.)
Orientation for New Students.....January 8-10, Monday-Wednesday
Registration for New Students.....January 10, Wednesday
Regular Registration.....January 11-12, Thursday-Friday
Registration for Weekend and Off-Campus Classes.....January 13, Saturday (9 a.m.-2 p.m.)
Birthday of Martin Luther King, Jr. (Holiday).....January 15, Monday
Instruction Begins/Late Registration/Adding and Dropping with Fee Begin.....January 16, Tuesday
Late Registration and Adding Courses End.....January 20, Saturday (2 p.m.)
Dropping Courses without Record Ends.....January 31, Wednesday (5 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins.....February 1, Thursday
Application for Spring Graduation Ends.....February 9, Friday (5 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/After This Date Student Will Receive "WP" or "WF".....March 2, Friday
Midsemester Examination Period.....March 8-10, Thursday-Saturday
Midsemester Grades Due in Office of Admissions and Records.....March 12, Monday (2 p.m.)
Spring Recess.....March 12-17, Monday-Saturday
Instruction Resumes.....March 19, Monday (8 a.m.)

NOTE: Required Registration Fees for Fall 1990 Early Registration are due by 3:00 p.m., August 6, 1990.

Early Registration for Summer I, Summer II, and Fall Semesters Begins.....March 21, Wednesday (9 a.m.)
Easter (Holiday).....April 13-14, Friday-Saturday
Instruction Resumes.....April 16, Monday (8 a.m.)
Honors Convocation.....April 25, Wednesday
Last Day to Withdraw from Any Course(s).....May 4, Friday (5 p.m.)
Early Registration Ends, Required Registration Fees Due for Summer I & II.....May 4, Friday (3 p.m.)

Final Examination Period for Candidates for Graduation .....May 3-5, Thursday-Saturday
Final Examination Period .....May 7-12, Monday-Saturday
Semester Ends.....May 12, Saturday
Commencement .....May 13, Sunday
Final Grade Reports Due in Office of Admissions and Records.....May 15, Tuesday (3 p.m.)
Memorial Day (University Closed).....May 30, Monday

FIRST SUMMER TERM 1990

Regular Registration .....June 1-2, Friday-Saturday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin.....June 4, Monday
Late Registration and Adding Courses End.....June 6, Wednesday (5 p.m.)
Dropping Courses without Record Ends .....June 7, Thursday (5 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins.....June 8, Friday
Application for Summer Graduation Ends .....June 8, Friday (5 p.m.)
Early Registration for Fall Semester Begins .....June 14, Thursday (9 a.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF".....June 20, Wendesday (5 p.m.)
Last Day to Withdraw from Any Course(s).....June 29, Friday (5 p.m.)
Independence Day (University Closed).....July 4, Wednesday
Early Registration Ends.....July 5, Wednesday (5 p.m.)
Final Examination Period .....July 5-7, Thursday-Saturday
First Summer Term Ends.....July 7, Saturday
Final Grade Reports Due in Office of Admissions and Records.....July 10, Tuesday (3 p.m.)

NOTE: Required Registration Fees for Fall, 1990 Early Registration are due by 3:00 p.m., August 6, 1990.

SECOND SUMMER TERM 1990

Regular Registration .....July 6-7, Friday-Saturday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin.....July 9, Monday
Late Registration and Adding Courses End.....July 11, Wednesday (5 p.m.)

Dropping Courses without Record Ends ..... July 12, Thursday (5 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins..... July 13, Friday (9 p.m.)
Early Registration for Fall Semester Begins ..... July 19, Thursday (9 a.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF" ..... July 25, Wednesday (5 p.m.)
Last Day to Withdraw from Any Course(s) ..... August 3, Friday (5 p.m.)
Early Registration Ends and Required Registration Fees Due ..... August 3, Friday (3 p.m.)
Final Examination Period for Candidates for Graduation ..... August 8, Monday
Final Examination Period ..... August 10-11, Friday-Saturday
Second Summer Term Ends ..... August 11, Saturday
Commencement ..... August 12, Sunday
Final Grade Reports Due in Office of Admission and Records..... August 13, Monday (3 p.m.)

TEN WEEK SUMMER TERM 1990

Regular Registration ..... June 1-2, Friday-Saturday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin ..... June 4, Monday
Late Registration Ends..... June 6, Wednesday (5 p.m.)
Application for Summer Graduation Ends ..... June 8, Friday (5 p.m.)
Dropping Course without Record Ends ..... June 12, Tuesday (5 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins..... June 13, Wednesday
Early Registration for Fall Semester Begins ..... June 14, Thursday (9 p.m.)
Independence Day (University Closed)..... July 4, Tuesday
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF" ..... July 5, Thursday (5 p.m.)
Last Day to Withdraw from Any Course(s)..... August 3, Friday (5 p.m.)
Early Registration Ends..... August 3, Friday (3 p.m.)
Final Examination Period for Candidates for Graduation ..... August 8, Monday
Final Examination Period ..... August 10-11, Friday-Sat.

10 Week Summer Term Ends.....August 11, Saturday
Commencement.....August 12, Sunday
Final Grade Reports Due in Office of
Admissions and Records.....August 13, Monday (3 p.m.)

NOTE: Required Registration Fees for Fall, 1990 Early Registration are due by 3:00 P.M., August 6, 1990.

FIRST SUMMER TERM 1991

Regular Registration.....May 31-June 1, Friday-Saturday
Instruction Begins/Late Registration/
Adding & Droppinng with Fee
Begin.....June 3, Monday
Late Registration and Adding
Courses End.....June 5, Wednesday (4 p.m.)
Dropping Courses without Record
Ends.....June 5, Wednesday (4 p.m.)
Withdrawal from Courses with
Automatic grade of "W" Begins.....June 6, Thursday
Early Registration for Fall Semester
Begins.....June 13, Thursday (9 a.m.)
Application for Summer Graduation
Ends.....June 14, Friday (4 p.m.)
Withdrawal from Courses with an
Automatic Grade of "W" Ends/
After This Date Student Will
Receive "WP" or "WF".....June 19, Wednesday (4p.m.)
Last Day to Withdraw from Any
Course(s).....July 2, Tuesday (4 p.m.)
Final Examination Period.....July 3,5,6, Wednesday-Friday-Saturday
Independence Day (University
Closed).....July 4, Thursday
First Summer Term Ends.....July 6, Saturday
Final Grade Reports Due in
Registrar's Office.....July 9, Tuesday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall, 1991 Early Registration are due by 3:00 P.M., August 12, 1991.

SECOND SUMMER TERM 1991

Regular Registration.....July 5-6, Friday-Saturday
Instruction Begins/Late Registration/
Adding & Dropping with Fee
Begin.....July 8
Late Registration and Adding
Courses End.....July 10, Wednesday (4 p.m.)

Dropping Courses without Record Ends ..... July 10, Wednesday (4 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins..... July 12, Friday (9 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF" ..... July 24, Wednesday (4 p.m.)
Last Day to Withdraw from Any Course(s) ..... August 6, Friday (4 p.m.)
Final Examination Period for Candidates for Graduation ..... August 7, Wednesday
Examination Period ..... August 8-10, Thursday-Saturday
Second Summer Term Ends ..... August 10, Saturday
Commencement ..... August 11, Sunday
Early Registration Ends for Fall Semester Ends and Required Registration Fees Due ..... August 12, Friday (3 p.m.)
Final Grade Reports Due in Office of Admissions and Records ..... August 12, Monday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall, 1991 Early Registration are due by 3:00 P.M., August 12, 1991.

TEN WEEK SUMMER TERM 1991

Regular Registration ..... May 31-June 1, Friday-Saturday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin ..... June 3, Monday
Late Registration Ends ..... June 5, Wednesday (4 p.m.)
Dropping Courses without Record Ends ..... June 11, Tuesday (4 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins..... June 13, Thursday
Early Registration for Fall Semester Begins ..... June 13, Thursday (9 a.m.)
Application for Summer Graduation Ends ..... June 14, Friday (4 p.m.)
Independence Day (University Closed) ..... July 4, Wednesday
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF" ..... July 5, Thursday (4 p.m.)
Last Day to Withdraw from any Course(s) ..... August 6, Tuesday (4 p.m.)
Early Registration Ends ..... August 12, Monday (3 p.m.)

Final Examination Period for Candidates for Graduation .....August 7, Wednesday
Final Examination Period .....August 8-10, Thursday-Saturday
10 Week Summer Term Ends .....August 10, Saturday
Commencement .....August 11, Sunday
Final Grade Reports Due in Office of Admissions and Records .....August 12, Monday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall, 1992 Early Registration are due by 3:00 P.M., August 12, 1992.

FALL SEMESTER 1991

Dining Hall Opens .....August 17, Saturday
Residence Halls open for:
new students .....August 17, Saturday (9 a.m.-4 p.m.)
returning students .....August 21, Wednesday (9 a.m.-4 p.m.)
Orientation for New Students .....August 18-21, Sunday-Wednesday
Registration for New Students .....August 21, Wednesday
Regular Registration .....August 22-23, Thursday-Friday
Registration for Weekend and Off-Campus Classes .....August 24, Saturday (9 a.m.-2 p.m.)
Instruction Begins/Late Registration/ Adding and Dropping with Fee Begin .....August 26, Monday
Late Registration and Adding Courses End .....August 31, Saturday (2 p.m.)
Labor Day (Holiday) .....September 2, Monday
Dropping Courses without Record Ends .....September 10, Tuesday (4 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins .....September 11, Wednesday
Application for FALL Graduation Ends .....September 27, Friday (4 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After this Date Student Will Receive "WP" or "WF" .....October 11, Friday
Midsemester Examination Period .....October 17-19, Thursday-Friday-Saturday
Midsemester Grades Due in Office of Admissions and Records .....October 22, Tuesday (2 p.m.)
Thanksgiving (Holiday) .....November 27-December 1, Thursday-Saturday
Instruction Resumes .....December 2, Monday (8 a.m.)
Early Registration for Spring Semester Begins .....December 2, Monday (9 p.m.)

Last Day to Withdraw from Any Course(s).....December 6, Friday (4 p.m.)
Early Registration Ends, Required Registration Fees Due for Spring Semester.....December 6, Friday (3 p.m.)
Final Examination Period.....December 9-14, Monday-Saturday
Semester Ends.....December 14, Saturday
Final Grade Reports Due in Office of Admissions & Records.....December 16, Tuesday (3 p.m.)
Christmas/New Year's Holiday (University Closed).....December 24-January 1, 92

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Spring 1992 Early Registration are due by 3:00 P.M., December 7, 1991.

SPRING SEMESTER 1992

Dining Hall Opens.....January 5, Sunday
Residence Halls open for:
new students.....January 5, Sunday (9 a.m.-4 p.m.)
returning students.....January 8, Wednesday (9 a.m.-4 p.m.)
Orientation for New Students.....January 6-8, Monday-Tuesday-Wednesday
Registration for New Students.....January 8, Wednesday
Regular Registration.....January 9-10, Thursday-Friday
Registration for Weekend and Off-Campus Classes.....January 11, Saturday (9 a.m.-2 p.m.)
Birthday of Martin Luther King, Jr. (Holiday).....January 20, Monday
Instruction Begins/Late Registration/ Adding and Dropping with Fee Begin.....January 13, Monday
Late Registration and Adding Courses End.....January 18, Saturday (2 p.m.)
Dropping Courses without Record Ends.....January 28, Wednesday (4 p.m.)
Withdraawal from Courses with Automatic Grade of "W" Begins.....January 29, Thursday
Application for Spring Graduation Ends.....February 7, Friday (4 p..m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After this Date Student Will Receive "WP" or "WF".....February 28, Friday
Midsemester Examination Period.....March 5-7, Thursday-Friday-Saturday
Midsemester Grades Due in Office of Admissions and Records.....March 9, Monday (2 p.m.)

Spring Recess.....March 9-14, Monday-Saturday
Instruction Resumes.....March16, Monday (8 p.m.)
Early Registration for Summer I, Summer II, and Fall Semesters Begins .....April 10, Friday (9 a.m.)
Easter (Holiday).....April 17-19, Friday-Saturday
Instruction Resumes.....April 20, Monday (8 a.m.)
Honors Convocation.....April 22, Wednesday
Final Examination Period for Candidates for Graduation .....April 30-May 2, Thursday-Friday-Saturday
Last Day to Withdraw from Any Course(s).....May 1, Friday (4 p.m.)
Early Registration Ends, Required Registration Fees Due for Summer I & II.....May 1, Friday (3 p.m.)
Final Examination Period.....May 2-9, Saturday-Saturday
Semester Ends.....May 9, Saturday
Commencement.....May 10, Sunday
Final Grade Reports Due in Office of Admissions and Records.....May 11, Monday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall 1992 Early Registration are due by 3:00 P.M., August 3, 1992.

FIRST SUMMER TERM 1992

Regular Registration .....May 29-30, Friday-Saturday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin.....June 1, Monday
Late Registration and Adding Courses End.....June 3, Wednesday (4 p.m.)
Dropping Courses without Record Ends .....June 3, Wednesday (4 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins.....June 4, Thursday
Early Registration for Fall Semester Begins .....June 11, Thursday (9 a.m.)
Application for Summer Graduation Ends .....June 12, Friday (4 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF".....June 17, Wednesday (4 P.M.)
Last Day to Withdraw from Any Course(s).....June 30, Tuesday (4 p.m.)
Final Examination Period.....July 1-3, Wednesday-Thursday-Friday

First Summer Term Ends.....July 3, Friday
Independence Day (University Closed).....July 4, Saturday
Final Grade Reports Due in Office of Admissions and Records.....July 7, Tuesday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall, 1992 Early Registration are due by 3:00 P.M., August 3, 1992.

SECOND SUMMER TERM 1992

Regular Registration .....July 2-3, Thursday-Friday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin.....July 6, Monday
Late Registration and Adding Courses End.....July 8, Wednesday (4 p.m.)
Dropping Courses without Record Ends.....July 8, Wednesday (4 p.m.)
Withdrawal from Coruses with Automatic Grade of "W" Begins.....July 10, Friday (9 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF".....July 22, Wednesday (4 p.m.)
Early Registration Ends for Fall Semester Ends and Required Registration Fees Due.....August 3, Monday (3 p.m.)
Last Day to Withdraw from Any Course(s).....August 4, Tuesday (4 p.m.)
Final Examination Period for Candidates for Graudation .....August 5, Wednesday
Examination Period.....August 6-8, Thursday-Saturday
Second Summer Term Ends .....August 8, Saturday
Commencement .....August 9, Sunday
Final Grade Reports Due in Office of Admissions and Records.....August 10, Monday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall, 1992 Early Registration are due by 3:00 P.M., August 3, 1992.

TEN WEEK SUMMER TERM 1992

Regular Registration .....May 29-30, Friday-Saturday
Instruction Begins/Late Registration/ Adding & Dropping with Fee Begin.....June 1, Monday
Late Registration Ends.....June 3, Wednesday (4 p.m.)

Dropping Courses without Record Ends ..... June 9, Tuesday (4 p.m.)
Withdrawal from Courses with Automatic Grade of "W" Begins..... June 10, Wednesday
Early Registration for Fall Semester Begins ..... June 11, Thursday (9 a.m.)
Application for Summer Graudation Ends ..... June 12, Friday (4 p.m.)
Withdrawal from Courses with an Automatic Grade of "W" Ends/ After This Date Student Will Receive "WP" or "WF" ..... July 3, Friday (4 p.m.)
Independence Day (University Closed) ..... July 4, Saturday
Early Registration Ends ..... August 3, Monday (3 p.m.)
Last Day to Withdraw from any Course(s) ..... August 4, Tuesday (4 p.m.)
Final Examination Period for Candidates for Graudation ..... August 5, Wednesday
Final Examination Period ..... August 6-8, Thursday-Saturday
10 Week Summer Term Ends ..... August 8, Saturday
Commencement ..... August 9, Sunday
Final Grade Reports Due in Registrar's Office ..... August 10, Monday (3 p.m.)

***ACADEMIC CALENDAR SUBJECT TO CHANGE**

NOTE: Required Registration Fees for Fall, 1992 Early Registration are due by 3:00 P.M., August 3, 1992.

Prairie View A&M University

EXECUTIVE OFFICERS

President ..... Julius W. Becton, Jr.
Vice President for Academic Affairs ..... Milton R. Bryant
Vice President for Administration ..... Harold S. Bonner
Vice President for Development and University Relations ..... Vicki Minor (Interim)
Vice President for Student Affairs ..... Jiles P. Daniels (Interim)

ACADEMIC DEANS

Benjamin Banneker Honors College ..... Jewel Prestage (Interim)
College of Applied Sciences and Engineering Technology ..... Haku Israni
College of Arts and Sciences ..... Edward W. Martin
College of Business ..... Barbara A.P. Jones
College of Education ..... M. Paul Mehta
College of Engineering and Architecture ..... Marshall V. Brown (Interim)
College of Nursing ..... Darimell Waugh (Interim)
Graduate School ..... Arthur C. Washington

The Texas A&M University System

BOARD OF REGENTS

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Wayne A. Showers, Vice Chairman ..... McAllen
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Douglas R. DeCluitt ..... Waco
Raul D. Fernandez ..... San Antonio
Ross D. Margraves ..... Houston
L. Lowry Mays ..... San Antonio
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Royce E. Wisenbaker ..... Tyler

SYSTEM ADMINISTRATION

Chancellor ..... Perry L. Adkisson
Deputy Chancellor for Finance and Administration .. Eddie J. Davis
Deputy Chancellor for External Affairs and General Counselor ..... James B. Bond
Deputy Chancellor for Academic Program Planning and Research ..... Edward A. Hiler
Deputy Chancellor and Dean of Agriculture ..... Charles J. Arntzen
Vice Chancellor and Dean of Engineering ..... Herbert H. Richardson

General Information

Prairie View A&M University is a comprehensive public institution of higher education. Part of the Texas A&M University System, it is a land-grant university authorized under the Morrill Acts of 1862 and 1890. The main campus is located in Waller County approximately 40 miles northwest of Houston and one mile north of Texas Highway 290 on Farm Road 1098. A College of Nursing branch facility is located at 6436 Fannin Street in the Texas Medical Center in Houston.

The university offers a broad range of academic programs through eight major divisions:

The College of Applied Sciences and Engineering Technology
The College of Arts and Sciences
The College of Business
The College of Education
The College of Engineering & Architecture
The College of Nursing

Two additional colleges, the Benjamin Banneker Honors College and the Graduate School, offer programs through the colleges listed above.

MISSION AND PURPOSE

The modern mission of Prairie View A&M University was most recently redefined by the people of Texas through an amendment to the Constitution in 1984. Through that amendment, Prairie View A&M University joined the University of Texas at Austin and Texas A&M University as the only constitutionally designated "institutions of the first class."

In support of that designation, in January 1985 the Board of Regents of The Texas A&M University System stated its intention that Prairie View A&M University become "an institution nationally recognized in its areas of education and research." Prairie View A&M University is a land-grant institution by federal statute. It is also a "state-wide special purpose institution" providing special services to students of "diverse ethnic and socio-economic backgrounds."

Prairie View A&M University is dedicated to fulfilling these missions by achieving excellence in education, research, and service. The university is committed to offering the highest quality programs and instruction for courses or degrees in agriculture, arts and sciences, business, education, engineering, engineering technology, architecture, home economics, and nursing.

While striving to maintain excellent instruction and a strong curriculum, the university understands its role to include the nurture of students' academic development and intellectual curiosity by providing stimulating and healthy physical and cultural environments and services. As a "special purpose" institution, the university recognizes the necessity to develop unique programming to identify and assist talented students who may otherwise be overlooked. The university is committed to the total development of the person, and, to this end, the university must provide the best possible support services in academic and nonacademic areas. The university is committed to fostering research on campus. Quality research is a critical thread that weaves together a strong faculty, state-of-the-art facilities, learning opportunities for students, and relevant service to the community beyond the campus.

HISTORY

Prairie View A&M University has an uncommon and intriguing political and cultural history. It is a study in survival under difficult and changing circumstances chronicling the struggle of blacks in Texas for opportunities in higher education. We have included this extended treatment of that history so that our young people can more fully appreciate the changes brought about by those years of struggle.

Prairie View A&M University is the second oldest institution of higher education in the state of Texas. It had its beginnings in the Texas Constitution of 1876, which, in separate articles, established an "agricultural and mechanical college" and pledged that "separate schools shall be provided for the white and colored children, and impartial provisions shall be made for both." As a consequence of these constitutional provisions, the Fifteenth Legislature, on August 14, 1876, established the Agricultural and Mechanical College of Texas for Colored Youths and placed responsibility for its management with the Board of Directors of the Agricultural and Mechanical College at Bryan.

A three-man commission appointed to build the new college used the $20,000 appropriated for this purpose to purchase the Alta Vista Plantation located in Waller County to the east of Hempstead. The Honorable Edwin Waller managed the property at a salary of $100 per month. His representative, Ashbel Smith, turned the affairs of the school over to the Board of Directors of Texas A&M College in 1878. The board, authorized to appoint a principal teacher to administer the college under the direction of the president of Texas A&M College, selected Mr. L. W. Minor, who served in that capacity for only one year. On March 11, 1878, eight young Negro men became the first of their race to enroll in a state-supported college in Texas. Among the instructors were two brothers, E. H. and L. C. Anderson, who became the second and third principals of the young and struggling college.

E. H. Anderson became principal in 1879, when the enrollment grew to 60 students. The A&M College Board of Directors, meeting in Hempstead on August 28 of that year, authorized the teaching of 13 subjects on the elementary and secondary levels.

L. C. Anderson became principal of Prairie View A&M in 1885 and served for 12 years. He was also the founder of the dynamic and politically active Colored Teachers Association of Texas. He managed a college budget of $39,000 and a staff of 11 instructors in what was essentially a normal school program. The grey stone administration building was erected in 1890, and Prairie View became embroiled in an intense and sometimes bitter legislative and political debate over the status and future of the college. The Twentieth Legislature agreed to the attachment of an Agricultural and Mechanical Department to the Normal School, and the Hatch Act brought the college a branch of the Experiment Station. Other facilities erected included an academic hall, six cottages for teachers, a brick mechanics shop, and artesian wells.

In 1895, Edward L. Blackshear was elected principal of the college, and he served until 1915. During his tenure, the curriculum and the physical plant

grew significantly. In 1889, the Twenty-Sixth Legislature changed the name of the school to Prairie View State Normal and Industrial College, and the new name reflected the expansion of the curriculum. The Twenty-Seventh Legislature, in 1901, authorized the school to offer a four-year course of study that included the Academy and Normal School in four divisions: education, agriculture, home economics and mechanical arts. A diploma and bachelor of science degree were given upon completion of any curriculum. The first three degrees were granted in 1903. New additions to the physical plant during this period included two dormitories for men, Foster Hall and Luckie Hall (1909), Crawford Hall for women (1912), and a combination auditorium/dining hall (1911).

I. M. Terrell, the fifth principal, held the position during the war years of 1915-1918. Despite the world conflict, the school plant expanded significantly. A household arts building, a power and ice plant, and a laundry building were erected in 1916. Spence Hall was erected in 1918 to house the Division of Agriculture. The close of World War I brought the first recognized Reserve Officers Training Corps to the campus. The Cooperative Extension Service was also launched at this time.

The sixth principal of Prairie View was J. G. Osborne, whose tenure lasted from 1918 to 1925. The nursing division was established in 1918, and six buildings were added to the campus in 1924 and 1925: a veterinary hospital, science building, college exchange, elementary training school, home economics practice cottage, and music conservatory. The four-year senior college program was begun in 1919 and included training in vocational home economics, vocational agriculture, liberal arts, and mechanical arts.

W. R. Banks became principal in 1926 and served until his retirement in August of 1947, when he was named principal emeritus. During this period, the physical plant doubled in size with the addition of a dining hall, a hospital, three apartment buildings for male teachers, three dormitories for women, a greenhouse, an incubator house, a classroom building, an NYA resident center, a library, and more than 60 cottages for faculty families.

The Senior Academy was discontinued in 1930 and the Division of Education was renamed the College of Arts and Sciences with a major department in teacher-training. The Division of Graduate Study was organized in 1937, offering Master of Science degrees in agricultural economics, rural education, agricultural education, school administration and supervision, and rural sociology.

The name Prairie View Normal and Industrial College was changed by the Forty-Ninth Legislature in 1945 to Prairie View University, and the school was authorized to offer, "as the need arises," all courses offered at the University of Texas.

Dr. Edward B. Evans became the eighth principal on September 1, 1947. That same year, the Fiftieth Legislature changed the name of the institution to Prairie View Agricultural and Mechanical College of Texas. The act provided that "courses be offered in agriculture, the mechanic arts, engineering, and the natural sciences connected therewith, together with any other courses authorized at Prairie View at the time of passage of this Act, all of which shall be equivalent to those offered at the Agricultural and Mechanical College of Texas."

In March of 1947, the Old Administration Building was destroyed by fire. The Fiftieth Legislature, then in session, made an emergency appropriation of $300,000 for the erection of the present administration building, which was completed in March of 1949.

The title of principal of the college was changed to dean by the Board of Directors effective during the 1947-48 school year. However, on September 1, 1948, the title was changed to president, and on December 3, 1948, Dr. E. B. Evans, the eighth principal, was inaugurated as the first president of Prairie View Agricultural and Mechanical College of Texas. The divisions of the college became schools, and the directors of the respective schools became deans.

A new women's dormitory completed in September of 1950 was named for the late Dean of Women, Miss M. E. Suarez. A similar building for men, completed in 1952, was named for former teacher J. M. Alexander. The E. B. Evans Animal Industries Building was completed in 1951, and the Gibb Gilchrist Engineering Building was completed in 1952. Two additional dormitories, one for men and one for women, were completed in 1955, along with a dairy barn and utility warehouses. A home economics building, May Hall, was added in 1957, and the old home arts building was converted to a modern music building. The Memorial Student Center and Harrington Science Building were completed in 1960 and 1961, respectively, followed by the health and physical education building in 1964 and two air-conditioned dormitories in 1965.

Prairie View A&M was accepted for membership in the Southern Association of Colleges and Schools in December of 1958 and later received full accreditation by the National Council for Accreditation of Teacher Education.

Following the retirement of Dr. E. B. Evans as president emeritus in 1966, Dr. J. M. Drew was appointed to the position. Dr. Drew became ill shortly after taking office and was replaced by Dr. Evans who served briefly as acting president.

Dr. Alvin I. Thomas, elected as the third president of Prairie View Agricultural and Mechanical College in November 1966, introduced the residential college concept.

As Prairie View A&M's centennial approached, the Board of Regents of the newly-titled Texas A&M University System, at the request of President Thomas, appointed 79 persons to a Centennial Planning Council and charged them with formulating a new master plan for Prairie View A&M for the 1970s. After 16 months of serious study, the council's recommendations were published in a document entitled *A Developmental Plan, 1970-80, Prairie View A&M College of Texas.*

As an outgrowth of this plan and recommendations to the state legislature, the name of the institution was again changed to Prairie View A&M University, and its status as an independent unit of the Texas A&M University System was reconfirmed. The System Board of Regents, in the fall of 1970, sold in excess of $13 million in bonds for the construction of two new residence halls and a dining facility. The residence halls, accommodating 1,500 students, were opened for occupancy in August of 1972. The dining facility, now known as Alumni Hall, was opened in the second semester of the 1972-73 academic year. Other major construction completed during the following decade

included the fire and security building, Farrell Hall Laundry, Burleson-Ware ROTC Building, Hobart Taylor Hall, the engineering building, and the Owens-Franklin Health Center. In 1980-81, the state of Texas purchased and renovated a building in the Texas Medical Center complex to be used as clinical nursing center for the College of Nursing. In 1981-82, broadcasting began from newly constructed facilities of FCC-approved KPVU-FM at Prairie View, an instructional laboratory of the Department of Communications.

In 1981, the Texas legislature officially recognized Prairie View as not only a general purpose university but also as "special purpose institution" providing services to students of "diverse ethnic and socio-economic backgrounds." The physical plant, valued at approximately $12 million in 1966, was valued at more than $50 million at this time. Curricula offerings, research and Cooperative Extension activities had been greatly enhanced. Upon Dr. Thomas' resignation in June 1982, Dr. Ivory Nelson took office as acting president.

On January 27, 1983, Dr. Percy A. Pierre was appointed the fourth president of Prairie View A&M University. Two new public policy imperatives were extant at that time: The Texas A&M University System's commitment to academic excellence and the state's commitment to the enhancement of Prairie View A&M University to spur greater integration. These two imperatives resulted in the Target 2000 Report published in May of 1983 and the Texas Plan published in August of 1983. They outlined short-term and long-term courses of development that have and will significantly change Prairie View A&M. The goals outlined were given credibility in November of 1984 by an amendment to the State Constitution that names Prairie View A&M University as an "institution of the first class" and gives it an equitable share of the proceeds of the Permanent University Fund. For the first time in the 106-year history of the university, the state of Texas agreed to fund Prairie View on the same basis as Texas A&M and the University of Texas.

New educational directions were taken in the pursuit of academic excellence through the establishment of the new College of Engineering Technology and the Benjamin Banneker Honors College. The College of Engineering Technology developed out of the old College of Industrial Education through the elimination of most vocational and industrial technology programs; the upgrading of existing programs; and the introduction of three new programs in computer engineering technology and electrical and mechanical engineering technology. The Benjamin Banneker Honors College serves the university by providing honors level programs.

In a move to reduce administrative costs, increase efficiency and improve educational effectiveness, the university merged the colleges of Agriculture and Home Economics with the College of Engineering Technology, which was renamed the College of Applied Sciences and Engineering Technology, beginning September 1987. The colleges of Agriculture and Home Economics became departments in the new college. The Computer Science program was transferred from the Department of Mathematics and Computer Science to the Department of Engineering Technology.

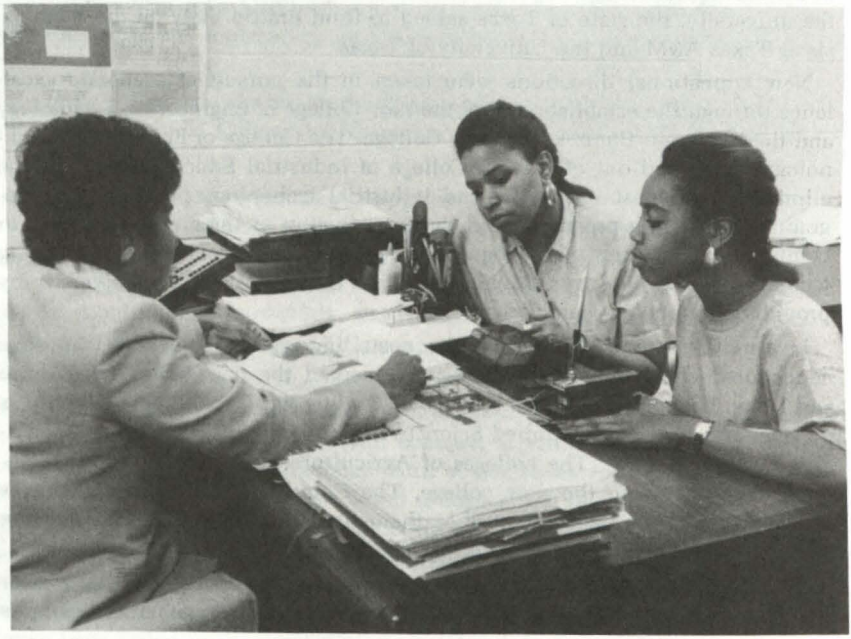
The physical development of the campus proceeded according to the Master Plan of August 1984, which sought to enhance the historic part of the campus

through new building construction, renovations, and exterior construction and landscaping. Among new buildings constructed were the five-story John B. Coleman Library, the Agricultural Research Building, the Chemical Engineering Laboratory Building, the Education and Classroom Building, the Engineering Technology Building, the Johnson-Phillip All Faiths Chapel, the Central Receiving and Warehouse buildings, the new Gymnasium, and the Intramural Athletic Complex. Buildings renovated include the Field House, the Home Economics Building, the Harrington Science Building, the President's House, the Physical Plant Building, the Power Plant, and the Gilchrist Engineering Building. Exterior construction converted the campus to a pedestrian campus with the construction of several major malls and broad walkways between them. Major renovations under construction or design include the Old Education Building and the W.R. Banks Building.

Since 1983, PVAMU's enrollment increased more than 25 percent, and the university's endowment jumped from $300,000 to over $3 million.

On December 15, 1989, Julius W. Becton, Jr. LT General, U.S. Army (Retired) was appointed the fifth president of Prairie View A&M University, his alma mater. With nearly 40 years of active commissioned service in the U.S. Army, President Becton was the first graduate of Prairie View A&M University to attain star rank in the military.

In the first year of his administration, President Becton took steps to improve fiscal operations. In addition, he oversaw the reaffirmation team visit by the Southern Association of Colleges and Schools, and the College of Nursing received a full eight-year accreditation from the National League of Nursing.



Student Services

CAMPUS LIFE

Prairie View A&M University aims to aid students not only in their academic growth, but also in their aesthetic, physical, spiritual, interpersonal and cultural development. The staff of the Student Affairs Division of the University and other campus service units are committed to enriching the university environment to enable students to become mature and responsible members of society who will engage in life-long self-improvement.

Administrative responsibility for the organization, direction, and governance of student life at Prairie View A&M University is assigned to the Division of Student Affairs. Headed by the vice-president for student affairs, the division consists of the offices of Admission and Financial Aid, Counseling and Career Development, School Relations (Recruitment and Pre-College Programs), Student Activities, and Student Life (Disciplinary Management and Residential Life).

At Prairie View A&M University students work closely with the Student Affairs professionals to create a supportive climate for independent thinking and group cooperation. A notable feature of the campus is the easy access to administrators, faculty and staff who are sensitive to student needs and can respond in a personal way. The residential character of the campus also brings students closer together and promotes a strong university spirit of camaraderie.

TUITION AND FEES

Registration and Student Fees

Registration at the university consists of enrolling in classes and paying required fees. Registration cannot be completed and no student can be formally enrolled in a class until all required fees are paid to the Bursar's Office.

Explanation of Fees

Fee amounts are subject to change without notice. The amounts listed below are in effect for Fall 1990. Current fee schedules may be obtained from the bursar.

Tuition. Texas resident students pay $18.00 per semester credit hour but not less than $100 per academic semester and not less than $50 per five or six week summer term. Non-Texas residents pay $122.00 per semester credit hour.

Student Services. All students attending the university are required to pay $7.50 per credit hour not to exceed $90.00 per academic semester and $45.00 per summer session. This fee assists the university in providing recreational activities, intramural athletics, artists and lecturers, cultural entertainment, debating and oratorial activities, student publications, student government services, and other student activities and services authorized by the board.

Building Use. All students are required to pay $5.75 per credit hour for retirement of indebtedness on certain university buildings and facilities.

Student Health. All students are required to pay $15 per regular semester and 7.50 per summer term. This fee entitles the student to receive six (6) out-patient doctor's visits during the Fall and Spring Semesters and three (3) out patient doctor's visits per each summer term.

Room Rent. All students who live in university residence halls must pay the rent amount charged for the dormitory occupied.

Board. Students who live in the university residence halls must select the cafeteria meal plan A. (3 meals, 7 days a week) or the cafeteria-style meal plan B (3 meals, 5 days a week). All students may purchase PV Express points in ten dollar increments. Flex points can be used in either board or cash-sale-operations.

Laundry. Students residing in university residence halls must participate in the University Laundry Plan, which provides a pre-determined amount of flex points each semester and summer term. Students will have the option of using their laundry flex points to pay for laundered and/or dry cleaned items or use their flex points at the central laundromat.

Identification Card. Students will be assessed an I.D. Card services fee of $16 per academic year. Fall Semester $4/Spring Semester, $4/Summer I, $4/ and Summer II, $4. The Prairie View I.D. Card is designed to be issued when a student initially enrolls in the university. This same I.D. is revalidated each semester to encode the services that each student is entitled to receive. Failure to have the I.D. revalidated may result in services not being rendered, i.e. meals library, laundry, health care.

Sales Tax. Students who participate in the food service plan are required to pay state sales tax.

Non Refundable Fees

1. Add/Drop ..... $ 6 per form
2. Applied Music ..... $12 per course
3. Auditing ..... $10 per course
4. Bad Check ..... $15.50 per check
5. Certificate ..... $ 6
6. Diploma, Graduate $20
7. Diploma, Undergraduate $10
8. I.D. Card ..... $ 4 per semester
   $ 4 per summer term
   $10 duplicate*
9. Installment Carrying Fee $12

10. Installment Late Fee $12
11. Laboratory ..... $ 2 to $8 per course
12. Late Admission Processing $15
13. Late Registration ..... $25 per semester
    $12.50 per summer term
14. Reinstatement $50.00
15. Registration in Absentia ..... $15 resident
    $17.50 nonresident
16. Transcript (After the first request) ..... $ 2 (money order or cashiers check)
17. Vehicle registration ..... $20 per semester
    $10 per summer term

*If the lost I.D. Card is found prior to the student taking the picture for the duplicate card, the $10 fee will be refunded.

REFUNDABLE DEPOSITS

1. General Property $10
   Covers possible damage to university property or other student indebtedness. Refunded upon request within six months after graduation or permanent withdrawal from the university if there are no charges against the student. The General Property deposit will be forfeited if not claimed within four years after graduation or permanent withdrawal from the university.
2. Room Damage $100
   Covers possible damage to university dormitory property. Refunded upon request within six months after graduation or permanent withdrawal from the university if there are no charges against the student. The damage deposit will be forfeited if not claimed within four years after graduation or permanent withdrawal from the university.
3. Room Reservation $100
   Covers reservation for dormitory room. The room reservation deposit will be applied to the student's room rent charge.

The following example uses the fee schedule above to show fees for a Texas resident enrolled for 17 semester hours during a semester or 6 semester hours during a summer term.

Fees	*Semester*	*Summer Term*
Tuition	$306.00	$108.00
Student Services	$ 90.00	$ 45.00
Student Health	$ 15.00	$ 7.50
Building Use	$ 97.75	$ 34.50
Room Rent	$630.00	$262.00
Board		
21 Meal Plan	$839.00	$339.00
Sales Tax on 21 Meal Plan	$ 60.82	$ 24.57
15 Meal Plan	$799.00	n/a
Sales tax on 15 Meal Plan	$ 57.92	n/a
Laundry	$ 60.00	$ 23.00
I D. Card	$ 4.00	$ 4.00

Statutory Provisions

Students may qualify for legislative exemption from the payment of tuition and certain fees and charges based on the following exemption criteria:

A. Exempted from Tuition:

1. highest ranking graduates of accredited Texas high school exempt for two semesters immediately following their graduation;
2. persons who have resided in Texas for at least the period of 12 months before the date of registration and are: (a) veterans of certain wars who were citizens of Texas at the time they entered service or (b) citizens of Texas who are children of certain members of the armed forces of the United States or Texas National Guards who were killed or died in the line of duty;
3. eligible children of firemen and peace officers disabled or killed in the line of duty;
4. eligible blind and deaf students;
5. students who are citizens of other nations of the American hemisphere, based on allocations by the Coordinating Board, Texas College and University Systems;
6. firemen enrolled in fire sciences courses offered as part of a fire science curriculum;
7. dependent children of prisoners of war or persons missing in action; and
8. senior citizens if space is available to audit any course offered.

B. Exempted from Laboratory Fees:

1. persons who have resided in Texas for at least the period of 12 months before the date of registration and are: (a) veterans of certain wars who were citizens of Texas at the time they entered service, or (b) citizens of Texas who are children of certain members of the armed forces of the United States or Texas National Guards who were killed or died while in the line of duty;
2. eligible children of firemen and peace officers disabled or killed in the line of duty;
3. eligible blind and deaf students;
4. students who are citizens of other nations of the American hemisphere, based on allocations by the Coordinating Board, Texas College and University Systems;

5. firemen enrolled in fire sciences courses offered as part of a fire science curriculum;
6. dependent children of prisoners of war or persons missing in action; and
7. senior citizens if space is available to audit any course offered.

C. Exempted from Student Services Fee:

1. eligible children of firemen and peace officers disabled or killed in the line of duty;
2. eligible blind and deaf students;
3. students who are citizens of other nations of the American hemisphere, based on allocations by the Coordinating Board, Texas College and University Systems;
4. dependent children of prisoners of war or persons missing in action; and
5. senior citizens if space is available to audit any course offered.

D. Exempted from Building use fee and Student Health Fee:

1. persons who have resided in Texas for at least the period of 12 months before the date of registration and are: (a) veterans of certain wars who were citizens of Texas at the time they entered service or (b) citizens of Texas who are children of certain members of the armed forces of the United States or Texas National Guards who were killed or died in the line of duty;
2. eligible children of firemen and peace officers disabled or killed in the line of duty;
3. eligible deaf and blind students;
4. students who are citizens of other nations of the American hemisphere, based on allocations by the Coordinating Board, Texas College and University Systems;
5. dependent children of prisoners of war or persons missing in action; and
6. senior citizens if space is available to audit any course offered.

E. Exempted from General Property Deposit:

1. eligible deaf and blind students;
2. students who are citizens of other nations of the American Hemisphere based on allocations by the Coordinating Board, Texas Colleges and University Sytems; and
3. senior citizens if space is available to audit any course offered.

F. Exempted from room, board, and laundry fees:

Students who are not housed in University Residence Halls.

Note:

Students concurrently enrolled in more than one public institution of higher education will pay tuition and student service feeas specified in the Texas Education Code 54.062 and 54.503.

Board of Regents' Provisions

The Board of Regents has provided certain exemptions from student fees in addition to those provided in the statutes. Exceptions currently authorized at Prairie View A&M University follow:

A. Student Service Fee:

1. full-time employees of The Texas A&M University System;
2. students registered in absentia; and
3. military personnel assigned to full-time ROTC duty in the military science department of any general academic institution of The Texas A&M University System.

B. Building Use Fee and Student Health Fee:

1. full-time employees of The Texas A&M University System;
2. students registered in absentia; and
3. military personnel assigned to full-time ROTC duty in the military science department of any general academic institution of the Texas A&M University System.

Fee Payment Plans

Prairie View A&M University offers the following fee payment plans for the payment of tuition and fees during the fall and spring semester:

1. Full payment of tuition and fees in advance of the beginning of the semester
2. One-half payment of tuition and fees in advance of the beginning of the semester, one-quarter payment prior to the start of the sixth class week, and the final one-quarter payment before the beginning of the eleventh class week.

Unpaid Obligations (Administrative Withdrawal)

Students who do not fulfill their financial obligations when due are subject to administrative withdrawal from the university. Administrative Withdrawal will result in loss of room and board privileges and loss of classroom admittance for the semester. Administrative withdrawal does not eliminate outstanding debt(s) including tuition, fees, room and board, and other incidental charges. The student who has been administratively withdrawn can be reinstated to student status upon the payment of the reinstatement fee and all tuition, fees and incidental charges.

All checks accepted by the university must clear the bank on which they are drawn. Students who write checks that do not clear the bank will be denied further check writing privileges. The university will not accept personal checks for past due balances.

Fee Refunds

Fee refunds will be given for courses dropped and for withdrawal from the university within the time constraints described below.

A full refund of applicable tuition and fees will be given for courses dropped within the first 12 class days of the fall or spring semester, or within the first

four days of summer term, provided the student remains enrolled at the institution for that semester or term. Students who wish to withdraw from the university after registering must follow prescribed procedures for withdrawal or risk substantial penalties and difficulty in registering for future semesters. Withdrawal forms are available from the registrar.

Students who have question or concerns regarding the calculations of their refund may appeal by letter to the following individuals:

Financial Aid Recipients

Director of Student Financial Aid
Prairie View A&M University
P.O. Box C
Prairie View, Texas 77446

Non-Financial Aid Recipients

Assistant Director of Funds Management
Prairie View A&M University
P.O. Box 248
Prairie View, Texas 77446

Students and parents should state in their appeal letter the portion of the refund which is being questioned. Each appeal will be reviewed by the respective office in charge of calculating the refund. Please allow thirty (30 days for response).

Refund Schedules (Voluntary Withdrawal)

The following schedule applies to tuition, student service fees, building use fee, laboratory fees, student health fee:

Fall or Spring Semester	
Prior to the first class days	100 percent
During the first five class days	80 percent
During the second five class days	70 percent
During the third five class days	50 percent
During the fourth five class days	25 percent
After the fourth five class days	None

Five- or six-week Summer Session	
Prior to the first class day	100 percent
During the first, second, or third class day	80 percent
During the fourth, fifth, or sixth class day	50 percent
Seventh class day and thereafter	None

Room Damage and Reservation: Deposits will be refunded in full if the reservation is cancelled by July 15 for the Fall Semester, December 15 for the Spring Semester, May 10 for the first Summer Session or June 20 for the second Summer Session. No refunds will be made if room reservations are canceled after these dates.

Room Rent. Students who withdraw after registration begins will receive a prorated refund of unused room rent.

Laundry Fee. Laundry fee refunds will be prorated on a weekly basis.

Food Service Refund. Payments made for board will be refunded in full to students who officially withdraw before the first day of official registration for that term. Refunds of actual payments on or after the first day of official registration for actual payments will be proprated on a daily basis less an early withdrawal fee of ten (10) percent of the semester rate.

SCHOLARSHIPS AND FINANCIAL AID

Prairie View A&M University administers several programs to help students meet the cost of attending the university. A variety of factors are considered in determining who receives financial aid; among them are the promise of academic or other talent, contribution to campus diversity, and financial need. Ordinarily students are given a personalized financial aid package showing the types of financial support for which they are eligible.

Academic and Talent Scholarships

The university annually awards a number of academic and talent scholarships through university funds and through funds made available by friends and supporters. Although a student's financial need may be considered in making the award decision, these scholarships generally are awarded for academic or talent achievement indicated by grades earned in high school and college course work, test scores such as SAT or ACT, participation in extracurricular activities, good conduct record, and other criteria defined by the specific scholarship programs.

The following scholarship awards valued at $500 or more are available on a competitive basis:

All Majors
- University Academic Scholarship
- University Residential Scholars Award
- University Talent Scholarship
- University Assistance Scholarship
- Abercombie Scholarship
- Alfred J. Banks Memorial Scholarship
- McAshan Scholarship
- Polk-Davenport Memorial Scholarship

Female Students
- Mary Gibbs Jones Scholarship for Women

Male Students
- Jesse H. Jones Scholarship for Men

Bexar County Residents
- Brackenridge Scholarship

Texas Residents (Blacks)
- United Ministers Scholarships

General Motors Employees or Relatives
- General Motors Scholarship

Agriculture Majors
- E. B. Evans Scholarship
- HLS&R Scholarship (Rodeo)
- Will C. Hogg Scholarship
- Jesse H. Jones Scholarship
- Mary G. Jones Scholarship
- Margaret Reading Scholarship

Art, Music, and Drama Majors

Jesse H. and Mary Gibbs Jones Scholarship

Business Majors

Esther Johnson Tyler Memorial Scholarship

Chemistry Majors

NALCO Foundation Chemistry Scholarship

Engineering Majors

Alcoa Engineering Scholarship
Allied Bendix Aerospace Prairie View Alumni Scholarship
Eastman Kodak Company Scholarship
General Motors Scholarship for Engineering Majors
Hercules Corporation Scholarship
Hughes Aircraft Company Fellowship
Marcel Levecque Memorial Scholarship
National Action Council for Minorities in Engineering (NACME) Incentive Grants Award
Schlumberger Foundation Scholarship
Texaco Engineering Scholarship
3M Company Scholarship

Engineering Technology Majors

Kaiser Corporation Industrial Technology Scholarship

Home Economics Majors

Caesar A. and Estella M. Dial Scholarship
Mary Gibbs Jones Scholarship

Mathematics Majors

Caesar A. and Estella M. Dial Scholarship
Mathematics Scholarship

Nursing Majors

Clayton Nursing Scholarship
A. Jeanette Jones Scholarship

Inquiries about academic and talent scholarships should be directed to the Office of Admissions and Financial Aid, Prairie View A&M University, P.O. Drawer C, Prairie View, Texas 77446-2868.

Ethnic Recruitment Scholarships

To encourage ethnic diversity, the state of Texas and the university provide a limited number of scholarships to qualified non-black students who enroll at the university. Grades earned in high school and college course work, as well as SAT or ACT test scores, are considered in making these awards. Awards are made to both undergraduate and graduate students.

Applications for ethnic scholarships may be obtained from the Office of School Relations, P.O. Box 66, Prairie View A&M University, Prairie View, Texas 77446-0066.

Loans

The university offers both long-term and short-term loan programs. Long-term loan programs include National Direct Student Loans, Hinson-Hazlewood College Student Loans, and Guaranteed Student Loans. The average maximum amount available to a student under the long-term loan programs is $2,500 per year. The total amount a student may borrow for undergraduate studies ranges from $5,000 to $7,500. For graduate studies, the total amount ranges from $10,000 to $15,000, depending on the guidelines of the particular program. Long-term loan repayment begins six months after the student graduates, withdraws from the university, or ceases to carry at least a half-time course load during a fall or spring semester. Repayment of the loan and its interest may be extended over a 10-year period.

The university provides a limited number of short-term loans to enable students to pay tuition and/or required fees. Normally, these loans must be repaid within 60 days, and a service charge is assessed.

Inquiries about loan programs should be directed to the Office of Admissions and Financial Aid, Prairie View A&M University, P.O. Drawer C, Prairie View, Texas 77446-2868.

Need-Based Grants

The university offers several need-based grant programs. Federally funded programs include the Pell Grant and the Supplemental Educational Opportunity Grant (SEOG). The amount of these awards is based on a determination of the student's eligibility (need), the cost of attending the university, and a payment schedule issued by the U.S. Department of Education. Other grant programs administered by the university include the Texas Public Educational Grant and the Texas Public Educational State Student Incentive Grant.

Students may initiate a request for a need-based grant by completing a Prairie View A&M University financial aid application and the Financial Aid Form (FAF) of the College Scholarship Service. Both applications may be obtained from the Office of Admissions and Financial Aid, Drawer C, Prairie View, Texas 77446-2868. Any additional forms needed will be mailed to the student after the university has received the Financial Aid Application and the FAF.

In considering need-based applicants for financial aid, the university recognizes that each student and family situation is unique. As a result, every application and financial statement is carefully analyzed and considered. Complete confidentiality is maintained during the review of student need documentation.

Students applying for need-based financial aid programs must be enrolled at least half-time (a minimum of six credit hours per semester) and show satisfactory academic progress toward a university degree.

Student Employment

Need-based College Work-Study Program funds are provided by the U.S. Department of Education and Prairie View A&M University for on-campus employment. Undergraduate and graduate students who are enrolled at least half-time, are citizens or permanent residents of the United States, and are in need of earnings from such employment to pursue a course of study are eligible to apply. Appicants must submit a Financial Aid Form and a Prairie View A&M

University Application for Financial Assistance. Work-Study students may be employed during the semester for an average of 20 hours a week with approval from the Office of Admissions and Financial Aid, and up to 40 hours a week during the periods when classes are not in session.

The university also provides limited funds to employ students in a non-need-based work-study program. To qualify, students must be enrolled for at least six credit hours per semester and meet the university's satisfactory academic progress standards.

Students interested in employment at the university should contact the Student Employment Administrator, Office of Admissions and Financial Aid, Drawer C, Prairie View, Texas 77446-2868.

Application Deadlines

	Fall Semester	*Spring Semester*	*Summer Sessions*
Scholarships	April 1	November 1	Not Available
Pell Grant	May 1	May 1	Not Available
Supplemental Educational Opportunity Grant (SEOG)	June 1	November 1	April 1
State Student Incentive Grant (SSIG)	June 1	November 1	Not Available
National Direct Student Loan (NDSL)	June 1	November 1	April 1
Hinson-Hazlewood Loan (TOP)	June 1	November 1	April 1
Guaranteed Student Loan (GSL)	June 1	November 1	April 1
College Work-Study	June 1	November 1	April 1

MAJOR FACILITIES AND SERVICES

Cooperative Education Programs

Cooperative education programs are available to students who wish to combine their academic programs with on-the-job training. Programs involve alternating semesters of on-campus instruction with similar periods of paid temporary employment in business or industry. Students participating in the program must be registered students in good standing.

Students are eligible to participate in a coop program after successful completion of 30 credit hours of college course work with a minimum 2.0 grade point average. To earn academic credit, students must have the coop experience approved and supervised by their major department. Departments reserve the right to approve coop student participation according to academic performance criteria set within each major.

Students must apply at least one semester in advance of the semester they wish to be employed. Applications are available from the Office of Counseling and Career Development or from the department offices. No more than 18 elective semester hours of 12 semester hours in a major may be satisfied through approved coop program participation. To receive credit for the coop experience, a student must register with the university each semester. Students who fail to register will not receive academic credit for the experience.

The primary objectives of the coop program are: to provide students with meaningful professional experience and education; to better prepare students for immediate employment upon graduation; and to assist students in the development of attitudes and skills conducive to effective performance in the academic, employment, and interpersonal arenas.

Counseling and Career Development

The Office of Counseling and Career Development provides personal, academic, and career counseling services to help students develop and maintain positive attitudes, habits, and skills essential for success in the classroom and in life. Both individual and group programs are available to help students set goals and attain them. The primary goals and objectives of the CCD staff are to:

1. Familiarize students with university programs, services, and activities and prepare them to use both campus and community resources effectively
2. Design and operate programs that emphasize the total development and productivity of each student as a unique individual
3. Provide students with information on educational resources and career options
4. Assist students who wish to seek advanced degrees and additional graduate training
5. Enhance students' employment skills and opportunities for career exploration
6. Help students understand and maintain the motivation required to attain high standards of achievement, make choices according to their interests and abilities, and assume responsibility for their own behavior

Support services offered by the Counseling and Career Development Staff include preventive and educational counseling, positive growth seminars, interpersonal and intrapersonal skills enhancement workshops, career exploration, cooperative education coordination, and placement services. Assessment instruments available for measuring personal attributes and achievement levels include personality inventories, vocational-occupational inventories, computer-interactive career programs (SIGI-PLUS and DISCOVER), and a variety of achievement tests. The office also administers standardized tests required for admission to, or exit from, various academic programs.

Dining Services

A centrally located dining facility, Alumni Hall provides contract meal services for students living in the residence halls. Cash and special event dining services are also provided. Large lounge and lobby spaces available for receptions and other special events are also housed in this facility. Additional food service facilities in Memorial Student Center offer light meals such as hamburgers and pizza for students seeking a change of pace.

Disciplinary Management

Students are responsible for being fully acquainted with and complying with the rules and regulations published annually in the *University Student Handbook*. Students who fail to conform to these rules and regulations are subject to appropriate disciplinary action.

An administrative summons may be used to request a student to report to an administrative office for a conference or other direct communication. The summons may be transmitted by messenger, letter, telephone, bulletin board, or other means. A student who receives such a summons must report immediately to the requesting office and in preference to any and all other scheduled activity.

Absolutely no form of malicious treatment or hazing of a student or other person by another student or students will be tolerated on the Prairie View A&M University campus. Violators are subject to suspension or more serious action. State law requires that organizations as well as individual members engaging in hazing be assessed severe penalties.

Abuse of controlled substances is not tolerated on the campus. Severe penalties will be imposed on individuals found guilty of consuming or distributing such substance on the campus. The university penalties are in addition to any punishment derived from criminal prosecution.

Health Services

The Owens-Franklin Health Center, located on the main campus, coordinates health care services for the student body. The Health Center is open from 8:00 am to 6:00 pm Monday through Friday with nurses and/or physicians on duty to attend to basic health care needs and to provide a limited amount of outpatient health care. The Health Center is not equipped or staffed to provide inpatient and emergency room services. Emergency Medical Services are provided, however, by the Waller-Hempstead EMS with on call (24 hour) Para-Medics, stationed within a mile of the Prairie View Campus. The Para-Medics are backed up by an on call (24 Hour) Ambulance Service to transport patients to full service hospitals in the area, if required. The university further enhances its urgent care services by stationing on campus (for campus calls only), Emergency Medical Technicians (State Certified), between the hours of 6:00 pm-8:00 am Monday-Friday and for 24 hours on Saturdays and Sundays.

Since the Student Health fee does not cover ambulance transportation or services rendered at a full service hospital, it is imperative that all students have personal Health Insurance Coverage. For a minimal charge, a *Student Health Insurance Policy* can be obtained to cover emergencies and hospital care not covered by the Student Health Fee. Information about Student Health Insurance is available from the Owens-Franklin Health Center.

Library

The new five-story John B. Coleman Library was constructed at a cost of approximately $16 million.

The library's fast-growing collection contains 235,193 volumes, 259,823 microforms, a Texas State Documents Collection of more than 15,487 items, an Afro-American Collection, a Master's Thesis Collection, curriculum materials,

and a Prairie View A&M University Archival Collection. The library currently receives more than 1534 periodicals and other serials.

The Reference Department staff provides assistance in using the reference collection located on the first floor. Also located on the first floor are the microtext area, the Afro-American Collection, the Archives, a group study room, interlibrary loan service, and on-line computer literature searching. The second floor houses the circulating collections and seating space for users. The Learning Resources Center and Current Periodicals Department are located on the basement level.

With the exception of periodicals, reference books, books from the Afro-American Collection, and some reserved books, most books are loaned for a period of two weeks. An open-stack arrangement allows free access to all materials except those in the University Archives and some current periodicals. Library hours are Monday through Thursday from 7:30 a.m. to 11 p.m., Fridays from 7:30 a.m. to 6 p.m., Saturdays from 8 a.m. to 5 p.m., and Sundays from 3 p.m. to 11 p.m. Special hours for other areas and any exceptions to regular hours are posted in the library.

Memorial Student Center

The nucleus of extracurricular activity on campus, Memorial Student Center (MSC) has facilities for leisure, recreation, meetings, receptions, dances, and other student activities. The MSC holds active membership in the Association of College Unions International and sponsors competitive events in video games, board games, billiards, and the "college bowls."

Also located in the MSC are the college exchange and bookstore, a U. S. Post Office, beauty and barber salons, a coffee shop, a game room, a ballroom, and the campus hotel. A number of offices are located in the MSC, including management offices of the MSC and the Department of Student Activities, as well as offices for student groups such as the Student Government Association, the Pan-Hellenic Council, and the Coucil of Student Organizations.

Recruitment and Precollege Programs

The Office of School Relations provides a central point of contact for admission and enrollment information. The staff schedules and participates in off-campus meetings with prospective students, their parents, and school counselors as a major part of the university's recruitment effort. The staff also arranges campus visits for students and their parents that include appointments with selected faculty members, class visits, an admission and financial aid interview and a guided tour of the campus.

The Office of School Relations offers exceptional pre-college programs each summer. The Institute for Pre-college Enrichment provides a series of two-week, on-campus career development workshops to academically talented high school students. Students who attend enhance their basic academic skill, meet challenging professionals, learn about career opportunities, and share cultural experiences.

For more information on opportunities at PVA&MU, write to the Office of School Relations, Prairie View A&M University, P. O. Box 66, Prairie View, Texas 77446-0066.

Religious Activities

The recently constructed Johnson-Phillip All Faiths Chapel is the center of campus religious activities. Designed for both solitary meditation and interdominational group worship, the chapel caters to the needs and interests of students through programming that addresses the major issues confronting the university community as well as the community at large. The All Faiths Chapel Advisory Board composed of students, faculty, staff and community members conceptualizes and presents programs with the support of the Dean of Chapel.

The United Ministries, housed in the chapel, provide opportunities for students to maintain voluntary association with religious groups representing their personal preferences. The ministries work with students through the All Faiths Chapel and through local community churches.

Residential Life

Nine residence halls provide living/learning centers for students. Each residence hall is staffed with personnel charged with general responsibility for the welfare of the student occupants and care of the facility. Students assist in planning residence hall programs and related activities. They also help develop standards of conduct, determine social regulations, and create an atomosphere that promotes wholesome living and productive study in the residence halls.

Services provided in the residence halls include study areas, telephones (optional), limited mail service, laundry areas, lounge areas, kitchenettes, vending areas, and storage spaces. The University reserves the right to approve campus housing assignments, and at any time to transfer students from one residence hall to another or require any student considered an undesirable tenant to vacate a residence hall.

Because Prairie View A&M University is a residential campus, undergraduate students are encouraged to live in university residence halls where they can benefit from the living/learning environment. Regularly enrolled students who do not live in university residence halls are classified as commuter students. Undergraduate students who fall into one or more of the following categories are eligible to apply for commuter student status:

1. Students living at home with their parents or legal guardians
2. Married students
3. Veterans of military service
4. Students who are 21 years of age or older
5. Students engaged in off-campus assignments or affiliations
6. Students enrolled for less than 12 hours for the semester

Student Activities

Student activities at Prairie View A&M University are based on a concept in student advisement and programming that encourages teamwork and networking. Activities are planned to provide for the personal development of leadership

skills, with the recognition that being a positive supporter or follower also has merit. A variety of social and cultural events are sponsored by the Campus Activities Board, the Student Government Association and various independent organizations.

More than 30 academic honor societies, eight national Greek fraternities and sororities, and numerous academic, service, hometown, special interest, and social clubs are represented on campus. The university music ensembles, majorettes, cheerleaders, and the Charles Giplin Players, a theatrical ensemble, build school spirit and provide cultural enrichment. Outstanding speakers from the public and private sectors lecture frequently on the campus and performing artists make scheduled appearances.

The Prairie View Panthers varsity sports teams for men and women compete in the Southwestern Athletic Conference and in NCAA football, golf, basketball, tennis, track, baseball, and volleyball. An active intramural sports program for all students is coordinated by the Department of Health and Physical Education.

Traffic and Security

The Department of Traffic and Security operates 24 hours daily and provides police, fire, civil defense, and other emergency services to the university. Officers enforce university regulations as well as county and municipal ordinances, and state and federal laws. As peace officers, they are vested with all powers, privileges, and immunities of peace officers while in the performance of their duties.

The Department of Traffic and Security enforces university traffic regulations in addition to patrolling the campus community to maximize the protection of life and property. Automobiles operated on the campus must be operated in full compliance with federal, state and local laws. Traffic control and speed limit signals and signs are posted throughout the campus. Failure to comply with traffic and parking regulations may result in fines and/or cancellation of operating permits.

All full-time and part-time students, faculty, and staff are required to register and obtain a permit (decal) for each vehicle operated or parked on the campus. Visitor permits will be issued free of charge for periods of up to 72 hours by the University Traffic and Security Department. Unregistered or illegally parked vehicles are subject to impoundment and fines.

Graduate School

ADMINISTRATIVE OFFICERS

Arthur C. Washington, B.S., M.S., Ph.D.
Dean, Graduate School

Hakumat Israni, B.S., M.S., Ph.D.
Dean, College of Applied Sciences and Engineering Technology

Edward W. Martin, B.A., M.A., Ph.D.
Dean, College of Arts and Sciences

Barbara A. P. Jones, A.B., A.M., Ph.D.
Dean, College of Business

M. Paul Mehta, B.A., M.A., M.A.T., Ed.D.
Dean, College of Education

Marshall V. Brown, B.S., M.Arch.
Interim Dean, College of Engineering and Architecture

The Graduate School provides opportunities for advanced study to qualified students seeking additional graduate education and/or degrees. Programs are offered under the joint supervision of the Graduate School and associated colleges within the university.

Colleges in the Graduate School offer programs leading to the Master of Arts degree, the Master of Science degree, the Master of Business Administration degree, the Master of Education Degree, Professional Certification, and Certificate Endorsements.

Prairie View A&M University offers most of its graduate courses on the main-campus at Prairie View. However, each semester a limited number of courses are offered at off-campus sites. Off-campus sites are currently located in the Cypress-Fairbanks, Aldine and Rosenberg school systems, the campus of the Prairie View College of Nursing near downtown Houston, and in the Beaumont-Port Arthur area.

Prairie View A&M University is accredited by the Southern Association of Colleges and Schools.

ADMISSION REGULATIONS

Admission Requirements

1. Submission of a completed application for admission to the Graduate School.
2. A bachelor's degree from an accredited college or university.
3. An official transcript of all college work (undergraduate and graduate) from the registrar of each college previously attended.
4. A minimum undergraduate cumulative Grade Point Average of 2.75 on a 4.00 grading scale for regular graduate degree status.

5. Less than 2.75 but a minimum of a 2.45 Grade Point Average on a 4.00 grading scale for provisional graduate student status. Departments may use the last 60 semester hours of undergraduate credit for admitting students in this category.
6. Three letters of recommendation from persons in the field of the applicant's academic major.
7. Official scores on the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT)-College of Business.
8. Recommendation of admission by the department head and dean of the college in which the graduate program applied for is offered and formal acceptance by the dean of the Graduate School.

Students Whose Primary Language is not English

Graduate students whose first language is not English must present a score of 550 on the Test of English as a Foreign Language administered by the Educational Testing Service, Princeton, New Jersey, in addition to passing additional instruments required by their departmental major, as a part of the application process for unconditional admission to the University.

Students presenting a score of less than 550 will be evaluated and admitted provisionally on a case-by-case basis. Students admitted provisionally are required to participate in the ESL Institute and to demonstrate oral and written proficiency in English by the end of two semesters of attendance at the University or be dismissed from the University.

Additional assistance will be available in the Accelerated Learning Resource Center for students needing or wishing to improve their English language usage, comprehension, and speech patterns.

For submission of the application and all credentials, the following deadline dates apply:
April 1, for 1st Summer Session
May 1, for 2nd Summer Session
July 1, for Fall Semester
November 1, for Spring Semester
Applications should be submitted to:
Graduate Admissions Office
Prairie View A&M University
Prairie View, Texas 77446

Types of Admission

Graduate Degree Status. Students admitted as regular graduate students are called degree status students.

Provisional Graduate Status. Students admitted to this category may enroll for a maximum of 12 semester credit hours of graduate courses. In order to continue, the student must have achieved a grade point average of 3.0 and be recommended by the department and college for graduate degree status or non-degree status.

Non-Degree (Transient) Status. Students who have a bachelor's degree (minimum GPA of 2.45) and wish to take graduate courses without qualifying for a degree have this status. Students must meet all course prerequisites in order to be admitted to advanced courses. Elevation to degree status must be recommended by the appropriate department and college and approved by the dean of the Graduate School.

Special Student Status.

1. Students who wish to take graduate courses but do not meet the minimum GPA for admission as degree, provisional or non-degree status are considered special students. These students must have been highly recommended as potential graduate students. Students in this category may enroll for not more than 12 graduate semester credits covering a maximum of two consecutive terms. A student in this category may be admitted to degree status if a GPA of 3.0 is maintained during this period and if the student is recommended by the department head and dean of the college.
2. Students who are removed from degree status because of a low GPA may become special students. Students in this category may petition the department and college for re-admission to degree status after earning a 3.0 GPA. A petition will be allowed only once within a period of two years (24 months).
3. Students whose academic records were not received before the deadline period relating to the time in which the students wish to be admitted are designated as special students. If a student's records are received within a period of eight weeks after enrollment in courses, his/her record will be evaluated. The student will then be notified of his or her admission status. If the student's records are not received prior to the end of the grading period, no credit will be awarded for the course(s) taken.

Re-admission

A student or applicant who falls into one of the following categories must reapply for admission to the Graduate School:

1. An applicant who has previously been admitted to the university but did not enroll for the term stated in the acceptance letter.
2. A graduate student at Prairie View A&M University who was accepted into one degree program and wishes to enter another degree program.
3. Degree candidates and non-degree students who have not enrolled in courses for two consecutive years.

Graduate Work by Seniors

A senior in this university who is within six semester hours of completing the requirements for an undergraduate degree may, upon being recommended by the department head and college dean, be approved to register for up to six semester hours of graduate courses while completing undergraduate degree requirements. The combined load of the graduate and the undergraduate courses must not exceed 15 semester hours.

Second Master's Degree

Persons holding a previously earned master's degree may pursue an additional master's degree at Prairie View A&M University only with the specific approval of the Dean of Graduate School. Such approval will be given only when the following conditions are judged to be met:

1. The proposed second master's degree must be in a distinct and different major field of study than the previous degree;

2. Courses counted toward a previously earned master's degree may not be applied to the second master's degree unless they constitute specific course requirements for the major concentration in the second master's degree program. In such cases, not more than 12 semester hours of such courses may be counted toward the second degree. (Not more than 6 semester hours may be transferred from another institution).

Advisement and Academic Counseling

Each student is assigned a departmental major advisor upon admission to the Graduate School. The student should consult the advisor at least once during each semester and receive approval of courses to be taken for the degree. Consultation on all academic concerns should begin with the major advisor.

Tentative Degree Plan

The student should file a degree plan within the first semester of matriculation in the university. Degree plan forms may be obtained from the major advisor. The major advisor, department head, dean of the college and graduate dean review and approve the degree plan.

DEGREE REQUIREMENTS

Master of Arts and Master of Science

A minimum of 30 semester hours exclusive of thesis, with an average grade of "B" or better in courses approved for graduate credit, is required for the Master of Arts and Master of Science degrees. Up to six semester hours of thesis credit may be counted toward a degree.

In addition to the thirty semester hours in graduate courses, all candidates for the degree Master of Science must present an acceptable thesis on a subject germane to the major course of study. The thesis must be written under the direction of a member of the Graduate Faculty in the department offering the degree. The thesis subject must be approved by the Thesis Committee Chairman at least six months before the date of intended graduation. The thesis must have the approval of each member of the student's Thesis Committee and must be acceptable with respect to both scholarship and literary quality. One copy of the approved bond thesis must be filed in the Graduate Office.

The Master of Arts degree is an applied science and an arts degree. A thesis is optional. However, a form of Art, approved by the specific department, college dean and dean of the Graduate School, must be presented as the option to the thesis requirement for the Master of Arts degree.

After the thesis has been completed, the candidate is required to pass an oral examination which shall be a test of the candidate's knowledge of the study pursued. This examination is conducted by the student's Thesis Committee, of which the representative of the major field shall act as Chair. Any member of the Graduate Faculty may attend the examination as a visitor. A candidate who fails the oral examination must register in the Graduate School for an additional semester or summer term before an opportunity will be given for a second examination, unless special permission for an earlier examination is requested by the department and college concerned.

Master of Education and Master of Business Administration

A minimum of 36 semester hours of course work, with an average grade of "B" or better in courses approved for graduate credit, is required for the Master of Education and Master of Business Administration degrees.

Master of Science in Engineering

The degree of Master of Science in Engineering (M.S.E.) is awarded for studies undertaken in one of two optional degree plans. Plan I requires research and thesis and Plan II requires a professional internship plus one additional technical elective.

Plans I and II require a minimum of 36 semester hours. This requirement includes 15 credit hours of graduate core courses in general engineering and a minimum concentration of 12 hours in either civil, electrical or mechanical engineering advanced courses. Under both plans a comprehensive examination is required.

The Graduate Internship must be professionally-oriented with approval of the student's graduate advisor and the Office of the Dean of Engineering. The internship must culminate in a complete engineering project and a written and oral report.

General Requirements

The following requirements apply to all graduate degree programs. Specific degree requirements may be found in the appropriate college sections of this catalog.

All candidates expecting to graduate must file an application for the degree. The deadline for filing an application for the degree is published each semester by the registrar.

Upon completion of all requirements for the Master's degree, candidates are certified for graduation by the dean of the Graduate School. Degrees are publicly conferred at the close of the spring and the final summer sessions.

Admission to Candidacy

A graduate student admitted to full degree status does not automatically become a candidate for the Master's degree. To become a candidate, the student must complete the following minimum requirements:

1. Achieve a satisfactory score on the GRE or GMAT as stipulated by the department and college;
2. Prepare and submit an official Application For Candidacy Form showing the applicant's successful completion of 12 semester hours of required graduate courses with an average of "B" or better. This Candidacy Form must list all courses to be completed as well as those completed. Individual departments or colleges may have additional requirements for admission to candidacy. The application, when approved by the department head and college dean, must be submitted to the Graduate Dean for final approval.

Transfer of Credit

Graduate credit earned in another accredited institution, not exceeding six semester hours, may be transferred and credited to the Master's degree. Graduate credit for which the student received lower than a "B" grade cannot be transferred to this university. An "A" grade from another institution or earned in extension courses may not be used to validate a grade of "C" earned in this university.

A student who has satisfied requirements for admission to the Graduate School may receive credit toward the Master's degree for extension courses, subject to the following conditions: (a) graduate credit will be given only for such courses approved by the Graduate Council; (b) the courses must be accepted by the college as part of the degree program; and (c) graduate credit for extension courses shall not exceed six semester hours. Correspondence work is not accepted for graduate credit. With the consent of the department concerned, a student may take work by correspondence to remove deficiencies in undergraduate training. Not more than nine semester hours of extension and transferred credits combined may be counted toward the Master's degree.

Grading System for Graduate Students

Course work for graduate students is reported as "A" (95-100); "B" (85-94); "C" (75-84); "D" (65-74); "F" (below 65); "I" (incomplete); "W" (Withdrew officially or withdrew passing).

In order to show satisfactory progress toward an advanced degree, a student must maintain an average grade of "B." A student who, in any two consecutive semesters or summer terms, has a cumulative grade point average below 3.00 is subject to academic dismissal upon recommendation of the department and college to the dean of the Graduate School.

A graduate student can receive a grade of "I," incomplete, in a course with the privilege of finishing the work before the end of one calendar year from the close of the term in which the grade was earned. This regulation does not apply to thesis and research credit courses but does apply to terminal project credit courses. A fee, payable to the Registrar, is required for the change of grades.

The work of a graduate student performed in connection with the thesis problem is reported as a regular grade.

Time Limit on Work for Master's Degree

A student must complete requirements for the degree within six consecutive years after the first date of enrollment in the Graduate School. Credit for individual courses completed in residence between six and seven years before all requirements for the Master's degree are completed may be validated by special examination given by the department concerned. Courses completed in extension or at another institution beyond the time limit cannot be validated. A course in which a grade of "C" was earned cannot be validated. A validated course is valid as credit toward the Master's degree only during the term in which it is validated.

Student Petitions and Appeals

A student who has problems arising from course evaluations, advancement to candidacy, degree requirements or general regulations should discuss them first with the advisor. If a student wishes to appeal a decision, the department chairman, the college dean and the Graduate School dean should be consulted, in that order.

Course Load

The following limitations on course load are in effect:

1. During a regular session, a graduate student may not enroll for more than 15 hours.
2. During a five- or six-week summer term, a graduate student may not enroll for more than six semester hours, except when one course is a four-hour course, in which case the student may enroll for seven hours. The total credit hours earned for the two summer sessions may not exceed fourteen.
3. A graduate student may not enroll for more than three semester credit hours during a three-week summer term.
4. A graduate student enrolled in a three-week term may not enroll for more than one three-hour course in the six week term being conducted concurrently.
5. This university defines full time enrollment for a graduate student as a minimum of 9 semester credit hours during the regular terms and a minimum of 4 semester credit hours during each summer term.

FINANCIAL ASSISTANCE

Graduate teaching and research assistantships are available to qualified students. Applications for graduate teaching and research assistantships should be submitted to the dean of the Graduate School.

Applications for federal and state loan programs and all other requests for financial assistance should be submitted to the financial aid officer.

The deadline for applying for teaching and research assistantships is the same as for applying for admission to the Graduate School. The deadline for applying for other financial assistance can be obtained from the financial aid officer.

College of Applied Sciences and Engineering Technology

ADMINISTRATIVE OFFICER

Hakumat Israni, *Dean*

PURPOSE AND GOALS

The graduate programs offered by the College of Applied Sciences and Engineering Technology prepares the students for teaching, research, doctoral programs, and for positions in business, industry and government. The programs are designed to meet the individual needs and goals of the students.

DEGREE PROGRAMS

The College of Applied Sciences and Engineering Technology offers the Master's degree programs as given below:

Departments	Programs	Degrees Offered
Agriculture	Agricultural Economics	M.S.
	Animal Science	M.S.
	Soil Science	M.S.
Home Economics	Home Economics	M.S.

The college also provides graduate coursework which may be applied to master's degree programs with concentrations in the areas of Industrial Education, Home Economics Education, and Agriculture Education. Students seeking these concentrations should apply for admission to the College of Education. The Department of Industrial Education also offers courses required for endorsement as a vocational counselor and certification as a vocational supervisor and vocational-industrial teacher/coordinator.

Students admitted to the graduate programs in the College of Applied Sciences and Engineering Technology must follow a degree program designed according to the student's academic background, needs and interests.

ADMISSION TO PROGRAM

The student seeking admission to the graduate program should follow the admission regulations and procedure outlined in the Graduate School section of this catalog. A student admitted to the Graduate School must also be admitted to the college and department in which the student plans to pursue a degree. The student should consult the catalog section covering the specific discipline for departmental requirements for admission.

ADVANCEMENT TO CANDIDACY

A student must meet all the general requirements given in the Graduate School section of this catalog.

PROGRAM REQUIREMENTS

Specific program requirements for the master's degrees are given in the catalog section of each department offering the degree.

Department of Industrial Education

FACULTY

Charles T. Edwards, Jr., *Head, Industrial Education*
Lloyd Boyden, *Coordinator, Industrial Education*

DEGREE AND CERTIFICATE PROGRAMS

The Department of Industrial Education offers graduate coursework which may be applied to a master's degree program in education with a concentration in Industrial Education. Students seeking this option should apply for admission to the College of Education. The department also offers courses required for endorsement as a vocational counselor and certification as a vocational supervisor and vocational-industrial teacher/coordinator.

VOCATIONAL COUNSELOR CERTIFICATE

For the Professional Vocational Education Counselor Certificate issued by the Texas Education Agency, requirements are: a bachelor's degree, a valid Professional Counselor Certificate, 12 semester hours of specified vocational guidance courses, and three years of experience. This experience may include teaching experience and not less than one year of wage-earning experience in an occupation for which vocational education is being conducted in the public secondary school, or two years of teaching experience in an approved vocational program preparing students for gainful employment.

Required Courses (39 semester hours)

EDFN 5123	Socio-Cultural Issues in Education
CNSL 5013	Counseling Techniques
CNSL 5023	Counseling Theory and Practice
CNSL 5083	Psychology of Abnormal Behavior
CNSL 5113	Career Development Counseling
CNSL 5123	Appraisal Techniques
CNSL 5133	Group Dynamics
CNSL 5063	Counseling Practicum I
EDFN 5113	Psychology of Learning and Development
VOED 5103	Placement and Follow-up
VOED 5403	Occupational and Vocational Education
VOED 5903	Planning and Organization
VOED 5983	History and Principles

NOTE: In addition to coursework, certification is dependent upon passing a comprehensive departmental examination.

VOCATIONAL SUPERVISOR CERTIFICATE (30 Semester Hours)

For the Professional Vocational Supervisor Certificate, the requirements are: a bachelor's degree, a valid Texas Teacher Certificate, three years of teaching experience in an approved vocational education program, and the courses listed below:

Vocational Education (18 semester hours)

VOED 5133 Vocational Analysis
VOED 5603 Organization and Administration
VOED 5703 Vocational-Technical Curriculum Development
VOED 5803 Supervision of Vocational Programs
VOED 5903 Planning and Organizing Vocational Programs
VOED 5983 History and Principles of Vocational Education

General Supervision and Supportive Courses (9 Semester Hours)

SUPV 5213 The School Supervisor
SUPV 5513 Supervision Practicum
SUPV 5113 Principles of Supervision

Resource Area (3 Semester Hours - Elective)

ADMN 5003 Fundamentals of School Administration
INED 5403 Administration & Supervision of Industrial Arts
VOED 5103 Placement and Follow-up

VOCATIONAL INDUSTRIAL TEACHER-COORDINATORS

This program is designed to meet the Texas Education Agency (TEA) requirements for Vocational Industrial Teacher-Coordinators. Persons seeking their certification must have an earned degree from an approved college or university, two years of experience in industry, and must have been selected as a teacher coordinator in a secondary school program.

Courses required for Certification as a Vocational Industrial Teacher-Coordinator are listed below:

Courses		Hours
VOED 5143	Instructional Materials	3
VOED 5203	Instructional Methods	3
VOED 5753	Selection, Placement and Follow-up	3
VOED 5833	Human Relations	3
VOED 5633	Philosophy and Objectives	3
VOED 5933	Problems	3
Total Hours Required:		**18**

COURSE DESCRIPTIONS

Industrial Education (INED)

5003. Workshop I. (2-2) Credit 3. An in-depth study of problems encountered by industrial education teachers. Techniques for problem identification, analysis, and resolution are explored. Also imparts limited training in the high technology areas of energy and power, computers, and electricity-electronics.

5013. Workshop II. (2-2) Credit 3. Advanced study in selected technological areas. Emphasis is placed on electricity-electronics, energy and power, computer applications, and visual communications.

5103. Test and Measurements. (3-0) Credit 3. Sources of instructional testing and evaluative materials; construction and use of tests and evaluative devices; administering, scoring, recording and interpreting tests; progress charts; and diagnosis of difficulties and analysis of teaching problems as related to evaluations.

5203. Instructional Methods. (3-0) Credit 3. Study of methods, devices, and techniques as applied to teaching industrial subjects; analysis and evaluation of student learning difficulties and of the teaching responsibilities in industrial classes. Study of the nature, preparation and use of instruction sheets.

5403. Administration and Supervision of Industrial Arts. (3-0) Credit 3. Techniques for organizing, supervising and administering industrial arts programs. Addresses special problems experienced by industrial arts supervisors and administrators.

5603. Problems in Industrial Education. (3-0) Credit 3. Conferences and advisement in selection and preparation of an acceptable term paper or essay. Prerequisite: INED 5903.

5703. The History of Industrial Education. (3-0) Credit 3. A survey of the early movement, experiments and writings of leaders in the United States and European countries. Intensive study of developments in industrial education since 1950. A comparative study of leaders, movements, institutions and literature in the field.

5803. Practicm in Industrial Education. (3-0) Credit 3. Study of problems that arise through the merging of practical experiences with theoretical and scientific concepts.

5903. Research and Thesis Writing. (3-0) Credit 3. Required of all M.S. candidates in Industrial Education. Methods and techniques of research writing and reporting. Designed especially for students who are to write a thesis or a lesser report.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Readings, research and/or field work on selected topics. Prerequisite: Consent of advisor.

Vocational Education (VOED)

5043. Methods and Media in Teaching. (3-0) Credit 3. Overview of the various media used to improve instruction, with methods for using audiovisual materials effectively in teaching vocational subjects. General production techniques are emphasized.

5103. Placement and Follow-Up. (3-0) Credit 3. A study of various instruments, methods, and techniques used in determining occupational aptitudes and interests of students. Planning, organizing, and coordinating a program of job and vocational education placement. Development and coordination of student follow-up services.

5133. Vocational Analysis. (3-0) Credit 3. A study of the methods and techniques of collecting, evaluating, and disseminating statistical information of a vocational nature, including identification and selection of vocational students, manpower needs and opportunities.

5143. Instructional Materials. (3-0) Credit 3. Acquiring skills and techniques in developing and preparing instructional materials. Preparation and use of instructional sheets and lesson plans: evaluation of instructional materials and relating how these materials are used in the actual laboratory setting.

5203. Instructional Methods. (3-0) Credit 3. A study of methods, visuals and techniques applied in the teaching of industrial subjects. An analysis and evaluation of proven ways for teaching vocational classes. Mock teaching sessions will be required in this course.

5303. Classroom Management. (3-0) Credit 3. A study of organizing and managing vocational classes in secondary schools. Requires locating machinery, safety lanes, tool room procedures, controlling supplies and materials, and a detailed study on how to plan and operate a vocational laboratory.

5403. Occupational and Vocational Education. (3-0) Credit 3. Methods of collecting, evaluating, cataloging and disseminating occupational and vocational education information.

5503. Occupational Analysis and Coursemaking. (3-0) Credit 3. The analysis of a given trade relative to its teaching content. The process of preparing courses of study.

5603. Organization and Administration. (3-0) Credit 3. Analysis of skills and techniques of administering and supervising vocational programs in public schools. Rules and regulations for organizing and operating vocational education programs, including the financing of vocational programs using local, state, and federal funds.

5633. Philosophy and Objectives. (3-0) Credit 3. The philosophy and objectives of vocational education in the total educational process. A study of fundamental concepts, beliefs, principles and assumptions relative to the role and scope of vocational education.

5703. Vocational-Technical Curriculum Development. (3-0) Credit 3. Techniques of vocational-technical curriculum development based on an occupational analysis. How to develop educational specifications, to design classrooms and shop/laboratories, and to select the equipment required for a given curriculum.

5753. Selection, Placement and Follow-Up. (3-0) Credit 3. A study of factors which affect selection and placement of students on industrial work sites. Involves establishing objectives, counseling techniques, advisements, cooperative work site agreements, and job placements.

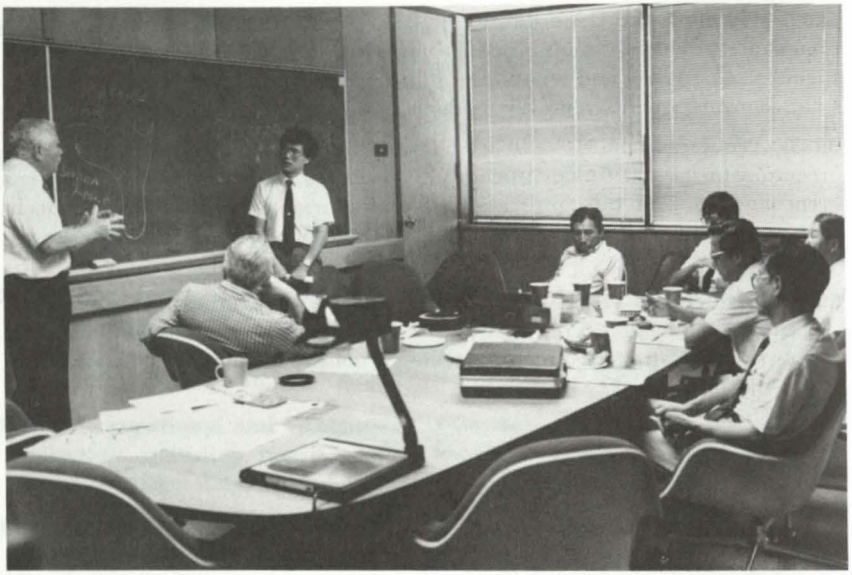
5803. Supervision of Vocational Programs. (3-0) Credit 3. A study of the organization, administration and supervision of curriculum and instruction in the public schools.

5833. Human Relations. (3-0) Credit 3. A study of human relation factors which must be understood and communicated in vocational classes. Emphasis on understanding the meaning of democracy, governmental rules in human rights, behavior patterns, and interpersonal and intergroup communications.

5903. Planning and Organizing. (3-0) Credit 3. Purposes and functions of a guidance program. Group guidance procedures, components of a vocational guidance program, and techniques of providing vocational guidance services for elementary and secondary students and adults.

5933. Problems. (3-0) Credit 3. An in-depth study of the duties of the teacher-coordinator of vocational programs. The identification of types of problems encountered, and the application of action-oriented problem-solving techniques. Problems encountered in both the school and the community are addressed.

5983. History and Principles. (3-0) Credit 3. The historical development of vocational education. Course involves an analysis and discussion of the objectives of vocational education, types of vocational programs, services and activities.



Department of Agriculture

FACULTY

Freddie Richards, *Head*
Eugene Brams, *Coordinator, Soil Science*
Arthur S. Mangaroo, *Agronomy*
Alfred L. Parks, *Coordinator, Agricultural Economics*
Alfred Poindexter, *Animal Science*
Alfred L. Parks, *Coordinator, Agricultural Economics*
Freddie L. Richards, *Coordinator, Agricultural Education*
George Stafford, *Coordinator, Graduate Programs*
Cecil Strickland, *Agricultural Education*
Victor G. Stanley, *Coordinator, Animal Science*
Lindsey Weatherspoon, *Animal Science*

INSTRUCTIONAL ORGANIZATION

The Department of Agriculture offers the following graduate degree programs:

Programs	**Degrees Offered:**
Agricultural Economics	M.S.
Animal Science	M.S.
Soil Science	M.S.

Graduate coursework in Agriculture may also be applied to a Master's degree program in education with a concentration in Agricultural Education. Students seeking this option should apply for admission to the College of Education. The Department also provides graduate support courses to other degree programs.

ADMISSION TO PROGRAM

Application for Admission to the Graduate School is made through the Office of the Graduate School. Applicants seeking a master's degree in Agriculture should have the equivalent of an undergraduate major in Agriculture from an accredited institution. Applicants who do not hold the equivalent of an undergraduate major in Agriculture should have a deficiency plan approved in order to meet this requirement.

ADVANCEMENT TO CANDIDACY

All candidates for the Master of Science degree must prepare an official application for Admission to Candidacy Form and submit it to the Dean of the College of Applied Sciences and Engineering Technology and to the Dean of the Graduate School for approval.

PROGRAM REQUIREMENTS (M.S. - Agricultural Economics)

Core Courses (15 semester hours)

AGEC 5213 Land and Resources Economics
AGEC 5223 Farm and Ranch Management
AGEC 5233 Price Analysis
AGEC 5343 Agricultural Policy
AGEC 5253 Marketing of Farm Products
AGEC 5263 Research Methods
AGEC 5283 Agricultural Finance

Designated Electives (9 semester hours)

ECON 5013 Microeconomic Theory
ECON 5023 Macroeconomic Theory
BSAD 5113 Business Statistics
ECON 5223 Mathematics Economics
ECON 5353 Money and Banking
AGRO 5713 Introduction to Biometrics
AGRO 5783 Application of Biometrics

Thesis Research (3 semester hours)

AGEC 5203 Thesis Research

Free Electives (6 semester hours)

TOTAL DEGREE REQUIREMENTS. 30-33 Semester Hours

PROGRAM REQUIREMENTS (M.S. - Animal Science)

Core Courses (15 semester hours)

ANSC 5501 Seminar
ANSC 5513 Physiology of Reproduction
ANSC 5523 Animal Physiology
ANSC 5533 Non-Ruminant Nutrition
ANSC 5543 Ruminant Nutrition
ANSC 5553 Dairy Goat Production
ANSC 5563 Animal Health

Designated Electives (9 semester hours)

CHEM 5534 General Biochemistry
CHEM 5543 Intermediary Matabolism
CHEM 5563 Biochemical and Clinical Analysis
AGRO 5713 Introduction to Biometrics
AGRO 5783 Application of Biometrics

Thesis Research (3 semester hours)

ANSC 5503 Thesis Research

Free Electives (6 semester hours)

TOTAL DEGREE REQUIREMENTS. 30-33 Semester Hours

PROGRAM REQUIREMENTS (M.S. - Soil Science)

Core Courses (15 semester hours)

AGRO 5603 Soil Mineralogy
AGRO 5614 Soil Microbiology
AGRO 5623 Soil Ecology
AGRO 5633 Fertility Techniques and USe
AGRO 5643 Soil and Land Use Planning
AGRO 5664 Advanced Soil Chemistry
AGRO 5683 Soil Physics
AGRO 5693 Soil Genesis and Classification
AGRO 5703 Soil Survey and Interpretation
AGRO 5713 Introduction to Biometrics
AGRO 5723 Advanced Soil Management
AGRO 5733 Soils and Quality of the Environment
AGRO 5743 Soils of the Tropics
AGRO 5753 Plant Nutrition and Soil Fertility
AGRO 5781 Seminar
AGRO 5783 Application of Biometrics

Designated Electives (9 semester hours)

BIOL 5023 Plant Pathology
BIOL 5053 Air Pollutants
BIOL 5083 Legal Aspects of Environmental Toxicology
AGEC 5213 Land Resource Economics
CHEM 5534 General Biochemistry

Thesis Research (3 semester hours)

AGRO 5653 Research

Free Electives (6 semester hours)

TOTAL DEGREE REQUIREMENTS 30-33 Semester Hours

COURSE DESCRIPTIONS

Agricultural Economics (AGEC)

5203. Thesis Research. (2-2) Credit 3. Initiation of a research project of approved originality and scope for an advanced degree. The thesis report is to be of format, style, and quality consistent with the standards of agricultural economics.

5213. Land and Resource Economics. (2-2) Credit 3. Nature and the economic dimensions of private and public control of land. Use of natural resources, including land, stock and flow resource concepts; and time and space as they affect resource utilization and benefits. Laboratory studies of field problems in resource development and use.

5223. Farm and Ranch Management. (2-2) Credit 3. Theories of the farm and of the management process; farm-ranch business growth and productive efficiency; control and coordination of the agents of production; risk and uncertainty; agri-business organization and management; and managerial decision-making. Laboratory application of principles of economics to the production process, including analysis of costs, returns, and productivity.

5233. Price Analysis. (3-0) Credit 3. Theories and principles fundamental to pricing of agricultural factors of production and agricultural commodities; relationship of prices within the agricultural sector and between the agricultural sector and the general economy; kinds of price changes; forecasting factors and conditions that affect agricultural prices; futures trading; parity prices; and administrated prices.

5243. Agricultural Policy. (3-0) Credit 3. Theoretical foundations of policy-making and economic value of public policies and programs to the agricultural industry; interrelation between the social, political, and economic systems and agriculture; policy development and implementation; and the value of agricultural policy to society.

5253. Marketing of Farm Products. (3-0) Credit 3. Theoretical foundations of the modern economic system, including values added in the marketing system; dimensions and functions of marketing in relation to time, space, and value; market integration and product quality control; and market contracting orders and power.

5263. Research Methods in Agricultural Economics. (3-0) Credit 3. Philosophy, methods, and techniques of scientific research in the discovery of new knowledge, especially in economic development and in productivity of agriculture; role of theory and assumptions. Definition of research and evaluation of research project proposals, including objectives and procedures; analytical methods and techniques in research; and evaluation of research studies and development of thesis prospectives or equivalent.

5283. Agricultural Finance. (3-0) Credit 3. Theories, principles, and problems of financing agricultural business, including farms and ranches; costs and returns from the use of capital; forms and roles of capital in agriculture; capital productivity and earning, and capital market organization and institutions; supply and demand of financial resources; and role of debt in farm growth.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Reading, research and/or field work on selected topics. Prerequisite: consent of advisor.

Soil Science (AGRO)

5603. Soil Mineralogy. (3-0) Credit 3. Weathering processes and products in relation to soil formation and effects of mineral composition of soil components on the properties and profile characteristics of soils.

5614. Soil Microbiology. (3-2) Credit 4. Soil microorganisms and their effect on soil physical and chemical properties, nitrogen fixation, organic matter decomposition, and soil nitrogen transformations.

5623. Soil Fertility Ecology. (3-0) Credit 3. Management practices of Savanna Prairie soils with respect to yields of pasture and row crops and effect on soil properties. Particular attention will be given to the effect of lime and rotational systems on efficiency of fertilizers under varying rainfall and temperature situations.

5633. Fertilizer Techniques and Use. (3-0) Credit 3. Techniques of fertilizer manufacture and storage; application methods; chemical reactions of fertilizer when applied to soil; and fertilizer recommendations according to soil analysis.

5643. Soils and Land Use Planning. (3-0) Credit 3. Soil factors affecting land use planning for various land uses such as residential and industrial development, septic tank fields, sewer lagoons, foundations, roads and streets, recreation, and agricultural production.

5653. Research. (2-2) Credit 3. Registration with permission of College Graduate Committee. Student conducts research activities towards the solution of a thesis problem and communicates results in a thesis monograph.

5664. Advanced Soil Chemistry. (2-4) Credit 4. The physiochemical properties of soil with particular emphasis on methods and instrumentation utilized in characterizing clay minerals, measuring soil acidity, ionic adsorption, soil nutrients, nutrient fixation, nutrient release, and the uptake of soil nutrients by plants.

5683. Soil Physics. (3-0) Credit 3. The basis of important physical behavior of soils in relation to soil aeration, consistency, structure, and strength; heat and water flow and retention. Prerequisites: 3 hours of physics, 3 hours of calculus, or consent of instructor.

5693. Soil Genesis and Classification. (3-0) Credit 3. The source of soil materials and processes involved in the formation of soils, with emphasis on variations world-wide and the principles of soil classification and mapping.

5703. Soil Survey and Interpretation. (3-0) Credit 3. Principles and techniques employed in making soil surveys and the interpretation of survey information for land use decisions; includes the relationships between soil properties and land use requirements.

5713. Introduction to Biometrics. (3-0) Credit 3. A study of the scientific methods, statistical concepts, data analysis procedures, and experimental designs.

5723. Advanced Soil Management. (3-0) Credit 3. The application of the principles of soil science for the recommendations of soil management practices under diverse environmental conditions and for specific crops, with emphasis on management practices in tropical climates and crops.

5733. Soils and Quality of the Environment. (3-0) Credit 3. The pollution of soils, soil erosion, and soil pollution in the environment. Agricultural chemicals as pollutants, soil as a sink for industrial and urban wastes, and the impact on biological life.

5743. Soil of the Tropics. (3-0) Credit 3. The physical and chemical properties of tropical soils; their fertility status and the effects of cultural practices on soil properties. Soil conservation and management will be considered for different soils under diverse environmental conditions and farming practices. Special consideration will be given to the yield of tropical crops and their response to cultural practices, including control of soil-borne diseases, pests, and weeds.

5753. Plant Nutrition and Soil Fertility. (3-0) Credit 3. The essential elements for plant growth; with their chemistry, sources and availability in the soil and their functions in plant metabolism, including their role in the retention of toxic metals and of select organic materials.

5763. Special Problem. (3-0) Credit 3. Analysis of select problems in agricultural science, utilizing the scientific method and employing statistical inferences and creative interpretations of data drawn from the literature.

5781. Seminar. (1-0) Credit 1. Techniques for the preparation and presentation of a seminar, the use of media, the lecture method, oratory and public speaking, and the use of notes and outlines.

5783. Application of Biometrics. (3-0) Credit 3. Techniques of experimental designs for biological and agricultural research in field, greenhouse, and laboratory. Methods to reduce error and enhance experimental control.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2, or 3. Reading, research and/or field work on selected topics. Prerequisite: consent of advisor.

Animal Science (ANSC)

5501. Seminar. (1-0) Credit 1. Review and discussion of selected materials from the literature in animal science. Emphasis on recent advances in the animal science industry and research.

5503. Research. (2-2) Credit 3. Preparation of proposal, design of experiment, collection of experimental data, and presentation of the results in a acceptable scientific model.

5513. Physiology of Reproduction. (2-2) Credit 3. Basic biochemical, physiological, and endocrine mechanisms involved in reproductive function. Current research principles and techniques useful in studying physiology of reproduction.

5523. Animal Reproduction. (3-0) Credit 3. Physiology of reproduction; principles of normal and abnormal parturition; diagnosing and treating sterility; abortion; and reproduction failures.

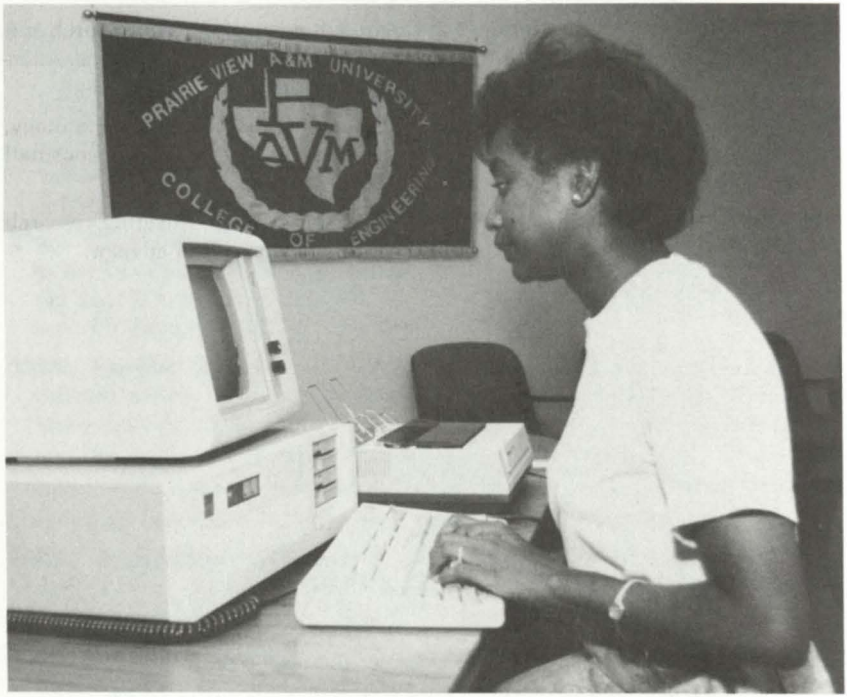
5533. Non-Ruminant Nutrition. (2-2) Credit 3. Full concepts of the function deficiency, interrelation and bioadaptability of nutrients as part of total feed formulation. The physical, chemical, and biological interrelationships of nutrients as they relate to growth, development, and production of monogastic animals.

5543. Ruminant Nutrition. (2-2) Credit 3. Current concepts in anatomy, physiology, and microbiology of digestion of ruminants, with application of basic principles to efficient management of beef cattle, dairy cattle, goats and sheep.

5553. Dairy Goat Production. (2-2) Credit 3. Review of current research and production practices; the application of developing technology to goat enterprises, with economic evaluation of such enterprises.

5563. Animal Health. (2-2) Credit 3. Etiology, epidemiology, immunology, preventive measures, and management practices pertinent to diseases of small ruminants.

5991-5992-5993. Independent Study. (0-0) Credit 1,2 or 3. Reading, research and/or field work on selected topics. Prerequisite: consent of advisor.


PRAIRIE VIEW A&M UNIVERSITY
COLLEGE OF ENGINEERING

Department of Home Economics

FACULTY

Elizabeth N. Noel, *Head, Family and Child Development*
Delilia L.A. Diggs, *Home Economics Education*

PURPOSE AND GOALS

The graduate program in Home Economics emphasizes the preparation of students for teaching, research, and public service in colleges and universities, in human service enterprises, or in managerial positions in business, industry or government. The curriculum offers opportunities for students to tailor the program to meet individual needs. The program prepares graduates to work with clientele in a professional capacity as agents of change. Students identify alternative solutions to a myriad of social and technical problems encountered now and in the future.

The specific goals of the program are threefold: 1) To provide students with theoretical and practical studies of individuals and families throughout the life cycle as they interact with the environment; 2) To develop and increase professional competencies of students; and 3) To provide an academic and stylistic model for additional graduate study.

DEGREE PROGRAM

The Department of Home Economics offers the following graduate degree program:

Program	Degree Offered
Home Economics	M.S.

The department also provides graduate support courses in this area as well as Home Economics Education. Graduate coursework in Home Economics may also be applied to a master's degree program in education with a concentration in Home Economics. Students seeking this option should apply for admission to the College of Education.

SPECIAL EMPHASIS OPTION

The Master of Science in Home Economics includes degree concentrations in Child and Family, Family Economics, and General Home Economics.

ADMISSION REQUIREMENTS

Students desiring to major in Home Economics on the graduate level must present undergraduate subject matter credits in the following areas: the social, physical, and biological sciences: the arts; and education. These courses shall be approved by the advisor under whose direction the major work is to be done. In addition, adequate preparation in undergraduate work in Home Economics is necessary.

These criteria are in addition to the basic university requirements for admission to the Graduate School.

Students with grade point averages of less than 2.75 are not admitted to the Department of Home Economics as graduate students.

ADVANCEMENT TO CANDIDACY

A graduate student having been previously admitted to full graduate status does not automatically become a candidate for the master's degree. To become a candidate, the student must complete the following requirements:

Prepare and submit official Application for Candidacy Form reflecting the applicant's having satisfactorily completed twelve (12) semester hours of required graduate courses with an average of "B" or better.

This candidacy form may be obtained in the Office of the Graduate Dean. The application when approved by both major and minor areas of specialization must be submitted to the Graduate Dean for approval.

DEGREE PROGRAM REQUIREMENTS

A minimum of thirty (30) semester hours, exclusive of a research course and thesis, with an average grade of "B", or better, in courses approved for graduate credit, is required for the degree Master of Science.

Suggested Program

The Master of Science in Home Economics includes the following components:

Common Core	12 semester credit hours
Degree Concentration	12 semester credit hours
Supporting Discipline	3 semester credit hours
Resource/Research	9 semester credit hours
Total	36 semester credit hours

Common Core (12 semester credit hours)
- Child Development I
- Family Life Problems
- Problems in Home Economics
- Studies in Family Resource Management

Degree Concentrations (Select one option of 12 semester credit hours):

Option I: Child and Family
- Advanced Methods
- Adult Education
- Families as Consumers
- Problems of Youth
- Child Development II
- Family Theory and Issues

Option II: Family Economics
- Adult Education
- Personal and Family Finance
- Families as Consumers
- Family Financial Consultation
- Family Economics
- Family Theory and Issues

Option III. General Home Economics
Select 12 semester credit hours in consultation with an advisor.

Supporting Discipline (A minimum of 3 semester credit hours may be selected from either of the following suggested disciplines):

Curriculum and Instruction
Educational Foundations
Marketing and Management
Psychology
Social Work and Sociology

Resource/Research (9 semester credit hours)
Research Problems
Statistics
Thesis

COURSE DESCRIPTIONS

Home Economics (HMEC)

5313. Studies in Family Resource Management. (3-0) Credit 3. An analysis of fundamental management concepts, current research, and special topics and issues related to family consumer resource management. Abstracts of research studies and one major research paper required.

5323. Personal and Family Finance. (3-0) Credit 3. A study of general problems of individual and family handling of money: factors influencing income expenditure relationships: an analysis of problems and programs for improving adequacy and security of income during the family life cycle. Especially planned for students with limited background experiences on the graduate level.

5333. Family Economics. (3-0) Credit 3. Problems of measuring family income, wealth and welfare. Programs for improving adequacy and security of income during family life cycle. Factors which influence standards and levels of living.

5343. Research Problems. (3-0) Credit 3. A study of research methods in social sciences applicable to research in home economics. Planning a research study; understanding research reports; identifying needed research in home economics. Abstract and proposal writing. One major paper required.

5383. Problems of Youth. (3-0) Credit 3. Problems concerned with youth during adolescent years; current concerns and research literature review; attention to problem cases as represented in secondary home economics classes. One major paper required.

5393. Family Life Problems. (3-0) Credit 3. An analysis of the effects of parenthood, sibling and intergenerational relationships on family solidarity; review and analysis of current literature related to human development; current and emerging factors in marriage and family life. One major paper required. Other projects adapted to special needs and interests of students.

5513. Families as Consumers. (3-0) Credit 3. Theories of consumer behavior; the family's relationship to the consumer movement; consumer issues; dimensions of consumer role; interaction of consumers; government and the market; consumer decision making; evaluation of information and protection.

5533. Family Theory and Issues. (3-0) Credit 3. A comprehensive review of theoretical-conceptual frameworks and research in family studies. The role of theory and research in the interdisciplinary study of individual and family behavior throughout the life cycle.

5543. Child Development I. (3-0) Credit 3. A study of the developmental characteristics of the child from birth to age five. Analysis of major theories and research with emphasis upon interpretation and application of research findings to programs for young children and parent education.

5553. Child Development II. (3-0) Credit 3. A study of the developmental characteristics of middle childhood, ages five through twelve, through the analysis of current research and developmental theories. Examination, evaluation and interpretation of current issues and trends.

5683. Problems in Home Economics. (3-0) Credit 3. Current trends and issues in home economics, the school program and profession of home economics; special work in area of major interest. Reports, discussions, term projects. Registration with permission of instructor.

5691. Thesis. (2-2) Credit 1.

5692. Thesis. (3-3) Credit 2.

5693. Thesis. (3-4) Credit 3.

5723. Family Financial Consultation. (3-0) Credit 3. Analysis of family expenditure pattern, common financial difficulties, avenues by which families are assisted. Field experience with consumer consulting services required.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2, or 3. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Home Economics Education (HEED)

5443. Advanced Methods. (3-0) Credit 3. A study of newer trends in teaching home economics; analysis of research findings: vocational education changes and changes in contemporary society as related to the formulation of educational objectives: subject matter selection, method and organization; and the role of evaluation in the teaching-learning process. One major paper required.

5463. Adult Education. (3-0) Credit 3. A student organizing, administering and planning adult programs; methods and materials; evaluation of research and instruction in adult education; supervision of programs; consideration of contemporary and futuristic programs. One major paper required.

College of Arts and Sciences

ADMINISTRATIVE OFFICER

Edward W. Martin, *Dean*

INSTRUCTIONAL ORGANIZATION

The College of Arts and Sciences offers graduate programs leading to the Master's degree in the areas of biology, chemistry, English, history, mathematics, music and sociology. Students admitted to the graduate programs as degree candidates in the College of Arts and Sciences must follow a degree program as outlined by the specific department. A degree plan will be designed according to the student's academic background, personal needs and interests.

Departments	*Programs*	*Degrees Offered*
Art, Music and Drama	Music (Applied)	M.A.
Biology	Biology	M.S.
	Environmental Toxicology	M.S.
Chemistry	Chemistry	M.S.
English & Foreign Languages	English	M.A.
Mathematics	Mathematics	M.S.
Social Work/Sociology	Sociology	M.A.
Division of Social & Political Sciences	History	M.A.

The college also provides graduate support courses in these areas as well as several others.

ADMISSION TO PROGRAM

The student seeking admission to the graduate program is required to:

1. Submit a formal application for admission to the Graduate School. The following deadline dates apply:

   April 1, for 1st Summer Session
   May 1, for 2nd Summer Session
   July 1, for Fall Semester
   November 1, for Spring Semester

2. Submit official transcripts of records covering all college and university work completed to date, together with official evidence of degree(s) conferred. A separate original and official record of completed academic course work must be presented from each institution previously attended. In addition to having the records sent, each student must have in his/her possession official records for use when in conference with the departments and for other purposes when such records are needed.
3. Applicants admitted to the university Graduate School must also be admitted by the college or department in which the student plans to pursue a degree. Students should consult the catalog section covering the specific discipline for departmental requirements for admission.

ADVANCEMENT TO CANDIDACY

A student must meet all general requirements and complete the requirements for the specific program area before submitting an Application for Admission to Candidacy for a degree. Consult the catalog section on general requirements for the Graduate School.

PROGRAM REQUIREMENTS

Specific program requirements for Master's degrees are presented by each department offering the degree. Refer to the specific program area for details.

Department of Art, Music and Drama

FACULTY

Lucius R. Wyatt, Head, *Music Theory*
Rubye N. Herbert, *Voice Performance*
Danny R. Kelley, *Piano Performance*
Theodis W. Shine, *Drama*
Clarence Talley, *Art*
Thomas L. Wallace, *Music Education, Piano, Music Literature*

PURPOSE AND GOALS

The Department of Art, Music & Drama offers the degree Master of Arts in Applied Music. The principal focus on this degree program is to offer preparation in musical performance. The department also offers graduate courses in art education and music education. Graduate coursework in music education may be applied to a master's degree program in education with a concentration in music. Students seeking that option should apply for admission to the College of Education.

DEGREE PROGRAM

The Department of Art, Music and Drama offers the following graduate degree program:

Program	Degree Offered
Music (Applied)	M.A.

The Department also provides graduate support courses in this area as well as in Art Education and Music Education. Graduate coursework in music education may also be applied to a master's degree program in education with a concentration in music. Students seeking that option should apply for admission to the College of Education.

ADMISSION TO PROGRAM

A person admitted to the graduate program leading to the degree Master of Arts in Applied Music must have completed a Bachelor's degree in music from an accredited institution of higher learning. All entering graduate students in music are required to audition before the music faculty and take departmental examinations in the history of music and in music theory.

ADVANCEMENT TO CANDIDACY

Students must meet all general requirements and complete at least 12 semester hours of all program-required courses before being declared as a candidate for the master's degree.

PROGRAM REQUIREMENTS (M.A. - Applied Music)

30 semester hours of graduate courses in music and a graduate music recital.

DESCRIPTION OF COURSES

Music (MUSC)

5003. Music Workshop. (5-10) Credit 3. A workshop devoted to the discussion of special topics in music.

5333. Baroque Music. (3-0) Credit 3. The study of the major developments in music during the Baroque era.

5343. Classic Music. (3-0) Credit 3. The study of the major developments in music during the Classic era.

5373. Choral Literature. (3-0) Credit 3. The study of musical works written for choir.

5393. Studies in Voice Literature. (3-0) Credit 3. The study of selected vocal literature, including comparisons of contrasting performance practices.

5473. Problems in Teaching Sight Singing. (3-0) Credit 3. The study of pedagogical strategies and problems in the teaching of sight singing.

5873. Nineteenth Century Music. (3-0) Credit 3. The study of the major developments in music during the Nineteenth Century.

5993. Independent Study. (0-0) Credit 3. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Applied Music Courses

	Piano	*Voice*	*Woodwind*
MUSC	5513	5613	5813
MUSC	5523	5623	
MUSC	5533	5633	
MUSC	5543	5643	
MUSC	5553		
MUSC	5563		

PIANO — Applied music studies in piano with attention to appropriate graduate level literature. Private lessons.

VOICE — Applied music studies in voice with attention to appropriate graduate level literature. Private lessons.

WOODWINDS — Applied Music studies in the woodwind instruments with attention to appropriate graduate level literature. Private lessons. Flute, oboe, clarinet, bassoon and saxophone.

Music Education (MUED)

5413. Foundations of Music Education. (3-0) Credit 3. Introduction to graduate study in music education. Basic concepts, history and philosophy of music education with applications to problems in music teaching. Bibliography and survey of current literature.

5423. The Teaching of Vocal Music in High School. (3-0) Credit 3. The study of pedagogical approaches to teaching voice music.

5443. Teaching Music in Elementary School. (3-0) Credit 3. The study of pedagogical issues in teaching elementary school music.

5463. Piano Class Teaching. (3-0) Credit 3. The study of teaching principles in group piano instruction.

5493. Seminar in Music Education. (3-0) Credit 3. Special topics in music education.

Department of Biology

FACULTY

George E. Brown, *Head, Microbiology*
Lee E. Henderson, *Science Education*
Ronald D. Humphrey, *Microbiology*
Edward W. Martin, *Embryology*
Seab A. Smith, *Science Education*
Arthur C. Washington, *Developmental Genetics, Biochemistry*

PURPOSE AND GOALS

The graduate programs in Biology and Environmental Toxicology of the Biology Department are designed to provide training at the master's degree level for those persons who wish to continue graduate work elsewhere at the doctoral levels; for those who wish to teach biology in high schools, junior and liberal arts colleges, and for those who wish to seek employment in various fields of biology, including research, and aspects of applied biology.

Graduate study provides students with an opportunity to develop their knowledge and creativity in biology to the maximum of their capabilities.

DEGREE PROGRAMS

The Department of Biology offers the following graduate degree programs:

Programs	Degrees Offered
Biology	M.S.
Biology (Environmental Toxicology)	M.S.

Graduate coursework in Biology may also be applied to a master's degree program in Education with a concentration in Biology. Students seeking this option should apply for admission to the College of Education. The Department also provides graduate support courses to other degree programs.

ADMISSION TO PROGRAM

A student entering graduate study in Biology must present a minimum of 24 semester hours in undergraduate Biology, including courses in General Biology or in Zoology and Botany. In addition to the minimal Biology courses, a student should have completed at least four semester credit hours in both Inorganic and Organic Chemistry. The grade point average in Biology courses should be at least 2.75 based upon the 4.00 grading system.

Students who do not meet the minimal prerequisites must do so before being admitted to graduate status unconditionally. Admission to graduate school does not imply admission to candidacy for the Master's degree.

ADVANCEMENT TO CANDIDACY

Admission to candidacy for the Master's degree is granted after the student completes a minimum of twelve (12) semester hours of resident graduate credit in Biology. Only two courses with "C" grades, regardless of credit hours, will

be accepted toward credit for the Master's degree. The overall grade point average in Biology of a student seeking the Master's degree must be a "B" or better.

Persons failing to meet candidacy requirements are placed on probation for a semester or a summer. In the event candidacy requirements are not met at this time, it will be understood that no further graduate credits by the student will be applicable to the M.S. degree in Biology.

PROGRAM REQUIREMENTS (M.S. - Biology)

Courses for which graduate credit may be obtained are numbered 5000 and above. Upon successful completion of the course work and thesis, the student must pass (1) a written comprehensive examination in Biology and (2) an oral examination in defense of the thesis and fundamentals of Biology.

Program A: A minimum of 30 hours of graduate Biology plus a thesis.

Program B: A minimum of 20 hours of graduate Biology and a minor in some other area plus a thesis.

Graduate Minor in Biology: A minor in Biology at the graduate level includes 12 semester hours of graduate Biology.

Environmental Toxicology Program (M.S. in Biology with Option in Environmental Toxicology). The Environmental Toxicology Program is designed to prepare individuals to work with governmental agencies including the Environmental Protection Agency, Department of Agriculture, Food and Drug Administration, and with a variety of industries which produce chemicals and toxic substances or other pollutants. Individuals pursuing a degree in environmental toxicology must satisfy undergraduate prerequisites in Biology and Chemistry.

DESCRIPTION OF COURSES

Biology (BIOL)

5003. Research in Zoology. (0-6) Credit 3. Selected individual research problems in any specified area in which the student has a sufficient background. Lab fee.

5004. Embryology. (2-4) Credit 4. Descriptive embryology; vertebrate development with special reference to mammals; includes serial section of the fetal pig. Lab fee.

5014. Occupational Toxicology. (2-4) Credit 4. Occupational chemical and biological hazards in general routes of human exposure; their toxic effects and methods of control.

5023. Plant Pathology. (2-2) Credit 3. Fundamentals of parasites as they affect plants and the means of controlling the diseases resulting from parasites which are detrimental to plants. Lab fee.

5024. Histology. (2-4) Credit 4. Microscopic study of tissues and organs of vertebraes; relation of structure to function. Lab fee.

5033. Physiology, Environment, and Man. (3-0) Credit 3. This course explores the absorption, metabolism, and excretion of environmental agents, their mechanisms of action, and the processes of adaptation by the exposed organism from the subcellular level to that of the total organism.

5034. General Physiology. (2-4) Credit 4. Organs of internal secretion, embryology, organology, microscopic anatomy, and physiology.

5044. General Entomology. (2-4) Credit 4. The structure, life history, habits and means of recognizing and classifying the more common insects. Lab fee.

5053. Air Pollutants. (3-0) Credit 3. Introduction of the essentials of the toxicology of major air contaminants, the factors governing air quality criteria and standards, and alternatives for air pollution abatement.

5054. Experimental Embryology. (2-4) Credit 4. Modern problems and techniques in the principles and mechanisms of development; analysis of factors operating in the morphogenesis, regeneration and development of selected vertebrates. Prerequisite: BIOL 5004.

5063. Microbial Activity in Toxicology. (3-0) Credit 3. Survey of microbial actions in the field of environmental toxicology. Toxigenic microorganisms, major microbial toxins, and use of microbial systems intoxicological studies. Microbial alterations of environmental contaminants.

5064. Systematic Botany. (2-4) Credit 4. Local flora, with emphasis on the identification and classification of higher plants.

5073. Selected Topics in Environmental Toxicology. (3-0) Credit 3. In-depth treatments of several important areas in the field of environmental toxicology, including studies of microbiology of toxic substances, toxic substances in food, poisonous plants and venomous animals, occupational health and safety and chemical ecology.

5074. Genetics. (2-4) Credit 4. Laws and principles governing heredity in plants and animals; plant and animal improvement through eugenics. Lab fee.

5083. Legal Aspects of Environmental Toxicology. (3-0) Credit 3. Basic understanding of the laws designed to regulate the use of toxic chemicals in the environment. Federal and State legislation on air and water pollution, pesticide use, food and feed additives, consumer protection, and occupational exposure and hazards of toxic chemicals.

5093. Chemical Ecology. (3-0) Credit 3. Chemically mediated interactions of organisms with one another and their environments. Areas to be covered are: diversity and adaptation, allelopathy, attractants and pheromones, repellents and defensive substances, disposition of chemicals, and research in chemical ecology.

5094. General Microbiology. (2-4) Credit 4. Morphology, physiology, classification, cultivation of microorganisms and their relation to agriculture, premedicine, and industry. Lab fee.

5103. Research in Botany. (0-6) Credit 3. Selected individual research problems in any listed area in botany in which the student has a sufficient background. Lab fee.

5124. General Parasitology. (2-4) Credit 4. Morphology, life history, diagnosis and control of the important parasites affecting man and other animals. Lab fee.

5184. Neurology. (2-4) Credit 4. Review of the brain and cranial nerves of the shark; morphology of the spinal cord and brain of a mammal; principal tracts and nuclei reaction systems of the cord and brain of the human nervous system. Lab fee.

5141-5151. Seminar in Biological Problems. (1-0) Credit 1 each. Student participation in general and specific research topics in Biology.

5143. Field and Animal Ecology. (1-4) Credit 3. Composition, dynamics and distribution of biotic communities in various sections of the Southwest. Outdoor camping and cooking. Lab fee.

5164. Invertebrate Zoology. (2-4) Credit 4. Classification, morphology, embryology, physiology, and life histories of invertebrates, exclusive of insects. Lab fee.

5183. Experimental Genetics. (3-0) Credit 3. Thorough experimentation to show how variations may be brought about; techniques of mating and breeding to support accepted principles. Lab fee.

5184. Vertebrate Zoology. (2-4) Credit 4. Evolution, development, physiology, and anatomy of major taxonomic groups of chordates. Lab fee.

5203-5213. Selected Topics in Biology. (2-2) Credit 3 each. Basic concepts and recent advances in techniques in Physiology, Bacteriology, Botany, Genetics and Entomology. Experiments, demonstrations and field trips.

5204. Biology for Teachers. (2-4) Credit 4. Training course for prospective teachers of zoology and botany. Lectures or conferences, field and laboratory work. Lab fee.

5224. Dairy Bacteriology. (2-4) Credit 4. Importance of bacteria in dairy products; the number and types of bacteria in dairy products and significance of their occurrence. Lab fee.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Reading, research and/or field work on selected topics in Biology. Prerequisite: consent of advisor.

Department of Chemistry

FACULTY

John R. Williams, *Head, Physical*
Henry H. Ballard, *Organic*
Larry L. Cole, *Physical Organic*
Vasant M. Doctor, *Biochemistry*
Harold L. Hauser, *Organic*
Arthur C. Washington, *Biological Chemistry*

PURPOSE AND GOALS

The Department of Chemistry offers a program of advanced study that prepares graduate students for careers in research, teaching, or industry. Graduate training in the department is multifaceted and flexible, depending on the interests and needs of the individual student. The program includes coursework, seminars, teaching experience, performance of original research, and writing of a thesis.

DEGREE PROGRAM

The Department of Chemistry offers the following graduate degree program:

Program	Degree
Chemistry	M.S.

Graduate coursework in chemistry may also be applied to a master's degree program in education with a concentration in chemistry. Students seeking this option should apply for admission to the College of Education. The Department also provides graduate support courses to other degree programs.

ADMISSION TO PROGRAM

Persons who plan to work toward the M.S. degree in Chemistry must fulfill the following undergraduate requirements: two semesters of inorganic chemistry, two semesters of analytical chemistry, two semesters of organic chemistry, and two semesters of physical chemistry. It is expected that the average grades in these courses and of courses in related fields be not less than a grade of "C". The department reserves the right to give a qualification test to students and will make recommendations for the courses needed to enable a student to do graduate work in chemistry.

Students who plan to minor in Chemistry on the graduate level must have fulfilled all requirements for a minor in chemistry on the undergraduate level stipulated in the catalog.

ADVANCEMENT TO CANDIDACY

The Application for Candidacy Form must be approved by the heads of both the major and minor departments and submitted to the Dean of the Graduate School for approval. Research projects for the thesis will be assigned before the student has been approved as a candidate.

The student is required to pass a written preliminary examination in the major fields of analytical, organic, inorganic, physical and biochemistry before scheduling of the final oral examination which will cover subject materials dealing with the thesis and course work.

PROGRAM REQUIREMENTS (M.S. - Chemistry)

It is recommended that persons who plan to qualify for the M.S. Degree in Chemistry spend at least one year in residence and that those who plan to study during the summer periods plan to spend at least one summer which can be devoted entirely to research. It is required that the thesis be of such quality that it may be published in an accepted scientific journal. Below is a suggested outline of study for the various fields of Chemistry. These, of course, represent the minimum requirement:

MAJOR: Each candidate is expected to successfully complete a minimum of 24 semester hours of course work exclusive of research. These courses must include: CHEM 5514, 5324, 5402, 5534, 5623, 5783, and sufficient graduate electives in Chemistry to satisfy the semester-hour requirement. Only six (6) semester hours of credit for courses designed especially for summer institutes may be applied toward a M.S. degree in Chemistry.

MINOR: The minimum number of hours required for a minor in Chemistry is (12) hours of graduate course work exclusive of research. Only three (3) semester hours of credit for courses designed especially for summer institutes may be applied toward a minor in Chemistry.

DESCRIPTION OF COURSES

Chemistry (CHEM)

5006. Research. (0-0) Credit 6. Problems for investigation may be selected from one of the following fields of chemistry: 1. Analytical; 2. Biochemistry; 3. Inorganic; 4. Organic; 5. Physical.

5013. Research. (0-0) Credit 3. Problems for investigation may be selected from one of the following fields of Chemistry: 1. Analytical; 2. Biochemistry; 3. Inorganic; 4. Organic; and 5. Physical.

5016. Research. See CHEM 5006.

5023. Research. See CHEM 5013.

5026. Research. See CHEM 5006.

5036. Research. See CHEM 5006.

5046. Research Physical Chemistry. See CHEM 5006.

5111 or 5113. Seminar. (1-0 or 3-0) Credit 1 or 3. Seminar classes will involve lectures, reports, and discussions on current research in Chemistry featuring faculty members, guest lectures and students. Students will make presentations at weekly seminars on topics of interest in Organic, Nuclear, Inorganic, Physical and Bio-medical Chemistry. Topics selected will reflect current trends in research. Prerequisite: Graduate standing or consent of instructor.

5121. Seminar. Continuation of 5111.

5213-5223. Chemical Principles. (3-0) Credit 3. A survey course emphasizing extended treatment, development and application of selected fundamental concepts and principles of Chemistry.

5314. Advanced Analytical Chemistry. (2-4) Credit 4. Chemical analysis and characterization of chemical substances. Theory and practice of sampling, synthesis, isolation, purification, and analysis of compounds. Laboratory program designed to develop technical efficiency, familiarity with instrumental techniques and chemical literature, trace analysis, and methods of handling experimental data including use of the computer are offerings of this course.

5324. Instrumental Analysis. (2-4) Credit 4. The Theoretical principles coupled with practice involving modern instrumental techniques. Used for elucidation and characterization of molecular structure and physical properties of systems in Chemistry, including biochemical and biomedical systems. Trace Analysis. Techniques include: polarography, fluorometry, differential thermal analysis, NMR, atomic absorption, mass spectrometry, infrared and UV-Visible spectroscopy, and ion selective electrode methods. Course will emphasize computer acquisition and reduction of experimental data. Prerequisite: CHEM 4023.

5402. Advanced Organic Chemistry. (2-0) Credit 2. A review of elementary Organic Chemistry with an extension of more advanced topics. Includes assigned subject materials.

5412. Organic Synthesis. (2-0) Credit 2. Conferences and laboratory work dealing with the syntheses of various organic compounds. Prerequisite: two semesters of Organic Chemistry.

5414. Identification of Organic Compounds. (2-4) Credit 4. The separation and identification of pure organic compounds and mixtures.

5423. Quantitative Organic Chemistry. (1-4) Credit 3. An introduction to micromethods. The determination of elements and functional groups by micromethods.

5433. Advanced Topics in Organic Chemistry. (3-0) Considers stereochemistry, reaction mechanisms, and terpenes and carbohydrates.

5534. General Biochemistry. (2-4) Credit 4. A basic and extension course designed for graduate students planning to major or minor in Biochemistry or related fields and who require more than an elementary knowledge of the subject. Prerequisite: CHEM 3033 or permission of instructor.

5542. Metabolism. (0-4) Credit 2. A quantitative study of the intermediates formed in cellular metabolism of fats, carbohydrates, proteins, and minerals. Both manometric and spectromatic methods are included. Prerequisites: CHEM 4023 and 4033.

5543. Intermediary Metabolism. (3-0) Credit 3. The intermediates formed in the metabolism of fats, carbohydrates, proteins, minerals and nucleic acids and interrelation between the metabolic pathways in both plants and animals. Prerequisites: 4044 and 4023.

5563. Biochemical and Clinical Analysis. (1-4) Credit 3. Conference and laboratory work dealing with the analysis of blood, urine and vitamin essay. Prerequisite: CHEM 4033.

5582. Nutrition. (2-0) Credit 2. Lectures, assigned readings on the most recent developments in research on developments in research on vitamins, amino acids, proteins, minerals and hormones as related to human and animal nutrition. Prerequisite: CHEM 4053.

5584. Topics in Chemistry Nutrition. (2-4) Credit 4. Lectures on recent developments in nutrition and in the biochemical role of vitamins, amino acids, proteins, minerals and hormones as related to human and animals. Laboratory work will include formulation and evaluation of selected synthetic materials as diet supplements.

5613. Advanced Inorganic Chemistry. (3-0) Credit 3. The periodic law, several forms of the table. Quantum numbers. A brief discussion of chemical bonds and resonance. Structure and properties of typical non-metallic compounds. Behavior of aqueous electrolytes in non-aqueous solvents.

5712. Electrochemistry. (0-4) Credit 2. Conferences, assigned readings and exercises in the laboratory dealing with fundamental theories of electrochemistry and the preparation of certain inorganic and organic compounds. Prerequisite: CHEM 4023.

5723. X-Ray Diffraction. (1-4) Credit 3. Principles and operation of modern X-ray apparatus. Applications to inorganic, organic and physical chemistry. Identification of solid phases, and determination of crystal size. Prerequisite: CHEM 4023.

5733. Quantum Chemistry. (3-0) Credit 3. Elementary principles of quantum mechanics with applications to atoms, molecules, and chemical topics. Angular Momentum perturbation and variation methods. Matrix and group theory methods in quantum mechanics. Molecular orbital theory. Prerequisite: CHEM 4013-4023. MATH 3073-4013.

5743. Chemical Thermodynamics. (3-0) Credit 3. A rigorous presentation of classical thermodynamics. The application of the laws of thermodynamics chemical systems including systems with intensive properties other than temperature and pressure. Calculations of heats of reaction, free energy and entropy using tabulated thermodynamic data. Principles and methods of statistical thermodynamics applied to simple physio-chemical systems. Introduction to the thermodynamics of irreversible processes. Bioenergetics.

5754. Nuclear and Radio Chemistry. (2-4) Credit 4. A study of the theories of nuclear structure, nuclear energy, nuclear reactions and radioactivity. Radiation detection and measurement; interaction of radiation with matter; health physics; radioisotope technology. Prerequisite: Consent of instructor.

5783. Advanced Physical Chemistry. (3-0) Credit 3. A lecture course dealing with advanced topics of special interest in modern physical topics of special interest in modern physical chemistry in areas including experimental and theoretical thermodynamics, chemical kinetics, collision and transition state theories, atomic and molecular spectra, quantum mechanical systems, photochemistry, structure of crystals and liquids, surface chemistry, macro-molecules, and gas phase reactions. Specific areas to be announced in advance of the semester in which the course will be offered. Prerequisites: CHEM 4013-4023 and mathematics through Differential Equations.

5991-5992-5993-5996. Independent Study. (0-0) Credit 1, 2, 3 or 6. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Department of English and Foreign Languages

FACULTY

E. Joahanne Thomas, *Head, English*
William H. Chapman, *English*
Diljit Chatha, *English*
Nkem Nwankwo, *English*
Theodis Shine, *Drama*
Eileen Skaggs, *English*
Jana Wainwright, *English*

PURPOSE AND GOALS

Graduate study in English leads to the Master of Arts degree. It aims to increase capabilities in comprehending and analyzing literature and language. While graduate students have traditionally become teachers during or following completion of the degree requirements, the exposure to American and British literature as well as linguistics and grammar provides students with the foundation on which various technical, educational, and administrative careers can be built.

DEGREE PROGRAMS

The Department of English and Foreign Languages offers the following graduate degree program:

Program	Degree
English	M.A.

Graduate coursework in English may also be applied to a master's degree program in education with a concentration in English. Students seeking this option should apply for admission to the College of Education. The Department also provides graduate support courses in English to other degree programs.

ADMISSION REQUIREMENTS

For admission to the program, a student should present a minimum of 18 semester hours of undergraduate English coursework and a minimum grade of "B" in that work. Prerequisite courses not taken at the undergraduate level, such as English Language, must be taken before the student advances beyond 12 semester hours of graduate coursework. A student is expected to pass an English qualifying examination before admission to candidacy is approved.

Action on admission to candidacy for a Master of Arts degree in English will be taken after the student has been in residence for at least one semester or summer session; earned at least 12 semester hours of graduate course credits; maintained a "B" average or better; and satisfactorily passed a comprehensive examination in English language and literature.

The student failing to meet the above requirements will be continued on probation for a second semester. In the event the requirements for candidacy remain

unmet, it will be understood that no further graduate credits earned by the student will be applicable to a master's degree.

PROGRAM REQUIREMENTS (M.A. - English)

Of the 33 semester hours required for graduation with the M.A. in English, 27 must be taken at his university.

Major Requirements (M.A., English) — 33 Semester Hours

Major: 33 semester hours in English including thesis; no minor

or

24 semester hours in English including thesis; 9 semester hours in an approved minor field

Minor: If minor option selected, 9 semester hours in an approved minor required

Total Degree Requirements — 33

Minor Field Requirements — 9 Semester Hours

English Minor: ENGL 5113, and 6 semester hours of 5000 level courses

SUGGESTED PROGRAM SEQUENCE

English Major (no minor)

Language		Hours
ENGL 5113	Linguistics and Grammar	3
Literature		
ENGL 5243	Shakespeare	3
ENGL 5233	Medieval Literature	3
ENGL 5213	A Study of the Short Story	3
ENGL 5223	The Novel	3
ENGL 5263	Seminar in Masterpieces of Literature	3
ENGL 5313	Literary Criticism	3
ENGL 5143	English Workshop	3
ENGL 5273	Chaucer	3
Research		
ENGL 5123	Research	3
ENGL 5133	Seminar in Thesis Writing	3

English major (minor option)

Language		
ENGL 5113	Linguistics and Grammar	3
Literature		
ENGL 5243	Shakespeare	3
ENGL 5213	A Study of the Short Story	3
ENGL 5223	The Novel	3
ENGL 5263	Seminar in Masterpieces of Literature	3
ENGL 5143	English Workshop	3
Minor		9

Courses must be approved prior to student's enrolling in them.

Research

ENGL 5123	Research	3
ENGL 5133	Seminar in Thesis Writing	3

COURSE DESCRIPTIONS

English (ENGL)

5053. Studies in Teaching English. (3-0) Credit 3. Special problems, critical study and evaluation of methods of teaching English at secondary level. Prerequisite: Twelve semester hours of English at 3000 level or above and one year of teaching experience.

5113. Linguistics and Grammar. (3-0) Credit 3. Nature of modern linguistic science and its approach to phonology, morphology, syntax, and semantics; structural, generative-transformational grammar in the linguistic context. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5123. Research. (3-0) Credit 3. Principles of literary theory and research technique. Pre-thesis research practice. Prerequisite: 27 hours of graduate English courses.

5133. Seminar in Thesis Writing. (3-0) Credit 3. Application of research skills to thorough development of thesis on topic approved by advisor. Prerequisite: Candidacy for graduate degree.

5143. English Workshop. (3-0) Credit 3. Lectures and practice exercises for enrichment in language usage and methods of teaching for non-English majors. Advanced study and practice for English majors. Prerequisite: 12 hours of English at 3000 level or above and one year of teaching experience.

5156. English Workshop. (609) Credit 6. Lectures and practice exercises for enrichment in language usage and methods of teaching for non-English majors. Advanced study and practice for English majors. Prerequisite: 12 hours of English at 3000 level or above and one year of teaching experience.

5213. A Study of the Short Story. (3-0) Credit 3. The history, art, and techniques of the short story with emphasis on the American short story. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5223. The Novel. (3-0) Credit 3. The evolution of the English novel, with study of representative novels of the 19th and 20th centuries. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5233. Medieval Literature. (3-0) Credit 3. Survey, in translation, of major genres, allegory and romance, of English and continental European literature from the beginning through the thirteenth century. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5243. Shakespeare. (3-0) Credit 3. Shakespeare's art at its maturity, with emphasis on masterpieces of history, romance, and tragedy. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5253. Twentieth Century Literature. (3-0) Credit 3. Study of modern and contemporary English and American poets, dramatists, and fiction writers. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5263. Seminar in Masterpieces of Literature. (3-0) Credit 3. Study and analysis of form, language, and style of English and American masterpieces of literature. Prerequisite: Acceptance to graduate study or to the teacher certification program.

5273. Chaucer. (3-0) Credit 3. Detailed study of *Troilus and Criseyde* and selected *Canterbury Tales.* Prerequisite: Acceptance to graduate study or to the teacher certification program.

5313. Literary Criticism. (3-0) Credit 3. Survey of critical theories of literature from Plato and Aristotle to the present. Prerequisite: 9 hours of graduate English courses.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Readings, research, and/or field work on selected topics. Prerequisite: Consent of department head.

Department of Mathematics

FACULTY

Evelyn E. Thornton, *Head, Algebraic Topology and Number Theory*
Arouna R. Davies, *Operation Research*
Laurette B. Foster, *Math Education*
Frank T. Hawkins, *Mathematics Education*
Vera C. King, *Math Applications and Modeling*
n'Ekwunife Muoneke, *Linear Models*
Pedro A. Oliver, *Applied Math and Differential Equations*
George A. Roberts, *Complex Analysis and Approximation Theory*
A. D. Stewart, *Differential Equations*

PURPOSE AND GOALS

The Department of Mathematics offers innovative and flexible graduate programs in Mathematics. Students are encouraged to be creative in putting together a course of study that will lead to the fulfillment of individual professional goals in Pure Mathematics, Applied Mathematics or Mathematics Education.

A faculty advisor and/or Director of Graduate Mathematics will assist each graduate student on a continual basis to ensure proper course selection relative to career objectives and goals.

DEGREE PROGRAM

The Department of Mathematics offers the following graduate degree program:

Program	Degree
Mathematics	M.S.

Graduate coursework in mathematics may also be applied to a masters degree program in education with a concentration in mathematics. Students seeking this option should apply for admission to the College of Education. The Department also provides graduate support courses in mathematics to other degree programs.

ADMISSION TO PROGRAM

Application for admission to the Graduate School is made through the Office of the Dean of the Graduate School. Applicants seeking a Master's degree in mathematics should have the equivalent of an undergraduate major in mathematics from an accredited institution. Applicants who do not hold the equivalent of an undergraduate major in mathematics should have a deficiency plan approved in order to meet this requirement.

PROGRAM REQUIREMENTS (M.S. - MATHEMATICS)

A minimum of 36 semester hours (including thesis) is required for the M.S. degree in mathematics. These courses must be selected from approved 5000 level courses and a grade point average of 3.00 or better must be maintained with no

grade below a "C". All applicants seeking a degree should plan a degree program with a graduate advisor.

DESCRIPTIONS OF COURSES

Mathematics (MATH)

5123. General Topology I. (3-0) Credit 3. Topological spaces including continuous functions, compactness, separation properties, connectedness and metric spaces. Prerequisite: MATH 5013.

5133. General Topology II. (3-0) Credit 3. Topological spaces including convergence, product, and quotient spaces, metrization, compactness and uniform spaces, path spaces and homotopy. Prerequisite: MATH 5123.

5023. Complex Analysis I. (3-0) Credit 3. Holomorphic functions, complex integration, residue theorem. Taylor series, Lauren series, conformal mapping, and harmonic functions. Prerequisite: MAT 4033.

5033. Complex Analysis II. (3-0) Credit 3. Infinite products, Weierstrass factorization theorem, Mittag-Leffler's theorems, normal families, Picard's theorem, and Riemann mapping theorem. Prerequisite: MATH 5023.

5103. Special Problems. (3-0) Credit 3. Reading and discussion of articles appearing in various mathematical journals; patterns and techniques of mathematical research; modern techniques and trends in the field of advanced mathematics. Trends in the field of elementary mathematics. May be repeated for credit.

5113. Elementary Functions. (3-0) Credit 3. Real number system, algebraic functions, circular functions, exponential functions, logarithmic functions, hyperbolic functions, and their properties. Prerequisite: Graduate standing in mathematics.

5003. The Real Number System. (3-0) Credit 3. The development of the real number system, deductive systems, field properties, order properties, completeness properties, powers and roots, and Zdecimal representation. Prerequisite: Consent of instructor.

5013. Introduction to Point-Set Theory. (3-0) Credit 3. Basic set theory; cardinal and ordinal numbers, countable and well-ordered sets; and the study of the basic properties of metric spaces with an introduction to completeness, separability and compactness. Prerequisite: MATH 5123.

5173. Computer Programming. (3-0) Credit 3. Basic computer concepts and terminology. Computer characteristics and storage fundamentals of output and input operations. Flow charts and block diagrams. Programming elementary algorithms using a scientific language.

5203. Calculus for High School Teachers. (3-0) Credit 3. Concise treatment of certain fundamental ideas in the mathematics of the calculus with the intention of extending, illuminating, and clarifying the teacher's past knowledge. Prerequisite: Consent of instructor.

5233. Selected Topics in Mathematics. (3-0) Credit 3. Introduction to symbolic logic and set theory; applications to elementary algebra; linear and plain analytical geometry; and probability statistics. Prerequisite: Consent of instructor.

5283. Structure of Arithmetic. (3-0) Credit 3. Introduction to sets, the number concept, the evolution of numeration systems, modular systems, the number system, measurement, ratio, proportion, and percentage.

5293. Logic and Geometry. (3-0) Credit 3. Elementary logic, plausible reasoning, informal geometry, and coordinate geometry as a mathematical system.

5303. Modern Techniques in Secondary Mathematics. (3-0) Credit 3. Teaching strategies; instructional packages composed of modules of various areas and topics of mathematics; performance-based teaching methods; effective use of audiovisual equipment and materials; and small group methods.

5343. Boundary Value Problems. (3-0) Credit 3. Fourier Series and integrals, application of partial differential equations to problems, including heat flow, fluid flow, electric fields, mechanical vibration, and similar problems arising in chemistry, physics, radiotherapy and engineering. Prerequisite: One course in ordinary differential equations. Prerequisite: MATH 5133.

5413. Seminar. (3-0) Credit 3. Seminar in mathematics for elementary teachers; lectures, demonstrations, and reports on current trends in the field of mathematics. Prerequisite: Consent of instructor.

5443. Statistics for High School Teachers. (3-0) Credit 3. Processes of statistical methods, with reference to applications in various fields and with special application to analysis of school data.

5473. Probability. (3-0) Credit 3. Theory of permutations, combinations, distributions, repeated trials, and discussion of the probability integral. Prerequisite: MATH 2034.

5543. Integrated Introduction to Geometry. (3-0) Credit 3. The origin of geometry; the three classical problems of antiquity; the five Platonic solids; Euclid's elements and fallacies; a modern set of axioms for geometry; geometries in the Euclidean plane; transformation groups; hyperbolic geometry; and elliptic geometry. Prerequisite: Consent of instructor.

5613. Theory of Matrices. (3-0) Credit 3. Definitions in matrix algebra; inverse of a matrix, transposition of a matrix; rank of a matrix, linear transformations; differentiation and integration of matrices; and application of matrices to systems of linear equations; quadratic forms, bilinear forms, and systems of differential equations. Prerequisite: MATH 3013 or 3073.

5723. Partial Differential Equations. (3-0) Credit 3. Existence and uniquenss theorems, techniques for solving first and second order partial differential equations, approximate (numerical) solutions and applications. Prerequisite: MATH 5003.

5753. Intermediate Analysis. (3-0) Credit 3. Continuous functions; sequences; limits of functions; integrable functions; the integral of continuous and bounded functions; series and step-functions. Prerequisite: Consent of instructor.

5763. Intermediate Differential Equations. (3-0) Credit 3. Existence theorems, uniqueness theorems, and vector and matrix treatment of linear and nonlinear systems of ordinary differential equations. Prerequisite: MATH 3073 or 4113.

5773. Advanced Analysis. (3-0) Credit 3. Continuous functions of several numbers; properties of functions of several numbers; the double integral; and the Riemann-Stieltjes integral. Prerequisite: MATH 5343.

5823. Analytic Mechanics. (3-0) Credit 3. Axiomatic foundations of mechanics; Newton's laws; harmonic oscillator; planetary motion; non-inertial coordinate systems; systems of particles; plane motion of rigid bodies; space motion of rigid bodies; Lagrange's equations; and Hamilton's principle. Prerequisite: Consent of instructor.

5893. Thesis Research, A-D. (0-0) Credit 3. Research for thesis. Course may be repeated for credit.

5903. Modern Algebra. (3-0) Credit 3. Fundamental concepts of algebra; integral domain, fields, and introduction to such concepts as groups, vector spaces, and lattices. Prerequisite: MATH 3013.

5913. Real Variables. (3-0) Credit 3. Introduction to point-sets, rigorous approach to the concepts of function and limit, the Riemann integral, the Lebesque integral and some of their generalizations. Prerequisite: MATH 5773.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Readings, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

Department of Physics

FACULTY

Cleo L. Bentley, *Department Head*

DEGREE PROGRAM

The Department of Physics does not offer a graduate degree program, but does provide graduate support courses in physics and physical sciences. The courses offered are designed to contribute to the development of competencies needed by in-service teachers.

DESCRIPTION OF COURSES

Physical Science (PHSC)

5013. Seminar. (3-0) Credit 3. Seminar in biology, chemistry and physics for in-service teachers. Lectures, demonstrations, reports on current trends in the fields of science.

5043. Earth Sciences I. (3-0) Credit 3. Introduction to astronomy for teachers of science and mathematics in secondary schools. Considers the celestial sphere and coordinates thereon; measures of time; the solar system including the earth, moon, planets, comets, meteors, satellites, and the sun.

5053. Earth Sciences II. (3-0) Credit 3. Introduction to geology and weather. For teachers. General principles of geology, physiography. Covers geologic processes and an introduction to historical geology and the fundamental principles of weather.

6013-6023. Concepts in Physical Science. (2-2) Credit 3 each. Deals with the physical, chemical and electrical characteristics of matter. Special emphasis will be placed on experimentation, demonstrations and new approaches in the teaching of physical sciences. The course is primarily designed for in-service secondary teachers. Prerequisite: 1 course in physical science or consent of instructor.

Physics (PHYS)

5013-5023. Physics for the In-Service Teacher. (2-3) Credit 3 each. Designed primarily for secondary school teachers of physics; graduate credit may be obtained; offered usually during the summer; theoretical and experimental techniques of teaching physics in secondary school.

Department of Social Work and Sociology

FACULTY

Sarah B. Williams, *Head, Social Work and Sociology*
Elizabeth A. Martin, *Social Work*
Clyde C. McDaniel, Jr., *Sociology*
Jimmie P. Poindexter, *Social Work*

PURPOSE AND GOALS

The graduate sociology program in the Department of Social Work and Sociology prepares sociologists for work in governmental officers, business organizations, social and public service agencies, and in secondary and higher education. Further, it prepares students for advanced study in sociology.

DEGREE PROGRAM

The Department of Social Work and Sociology offers the following graduate degree program:

Program	Degree Offered
Sociology	M.A.

The Department also provides graduate support courses in Sociology to other degree programs.

ADMISSION TO PROGRAM

Prerequisites for admission to the program are: a BS/BA degree from an accredited university or college, and undergraduate GPA of at least 2.75, three positive letters of recommendation, an acceptable biographical/professional statement, a completed application by the admissions cut-off date, a personal interview, and take the GRE test.

ADMISSION TO CANDIDACY

In order to be admitted to candidacy for the master's degree, students must meet all the general requirements and complete at least 12 semester hours of all program-required courses.

PROGRAM REQUIREMENTS (M.A. - Sociology)

MAJOR: A minimum of 30 hours of graduate courses, plus the completion of a thesis;

or

A minimum of 36 hours of graduate sociology courses with no thesis required.

CORE COURSES: Students must enroll in:

SOCG 5213 Social Theory
SOCG 5223 Social Research
SOCG 5253 Seminar (Statistics)

The remaining 21-27 hours may be selected from additional courses included in the curriculum.

MINOR: A minimum of 9 hours of graduate sociology courses chosen from:

SOCG 5213	Social Theory
SOCG 5223	Social Research
SOCG 5263	Sociology of Education
SOCG 5284	Aspects of Poverty
SOCG 5293	Social Disorganization
SOCG 5333	Criminology
SOCG 5353	Race and Ethnic Relations
	Electives (9-15 hours)

DESCRIPTION OF COURSES

Sociology (SOCG)

5213. Social Theory. (3-0) Credit 3. This course is designed to introduce major classical sociological theories. Systems theory, the conflict perspective, symbolic interaction and other sociological theories are discussed.

5223. Social Research. (3-0) Credit 3. A study of the various methods of social investigation, such as the social survey, the case study method, and historical, statistical, and ecological techniques. Emphasis is placed on the collection, analysis and interpretation of different types of information in connection with special problems of social research.

5233. American Social Welfare. (3-0) Credit 3. Historical development of social work as an institution. Fields of specialization and functions of agencies. Research papers tracing the development of specific areas of social work.

5243. Sociology of Urban Areas. (3-0) Credit 3. Considers the city and its hinterland as a sociological entity; urban neighborhoods, population groupings and movements, social processes, trends, and problems are treated in the light of historical, ecological, and social factors.

5253. Seminar. (3-0) Credit 3. Seminar approach to specialized fields and topics in sociology. Subject matter varies by semester. May be repeated for credit when topics vary.

5263. Sociology of Education. (3-0) Credit 3. Analysis of factors influencing the structures and function of the educational institution.

5273. Programs of Child Welfare. (3-0) Credit 3. A study of child welfare movements and contemporary children's agencies and their services, including programs for improving the home environment for children and youth, substitute care, safeguarding health, employment protection, and delinquency prevention.

5284. Aspects of Poverty. (4-0) Credit 4. This course presents several theoretical perspectives on poverty in American society. Past, current, and proposed solutions to poverty are discussed.

5293. Social Disorganization. (3-0) Credit 3. This course examines social problems in society from the social disorganization approach.

5314. Sociology for Community Work. (4-0) Credit 4. Analysis of the complex of social arrangements, group characteristics, traits, and institutions that characterize rural and urban living. Emphasis on techniques for analyzing special social problems and utilizing social organization as a means of achieving program objectives.

5323. Sociology of Youth. (3-0) Credit 3. The culture of adolescence and youth in modern societies, with emphasis on Western Civilization's youth as influenced by social class and ethnic status and by the family and other societal institutions.

5333. Criminology. (3-0) Credit 3. Nature and extent of crime. Past and current theories of the etiology of criminal behavior. Emphasis on crime in American society and its relation to American values and institutional arrangements.

5353. Race, Gender and Ethnic Relations. (3-0) Credit 3. A study of race, gender and ethnic relations. The course deals mostly with groups in the United States, but does yield cross-cultural perspectives.

5991-5992-5993-5996. Independent Study. (0-0) Credit 1, 2, 3, or 6. Readings, research and/or field work on selected topics. Prerequisite: consent of advisor.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Division of Social & Political Sciences

FACULTY

Mack H. Jones, *Head*
Anasuya S. Rao, *Coordinator, World Civilization*
Purvis M. Carter, *American History*
Howard Jones, *American History*

PURPOSE AND GOALS

The Division of Social & Political Sciences offers the M.A. degree in history with the objective of broadening the intellectual and scholarly capacities of students in understanding and analysing the historical development of contemporary events, thoughts, values, ideas and institutions. The program is designed to prepare students for careers in teaching history and social studies in schools and colleges and also to train specialists for various branches of government, business, archives and other social service. The students may specialize in U. S. history or European and World history.

Students may minor in economics, education, English, business, sociology and other social science fields.

DEGREE PROGRAM

The Division of Social and Political Sciences offers the following graduate degree program:

Program	Degree Offered
History	M.A.

ADMISSION TO PROGRAM

In addition to the general admission requirement to the graduate school described elsewhere in the catalogue, students seeking admission to the M.A. degree in history should meet the following requirements:

Prerequisites for a major or minor in the field of history are: (a) lower-level college courses in American and European history that correspond with courses offered in the field of history at Prairie View A&M University; (b) at least one advanced course in modern or contemporary European or American history; (c) a cumulative grade point average of "B" or better in social science courses at the undergraduate level; (d) evidence, by the end of the first semester, as a condition of precandidacy status, of the proper inclination to master the skills and attitudes upon graduate study.

ADVANCEMENT TO CANDIDACY

As early as possible in the first semester of residence, a student pursuing the M.A. degree should select a program of study, then obtain the agreement of a professor in that program to direct the student's preparation for the qualifying

examination and the writing of the thesis. The student and the major program professor will arrange the minor program of study with a view towards keeping the two programs reasonable related. A program of study and an area of thesis interest, both to be approved by the history program, must be filed before the end of the student's first semester or summer session in graduate school.

A student must complete 12 semester hours of graduate credits before applying for candidacy.

DEGREE PROGRAM REQUIREMENTS

Program Requirements

MAJOR: 21 semester hours, consisting of:

HIST 5903 Thesis
HIST 5923 Tools of Scientific History

and 15 hours from any one or more of these three fields of specialization:

Methods:

HIST 5023 Methods of Teaching History

American History:

HIST 5313 American Revolution and the Constitution
HIST 5323 Sectionalism and Civil War
HIST 5333 The New South
HIST 5343 Western American History
HIST 5353 Economic History
HIST 5363 Contemporary United States
HIST 5373 American Foreign Relations
HIST 5913 Great American Historians

European History:

HIST 5513 French Revolution and Napoleon, 1648-1815
HIST 5523 England since 1485
HIST 5543 Contemporary Europe

World History:

HIST 5403 Problems of Latin-American History
HIST 5813 History of Civilization to 1500
HIST 5823 History of Civilization, 1500 to Present
HIST 5833 Imperialism

MINOR: 15 semester hours

COURSE DESCRIPTOINS

History (HIST)

5023. Methods of Teaching History. (3-0) Credit 3. The nature of social studies: the development of and changing emphasis in current social studies programs; purposes and values; classroom methods and materials.

5043. Multicultural Social Studies. (3-0) Credit 3. Emphasis is placed on helping administrators and teachers acquire a broad theoretical grasp of multicultural and multiethnic education, and develop the practical skills (strategies, methods, and techniques) for applying that knowledge to various situations.

5213. Afro-American History. (3-0) Credit 3. This course emphasizes the importance of the black contribution to America's history. In examining that history, the course investigates the stereotyped views that have been handed down from one generation to the next, slanted accounts of black experience, apathy of many blacks and prejudices of many whites.

5313. American Revolution and the Constitution. (3-0) Credit 3. An examination of scholarly research into the American Revolution that regards certain aspects of the Revolution as "clinical phenomena" in the development of revolutions in general; ideological background, actionists and vigilantes, the fall of Tory rule, the internal revolution, subsidence of the fever, and the *Neuer Ordnung.* Prerequisite: Graduate Status.

5323. Sectionalism and Civil War. (3-0) Credit 3. Regional hypothesis; socioeconomic regionalism; government, politics, and the regional compromise in the middle period; important issues and men; Reconstruction and the new nation.

5333. The New South. (3-0) Credit 3. Relation of the South to national development since 1860; the death of the Old South; Reconstruction and the new nation; the "New Departure," 1876-1900; Southern strivings to follow national patterns, 1900-1932; the New Deal and the New South; the South in world perspective.

5343. Western American History. (3-0) Credit 3. Considers the exploration, settlement and development of the region west of the Mississippi. Examines materials on the early Spanish, French, African and Anglo-Saxon explorations and on the contributions of immigrants who made their homes in the Western region later.

5353. Economic History. (3-0) Credit 3. Historical review of the development of agriculture, commerce, industry, and business from colonial times to the present; social and economic forces in American society with attention to the present; social and economic forces in American society with attention to various mass movements; industrialization for the country and the necessity for governmental regulations; historical interpretation of trade unions, employers' associations, and cooperatives.

5363. Contemporary United States. (3-0) Credit 3. Twentieth century American development: America comes of age; the quest for social justice; the Great Crusade (World War I): postwar normalcy and reaction; democracy in transition—the New Deal; and American leadership in the United Nations.

5373. American Foreign Relations. (3-0) Credit 3. Problems in the diplomatic history of the United States with emphasis on the analysis of the growth of principles in the making and the execution of American foreign policy to 1889 and challenges to those principles since 1889.

5383. American Foreign Relations. (3-0) Credit 3. The United States and its relationships with Latin America and the rest of the world. Public opinion and the economy.

5403. Problems in Latin-American History. (3-0) Credit 3. Geography and resources of the Latin-American countries; cultural traits of the population; description of the social, political and economic institutions. History of the relations between the United States and Latin American countries. Seminar organization, problem emphasis, special reports, discussion, and research paper.

5513. French Revolution and Napoleon, 1648-1815. (3-0) Credit 3. Seminar approach to the cause and development of the Revolution, the disciplining of the Revolution by Napoleon, the greater France in Europe—the imperialistic impulse of the Revolution.

5523. England Since 1485. (3-0) Credit 3. Development of Britain in modern historical perspective; Tudors and the Reformation; the Stuarts and Parliament; English expansion under Parliament; the Era of Reform and Empire. Lectures, discussions, and special reports.

5543. Contemporary Europe. (3-0) Credit 3. Twentieth century European development in its world setting; the background and causes of World War I; the war itself; the Versailles settlement and post-war effort at political, economic and social security, collectively and nationally; the ideological clash between democracy and totalitarianism which led to global war and the Atomic Age.

5813. History of Civilization to 1500. (3-0) Credit 3. Theoretical scholarly treatment of the ideals and institutions connected with the polictical, social and economic life during periods of ancient, classical, Medieval and Reformation.

5823. History of Civilization, 1500 to Present. (3-0) Credit 3. Theoretical scholarly treatment of the ideals and institutions connected with political, social and economic life from the 16th century to present.

5833. Imperialism. (3-0) Credit 3. The era of modern imperialism. Development and theories of Imperialism in the scholarship of the field, 1870 to 1920; Humanitarianism; Imperialism and Liberalism, 1870 to 1920.

5903. Thesis. (0-0) Credit 3. Credit allowed upon satisfactory completion of required thesis.

5913. Great American Historians. (3-0) Credit 3. A critical examination of selective writings of American history emphasizing the sociological, economic and political motivations, and historical theory. Representative historians and their writing will be selected from the following periods: Colonial, Revolutionary, Nationalistic, Modern and Contemporary.

5923. Tools of Scientific History. (3-0) Credit 3. History and its relationship to the social sciences; the subject, collection and classification of sources; the criticism of data; exposition or the presentation of historical evidence.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Readings, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

College of Business

ADMINISTRATIVE OFFICERS

Barbara A. P. Jones, *Dean*

PURPOSE AND GOALS

The mission of the College of Business is to integrate the various disciplines into the pursuit of business studies and problems while providing the students an understanding of business organization and its place in the larger society in which it operates. Additionally, the College will strive to create an environment conducive to preparing individuals for a lifetime of learning and growth. The ultimate goal of the College is to produce graduates who are competent in the concepts of information systems methodologies and who are capable of applying these concepts in the structured and nonstructured problems in business, industry, and government. Public service activities, in the form of technical assistance, will be provided to surrounding communities to enhance mutual growth and development.

DEGREE PROGRAM

The College of Business offers a Master of Business Administration (M.B.A.) degree. The M.B.A. degree program focuses upon the problem-solving and decision-making responsibilities of modern management and is aimed at providing broad-based preparation for careers in either the private or public sectors. The program offers a general degree in Business Administration; no specific areas of specialization are given.

ADMISSION TO PROGRAM

Students desiring admission to the graduate programs in the College of Business must meet the general admission requirements given elsewhere in this catalog for the Graduate School. Admission to the Graduate School, however, does not constitute admission to the Master's program in the College of Business. In the determination of an applicant's eligibility for admission to the College of Business, the following measures are of critical importance.

1. An overall undergraduate grade point of 2.75 on a 4.00 scale, or the equivalent.
2. Completion of the Graduate Management Admissions Test (GMAT) with an acceptable admissions index. In order to obtain an acceptable admission index, it is necessary to receive (a) at least 950 points based on the formula: 200 times the overall undergraduate GPA plus the GMAT score; or (b) at least 1000 points based on the formula: 200 times the GPA for the last 60 undergraduate semester hours plus the GMAT score.

Students failing to meet the criteria for admission will automatically be placed into non-degree/special status. Special student status, however, does not entitle one to pursue a graduate degree in the College of Business.

Students who fail to satisfy the admission index because of either non-completion or a low GMAT score may not enroll for more than 6 semester hours of

graduate work in any one long semester or full summer term while attempting to obtain an acceptable GMAT score. A student may not enroll for more than 12 graduate semester hours in business while in this category. Upon successful completion of the admission index, students will automatically be admitted into the College of Business graduate degree program.

Students who fail to satisfy both the grade point average and GMAT criteria may not enroll for more than 6 semester hours of graduate course work in any one long semester or full summer term. A maximum of 12 semester hours of graduate work in business will be allowed while in this category. If a student in this category earns a grade point average of at least a 3.0 during the first 12 semester hours of graduate course work in business at Prairie View A&M University and scores a minimum of 450 on the GMAT, the student may petition the Dean of the College of Business for admission to graduate status.

Applicants may petition the Graduate Dean and the Dean of the College of Business for acceptance of the hours earned as a special student toward a Master's degree in Business. However, acceptance is not automatic. Under any circumstance, ONLY 9 hours earned as a SPECIAL STUDENT may be applied toward a degree in business.

ADVANCEMENT TO CANDIDACY

Retention in the Master's Degree Program. For retention in the Master's program in the College of Business, each student must comply with the following:

1. Satisfy the conditions of admission described earlier if admitted as a SPECIAL GRADUATE student.
2. Maintain an overall Grade Point Average of 3.0. A maximum of two "C's" will be allowed; students will be dismissed from the Master's program in the College of Business when the third "C" has been earned.

Admission to Candidacy. Admission as an applicant for the Master's degree program does not constitute advancement to candidacy. Such advancement will be granted upon the completion of at least 12 semester hours of graduate credit with at least a "B" average. The student must submit a formal application, through the College of Business, to the Graduate Dean. Failure to fulfill this requirement may prevent the student from enrolling the following semester or having credits considered for a degree.

Admission to candidacy cannot be granted unless the conditions for admittance have been satisfied and all appropriate test scores have been placed on file in the College of Business Dean's Office. Admission to candidacy is granted by the Dean of the Graduate School. The application for admission to candidacy and the application for graduation may NOT be filed during the same semester. In general, a minimum of 12 hours must be completed after one has been admitted to candidacy.

Application for Graduation. An application for graduation may not be filed unless the applicant has:

1. Earned a 3.00 cumulative Grade Point Average with no grade less than a "C". Any graduate course in which a grade less than a "C" has been earned must be repeated.
2. Earned no more than two "C's" in graduate courses.

3. Presented written evidence of any course substitute.
4. Secured formal evaluation of all academic work prior to registration for the final semester.
5. Been admitted to candidacy at least one semester prior to applying for graduation.

PROGRAM REQUIREMENTS (M.B.A.)

The M.B.A. provides broad preparation for management, with analytical techniques emphasized because of their importance in modern decision-making. The M.B.A. degree program consists of courses which make up a common body of knowledge—36-51 credit hours—of advanced courses in Accounting, Economics, Finance, Management, Marketing or Administrative Information Systems.

Prerequisites. A Bachelor's degree from an approved institution, including at least 27 semester hours in business administration courses, is needed for graduate study. The M.B.A. degree program requires, as a minimum background, courses equivalent in content to those courses required of the undergraduate business majors at Prairie View in the areas of:

	Hours
Statistics	3
Accounting	6
Finance	3
Management	3
Marketing	3
Economics	6
Administrative Information Systems	3

Graduate students should, if at all possible, remove any deficiencies by completing courses at the 5000 level which are designed for this purpose. Considering the above prerequisites, students may pursue one of two plans:

PLAN I			Hours
ACCT	5003	Financial Accounting	3
FINA	5013	Legal Environment of Business	3
ECON	5013	Microeconomic Theory	3
ECON	5023	Macroeconomic Theory	3
FINA	5003	Introduction to Finance	3
MRKT	5003	Advanced Marketing	3
MGMT	5003	The Management Process	3
ACCT	5103	Managerial Accounting	3
ADSY	5203	Managerial Communication	3
MGMT	5323	Strategy and Policy	3
MGMT	5113	Business Statistics	3
MGMT	5123	Quantitative Analysis	3
FINA	5103	Theory of Financial Management	3
MRKT	5303	Marketing Management	3
		Electives	6

PLAN II			Hours
ACCT	5103	Managerial Accounting	3
ADSY	5203	Managerial Communication	3
MGMT	5113	Business Statistics	3
MGMT	5123	Quantitative Analysis	3
FINA	5103	Theory of Financial Management	3
MRKT	5303	Marketing Management	3
MGMT	5103	Organizational Theory	3
MGMT	5323	Strategy and Policy	3
FINA	5303	Managerial Finance	3
MGMT	5513	Management Information Systems	3
		Electives	6

The above programs are flexible—depending upon one's undergraduate degree or post-graduate studies prior to entering as a degree applicant.

Suggested Program

Master of Business Administration (M.B.A.)

PLAN I

First Semester	Hours
ACCT 5003 Financial Accounting	3
ADSY 5203 Managerial Communication	3
MGMT 5003 The Management Process	3
MGMT 5513 Management Information Systems	3
	12

Second Semester	Hours
ACCT 5103 Managerial Accounting	3
FINA 5003 Introduction to Finance	3
MGMT 5113 Business Statistics	3
MRKT 5003 Advanced Marketing	3
	12

Third Semester	Hours
ECON 5013 Microeconomic Theory	3
FINA 5103 Theory of Financial Mgmt.	3
MGMT 5123 Quantitative Analysis	3
MRKT 5303 Marketing Management	3
	12

Fourth Semester	Hours
ECON 5023 Macroeconomic Theory	3
FINA 5013 Legal Environment	3
MGMT 5323 Strategy and Policy	3
Elective	3
	12

PLAN II

No specific schematic plan is recommended for students with an undergraduate degree in business administration admitted to Plan II. However, students are cautioned to take prerequisite courses before enrolling in advanced level courses. In general, the courses in any area of specialization should be taken in numerical sequence.

DESCRIPTION OF COURSES

Accounting (ACCT)

5003. Financial Accounting. (3-0) Credit 3. A survey of fundamental concepts of financial accounting with special emphasis upon the interpretation and use of financial accounting data for evaluative and administrative purposes.

5103. Managerial Accounting. (3-0) Credit 3. The interpretation and use of accounting data for management purposes. Topics covered include: cost accounting; budgets; standards; production costing; distribution costing; and special analyses for managerial purposes. Prerequisite: ACCT 5003 or equivalent.

5213. Accounting Theory. (3-0) Credit 3. Critical evaluation of theory structure in accounting. Study of the criteria for choices among income-determination and asset-valuation rules for public reporting. Prerequisite: ACCT 5103.

5313. Seminar in Tax Planning. (3-0) Credit 3. The study of business situations and appropriate alternative plans to minimize taxes. Tax research and planning for business enterprise and individuals. Prerequisite: ACCT 5103.

5323. Contemporary Accounting Topics. (3-0) Credit 3. Critical examination of subject matter presented in current periodicals and bulletins in the field of accounting. Prerequisite: ACCT 5103.

5333. Seminar in Tax Problems. (3-0) Credit 3. Accounting for corporate combinations and affiliations, reorganizations and personal holding companies. Prerequisite: ACCT 5103.

5343. Managerial Accounting Analysis. (3-0) Credit 3. Study of the uses and limitations of cost analysis in managerial decision-making and control. Emphasis placed on planning relevant costs, capital budgeting, inventory planning and control. Prerequisite: ACCT 5103.

Administrative Information Systems (ADSY)

5113. System Analysis and Design. (3-0) Credit 3. Processes to define information requirements, construct a logical model of the information system and specifications, develop documentation, and plan implementation. Study and practice with the tools techniques, and concepts necessary to the systems analyst/designer in a management information system or user organization.

5123. Information Resource Management. (3-0) Credit 3. Effective information resource management in the planning, program and budgeting cycle. A system approach to decision making throughout the life cycle of information resources supported by documentation in the form of statements of objectives, specification statements, feasibility reports, cost analyses, and implementation plans.

5203. Managerial Communication. (3-0) Credit 3. Applications of communications theory, human relations concepts, research methods, and information technology to the internal communication of the manager's work environment. Survey of the organizational communication climate; applications: Oral and written reports, system-related documents (reports, proposals, procedures).

5213. Seminar in Advanced Communication Systems. (3-0) Credit 3. Designed for students and professional who seek a working knowledge of network-based computer information systems. Includes a technical overview of digital communication; local area networks and the use of this technology to link microcomputers and other devices to form advanced office systems; emphasize other applications of telecommunication technology that facilitate information exchange.

5303. Data Base Management and Retrieval. (3-0) Credit 3. Design for users of databases and database management systems in a business environment. Principles of storing, processing and retrieving business-related data. High-level data languages for retrieval and report generation. Introduction to database management systems and the role of the information resource administration.

Economics (ECON)

5013. Microeconomic Theory. (3-0) Credit 3. Critical analysis of neoclassical price and production theories. Demand, cost of production, and price determination under various conditions of the market.

5023. Macroeconomic Theory. (3-0) Credit 3. Classical Keynesian and Post-Keynesian aggregate income and employment analysis. Determination of price level and interest rate.

5213. Economic Theory. (3-0) Credit 3. Development of economic analysis from the 17th century to the present, with emphasis on the economic role of the state and other institutions and on the philosophical background of economic doctrines. Prerequisite: Consent of advisor.

5223. Mathematics Economics. (3-0) Credit 3. Mathematical investigation of economic concepts and models.

5313. Economic History. (3-0) Credit 3. Development of wage system, expansion of businesses and markets, industrial revolution, and industrial development from the colonial times to present.

5323. International Trade. (3-0) Credit 3. Case studies of the contribution to international economic theory of Mercantilists, Hume, Smith, Ricardo, Mill, and others. Problems of balance of payments; trade policies of major nations; and international economic institutions in theory and practice. A study of the history of the forces shaping United States foreign economic policy.

5333. Labor Problems. (3-0) Credit 3. Economic and social forces determining labor supply and demand, labor finance, unemployment, labor mobility, functioning of labor markets, and wage theories. Major problems in modern collective bargaining—practical aspects and economic implications. Historical experience with labor movements in western type industrial societies; labor movement and labor problems in newly emerging countries; and relevance of the western labor movement to developing nations.

5343. Economic Problems for Consumers. (3-0) Credit 3. Family budgets, marketing, price controls and other problems of the consumer.

5353. Money and Banking. (3-0) Credit 3. Major emphasis on the role of money in determination of prices, interest, sales, income, and employment. Study of demand and supply of money. Effectiveness of monetary policy.

5363. Economic Growth. (3-0) Credit 3. A study of the problems and methods of achieving a more rapid rate of economic and social development. A study of the different growth models and the economic implications of these models.

5373. Human Resources Development. (3-0) Credit 3. Covers population growth, poverty, discrimination, migration, education, research, and training. More detailed study of these topics and more emphasis on published research. The student will be asked to investigate one topic of this course. The course is oriented towards research and methodology.

5383. Seminar in Economics. (3-0) Credit 3. Informal discussion of student reports on contemporary socioeconomic problems facing the United States and the rest of the world.

5423. Capitalism and Socialism. (3-0) Credit 3. Capitalism, unionism, socialism, facism, and individualistic anticapitalism; each is viewed under the headings of conditions, theories, and movements. A research course. Prerequisite: ECON 5333 and the consent of the instructor.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Reading, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

Finance (FINA)

5003. Introduction to Finance. (3-0) Credit 3. Corporate organization and control; security; the management of fixed capital, working capital, working capital reserve, and surplus and dividend policies; and investment banking and the securities market.

5013. Legal Environment of Business. (3-0) Credit 3. Designed to introduce the student to the legal environment in which business decisions are made. An introduction to business organizations, torts, government regulations, taxation, and the legal profession.

5103. Theory of Financial Management. (3-0) Credit 3. Principles and practices influencing the decision-making responsibility for business financial operations. Financial analysis, planning and control; long-term investment decisions; financial structure and cost of capital; working capital management; and long-term external financing.

5303. Managerial Decisions in Finance. (3-0) Credit 3. Concerned with managerial problems of the financial manager, with the emphasis on financial analysis, current asset management, capital budgeting and capital structure.

5313. Investment Theory and Portfolio Management. (3-0) Credit 3. Study of advanced portfolio management objectives and techniques. Analysis of new trends in security regulation. Criteria of measuring performance. Evaluation of risk in stock and bond markets.

5323. Financial Systems. (3-0) Credit 3. An in-depth analysis of the problems of financial institutions and their influences in money and capital markets. Financial factors affecting competition, economic development and change.

5333. International Finance. (3-0) Credit 3. Theory and policy on analysis of the role of the world bank, international monetary fund and other international agencies. Problems of multinational business enterprises. Issues involved in foreign exchange, international trade, and devaluation and revaluation of currency of nations.

5343. Theory of Risk and Insurance. (3-0) Credit 3. Risks and evaluation of various types of business firms. Risk management techniques of insurance as a major social institution. Study of insurance from legal, psychological, and economic viewpoints.

5353. Public Finance and Taxation. (3-0) Credit 3. Economic role of governments, the choice of public sector output in a democracy, and the effects of various taxes on resource allocation and income distribution. A detailed study of these topics with an emphasis on published research.

5383. Seminar in Finance. (3-0) Credit 3. Seminar in financial decisions. Indepth research in a selected field of corporate finance.

Management (MGMT)

5003. The Management Process. (3-0) Credit 3. Examines major concepts, theories, and practices in management. Topics include theories of management, decision-making of organizational structures, human factors, decision theory and behavior, measurement and control. Examines key aspects of the manager's role and provides framework for decisions and action. Prerequisite: MGMT 5413.

5103. Organizational Theory. (3-0) Credit 3. The theory of organization and the human element of management within structures established to carry out objectives of business enterprises. Focus is placed on the systematic interrelationship of economic, technological, psychological, and sociological variables which are useful in discerning, predicting, and influencing the behavior of an organization. Prerequisites: MGMT 5413, 5003.

5113. Business Statistics. (3-0) Credit 3. Review of statistical measures, tests of hypotheses, analyses of variance, and specialized correlation techniques as applied to business and economic data.

5123. Quantitative Analysis. (3-0) Credit 3. Application of quantitative methods to solution of business problems, including linear programming, integer programming, dynamic programming, goal programming, network models, transportation methods, inventory models, and decision-making under uncertainty. Prerequisite: MGMT 5113.

5313. Organizational Decision-Making. (3-0) Credit 3. An examination of the interactions of the groups of individuals making up the organization as they decide, act, and are acted upon in carrying out their responsibilities. Decision and organizational theory are both utilized in carrying out this exploration. Prerequisites: MGMT 5413. MGMT 5003.

5323. Strategy and Policy Formulation. (3-0) Credit 3. Examines top management strategy, formulation, implementation, and evaluation characteristic of each function; diagnosis of ill-structured problems from private and public sectors; use of analytical methods and models; and organizational change process. Synthesis of functions included in the planning and evaluation strategy of major organizations. Prerequisite: 12 semester hours of management courses.

5333. Problems in Manpower Management. (3-0) Credit 3. Explores forecasting a firm's future manpower requirements, development of the necessary capabilities to meet these requirements, the theory of incentives, and the management of human resources.

5343. Personnel Management. (3-0) Credit 3. An analysis of the techniques and problems of training, recruitment, selection, testing, promotion, specification and description of jobs, and renumeration in the personnel management field.

5363. Issues and Trends. (3-0) Credit 3. A study of current issues and trends in business and their influence on the economy.

5373. MBA Seminar. (3-0) Credit 3. Contemporary topics from functional areas of business.

5383. Seminar. (3-0) Credit 3. Cooperative research on one or more economic problems, each member of the class concentrating on a selected phase of the common subject.

5393-5396. Internship. (0-0) Credit 3 or 6. A supervised, productive, and educationally meaningful work experience in a job which relates to the student's career objective.

5413. Introduction to Behavioral Science. (3-0) Credit 3. A study of the social science disciplines relevant to the understanding and prediction of human behavior in organizations. Topics include: individual behavior motivation, perception, and learning; group process; interaction, communications and power; organizational structure, dynamics and change.

5513. Management Information Systems. (3-0) Credit 3. Analysis and synthesis of the principal interactions among the components of a company and its environment: setting of systems requirements; and development of control processes to increase effectiveness. Examines methods of evaluating the effectiveness and efficiency of systems.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 or 3. Reading, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

Marketing (MRKT)

5003. Advanced Marketing. (3-0) Credit 3. The application of quantitative and behavioral techniques to the strategic planning and evaluation of marketing systems is studied.

5303. Marketing Management. (3-0) Credit 3. An analysis and synthesis of the principal interactions among the components of a company and its environment; setting of system requirements; development of control processes to increase effectiveness. Examines methods of evaluating the effectiveness and efficiency of systems.

5313. International Marketing. (3-0) Credit 3. A study of the problems and policies in the international exchange of goods and services. Economic, political, and cultural differences among nations in the world community.

5383. Seminar in Marketing. (3-0) Credit 3. An intensive analysis of specific marketing problems with special emphasis on research methodology. A critical evaluation of research findings.

College of Education

ADMINISTRATIVE OFFICER

M. Paul Mehta, *Dean*

ADMINISTRATIVE STAFF

Marion Henry, *Director, Teacher Certification*
William Parker, *Director, Field Experiences and Student Teaching*
Willie F. Trotty, *Associate Dean*

PURPOSE AND GOALS

The College of Education is the designated teacher education unit of the university. The objectives of the college center around the areas of pre-service, in-service, and continuing education of teachers in elementary and secondary schools.

The purpose of graduate programs offered by the college is to help the practioners in the field to gain a mastery of knowledge in a particular area or discipline. They are designed to meet the needs of a diverse group—elementary teachers, subject area teachers, teachers of children with special needs, counselors, and those who aspire for supervisory and administrative roles in elementary and secondary schools. The graduate coursework also enables educators to earn certification and/or endorsements in additional fields. Individuals with non-education degrees desiring to be certified as teachers may pursue graduate studies in the college to meet the state certification requirements.

DEGREE PROGRAMS

The College of Education provides programs of study leading to the Master of Science (M.S.) in Education and the Master of Education (M.Ed.) degrees. Requirements for these degrees including a common core of twelve semester hours, a program concentration of twelve semester hours and a research/resource area containing a research requirement or thesis and electives.

The departments within the college and departments with related fields in other colleges provide program concentrations required for advanced degrees, professional certificates, and endorsements to certificates. Courses are also available for continuing education and professional development.

Departments in the College of Education offer the following program concentrations and certificates:

Departments	*Programs*	*Certificates*
Curriculum and Foundations	Curriculum and Instruction	Professional Secondary
	Elementary Education	Elementary Education
	Early Childhood Education	Special Education
	Special Education	Special Education (L/LD,MRE)

Elementary Education	Elementary Education Early Childhood Education Special Education	Elementary Education Educational Diagnostician Special Education Special Education (L/LD, MRE)
Health and Human Performance	Health Education Physical Education	Professional Physical Education (All-Level)
School Services	School Administration Counseling	Mid Management Professional Counselor Professional Special Education Counselor Professional Vocational Counselor Superintendent Instructional Supervisor Learning Resourse Specialist Reading Specialist

Program concentrations in related fields available through the Department of Curriculum and Foundations from other colleges include:

Biology
Business Education
Chemistry
English
Economics
History
Industrial (Technology) Education
Mathematics
Music
Physical Education
Physics
Social Studies
Sociology

ADMISSION TO PROGRAMS

A student seeking admission to graduate programs in the College of Education must first be admitted to the Graduate School and classified as degree only, certificate-only, degree and certificate, or special graduate student. Specific criteria for admission can be found in the Graduate School section of this catalog.

Formal application for admission to graduate studies is made to the Graduate School. The departments offering graduate degrees may set requirements over and above those set by the Graduate School.

Department of Curriculum and Instruction

FACULTY

Daryl Wilcox, *Head and Elementary Education Coordinator*
Martha Bailey, *Early Childhood Education Coordinator*
Ross Clark, *Secondary Education*
Harold Fillyaw, *Educational Psychology*
M. Paul Mehta, *Curriculum and Instruction*
Marilyn Randolph, *Early Childhood Education and Elementary Education*
Rita Richardson, *Special Education*

PURPOSE AND GOALS

This graduate program is designed to develop those advanced competencies in leadership and instruction that will enable individuals to demonstrate analytical processes of problem solving in the teaching/learning environment and procedures of educational research and its application.

ADMISSION TO PROGRAM

An individual must have completed a Bachelor's degree from an accredited institution of higher learning and admission to Graduate School.

ADVANCEMENT TO CANDIDACY

An individual must have completed twelve (12) semester hours of graduate courses with a minimum grade point average of "B" before admission to candidacy is granted.

PROGRAM REQUIREMENTS (M.S. in EDUCATION OR M.ED.)

Suggested Program

Common Core (12 semester hours)

CURR 5003	Theory and Dynamics of Curriculum and Instruction
EDFN 5103	Foundations of Educational Research
EDFN 5113	Psychology of Learning and Development
EDFN 5123	Socio-Cultural Issues in Education

Program Concentration (12 semester hours)

Courses to be selected from program concentration of student's choice from the following specializations:

PROGRAMS

Curriculum and Instruction
Business Education
Mathematics Education
Social Science Education
Early Childhood Education
English Education
Industrial Education
Music Education
Science Education
Social Studies Education

Resource and Research (12 semester hours)

For the M.S. degree

EDFN 5143 Advanced Educational Statistics
EDFN 5903 Thesis
Electives - Six (6) semester hours

For the M.Ed. degree:

EDFN 5923 Master's Seminar
Electives - Nine (9) semester hours

Total Degree Requirements 36 Semester Hours

CERTIFICATION: Students seeking certification must meet all requirements listed in the Teacher Certification section of this catalog. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

DESCRIPTON OF COURSES

Curriculum (CURR)

5003. Theory and Dynamics of Curriculum and Instruction. (3-0) Credit 3. An examination of theoretical and logical structures forming the basis for curriculum and instructional decision-making. Consideration of implications for the work of responsible curriculum decision-makers at all levels.

5133. Principles of Instructional Design. (3-0) Credit 3. Development of competencies related to translating general and theoretical knowledge about learning and instruction into specifications for materials, devices, or settings.

5143. Managing Classroom Interaction. (3-0) Credit 3. Identification of an practice with the skills and dynamics of instructional behavior. Examination of the predictability of student response behavior when strategies are selected according to pre-determined criteria.

5503. Curriculum Evaluation. (3-0) Credit 3. An examination of the several procedures used to evaluate curricular materials and development activities. Formative and summative evaluation methodologies are compared and contrasted and the consequences of model evaluative systems demonstrated.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2, or 3. Reading, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Early Childhood Education (ECED)

5303. Development of the Young Child. (3-0) Credit 3. A study of the sequential stages of growth and maturation of the young child to include physical, social, emotional and cognitive development.

5313. Foundations of Early Childhood Education. (3-0) Credit 3. An overview of the historical, philosophical, and theoretical development of early childhood and its relationship to child development.

5323. Methods and Materials for Teaching Young Children. (3-0) Credit 3. A study of the teaching strategies, techniques and materials designed to enhance learning experiences for young children.

5333. Assessment Techniques in Early Childhood Education. (3-0) Credit 3. A study of evaluative instruments appropriate for the assessment of young children's intellectual, social and motor development. Practical experiences are provided in test administration, scoring, interpretation and utilization of results.

5343. Organization and Administration of Programs for Young Children. (3-0) Credit 3. An examination of the organization and administration of early childhood programs with emphasis on early childhood. A study of the impact of legislation and professional organizations on program operations.

5353. Seminar in Early Childhood Education. (3-0) Credit 3. An analysis of current research literature trends and issues in Early Childhood Education.

5363. Early Childhood Practicum. (3-0) Credit 3. Planned observation and interaction experiences with young children in a classroom setting. Organized feedback sessions are provided in structured seminars.

Educational Foundations (EDFN)

5103. Foundations of Educational Research. (3-0) Credit 3. Basic concepts of research design, strategies of experimental, historical and descriptive research, and basic statistical procedures are introduced.

5113. Psychology of Learning and Development. (3-0) Credit 3. An analysis of mental processes involved in learning the developmental relationship of these processes. In-depth study of major theories which relate learning, development, and physiology.

5123. Socio-Cultural Issues in Education. (3-0) Credit 3. An analysis of historical, philosophical, and multi-cultural issues in American education and their implications for the setting of standards that govern educational policy and practice.

5133. Measurement and Evaluation of Learning and Instruction. (3-0) Credit 3. In-depth study of testing instruments and techniques commonly applied in classroom teaching environments. Identification and application of interpretative skills, using varied testing formats in the context of case studies.

5143. Advanced Educational Statistics. (3-0) Credit 3. Statistical methods and techniques used in educational measurement and research design, analysis of variance, and introduction to non-parametric statistics. Prerequisite: EDFN 5103.

5903. Thesis. (3-0) Credit 3. Selection, preparation, and presentation of a research proposal for purposes of completing thesis requirement. Prerequisite: admission to candidacy and approval of thesis advisor.

5923. Master's Seminar. (3-0) Credit 3. Investigation and analysis of research in the field of curriculum and foundations. Major paper a requirement for this course. Prerequisite: EDFN 5103.

Elementary Education (ELED)

5103. Elementary School Curriculum. (3-0) Credit 3. Characteristics and organization of the elementary school curriculum. Intensive study of competencies included in elementary school subjects: Texas curriculum goals, requirements, and strategies for compliance.

5113. Teaching/Learning Styles In Elementary Classrooms. (3-0) Credit 3. Study of effective instructional performances and effective student learning in elementary classrooms. Analysis of research findings and experiments related to teaching/learning situations.

5123. Studies In Elementary Education. (3-0) Credit 3. Investigation of instructional problems, trends, and research related to the development of educational programs for elementary school children.

5133. Seminar In Elementary Education. (3-0) Credit 3. Analysis of contemporary issues in elementary education; problems and challenges associated with teaching/learning and the education profession.

5143. Individualizing Instruction In Elementary Classrooms. (3-0) Credit 3. Evaluation and creative ideas for edcuational software programs in computer instruction; self-paced evaluation techniques, logical reasoning activites and materials for diagnostic and prescriptive teaching in elementary classrooms.

5153. Classroom Communication. (3-0) Credit 3. Study of the role of communication in the teaching/learning process in elementary classrooms. Analysis of the relationship between verbal and nonverbal messages, classroom management skills, instructional communication and student performances.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2, 3. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Secondary Education (SCED)

5503. Principles of Secondary Education. (3-0) Credit 3. Origins, development and organization of the secondary school. Contemporary problems and trends in secondary education are identified and studies.

5513. Secondary School Curriculum. (3-0) Credit 3. Characteristics and organization of curriculum and teaching in secondary schools. Relationships to socio-cultural influences in society and within the schools.

Special Education (SPED)

5203. Special Education Seminar. (3-0) Credit 3. A seminar designed to investigate contemporary issues in the area of special education as well as to increase the students' familiarity with current literature and knowledge in the field.

5213. Introduction to Exceptional children. (3-0) Credit 3. An in-depth study of the various types of exceptional learners and their educational needs.

5223. Psychology of Retarded Children. (3-0) Credit 3. Designed to provide the learner with an overview of various tests, learning characteristics and etiology of the exceptional individual.

5233. Language and Communication Problems. (3-0) Credit 3. An overview of particular communication problems as they relate to the oral language skills of the exceptional learner. Prerequisites: SPED 5213, 5243, and consent of program coordinator.

5243. Methods for the Exceptional Learner. (3-0) Credit 3. Deals with problems of instruction, methods of teaching retarded children and learning disabled, organization of special classes and curriculum development for the exceptional learner.

5263. Diagnostic and Perspective Techniques for the Exceptional Learner. (3-0) Credit 3. Designed to provide the opportunity for students to experience and develop a descriptive orientation of the learning disabled student. Prerequisites: SPED 5213, 5243, 5273, and consent of program coordinator.

5273. Learning Theory. (3-0) An in-depth study of the various learning theories and an analysis of systematic approaches to learning. Prerequisites: SPED 5213, 5223, 5243, 5283 and consent of program coordinator.

5283. Curriculum Adjustment and the Exceptional Child. (3-0) Credit 3. The experience of altering traditional curricula to mesh with the individual learning needs of the exceptional learner. Prerequisites: SPED 5213, 5243, and consent of program coordinator.

5293. Psychology or Reading. (3-0) Credit. To provide the learner with an overview of the various reading problems and/or developmental reading characteristics of the exceptional child. Prerequisite: consent of the program coordinator.

5343. Practicum. (3-0) Credit 3. Direct experience with children referred to the special education laboratory for testing and evaluation. These referrals are related directly to public school problems.

5353. Individual Testing of Exceptional Child. (3-0) Credit 3. Familiarizes the learner with the administration and interpretation of individualized testing designed for the exceptional learner.

Department of Health and Human Performance

FACULTY

Mary V. White, *Interim Head, Physical Education*
Leroy Moore, *Physical Education*
Hoover J. Wright, *Physical Education*

PURPOSE AND GOALS

The programs in the Department of Health and Physical Education are designed to meet the professional needs and interests of students who wish to pursue a Master of Science in Education or a Master of Education, with a concentration in physical education.

Graduate programs in physical education are designed to assist in the advanced preparation of coaches, teachers, and administrators at the elementary and secondary school levels. A professional teaching certificate in physical education may be earned in the department.

DEGREE PROGRAMS

The Department of Health and Human Performance offers the following graduate degree programs:

M.S./Education (concentration in physical education)
M.Ed. (concentration in physical education)

DEGREE PROGRAM REQUIREMENTS

M.S./Education (physical education)
M.Ed. (physical education)

Common Core Education	12 hrs.
Program Concentration (physical education)	12 hrs.
Research/Resource	12 hrs.
Total	**36 hrs.**

MINOR FIELD REQUIREMENTS

Physical education requires 12 semester hours of graduate courses in the 5000 series for a minor.

PROGRAM REQUIREMENTS (M.S.—Education)

Suggested Program (Concentration in physical education)

Common Core (12 semester hours)

CURR 5003	Theory and Dynamics of Curriculum and Instruction
EDFN 5103	Foundations of Educational Research
EDFN 5113	Psychology of Learning and Development
EDFN 5123	Socio-Cultural Issues in Education

Program Concentration (12 semester hours)

PHED 5133	Physical Education Curriculum
PHED 5403	Administrative Problems in Physical Education
PHED 5503	Teaching Physical Education
PHED 5123	Scientific Foundations of Physical Education
or	
PHED 5703	Kinesiology

Research Resource (12 semester hours)

EDFN 5143	Adv Educ Stat
EDFN 5903	Thesis Research
ELECTIVES	(6 semester hours from the courses listed below):
PHED 5103	Psychology of Motor Learning
PHED 5113	Supervision in Physical Education
PHED 5203	Physiology of Muscular Exercises
PHED 5303	Tests and Measurements in Physical Education
PHED 5343	Professional Preparation in Health, Physical Education, Recreation and Dance
PHED 5353	Mainstreaming in Health, Physical Education, Recreation and Dance

Total Degree Requirements **36 Semester Hours**

PROGRAM REQUIREMENTS (M.Ed.)

Suggested Program (Concentration in physical education)

Common Core (12 semester hours)

CURR 5003	Theory and Dynamics of Curriculum and Instruction
EDFN 5103	Foundations of Educational Research
EDFN 5113	Psychology of Learning and Development
EDFN 5123	Socio-Cultural Issues in Education

Program Concentration (12 semester hours)

PHED 5133	Physical Education Curriculum
PHED 5403	Administrative Problems in Physical Education
PHED 5503	Teaching Physical Education
PHED 5123	Scientific Foundations of Physical Education
or	
PHED 5703	Kinesiology

Research Resource (12 semester hours)

EDFN 5923	Master's Seminar
ELECTIVES	(9 semester hours from the courses listed below):
PHED 5103	Psychology of Motor Learning
PHED 5113	Supervision in Physical Education
PHED 5203	Physiology of Muscular Exercises
PHED 5303	Tests and Measurements in Physical Education
PHED 5343	Professional Preparation in Health, Physical Education, Recreation and Dance
PHED 5353	Mainstreaming in Health, Physical Education, Recreation and Dance

Total Degree Requirements **36 Semester Hours**

NOTE: Students seeking certification must meet all requirements listed in the teacher certification section of this catalog. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

DESCRIPTION OF COURSES

Physical Education (PHED)

5103. Psychology of Motor Learning. (3-0) Credit 3. Learning process in motor skills as the foundation of teaching methods in physical education activities. Practical experience in testing theories.

5113. Supervision in Physical Education. (3-0) Credit 3. Study of principles and practices of educational supervision and their application to physical education.

5123. Scientific Foundations of Physical Education. (3-0) Credit 3. Study of the scientific foundations of physical activity as they relate to biological, psychological, sociological, and biomechanical factors in the teaching of physical education.

5133. Physical Education Curriculum. (3-0) Credit 3. Study of activities, aims, objectives, and outcomes as they relate to courses and their construction. Development of a course of study based on individual student needs.

5203. Physiology of Muscular Exercises. (3-0) Credit 3. Physiological effects of exercise upon the body. Basic physiological concepts and their relation to the total physical education program.

5303. Tests and Measurements. (3-0) Credit 3. Test construction, test administration, and statistical procedures for evaluating test results in physical education.

5343. Professional Preparation in Health, Physical Education, Recreation, and Dance. (3-0) Credit 3. Focus on professional preparation for those students who are teachers and/or administrators the are of health, physical education, recreation, or dance.

5353. Mainstreaming in Health, Physical Education, Recreation, and Dance. (3-0) Credit 3. Principles and methods of providing educational services for handicapped students in the least restrictive environment.

5403. Administrative Problems in Physical Education. (3-0) Credit 3. Coordination of the different phases of the program; administrative problems of physical education, intramural sports, and intercollegiate athletics.

5503. Teaching Physical Education. (3-0) Credit 3. A study of traditional and innovative teaching techniques in physical education, including the practical application of teaching styles.

5703. Kinesiology. (3-0) Credit 3. Muscular and bone structure of the body in relation to the science of movement; joint mechanism and muscle action with special application to sports participation and training.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2, or 3. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Department of School Services

FACULTY

Willie F. Trotty, *Head, School Administration*
Clarissa Booker, *Reading*
Lee R. Coleman, *School Counseling*
Gwendolyn Grossman, *Reading*
Marion Henry, *Educational Media & Technology*
Parvin Kujoory, *Educational Media & Technology*
William H. Parker, *School Administration*
Iredell D. Starling, *School Administration & Supervision*
Waymon Webster, *Coordinator of Counseling Program, School Counseling*

PURPOSE AND GOALS

The Department of School Services offers programs of study leading to the Master of Science in Education and the Master of Education degrees with program concentrations in School Administration, Counseling, Educational Media & Technology, Instructional Supervision, and Reading. In addition, students may complete the requirements for certification in these areas, as well as the requirements for the Professional Counselors License.

DEGREE PROGRAMS

Degree	Program Concentration
Master of Science	School Administration
	School Counseling
	Educational Media & Technology
	Instructional Supervision
	Reading
Master of Education	School Administration
	School Counseling
	Educational Media & Technology
	Instructional Supervision
	Reading

The instructional program is also designed to provide all course work leading to certificates and the Professional Counseling License.

ADMISSION TO PROGRAM

Candidates for admission to the graduate program must have completed a degree in education or show evidence of course work having resulted in establishing eligibility for a teaching certificate. Admission to the department shall be considered complete when the following requirements have been met.

1. Admission to Graduate School
2. Development of a credentials file to include:
   a. Degree or Certificate Plan

b. Teaching Certificate
c. Transcript(s) of all previous college course work
d. Two letters of recommendation

ADVANCEMENT TO CANDIDACY

Students must have completed all admissions requirements and twelve (12) semester hours of course work before applying for advancement to degree candidate status.

PROGRAM REQUIREMENTS

Master of Science (M.S.Ed)

Common Core (12 semester hours)

CURR 5003 Theory and Dynamics of Curriculum and Instruction
EDFN 5013 Foundations of Educational Research
EDFN 5113 Psychology of Learning and Development
EDFN 5123 Socio-Cultural Issues in Education

Program Concentration (12 semester hours)

Coursework to be chosen in the administration or counseling area of study.

Resource (6 semester hours)

Coursework to include departmental requirements and/or electives.

THESIS -

Master of Education (M.Ed.)

Common Core (12 semester hours)

CURR 5003 Theory and Dynamics of Curriculum and Instruction
EDFN 5103 Foundations of Educational Research
EDFN 5113 Psychology of Learning and Development
EDFN 5123 Socio-Cultural Issues in Education

Program Concentration (12 semester hours)

Coursework to be chosen from the administration, counseling, educational technology, reading, or supervision areas of study.

Resource/Research (12 semester hours)

Coursework to include EDFN 5923 (Masters Seminar), and other departmental requirements and/or electives.

Certification

Course requirements for various certificates can be found in the Teacher Certification section of this catalog.

DESCRIPTION OF COURSES

Administration (ADMN)

5003. Fundamentals of School Administration. (3-0) Credit 3. A study of educational administration, basic concepts of administrative theory and practice, and the relationship of administrative practice to school organization and control.

5013. Educational Administration: Theory, Practice and Research. (3-0) Credit 3. The analysis and study of theory, practice, and research as they relate and interrelate to effective educational management. This course includes an in-depth study of contemporary research and practice in educational administration.

5023. Public School Law. (3-0) Credit 3. An examination and study of legal principles as they apply to public education.

5033. School Business Management. (3-0) Credit 3. Management techniques for the school administrator in the areas of preparing and managing the school budget, in-school accounts, and the financial auditing process.

5043. The School Principalship. (3-0) Credit 3. Problems in elementary and secondary school administration with emphasis on the organization, administration, and supervision of curricular and extra-curricular programs, and the management of school personnel and students.

5053. Administration of Special Programs. (3-0) Credit 3. Administrative and management techniques for implementing special school programs in the areas of special education, reading, career education, vocational-technical education and pupil services.

5063. Problems in Education Administration. (3-0) Credit 3. Study and analysis of contemporary issues related to the administrative function in an educational setting.

5103. School Personnel Administration. (3-0) Credit 3. The administration of school personnel services, including standards and procedures of the personnel office and the supervision and evaluation of personnel records and policies.

5113. Planning and Managing Educational Facilities. (3-0) Credit 3. Educational facilities planning with emphasis on design, financing, and management.

5123. School Finance. (3-0) Credit 3. Fiscal planning for educational excellence. Includes systems of needs assessment, budget preparation, and management. Federal, state, and local resources for financing education.

5133. School-Community Relations. (3-0) Credit 3. A study of the relationships between the school and other elements of the community. Insight into the development of a comprehensive school-community relations program.

5503. Mid-Management Internship. (0-3) Credit 3. Field-based and seminar experiences designed to provide for on-site school-related activities, and the analysis of actual administrative situations and problems. Prerequisites: 18 semester hours of ADMN course work.

5513. Superintendency Internship. (0-3) Credit 3. Field-based and seminar experiences designed to provide on-site school-system related activities, and the analysis of actual administrative situations and problems.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2, or 3. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Counseling (CNSL)

5003. Organization and Administration of Guidance and Human Service Programs. (3-0) Credit 3. Introduction to guidance and counseling programs in schools and community agencies. Emphasis on the history, philosophy, and development of programs: programmatic activities and delivery; organizational and administrative patterns; and the interrelationships of educational and human services agencies.

5013. Counseling Techniques. (3-0) Credit 3. Study and practice of basic interview communication skills and counseling techniques. Emphasis on self-development, attending, feedback and influencing skills and core elements of counseling.

5023. Theory and Practice of Counseling. (3-0) Credit 3. A study of major counseling theories and issues related to therapeutic practice with emphasis on practical application. Prerequisites: CNSL 5013 and/or consent of advisor.

5033. Counseling Process. (3-0) Credit 3. Pre-practicum experience with emphasis on the counselor-client relationship and on using appropriate therapeutic strategies and techniques in working with children, adolescents, and adults. Special consideration given to the counseling needs of minorities. Prerequisites: CNSL 5013 and 5023.

5043. Consultation. (3-0) Credit 3. Theoretical rationale for consultation; content and process of consultation services. Basic principles of and skill development in several approaches to consultation.

5053. Professional Orientation and Development. (3-0) Credit 3. Obligations and problems in professional practice of guidance, counseling, human development services and research. Professional ethics, legal considerations, and relations with other professionals and with the public. Current trends and issues emphasized.

5063. Counseling Practicum I. (0-3) Credit 3. Laboratory and supervised practical experiences in individual/group counseling and related functions in a public school, a university, or a community agency setting. A minimum of 150 clock hours required. Prerequisites: 12-hour core and CNSL 5013, 5023, 5033, 5113, and 5123.

5073. Counseling Practicum II. (0-3) Credit 3. A continuation of supervised practical experiences in individual/group counseling and related functions in a public school, a university, or a community agency setting. A minimum of 150 clock hours required. Prerequisite: 12- hour core and CSNL 5013, 5023, 5033, 5113. and 5123.

Educational Technology (EDTC)

5403. Audiovisual Materials in Instruction. (3-0) Credit 3. Theoretical and practical experience in the use of instructional media, materials selection, evaluation, and equipment operation for classroom instruction.

5423. Reference and Bibliography. (3-0) Credit 3. The theory and principles underlying reference selection, information collection, and reference services. Theory and purpose of bibliography as form of access to information collection, introduction to communication, question-negotiation, and search strategy.

5433. Acquisition and Cataloging of Materials and Information. (3-0) Credit 3. Principles of acquisition, descriptive cataloging, classification, and subject analysis of print and non-print materials. Application of the Dewey Decimal and Library of Congress classification systems.

5443. Local Production of Instructional Materials. (3-0) Credit 3. The development of competencies related to translating specifications for instructional materieals into prototype, final version, and/or mass-produced products.

5453. Children and Young Adult Literature. (3-0) Credit 3. Advanced study for librarians and teachers of books and other materials for children and young people. Wide reading of books and magazines and the examination of non-print materials.

5463. School Media Centers. (3-0) Credit 3. Study of the theoretical foundations and objectives of school libraries and media centers; factors to be considered in planning and developing a media center. Consideration of interpretation of media centers; administrative programs in technical services; problems in technical services; and professional literature.

5473. Practicum. (3-0) Credit 3. Identifying current trends of managing media centers and interfacing in practial experience with theoretical and scientific concepts in public school settings.

Reading (RDNG)

5613. Teaching in the Elementary Grades. (3-0) Credit 3. Detailed consideration of problems involved in selection of content, grade placement, methods, and materials, and the evaluation of achievement.

5623. Psychology of Reading and Reading Difficulties. (3-0) Credit 3. An examination of social and psychological factors related to success and failure in learning to read.

5633. Teaching Reading in Secondary School. (3-0) Credit 3. Instructional approaches to the reading in the secondary school. Planning, organizing, implementing, and evaluating instructional procedures and outcomes.

5643. Diagnosis and Correction of Reading Diffuculties. (3-0) Credit 3. Diagnostic devices and techniques for identifying strengths and weaknesses in reading. Prescriptive techniques for overcoming difficulties in reading.

5663. Clinical Experiences in Reading. (3-0) Credit 3. Case study analysis, seminars, and field experiences in school classrooms. Prerequisite: Consent of instructor.

Supervision (SUPV)

5113. Principles of Supervision. (3-0) Credit 3. Principles, practices and problems of the supervisiory program; includes analysis of current research in the field.

5213. The School Supervisor. (3-0) Credit 3. A rationale for supervision, and techniques for the supervision of instructional personnel and programs' with special emphasis on the clinical supervision cycle.

5513. Supervision Practicum. (3-0) Credit 3. Field-based and seminar experiences designed to provide on-site and/or system-related activities, with analysis of actual superivsory situations and problems.

5713. Problems in Supervision. (3-0) Credit 3. The study and analysis of contemporary issues related to the supervisory function in an educational setting.

Graduate Teacher Education Certificate and Endorsement Programs

Graduate-level certificate programs are coordinated and administered by the College of Education. Components of these programs are provided by various colleges and departments throughout the University. In general, all professional elementary and secondary certificate programs require the following components:

1. An *Area of Specialization* (12 semester hours), approved by the Texas Education Agency, that consists of graduate-level courses in a teaching field or support area common to Texas public schools.
2. *Professional Development Courses* (6 semester hours), consisting of advanced study in the theory, methods, and problems of education; designed to improve the efficiency and effectiveness of public schools and public school personnel.
3. *Resource Area(s)* (6 semester hours), consisting of courses that provide background or support knowledge and skills for the specialization, or that extend the student's preparation in a closely related field.
4. *Electives* (6 semester hours) of the student's choice, usually in one of the three areas above or a combination of them.

Eligibility for a professional certificate usually requires two or three years of acceptable teaching experience in an accredited elementary or secondary school. All candidates for certification must pass the appropriate components of the Examination for the Certification of Educators in Texas (ExCET). A listing of certificates available and of the specific requirements for each is provided on the following pages.

Students who are pursuing certificates must submit a certification plan to the office of Teacher Certification. Applications for admission to graduate teacher certification programs may be obtained from the Graduate School.

APPROVED PROFESSIONAL CERTIFICATE AND ENDORSEMENT PROGRAMS

1. PROFESSIONAL ALL-LEVEL
   Learning Resources Specialist
2. PROFESSIONAL ELEMENTARY
   General

3. PROFESSIONAL SECONDARY
   - Biology
   - Business (secretarial)
   - Chemistry
   - English
   - History
   - Industrial Arts
   - Mathematics
   - Physical Education
   - Social Science Composite

4. PROFESSIONAL SERVICES CERTIFICATES
   - Mid-Management Administrator
   - Counselor
   - Reading Specialist
   - Superintendent
   - Supervisor

5. PROFESSIONAL SPECIAL EDUCATION
   - Counselor
   - Educational Diagnostician
   - Supervisor

6. TEMPORARY PROFESSIONAL SERVICE
   - Mid-Management Administrator
   - Assistant Principal
   - Principal
   - Superintendent

7. PROFESSIONAL VOCATIONAL
   - Agriculture
   - Counselor
   - Home Economics
   - Supervisor

REQUIREMENTS FOR THE PROFESSIONAL ELEMENTARY CERTIFICATE

Prerequisites: A Texas Provisional Elementary Certificate and three years of teaching experience.

Academic Specialization (12 semester hours)

The 12 semester hours must be in a subject taught in Texas public schools and in which the student already has earned at least 18 semester hours of undergraduate credit in a program for elementary teachers.

Professional Development (6 semester hours)

Two of the following four courses:

CURR 5003	Theory & Dynamics of Curriculum & Instruction
EDFN 5113	Psychology of Learning & Development
EDFN 5123	Socio-Cultural Issues in Education
EDFN 5143	Advanced Educational Statistics

Resource Area (6 semester)

Two of the following six courses:

ELED 5103 Elementary School Curriculum
ELED 5113 Teaching/Learning Styles in the Elementary School
ELED 5123 Studies in Elementary Education
ELED 5133 Seminar in Elementary Education
ELED 5153 Classroom Communication
ELED 5143 Individualizing Instruction in the Elementary Schools

Electives (6 semester hours)

Courses may be selected from any of the areas above.

REQUIREMENTS FOR THE PROFESSIONAL SECONDARY CERTIFICATE

Prerequisites: A Texas Provisional Secondary Certificate and three years of teaching experience.

Academic Specialization (12 semester hours)

The courses selected, with approval of the advisor, must be graduate level courses in one of the following specializations:

Biology
Business
Chemistry
English
History
Industrial Arts
Mathematics
Physical Education
Social Studies

Professional Development (6 semester hours)

EDFN 5113 Psychology of Learning and Development
EDFN 5123 Socio-Cultural Issues in Education

Resource Area (6 semester hours)

CURR 5003 Theory and Dynamics of Curriculum and Instruction and 3 semester hours of graduate-level courses selected with approval of advisor.

Electives (6 semester hours)

Courses must be selected from one of the three areas above, or a combination of them.

REQUIREMENTS FOR SPECIAL SERVICES PROFESSIONAL CERTIFICATES

ADMINISTRATION: MID-MANAGEMENT CERTIFICATE

For the Mid-Management Certificate issued by the Texas Education Agency, requirements are a master's degree, a valid Texas Certificate, two years of acceptable *classroom teaching experience*, and completion of an approved administrative internship experience.

Common Core for Mid-Management Administration and Superintendent (18 semester hours)

ADMN 5003 Fundamentals of School Administration
ADMN 5013 Educational Administration: Theory, Practice and Research
ADMN 5023 Public School Law
ADMN 5033 School Business Management
ADMN 5003 Theory and Dynamics of Curriculum and Instruction
SUPV 5113 Principles of Supervision

Academic Specialization (12 semester hours)

EDFN 5113 Psychology of Learning and Development
EDFN 5123 Socio-Cultural Issues in Education and 6 hrs. advanced credit electives from the following areas:

Economics	Psychology	Educ. Measurement
Business Administration	Anthropology	Educ. Test
Computer Science	Sociology	Educ. Research

Specialized Preparation for Mid-Management School Administrators (15 semester hours)

ADMN 5043 The School Principalship
ADMN 5053 Administration of Special Programs
ADMN 5103 School Personnel Administration
ADMN 5503 Mid-Management Internship
and 3 hrs. advanced credit electives.
*All electives must have advisor's approval

ADMINISTRATION: SUPERINTENDENT CERTIFICATE

Prerequisite: The Professional Mid-Management or Professional Principal Certificate.

Specialized Preparation for School Superintendents (15 semester hours)

ADMN 5063 Problems in Education Administration
ADMN 5113 Planning and Managing Educational Facilities
ADMN 5113 Planning and Managing Educational Facilities
ADMN 5123 School Finance
ADMN 5133 School-Community Relations
ADMN 5513 Superintendent Internship

COUNSELOR CERTIFICATE

For the Professional Counselor Certificate issued by the Texas Education Agency, requirements are a valid Texas Teacher Certificate, three years of teaching experience,and the completion of 30 semester hours of graduate work in counseling.

The Guidance Program (3 semester hours)

CNSL 5003 Organization and Administration of Guidance and Human Service Programs

Pupil Services (6 semester hours)

CNSL 5083 Psychology of Abnormal Behavior
EDFN 5113 Psychology of Learning and Development

Resource Area (21 semester hours)

CNSL 5013 Counseling Techniques
CNSL 5023 Counseling Theory and Practice
CNSL 5063 Counseling Practicum I
CNSL 5113 Career Development Counseling
CNSL 5123 Appraisal Techniques
CNSL 5133 Group Dynamics
EDFN 5123 Socio-Cultural Issues in Education

COUNSELOR (SPECIAL EDUCATION) CERTIFICATE

For the Professional Special Education Counselor Certificate issued by the Texas Education Agency, requirements are a valid Professional Counselor Certificate and 6 semester hours in special education.

Courses Required (36 semester hours)

CNSL 5003 Organization and Administration of Guidance and Human Service Programs
CNSL 5013 Counseling Practicum I
CNSL 5023 Counseling Theory and Practice
CNSL 5083 Psychology of Abnormal Behavior
CNSL 5113 Career Development Counseling
CNSL 5123 Appraisal Techniques
CNSL 5133 Group Dynamics
EDFN 5113 Psychology of Learning and Development
EDFN 5123 Socio-Cultural Issues in Education

Special Education Electives (6 semester hours selected with approval of advisor)

EDUCATIONAL DIAGNOSTICIAN (SPECIAL EDUCATION) CERTIFICATE

For the Professional Educational Diagnostician Certificate issued by the Texas Education Agency, requirements are a master's degree, a valid Texas Teaching Certificate and three years of elementary and secondary teaching experience.

Education for the Handicapped (9 semester hours)

SPED 5213 Introduction to Exceptional Children
SPED 5233 Language and Communication Problems
SPED 5203 Special Education Seminar

Psychoeducational and Other Diagnostic Procedures (9 semester hours)

RDNG 5643 Diagnosis and Correction of Reading Difficulties
SPED 5353 Individual Testing of the Exceptional Child
SPED 5263 Diagnostic and Prescriptive Techniques for the Exceptional Learner

Human Development and Learning Theory (9 semester hours)

EDFN 5113 Psychology of Learning and Development
SPED 5223 Psychology of Retarded Children
SPED 5273 Learning Theory

Instructional Modification (6 semester hours)

SPED 5283 Curriculum Adjustment
SPED 5343 Practicum

Resource Area (3 semester hours)

EDFN 5123 Socio-Cultural Issues in Education

INSTRUCTIONAL SUPERVISOR CERTIFICATE

Prerequisites: A bachelor's degree, a valid Texas Teacher Certificate, and three years of elementary or secondary teaching experience.

Leadership for Instructional Improvement (9 semester hours)

SUPV 5113 Principles of Supervision
SUPV 5213 School Supervision
or
SUPV 5713 Problems in Supervision
SUPV 5513 Supervision Practices

Academic Area (12 semester hours)

9 semester hours of graduate level coursework in the content area to be supervised.

Resource Area (9 semester hours)

CURR 5003 Theory and Dynamics of Curriculum Instruction
EDFN 5113 Psychology of Learning and Development
EDFN 5123 Socio-Cultural Issues in Education

LEARNING RESOURCES SPECIALIST CERTIFICATE

For the Professional Learning Resources Specialist Certificate, requirements are a valid Texas Teacher Certificate, three years of successful teaching experience, a basic understanding of multicultural and multiethnic elements in society, and the completion of 36 semester hours of course work.

Specialization (21-24 semester hours)

EDTC 5403 Audiovisual Materials
CURR 5133 Principles of Instructional Designe
EDTC 5423 Reference and Bibliography
EDTC 5433 Cataloging
EDTC 5443 Local Production of Instructional Materials
EDTC 5453 Child and Young Adult Literature
EDTC 5463 School Media Centers
EDTC 5473 Practicum
*or
1 year of acceptable experience as a school librarian

Resource Area (6 semester hours)

EDFN 5113 Psychology of Learning and Development
EDFN 5103 Foundations of Educational Research

Professional Education (6 semester hours)

CURR 5003 Theory and Dynamics of Curriculum and Instruction
EDFN 5123 Socio-Cultural Issues in Education

*21 semester hours required if the 1 year experience is used.

READING SPECIALIST CERTIFICATE

Prerequisites: A master's degree, a valid Texas Teaching Certificate and three years of secondary or elementary classroom teaching experience.

Reading Education (12 semester hours)

RDNG 5613 Teaching Reading in Elementary Grades
RDNG 5633 Teaching Reading in Secondary Schools
RDNG 5643 Diagnosis and Correction of Reading Difficulties
RDNG 5663 Clinical Experiences in Reading

Professional Development (6 semester hours)

EDFN 5113 Psychology of Learning and Development
ELED 5153 Studies in Elementary School Subjects (for holders of secondary certificate)

or

SCED 5503 Principles of Secondary Education
SCED 5513 Secondary School Curriculum

Resource Area (9 semester hours)

EDFN 5123 Socio-Cultural Issues in Education
ENGL 5113 Linguistics and English Grammar
RDNG 5623 Psychology of Reading and Reading Difficulties

REQUIREMENTS FOR THE VOCATIONAL EDUCATION PROFESSIONAL CERTIFICATES

VOCATIONAL AGRICULTURAL EDUCATION CERTIFICATE

(31 semester hours)

AGED 5333 Administration and Supervision of Agricultural Education
AGED 5353 Youth Leadership Development
AGED 5363 Philosophy of Agricultural Education
AGED 5393 Principles of Adult Education in Agricultural
AGED 5713 Vocational Guidance and Counseling
AGED 5714 Special Topics
CURR 5003 Theory and Dynamics of Curriculum and Instruction
EDFN 5123 Socio-Cultural Issues in Education

and

6 hours of electives

VOCATIONAL COUNSELOR CERTIFICATE

For the Professional Vocational Education Counselor Certificate issued by the Texas Education Agency, requirements are: a bachelor's degree, a valid Professional Counselor Certificate, 12 semester hours of specified vocational guidance courses, and three years of experience. This experience may include teaching experience and not less than one year of wage-earning experience in an occupation for which vocational education is being conducted in the public secondary school, or two years of teaching experience in an approved vocational program preparing students for gainful employment.

Required Courses (39 semester hours)

EDFN 5123	Socio-Cultural Issues in Education
CNSL 5013	Counseling Techniques
CNSL 5023	Counseling Theory and Practice
CNSL 5083	Psychology of Abnormal Behavior
CNSL 5113	Career Development Counseling
CNSL 5123	Appraisal Techniques
CNSL 5133	Group Dynamics
CNSL 5063	Counseling Practicum I
EDFN 5113	Psychology of Learning and Development
VOED 5103	Placement and Follow-up
VOED 5403	Occupational and Vocational Education
VOED 5903	Planning and Organization
VOED 5093	History and Principles

NOTE: In addition to coursework, certification is dependent upon passing a comprehensive departmental examination.

VOCATIONAL HOMEMAKING EDUCATION CERTIFICATE

(30 semester hours)

Academic Specialization (18 semester hours selected from the following courses)

HMEC 5313	Studies in Family Resource Management
HMEC 5323	Personal and Family Finance
HMEC 5333	Family Economics
HMEC 5383	Problems of Youth
HMEC 5393	Family Life Problems
HMEC 5613	Child Development Programs
HMEC 5633	Seminar in Human Nutrition and Food
HMEC 5653	Functional Clothing
HMEC 5683	Problems in Home Economics

Professional Development (6 or more semester hours selected from the following courses)

HEED 5433	Supervision
HEED 5443	Advanced Methods
HEED 5463	Adult Education
HEED 5473	Measurement and Evaluation
HEED 5493	Home Economics Curriculum

Resource Area (6 or more semester hours selected from the following courses)

EDFN 5123 Socio-Cultural Issues in Education (Required)
SOCG 5243 Sociology of Urban Areas
SOCG 5263 Sociology of Education
SOCG 5273 Programs for Child Welfare
SOCG 5284 Aspects of Poverty
SOCG 5293 Social Disorganization
SOCG 5323 Sociology of Youth

VOCATIONAL SUPERVISOR CERTIFICATE

For the Professional Vocational Supervisor Certificate, the requirements are: a bachelor's degree, a valid Texas Teacher Certificate, three years of teaching experience in an approved vocational education program, and the courses listed below.

Vocational Education (18 semester hours)

VOED 5133 Vocational Analysis
VOED 5603 Organization and Administration
VOED 5703 Vocational-Technical Curriculum Development
VOED 5803 Supervision of Vocational Programs
VOED 5903 Planning and Organizing Vocational Programs
VOED 5983 History and Principles of Vocational Education

General Supervision and Supportive Courses (9 semester hours)

SUPV 5113 Principles of Supervision
SUPV 5213 The School Supervisor
SUPV 5513 Supervision Practicum

Resource Area (3 semester hours)

EDFN 5123 Socio-Cultural Issues in Education

REQUIREMENTS FOR THE PROVISIONAL CERTIFICATE ENDORSEMENTS

Endorsements in Generic Special Education and Early Childhood Education are available. Advisements for course election and sequence is required.

College of Engineering and Architecture

ADMINISTRATIVE OFFICER

Marshall V. Brown, *Interim Dean*

ADMINISTRATIVE STAFF

R.N.S. Rao, *Coordinator*

FACULTY

Ronald Boyd, *Mechanical Engineering*
Ing Chang, *Mechanical Engineering*
Kamel Fotouh, *Chemical Engineering*
John Fuller, *Electrical Engineering*
Surjit Gerwal, *Mechanical Engineering*
A. A. Kumar, *Electrical Engineering*
S. T. Koay, *Electrical Engineering*
Shield Lin, *Mechanical Engineering*
Cheng-Tien Luke, *Civil Engineering*
James Morgan, *Mechanical Engineering*
Obioha Obioha, *Civil Engineering*
John Okyere, *Electrical Engineering*
Wayne D. Perry, *Industrial Engineering*
Ramalinjam Radnakrishnan, *Civil Engineering*
R.N.S. Rao, *Civil Engineering*
K.M.A. Rahaman, *Civil Engineering*
Kalyan Sen, *Electrical Engineering*
C. L. Tolliver, *Electrical engineering*
Kenneth Walter, *Chemical Engineering*
Hsiang Yeh, *Civil Engineering*
Hsi C. Yang, *Civil Engineering & Architecture*

PURPOSE AND GOALS

The College of Engineering and Architecture offers a graduate program of study leading to the professional degree, Master of Science in Engineering (M.S.E.). The Graduate program is designed to improve the student's ability in the professional practice of engineering and to develop the student's research and managerial capabilities. It is the continuation of the intellectual, scholarly and professional development of the individual, producing technological leaders and creative engineers who are devoted to the discovery, development, and refinement of knowledge an methodologies associated with the various engineering disciplines. Each M.S.E. candidate is expected to have demonstrated the highest degree of professional ethics and standards.

ADMISSION TO PROGRAM

In addition to the general admission requirements to the graduate school, given elsewhere in the catalog, the following requirements must be satisfied by the candidates seeking admission to the graduate program in the College of Engineering.

1. An undergraduate engineering degree from an ABET accredited engineering program with a grade point average of not less than 2.75 on a 4.00 scale (or equivalent) both overall and in engineering courses.
2. An acceptable score on the Graduate Record Examination (GRE).

Conditional acceptance may be granted if one of the above criteria has not been satisfied at the time of admission. However, both conditions should be satisfied before enrolling in the graduate program. Students having undergraduate degrees in mathematics and the natural sciences will be considered for conditional acceptance on an individual basis.

The Graduate engineering program is primarily a full-time day program, however, a limited number of special status (i.e. provisional and non-degree students) or part-time students can enroll, with approval of the Office of Dean of Engineering and the Dean of the Graduate School, in graduate engineering courses. Special students must petition to the Dean of Engineering for unconditional admission to the graduate program within the first 12 graduate credit hours earned. To be considered for admission to the graduate engineering program, special or part-time students must have earned a minimum grade of "B" in each course and be recommended by the engineering faculty. Normally special or part-time students will not be allowed to take more than 12 graduate credits.

PROGRAM REQUIREMENTS

The maximum course load for which engineering graduate students can enroll, on a full-time basis, is 12 credit hours in a regular semester or in two summer sessions. If a student is enrolled part-time as a graduate student assistant, working no more than 20 hours per week, the maximum course load that the student may enroll for is nine credit hours per regular semester or ten-week summer term. If a student is working full-time, the recommended maximum load is six credit hours per regular semester or during the two summer terms. All students should have prior approval each semester from the Office of the Dean of Engineering and Dean of Graduate School before enrolling in graduate engineering courses.

The degree of Master of Science in Engineering (M.S.E.) is awarded for studies undertaken in one of two optional degree plans. Plan I requires research and thesis and Plan II requires a professional internship plus one additional technical elective.

Plan I and II require a minimum of 36 semester hours. This requirement includes 15 credit hours of graduate core courses in general engineering and minimum concentration of 12 hours in either civil, electrical or mechanical engineering advanced courses. Under both plans a comprehensive examination is required.

The Graduate Internship must be professionally-oriented with approval of the student's graduate advisor and the Office of the Dean of Engineering. The in-

ternship must culminate in a complete engineering project and a written and oral report.

All graduate student are expected to earn a "B" or better grade in each course. If a grade of "C" is made in one course, the student may petition the College of Engineering Graduate Committee for acceptance of the course. If a graduate student earns below a "C" grade in any graduate course the student may become ineligible to continue in the program. Failure to maintain a 3.00 grade point average during any semester, is a basis for dismissal from the graduate engineering program.

The student will be in residence at least three semesters under Plan I and at least four semesters under Plan II. While all of the work for the master's degree is expected to be accomplished in residence at Prairie View A&M University, candidates may transfer not more than six credits of acceptable equivalent course work from another accredited college or university. Courses which are being transferred must be recommended by the student's program study committee. Graduate transfer courses will only be considered for credit with the earned grade of "B" or better. All transfer credits are subject to approval of the Office of the Dean of Engineering.

ADVANCEMENT TO CANDIDACY

As soon as practicable after the student enrolls in the graduate engineering program, the Coordinator of Graduate Studies shall recommend to the Dean of Engineering and Dean of the Graduate School a committee of the graduate faculty to advise the student.

Each student committee shall consist of at least three members of the engineering faculty, and the chairman of the committee should be a full-member of the graduate faculty and in the engineering department (Civil, Electrical or Mechanical) in which the student is planning to develop a concentration.

The student in conjunction with the committee shall submit to the Office of the Dean and the Graduate Dean a program of study. This program shall be developed under the direction of the chairman of the Committee.

A graduate student admitted to full degree status does not automatically become a candidate for the Master's degree. To become a candidate the student must complete the following requirements:

1. Achieve a satisfactory score on the GRE as stipulated by the College of Engineering.
2. Achieve satisfactory performance on the Graduate Comprehensive Examination.
3. Demonstrate the highest degree of professional ethics and standards.
4. Prepare and submit an official "Application for Candidacy Form" showing the applicant's successful completion of 12 semester hours of required graduate courses with a grade of "B" or better in each course. This Candidacy Form must list all courses completed as well as those courses and conditions to be completed. The application when approved by the department head in the student's area of concentration and the Dean of Engineering must be submitted to the Graduate Dean for final approval.

MASTER OF SCIENCE IN ENGINEERING CURRICULUM

PLAN I

Suggested Program (M.S.E., - Thesis Option)

First Semester	Hours
GNEG 5013 Adv. Engineering Economic Anal.	3
GNEG 5023 Engr. Operations Research	3
GNEG 5033 Engr. Prob. & Stat.	3
Area of Concentration Elective	3
	12

Second Semester	Hours
GNEG 5043 Safety Engineering and Ergonomics	3
GNEG 5053 Engr. Instrum. and Information Systems	3
Area of Concentration Electives	6
	12

Third Semester	Hours
GNEG 5086 Research & Thesis	6
Area of Concentration Elective	3
Advanced Mathematics or Business Elective	3
	12

PLAN II

Suggested Program (M.S.E.-Non-Thesis Option)

First Semester	Hours
GHEG 5013 Adv. Engineering Economic Anal.	3
GNEG 5023 Engr. Operations Research	3
GNEG 5033 Engr. Prob. & Stat.	3
Area of Concentration Elective	3
	12

Second Semester	Hours
GNEG 5043 Safety Engineering and Ergonomics	3
GNEG 5053 Engr. Instrum, and Information Systems	3
Area of Concentration Electives	6
	12

Third Semester	Hours
Area of Concentration Elective	3
Advanced Mathematics or Business Electives	6
	9

Fourth Semester	Hours
GNEG 5203 Graduate Internship	3
	3

One of the following four areas of concentration should be selected:

1. **Civil Engineering: Concentration 1**

CVEG 5113 Soil Dynamics
CVEG 5123 Structural Dynamics
CVEG 5133 Advanced Mechanics of Materials
CVEG 5143 Advanced Reinforced Concrete

2. **Electrical Engineering: Concentration 2**

ELEG 5133 Electric Power System Analysis I
ELEG 5143 Electric Power System Analysis II
ELEG 5153 Engineering Solid State Theory
ELEG 5163 Integrated Digital Electronics

3. **Mechanical Engineering: Concentration 3**

MCEG 5113 Statistical Thermodynamics for Engineers
MCEG 5123 Advanced Computer-Aided Engineering Design
MCEG 5133 Engineering Numerical Methods
MCEG 5143 Heat, Mass, and Momentum Transfer

4. **Engineering Management: Concentration 4**

GNEG 5153 Engineering Management Processes
GNEG 5183 Advanced Operations Research
ACCT 5003 Financial Accounting
ACCT 5103 Managerial Accounting

Electives should be selected from the following courses.

All Concentration (Graduate Mathematics Electives)

MATH 5343 Boundary Value Problems
MATH 5613 Theory of Matrices
MATH 5723 Partial Differential Equations
MATH 5753 Intermediate Analysis
MATH 5763 Intermediate Differential Equations
MATH 5133 Introduction to Point Set Theory
MATH 5473 Probability Theory
MATH 5903 Modern Algebra

Engineering Management Concentration only (Graduate Business Electives)

ACCT 5343 Managerial Accounting Analysis
BSAD 5013 Legal Environment of Business
ECON 5013 Micro Economic Theory
ECON 5333 Labor Problems
FINA 5303 Managerial Finance
MGMT 5323 Strategy and Policy Formulation
MGMT 5333 Problems in Manpower Management

DESCRIPTION OF COURSES

Civil Engineering (CVEG)

5113. Soil Dynamics. (3-0) Credit 3. Wave propagation in soils. Dynamic response of soil media to vibration effects and earthquakes. Cratering by explosives and penetration by projectiles. Analysis and design of dynamically loaded foundations.

5123. Structural Dynamics. (3-0) Credit 3. Single and multidegree systems, linear nonlinear systems, damped or forced random vibrations, self-introduced vibrations, numerical and phase plane solutions, modal analysis, formulation by flexibility and stiffness matrices, response spectra, and computer applications.

5133. Advanced Mechanics of Materials. (3-0) Credit 3. Theory of stress and strain, stress-strain relationships. Deformations and instability by analytical methods; stability of columns, bars and frames; inelastic buckling, torsional buckling; and binding and buckling of thin plates and shells.

5143. Advanced Reinforced Concrete. (3-0) Credit 3. Design of continuous reinforced concrete members and slabs, and ultimate strength and behavior of statically-indeterminate reinforced concrete structures.

5153. Advanced Solid and Wastewater Systems Management. (3-0) Credit 3. Modern methods in the management of solid and waste water collection, and safe disposal in municipal and industrial environments.

5163. Air Pollution Engineering. (3-0) Credit 3. The nature of the air polution problem and its effects on the public at large. Present legal and engineering controls to combat pollution. Techniques of air sampling and testing.

5991-5992-5993. Independent Study. (0-0) Credit 1,2 or 3. Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Electrical Engineering (ELEG)

5113. Advanced Energy Conversion. (3-0) Credit 3. Conversion of thermal, nuclear, and solar energy into electricity by means other than electromechanical. These include solar energy conversion via the photovoltaic effect, thermoelectric and thermionic conversions, and fuel cells. A brief treatment of nuclear reactors is included.

5123. Protective Relaying of Power Systems. (3-0) Credit 3. Fundamentals of instrumentation. Design and operation of protective schemes for equipment in generation, transmission, and distribution circuits. Analysis of abnormal system conditions requiring relaying operation.

5133. Electric Power System Analysis I. (3-0) Credit 3. Components of power systems. Analysis of electric power generation, transmission and utilization. Transient performance of linear circuits, load flow analysis, and computer use in automatic control.

5143. Electrical Power System Analysis II. (3-0) Credit 3. Transient performance of nonlinear characteristic circuits, power system stability, and future expansion and optimization of the system.

5153. Engineering Solid State Theory. (3-0) Credit 3. Quantum theory applied to electronic, mechanical, and chemical properties of perfect crystals. Theory will be related to spectroscopic and defraction experiments. Imperfactions in crystal and glassy substances.

5163. Integrated Digital Electronics. (3-0) Credit 3. Impact of large-scale integration and VLSI on digital and application is discussed. Special emphasis is given to microprocesses and memory devices; and information theory and the possibility of artificial intelligance and studied.

5991-5992-5993. Independent Study. (3-0) Credit 1, 2 or 3. Reading, research, and/or field work on selected topics. Prerequisite: consent of advisor.

General Engineering (GNEG)

5013. Advanced Engineering Economic Analysis. (3-0) Credit 3. Macro and micro economics as an imput to engineering decisions. Resource allocations, distribution and conservation; political realities and societal demands, coupled with national and regional legal policies as constraints and as goals. Environmental impact and technology assessment.

5023. Engineering Operations Research. (3-0) Credit 3. An introduction to quantitative modeling and optimization; linear and dynamic programming; queueing theory; inventory modeling; critical path systems; network flow modeling, and technological forecasting.

5033. Engineering Probability and Statistics. (3-0) Credit 3. Theory of permutations, combinations; statistical principles of analysis of random data probability as a basis of engineering design.

5043. Safety Engineering and Ergonomics. (3-0) Credit 3. Engineering Concerns of Public Safety, Occupation Safety and Product Safety. Applications of engineering principles to the design and manufacture of safety products and systems. Study of Safety relationships to product reliability, human factor and quality assurance. use of various analytical techniques, including failure analysis, fault-tree analysis and risk assessments. Study of Occupational Safety and Health Aids and similar legal codes.

5053. Engineering Instrumentation and Information Systems. (3-0) Credit 3. Transducer theory and operations; operational amplifiers and feedback control in analog systems; A-D converters for digital systems information processing retrieval, and management.

5153. Engineering Management Processes. (3-0) Credit 3. Theories of engineering management. Integration of human relations, planning and control concepts, systems analysis and design, and principles of management oriented towards engineering functions within an organization.

5163. Principles of Energy Sources. (3-0) Credit 3. Types of energy, sources, Availability, needs and demands, economics or extration for use. Conservation and renewal.

5173. Fundamentals of Environmental Systems. (3-0) Credit 3. Analytical methods used in environmental engineering. Theory of operation of unit process in environmental engineering systems of industrial and domestic waste.

5183. Advanced Engineering Operations Research. (3-0) Credit 3. Continuation of Engineering 5023 with emphasis on advanced operation research techniques and computer simulation.

5186. Research and Thesis. (0-0) Credit 3. A candidate for the Master Science in Engineering is required to perform a study, design or investigation, under the direction of a faculty advisory committee. A written thesis is required to be presented, defended orally and submitted to the faculty advisory committee for approval.

5193. Special Topics. (3-0) Credit 3. Special topics in engineering relating to materials, renewable and non-renewable resources, environmental and energy fields are selected and discussed in detail. Considers all aspects of planning, design fabrication, development and implementation.

5203. Graduate Internship. (0-0) Credit 3. A realistic experience in engineering to enhance the student's professional abilities. Students work on significant projects with industry firms or governmental agencies involving decision-making responsibility. Course requires oral and written report.

Mechanical Engineering (MCEG)

5113. Statistical Thermodynamics for Engineers. (3-0) Credit 3. Microscopic viewpoint of thermodynamics: First Law and Second Law, reversible and irreversible processes, chemical equilibrium, and properties of gases, liquids, and solids.

5123. Advanced Computer-Aided Engineering Design. (3-0) Credit 3. Computer-aided engineering design includes an advanced study of both mechanical and thermal systems using the computer as a tool. Total interactive system design will be emphasized along with optimization, simulation, analysis (economical and theoretical) and parametric studies. Elements of computer aided manufacturing will be introduced.

5133. Engineering Numerical Methods. (3-0) Credit 3. Numerical methods in engineering includes fundamental numerical techniques involving recursion relationships, numberical quadratures, etc. applied to engineering problems. Emphasis will be placed on the solution of advanced engineering problems involving ordinary and partical differential equations. Proven and efficient finite methods will be covered with emphasis on engineering conceptualization and formulation. An introduction to finite elements analysis will also be given.

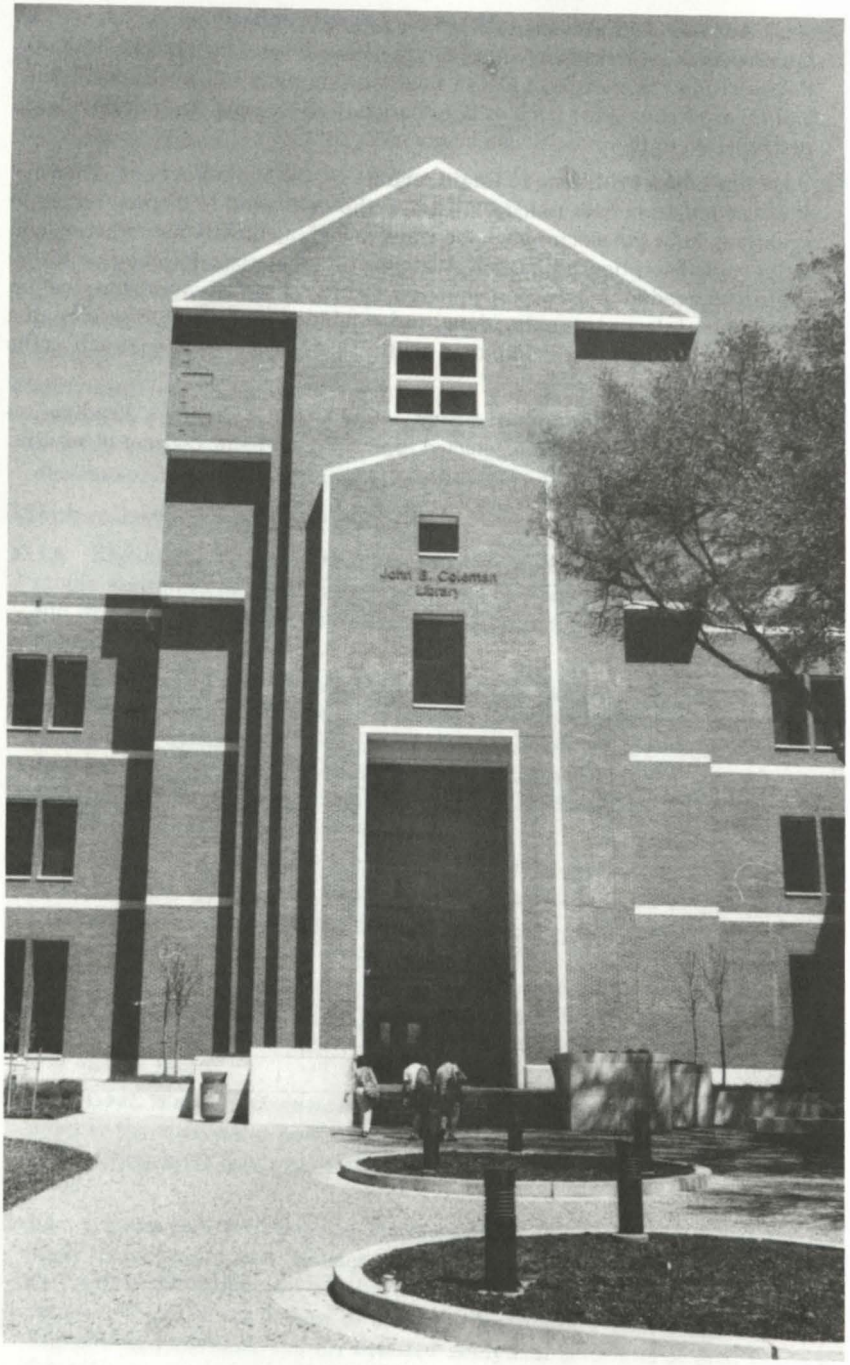
5143. Heat, Mass, Momentum Transfer. (3-0) Credit 3. The basic laws applied to the analysis of heat transfer, mass transfer, and momentum transfer in boundary layer flow are studied. selected important applications are analyzed.

5153. Conduction Problems in Engineering. (3-0) Credit 3. An advanced study in molecular heat transfer (conduction includes: (1) a development of the unified governing and auxiliary equations from principles of thermodynamics, (2) an establishment of a unique formulation approach for thermal engineering problems, and (3) detailed analytical solutions of one, two and three-dimensional conduction problems. Elements of inverse conduction will be introduced.

5163. Advanced Engineering Fluid Dynamics. (3-0) Credit 3. A Comprehensive study of fluid mechanics and dynamics is considered. This includes Potential flow, Stokes flow, Oseen flow, other invescid flow, Echkman flow, and other viscous flows such as Boundary Layer Analysis. An introduction to perturbation to theory will also be given.

5173. Radiation Problems in Engineering. (3-0) Credit 3. A comprehensive study of radiation heat transfer includes: the derivation of thermal radiation equations form the electromagnetic wave theory; a study of the radiative emissive and absorption properties of engineering materials; formulation of the engineering radiation transport equation, a study of view-factor determination techniques, integra approximations, and combined-mode heat transfer; and a study of gas radiation, participating mediums, and other methods such as the zone method.

5991-5992-5993. Independent Study. (0-0) Credit 1, 2 and 3. Reading, research , and/or field work on selected topics. Prerequisite: consent of advisor.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Officers of Graduate Instruction

BAILEY, MARTHA, (1977) ..... Assistant Professor, Elementary Education
B.A., Southern University, 1972
M.A., Southern University, 1973
Ed.D., University of Houston, 1977

BONNER, HAROLD S., (1970) ..... Associate Professor, Industrial Education
B.S., Prairie View A&M University, 1962
M.S., Prairie View A&M University, 1970
Ed.D., Texas A&M University , 1972

BOOKER, CLARISSA G., (1969) ..... Associate Professor, Reading
B.S., Prairie View A&M University, 1968
M.A., University of Northern Colorado, 1969
Ed.D., University of Houston, 1977

BOYD, RONALD, (1983) ..... Professor, Mechanical Engineering
B.S., Tuskegee Institute, 1968
M.S., University of New Mexico, 1970
Ph.D., University of Michigan, 1976

BOYDEN, LLOYD, (1957) ..... Associate Professor, Industrial Education
B.S., Hampton Institute, 1952
M.A., New York University, 1959
Ed.D., Texas A&M University, 1972

BRAMS, EUGENE A., (1971) ..... Professor, Agriculture
B.S., University of Wisconsin, 1948
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Ph.D., University of Florida, 1967

BROWN, GEORGE E., (1975) ..... Associate Professor, Biology
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BYRD, FLOSSIE M., (1962) ..... Professor, Home Economics
B.S., Florida A&M University, 1948
M.Ed., Pennsylvania State University, 1954
Ph.D., Cornell University, 1963

CARTER, JEAN, (1972) ..... Associate Professor, English and Foreign Languages
B.A., Seton Hill College, 1950
M.A., Xavier University, 1958
Ph.D., St. Louis University, 1965

CARTER, PURVIS M., (1956) ..... Associate Professor, Social & Political Sciences
A.B., Tillotson College, 1948
M.A., Howard University, 1950
Ph.D., University of Colorado, 1970

CHANG, ING, (1970) ..... Associate Professor, Mechanical Engineering
B.S., National Taiwan University, 1961
M.S., Rice University, 1965
Ph.D., Rice University, 1969

CHAPMAN, WILLIAM H., (1966) ..... Assistant Professor, English and Foreign Languages
B.A., North Carolina A&T University, 1959
M.A., University of Iowa, 1966

CHIZARI, MOHAMMAD (1986) ..... Assistant Professor, Management and Marketing
B.A.A., Tehran University, 1976
M.B.A., North Texas State University, 1978
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CLARK, ROSS D., (1972) ..... Associate Professor, Secondary Education
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COLE, LARRY L., (1972) ..... Associate Professor, Chemistry
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Graduate Diploma in Education, University of London, 1975
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DAVIS, BONITA, (1983) ..... Assistant Professor, Elementary Education
B.A., Mudelein College, 1974
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B.Com., University of Chittagong, 1975
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B.S., Prairie View A&M University, 1971
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Ph.D., Oklahoma State University, 1978

DOCTOR, VASANT M., (1967) ..... Professor, Chemistry
B.S., Royal Institute of Science, 1946
M.S., University of Wisconsin, 1951
Ph.D., Texas A&M University, 1953

EDWARDS, CHARLES T., (1957) ..... Professor, Industrial Technology
B.S., Hampton Institute, 1954
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EILAND, MILLARD F., (1968) ..... Professor, Communications
B.A., Baylor University, 1955
B.D., Southern Baptist Theological Seminary, 1959
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ESCOBAR, ENRIQUE N. ..... Special Faculty, Agriculture
B.S., University of El Salvador, 1972
M.S., University of Maryland, 1975
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FILLYAW, HAROLD, (1975)..... Associate Professor, Educational Psychology

B.S., Fayetteville State University, 1965
M.A., University of Michigan, 1971
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FOTOUH, KAMEL, (1984) ..... Associate Professor, Chemical Engineering

B.S., Cairo University, 1965
M.S., Monash University, 1972
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FULLER, JOHN H., (1977)..... Associate Professor, Electrical Engineering

B.S.E.E., Prairie View A&M University, 1969
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GREENE, JESSE, (1985)..... Assistant Professor, English & Foreign Languages

GREWAL, SURJIT, (1986) ..... Assistant Professor, Mechanical Engineering

B.A., Punjab University, India, 1952
B.S.M.E., Agra University India, 1956
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GROSSMAN, GWENDOLYN B., (1969) .....Associate Professor, Reading

B.S., Southern Methodist University, 1948
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HAUSER, HAROLD, (1984) .....Assistant Professor, Chemistry

B.S., North Carolina College, 1960
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HAWKINS, DORISULA W., (1966) ..... Associate Professor Accounting & Information Systems

B.S., Jarvis Christian College, 1962
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B.S., Bishop College, 1961
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B.A., Prairie View A&M University, 1969
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MARTIN, EDWARD W., (1952) ..... Professor, Biology

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B.S., Matanzas Institute, 1949
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B.S., Kon Kuk University, (Seoul, Korea), 1973
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Ph.D., Utah State University, 1981

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B.A., Maharani's College for Women (Bangalore, India), 1951
B.Ed., R.V. Teacher's College 1956
M.Ed., Rutgers University, 1965
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RAO, R.S.N., (1964)..... Professor, Civil Engineering
B.E., University of Mysore, 1946
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M.S., University of Connecticut, 1961
Ph.D., Rutgers University, 1964

REYES, JUNITO C., (1983)..... Special Faculty, Agriculture
B.S., University of Phillipines, 1966
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RICHARDS, FREDDIE L., (1976)..... Professor, Agriculture
B.S., Alabama A&M University, 1966
M.Ed., Tuskegee Institute, 1969
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RISCH, ERIC, (1983)..... Special Faculty, Agriculture
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ROBERTS, GEORGE A., (1983)..... Associate Professor, Mathematics & Computer Science
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B.A., Bangalore University, 1976
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SHINE, THEODIS, (1969)..... Professor, Art, Music & Drama
B.S., Howard University, 1953
M.A., University of Iowa, 1958
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SOLIMAN, MOSTAFA, (1971) ..... Associate Professor Economics & Finance
B.S., Cairo University, 1952
M.S., Cornell University, 1963
Ph.D., Iowa State University, 1967

STAFFORD, GEORGE, (1955)..... Professor, Agricultural Economics
B.S., Prairie View A&M University, 1948
M.Ed., Prairie View A&M University, 1952
Ed.D., Cornell University, 1956

STANLEY, VICTOR, (1980) ..... Assistant Professor, Agriculture

B.S., Tuskegee Institute, 1965
M.S., Iowa State University, 1968
Ph.D., Texas A&M University, 1984

STARLING, IREDELL, (1969) ..... Associate Professor, Administration

B.A., Texas College, 1950
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Ed.D., University of Houston, 1970

STEWART, A. D., (1953) ..... Professor, Mathematics & Computer Science

B.A., Rust College, 1941
B.S., Howard University, 1947
M.S., Howard University, 1947
M.A., University of Wisconsin, 1950
Ph.D., University of Texas, 1960

STRICKLAND, CECIL L., (1974) ..... Professor, Agriculture

B.S., Prairie View A&M University, 1960
M.S., University of Illinois, 1963
Ed.D., North Carolina State University of Raleigh, 1974

TALLEY, CLARENCE, (1975) ..... Professor, Art, Music & Drama

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B.S., Calslin College, 1971
M.S., Atlantic University, 1974
Ph.D., Atlantic University, 1979

TOLLIVER, CHARLES, (1982) ..... Professor, Electrical Engineering

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Ph.D., Iowa State University, 1976

TROTTY, WILLIE F., (1977) ..... Associate Professor, Administration

B.S., Stephen F. Austin State University, 1970
M.S., Stephen F. Austin State University, 1972
Ph.D., Purdue University, 1977

WALTER, KENNETH, (1984) ..... Associate Professor, Chemical Engineering

B.S., University of Dayton, 1963
Ph.D., Iowa State University, 1972

WASHINGTON, ARTHUR C., (1974) ..... Professor, Biology

B.S., Texas College, 1961
M.S., Tuskegee Institute, 1963
Ph.D., Illinois Institute of Technology, 1971

WEBSTER, WAYMON T., (1967) ..... Professor, Educational Psychology
B.A., Prairie View A&M University, 1952
M.A., Prairie View A&M University, 1954
Ph.D., Texas A&M University, 1972

WHITE, MARY L., (1957, 1979) ..... Associate Professor, Health & Human Performance
B.S., Alcorn State University, 1955
M.S., Prairie View A&M University, 1963
Ed.D., East Texas State University, 1973

WILCOX, DARYL J., (1987) ..... Professor, Elementary Education
B.A., Baker University, 1961
M.S., University of Kansas, 1966
Ed.D., University of Kansas, 1981

WILLIAMS, JOHN R., (1976) ..... Professor, Chemistry
B.S., Texas Southern University, 1969
Ph.D., Massachusetts Institute of Technology, 1976

WILLIAMS, SARAH B., (1972) ..... Professor, Sociology & Social Work
B.A., University of Texas at Austin, 1970
M.S.W., University of Houston, 1972
Ph.D., University of Texas at Austin, 1978

WRIGHT, HOOVER J., (1961) ..... Associate Professor, Health & Human Performance
B.A., Maryland State College, 1948
M.Ed., Pennsylvania State University, 1951

WYATT, LUCIUS R., (1974) ..... Professor, Art, Music & Drama
B.S., Florida A&M University, 1959
M.M., University of Rochester Eastman School of Music, 1960
Ph.D., University of Rochester, 1973

YANG, HSI C. (1988) ..... Assistant Professor, Architecture and Civil Engineering
B.S. Arch., Chung Yuan University, 1976
M.A. Arch., University of Florida, 1980
M.BCN., University of Florida, 1982
Ph.D., University of Florida, 1988

YEH, HSIANG Y., (1969) ..... Associate Professor, Civil Engineering
B.S., Cheng Kung University, 1962
M.S., University of Mexico, 1967
Ph.D., University of New Mexico, 1969

Emeritus Faculty and Staff

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ANNE L. CAMPBELL, Ed.D. ..... Professor and Head Emeritus, English

SAMUEL R. COLLINS, Ed.D. ..... Professor and Dean Emeritus, Industrial Education and Technology

CLAUDE L. WILSON, M.S. ..... Professor and Dean Emeritus, Engineering

GEORGE R. WOOLFOLK, Ph.D. ..... Professor and Chairman Emeritus, History

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