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1958

## Catalog Edition Graduate and Undergraduate - The School Year 1957-58

Prairie View A&M College

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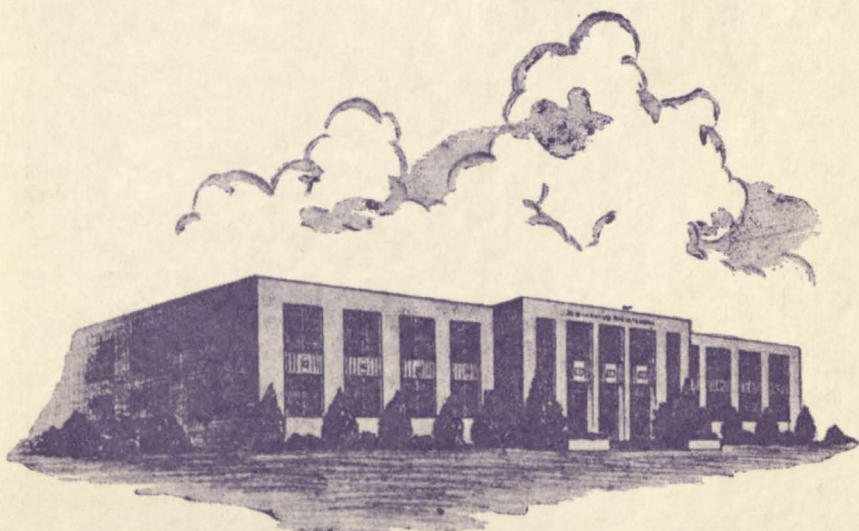
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*Combined*

# PRAIRIE VIEW

AGRICULTURAL AND MECHANICAL  
COLLEGE OF TEXAS

PRAIRIE VIEW, TEXAS



1957-58

*Bulletin of*

# PRAIRIE VIEW

AGRICULTURAL AND MECHANICAL COLLEGE

## RECOGNITION

*The institution is recognized as a Class "B" College by the Texas Education Agency, the Southern Association of Colleges and Secondary Schools, the American Association of Colleges for Teacher Education, and the Association of Texas Colleges.*

*Undergraduate and Graduate*

SEVENTY-EIGHTH CATALOG EDITION 1956-1957

WITH ANNOUNCEMENTS FOR 1957-1958

RECOGNITION

The institution is recognized as a Class "A" College by the Texas Education Agency, the Southern Association of Colleges and Secondary Schools, the American Association of Colleges for Teacher Education, and the Association of Texas Colleges.

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# Officially Approved College Calendar

## 1957-58

### SUMMER SESSION — 1957

June 3	Registration, First Term
June 4	Classes Begin
June 10	Registration Closes
July 4	American Independence Holiday
July 14	First Term Closes
July 15	Registration, Second Term
July 16	Classes Begin
July 22	Registration Closes
August 24	Second Term Closes

### REGULAR SESSION 1957-58

September 3-7	Faculty Orientation
September 9-11	Orientation and Registration
September 12	Classes Begin
September 14	Registration Closes
November 6-7	Mid-Semester Examinations
November 27 (5:00 PM) - December 2 (8:00 AM)	Thanksgiving Holidays
December 21	Christmas Holidays Begin (Noon)

### 1958

January 2	Classes Resume
January 13-18	Final Examinations
January 19	First Semester Closes
January 20-21	Registration, Second Semester
January 22	Second Semester Classes Begin
January 29	Registration Closes
March 19-20	Mid-Semester Examinations
April 3 (5:00 PM) - 8 (8:00 AM)	Easter Holidays
May 19-23	Final Examinations
May 24	Second Semester Closes

### SUMMER SESSION — 1958

June 2	Registration, First Term
June 3	Classes Begin
June 9	Registration Closes
July 4	American Independence Holiday
July 13	First Term Closes
July 14	Registration, Second Term
July 15	Classes Begin
July 21	Registration Closes
August 23	Second Term Closes

# THE TEXAS AGRICULTURAL AND MECHANICAL COLLEGE SYSTEM

Composed of all colleges, agencies and services under the supervision of the Board of Directors of the Texas Agricultural and Mechanical College System, including:

- THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS
- THE ARLINGTON STATE COLLEGE
- THE TARLETON STATE COLLEGE
- THE PRAIRIE VIEW AGRICULTURAL AND MECHANICAL COLLEGE
- THE TEXAS AGRICULTURAL EXPERIMENT STATION
- THE TEXAS AGRICULTURAL EXTENSION SERVICE
- THE TEXAS FOREST SERVICE
- THE TEXAS ENGINEERING EXPERIMENT STATION
- THE TEXAS ENGINEERING EXTENSION SERVICE

## BOARD OF DIRECTORS

- W. T. DOHERTY ..... *President*  
PETROLEUM ENGINEER, HOUSTON
- A. E. CUDLIPP ..... *Vice-President*  
INDUSTRIAL EXECUTIVE, LUFKIN
- HERMAN E. HEEP, *Agriculturist and Business Executive* ..... Austin
- EUGENE B. DARBY, *Construction Engineer* ..... Parr
- R. H. FINNEY, JR., *Business Executive* ..... Greenville
- J. HAROLD DUNN, *Industrial Executive* ..... Amarillo
- L. H. RIDOUT, JR., *Business Executive* ..... Dallas
- PRICE CAMPBELL, *Utilities Executive* ..... Abilene
- H. B. ZACHRY, *Construction Engineer* ..... San Antonio

## ADMINISTRATIVE OFFICERS

- M. T. HARRINGTON ..... *Chancellor*
- D. W. WILLIAMS ..... *Vice-Chancellor for Agriculture*
- E. L. ANGELL ..... *Assistant Chancellor and Secretary of the Board*
- R. H. SHUFFLER ..... *Director of Information and Publications*
- W. C. FREEMAN ..... *Comptroller*
- T. R. SPENCE ..... *Manager of Physical Plants*



# General Information

## LOCATION

Prairie View A. & M. College is located in Waller County, forty-six miles northwest of Houston. Daily trains and buses discharge passengers at the Prairie View Station. Taxi service is available to and from the station.

## PURPOSE

Three separate and distinct functions of Prairie View A. & M. College are clearly set forth in State and Federal acts for its establishment and support.

Firstly, it is a normal school for the preparation and training of teachers.

Secondly, it is a four-year college offering liberal arts and scientific curricula.

Thirdly, it is a Texas Land Grant College providing opportunities for training in Agriculture, Home Economics, Engineering and related branches of learning.

In addition, the institution offers training in health education so that it may give to the state professionally trained nurses and provide opportunities for observation and practice to newly graduated students of medical colleges.

Prairie View A. & M. College attempts to serve the citizens of Texas at the points of their greatest needs and endeavors to bring the students' training into closer relationship with life's occupations.

The central theme of the philosophy of the institution is that education must have the objective of making a worthwhile life and respectable living.

## INSTRUCTIONAL ORGANIZATION

The institution is organized for instruction into seven major divisions as follows:

- THE SCHOOL OF AGRICULTURE
- THE SCHOOL OF ARTS AND SCIENCES
- THE SCHOOL OF ENGINEERING
- THE SCHOOL OF HOME ECONOMICS
- THE SCHOOL OF INDUSTRIAL EDUCATION
- THE DIVISION OF NURSING EDUCATION
- THE GRADUATE SCHOOL

## HISTORY

The Fifteenth Legislature of the State of Texas met in the year 1876. One of the acts of that Legislature provided for the establishment of "An Agricultural and Mechanical College" for Negro citizens to be located in Waller County. L. M. Minor was elected first teacher of the school (Alta Vista Agricultural College). He served in this capacity from 1878 to 1879. In the last year of his principalship a legislative act provided for reorganization of the college and made funds available for the training of public school teachers therein. The teaching of Military Tactics was initiated in compliance with the Legislative act of 1876.

The second principal, E. H. Anderson, served from 1879 to 1884; and L. C. Anderson, the third principal, held the position for the next twelve years. The gray stone Administration building, whose architectural design was widely admired, was erected in 1889, and the Old Agricultural Building was erected in 1890. During L. C. Anderson's administration, the 20th Legislature agreed to an "Agricultural and Mechanical Department" to be attached to the Normal; the Hatch Act brought the college a branch Experiment Station.

For the next nineteen years, E. L. Blackshear served "Prairie View Normal" as principal. During his administration, significant growth was made in the curriculum and the plant. In 1899 the name "Prairie View State Normal and Industrial College," and the new name indicated the enlargement of the curriculum. A four-year college course was authorized by the State Legislature in session 1901. Among additions to the plant were two dormitories for men, Foster Hall (1909) and Luckie Hall (1909); a dormitory for women, Crawford Hall (1912); and a combination Auditorium-Dining Hall building (1911).

I. M. Terrell, the fifth principal, held the position during the war years 1915-1918. Despite the world conflict, the school plant expanded widely to accommodate mechanic and household arts; a Household Arts building, the Power and Ice Plant, and the Laundry were erected in 1916; and in 1918 Spence Building for the Division of Agriculture was erected. The close of World War I brought the activation of a 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. Six buildings were added to the College in 1924 and 1925. The Veterinary Hospital, the Science Building, the College Exchange, the Elementary Training School, a Home Economics Practice Cottage, and a Music Conservatory. The Nursing Education Division was founded in 1918.

In 1926, W. R. Banks became the seventh principal of Prairie View. He served until August 31, 1947, at which time he became Principal Emeritus. He held the position longer than any of his predecessors, Prairie View developed along several lines in this period. The physical plant doubled its size by adding six buildings valued at more than \$100,000.00 each. The Dining Hall and the Hospital, three apartment houses for men teachers, three dormitories for women, a greenhouse, an incubator house, a class-

room building, a new Auditorium-Gymnasium, a new Mechanic Arts building, and over sixty cottages for families were additions to the physical plant.

One of the significant studies of the period was an exhaustive examination of the objectives and purposes of Prairie View in 1933-34. Out of this study emerged Principal Banks' most often quoted statement: "Prairie View College must serve the State of Texas at the points of her greatest needs." The establishment of the Prairie View Conference of Education in 1931 is an important event in the history of the College. In the years that the Conference has met, Prairie View has been host to educators, ministers, doctors, business men and women, housewives, social workers, and farmers.

In the establishment of the Division of Graduate Study in 1937 Prairie View College added another page to its expanding history.

In 1936 the first buildings were constructed to house the N.Y.A. resident center, and a new chapter in Vocational Training for youth was opened. The project was enlarged and made a training center for Negro men in critical occupations for support of the war effort. The men filled positions as welders, mechanics, pipe fitters, machine operators, and moulders in shipyards, foundries, and machine shops all over the nation. The project terminated in July 1943. The facilities are now used for vocational trade courses.

In July 1943, a training unit of the Army Specialized Training Program was established with a maximum strength of 200 trainees enrolled in BE-1 Curriculum.

In 1943, when the Forty-eighth Legislature met in January, it appropriated \$160,000.00 for the erection of a Library Building. This amount was supplemented by \$20,000.00 for equipment and books.

The name of the college, Prairie View Normal and Industrial College, was changed to Prairie View University by Acts 1945, 49th Legislature.

The Forty-ninth Legislature passed the bill making Prairie View University to offer, as the need arises, all courses offered at the University of Texas.

On September 1, 1946, Dr. E. B. Evans became the eighth principal of Prairie View.

The Fiftieth Legislature of the State of Texas, by Act signed by the Governor on February 27, 1947, changed the name of the school from Prairie View University to Prairie View Agricultural and Mechanical College of Texas. The Act provides 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 the passage of this Act, all of which shall be equivalent of those offered at the Agricultural and Mechanical College of Texas.

In March 1947, the old Academic Building which housed the principal administrative offices, was destroyed by fire. The Fiftieth Texas Legislature, which was then in session, made an emergency appropriation of \$300,000.00, for the erection of the present Administration Building which was completed in March 1949.

The title of the Principal was changed to Dean by the Board of Directors and became effective during the 1947-1948 school year. On September 1, 1948, the title of Dean was changed to President and on December 3, 1948, E. B. Evans, the eighth Principal, was inaugurated as the first President of Prairie View Agricultural and Mechanical College of Texas.

The Divisions of Agriculture, Arts and Sciences, Home Economics, and Mechanic Arts were changed to Schools of Agriculture, Arts and Sciences, Home Economics, and Engineering, effective September 1, 1950. The Directors of the respective schools were named Deans, becoming effective at the same time.

A new women's dormitory was completed in September 1950 at a cost of \$350,000.00 and was named for the late Dean of Women, Miss M. E. Suarez. It houses 247 seniors and has facilities for recreational and social entertainment. A similar building for male students, named for a former teacher, J. M. Alexander, was completed in 1952. The E. B. Evans Animal Industries Building, valued at \$384,000.00, was completed in 1951, and the Gibb Gilchrist Engineering Building in 1952, at a cost of \$258,170.00.

Construction of still more adequate housing for the rapidly-growing student body was completed in early 1955 with additions to Suarez Hall and to Alexander Hall costing approximately \$550,000.00. These additions provided space for 240 more women students and 250 more men students.

A dairy barn and utilities warehouse were completed at a cost of \$32,000.00, and \$15,000.00 worth of water and sewer line installations were added to the college system. Construction of an exchange store and a single faculty women and a single faculty mens' dormitories were also completed in 1955. The latter has been named for George W. Buchanan, former manager of the exchange and ex-teacher of mathematics. The hospital of 1929 has recently been named for J. C. Osborne, the sixth principal of the college.

## THE W. R. BANKS LIBRARY

The Library, named in honor of the former chief executive, Willette Rutherford Banks, is located between Evans and Luckie Hall, just north of the Administration Building. It has a book capacity of some 100,000 volumes, study space for some 400 students, simultaneously, and was erected at a cost of \$171,867.91.

The air-conditioned building has comfortable study places including the Reference Room, Reserve Reading Room, Special Collection Room, and Graduate Study Room. The artistic tastes of students are fostered in the Exposition Room and the Art Room.

The various collections consists of well selected books, periodicals, newspapers, microfilms, films, filmstrips, microcards, records, reports, and much other study materials for reference, collateral, cultural, and recreational reading, and research purposes.

Some 699 periodicals and newspapers are received currently. Many of these are bound for permanent use and should be treated carefully. Current periodicals and newspapers are located, largely, in the Reference Room;

however, a select number may be found at the Delivery Desk in the Main Floor lobby.

To secure greatest benefit from available library services, each reader must become acquainted with library rules and regulations, learn his way around in the library, and seek guidance from members of the library staff.

The rules and regulations are found in the "Official Student Guide", distributed to students in the dormitories; copies are also distributed in the library. To facilitate use of library resources the staff has been instructed in providing advisory and consultation services.

Library Service hours are as follows:

Monday Friday: 8:00 A.M. - 9:30 P.M.

Saturday: 8:00 A.M. - 5:00 P.M.

Sunday: 2:00 - 5:00 P.M.

Any exceptions to these hours will be posted in the Library.

There are no services on the Top Floor of the Library Friday evenings and on Saturday and Sunday afternoons.

## EXTRA-CURRICULAR ACTIVITIES

### RELIGIOUS INFLUENCES

While no particular denominational influence is exerted at Prairie View A. & M. College, the authorities of the institution are thoroughly committed to the belief that religious training benefits the student. Religious activities, promoted under the direction of the College Chaplain, include Sunday School, Morning Worship, and Vesper Services.

### STUDENT ORGANIZATIONS

Sixty student organizations are in operation on the campus. They are: Home Town Clubs (where ten or more students are from the same town); Departmental or Divisional Clubs; New Farmers of America, New Home Makers of Texas, Industrial Education Club, Spanish-French Club, Scientific Society (Beta Pi Club), Graduate Students Club, Business Administration and Social Science Club, English Club, Journalism Club, History, Political Science and Philosophy Club; International Relations Club; Charles Gilpin Dramatic Club; *Religious*: Y.M.C.A., Y.W.C.A., Sunday School, Usher Board, Catholic Club. *Dormitory Club*: E. B. Evans Adelpian Society.

### ATHLETICS

The Department of Athletics sponsors the following major varsity sports for men: football, basketball, track, tennis, baseball, and golf. The varsity program for women includes basketball, track and tennis.

The intramural sports program, conducted for all students, includes boxing, football, basketball, baseball, tennis, track, softball, golf and volley ball. Each student is expected to participate in at least one intramural sport.

Athletes from Prairie View participate in national and international athletic events.

Prairie View A. & M. College is a member of the Southwestern Athletic Conference. The College is nicknamed "Panthers," and the School Colors are purple and gold.

## AWARDS AND PRIZES

Prizes and awards are made for accomplishments in various fields of endeavor throughout the College. They are sometimes monetary in nature and sometimes in the form of keys, cups, pins, or insignia. A short description of them is given below.

**HARRISON-VALIEN SCHOLARSHIP PRIZE.** A cash award presented to the graduating senior who has maintained the highest scholastic average over the four-year period.

**T. K. LAWLESS AWARD.** A cash award to the graduating senior who during four years at Prairie View A. & M. College, has made the most outstanding contributions to the institution.

**ALEXANDER SUNDAY SCHOOL AWARD.** A cash award of \$50.00 for tuition to the student who, during the school year, has made an outstanding or noteworthy contribution to the Sunday School program. The student should have at least a satisfactory grade point average and be in need of financial assistance.

**JAMES E. GUINN-EMMA J. GUINN AWARD.** A cash award presented each year to the science major of junior standing having the highest scholastic average.

**HILLIARD MONTGOMERY AWARD.** A cash award presented to the science major having the highest average in science courses during the year.

**LOCAL PRAIRIE VIEW ALUMNI AWARD.** A cash award of \$50.00 for tuition to the student most deserving from the standpoint of need plus consideration of scholarship and citizenship records while in attendance at the college.

**ANNE L. CAMPBELL AWARD.** A cash award presented to the Junior English major having the highest scholarship average and the most outstanding record of participation in extracurricular activities.

## VOCATIONAL REHABILITATION

The Texas Education Agency, through the Vocational Rehabilitation Division, offers assistance for tuition to students who have certain physical disabilities, provided the vocational objective selected by the disabled person has been approved by a representative of the Division. Application for Vocational Rehabilitation assistance should be made to the nearest rehabilitation officer or to the Director of Vocational Rehabilitation, 302 Walton Building, Austin, Texas.

## LOAN FUNDS

Prairie View A. & M. College has five loan funds available to students:

1. The Hogg Memorial Loan Fund of \$25,000.00 was given to Prairie View by the late W. C. Hogg in the year of 1936. The interest from this fund is available for loans to students. At present the amount available for loans is in excess of \$5,000.00.
2. The Abner Davis Memorial Loan Fund was established in 1937 by the students at Prairie View in memory of Abner Davis, who died in 1930 from injuries received in a football game between Prairie View College and Texas College. The fund has grown each year from the proceeds of the Miss Prairie View contest. At present \$3,000.00 are

available for loans to students.

3. The Church Banks Loan Fund was established in 1938 by the students who were enrolled in vocational agriculture courses under the supervision of Mr. Banks at the time of his accidental death. This loan is available to seniors in Agriculture. The amount available for loans is \$136.00.
4. The Class of 1927 left a loan fund of \$53.15.
5. The Prairie View Club of Los Angeles, California, donated \$52.50 for student loans.

Students desiring loans should make inquiries at the Offices of the Fiscal Department and the Director of Student Life. In all cases, loans are made with the endorsement of some member of the college staff.

### THE MARY GIBBS JONES AND JESSE H. JONES SCHOLARSHIP PRIZES

Mr. and Mrs. Jesse H. Jones of Houston, Texas, made available to Prairie View \$25,000.00 for a scholarship fund in Home Economics, and \$25,000.00 for a scholarship fund in Agriculture. Students who are selected receive scholarships of approximately \$250.00 per year. Twenty such awards are scheduled to be made annually until 1966. They are divided equally between women and men in Home Economics and Agriculture respectively. The fund is administered by the Houston Endowment, Inc., of Houston, Texas.

Mr. and Mrs. Jesse H. Jones of Houston, Texas, have also made available \$25,000.00 for Nursing Education Scholarships. This Scholarship Fund is known as the A. Jeannette Jones Scholarship Fund.

All inquiries and applications for these scholarships should be addressed to the Chairman of the Scholarship Committee, Prairie View A. & M. College, Prairie View, Texas.

### STATE OF TEXAS SCHOLARSHIPS

The State of Texas provides a scholarship for the ranking student of each one of the four-year accredited high schools in Texas for the school year immediately following the date of graduation. The scholarship will apply on tuition to the amount of \$25.00 per semester. The Committee on Scholarships may terminate, at the beginning of the second semester, the scholarship of a student who, without warrant, fails to maintain a satisfactory scholastic record.

High school graduates seeking these scholarships should apply through their high school principals.

### STATE ORPHANAGES SCHOLARSHIPS

The State of Texas exempts citizens of Texas who are high school graduates of the State orphanages of Texas from all required fees, including fees for correspondence courses. Applicants should request this exemption of the Registrar.

## EXEMPTION OF EX-SERVICEMEN

Men and women who are citizens of Texas and who served in the armed forces in World War I, World War II, the Korean conflict, or in certain of the auxiliary services and were honorably discharged therefrom (except those who were discharged because of being over the age of thirty-eight or because of a personal request), and who are not eligible for educational benefits provided for veterans by the United States Government, are exempted from the payment of tuition. To obtain this exemption, a full-sized photostatic or certified copy of the discharge papers must be filed for permanent record with the Veterans Counselor. Exemption from fees described above also extends to children of members of the armed forces who were killed in action or died while in the service in World War II or in the Korean conflict.

## JESSE H. JONES COOKING AND BAKING SCHOLARSHIP

Mr. Jesse H. Jones of Houston, Texas, made available to Prairie View \$6,200.50 for a scholarship fund in Cooking and Baking. This scholarship is to cover a five-year period, at \$1,200.50 per year.

All inquiries and applications for this scholarship should be addressed to the Chairman of the Scholarship Committee, Prairie View A. & M. College, Prairie View, Texas.

## SCHOLARSHIPS IN NURSING

The State of Texas provides a stipend for each student in the Division of Nursing. This monthly stipend covers the major cost of the student's maintenance.

In addition to the State stipend, the A. Jeannette Jones Scholarship Fund is made available to a selected number of students in the Collegiate program. Recipients of the scholarship are given tuition and activity fee for the two semesters.

The College reserves the right to recommend that either the stipend or the scholarship, or both, be denied the student if the student has not maintained at least a "C" average during his first semester of work.

## THE CHARLES T. AND KATIE B. BRACKINS SCHOLARSHIP GRANT

The college has a scholarship agreement with an Advisory Board of the Mercantile National Bank at Dallas whereby Mrs. Eloise M. Willis, grantor, makes funds available in the amounts of two \$500.00 loans per year in honor of the late Charles T. and Katie B. Brackins, respected and beloved citizens of the City of Dallas. The Advisory Board chooses the recipients from those candidates who can qualify for its consideration. A primary prerequisite is that the applicant must be a graduate of a school of the Dallas Independent School District. Inquiries in regard to the grant may be directed to the Dallas High School Principal of Lincoln High School or Washington Technical High School or to the Chairman of the Scholarship Committee at Prairie View.



## REGULATIONS

### DISCIPLINE AND GOVERNMENT

All students reporting to the institution for registration are subject to the disciplinary rules and regulations of the institution upon date of arrival on the campus.

The College compels no student to enroll or to remain who finds that he cannot meet its academic requirements cheerfully. A student who cannot meet the requirements of the College will be asked to withdraw.

Any student who makes false pretense as to his or her marital status is subject to immediate suspension for an indefinite time. This applies to any person who marries secretly while enrolled as a student or who was secretly married at the time of enrollment.

*Day students* are defined as those students who do not live in a College dormitory and who do not eat in the student dining hall. No student will be permitted to enroll as a day student except that:

1. His permanent residence is within commuting distance of the College.
2. All spaces in the College dormitories have been filled.
3. The individual is married and plans to live with his family within a commuting distance.

Any student who is employed in an institutional department where meals are served regularly or where prepared food is sold will not be permitted to enroll as a day student or roomer.

Students wishing to serve as agents for business firms or to operate a business for themselves are required to secure permission from the Director of Student Life.

When the administration finds that a student cannot adjust himself to the life of the College, and when the student's conduct appears to be unsatisfactory, the officers of the College may request his withdrawal.

The continuance of each student upon the rolls of the College, the receipt by him of academic credits, his graduation, or the conferring of any degree or the granting of any certificate, are strictly subject to the disciplinary powers of the College. The disciplinary authority of the College is vested in the President. It is his prerogative to act alone or delegate his authority to other personnel of the College.

No student shall have in his possession any motor vehicle kept on or near the campus or in any adjacent town without the prior approval and permission of the Administrative Head of the College. Violation of this regulation subjects the student to immediate dismissal from the institution.

*Hazing* is prohibited by law in State educational institutions of Texas. The law provides that: "Any student of any State educational institution of Texas who commits the offense of hazing shall be fined not less than \$25.00 nor more than \$250.00 or shall be confined not less than ten days nor more than three months, or both."

### BAGGAGE ARRANGEMENTS

Students are sent certain registration materials prior to being enrolled in the institution. Included in these materials are two baggage tags. These

tags are to be filled out with the proper forwarding and return addresses, then attached to your baggage which you plan to bring or ship to the College. This tag will serve to identify your baggage when it arrives at the College, and will aid in our delivery of the baggage to the dormitory.

Baggage shipped on your ticket require that you surrender to the Maintenance Department here at the College, the baggage claim check which is supplied to you by the ticket agent in your hometown. This is in order for the department to deliver your baggage to your dormitory. A fee for delivery of your baggage is made by the Maintenance Department and this fee is paid only to the department at the time that you give up your baggage check.

Arrangements for delivery of all baggage shipped to the College should be made at the Maintenance Department Office, and should be made as soon after you arrive on the campus as is practical, to insure prompt delivery of your baggage to your dormitory.

**STUDENT FEES**

The following student fees are hereby approved effective September 1, 1957, to remain in effect until changed by order of the Board of Directors, and all fees on conflict herewith are hereby rescinded as of the date hereof.

**REGISTRATION OR TUITION FEE**

For registration in chemistry (but for no courses)	\$ 1.00 per semester
Non-graduate students, for 12 or more semester hours (but less than 15 semester hours, a reduction of \$0.17 per semester hour)	\$12.00 per semester
For registration in chemistry (but for no courses)	\$ 1.00 per semester
Non-graduate students, for 12 or more semester hours (but less than 15 semester hours, a reduction of \$0.17 per semester hour)	\$12.00 per semester
For registration in chemistry (but for no courses)	\$ 1.00 per semester
Non-graduate students, for 12 or more semester hours (but less than 15 semester hours, a reduction of \$0.17 per semester hour)	\$12.00 per semester
For registration in chemistry (but for no courses)	\$ 1.00 per semester
Non-graduate students, for 12 or more semester hours (but less than 15 semester hours, a reduction of \$0.17 per semester hour)	\$12.00 per semester
For registration in chemistry (but for no courses)	\$ 1.00 per semester
Non-graduate students, for 12 or more semester hours (but less than 15 semester hours, a reduction of \$0.17 per semester hour)	\$12.00 per semester

# Total Fees For All Students Except Nurses

*(These fees are subject to change without notice)*

Payments for student accounts should be made by cashier's check or money order payable to the Prairie View Agricultural and Mechanical College of Texas and should be sent directly to the student. All checks, money orders and drafts are accepted subject to final payment. *Personal checks will not be accepted.*

Maintenance fees are due and payable on the first day of each month. A delinquent fee of one dollar is assessed each student whose obligations to the College are not completely settled before the close of business on the tenth of the month, and he will be required to withdraw if settlement is not made by the fifteenth of the month.

## STUDENT FEES

The following student fees are hereby approved effective September 1, 1957, to remain in effect until changed by order of the Board of Directors, and all fees on conflict herewith are hereby cancelled:

### MATRICULATION, REGISTRATION OR TUITION FEE

#### *Regular Session*

Resident students, for 12 or more semester hours . . . . . \$25.00 per semester  
(for less than 12 semester hours a reduction of \$2.00 per semester hour with a minimum of \$7.50 per semester)

For registration in absentia (but for no courses) . . . . . \$ 7.50 per semester

Non-resident students, for 12 or more semester hours . . . . . \$75.00 per semester  
(for less than 12 semester hours, a reduction of \$6.25 per semester hour)

A penalty of \$5.00 shall be collected for failure to pay the proper fee at the beginning of each semester.

For registration in absentia (but for no courses) . . . . . \$ 7.50 per semester

#### *Summer Session*

Resident students, for 4 or more term hours . . . . . \$17.50 per term  
(for less than 4 term hours a reduction of \$2.00 per term hour with a minimum of \$10.00 per term)

For registration in absentia (but for no courses) . . . . . \$ 7.50 per term

Non-resident student, for 4 or more term hours . . . . . \$25.00 per term  
(For less than 4 term hours, a reduction of \$6.25 per term hour)

For registration in absentia (but for no courses) . . . . . \$ 7.50 per term

Audit Fee . . . . . \$ 5.00 per course

## LATE REGISTRATION

Old students, both resident and non-resident who in either semester or term do not register on the days set apart for that purpose, shall pay an additional matriculation, registration or tuition fee of \$1.00 per day for each day of late registration, with a maximum of \$5.00.

September 9-11 is the registration period for the first semester, 1957-1958  
January 20-21 are the registration days for the second semester, 1957-1958

## DEGREES, CERTIFICATES, ETC.

College Diploma Fee .....	\$ 5.00
Graduate School Diploma and Graduation Fee .....	\$10.00
Graduate Nursing Fee .....	\$ 7.50
Transcript Fee (per copy after first copy) .....	\$ 1.00
Trade Certificate Fee .....	\$ 2.00
Entrance Examination Fee for students from non-accredited high schools.....	\$ .50
Deficiency Examination Fee, per course .....	\$ 1.00
Deficiency Grades are I and K	

## EXTENSION COURSES

Extension Courses Fee, \$5.00 per semester hour for undergraduate work; \$10.00 per semester hour for graduate work

## LABORATORY FEES

PER COURSES, PER SEMESTER OR TERM

Foods .....	\$ 2.00
Biology .....	\$ 2.00
Chemistry .....	\$ 2.00

## COMMERCIAL FEES

Shorthand Fee, per semester or term .....	\$ 4.50
Typing Fee, per semester or term .....	\$ 4.50

## STUDENT ACTIVITIES FEE (Optional)

Student Activities Fee per semester .....	\$ 5.00
Student Activities Fee, per term .....	\$ 1.00

## MUSIC FEES

### Regular Session

Piano or voice (2 lessons per week), per semester .....	\$12.00
Organ, per month .....	\$ 5.00
Other instruments, same as piano	

### Summer Session

Piano or voice, per term .....	\$12.00
Organ, per term .....	\$ 7.50

### R. O. T. C. UNIFORM HANDLING FEE

Regular Session .....	\$ 7.00
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### MAINTENANCE FEE

#### Regular Session

Room rent, board and laundry, per month .....	\$42.00
(Room rent \$12.00, board \$27.00, laundry \$3.00) Roomers only pay \$15.00 per month for room and laundry	

#### Summer Session

Room rent, board and laundry per term of 6 weeks .....	\$68.60
(Room rent \$16.80, board \$47.25, laundry \$4.55)	
Graduate students only—room rent for Summer Session per term of six weeks .....	\$21.35
Room Key Deposit, returnable .....	\$ 1.00

### REFUNDS

#### *For all Colleges of Texas Agricultural and Mechanical College System*

Any student withdrawing officially (a) during the first week of class work in a semester will receive a refund of four-fifths of the matriculation fee; (b) during the second week of class work, three-fifths; (c) during the third week of class work, two-fifths; (d) during the fourth week of class work, one-fifth; (e) after the fourth week of class work, nothing; during the first week of class work in a summer term, one-half; after the first week of class work in a summer term, nothing. No refunds will be made until ten days have elapsed from the time the fees were paid. Refunds of the matriculation fee for the Veterans Administration and other U. S. Government agencies shall be as follows:

For students withdrawing within one week from date of enrollment	80 per cent
Between one and two weeks from date of enrollment	80 per cent
Between two and three weeks from date of enrollment	60 per cent
Between three and four weeks from date of enrollment	40 per cent
Between four and five week from date of enrollment	20 per cent
After the fifth week from date of enrollment	None

No deductions will be made from charges for board, laundry, and room rent in case of entrance within ten days after the opening of a semester, nor will a refund be made in case of withdrawal during the last ten days of a semester or the last ten days for which payment is made.

Except as aforesaid, charges for board, laundry and room rent will be refunded pro rata in case of withdrawal during a semester.

Any student withdrawing officially (a) during the first week of class work in a semester will receive a refund of four-fifths of the Medical Service fee; (b) during the second week of class work, three-fifths; (c) during the third week of class work, two-fifths; (d) during the fourth week of classwork, one-fifth, except as stated below; (e) after the fourth week of class work, nothing. No refund will be made within ten days after the fees were paid.

Students withdrawing during the first week of either semester will receive a 100 per cent refund of the Student Activities Fee for the semester. No refund will be made to students who withdraw after the first week.

No refund of the ROTC Uniform Handling Fee will be made after the uniform or any part thereof has been issued.

No refund of laboratory fees, music fees, shorthand or other special course fees will be made after student attends the class.

Key deposits will be refunded if the student returns his key to the Dean's Office within three days after the close of the period for which fees have been paid. If a student withdraws from school, his room key must be returned to the Dean's Office within three days after date of withdrawal for any cause.

## EXPENSES AND FEES FOR 1957-1958

(These fees are subject to change without notice)

### FIRST SEMESTER

	Men	Women	Veterans <sup>1</sup>
Tuition (Non-residents pay \$75.00) .....	\$ 25.00	\$ 25.00	\$
Student Health Fee .....	5.00	5.00	5.00
Student Activities Fee (Optional) .....	5.00	5.00	5.00
*Maintenance—Sept. 9-Oct. 10, 1957 .....	44.80	44.80	44.80
Uniform Service Charge .....	7.00		
<i>Total Fees for Entrance—9-9-57</i> .....	<i>\$ 86.80</i>	<i>\$ 79.80</i>	<i>\$ 54.80</i>
*Maintenance—Oct. 11-Nov. 10 .....	\$ 42.00	\$ 42.00	\$ 42.00
*Maintenance—Nov. 11-Dec. 10 .....	42.00	42.00	42.00
*Maintenance—Dec. 11-Jan. 10 .....	32.00	32.00	32.00
*Maintenance—Jan. 11-Feb. 10 .....	42.00	42.00	42.00
<i>Total fees for First Semester</i> .....	<i>\$244.80</i>	<i>\$237.80</i>	<i>\$212.80</i>
Books and Supplies—Estimated .....	30.00	30.00	
<i>Total Expense—First Semester</i> .....	<i>\$274.80</i>	<i>\$267.80</i>	<i>\$212.80</i>

### SECOND SEMESTER

Tuition (Non-residents pay \$75.00) .....	\$ 25.00	\$ 25.00	\$
Student Health Fee .....	5.00	5.00	5.00
Student Activities Fee (Optional) .....	5.00	5.00	5.00
*Maintenance—Feb. 11-March 10 .....	42.00	42.00	42.00
<b>**Total Fees for Entrance—1-20-58</b> .....	<b>\$ 77.00</b>	<b>\$ 77.00</b>	<b>\$ 52.00</b>
*Maintenance—March 11-April 10 .....	\$ 42.00	\$ 42.00	\$ 42.00
*Maintenance—April 11-May 10 .....	42.00	42.00	42.00
*Maintenance—May 11-24 .....	1960	19.60	19.60
<i>Total fees for Second Semester</i> .....	<i>\$180.60</i>	<i>\$180.60</i>	<i>\$155.60</i>
Books and Supplies—Estimated .....	20.00	20.00	
<i>Total Expenses—Second Semester</i> .....	<i>\$200.60</i>	<i>\$200.60</i>	<i>\$155.60</i>
<i>Total Fees—Regular Session</i> .....	<i>\$425.40</i>	<i>\$418.40</i>	<i>\$368.40</i>
<i>Total Expenses—Regular Session</i> .....	<i>\$475.40</i>	<i>\$468.40</i>	<i>\$368.40</i>

Room Key deposit, returnable. (Payable to Dean of Men or Dean of Women—\$1.00)

<sup>1</sup> World War II Veterans attending under benefits of G.I. Bill will have tuition and books paid for by Veterans Administration. Fees shown will be paid by these veterans. Korean Veterans (PL550) must secure authorizations for enrollment from the Veterans Administration, prior to registration and must come prepared to pay all fees indicated above for male students.

\* Maintenance includes board, room and laundry.

\*\* Male Students entering college in February must pay an additional \$7.00 for Uniform Service Charge and \$29.40 maintenance for the period from January 20, 1958 to February 10, 1958 making the total entrance fees for men \$113.40, for women \$106.40.

# NURSING FEES

## FIRST YEAR

### FIRST SEMESTER

Tuition (Non-residents pay \$75.00) .....	\$ 25.00
Student Health Fee .....	5.00
Student Activities Fee (Optional) .....	5.00
Maintenance—September 9-October 10, 1957 .....	44.80
<i>Total Fees for Entrance</i> .....	<u>\$ 79.80</u>
*Maintenance—October 11-November 10 .....	\$ 42.00
*Maintenance—November 11-December 10 .....	42.00
*Maintenance—December 11-January 10 .....	32.00
*Maintenance—January 11-February 10 .....	42.00
<i>Total Fees for First Semester</i> .....	<u>\$237.80</u>
Books and Supplies—Estimated .....	30.00
<i>Total Expenses—First Semester</i> .....	<u>\$267.80</u>

### SECOND SEMESTER

Tuition (Non-residents pay \$75.00) .....	\$ 25.00
Student Health Fee .....	5.00
Student Activities Fee (Optional) .....	5.00
*Maintenance—February 11-March 10 .....	42.00
Uniforms—Approximately .....	100.00
<i>Total Fees for Entrance</i> .....	<u>\$177.00</u>
*Maintenance—March 11-April 10 .....	\$ 42.00
*Maintenance—April 11—May 10 .....	42.00
*Maintenance—May 11-24 .....	19.60
<i>Total for Second Semester</i> .....	<u>\$280.60</u>
<i>Total for First Semester</i> .....	<u>\$267.80</u>
<i>Total for both Semesters</i> .....	<u>\$548.40</u>

### SUMMER SESSION

Tuition for both terms (Non-residents pay \$50.00) .....	\$ 35.00
Student Health Fee .....	5.00
Student Activities Fee .....	2.00
	<u>\$ 42.00</u>
<i>Total for First Year</i> .....	<u>\$590.40</u>

## SECOND YEAR

Tuition (Non-residents pay \$75.00) .....	\$ 25.00
Books—Estimated .....	30.00
Room and board furnished by Jefferson Davis	
Room and board furnished by Jefferson Davis Hospital	
<i>Total Fees for First Semester</i> .....	<u>\$ 55.00</u>

\* Maintenance, including board, room and laundry.

SECOND SEMESTER

Tuition (Non-residents pay \$75.00) .....	\$ 25.00
Room and board furnished by Jefferson Davis Hospital	
<i>Total for both Semesters</i> .....	<u>\$ 80.00</u>

SUMMER SESSION

Tuition for both terms (Non-residents pay \$50.00) .....	\$ 35.00
Room and board furnished by Jefferson Davis Hospital	
<i>Total for Second Year</i> .....	<u>\$115.00</u>

THIRD YEAR

FIRST SEMESTER

Tuition (Non-residents pay \$75.00) .....	\$ 25.00
Books Estimated .....	\$ 10.00
Room and board furnished by Jefferson Davis Hospital	
<i>Total for First Semester</i> .....	<u>\$ 35.00</u>

SECOND SEMESTER

Tuition (Non-residents pay \$75.00) .....	\$ 25.00
Room and board furnished by Jefferson Davis Hospital	
<i>Total for Second Semester</i> .....	<u>\$ 25.00</u>
<i>Total for both Semesters</i> .....	<u>\$ 60.00</u>

SUMMER SESSION

Tuition for both terms (Non-residents pay \$50.00) .....	\$ 35.00
Student Health Fee .....	5.00
Student Activities Fee .....	2.00
Diploma .....	7.50
State Board Examination .....	15.00
Picture for State Board .....	1.50
Photostat copy of records .....	1.00
<i>Total for Summer Session</i> .....	<u>\$ 67.00</u>
<i>Total for Third Year</i> .....	<u>\$127.00</u>
<i>Total for Three Years</i> .....	<u>\$ 832.40</u>

NOTE.—The following articles are to be brought by student nurses enrolling as freshmen: 4 sheets, 3 pillowcases, 1 pillow, sufficient covers, umbrella, raincoat, overshoes, white oxfords with low rubber heels, 2 spreads, 4 face towels, 4 bath towels, a workbox containing instruments for mending and an inexpensive watch with second hand.

NON-RESIDENT STUDENT REGISTRATION FEES

Be it resolved, by the Board of Directors of the Prairie View Agricultural and Mechanical College of Texas that the following schedule of registration, matriculation and/or tuition fees for non-resident students be and the same is hereby established, effective on and after September 1, 1957:

A. For each student who registers for four (4) or more hours in a Summer Term (of six weeks); \$25.00 with a reduction of \$6.25 (minimum \$10.00) for each semester hour of maximum registration less than four.



- B. For each student who registers for twelve (12) or more semester hours in a semester of the Long Session, \$75.00 with a reduction of \$6.25 (minimum \$7.50) for each semester hour of maximum registration less than twelve.
- C. For registration in absentia in any term or semester (but for no courses), \$7.50.
- D. The residence status of a student is determined at the time of his first registration in the College and his residence is not changed by his sojourn at the College as a student except as provided by law. This policy shall apply to both graduate and undergraduate students regardless of any scholarship, student assistantship, or graduate assistantship that may be granted to any student.
- E. Pursuant to the authority granted by the Fiftieth Legislature in Chapter 218, General and Special Laws (House Bill 507) the Board of Directors hereby adopts the following non-resident regulations:
1. A non-resident student is hereby defined to be a student of less than twenty-one (21) years of age, living away from his family and whose family resides in another State, or whose family has not resided in Texas for the twelve (12) months immediately preceding the date of registration; or a student of twenty-one (21) years of age or over who resides out of the State or who has not been a resident of the State (12) months subsequent to his twenty-first birthday or for the twelve (12) months immediately preceding the date of registration..
  2. The term "residence" means "legal residence" or "domicile"; and the term "resided in" means "domiciled in."
  3. The legal residence of one who is under twenty-one (21) years of age is that of the father. Upon death of the father, the legal residence of the minor is that of the mother. Upon divorce of the parents, the residence of the minor is determined by the legal residence of the person to whom custody is granted by the court. In the absence of any grant of custody, the residence of the father continues to control. Upon death of both parents, the legal residence of the minor continues to be that of the last surviving parent until he becomes twenty-one (21) years of age unless he makes his home with his grandparents, whereupon their residence is controlling.
  4. A student under twenty-one (21) years of age shall not be classified as a resident student until his parents shall have maintained legal residence in this State for at least twelve (12) months. A student under twenty-one (21) years of age whose parent leaves the State and establishes legal residence in another State shall be classified as a non-resident student. It shall be the responsibility and duty of the student to submit legal evidence of any change of residence.
  5. All individuals who have come from without the State of Texas and who are within the State primarily for educational purposes are classified as non-residents. Registration in an educational institution in the State in evidence that residence is primarily for educational purposes even though such individuals may have become qualified voters, have become legal wards of residents legal residence within the State.
  6. A student twenty-one (21) years or older who come from without the State and desires to establish a status as resident student must be a resident of the State for a period of at least twelve (12) months other than as a student in an educational institution and must have the intention of establishing a permanent residence within the State during that entire period.
  7. The residence of a wife is that of her husband; therefore, a woman resident of Texas who marries a non-resident shall be classified as a non-resident and shall pay the non-resident fee for all semesters subsequent to her marriage. A non-resident woman student who marries a resident of Texas is entitled to be classified immediately as a resident student and is entitled to pay the resident fee for all subsequent semesters.
  8. All aliens shall be classified as non-resident students except that an alien who has applied for naturalization in the United States and has received his first citizenship papers shall have the same privilege of qualifying as a resident student as a citizen of the United States. The twelve (12) months' residence required to establish the status of a resident student shall not begin until after such first citizenship papers have been issued to the alien.
  9. Members of the Army, Air Corps, Navy or Marine Corps of the United States who are stationed in Texas on active military duty shall be permitted to enroll their children by paying the tuition fees and charges provided for resident students without regard to the length of time such member of the Armed Service shall have been stationed on active duty with the State. This provision shall extend only during active military service in Texas, and upon such member of the Armed Service being transferred outside of the State of Texas, his children shall be classified as to residence under Section One (1) of these regulations. Any student claiming the privilege of this section shall submit at each registration a statement by the commanding officer of the post or station at which his parent is on active duty verifying the fact of his parent's military status.
  10. Appointment as a member of the teaching or research staffs or the holding of a fellowship, scholarship, or assistantship shall not affect a student's residence status or the tuition fee to be paid.
  11. It shall be the responsibility of the student to pay the correct fee at the beginning of each semester or term for which he may register, and a penalty of five dollars (\$5.00) shall be assessed for failure to pay the proper fee.
- F. Members of the Armed Forces who were bona fide residents of the State of Texas when they entered the service and who have been temporarily assigned elsewhere by the United States Government shall be considered residents of Texas and their minor children shall not be required to pay the non-resident fees set forth above.

### ACTIVITY FEE (Optional)

The activities covered by this fee are subscription to *The Panther* (student publication), membership in the Y.M.C.A. or Y.W.C.A., admission to campus athletic contests, debating contests, dramatics, general student activities, and provision of orchestra music for approved entertainments.

### MEDICAL SERVICE FEE

The Health Service Fee covers all treatment at the College Hospital except survey, special drugs and certain X-rays.

# Academic Information

## ADMISSION

### GENERAL ADMISSION REQUIREMENTS

All communications in regard to admission to the College should be addressed to the Registrar, Prairie View A. & M. College, Prairie View, Texas.

All applicants for admission to the College must be of good moral character and must pass a satisfactory physical examination administered by the school physician. The school reserves the right to admit or reject any applicant. Any applicant who makes false statements or claims in order to gain admission forfeits his privilege of admission or privilege to continue in the college if already admitted on the basis of false data.

### ADMISSION BY CERTIFICATE

Applicants who present complete certified transcripts showing graduation from accredited four-year high schools with a minimum of fifteen units of work will be admitted without examination. From a secondary school which is organized with separate junior high school and three years senior high school, twelve units done in the upper three years of high school will satisfy the entrance requirements; the other three units may be accepted *en bloc* from the junior high school work.

A unit is the equivalent of one high school study satisfactorily pursued during one school year, thirty-six weeks length, on the basis of five forty-five minute recitations a week. In laboratory courses three recitation periods and two double periods of laboratory work per week constitute a unit.

Of the units acceptable for admission from high school, eight are required while seven are elective. The following represents the distribution of required units:

English .....	3 units
Algebra .....	1 unit
Plane Geometry .....	1 unit
History and Civics .....	2 units
Natural Science (with laboratory) .....	1 unit

For admission to the Division of Nursing Education, nine units are required as follows:

English .....	3 units
Mathematics .....	2 units
History .....	2 units
Natural Science (with laboratory) .....	2 units

Applicants for admission to the Division of Nursing Education must be at least 17 years of age and not over 35 years of age.

In order to pursue the courses leading to a Degree in Industrial Education or to a Technical Certificate, the student must satisfy the same entrance requirements as are prescribed for entrance to freshman college courses. The entrance requirements for admission to Engineering courses are as follows:

Algebra .....	1 1/2*	Units	Social Science .....	2	Units
English .....	3	Units	Solid Geometry .....	1/2**	Unit
Plane Geometry .....	1	Unit			

If the student lacks some of the above requirements, he must make up the deficiencies.

The seven elective units may be earned in any subject or subjects accredited by the Department of Education of the State in which the high school is located, provided that the total number of required and elective units together in any one subject shall not exceed four units. Records submitted by applicants for entrance into the Division of Nursing Education must be approved by the State Board of Nurse Examiners before such applicant may be accepted in the Division as preliminary students.

All credit for admission must be filed and classified in the Registrar's Office before the student may attain academic status of any kind. Transcripts should be on file in the Registrar's Office at least one month before the registration date of the semester in which the applicant plans to register. At the request of the applicant, a blank for this purpose will be sent by the Registrar to the principal of the high school from which the applicant was graduated.

All entering students are required to take a placement test in English grammar and may be required to take a psychological test.

Students entering to major in Applied Music (piano, voice, and violin) should show evidence of satisfactory elementary training and technique. Those who do not meet entrance requirements in Applied Music will study without credit until work and development are acceptable.

#### ADMISSION BY EXAMINATION

Any or all of the unit requirements for admission may be met by passing entrance examinations.

Spring entrance examinations are held throughout the State in May under supervision of the Texas Education Agency, mainly for the convenience of students in non-accredited high schools who wish to satisfy college entrance requirements.

Fall entrance examinations will be given at Prairie View A. & M. College, September 9 and 10, 1957, for graduates of four-year non-accredited high schools who wish to qualify for admission.

Entrance examinations will be administered between May and September at home, upon approval of such arrangements by the Registrar, Prairie

\* Students having only 1 unit of Algebra will be required to take a five-hour course in College Algebra.

\*\* Students without this credit will take Solid Geometry first semester, which will add three credit hours to requirements for graduation.

View A. & M. College, Prairie View, Texas. These arrangements should be made through the principal or the superintendent of the high school from which the applicant was graduated.

#### ADMISSION TO ADVANCED STANDING

A student transferring from another college will be admitted to advanced standing upon presentation of evidence showing honorable dismissal and an official transcript of all work completed at the other institution.

Work completed at institutions which maintain standards of admission and graduation similar to those of this College will be given equivalent credit so far as it applies to courses offered in this College and has been completed with a grade of "C" or better.

Since all credits given by transfer are provisional, final acceptance will depend upon the maintenance of satisfactory standing by the student during the first semester of his attendance. In addition all transfer students must meet residence requirements of this College.

Credit for undergraduate courses in extension and/or correspondence in the major subject or for the requirements for the baccalaureate degree shall be limited to one-fourth of the total credit hours required. Transfer credit will be allowed only for extension and/or correspondence courses meeting the above qualifications.

Students applying for advanced standing in music courses leading to a degree must show evidence of satisfactory completion of courses equivalent to those outlined in the music curriculum of the College and must pass acceptably an examination in applied music. Standing in music courses will be determined in consultation with the head of the Music Department.

#### ADMISSION BY INDIVIDUAL APPROVAL

Applicants for admission who are over 21 years of age may be admitted to college courses without examinations. Such persons must show evidence that they have substantially completed the work represented by the number of admission units required of other applicants and have sufficient ability and seriousness of purpose to do the work desired with profit to themselves and satisfaction to the College. Inability or failure to do the work shall be sufficient cause for withdrawal of such classification.

Students thus admitted may not receive credit toward a certificate or a degree until the eight required and seven elective admission units are absolved. These units may be absolved as follows: Upon completion of Freshman English three admission units are granted; two units in mathematics are granted upon completion of Freshman mathematics; two units in history and civics are granted for completion of Freshman social science; one unit in science is granted for completion of Freshman science. Any or all of these admission units may be absolved by examination. The remaining seven elective admission units may be granted upon completion of 30 semester hours of college work provided the average is no lower than "C."

#### ADMISSION AS IRREGULAR STUDENT

Applicants at least 16 years of age who have completed scholastic training equivalent to completion of the elementary grades may be permitted to restrict their studies to special courses upon petition to the Registration Committee and the Dean of the School to which the work is to be pursued. Such permission is usually confined to those desiring to enroll in trade courses.

#### SPECIAL ADMISSION REQUIREMENTS FOR VETERANS

Under certain circumstances, veterans who have not completed high school may enter the College on individual approval. After successfully completing the Freshman year, the high school credits can be liquidated through appropriate examinations.

Prairie View A. & M. College normally admits high school graduates upon the recommendation of their high school principals. They must have fifteen units of high school work. Veterans may be admitted on individual approval even though they do not have fifteen units of high school work. Those admitted must complete the first year's work in college and pass the prescribed examinations to validate the high school credit.

#### VETERANS' ELIGIBILITY

Veteran students, both undergraduate and graduate, returning for the Summer Session after being employed as a teacher during the regular school year, must present at registration a statement signed by a representative of their school system verifying employment. Enrollment will not be approved by the V. A. unless this letter of certification is submitted.

Veterans previously enrolled at another place of training under Public Law 346 must present, in addition to this letter of certification, a Form 1953, Supplemental Certificate of Eligibility.

If there is any doubt as to status as a veteran student, inquiry should be made to the nearest Veterans Administration office or to the College's Veterans Counselor.

If eligibility matters are determined before registration, both the registration and allotments will be expedited.

Korean veterans planning to attend school under the provisions of the Korean G. I. Bill should secure their own authorizations from the Veterans Administration or bring their VA Forms and be prepared to pay their own fees. After registration, veterans should have enrollment certification papers prepared and forwarded to the V. A. Office by the Office of Veterans' Affairs on the campus.

#### COUNSELING SERVICE

Prairie View, both as an institution and within its schools, recognizes the value of competent guidance and counseling of students in educational, vocational, and individual matters. To provide for better educational aims, and of the extent to which the individual is making satisfactory adjustment to his difficulties and responsibilities, the Counseling Center, faculty

advisors, and deans of students work jointly for maximum benefit of the student. Through the Counseling Center, the student is assisted in dealing with problems of vocational choice, progressing toward his own educational goals and working out personal and emotional problems. Any student who desires may make use of the facilities of the Counseling Center.

## SCHOLASTIC REGULATIONS

### UNIT OF CREDIT

The unit of credit at Prairie View A. M. College is the semester hour. A semester hour represents the equivalent of one recitation or lecture hour per week for eighteen (18) weeks. Two laboratory, practice, or demonstration hours represent the equivalent of one recitation or lecture hour per week for eighteen (18) weeks except that in the School of Engineering, and the Division of Industrial Education, and Military Science three practice or laboratory hours are required to equal one lecture or recitation hour.

### EXPLANATION OF COURSE NUMBERS

The first digit reading from the left indicates the level on which a course is offered, as freshman—1, sophomore—2, junior—3, senior—4. The second digit indicates the semester; odd numbers indicate the first semester and even numbers, except zero, indicate second semester; zero indicates either semester. The third digit specifies the semester hours of credit a course carries.

Numbers in parentheses indicate the clock hours per week spent in lecture and laboratory respectively. Roman numerals, when used, I and II indicate first and second semesters respectively.

Example: CHEMISTRY 114 (Chem 114 Inorganic) (2-4) I. This means that the course is on the freshman level, that this is the first semester of the course, that it carries four semester hours of credit. The abbreviations enclosed in parentheses are used with key punch equipment in posting the grades on transcripts and grade reports. The numerals enclosed indicate that the course requires two clock hours for lecture and four clock hours for laboratory periods. The Roman numeral indicates it is being offered the first semester of the current school year.

### CLASSIFICATION

Students who have credit for thirty semester hours are classified as sophomores; those having sixty semester hours are classified as juniors; and those having ninety semester hours are classified as seniors.

## CLASS ATTENDANCE

It is each student's responsibility to attend regularly and punctually each class and laboratory exercise in each course. The student should arrange with the teacher in advance for a necessary absence, or explain it immediately on return. The instructor's daily record constitutes the official account

of the student's attendance. The administration holds the instructor responsible for an accurate, complete, and clearly comprehensible record of each student's attendance.

Absences from class without good cause may result in a grade of "F" (failure) being automatically recorded for the course. Each student reported for having accumulated enough absences to affect adversely his work will be required to explain his excessive absences and will be dealt with as the individual case may require.

#### CHANGE OF PROGRAM

After completing the initial procedure of registration for the session, a student may add or drop a course only with the approval of the Dean of the School. No course may be added after the tenth working day of any semester. The total number of hours must not become fewer than twelve. A student who drops a course after the first ten days of either semester for any cause other than withdrawal from the College is given, at the discretion of the Dean, a grade of "F" in the course for the semester. To drop a course unofficially (and persistent absence from class amounts to dropping) means to sever one's connection with the College.

*Minimum Load.* Every student enrolled in the College will be expected to carry a minimum load of twelve semester hours. Students who wish to carry less than twelve semester hours must have the approval of the Dean of Instruction.

#### EXTRA LOAD

Any credit course taken in addition to a program of 17 semester hours constitutes an extra load in the School of Arts and Sciences, and 18 semester hours in the other Schools. To carry an extra load the student must obtain written permission from the Classification Committee. Permission to carry an extra load may be granted to students maintaining a scholastic average of "B" or above during the last previous semester or term in residence.

#### SYMBOLS OF GRADING

The grading symbols are: A (95-100); B (85-94); C (75-84); D (65-74); F (below 65); I—Incomplete; K—Delinquent Account; Q—Withdrew while failing or withdrew unofficially; W—Withdrew while passing or withdrew officially. A grade of "I" means that some relatively small part of the session's work remains undone because of illness or other unavoidable reason. Grades of "I" and "K" may become passing grades upon completion of the work prescribed by the instructor. (See section on Incomplete Class-work.)

"F" is a failing grade. Credit for a course in which the grade of "F" is given can be secured only by repeating the course.

#### INCOMPLETE CLASS WORK

A student who is compelled to delay beyond the end of the semester the completion of the class work of the semester for illness or other imperative

causes, should, in person, or through a friend, petition the Dean of the School in which he or she is registered—beforehand, if possible—for permission to delay the work. If permission is granted, the work may be finished within a year and credit for it given at the discretion of the instructor. A student whose work is reported incomplete without the Dean's permission is given a failing grade.

The student must make application to the Registrar for a permit to remove a grade of "I" or "K" within a year after the grade is incurred.

#### GRADE POINTS (EFFECTIVE SEPTEMBER 1, 1956)

For a grade of "A" in any subject, four times as many grade points will be given as there are credit hours in the course; for grade "B," three times as many points; for a grade "C," twice as many points; and for a grade of "D," the same number of points. No other grades yield grade points. Grade points are required for graduation in the ratio of two grade points for each semester hour in residence counted toward graduation. Grade point requirement is for residence work only and does not apply to Extension School credit and transfer credits from another institution. (See Requirements for Degrees and Diplomas.)

#### HONOR ROLL

The College honor roll is published at the end of each semester of regular session. To qualify for the honor roll a student must have carried a semester hour load of at least 12 hours and made an average of "B" and no grade below "C" in any course.

#### FAILING TO PASS—PROBATION

1. Any student who fails in 50 per cent or more of his semester hour registration any semester is automatically dropped from the institution.
2. Freshmen failing in less than 50 per cent of their semester hour registration must show a minimum of 1.5 (D-plus) grade points for each semester hour passed or be dismissed from school.
3. Freshmen with no failures but who have grade point averages of less than 1.5 of each semester hour registration are placed on probation and, if the grade point average is not met (see 4) the succeeding semester, are dropped.
4. In order to be eligible for re-admission any semester without special permission a student must be able to meet the following requirements in addition to 1, 2, and 3 above: At the end of each semester freshmen students must have a grade point total equal to 50 per cent more than total number of semester hour registrations, sophomore students must have 75 per cent more, and junior students must have 87 per cent more.
5. Students who do not meet the grade point requirement (in 4) may be admitted for one semester on probation upon the recommendation of the Dean of the School and approval of the Registration and Classi-



fication Committee. If at the end of the semester the student has not met the grade point requirement, such student is automatically dropped.

#### GRADE REPORTS FROM THE REGISTRAR

Grade reports are sent to parents or guardians at the end of each semester.

The parents or guardians of all students failing in 50% or more of their semester hour load are notified of this condition shortly after the results of the mid-semester tests have been reported to the Registrar's Office.

### EXAMINATIONS AND TESTS

#### SEMESTER EXAMINATIONS

Examinations in all college courses are given at the end of the first and second semesters. Exceptions from examinations will not be granted. In all examinations, account is taken of English usage.

#### MID-SEMESTER TESTS

Intra-semester tests in all college courses are given at the end of the first nine-week period of each semester.

#### ABSENCE FROM EXAMINATIONS

A student who is compelled to be absent from a semester examination for sickness or other imperative cause should petition his Dean—beforehand, if possible—for permission to postpone the examination. This permission must be presented in writing to the teacher who is to give the examination and submitted by the teacher with the grade to the Registrar's Office.

A student absent from a semester examination without the Dean's permission is graded "F" and required to repeat the semester's work.

### MEN CALLED TO THE ARMED SERVICES

#### RE: ACADEMIC CREDIT

Seniors who are in their last semester and are taking all the work for graduation are allowed their credits at the time they are called, provided it is past mid-semester, nine weeks.

Other students are allowed their grades up to the time of leaving if they are called as follows:

- a) If two weeks after mid-semester, eleven weeks, their "A," "B," and "C" grades.
- b) If after January 1 or May 1, their "A," "B," and "C" grades.
- c) "D" grades are allowed only when semester is completed.

In each case the student is expected to stay in college as long as possible before he goes to enter the Army. This is considered to be one week before his actual date of reporting.

A student who leaves earlier than the dates indicated above may be granted permission to take up his studies at a corresponding time in a

later semester if he can come back. If he is out a considerable length of time, he should return earlier in order that the first part of the semester's work should be fresh in his mind when he comes to the latter part.

## DEGREES, DIPLOMAS AND CERTIFICATES

### APPLYING FOR GRADUATION

Any student expecting to graduate at the end of a regular long session is required to file application for the degree, diploma, or trade certificate expected, during the first five days of the first semester of his attendance in that session on a blank available in the Registrar's Office. If graduation is expected at the end of the summer session, the application for degree, diploma, or trade certificate should be made during the first three days of the first term of the student's attendance in that summer session. The application should be directed to the Registrar.

### DEGREES AND DIPLOMAS OFFERED

1. From the School of Agriculture, Bachelor of Science.
2. From the School of Arts and Sciences, Bachelor of Arts, Bachelor of Music, Bachelor of Science, and Bachelor of Science in Education.
3. From the School of Home Economics, Bachelor of Science.
4. From the School of Nursing Education, Graduate Nurse Diploma, and Bachelor of Science.
5. From the School of Engineering, Bachelor of Science.
6. From the Division of Industrial Education, Bachelor of Science.
7. From the Graduate School, Master of Science, Master of Arts, and Master of Education.

No degree will be conferred except publicly on Commencement Day. Every candidate must attend in person in academic attire the Commencement at which his degree is to be conferred. If he must be absent for a good cause, he must petition the President at least one week in advance.

### REQUIREMENTS FOR DEGREES AND DIPLOMAS

**Semester Hour and Grade Point Requirements.** To qualify for any degree a student must not only present at least 120 semester hours and 240 grade points, but must also satisfy the specific course hour and grade point requirements listed for the School in which he is enrolled. Two grade points for each semester hour presented in residence for graduation is required of all candidates for degrees. Transfer credits do not carry grade points. (For evaluation of grades see "Grade Points.")

*Special Requirements in Major Subject.* Of the courses offered for an undergraduate degree at least six semester hours in advanced courses in both the major and minor subjects must be completed in residence.

Credit for undergraduate courses in extension and/or correspondence in the major subject or for the requirements for the baccalaureate degree shall be limited to one-fourth of the total credit hours required. Transfer credit will be allowed only for extension and/or correspondence courses meeting the above qualifications.

*Extension Limitation.* Of the courses offered for an undergraduate degree, not more than thirty semester hours in correspondence and extension will be accepted.

Credit for undergraduate courses in extension and/or correspondence in the major subject or for the requirements for the baccalaureate degree shall be limited to one-fourth of the total credit hours required. Transfer credit will be allowed only for extension and/or correspondence courses meeting the above qualifications.

*Residence Requirement.* No degree will be conferred without campus residence equivalent to two semesters comprising thirty-six weeks or three summer sessions comprising thirty-six weeks, and the completion in residence of at least thirty semester hours of work counting toward graduation provided also that the last 30 semester hours of work have been completed in continuous residence.

*Six Hours in American History Required.* All students seeking an undergraduate degree after July 1, 1956 are required by State Law to complete six semester hours in American History, or three semester hours in American History plus three semester hours in Texas History.

*Six Hours in Government Required.* The Forty-fifth Legislature passed the following law: "Provided further, that after September 1, 1937, no student shall be certified for graduation from any tax-supported State educational institution with the award of a college degree unless such student shall have completed theretofore in a standard college or university at least six (6) hours of credit in the governments of the State of Texas or of the United States of America, or the equivalent in both or shall have completed at least three (3) hours of said credit in government and at least three (3) hours of credit in a course in Military Science as provided in an approved Senior R.O.T.C. unit."

*English Usage Requirements.* All seniors must pass a standard test in English grammar before they will be approved for graduation. Drill classes are open to those who fail to pass the tests.

*Off-Campus Practice Teaching Requirements.* Students in the Teacher Education Program in all schools shall be required to take practice teaching off the campus before they may be recommended for graduation.

*Essay Requirement.* Every candidate for the bachelor's degree must write a report or an essay on some practical topic or project in his field of concentration. The report or essay must be typewritten, double-spaced on plain white bond paper, and must be approved by the advisor under whose supervision it has been written, and the Head of the Department. Two copies must be bound at the expense of the student. The original and first carbon must be filed in the Dean's office not later than May first of the academic year in which the degree is to be conferred. Candidates for the degree at the Summer School Commencement must file their reports or essay before August first. January candidates must file their reports on the first day of class following the Christmas holidays.

*Skills Requirement.* Candidates for graduation from the Schools of Agriculture, Home Economics, and Engineering are required to complete

special skills courses in these respective fields, before they may be approved for graduation.

*Graduation Honors Requirement.* Students earning a minimum ratio of three grade points for each semester hour are graduated "With Distinction." Students earning a minimum ratio of 3.5 grade points for each semester hour are graduated "With Great Distinction." No student who has made a grade below "D" shall be eligible for consideration for honors regardless of his grade point ratio.

*Registration Requirement.* Students who are to receive a degree must be enrolled in the institution for the semester or term in which the degree is to be conferred. A minimum fee of \$7.50 is required of students who are not enrolled in any classes. Non-resident students also pay \$7.50.

*Second Baccalaureate Degree Requirement.* No second Bachelor's degree will be conferred until the candidate has completed at least thirty semester hours in addition to those counted toward the first Bachelor's degree. The credit subsequent to the first undergraduate degree required for presentation on the second undergraduate degree must be done in residence.

#### REQUIREMENTS FOR TRADE CERTIFICATES

Trade certificates are awarded for completion of special trade courses as follows: Automotive Science, Broom and Mattress Making, Carpentry and Cabinet Making, Masonry, Electrical Repair, Laundering and Dry Cleaning, Machine Shop Estimating, Painting and Decorating, Plumbing and Steam Fitting, Printing, Shoemaking, Stationary Engineering, Tailoring, Shorthand, Typing, Dressmaking, Cooking, Baking. For specific requirements of each trade see the school in which the trade is scheduled.

#### REQUIREMENTS FOR TEACHING CERTIFICATE

All teaching certificates are issued by the Certification Department of the Texas Education Agency in Austin, Texas. Persons interested in securing certificates should consult the Registrar's Office or the Texas Education Agency.

#### REQUIREMENTS FOR THE VARIOUS CERTIFICATES STATE OF TEXAS (FOR STUDENTS IN PROGRESS PRIOR TO SEPTEMBER 1, 1955)

1. *Elementary Four-Year or High School Two-Year Certificate*

- 30 hours total college credit, which must include
  - 6 hours in English
  - 6 hours in Education
  - A course in Texas and Federal Governments

2. *Elementary Six-Year Certificate*

- 60 hours total college credit, which must include
  - 12 hours in Education
  - 6 hours in English
  - A course in Texas and Federal Governments

3. *High School Four-Year Certificate*

- 60 hours total college credit, which must include
  - 6 hours in English
  - 12 hours in Education, 6 of which is Secondary
  - A course in Texas and Federal Governments

4. *High School Six-Year Certificate*

- 90 hours total college credit, which must include
  - 18 hours in Education, 6 Secondary
  - 6 hours in English; and Practice Teaching
  - A course in Texas and Federal Governments

5. *Permanent High School Certificate*

- (1) 120 hours total college credit—Standard Degree
  - 24 hours in Education, 8 Secondary in nature
  - 6 hours in English; and Practice Teaching
  - A course in Texas and Federal Governments
- (2) Teach three years aggregating 27 months since degree was issued, if applicant has had 12 hours in Education, 6 of which must be Secondary in nature.

6. *Permanent Elementary Certificate*

- (1) Regular college course in any State Teacher's College
- (2) Teach five years aggregating 30 months on six-year elementary certificate.

*Administrative Certificate*

This administrative Certificate requires, along with college graduation, the completion of twelve semester hours in the field of Advanced Administration and Supervision, and six semester hours in the field of Advanced Methods.

SCHOOL OF

*Agriculture*

# School of Agriculture

The School of Agriculture offers two four-year curricula leading to a Bachelor of Science in Agriculture. They are the Curriculum in Agricultural Education and the Curriculum in Agriculture. Total Semester Hours Required for Graduation, 140.

The curriculum in Agricultural Education is designed primarily to train men who expect to become teachers of vocational agriculture in Texas high schools participating in federal funds.

The Curriculum in Agriculture is offered for those men who are preparing for the business of farming; for research workers; for employment in work with the various governmental agricultural agencies; farm managers; teaching in high schools and agricultural colleges. It offers training for students who plan to process and market agricultural products. The technical subjects covered in this curriculum are agricultural engineering, agronomy, agricultural economics, animal husbandry, dairy husbandry, dairy manufacturing, horticulture, ornamental horticulture and poultry husbandry.

An Agricultural Experiment Station which is located on the premises of the campus is directly beneficial to students in agriculture. Through these research discoveries students learn to apply new scientific principles to the business of farming.

The freshman and sophomore years are basic for all agricultural students.

All electives in any of the departments must be officially approved by the Dean of the School of Agriculture and the head of the department in which the student majors.

Students choosing the Curriculum in Agriculture are not required to name the department in which they will major until the second semester of the sophomore year.

Beginning with the junior year, the curriculum is broadened and varied so as to permit the selection of major areas of study in the agricultural sciences. Students electing to follow one of the curricula in a specialized or technical area of agriculture will devote the major part of their junior and senior years to laboratory and classroom assignments that are designed to give a broad knowledge of one of the special areas in technical agriculture.

# AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY MAJORS

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Agricultural Economics 313	3	Agricultural Economics 323	3
Cooperatives		Marketing Farm Products	
Agricultural Economics 333	3	Agricultural Economics 343	3
Advanced Economics		Records and Accounts	
Agricultural Economics 353	3	Sociology 413	3
Legal Relations of the Farmer		Rural Sociology	
Political Science 113	3	Political Science 123	3
American National Government		State Government	
History 173	3	Agricultural Economics 363	3
U. S. History 1492 to 1865		Agricultural Credit	
Military Science 313	3	History 183	3
Advanced		U. S. History 1865 to present	
		Military Science 323	3
		Advanced	
	15 or 18		18 or 21

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Agricultural Economics 413	3	Agricultural Economics 423	3
Land Economics		Farm Management	
Agricultural Economics 403	3	Sociology 303	3
International Agricultural Economics		The Family	
Sociology 423	3	English 303 Agricultural Journalism	3
Organizations and Problems		Elective	8
Elective	7	Military Science 423	3
Military Science 413	3	Advanced	
Advanced			
	16 or 19		17 or 20

# ANIMAL HUSBANDRY MAJORS

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Animal Husbandry 313	3	Veterinary Science 323	3
Feeds and Feeding		Anatomy and Physiology	
Biology 254	4	Animal Husbandry 413	3
Principles of Genetics		Livestock Management	
Biology 334	4	Entomology 323	3
Bacteriology		General Entomology	
Animal Husbandry 302	2	Political Science 123	3
Stock Selection and Judging		State Government	
Political Science 113	3	Elective	1
National Government		History 173	3
Animal Husbandry 343	3	U. S. History 1492 to 1865	
Farm Meats		Military Science 323	3
Military Science 313	3	Advanced	
Advanced			
	19 or 22		16 or 19

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Animal Husbandry 433	3	Animal Husbandry 403	3
Beef Cattle and Horse Management		Animal Breeding	
Animal Husbandry 453	3	Animal Husbandry 423	3
Animal Physiology		Animal Nutrition	
Animal Husbandry 412	2	Animal Husbandry 443	3
Meat Selection and Cutting		Swine and Sheep Management	
Animal Husbandry 401	1	Animal Husbandry 462	2
Seminar		Fitting and Showing Livestock	
Elective	5	Elective	6
History 183	3	Military Science 423	3
U. S. History 1865 to present		Advanced	
Military Science 413	3		
Advanced			
	17 or 20		17 or 20



# DAIRY HUSBANDRY MAJORS

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Animal Husbandry 313 .....	3	Entomology 323 .....	3
Feeds and Feeding .....		General Entomology .....	3
Biology 334 .....	4	Veterinary Science 223 .....	3
Bacteriology .....		Anatomy And Physiology .....	3
Biology 254 .....	4	Dairying 323 .....	3
Principles of Genetics .....		Dairy Cattle Production .....	3
Dairying 313 .....	3	Political Science 123 .....	3
Dairy Cattle Feeding and Management .....		State Government .....	
Political Science 113 .....	3	Electives .....	2
National Government .....		Military Science 323 .....	3
Military Science 313 .....	3	Advanced .....	
Advanced .....		History 173 .....	3
		U. S. History 1492 to 1865 .....	
	<hr/>		<hr/>
	17 or 20		17 or 20

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Agricultural Engineering 414 .....	4	Animal Husbandry 403 .....	3
Farm and Home Utilities .....		Animal Breeding .....	3
Animal Husbandry 413 .....	3	Animal Husbandry 423 .....	3
Livestock Management .....		Animal Nutrition .....	3
Dairying 413 .....	3	Dairying 453 .....	3
Market Milk .....		Dairy Herd Operation and Management .....	
History 183 .....	3	Electives .....	8
U. S. History 1865 to present .....		Military Science 423 .....	3
Electives .....	4	Advanced .....	
Military Science 413 .....	3		
Advanced .....			
	<hr/>		<hr/>
	17 or 20		17 or 20

# DAIRY MANUFACTURING MAJORS

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 334 .....	4	Entomology 323 .....	3
Bacteriology .....		General Entomology .....	3
Biology 254 .....	4	Dairying 223 .....	3
Principles of Genetics .....		Production and Management .....	
Dairying 413 .....	3	Animal Husbandry 313 .....	3
Market Milk .....		Feeds and Feeding .....	
Political Science 113 .....	3	Political Science 123 .....	3
American National Government .....		State Government .....	
History 173 .....	3	History 183 .....	3
U. S. History 1492 to 1865 .....		U. S. History 1865 to present .....	
Military Science 313 .....	3	Electives .....	2
Advanced .....		Military Science 323 .....	3
		Advanced .....	
	<hr/>		<hr/>
	17 or 20		17 or 20

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Dairy Husbandry 433 .....	3	Dairy Husbandry 401 .....	1
Cheese and Butter Making .....		Seminar .....	
Dairy Husbandry 403 .....	3	Dairy Husbandry 423 .....	3
Creamery Plant Management .....		Ice Cream Making .....	
Dairy Husbandry 442 .....	2	Dairy Husbandry 443 .....	3
Judging Dairy Products .....		Technical Control of Dairy Products .....	
Biology 434 .....	4	Animal Science 423 .....	3
Bacteriology of Dairy Products .....		Animal Nutrition .....	
Electives .....	5	Electives .....	7
Military Science 413 .....	3	Military Science 423 .....	3
Advanced .....		Advanced .....	
	<hr/>		<hr/>
	17 or 20		17 or 20

## HORTICULTURE MAJORS

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Plant Sciences 413 .....	3	Plant Science 423 .....	3
Plant Physiology .....		Plant Pathology .....	3
Biology 254 .....	4	Entomology 323 .....	3
Principles of Genetics .....		General Entomology .....	
Biology 334 .....	4	Horticulture 423 .....	3
Bacteriology .....		Landscape Gardening .....	
Horticulture 233 .....	3	Agricultural Economics 323 .....	3
Vegetable Gardening .....		Marketing Farm Products .....	
Political Science 113 .....	3	Elective .....	2
American National Government .....		History 173 .....	3
Military Science 313 .....	3	U. S. History 1492 to 1865 .....	3
Advanced .....		Military Science 323 .....	3
		Advanced .....	
	<hr/> 17 or 20		<hr/> 17 or 20

### SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Horticulture 313 .....	3	Horticulture 423 .....	3
Fruit Culture .....		Advanced Fruit Culture .....	
Agronomy 413 .....	3	Horticulture 401 .....	1
Soil Science .....		Seminar .....	
Horticulture 443 .....	3	Horticulture 463 .....	3
Floriculture .....		Advanced Landscape Gardening .....	
Plant Science 443 .....	3	History 183 .....	3
Plant Breeding and Improvement .....		U. S. History 1865 to Present .....	
Electives .....	5	Electives .....	4
Military Science 413 .....	3	Military Science 423 .....	3
Advanced .....		Advanced .....	
	<hr/> 17 or 20		<hr/> 14 or 17

## ORNAMENTAL HORTICULTURE MAJORS

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Plant Science 413 .....	3	Horticulture 423 .....	3
Plant Physiology .....		Landscape Gardening .....	
Agricultural Engineering 303 .....	3	Entomology 323 .....	3
Surveying .....		General Entomology .....	
Physics 114 .....	4	Plant Science 423 .....	3
Biology 334 .....	4	Plant Pathology .....	
Bacteriology .....		Agricultural Economics 323 .....	3
Political Science 113 .....	3	Marketing .....	
National Government .....		Political Science 123—State Government .....	3
Military Science 313 .....	3	History 173 .....	3
Advanced .....		U. S. History 1492 to 1865 .....	
		Military Science 323 .....	3
		Advanced .....	
	<hr/> 17 or 20		<hr/> 18 or 21

### SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 254 .....	4	Horticulture 483 .....	3
Principles of Genetics .....		Green House Operation .....	
Horticulture 443 .....	3	Plant Science 403 .....	3
Floriculture .....		Plant Breeding .....	
History 183 .....	3	Horticulture 463 .....	3
U. S. History 1865 to present .....		Advanced Landscape Gardening .....	
Electives .....	7	Electives .....	8
Military Science 413 .....	3	Military Science 423 .....	3
Advanced .....		Advanced .....	
	<hr/> 17 or 20		<hr/> 17 or 20

# POULTRY HUSBANDRY MAJORS

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 254 .....	4	Poultry 433 .....	3
Principles of Genetics		Incubation and Brooding	
Biology 334 .....	4	Entomology 323 .....	3
Bacteriology		General Entomology	
Poultry 312 .....	2	Veterinary Science 323 .....	3
Poultry Judging		Anatomy and Physiology	
Animal Husbandry 313 .....	3	Political Science 123 .....	3
Feeds and Feeding		State Government	
Political Science 113 .....	3	History 173 .....	3
National Government		U. S. History 1492 to 1865	
Poultry Problems 302 .....	2	Electives .....	3
Problems		Military Science 323 .....	3
Military Science 313 .....	3	Advanced	
Advanced			
	16 or 21		18 or 21

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Poultry 401 .....	1	Poultry 423 .....	3
Seminar		Hatchery Management	
Poultry 323 .....	3	Poultry 443 .....	3
Commercial Poultry Plant		Poultry Breeding	
Poultry 413 .....	3	Poultry 401 .....	1
Poultry Physiology		Seminar	
Poultry 403 .....	3	Animal Husbandry 423 .....	3
Poultry Marketing		Animal Nutrition	
Poultry Problems 402 .....	2	Electives .....	7
Problems		Military Science 423 .....	3
Electives .....	2	Advanced	
Military Science 413 .....	3		
Advanced			
History 183 .....	3		
U. S. History 1865 to present			
	17 or 20		17 or 20

## DESCRIPTION OF COURSES

### AGRICULTURAL EDUCATION

111. ORIENTATION. (AGED 111 ORIENTATION) (1-0) *Credit 1.*

313. NEW FARMERS OF AMERICA. (AGED 313 N F A) (3-0) *Credit 3.* I or II. Methods of making Vocational Education in Agriculture more effective through the New Farmers of America Organization.

323. (formerly 373) SPECIAL METHODS OF TEACHING VOCATIONAL AGRICULTURE IN SECONDARY SCHOOLS. (AGED 323 SPEC METH) (3-0) *Credit 3.* II. Special emphasis given to making outlines, lesson plans, surveys, and to reference books and bulletins needed in teaching.

403. SUPERVISED PRACTICE RECORDS. (AGED 403 RECORDS) (3-0) *Credit 3.* I. Instrumental methods in keeping, analyzing and using farm records.

413. VISUAL INSTRUCTION. (AGED 413 VISL INST) (3-0) *Credit 3.* I or II. Use of pictures, maps, charts and graphs in instruction on the high school level; habits for state and local fairs.

426. OBSERVATION AND PRACTICE TEACHING IN AGRICULTURE. (AGED 426 PRAC TCHG) (1-10) *Credit 6.*

433. SPECIAL PROBLEMS\* (AGED 433 PROBLEMS) (By Appointment Only.) *Credit 3.* II.

453. EXTENSION METHODS. (AGED 453 EXTN METH) (3-0) *Credit 3.* I. Extension Service Methods.

\* For second semester in Agricultural Education.

## AGRONOMY

123. FUNDAMENTALS OF CROP PRODUCTION. (AGRN 123 CROP PROD) (2-2) *Credit 3*. II. Science of crop production; crop plants in relation to environment; botany of crop plants; crop improvement; tillage practices; crop rotation; seeds and seeding; and harvesting of crops.

323. FIELD AND FORAGE CROPS. (AGRN 323 CROPS) (2-2) *Credit 3*. II. Major field and forage crops in the United States; special reference to production areas, cultural practices and harvesting and storage.

333. SOIL PHYSICS. (AGRN 333 SOIL PHYS) (2-2) *Credit 3*. I. Mechanical composition of soils; physical characteristics of soils; and physical properties of soils.

343. GRAIN CROPS. (AGRN 343 GRAIN) (2-2) *Credit 3*. II. Production, harvesting and storing grain crops; recommendations for controlling insects that cause damage to grain crops.

402. SOIL MANAGEMENT. (AGRN 402 SOIL MGT) (1-2) *Credit 2*. I. Soil formation; physical, chemical and biological properties and application of these to the best land use practices.

413. SOIL SCIENCE. (AGRN 413 SOIL SCI) (2-2) *Credit 3*. I. Physical, chemical and biological nature of soils and their interactions to give fertile soil for plant growth; soil and plant relationships and soil fertility.

423. SOIL CONSERVATION. (AGRN 423 CONSRVATN) (2-2) *Credit 3*. II. Erosion, as affected by climate and vegetation; controlling erosion, naturally and artificially.

433. PRINCIPLES OF CROP JUDGING. (AGRN 433 CROP JUDG) (2-2) *Credit 3*. I. Judging crop quality, germination, soundness with implications for improvement of major economic crops.

443. FERTILIZERS. (AGRN 443 FERTILIZERS) (2-2) *Credit 3*. II. Basic fertilizers and materials; manures and liming.

## ANIMAL HUSBANDRY

113. TYPES AND MARKET CLASSES OF LIVESTOCK. (A H 113 LIVESTOCK) (2-2) *Credit 3*. I. Judging types, carcasses, market classes and marketing livestock.

302. LIVESTOCK JUDGING. (A H 302 JUDGING) (1-2) *Credit 2*. I. Judging market animals and different breeds of livestock. One field trip.

313. FEEDS AND FEEDING. (A H 313 FEEDING) (3-0) *Credit 3*. I. Composition and digestibility of feedstuffs; physiology, preparation, feeding standards and calculation of rations for farm animals.

343. FARM MEATS. (A H 343 FRM MEATS) (2-2) *Credit 3*. I. Methods of killing cutting, grading and preserving farm animals.

401. SEMINAR. (A H 401 SEMINAR) (1-0) *Credit 1*. Reviews and discussion of animal research articles.

403. ANIMAL BREEDING. (A H 403 BREEDING) (3-0) *Credit 3*. II. Physiology of reproduction, breeding systems, and practices; application of genetic principles to the problems of animal breeding.

412. MEAT SELECTION AND CUTTING. (A H 412 MEAT SELC) (1-2) *Credit 2*. I. Classification and grading farm meats; nutritive values; factors influencing quality and dressing percentages of meats from different animals.

413. LIVESTOCK MANAGEMENT. (A H 413 STOCK MGT) (2-2) *Credit 3*. I. Methods and practices used in the production and management of beef cattle, swine, sheep and work animals.

422. SPECIAL PROBLEMS. (A H 422 PROBLEMS) (2-0) *Credit 2*. II. Research problems in animal husbandry; planning, execution, compiling and summarizing the data in publication form.

423. ANIMAL NUTRITION. (A H 423 ANML NUTR) (3-0) *Credit 3*. II. Principles of animal nutrition and feeding practices; recent findings and experimental procedures.

433. BEEF CATTLE AND HORSE MANAGEMENT. (A H 433 CATTLE) (2-2) *Credit 3*. I. Systematic studies of methods of breeding, feeding and management practices used in beef cattle and horse production.

443. SWINE AND SHEEP MANAGEMENT. (A H 443 SWINE SHEEP) (3-0) *Credit 3*. Systematic studies of methods of breeding, feeding and management practices in swine and sheep production.

453. ANIMAL PHYSIOLOGY. (A H 453 ANML PHYS) (2-2) *Credit 3*. II. Physiology of the domestic animals; digestion, absorption, metabolism, excretion and reproduction.

462. FITTING AND SHOWING LIVESTOCK. (A H 461 SHOWING) (1-2) *Credit 2*. II. Selecting, grooming, handling and showing the beef cattle, dairy cattle, sheep and swine for show and sale.

#### AGRICULTURAL ECONOMICS

213. FUNDAMENTALS OF ECONOMICS. (AGEC 213 FUNDMNTLS) (3-0) *Credit 3*. II. Study of agriculture as an industry, including regions, types of farming, tariff, and national production programs.

313. COOPERATIVES. (AGEC 313 COOPRATVS) (3-0) *Credit 3*. I. Principles involved in the successful operation of cooperative organizations; marketing, purchasing, and other forms of cooperation are included.

323. MARKETING FARM PRODUCTS. (AGEC 323 MKTG PROD) (3-0) *Credit 3*. II. Principles underlying the successful marketing of farm products; middlemen, grading, packing, and shipping are included.

333. ADVANCED ECONOMICS. (AGEC 333 ADV ECONC) (3-0) *Credit 3*. I. Principles of economics applied to special problems of agriculture, farm credit, tenancy, farm ownership, land values and governmental policies are related to agriculture.

343. RECORDS AND ACCOUNTS. (AGEC 343 ACCOUNTS) (3-0) *Credit 3*. II. The various systems of farm record keeping, farm accounts, property, labor, feed, production, and field records are included.

353. LEGAL RELATIONS OF THE FARMER. (AGEC 353 LEGL RLTN) (3-0) *Credit 3*. I. Legal instruments as they affect the farmer; contracts, corporations, partnerships, bankruptcy, auctions, wills, deeds, abstracts, insurance companies, banks and the Farm Credit Administration.

363. AGRICULTURAL CREDIT (AGEC 363 AG CREDIT) (3-0) *Credit 3*. Includes the credit needs of farmers; the institutions involved; legal instruments; and cost of credit from various sources.

403. INTERNATIONAL AGRICULTURAL ECONOMICS. (AGEC 403 INTERNATL) (3-0) *Credit 3*. I. Principal agriculture areas, population, livestock, crop production belts, international trade, tariffs and reciprocal trade agreements.

413. LAND ECONOMICS. (AGEC 413 LAND ECON) (3-0) *Credit 3*. I. Land and the population; agricultural land; land as property; recreational land; land tenure and soil conservation.

423. FARM MANAGEMENT. (AGEC 423 FARM MGT) (3-0) *Credit 3*. II. Practical farm management problems; farm records; choosing a farm; farm labor and equipment; cropping; feeding, and production costs.

#### AGRICULTURAL ENGINEERING

123. FARM SHOP. (ENGR 123 FARM SHOP) (1-4) *Credit 3*. II. Farm workshop methods; tool identification, care, and use; skills in fitting farm tools and making simple working drawings. Course includes some woodwork, forging, soldering, welding and general repairs.

214. FARM MACHINERY. (ENGR 214 FARM MACH) (2-4) *Credit 4*. I. Identification, care, use, repair and maintenance of farm machinery.

303. SURVEYING. (ENGR 303 SURVEYING) (1-4) *Credit 3.* I. Use, adjustment and care of all instruments necessary for elementary surveying and the field application of those instruments to surveying problems.

313. FARM DRAINAGE. (ENGR 313 DRAINAGE) (1-4) *Credit 3.* I. Land drainage; terracing, gully control, irrigation and land reclamation.

343. FARM BUILDINGS AND CONSTRUCTION. (ENGR 343 FARM BLDG) (1-4) *Credit 3.* II. Planning, construction and repair of farm buildings and structures.

403. FARM MOTORS. (ENGR 403 MOTORS) (2-2) *Credit 3.* I. The economic use of farm motors; theory and development of the internal combustion engine; design, construction of various internal combustion engines.

414. FARM AND HOME UTILITIES. (ENGR 414 UTILITIES) (2-4) *Credit 4.* I. Installation, operation, care and repair of ventilation, heating, lighting, water supply, sewage disposal, refrigeration units and air-conditioning units.

423. FARM ENGINES AND TRACTORS. (ENGR 423 ENGINES) (1-4) *Credit 3.* II. Operation, care and repair of tractors, trucks, and automobiles; tractor types and sizes and their economic adaptability and utilization.

443. TERRACING AND EROSION CONTROL. (ENGR 443 TERRACING) (1-4) *Credit 3.* II. Engineering principles of laying off terraces; plotting contour lines and the use of farm levels; use of tape, chain, level, plane table; fundamental principles underlying land drainage.

463. ADVANCED FARM CONSTRUCTION. (ENGR 463 CONSTRUCTN) (1-4) *Credit 3.* II. Building foundations; computing, mixing and pouring concrete, rafter cutting, drawing; figuring lumber bills, painting and finishing structures.

## BIOLOGY

434. BACTERIOLOGY OF DAIRY PRODUCTS. (BIOL 434 BACTERIOL) (2-4) *Credit 4.* I. Influence of micro-organisms on the quality of milk and milk products; sanitary control of farm and commercial dairies.

## DAIRYING

113. ELEMENTS OF DAIRYING. (DAIR 113 ELEMENTS) (2-2) *Credit 3.* I. An introduction to dairying; branches of the dairy industry; judging, breeding and management of dairy cattle.

223. DAIRY PRODUCTION. (DAIR 223 PRODUCTN) (2-2) *Credit 3.* II. The dairy industry; major factors in management of dairy cattle for milk production; production and processing of milk and milk products.

313. DAIRY CATTLE FEEDING AND MANAGEMENT. (DAIR 313 FEEDING) (2-2) *Credit 3.* I. The physiology and chemistry of digestion; the nutrients as applied to economic feeding.

323. DAIRY CATTLE PRODUCTION. (DAIR 323 CATTLE) (2-2) *Credit 3.* II. The dairy breeds; management of purebred herds; modern testing and breeding methods and their application to profitable dairy farming.

401. SEMINAR. (DAIR 401 SEMINAR) (1-0) *Credit 1.* II. A comprehensive review of the dairy industry; papers on assigned subjects prepared by students.

403. CREAMERY PLANT MANAGEMENT. (DAIR 403 PLANT MGT) (2-2) *Credit 3.* I. Production, transportation, processing, plant management and distribution of milk and related products.

413. MARKET MILK. (DAIR 413 MKT MILK) (2-2) *Credit 3.* I. Sanitary production and processing of milk supply; nutritional value and sanitary conditions.

423. ICE CREAM MAKING. (DAIR 423 ICE CREAM) (2-2) *Credit 3.* II. Preparation, care, processing of materials used; plain and fancy ice cream, sherbets and related products.

433. CHEESE AND BUTTER MAKING. (DAIR 433 CHEESE) (2-2) *Credit 3*. I. Manufacture, packing and marketing butter and cheese.

442. JUDGING DAIRY PRODUCTS. (DAIRY 442 JUDG PROD) (1-2) *Credit 2*. I. Judging milk, butter, cheese and ice cream according to established market grades.

443. TECHNICAL CONTROL OF DAIRY PRODUCTS. (DAIR 443 CONTROL) (2-2) *Credit 3*. I. Scientific methods of analyzing milk and milk products and their application in controlling quality and purity of dairy products.

453. DAIRY HERD OPERATION AND MANAGEMENT. (DAIR 453 HERD MGT) (2-2) *Credit 3*. II. Adjusting the herd and available facilities to market demands; management of the dairy farm.

## ENTOMOLOGY

323. GENERAL ENTOMOLOGY. (ENT 323 ENTOMOLOGY) (2-2) *Credit 3*. II. Insect morphology, life histories, family characteristics, habits and their agricultural relationships.

## HORTICULTURE

222. LANDSCAPE GARDENING. (HORT 222 LANDSCAPE) (1-2) *Credit 2*. II. The principles of landscape design and simple designs of small properties.

233. VEGETABLE GARDENING. (HORT 233 VEG GARD) (2-2) *Credit 3*. II. Principles of successful home and commercial vegetable gardening in the South.

313. FRUIT GROWING. (HORT 313 FRUIT) (2-2) *Credit 3*. I. Principles of fruit growing, with special reference to the conditions of Texas, including location, varieties, soil, fertilizers, planting and cultural methods; pruning, spraying, harvesting, and sorting also discussed and demonstrated.

343. FOOD PRESERVATION. (HORT 343 FOOD PRES) (1-4) *Credit 3*. I. Equipment, recipes and directions for home food preservation.

401. SEMINAR. (HORT 401 SEMINAR) (1-0) *Credit 1*. II. Review of current papers and works in the field of horticulture.

423. ADVANCED FRUIT CULTURE. (HORT 423 ADV FRUIT) (2-2) *Credit 3*. II. Tree and small fruit productions; planting, breeding, pruning, spacing and protection.

443. FLORICULTURE. (HORT 443 FLORCULTR) (2-2) *Credit 3*. I. Principles of producing flowers for sale; growing of house plants; and arrangement of cut flowers.

463. ADVANCED LANDSCAPE GARDENING. (HORT 463 LANDSCAPE) (2-2) *Credit 3*. II. Studies of landscape designs and more complex drawings and designs of large lots of city or rural property.

483. GREENHOUSE OPERATION. (HORT 483 GREENHSE) (2-2) *Credit 3*. II. Fundamental principles of greenhouse operation; propagation, ventilation, heating, watering, fumigation, soil sterilization and potting.

## POULTRY

223. POULTRY PRODUCTION. (POUL 223 PRODUCTN) (2-2) *Credit 3*. II. Poultry breeds and types; incubation and brooding; culling for egg production; housing and equipment construction and care.

312. POULTRY JUDGING. (POUL 312 JUDGING) (1-2) *Credit 2*. I. Production characteristics and evaluation of present breeds and types; production judging methods; standard judging methods; growing and fitting for the showroom.

302 and 402. POULTRY PROBLEMS. (POUL 302-402 PLTRY PROB) *Credit 2*. Investigations which may be of practical nature; incubation, brooding, feeding, management, breeding, survey of the literature, or other closely related subjects.

323. COMMERCIAL POULTRY PLANT MANAGEMENT. (POUL 323 PLANT MGT) (2-2) *Credit 3.* I. Comprehensive studies in operating poultry farms; breeding and fattening plants.

401. SEMINAR. (POUL 401 SEMINAR) (1-1) *Credit 1.* A review of current poultry literature and presentation of papers on selected poultry topics.

403. POULTRY MARKETING. (POUL 403 POUL MKTG) (2-2) *Credit 3.* I. Methods of handling of eggs, live and dressed poultry for market; candling and grading eggs; killing, dressing, grading and packing poultry for market.

413. POULTRY PHYSIOLOGY. (POUL 413 PHYSIOLOGY) (2-2) *Credit 3.* I. Respiration, digestion and excretion; metabolism and nutrients; feeding and care of chicks on various diets.

423. HATCHERY MANAGEMENT. (POUL 423 HATCH MGT) (2-2) *Credit 3.* II. Commercial hatching in Texas and the United States; problems in hatchery management; sanitation; fumigation and disinfecting incubators.

433. INCUBATION AND BROODING. (POUL 433 INCUBATN) (2-2) *Credit 3.* II. Development of the chick; survey of literature on incubation and brooding; incubation and brooding chicks; hatchery problems and diets.

443. POULTRY BREEDING. (POUL 443 BREEDING) (3-0) *Credit 3.* II. Genetic principles applied to poultry breeding and improvement; inheritance of economically important traits; methods of breeding poultry.

#### VETERINARY SCIENCE

223. ANATOMY AND PHYSIOLOGY. (VTSC 223 ANAT PHYS) (2-2) *Credit 3.* I. Anatomical and physiological structure; digestive, respiratory and genito-urinary organs of horse, ox, pig, sheep, and chicken; common diseases of farm animals and their prevention.

323. LIVESTOCK DISEASES AND SANITATION. (VTSC 323 DISEASES) (2-2) *Credit 3.* II. A continuation of Veterinary Science 223 with special emphasis on animal diseases and their control and treatment.

#### PLANT SCIENCE

403. PLANT BREEDING AND IMPROVEMENT. (PLSC 403 BREEDING) (3-0) *Credit 3.* II. Principles involved in breeding economic important crop plants with emphasis on improvement in resistance to disease, drought, insects and extreme temperatures, and for machine harvesting and cultivation.

413. PLANT PHYSIOLOGY. (PLSC 413 PHYSIOLOGY) (2-2) *Credit 3.* I. Structure, physiology of plant organ systems and related principles.

423. PLANT PATHOLOGY. (PLSC 423 PATHOLOGY) (2-2) *Credit 3.* II. A study of diseases in plants; diseases found in the economically important crop plants.

443. ADVANCED PLANT BREEDING AND IMPROVEMENT. (POUL 443 ADV BRDNG) (3-0) *Credit 3.* I. A comprehensive study of breeding methods and their application to the improvement of economic important crop plants; special problems in plant breeding.

463. PLANT NUTRITION. (PLSC 463 NUTRITION) (2-2) *Credit 3.* II. Importance and use of plant nutrients, fertilizers, manures and lime; comprehensive review of the part played by the minor elements in plant nutrition.



SCHOOL OF

*Arts and Sciences*

# School of Arts and Sciences— College of Liberal Arts

The School of Arts and Sciences offers courses in Biology, Business Administration, Mathematics, Economics, Education, English, History, Music, Physical and Health Education, Physics, Chemistry, Philosophy, Political Science, Sociology, Social Science, Modern Foreign Language, and Library Science.

Students may major in one of the above courses with the exception of Philosophy and Modern Foreign Language. After completing his course of study and receiving his degree, the student may qualify to teach in his major or minor field, or he may choose to do graduate work, or he may elect to enter a profession in which his particular course of study has provided adequate background.

The first two years' work is designed (1) to give the student a general educational background, regardless of his intended major or the profession he hopes to enter; and (2) to perfect the tools required in more advanced studies.

During the last two years of college work a considerable degree of concentration in a major field is required although ample opportunity is given for cultivating related interests or pursuing studies which do not fall within the field of the student's major.

All freshmen are given an English placement test. Those freshmen whose percentiles on the English placement test are unsatisfactory are placed in English 103. This is a remedial English course which they must pass before being permitted to enroll in other English courses.

Students whose course of study requires College Algebra and higher Mathematics are required to take a mathematics placement test. If the rating made is unsatisfactory, the student is required to take a remedial course in mathematics. This course must be satisfactorily passed before they are permitted to take advance work in Mathematics.

Every student in the School of Arts and Sciences is required to spend 6 supervised clock hours per week, throughout one year of residence in long session, or the equivalent thereof in some form of vocational training. This requirement is referred to as "Industry" and its fulfillment grants two semester hours credit per semester. The grade points earned, however, are not applicable to the 240 required grade points.

Physical Education practice is required of all women students—two hours per week throughout the freshman and sophomore years.

Unless specifically excused by the President, each student is expected to satisfy the requirement for a teacher's certificate. Authorization to be

excused from this requirement must be requested in writing by the student's guardian.

All freshman and sophomore students of the School of Arts and Sciences, unless specifically excused by the Registrar before registration or the Dean of the School of Arts and Sciences, are required to follow the prescribed courses as set forth in the catalogue. The various departments will hold to the work and sequence as outlined herein for those who plan to major within the department. A major, however, should always work out his course of study with the department head.

## REQUIREMENTS FOR GRADUATION

The following general requirements must be met by all persons desiring degrees of any type from the School of Arts and Sciences. Minimum Semester Hours Required for Graduation, 120.

ENGLISH (113, 123, 213, 223) .....	12
FOREIGN LANGUAGE (In one language) .....	12
SOCIAL SCIENCE (Survey or equivalent) .....	3
NATURAL SCIENCE (Any Natural Science) .....	6
MATHEMATICS (Any Mathematics) .....	6
PHYSICAL EDUCATION THEORY (Excluding Practice Courses) for Women .....	3
AMERICAN GOVERNMENT (National and State) .....	6
AMERICAN HISTORY .....	6
INDUSTRY .....	4*
MILITARY SCIENCE (Men) .....	4
EDUCATION .....	18-24 hrs.
PHYSICAL EDUCATION PRACTICE (Women) .....	4

## MAJOR AND MINOR REQUIREMENTS

After the completion of the sophomore year every student in the School who has not already done so must select, with the advice and consent of the Department Head concerned, a department as a major field or a major. In addition to selecting a major field or a major every student must also select another department or other departments for minor fields of concentration and specialization. This is commonly referred to as choosing a minor or minors. Every candidate for graduation from the School of Arts and Sciences must satisfactorily complete a major and a minor before his graduation will be recommended.

At least six hours of the last 12 required for the completion of major and minor must be done in residence. The courses may be specified by the department concerned.

## DEGREES

*Bachelor of Arts.* The degree of Bachelor of Arts will be conferred upon candidates who satisfy all the general requirements for graduation and satisfactorily complete their work in English, the Social Sciences, or Music.

*Bachelor of Music.* The degree of Bachelor of Music will be conferred upon candidates who satisfy all the general requirements for graduation and complete not less than 75 semester hours in Music.

\* These courses are listed here as 112 and 122 when not carried in the Departmental sections.

*Bachelor of Science.* The degree of Bachelor of Science will be conferred upon all candidates who satisfy the general requirements for graduation and satisfactorily complete their major work in Mathematics, Natural Science, or Physical Education.

*Bachelor of Science in Education.* The degree of Bachelor of Science in Education will be conferred upon candidates who satisfy all the general requirements for graduation and satisfactorily complete their major work in Education.

NOTE.—Students are advised not to select Secondary Education as a major or minor field of concentration. Those who do will be required to complete a second major or minor in some field other than Education. The type of degree to be awarded any person presenting two majors (of which one is Education) will be determined from his second major.

## GENERAL CURRICULUM IN THE SCHOOL OF ARTS AND SCIENCES

(The general curriculum is presented merely to show the general college requirements. The student is still expected to have a major and a minor.)

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Electives .....	3	Electives .....	3
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 173 (or 113) .....	3	Mathematics 183 (or 123) .....	3
Elements of Applied Mathematics		Elements of Applied Mathematics	
or College Algebra		or Plane Trigonometry	
Social Science 113 (or Survey of Equivalent) ..	3	College Science 123 or .....	3 or 4
College Science 113 or .....	3 or 4	(Chem. 124 or Biol. 134	
(Chem. 114 or Biol. 114		or General Inorganic	
General Organic		Chemistry or General Botany)	
Chemistry with Introductory		Electives .....	3
Qualitative Analysis or General Zoology)		Military Science 121 (Men)—Elem. ....	1
Military Science 111 (Men)—Elem. ....	1	Physical Education 121 (Women) .....	1
Physical Education 111 (Women) .....	1	Freshman Practice	
Freshman Practice		Industry .....	2
Industry .....	2		
Orientation .....	0		
	<hr/>		<hr/>
	18 or 19		18 or 19

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 113 .....	3	Foreign Language 123 .....	3
(German, French or Spanish) Elementary		(French, Spanish or German)	
French, Elementary Spanish or German		French, Elementary Spanish or German	
Electives .....	3	Electives (or Education 283) .....	3
Political Science 263 .....	3	Political Science 203 .....	3
American National Government		American State Government	
English 213 .....	3	Electives .....	3
Public Speaking		English 223 .....	3
Physical Education 211 (Women) .....	1	Introduction to Literature	
Sophomore Practice		Military Science 211 (Men)—Elem. ....	1
Military Science 211 (Men)—Elem. ....	1	Physical Education 221 (Women) .....	1
Electives (or Education 273) .....	3	Sophomore Practice	
	<hr/>		<hr/>
	16		16

JUNIOR YEAR		Hrs.
<i>Second Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>
Foreign Language 213 .....	3	Foreign Language 223 .....
(French, German or Spanish) Reading and Grammar		(French, German or Spanish) Reading and Grammar
Physical Education Theory (Women) (or Electives) .....	3	Physical Education Theory (Women) (or Electives) .....
Military Science 313 (or Electives) .....	3	Electives (or Major) .....
Advanced (Men)		Military Science 323 (or Elective) .....
Electives (or Education) .....	3	Advanced (Men)
Electives .....	3	EElectives (or Education) .....
	<hr style="width: 50px; margin: 0 auto;"/> 15	
SENIOR YEAR		
<i>First and/or Second Semesters</i>	<i>Hrs.</i>	
American History .....	6	(May be taken at any time)
Education (Electives) .....	9	
Electives (or Major and Minor Work) .....	9	
Military Science 413 and 423 (or Electives) Advanced (Men) .....	6	
	<hr style="width: 50px; margin: 0 auto;"/> 30	

BIOLOGY—See Department of Natural Sciences.

## DEPARTMENT OF BUSINESS ADMINISTRATION

The purpose of the Department of Business Administration is to provide specialized training for those who are seeking positions of responsibility in business enterprise or education. The department offers two distinct undergraduate programs leading to the Bachelor of Arts degree.

A four-year program in Business Administration is offered for students who wish to develop the abilities necessary for responsible positions in business and government, or who plan to go into business for themselves. The factual content of the courses will prepare the student for accounting, selling, insurance, marketing and management positions.

A four-year program in Business Education is offered for students who wish to prepare themselves for commercial teaching positions in secondary schools. The program combines a well-balanced combination of general education, professional education and business education.

The department also offers a two-year training program in Secretarial Sciences for persons not pursuing an undergraduate degree. The program is designed to prepare students for responsible secretarial positions.

For a major in Business Administration, thirty-three hours are required in courses numbered above the Freshman level. For a major in Business Education, thirty hours are required, of which twelve must be in courses numbered above the Sophomore level. Minors in the department must present eighteen hours in selected course offerings in consultation with the Head of the Department.

In the interest of maintaining high academic standards, all majors and minors must maintain an average of "C" in the Freshman and Sophomore courses, and an average of "B" or above in the Junior and Senior courses.

Each student who selects a major in Business Education is required to show a proficiency in skills by acquiring a minimum speed of 60 words per minute in typewriting and 100 words per minute in shorthand. In addition to this requirement, all majors will be expected to spend a period of internship in some business or office, or, when the teaching certificate is desired, the practice teaching course in education is required.

# SUGGESTED PROGRAM FOR BUSINESS EDUCATION MAJORS

## FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Natural Science 113	3	Natural Science 123	3
College Science		College Science	
English 113	3	English 123	3
Grammar and Composition		Reading and Composition	
Mathematics 113 or 173	3	Mathematics 123 or 183	3
Applied Math. or Col. Alg.		Applied Math. or Trig.	
Business Administration 143	3	Social Science 113	3
Introduction to Business		Introduction to Social Science	
Business Education 132	2	Business Education 142	2
Elementary Typewriting		Elementary Typewriting	
Business Education 153	3	Business Education 163	3
Beginning Shorthand		Beginning Shorthand	
Military Science 111	1	Military Science 121	1
Elementary or		Elementary or	
Physical Education 111	1	Physical Education 121	1
Freshman Practice		Freshman Practice	
	<hr/> 17 or 18		<hr/> 17 or 18

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 113	3	Foreign Language 123	3
Elementary French or Spanish		Elementary French or Spanish	
Business Administration 253	3	Business Administration 263	3
Elementary Accounting		Elementary Accounting	
English 213	3	English 223	3
Public Speaking		Introduction to Literature	
Education 273	3	Education 283	3
Pupil Growth and Development		Pupil Growth and Development	
Business Education 272	2	Business Education 282	2
Advanced Typewriting		Advanced Typewriting	
Business Education 253	3	Business Education 263	3
Advanced Shorthand		Advanced Shorthand	
Military Science 211	1	Military Science 221	1
Elementary or		Elementary or	
Physical Education 211	1	Physical Education 221	1
Practice		Practice	
	<hr/> 17 or 18		<hr/> 17 or 18

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 213	3	Foreign Language 223	3
Advanced Grammar and Reading		Advanced Grammar and Reading	
Economics 213	3	Political Science 113	3
Principles of Economics		National Government	
Education Problems 393	3	Economics 223	3
Education Problems		Principles of Economics	
Education 323	3	History 173	3
High School Curriculum		American History	
Business Education 372	2	Business Education 423	3
Secretarial Practice		Teaching of Business Subjects	
Electives (Minor)	3	Electives	2
Industry (Office Practice)	2	Industry (Office Practice)	2
	<hr/> 19		<hr/> 19

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 183	3	Education 423	3
American History		School and Community Relations	
Political Science 123	3	Education 406	6
State Government		Student Teaching	
Physical Education	3	Electives (Minor)	6
Theory			
Electives (Minor)	8		
	<hr/> 17		<hr/> 15

## SUGGESTED PROGRAM FOR BUSINESS ADMINISTRATION MAJORS

### FRESHMAN YEAR

Students who elect Business Administration as a major will follow the same program as outlined for majors in Business Education during the freshman year.

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or Spanish		Elementary French or Spanish	
Economics 213 .....	3	Economics 223 .....	3
Principles of Economics		Principles of Economics	
English 213 .....	3	English 223 .....	3
Public Speaking		Introduction to Literature	
Business Administration 253 .....	3	Business Administration 263 .....	3
Elementary Accounting		Elementary Accounting	
Political Science 113 .....	3	Political Science 123 .....	3
National Government		State Government	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary or		Elementary or	
Physical Education 211 .....	1	Physical Education 221 .....	1
Practice		Practice	
	<hr style="width: 50px; margin: 0 auto;"/> 16		<hr style="width: 50px; margin: 0 auto;"/> 16

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Advanced Grammar and Reading		Advanced Grammar and Reading	
Business Administration 373 .....	3	Business Administration 383 .....	3
Business Law		Business Law	
Business Administration 393 .....	3	Business Administration 363 .....	3
Corporation Finance		Intermediate Accounting	
Business Administration 253 .....	3	Physical Education .....	3
Intermediate Accounting		Theory	
Electives (Minor) .....	3	Electives (Minor) .....	3-5
	<hr style="width: 50px; margin: 0 auto;"/> 15		<hr style="width: 50px; margin: 0 auto;"/> 15 or 17

### SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Business Administration 453 .....	3	Business Administration 343 .....	3
Life Insurance		Salesmanship	
Business Administration 313 .....	3	Electives (Minor) .....	9
Marketing		History 183 .....	3
Business Administration 323 .....	3	American History	
Statistics			
Electives (Minor) .....	3		
History 173 .....	3		
American History			
	<hr style="width: 50px; margin: 0 auto;"/> 15		<hr style="width: 50px; margin: 0 auto;"/> 15

## TWO-YEAR COURSE IN SECRETARIAL SCIENCE

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Business Administration 143 .....	3	Social Science 113 .....	3
Introduction to Business		Introduction to Social Science	
Business Education 132 .....	2	Business Education 142 .....	2
Elementary Typewriting		Elementary Typewriting	
Mathematics 173 .....	3	Mathematics 183 .....	3
Business Education 153 .....	3	Business Education 163 .....	3
Beginning Shorthand		Beginning Shorthand	
Physical Education 111 .....	1	Physical Education 121 .....	1
Freshman Practice or		Freshman Practice or	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary		Elementary	
Electives .....	3	Electives .....	3
	<hr style="width: 50px; margin: 0 auto;"/> 17		<hr style="width: 50px; margin: 0 auto;"/> 17

## SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Business Administration 253 .....	3	Business Administration 263 .....	3
Principles of Accounting		Principles of Accounting	
Business Education 253 .....	3	Business Education 263 .....	3
Advanced Shorthand		Advanced Shorthand	
Business Education 272 .....	2	Business Education 382 .....	2
Advanced Typewriting		Secretarial Practice	
Business Education 372 .....	2	Business Education 282 .....	2
Secretarial Practice		Advanced Typewriting	
Sociology 213 .....	3	Economics 223 .....	3
Introduction to Sociology		Principles of Economics	
Economics 213 .....	3	Political Science 123 .....	3
Principles of Economics		State Government	
	—		—
	16		16

## DESCRIPTION OF COURSES

### BUSINESS EDUCATION

132-142. **ELEMENTARY TYPEWRITING.** (B E 132 142 ELEM TYP) (0-5) *Credit 2.* I and II. Development sense of touch; master the ordinary vocabulary and proper techniques in the operation of all mechanical parts of the machine. (Formerly 232-242.) Prerequisite for 142-30 wpm. Commercial course fee: \$4.50.

153-163. **BEGINNING SHORTHAND.** (B E 153 163 SHORTHAND) (3-0) *Credit 3.* I and II. Thorough knowledge of the fundamental principles of Gregg Shorthand; emphasis on dictation and transcription. (Formerly 253-263.) Prerequisite for 163-40 wpm. Commercial courses fee: \$4.50.

272-282. **ADVANCED TYPEWRITING.** (B E 272 282 ADV TYP) (0-5) *Credit 2.* I and II. Development of skill in typewriting. (Formerly 372-382.) Prerequisite for 163-40 wpm and for 282-50 wpm. Commercial Course Fee: \$4.50.

302. **OFFICE PRACTICE (INDUSTRY)** *Credit 2.* I and II. Active program which provides opportunity for practical experience under actual office conditions. Prerequisites: B. E. 282 and G. E. 263.

372-382. **SECRETARIAL PRACTICE.** (B E 372 382 SEC PRACT) (2-1) *Credit 2.* I and II. Correlation of business skills with other duties of a secretary. Prerequisites: B.E. 263 and 282 or consent of the instructor. (Formerly 272-282.)

312-322. **OFFICE MACHINES.** (B E 312 322 OFC MACH) (0-4) *Credit 2.* I and II. An opportunity to attain proficiency in the operation of office machines. Prerequisites: B.E. 142 and 163.

253-263. **ADVANCED SHORTHAND.** (B E 253 263 SHORTHAND) (3-0) *Credit 3.* I and II. Dictation and typed transcription. Prerequisite for 253 60 wpm and for 263 80 wpm. Commercial Course Fee: \$4.50.

423. **TEACHING OF BUSINESS SUBJECTS.** (B E 423 H S METH) (3-0) *Credit 3.* I. Recent trends in teaching commercial subjects on the high school level.

523. **PROBLEMS IN BUSINESS EDUCATION.** (B E 523 PROBLEMS) (3-0) *Credit 3.* II. A survey of the problems in the field of business education; designed for teachers and administrators of business subjects, particularly in the secondary school; also for persons who are responsible for other agencies of business education.

### BUSINESS ADMINISTRATION

143. **INTRODUCTION TO BUSINESS.** (B A 143 INTRODUCT) (3-0) *Credit 3.* The nature of business and its relationship to society. A survey of the various fields and functions of business. A prerequisite to all courses in business administration.

253-263. **ELEMENTARY ACCOUNTING.** (B A 253 263 ELEM ACCT) (3-1) *Credit 3.* I and II. The fundamental principles of double-entry bookkeeping and the analysis of financial statements. (Formerly 254-264.)



313. MARKETING. (B A 313 MARKETING) (3-0) *Credit 3*. I. An introduction to the fundamentals of marketing. Problems involving marketing procedures, policies and techniques are considered.

323. ELEMENTARY BUSINESS STATISTICS. (B A 323 ELEM STAT) (3-0) *Credit 3*. Basic methods of collecting and presenting numerical data, together with analysis of frequency distributions, time series, reliability, index numbers and simple correlation.

343. SALESMANSHIP. (B. A. 343 SALESMANSHIP) (3-0) *Credit 3* II. The approach to selling, how to meet objections, arouse desires and close a sale. (Formerly 363.)

353-363. INTERMEDIATE ACCOUNTING. (B A 353 363 ACCOUNTING) (3-0) I. *Credit 3*. I and II. Theory and problems of valuation of assets; application of funds; corporation accounts and statements and their interpretation. Prerequisite: B A 253-263.

373-383. BUSINESS LAW. (B A 373 383 BUS LAW) (3-0) *Credit 3*. I and II. Fundamental principles of law most frequently involved in business transactions, including contracts, sales, partnerships, corporations, agency, negotiable instruments, property, bailments and insurance.

393. CORPORATION FINANCE. (B A 393 CORP FINC) (3-0) *Credit 3*. I. Corporate organization and control; securities; the management of fixed capital and working capital; reserve, surplus and dividend policies; investment banking and the securities market. Prerequisite: B. A. 263.

423. INCOME TAX ACCOUNTING. (B A 423 TAX ACCT) (3-0) *Credit 3*. II. Analysis of federal income tax law; procedure in using the federal tax law and regulations to determine the amount of the tax liability for individuals and corporations. Prerequisite: B. A. 263.

433. REAL ESTATE PRINCIPLES. (B A 433 REAL EST) *Credit 3*. A survey of the real estate field with emphasis upon deeds, leases, zoning, brokerage, selling, advertising, property management and real estate law.

453. LIFE INSURANCE. (B A 453 LIFE INS) (3-0) *Credit 3*. I. A study of the Life insurance industry, companies, contracts and markets.

463. FIRE AND CASUALTY INSURANCE. (B A 463 FIRE INS) (3-0) *Credit 3*. II. Economic services, contracts, benefits, and premiums in the field of fire and casualty insurance.

## DEPARTMENT OF ECONOMICS AND GEOGRAPHY

The Department of Economics and Geography offers (1) a major or minor in Economics, (2) a teaching major in Economics, and (3) a minor in Geography. Those persons selecting a teaching major in the department are expected to select a teaching minor outside the department.

For a major in the department, thirty semester hours are required, of which 12 must be in courses numbered above the Sophomore level. For a minor, students are required to present eighteen semester hours, of which 6 must be in courses numbered above the Sophomore level. The selection of courses must be made in consultation with the Head of the Department.

*Departmental Ruling on Academic Status:* In the interest of maintaining well-balanced academic standards, all majors and minors in the Department must maintain an average of "B" in the Junior and Senior courses.

All students selecting a teaching major will be expected to do the usual off-campus practice teaching in education.

## INTEGRATED MINOR IN THE SOCIAL SCIENCES

Students may elect an integrated minor in the Social Sciences. The minor in the Social Sciences is planned primarily for the training of teachers, but may be chosen by other students who do not intend to teach when such a program meets their particular needs for professional training in other fields.

Students who elect such a program must complete twenty-one semester hours of course work in the social sciences exclusive of the general college requirement of six hours in American Government and the method course in the teaching of Social Science Studies. Courses comprising this program must be drawn from the Departments of History and Philosophy, Economics, Political Science, and Sociology. Elements of the integrated Social Science minor shall consist of a minimum of six semester hours each of American History and Economics, three semester hours each of Geography, Political Science and Sociology. Any exceptions from and additions to the integrated minor prescribed above are to be arranged in consultation with the Head of the Department of History and Philosophy.

For further information see the various offerings in the Departments of Social Science (History and Philosophy, Economics, Political Science and Sociology).

## SUGGESTED PROGRAM—(TEACHING) MAJOR IN ECONOMICS

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Social Science 113 .....	3	Social Science 123 .....	3
Introduction to Social Science		Introduction to Social Science	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science		College Science	
Economics 173 .....	3	Economics 183 .....	3
Introduction to Geography		Economic Geography	
Business Math. 113 or Math 173 .....	3	Mathematics 123 or Mathematics 183 .....	3
Physical Education 111 .....	1	Trigonometry or Applied Math.	
Freshman Practice		Physical Education 121 .....	1
Industry .....	2	Freshman Practice	
Military Science 111 .....	1	Industry .....	2
Elementary		Military Science 121 .....	1
		Elementary	
	18 or 19		18 or 19

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
Economics 213 .....	3	Economics 223 .....	3
Principles of Economics		Economic Problems	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or		Elementary French or	
Elementary Spanish or German		Elementary Spanish or German	
Political Science 113 .....	3	Political Science 123 .....	3
National Government		American State Government	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary		Elementary	
Physical Education 211 .....	1	Physical Education 221 .....	1
Sophomore Practice		Sophomore Practice	
	17		17

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 393 .....	3	Education 323 .....	3
Educational Problems		High School Curriculum	
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Advanced Grammar and Reading (French, Spanish or German)		Reading and Grammar Review (French) or Advanced Grammar and Reading (Spanish or German)	
Economics 323 .....	3	Economics 333 .....	3
Economics of Consumption		Economic History	
Electives .....	3	Electives .....	3
History 173 .....	3	History 183 .....	3
United States 1492-1865		United States 1865 to Present	
Military Science 313 .....	3	Military Science 323 .....	3
Advanced		Advanced	
<hr/>		<hr/>	
15 or 18		15 or 18	

### SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 333 .....	3	Education 423 .....	3
Teaching Social Studies in the High School (Sociology 383)		School and Community Relations	
Economics 453 .....	3	Education 406 .....	6
Labor Problems		Student Teaching	
Economics 403 .....	3	Economics 463 .....	3
Money and Banking		Modern Economic Thought	
Electives .....	6	Economics 501 .....	1
Military Science 413 .....	3	Seminar in Economics	
Advanced		Electives .....	3
		Military Science 423 .....	3
		Advanced	
<hr/>		<hr/>	
15 or 18		15 or 18	

## SUGGESTED PROGRAM—(GENERAL) MAJOR IN ECONOMICS

### FRESHMAN YEAR

*(Same as that listed for the Teaching Program)*

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
Economics 213 .....	3	Economics 223 .....	3
Principles of Economics		Economic Problems	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or Elementary Spanish or German		Elementary French or Elementary Spanish or German	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science		College Science	
Bus. Adm. 254 .....	3	Bus. Adm. 264 .....	3
Accounting		Accounting	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary or		Elementary or	
Physical Education 211 .....	1	Physical Education 221 .....	1
Sophomore Practice		Sophomore Practice	
<hr/>		<hr/>	
15-16		15-16	

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Advanced Grammar and Reading (French, German or Spanish)		Reading and Grammar Review (French or Advanced Grammar and Reading Spanish or German)	
Economics 303 .....	3	Economics 333 .....	3
Public Finance and Taxation		Economic History	
Economics 323 .....	3	Political Science 123 .....	3
Economics of Consumption		American State Government	
Political Science 113 .....	3	Electives .....	3
National Government		History .....	3
History 173 .....	3	United States 1865 to Present	
United States 1492 to 1865		Military Science 323 .....	3
Military Science 313 .....	3	Advanced	
Advanced (or electives)			
<hr/>		<hr/>	
15 or 18		15 or 18	

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Economics 353 .....	3	Economics 463 .....	3
Economic Statistics		Modern Economic Thought	
Economics 501 .....	1	Economics 501 .....	1
Seminar in Economics		Seminar in Economics	
Economics 403 .....	3	Economics 503 .....	3
Money and Banking		International Trade	
Economics 453 .....	3	Electives .....	9
Labor Problems		Military Science 423 .....	3
Electives .....	6	Advanced	
Military Science 413 .....	3		
Advanced			
	<hr style="width: 50%; margin: 0 auto;"/>		<hr style="width: 50%; margin: 0 auto;"/>
	16 or 19		16 or 19

## DESCRIPTION OF COURSES

### SOCIAL SCIENCE

103. SURVEY OF SOCIAL SCIENCE. (SOSO 103 SURVEY) (3-0) *Credit* 3. Survey of the Social Science.

113-123. SOCIAL SCIENCE. (SOSC 113-123 INTRODUCTION) (3-0) *Credit* 3. I and II. Introduction to the Social Sciences.

383. METHODS OF TEACHING SOCIAL STUDIES IN SECONDARY SCHOOLS. (Sec Sociology 383).

### GEOGRAPHY

163-173. INTRODUCTION TO GEOGRAPHY. (GEOG 163-173 INTR GEOG) (3-0) *Credit* 3. I General introduction to field of geography; a study of man in his geographical environment.

183. ESSENTIALS OF GEOGRAPHY. (GEOG 183 ESSENTIALS) (3-0) *Credit* 3. II. Geographic conditions affecting industries throughout the world; natural resources, raw materials, and production and distribution of goods in relation to industries.

273. PRINCIPLES OF HUMAN GEOGRAPHY. (GEOG. 273 HUMAN GEOG.) (3-0) *Credit* 3. Economic, social and political adjustments which man makes to various habitats natural environmental factors as are related to human life.

313. WORLD REGIONAL GEOGRAPHY. (GEOG 313 REGIONAL) (3-0) *Credit* 3. World regions as the home of man; practical logical and systematic approach to field of geography; a survey of the world in terms of outlook; regional types.

423. INDUSTRIAL AND COMMERCIAL GEOGRAPHY. (GEOG 423 INDUSTRIAL) (3-0) *Credit* 3. Fundamental geographic factors which enter into production, distribution and consumption of raw materials of food, clothing, shelter, metals, minerals and fuels; fundamentals of manufacturing and principles of commerce.

473. THE TEACHING OF GEOGRAPHY. (GEOG 473 TEACHING OF GEOG) (3-0) *Credit* 3. Foundation course for teachers and supervisors of Geography; organization of courses of study; how and where to obtain materials; place and use of textbooks; and methods of presentation suitable for grades on Junior and Senior high school level.

### ECONOMICS

203. SURVEY OF ECONOMICS. (ECON 203 SURVEY) (3-0) *Credit* 3. I or II. Study of production, consumption and other economic institutions.

213. PRINCIPLES OF ECONOMICS. (ECON 213 PRINCIPLS) (3-0) *Credit 3. I.* Basic economic principles as applied to contemporary economic institutions; determination of business and industrial organization; pricing, value, money and banking; and international trade and exchange.

223. ECONOMIC PROBLEMS. (ECON 223 PROBLEMS) (3-0) *Credit 3. II.* An application of economic principles to current economic problems and institutions; monopoly, business cycles, labor problems, public expenditures and revenue, public utilities, and comparative economics. Prerequisite: Economics 213. (This course is a prerequisite to all courses in economics numbered 300 and above.)

303. PUBLIC FINANCE AND TAXATION. (ECON 303 PUBL FINC) (3-0) *Credit 3. I or II.* Introduction to the field of government finance; character and growth of public expenditures; public debt creation and fiscal policy; theories, principles and problems of taxation. Prerequisite: Economics 223.

322 or 323. ECONOMICS OF CONSUMPTION. (ECON 322 or 323 CONSUMPTN) (2-0) or (3-0) *Credit 2 or 3. II.* Relations between consumption, saving, social income and its fluctuations. Prerequisite: Economics 223.

332 or 333. ECONOMIC HISTORY. (ECON 332-333 ECON HIST) (2 or 3-0) *Credit 2 or 3. I.* The development of agriculture, commerce, industry and transportation from Colonial times to the present. Prerequisite: Economics 223.

342 or 343. PERSONNEL MANAGEMENT. (ECON 342 or 343 PRSNL MGT) (2-0) or (3-0) *Credit 2 or 3. II.* The development and importance of employee-employer relationships. Prerequisite: Economics 223.

353. ECONOMIC STATISTICS. (ECON 353 STATISTICS) (3-3) *Credit 3. I.* Techniques of gathering, presenting, analyzing and interpreting numerical data. Prerequisite: Economics 223.

403. MONEY AND BANKING. (ECON 403 BANKING) (3-0) *Credit 3. I or II.* A study of the theory of money and banking with emphasis upon monetary policy. Special consideration is given to the implication of methods, monetary and banking control. Prerequisite: Economics 223.

413. LABOR LEGISLATION. (ECON 413 LABOR LEG) (3-0) *Credit 3. I.* Protective, legislation dealing with wages, hours, child labor, old age benefits, and unemployment compensation. Prerequisites: Economics 223 and 343.

453. LABOR PROBLEMS. (ECON 453 LABR PROB) (3-0) *Credit 3. II.* The evolution of management union agreements since the turn of the twentieth century. Prerequisites: Economics 223 and 413.

462 or 463. MODERN ECONOMIC THOUGHT. (ECON 462 or 463 THOUGHT) (2 or 3-0) *Credit 2 or 3. II.* Analysis and appraisal of recent and contemporary economics and their contribution to public policy. Prerequisites: Economics 323 and 413.

501. SEMINAR IN ECONOMICS. (ECON 501 SEMINAR) (1-0) *Credit 1. I or II.* Informal seminar meeting once per week to allow staff members and economics majors and minors to develop *esprit de corps* and to discuss contemporary economic developments. (May be repeated.)

503. ECONOMIC THEORY. (ECON 503 THEORY) (3-0) *Credit 3. I or II.* An analysis of the problems of pricing production, employment and distribution under competitive and non-competitive conditions. Prerequisites: Graduate standing or senior standing with a major in Economics; Economics 333 and 343.

563. INTERNATIONAL TRADE. (ECON 563 TRADE) (3-0) *Credit 3. II.* Principles and practices of foreign trade with special emphasis upon international economic relations. Analysis of foreign exchange, balance of payments, foreign investments, tariff history and policy currency problems, foreign independence. Prerequisites: Economics 223 and 333.

# DEPARTMENT OF EDUCATION

## MAJOR REQUIREMENTS

Students wishing to prepare themselves for teaching in the elementary school should follow the suggested program for a major in Elementary Education. This program includes the necessary work in General Education, Professional Education (including student teaching), endorsements and electives to meet the Texas Education Agency's requirements for a Permanent Elementary Certificate. Elementary Education majors should select their minor from an area that is related to their teaching field (English, Social Studies, Sciences, Mathematics, Commercial Subjects, Music, Art Education, Kindergarten Education, Library Service, Health and Physical Education, et cetera). They will find it valuable to be able to play simple piano accompaniments.

Students wishing to prepare themselves for teaching in the secondary school should follow the suggested program for majoring in one of the usual high school fields like Language Arts (English), Social Studies (History, Science, Geography, Mathematics, Commercial Subjects, Music, Health and Physical Education, Industrial Arts, Agriculture, Homemaking Education, or Vocational Industrial Education. It is advisable to have a minor which may be used as second teaching subject.

A "B" average or above must be maintained in major courses.

Each prospective teacher is required to have student teaching experiences which include at least nine weeks in the Campus Training School and/or a minimum of nine weeks in one of the College-Approved off-campus schools.

1. Students taking Education 306 or Education 406 will be required to do only nine weeks off-campus teaching, a full day, for six hours credit.
2. Students taking Education 403 will be required to do nine weeks of on-campus teaching, one-half day, for three hours credit.
3. Students interested in qualifying for a Kindergarten-Primary Certificate will be required to take Education 309, nine weeks off-campus teaching, full day, in a State Approved Kindergarten, and one-half day on-campus for nine weeks, for nine hours credit.
4. All R. O. T. C. students taking Education 306 or Education 406 must spend eighteen weeks, one-half day, in the Campus Training School.
5. All students who plan to take on-campus student teaching—Education 306, Education 309, Education 406, or Education 403 are requested to receive a written permit from the Dean of Instruction before registering for the course.
6. All off-campus student teachers will assume financial responsibilities for student teaching transportation to and from training centers.
7. All student teachers (Ed. 306, Ed. 309, Ed. 403, Ed. 406) should register with the Director of Student Teaching.

The student is advised to plan his budget so that he will be able to meet the financial obligations of his student teaching experience. All students

who wish to do student teaching during the first semester should file their applications in the Office of the Department of Education before May first; those students who wish to do student teaching during the second semester should file applications not later than November fifteenth.

### A MINOR IN ELEMENTARY EDUCATION

A minor in Elementary Education has the prerequisite of a teaching major in some content field or at least the professional core (Education 273-283, Education 293, Education 423 and Methods).

The required eighteen semester hours for a minor in Elementary Education are as follows:

	<i>Hrs.</i>		<i>Hrs.</i>
Art Education 253-263 .....	6	Education 463 .....	3
Elementary School Art		Elementary School Reading	
Music 253-263 .....	6	and Literature	
Elementary School Music			
Education 473 .....	3		—
Elementary School Sciences			18

### A MINOR IN KINDERGARTEN EDUCATION

Students who desire to minor in Kindergarten Education should secure permission from the Department of Education. All persons enrolled in this field should take Education 363-A Kindergarten-Primary Curriculum, instead of Education 363—Elementary School Curriculum and Education 309—Student Teaching (Kindergarten-Primary) instead of Education 306—Student Teaching (Elementary School) or Education 406—Student Teaching (Secondary School). A major in Elementary Education and a minor in Kindergarten Education will permit students to teach at both Kindergarten and Primary levels.

		<i>Hrs.</i>
H. E. 123	Elementary Nutrition .....	3
H. E. 302	Children's Literature .....	2
H. E. 322	Nursery Education Music and Creative Arts .....	2
H. E. 433	Guidance Technique .....	3
Soc. 493	Problems of Child Welfare .....	3
Ed. 413	Kindergarten Methods and Materials .....	3
Ed. 363-A	Kindergarten-Primary Curriculum .....	3
Ed. 309	Student Teaching (Kindergarten Primary) .....	9
		—
		16

### A MINOR IN ART EDUCATION

Students who wish to minor in Art Education should secure advisement and approval by the Department of Education.

	<i>Hrs.</i>		<i>Hrs.</i>
Art Education 253-263 .....	6	Art Education 383 .....	3
Elementary School Art		Special Projects	
Art Education 353 .....	3	Art Education 453	
Drawing and Composition		Organization of Instruction in	
Art Education 373 .....	3	Elementary School Art or	
History of Art		Art Education 463 .....	3
		Organization of Instruction in	
		Secondary School Art	
			—
			18

### A MINOR IN PSYCHOLOGY

	<i>Hrs.</i>
Psy. 103—General Psychology .....	3
Psy. 123—Advanced General Psychology .....	3
Psy. 233—Fundamentals of Statistics .....	3
Psy. 333—Social Psychology .....	3
Psy. 343—Abnormal Psychology .....	3
Psy. 443—Psychology of Personality .....	3
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	18

# A SUGGESTED PROGRAM FOR A MAJOR IN ELEMENTARY EDUCATION

## FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French		Elementary French	
Elementary Spanish or		Elementary Spanish or	
Elementary German		Elementary German	
History 173 .....	3	History 183 .....	3
American History		American History	
Mathematics 173 .....		Mathematics 183 .....	
Applied Mathematics or		Applied Mathematics or	
Mathematics 113 .....	3	Mathematics 123 .....	3
College Algebra		Trigonometry	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science		College Science	
Physical Education 111 .....	(1)	Physical Education 121 .....	(1)
(Women) Freshman Practice or		(Women) Freshman Practice or	
Military Science 111 (Men) .....	(1)	Military Science 121 (Men) .....	(1)
Elementary		Elementary	
Industry .....	(2)	Industry .....	(2)
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## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Political Science 113 .....	3	Political Science 123 .....	3
American National Government		American State Government	
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
Music 253 .....	3	Music 263 .....	3
Elementary School Music		Elementary School Music	
Geography 173 .....	3	Education 293 .....	3
Economic Geography		Foundations of American Education	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Physical Education 211 .....	(1)	Physical Education 221 .....	(1)
Sophomore Practice (Women) or		Sophomore Practice (Women) or	
Military Science 211 (Men) .....	(1)	Military Science 221 (Men) .....	(1)
Elementary		Elementary	
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	15		15

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 473 .....	3	Education 483 .....	3
Elementary School Science		Elementary School Social Studies	
Education 363 .....	3	Education 463 .....	3
Elementary School Curriculum		Foundations in Reading Instruction	
Education 433 .....	3	Education 442 .....	2
Language Arts in the Elementary School		Arithmetic for Elementary Teachers	
Education 432 .....	2	Physical Education 333 .....	3
Children's Literature		Methods and Materials for Teaching Health	
Art Education 253 .....	3	and Physical Education in the Elementary	
Elementary School Art		School	
Minor .....	3	Art Education 263 .....	3
Military Science 313 .....	(3)	Elementary School Art	
Advanced (Men)		Minor .....	3
	<hr/>	Military Science 323 .....	(3)
	17	Advanced (Men)	
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			17

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 423 .....	3	Minor .....	9
School and Community Relations		Electives .....	6
Education 306 .....	6	Military Science 423 (Men) .....	(3)
Student Teaching in Elementary School		Advanced	
Minor .....	3		
Physical Education 203 .....	3		
Personal Hygiene			
Military Science 413 (Men) .....	(3)		
Advanced			
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	15		15



## SUGGESTED ELECTIVES

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 443 .....	3	History 453 .....	3
Test and Measurements		Contemporary U. S. History	
English 303 .....	3	Sociology 303 .....	3
Journalism		The Family	
Sociology 213-223 .....	6	Physical Education 261 .....	1
Introductory		Folk Dancing	
Biology 134 .....	4	Audio and Visual Education 303 .....	3
General Botany		Audio-Visual Education	

## DESCRIPTION OF COURSES

## ART EDUCATION

253-263. ELEMENTARY SCHOOL ART. (6-0) *Credit 6.* I and II. Elements and principles of art as forms of creative expression in relation to the child, to the classroom and in connection with the entire school curriculum; techniques in developing creative ability.

353. DRAWING AND COMPOSITION. (6-0) *Credit 3.* I. A course in basic principles and elements of drawing, composition, and painting; exploration of various media and subject matter.

373. HISTORY OF ART. (3-0) *Credit 3.* I. A study of art from prehistoric period to the contemporary period. The course develops an appreciation of art.

383. SPECIAL PROJECTS. (6-0) *Credit 3.* II. Designing and building art forms into unified whole through various media of expression.

453. ORGANIZATION OF INSTRUCTION IN ELEMENTARY SCHOOL ART. (6-0) *Credit 3.* I. Procedures, methods, and techniques of teaching art in the elementary school.

463. ORGANIZATION OF INSTRUCTION IN SECONDARY SCHOOL ART. (6-0) *Credit 3.* I. Procedures, methods, and techniques of teaching art in the secondary school.

## EDUCATION

MUSIC 253-263. ELEMENTARY SCHOOL MUSIC METHODS. (6-0) *Credit 6.* I and II. Grade School music methods and materials; care and development of child voice.

273-283. PUPIL GROWTH AND DEVELOPMENT. (6-0) *Credit 6.* I and II. Comprehensive study of pupil growth and development from conception through maturity; scientific understandings about physical, motor, language, emotional, social and intellectual development as they affect the learning process.

293. FOUNDATIONS OF AMERICAN EDUCATION. (3-0) *Credit 3.* I and II. Space and general character of the United States public school system with emphasis on its organization, administration, and duties and responsibilities of the classroom teacher.

309. STUDENT TEACHING (Kindergarten-Primary). *Credit 9.* Prerequisites: A "B" average in Education 273-283, and in all required methods courses for a major (Elementary Education or a related content field) and a minor in Kindergarten Education. I and II. Supervised on-campus and off-campus student teaching. One-half of time must be spent in Kindergarten only.

313. PRINCIPLES OF SECONDARY EDUCATION. (3-0) *Credit 3.* Prerequisites: Education 273-283. I and II. Development of Secondary School and its organizations.

323. HIGH SCHOOL CURRICULUM. (3-0) *Credit 3.* Prerequisites: Education 273-283. I and II. Principles of the organization, and construction of the high school curriculum and methods for its implementation.

333. TEACHING HIGH SCHOOL SUBJECTS. (3-0) *Credit 3.* Prerequisite: Education 273 and Education 283. I or II.

A. Teaching Business Subjects in the High School (See Business Education 423—Teaching Business Subjects).

B. Teaching English in the High School (See: English 463—Teaching of English).

- C. Teaching Mathematics in the High School (See: Mathematics 353—Methods of Teaching Mathematics in the High Schools).
- D. Teaching Music in the High School (See: Music 383—High School Methods).
- E. Teaching Science in the High School (See: Biology 333 or 733 or Chemistry—Materials and Methods for Science Students).
- F. Teaching Physical Education in the High School (See: Physical Education 343—Methods and Materials in Physical Education).
- G. Teaching Social Studies in the High School (See: Sociology 383—Methods of Teaching Social Studies in Secondary Schools).
- H. Teaching Geography (See: Geog. 473—Methods of Teaching Geography).

353. ADOLESCENT PSYCHOLOGY. (3-0) *Credit 3.* I or II. Problems of individuals from puberty to maturity.

363. ELEMENTARY SCHOOL CURRICULUM. (3-0) *Credit 3.* Prerequisite: Education 273-283. I. Encompasses the all-round growth of children; the acquisition of skills, attitudes, ideals, interest, concepts, and information that will help children to improve their adjustment.

363A. KINDERGARTEN-PRIMARY CURRICULUM. (3-0) *Credit 3.* Prerequisites: Education 273-283. I. Encompasses the all-round growth of kindergarten-primary children; the acquisition of skills, attitudes, ideals, interests, concepts, and information that will help children to improve their adjustment.

373. VOCATIONAL GUIDANCE. (3-0) *Credit 3.* I or II. Functions and scope of guidance; organization and techniques for guidance in the school.

383. EDUCATIONAL PSYCHOLOGY. (3-0) *Credit 3.* I or II. Educationally significant factors involved in the interaction of pupils, teachers, administrators, and community.

406. STUDENT TEACHING. (SECONDARY SCHOOL). *Credit 6.* I and II. Supervised on-campus and off-campus student teaching. Students should make application for admission to supervised student teaching two months prior to time of student teaching assignment. Prerequisites: Education 273-283, Education 393, High School Methods Courses, and recommendation of major advisor.

413. KINDERGARTEN METHODS AND MATERIALS. (3-0) *Credit 3.* I. A study of selection and use of materials for program organization, creative self-expression, physical and mental activities, directing work habits and informal experiences in language arts and number work.

423. SCHOOL AND COMMUNITY RELATIONS. (3-0) *Credit 3.* Restricted to student teachers. I and II. Problems of daily program making that grow out of the interaction between the community (rural and urban) and the school.

432. CHILDREN'S LITERATURE. (2-0) *Credit 2.* I The reading and evaluation of books for children, information about children's books, children's interests in reading, important authors and illustrators, and problems in the guidance of reading.

433. LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. (3-0) *Credit 3.* I or II. Oral and written expression, spelling, and handwriting. Conditions necessary for children's best development in the language arts; materials and procedures for improving the quality of instruction in these fields.

442. ARITHMETIC FOR ELEMENTARY TEACHERS. (2-0) *Credit 2.* II. Designed to develop methods and materials for teaching the Fundamental concepts and meanings in quantitative thinking in elementary grades.

443. TESTS AND MEASUREMENTS. (3-0) *Credit 3.* I or II. Principles of making and using tests; use of standardized tests.

453. TEACHING THE TOOL SUBJECTS. (3-0) *Credit 3.* Prerequisites: Education 273-283. I. Methods and materials in teaching the tool subjects, reading, writing, and arithmetic; the integrated language arts program is included.

463. FOUNDATIONS IN READING INSTRUCTION. (3-0) *Credit 3.* The various stages in the development of reading. Special emphasis on reading readiness, developing experience

backgrounds, diagnostic approaches, meeting individual needs and interests, and enriching the individual reading program.

473. ELEMENTARY SCHOOL SCIENCE. (3-0) *Credit 3*. Prerequisites: Education 273-283, Education 363, and Education 293. I and II. Actual experiences in making science more meaningful through the use of community resources and understanding basic science concepts; methods of teaching, selecting and organizing subject matter, laboratory experiences and individual projects.

483. ELEMENTARY SCHOOL SOCIAL STUDIES. (3-0) *Credit 3*. Prerequisites; Education 273-283, Education 363, and Education 293. II. Improving social living, emphasis upon the place of democratic values and processes, purposes, content, organization of subject matter, and development of materials as a continuous process in appraising the child's learning in terms of social experiences.

## PSYCHOLOGY

113. GENERAL PSYCHOLOGY. (3-0) *Credit 3*. I. An introductory course dealing with the elementary principles of human behavior. Some attention is focused upon the application of psychology and social problems and situations.

123. GENERAL PSYCHOLOGY. (3-0) *Credit 3*. I. Personality development through personal-social and cultural social conditioning; larger group relationships. Prerequisite: Psychology 123, General Psychology.

233. FUNDAMENTALS OF STATISTICS. (3-0) *Credit 3*. I or II. Understandings and techniques of collecting, tabulating, and computing statistical data from central tendency through variability, relationship, and the significance of differences among such measures.

333. SOCIAL PSYCHOLOGY. (3-0) *Credit 3*. I Personality development through personal social and cultural-social conditioning; larger group relationships. Prerequisite: Psychology 123, General Psychology.

343. ABNORMAL PSYCHOLOGY. (3-0) *Credit 3*. Prerequisite: Psychology 123, Advanced General Psychology. An examination of the organic and functional types of psychological abnormality, with emphasis on the ways in which personality may become disordered. Evidence and theories concerning causation and the problems of treatment are considered.

443. PSYCHOLOGY OF PERSONALITY. (3-0) *Credit 3*. I or II. Prerequisite: Psychology 123, Advanced General Psychology. Evaluation of theories in the field of personality. The development of personality as a pattern of strivings manifested in interpersonal relation. The convergence of constitutional, psychological, social and cultural factors in the development of the normal individual and his adjustment.

## DEPARTMENT OF ENGLISH

### MAJOR REQUIREMENTS

For the degree of Bachelor of Arts with a major in English, twenty-four semester hours, excluding English 113, 123, and 213 which are required of all students, and English 463, the Teaching of English, which is counted as Education, are necessary. The following courses are required for majors.

English 233—English Literature .....	3 hours
English 343—American Literature .....	3 hours
English 353—English Language .....	3 hours
English 363—Advanced Grammar and Composition .....	3 hours
English 373—Journalism .....	3 hours
English 423—Shakespeare .....	3 hours

Other courses at or above 300 level .....	6 hours
To be selected from the following:	
English 383—Romantic Movement .....	3 hours
English 393—Victorian Literature .....	3 hours
English 482—The Novel .....	2 hours
English 442—World Masterpieces .....	2 hours
English 472—Browning and Tennyson .....	2 hours

## MINOR REQUIREMENTS

For a minor in English, fifteen semester hours, in addition to English 463 and excluding the four courses required of all students, are necessary. The following courses are required of minors:

English 233—English Literature .....	3 hours
English 343—American Literature .....	3 hours
English 353—English Language .....	3 hours
English 363—Advanced Grammar and Composition .....	3 hours
English 373—Journalism .....	3 hours

Departmental Ruling on Academic Status: In the interest of maintaining acceptable academic standards, all majors and minors in the Department must maintain an average of "B" in the Junior and Senior courses.

## SUGGESTED FOUR-YEAR PROGRAM FOR A MAJOR IN ENGLISH

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113—Grammar and Composition .....	3	English 123—Reading and Composition .....	3
Political Science 113 .....	3	Mathematics 123—Trig. or Math. 183 .....	3
American National Government		Social Science 123 .....	3
Natural Science 113—College Science .....	3	Introduction	
Mathematics 173 or 113 .....	3	Political Science 123 .....	3
Elements of Applied Mathematics or College Algebra		American State Government	
Social Science 113—Introduction .....	3	Natural Science 123—College Science .....	3
Physical Education (Women) 111 .....	1	Physical Education 121 (Women) .....	1
Freshman Practice		Freshman Practice	
Military Science 111—Elementary .....	1	Military Science 121—Elementary .....	1
Industry .....	2	Industry .....	2
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	18		18

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French		Elementary French	
Elementary Spanish or		Elementary Spanish or	
Elementary German		Elementary German	
Sociology 213 .....	3	History 303 .....	3
Introduction		England 1485 to the Present	
Electives .....	3	English 233 .....	3
Physical Education 211 (Women) .....	1	English Literature	
Sophomore Practice		Physical Education 221 (Women) .....	1
Military Science 211 (Men) .....	1	Sophomore Practice	
Elementary		Military Science 221 (Men) .....	1
English 213 .....	3	Elementary	
Fundamentals of Speech		Education 283 .....	3
Education 273 .....	3	Pupil Growth and Development	
Pupil Growth and Development		Physical Education 203 .....	3
	<hr/>	Personal Hygiene	
	16		16

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Advanced Grammar and Reading		Reading (Spanish)	
History 173 .....	3	Reading (German)	
American History		(French) Advanced Grammar and Reading and Grammar Review	
English 353 .....	3	English 343—American Literature .....	3
The English Language		English 393—Victorian Literature .....	3
Education 393 .....	3	Education 323—High School Curriculum .....	3
Educational Problems		Electives .....	3
Electives .....	2	History 183—American History .....	3
English 373—Journalism .....	3		
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	17		17

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 463 (Ed. 343B) .....	3	Education 423 .....	3
Teaching of English		School and Community Relations	
Romantic Movement .....	3	Education 406 .....	6
English 423 .....	3	Student Teaching	
Shakespeare		Electives or Minor .....	6
English 363 .....	3		
Advanced Grammar			
Electives .....	3		
	15		15

## DESCRIPTION OF COURSES

103. COMMUNICATION SKILLS. (ENG 103 SKILLS) (3-0). *Credit 3.* Required of all students whose score on the English Placement Test indicates deficiency in preparation. Thorough review of basic composition fundamentals; development of reading techniques; remedial exercises, diagnostic tests. Students are required to spend a minimum of two hours per week, in addition to that required for class, in clinic-conference at the Communications Center where individual instruction is given in both reading and composition. Upon successful completion of English 103, students are required to take English 113 and 123.

113. GRAMMAR AND COMPOSITION. (ENG 113 GRAM COMP) (3-0) *Credit 3.* Review of functional grammar; practice in composition. N. B.—English 113, 123, 213 and 223 must be taken in proper sequence.

123. READING AND COMPOSITION. (ENG 123 READ COMP) (3-0) *Credit 3.* Continued review of composition techniques; written work based on provocative readings; introduction to elementary methods of research. Prerequisite, English 113.

133, 143. TRADE ENGLISH. (ENG 133 143 TRADE ENG) (3-0) *Credit 3.* I, II. Principles of effective composition with emphasis on business correspondence.

213. FUNDAMENTALS OF SPEECH. (ENG 213 FUNDAMENTL) (3-0) *Credit 3.* I and II. Emphasis upon remedial and corrective elements in training for effective oral communication under realistic conditions. Prerequisite, English 123.

223. INTRODUCTION TO LITERATURE. (ENG 223 SURV LIT) (3-0) *Credit 3.* I, II. Reading for understanding and enjoyment; emphasis upon development of effective reading habits; introduction to basic literary masterpieces and representative modern and contemporary works. Prerequisite, English 213.

233. ENGLISH LITERATURE. (ENG 233 ENG LIT) (3-0) *Credit 3.* I. Historical survey from Beowulf to the twentieth century; study of chief authors and representative works. Prerequisite, English 213. (Required of Eng. Majors in place of Eng. 223).

343. AMERICAN LITERATURE. (ENG 343 AMER LIT) (3-0) *Credit 3.* II. Survey of literature with representative selections from chief writers. Prerequisite, English 223.

353. ENGLISH LANGUAGE. (ENG 353 ENG LANG) (3-0) *Credit 3.* I. Sounds, grammar, vocabulary of the language. Must be taken while in residence for credit towards major or minor. (For majors and minors only.) Prerequisite, English 233.

363. ADVANCED GRAMMAR AND COMPOSITION. (ENG 363 ADV GRAM) (3-0) *Credit 3.* I. Review of functional grammar; further practice in composition and research methods. Prerequisite, English 233, Eng. 223 or 233.

373. JOURNALISM (ENG 373 JOURNALISM) (3-0) *Credit 3.* I and II. Theory and practice in different forms of modern journalism; practical work.

383. THE ROMANTIC MOVEMENT. (ENG 383 ROMANTIC) (3-0) *Credit 3.* I. Chief literary works of the period with emphasis upon Wordsworth, Coleridge, Byron, Shelley, and Keats. Prerequisite, English 233.

393. VICTORIAN LITERATURE. (ENG 393 VICT LIT) (3-0) *Credit 3.* I and II. Representative selections from leading poets and prose writers of the period. Prerequisite, English 233.

413. EIGHTEENTH CENTURY LITERATURE. (ENG 413 18TH CENT) (3-0) *Credit 3*. I. Poetry and prose of the "Neo-Classical" movement and the "Pre-Romantic" period. Prerequisite, English 333.

423. SHAKESPEARE. (ENG 423 SHAKESPRE) (3-0) *Credit 3*. I. General survey of dramatic works; character and conditions of the age; more detailed study of representative plays. Prerequisite, English 233.

433. COLONIAL AND EIGHTEENTH CENTURY AMERICAN LITERATURE. (ENG 433 AMER LIT) (3-0) *Credit 3*. Chief writers through period of the Revolution. Prerequisites, English 333 and 343.

442. WORLD MASTERPIECES. (ENG 553 MASTERPCS) (2-0) *Credit 2*. Study of selected classics which have had important influence on English and American literature. Prerequisite, two English courses at 300 level or above.

453. NINETEENTH CENTURY AMERICAN LITERATURE. (ENG 453 19TH CENT) (3-0) *Credit 3*. II. Major writings and writers in prose and verse. Prerequisites, English 233 and 243.

463. EQUIVALENT TO ED. 333. TEACHING OF ENGLISH. (ENG 463 H S METH) (3-0) *Credit 3*. II Methods and materials in teaching of English in junior and senior High Schools. Prerequisites, Fulfillment of all English requirements.

472. BROWNING AND TENNYSON. (2-0) *Credit 2*. The Victorian age through the eyes of its two chief poets. Prerequisite, two English courses at 300 level or above, including 343.

473. WRITING CLINIC. (3-0) *Credit 3*. English fundamentals; aims to increase oral and written English proficiency of the prospective teacher of English.

482. THE NOVEL. (ENG 482 THE NOVEL) (3-0) *Credit 2*. II. Chief poetic and prose works; character and conditions of the age. Prerequisite, two English courses at 300 level or above.

583. WORDSWORTH AND COLERIDGE. (2-0) *Credit 2*. Poetry and criticism of the two chief Romantic poets. Prerequisite, two English courses at 300 level or above, including 333.

## DEPARTMENT OF HISTORY AND PHILOSOPHY

Students majoring in History are required to present thirty hours in the course offerings as listed on the following pages. The total offering is designed to take the student into most of the phases of modern historical development. The student should arrange to begin History 402 in the advanced Junior year.

Minors in history must present eighteen hours in selected course offerings in consultation with the advisor of the Department.

In the interest of the maintenance of the proper academic standards, the Department has ruled that all students majoring or minoring in this department must maintain in the lower college courses of the Department (Freshman and Sophomore) the average of "C" and in the upper college courses (Junior and Senior) the average of "B."

## INTEGRATED MINOR IN THE SOCIAL SCIENCES

Students may elect an integrated minor in the Social Sciences. The minor in the Social Sciences is planned primarily for the training of teachers, but may be chosen by other students who do not intend to teach when such a program meets their particular needs for professional training in other fields.

Students who elect such a program must complete twenty-one semester hours of course work in the social sciences exclusive of the general college requirement of six hours in American Government and the method course in the teaching of Social Science Studies. Courses comprising this program must be drawn from the Departments of History and Philosophy, Economics, Political Science, and Sociology. Elements of the integrated Social Science minor shall consist of a minimum of six semester hours each of American History and Economics, three semester hours each of Geography, Political Science and Sociology. Any exceptions from and additions to the integrated minor prescribed above are to be arranged in consultation with the Head of the Department of History and Philosophy.

For further information see the various offerings in the Departments of Social Science (History and Philosophy, Economics, Political Science and Sociology.)

## SUGGESTED PROGRAM FOR HISTORY MAJORS

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 143 .....	3	History 153 .....	3
Civilization to 1500 .....		Civilization, 1500 to 1914 .....	
English 113 .....	3	English 123 .....	3
Grammar and Composition .....		Reading and Composition .....	
Mathematics 173 .....	3	Mathematics 183 .....	3
Elements of Applied Math. or .....		Elements of Applied Math., or .....	
College Algebra .....		Trigonometry .....	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science .....		College Science .....	
Political Science 113 .....	3	Economics 183 .....	3
National Government .....		Economic Geography .....	
Military Science 111 .....	1	Physical Education 121 .....	1
Elementary .....		(Freshman Practice (Women)) .....	
Physical Education Practice 111 .....	1	Military Science 121 .....	1
(Women) Freshman Practice .....		Elementary (Men) .....	
Industry .....	2	Industry .....	2
Library .....		Library .....	
	18		18

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 213 .....	3	History 223 .....	3
The United States, 1492-1837 .....		The United States, 1837-1900 .....	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or German .....		Elementary German or French .....	
Education 273 .....	3	Sociology 263 .....	3
Pupil Growth and Development .....		General Sociology .....	
Political Science 123 .....	3	Economics 223 .....	3
American State Government .....		Economic Problems .....	
Economics 213 .....	3	Education 283 .....	3
Principles of Economics .....		Pupil Growth and Development .....	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary (Men) .....		Elementary (Men) .....	
Physical Education 211 .....	1	Physical Education 221 .....	1
Sophomore Practice (Women) .....		Sophomore Practice (Women) .....	
	16		16

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 313 .....	3	History 323 .....	3
Sectionalism and the Civil War (Even Years)		The New South, 1865 to the Present (Even Years)	
History 303 .....	3	History 363 .....	3
England, 1485 to the Present (Even Years)		Historical Methods (Odd Years)	
History 433 .....	3	History 503 .....	3
American Foreign Relations (Odd Years)		History of the Far East (Odd Years)	
History 333 .....	3	Education 333 (See Sociology 383 and History 383) .....	3
Economic History of the United States		High School Methods and Materials— Social Studies	
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
Foreign Language 213 .....	3	Foreign Language 223 .....	3
French or German Grammar and Reading		French or German Grammar and Reading	
Education 323 .....	3	Military Science 323 .....	3
High School Curriculum		Advanced—optional	
Military Science 313 .....	3		
Advanced—optional			
	15, 18, 21		15 or 18

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 402 .....	2	History 453 .....	3
Historical Investigative Paper		Contemporary United States, 1898 to the Present (Even Years)	
History 463 .....	3	History 373 or 743 .....	3
History of the Negro in America		Problems of Latin American History (Odd Years)	
History 353 .....	3	History 402 (Cont'd.) .....	3
Europe, 1914 to the Present (Odd Years)		History 463 .....	3
History 423 or 703 .....	3	History of the Negro in America	
Seminar in American History with Special Reference to Texas and the Southwest (Odd Years)		Education 406 .....	6
Education 393 .....	3	Student Teaching	
Educational Problems		Military Science 423 .....	3
Education 423 .....	3	Advanced—optional	
School and Community Relations			
Military Science 413 .....	3		
Advanced—optional			
	17 or 20		15 or 18

## DESCRIPTION OF COURSES

### EUROPEAN HISTORY

103. **MEDIEVAL EUROPE.** (HIST 103 MEDIEVAL) (3-0) *Credit 3.* Europe from the fall of Rome to 1500; lectures, special reports, selected readings; open on demand; consent of instructor.

113. **EUROPE 1500-1815.** (HIST 113 EUROPE) (3-0) *Credit 3.* I. Europe from the Protestant Reformation to the Congress of Vienna (Lectures, notebooks, quiz section; open on demand.)

123. **EUROPE, 1815-1914.** (HIST 123 EUROPE) (3-0) *Credit 3.* II. Europe from the fall of Napoleon to World War I. (Lectures, notebooks, quiz sections. Open on demand.)

143. **SURVEY OF CIVILIZATION, TO 1500.** (HIST 143 CIVILZATN) (3-0) *Credit 3.* Ideals and institutions connected with the political, social and economic life during periods of Greece, Rome, Feudalism, Renaissance, Reformation. Lectures, reading, test, special reports, and clinics.

153. **SURVEY OF CIVILIZATION, 1500 TO PRESENT.** (HIST 153 CIVILZATNQ) (3-0) *Credit 3.* Ideals and institutions with political, social and economic life in the period of rational liberalism and nationalism, the French Revolution, Nineteenth Century English Liberalism, nationalistic unification, socialism, imperialism, and Twentieth Century Fascism and Democracy. Lectures, readings, test and special reports, and clinics.



303. ENGLAND, 1485 TO THE PRESENT. (HIST 303 ENGLAND) (3-0) *Credit 3. II.* Modern Britain from the Tudors to the Present. (Lectures, discussions, special reports.) Offered in odd years. Junior standing or consent of the instructor.

353. EUROPE, 1914 TO THE PRESENT. (HIST 353 EUROPE) (3-0) *Credit 3. I.* 20th Century Europe in its world revolutionary setting. (Five lectures; the Heritage, Religion, Education, Big Government, Economic Nationalism.) Discussions, special reports. Offered in odd years. Junior standing or consent of the instructor.

## AMERICAN HISTORY

213. THE UNITED STATES, 1492-1837. (HIST 213 THE U. S.) (3-0) *Credit 3. I.* American Development from the period of discovery to the close of the Jackson Presidency. Lectures, discussions, special maps and written reports; offered first semester yearly. Sophomore standing. Required of all majors and minors, or the other Social Sciences.

223. THE UNITED STATES, 1837-1898. (HIST 223 THE U. S.) (3-0) *Credit 3. II.* Prerequisite: History 213. Surveys period of Bourgeoisie revolution and rise of group democracy in America. (Lectures, discussions, special map and written reports; offered second semester yearly.) Sophomore standing. Required of all majors and minors, or the other Social Sciences.

323. THE NEW SOUTH, 1865. (HIST 323 NEW SOUTH) (3-0) *Credit 3. II.* Relation of the South to national development since 1860. (Lectures, discussions, special reports. Junior standing. Offered in even years.)

333. ECONOMIC HISTORY OF THE UNITED STATES, 1492 TO PRESENT. (HIST 333 ECONOMIC) (3-0) *Credit 3. I.* Surveys agriculture, commerce, industry, banking, business organization and labor. Prerequisites: Six hours of economics or History 213 and 223. (Lectures, discussions, special reports. Offered on demand.)

413. SECTIONALISM AND THE CIVIL WAR, 1700-1865. (HIST 413 CIVIL WAR) (3-0) *Credit 3. I.* Taught from regional hypothesis as applied to American development 1700-1865. (Lectures, discussions, special reports, Junior standing. Offered even years.)

433. AMERICAN FOREIGN RELATIONS, 1775 TO PRESENT. (HIST 433 FRGN RLTN) (3-0) *Credit 3. I and II.* Prerequisite: History 213 and 233 and any course in Political Science.

453. CONTEMPORARY UNITED STATES, 1898 TO THE PRESENT. (HIST 453 CONTEMP) (3-0) *Credit 3. II.* Prerequisite: 12 hours of History or consent of instructor; surveys 20th century American development. (Lectures, discussions, special reports. Offered in odd years.)

## SPECIAL AND MISCELLANEOUS

363. HISTORICAL METHODS. (HIST 363 METHODS) (3-0) *Credit 3. II.* Historical Techniques and the relation of History to allied Social Sciences. (Lectures, laboratory exercises, special reports. Required of all majors. Prerequisite: Junior standing.)

373. or 743. PROBLEMS IN LATIN AMERICAN HISTORY. (HIST 373 743 LATN AMER) (2-0) *Credit 2. I.* Seminar. Special problems in specific time areas. Advanced Junior or Senior status. Special research reports.

383. (EDUC 333) METHODS OF TEACHING HISTORY AND OTHER SOCIAL STUDIES IN SECONDARY SCHOOLS. (HIST 383 MTHS TCHG) (3-0) *Credit 3.* The nature of the Social Studies; the development and changing emphasis in current social studies programs; purposes and values; classroom methods and materials. Lectures, projects, readings, test, and laboratory experiences; offered both semesters yearly; junior standing or above; required of all majors and minors seeking teachers classification.

402. HISTORICAL INVESTIGATIVE PAPER. (HIST 402 INV PAPER) (2-0) *Credit 2. II.* Open to advanced Juniors and Seniors. Required of all majors in History for graduation credit; allowed upon satisfactory completion of proposed study agreed upon in consultation with advisor.

422. CULTURAL CONTRIBUTIONS OF THE NEGRO. (HIST 422 CONTRBUTN) (2-0) *Credit* 2. II. Artistic, scientific, and other cultural contributions. Prerequisites: Upper college status.

423 or 703. SEMINAR IN AMERICAN HISTORY, WITH SPECIAL REFERENCE TO TEXAS AND THE SOUTHWEST. (HIST 423 703 AMERICAN) (2-0) *Credit* 3. I. Regional problems in specific time areas. Senior status. Special research reports.

463. HISTORY OF THE NEGRO IN AMERICA. (HIST 463 NEGRO) (3-0) *Credit* 3. I or II. African background, Slavery, Freedom and Freeman; minority techniques in the contribution to American Life. Prerequisites: Upper college status.

503. HISTORY OF THE FAR EAST. (HIST 503 FAR EAST) (3-0) *Credit* 3. I. Political institutions of China, Japan, etc. Open to upper classmen with History 143 and 153, nine hours of Political Science, or consent of instructor.

583. HISTORY OF CIVILIZATION TO 1500. (HIST 583 CIVILZATN) (3-0) *Credit* 3. Ideals and institutions connected with the political, social and economic life in the periods of Greece, Rome, Feudalism, Renaissance, Reformation. Lectures, reading, tests and special reports and methods of presentation.

593. HISTORY OF CIVILIZATION FROM 1500 TO THE PRESENT. (HIST 593 CIVILZATN) (3-0) *Credit* 3. Ideals and institutions connected with political, social and economic life in the period of rational liberalism and nationalism, the French Revolution, Nineteenth Century English Liberalism, nationalistic unifications, socialism, imperialism, and Twentieth Century Fascism and Democracy and methods of presentation. Lectures, readings, tests and special reports.

*The new courses in American History (Survey) required by state law*

HISTORY 173. THE UNITED STATES, 1492-1865. (HIST 173 THE U. S.) *Credit* 3. I. American development from the period of discovery to the close of the Civil War; the Colonial Era; Birth of a Nation; The Young Republic; Westward Expansion; Sectional and Civil War. Lectures, special readings, discussions, supervised study, and text. Degree requirement.

HISTORY 183. THE UNITED STATES, 1865 TO THE PRESENT. (HIST 183 THE U. S.) (3-0) *Credit* 3. II. Prerequisite, History 173 or consent of Department. Surveys modern American Development; Reconstruction; The Industrial Nation and its Problems; Expansionist and Muckraker; The First Crusade; Normalcy and Reaction; Depression and the New Deal; The Second World War and After. Lectures, special readings, discussions, supervised study and text. Degree requirement.

## PHILOSOPHY

303. PHILOSOPHIES OF LIFE. (PHIL 303 PHIL LIFE) (3-0) *Credit* 3. I or II. Designed for those who want to know and understand the main philosophies of life.

313. INTRODUCTION TO PHILOSOPHY. (PHIL 313 INTRODUCT) (3-0) *Credit* 3. I. For beginning philosophy students; methods and theories of the field. Prerequisites: Sophomore standing.

323. ETHICS. (PHIL 323 ETHICS) (3-0) *Credit* 3. II. Development of morals, standards of values, conscience and methods of social control. Prerequisite: Sophomore standing.

413. HISTORY OF ANCIENT, MEDIEVAL AND MODERN PHILOSOPHY. (PHIL 413 HIST PHIL) (3-0) *Credit* 3. I. Philosophical development from Ancient Greece to Present. Prerequisite: Philosophy 303.

## DEPARTMENT OF LIBRARY SERVICE EDUCATION

The courses in this department are designed to prepare prospective graduates for the following areas of service: full-time school librarians, teacher-librarians and subprofessional assistants in college, public and special

libraries. The curriculum is organized as a combined major in library service and education. It includes a basic group of 18 semester hours in library service and 12 semester hours in education together with other supporting courses.

Those persons who choose Library-Service Education as a major are expected to select a teaching minor outside the department.

Students interested in this program of study may commence work on it at the sophomore level.

Those wishing to do a minor in Library-Service Education are required to complete, satisfactorily, 18 semester hours in the courses named in the "Description of Courses" below.

Courses 213, and 313 are suggested as electives to other majors who are not interested in the "combined major" but who wish to receive some understanding of and proficiency in library methods. Proficiency in typing is required of those who undertake the program.

An average of "B" should be maintained by all majors in Library-Service Education.

#### SUGGESTED PROGRAM FOR A COMBINED MAJOR IN LIBRARY SERVICE EDUCATION

FRESHMAN YEAR			
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Political Science 113 .....	3	Political Science 123 .....	3
American National Government		State Government	
Mathematics 173 or 113 .....	3	Mathematics 183 or 123 .....	3
Elements of Applied Mathematics or College Algebra		Elements of Applied Mathematics or Trigonometry	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science		College Science	
Physical Education 203 or 353 .....	3	Social Science 103 .....	3
Personal Hygiene or Public School and Community Hygiene		Survey of the Social Sciences	
Physical Education 111 (Women) .....	1	Physical Education 121 (Women) .....	1
Freshman Practice or		Freshman Practice or	
Military Science 111 (Men) .....	1	Military Science 121 (Men) .....	1
Elementary		Elementary	
Industry 102 .....	2	Industry 102 .....	2
Library Science		Library Science	
	18		18

SOPHMORE YEAR			
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French, German or Spanish		Elementary French, German or Spanish	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
English 213 .....	c	English 223 .....	3
Public Speaking		World Literature	
Library Service Education 213 .....	3	Library Service Education 223 .....	3
Library in the School		Children's and Young People's Literature	
Fine Arts 113 .....	3	Home Economics 123 .....	3
Fine Arts Appreciation		Family Life Education	
Business Administration 232 .....	2	Physical Education 221 (Women) .....	1
Typing		Sophomore Practice or	
Physical Education 211 (Women) .....	1	Military Science 221 (Men) .....	1
Sophomore Practice or		Elementary	
Military Science 211 (Men) .....	1		
Elementary			
	18		16

JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 213 .....	3	Foreign Language 223 .....	3
French, German or Spanish Reading and Grammar Review		Reading and Grammar Review	
Library Service Education 313 .....	3	Library Service Education 323 .....	3
Administration of School Libraries		Cataloging and Classification	
American History 173 .....	3	History 183 .....	3
American History 1492 -1865		American History 1865 to Present	
Minor .....	6	Minor .....	6
	<hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 15		<hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 15

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Library Service Education 333 .....	3	Library Service Education 333 .....	3
School Library Reference Materials and Tools		School Library Reference Materials and Tools	
Minor .....	6	Education 406 .....	6
Library Service Education 343 .....	3	Practice Teaching	
Experience Work		Education 423 .....	3
Education 333 .....	3	School and Community Relations	
Teaching the High School Subjects		Library Service Education 343 .....	3
Education 323 .....	3	Experience Work	
High School Curriculum		Education 393 .....	3
	<hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 15 or 18	Foundation of American Education	
			<hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 15 or 18

DESCRIPTION OF COURSES

102 LIBRARY SCIENCE ORIENTATION. (LBSC 102 ORIENTATION) (0-6) *Credit* 2. I, II. Practical experience in reference methods and services, circulation methods and services, and acquisition methods and services.

213 THE LIBRARY IN THE SCHOOL. (LBSC 213 SCH LIBR) (3-0) *Credit* 3. I. Rise of of the school library and its role in the school's program; service practices for children and young people; a study of the factors that influence and determine the reading habits, tastes and interests of children and young people; instruction in the use of the library and its materials; reading guidance.

223. CHILDREN AND YOUNG PEOPLE'S LITERATURE AND OTHER MEDIA AND MATERIALS OF CULTURE. (FORMERLY "THE LIBRARY IN THE SCHOOL). (LBSC 223 CHLD LIT) (3-0) *Credit* 3. I. Library service as related to the school's objective and programs; selection and acquisition of library materials; organization and administration of libraries and library service; professional aspects of librarianship.

313. ADMINISTRATION OF SCHOOL LIBRARIES. (LBSC 313 LIB ADM) (3-0) *Credit* 3. I. Library service as related to the school's objectives and programs; selection and acquisition of library materials; organization and administration of libraries and library service; professional aspects of librarianship.

323. CATALOGING AND CLASSIFICATION. (FORMERLY "THE ADMINISTRATION OF SCHOOL LIBRARIES.") (LBSC 323 CAT AND CLASS) (3-0) *Credit* 3. II. Cataloging and classification of school materials; accounting procedures. Prerequisite: L. S. Ed. 313.

333. SCHOOL LIBRARY REFERENCE MATERIALS AND TOOLS. (LBSC 333 REF METH) (3-0) *Credit* 3. I, II. Various types of school reference materials and tools; reference methods and techniques of services; organization for reference services.

343. EXPERIENCE WORK IN LIBRARY METHODS IN SELECTED LIBRARYS. (LBSC 343 LIB METHQ) (3-0) *Credit* 3. I and II. Prerequisite: theory courses listed above.

## DEPARTMENT OF MATHEMATICS

The objectives of the Department of Mathematics are (1) to assist students in developing the orderliness of thought and precision of expression universally found in mathematics; (2) to serve the mathematical needs of other schools and departments of the college; (3) to prepare prospective teachers of mathematics on the secondary level; (4) to train professional mathematicians for careers in private industry and governmental services.

A major in Mathematics consists of 28 semester hours of Mathematics which include the following required courses: Mathematics 113, 123, 213, 223, 313, 323, 401, 423. In addition 6 semester hours must be selected from the following: Mathematics 343, 403, 433, 413, and 443.

Other requirements for a major in Mathematics include 6 semester hours of physics and 6 hours of chemistry. Six hours of college science may be substituted for either physics or chemistry.

A minor in Mathematics consists of 18 semester hours of Mathematics which include the following courses: Mathematics 113, 123, 213, 223, 313. In addition, 3 semester hours must be selected from one of the following courses: Mathematics 323, 413, or 433.

A student must maintain a C average in his major and minor fields. Only grades of C and above can be counted toward either a major or a minor in Mathematics.

All Mathematics majors are given a mathematics placement test. Those students whose percentiles on the mathematics placement test are unsatisfactory are placed in Mathematics 103. This is a remedial Mathematics course which they must pass before being permitted to enroll in Mathematics 113. If, however, persons enrolled in Mathematics 103 show sufficient ability and progress in the course before or by the end of the first nine weeks they may be transferred to Mathematics 113 class and will be permitted to change their programs from Mathematics 103 to 113. Students who have failed Mathematics 103 will be required to repeat the course and will not be permitted to change their programs from Mathematics 103 to 113.

### SUGGESTED PROGRAM FOR A MAJOR IN MATHEMATICS

		FRESHMAN YEAR	
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 173 .....	3	History 183 .....	3
American History		American History	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Grammar and Composition	
College Science 113 .....	3	Home Economics 123 .....	3
Or		Family Life Education	
Physics 214 .....	4	College Science 123 .....	3
Advanced Physics Or		Physics 224 .....	4
Chemistry 114 .....	4	Advanced Physics	
Inorganic Chemistry		Or	
Mathematics 113 .....	3	Chemistry 124 .....	4
College Algebra		Inorganic Chemistry	
Physical Education 111 .....	1	Mathematics 123 .....	3
Physical Education Practice (Women)		Trigonometry	
Military Science 111 .....	1	Physical Education 121	1
Elementary (Men)		Physical Education Practice (Women)	
Industry .....	2	Military Science 121 .....	1
Fine Arts 113—Fine Arts Appreciation .....	3	(Elementary) Men	
		Industry .....	2
<b>Total</b>	<b>18 or 19</b>	<b>Total</b>	<b>18 or 19</b>

SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 213 .....	3	Mathematics 223 .....	3
Analytical Geometry		Differential Calculus	
Political Science 113 .....	3	Political Science 123 .....	3
National Government		State Government	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or German		Elementary French or German	
English 213 .....	3	English 223 .....	3
Public Speaking		Introduction to Literature	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Physical Education 211 .....	1	Physical Education 221 .....	1
Practice (Women)		Practice (Women)	
Military Science 211 .....	1	Military Science 221 .....	1
(Men)		(Men)	
	<hr style="width: 50px; margin: 0 auto;"/>		<hr style="width: 50px; margin: 0 auto;"/>
	16 or 20		16 or 20

JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 313 .....	3	Mathematics 323 .....	3
Integral Calculus		Intermediate Calculus	
Mathematics 401 .....	1	Mathematics 401 .....	1
Colloquium		Colloquium	
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Reading and Grammar Review		Reading and Grammar Review	
Electives (Mathematics) .....	3	Physical Education 203 .....	3
Education 323 .....	3	Personal Hygiene	
High School Curriculum		Mathematics 353 .....	3
College Science 113 .....	3	Teaching of Mathematics in H. S.	
Or		College Science 123 .....	3
Physics 214 .....	4	Or	
Advanced Physics		Physics 224 .....	4
Or		Advanced Physics	
Chemistry 114 .....	4	Chemistry 124 .....	4
Inorganic Chemistry		Inorganic Chemistry	
Military Science 313 .....	3	Military Science 323 .....	3
	<hr style="width: 50px; margin: 0 auto;"/>		<hr style="width: 50px; margin: 0 auto;"/>
Total	16	Total	16

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 406 .....	6	Mathematics Elective .....	3
Practice Teaching		Philosophy 323 .....	3
Education Electives .....	6	Ethics	
Mathematics 423 .....	3	Electives .....	9
Differential Equations		Military Science 423 .....	3
Military Science 413 .....	3	Advanced (Elective)	
Advanced (Elective)			
	<hr style="width: 50px; margin: 0 auto;"/>		<hr style="width: 50px; margin: 0 auto;"/>
Total	15 or 18	Total	15 or 18

## DESCRIPTION OF COURSES

103. BASIC MATHEMATICS. (MATH 103 BASIC) (3-0) *Credit* 3. I. The fundamental operations special products, factoring, fractions, radicals, the linear equations in one variable, and the simultaneous linear equations.

113. COLLEGE ALGEBRA. (MATH 113 COLL ALG) (3-0) *Credit* 3. I. The theory of quadratic equations, system of equations, logarithms, exponential and logarithmic equations, binomial theorem, progressions, permutations, combinations, and probability.

123. TRIGONOMETRY. (MATH 123 TRIGONOM) (3-0) *Credit* 3. I. Trigonometry functions; radians; logarithms; solutions of triangles; functions of composite angles; identities; trigonometric equations. Prerequisite: Math, 123.

133. SOLID GEOMETRY. (MATH 133 SOLD GEOM) (3-0) *Credit* 3. I. Planes in space, loci, polyhedral angles, surfaces and volumes of geometric solids.

173-183. ELEMENTS OF APPLIED MATHEMATICS. (MATH. 173, 183 APPLIED) (3-0) *Credit* 3. I and II. Basic concepts in elementary mathematics, including numbers and operations with numbers. Designed especially for those students majoring in fields other than mathematics, the physical sciences, the natural sciences, and engineering.

213. ANALYTICAL GEOMETRY. (MATH 213 ANAL GEOM) (3-0) *Credit 3. I.* The straight line and conic sections; transformation of coordinates; polar coordinates; parametric equations; introduction to solid analytical geometry. Prerequisites: Math. 123.

223. DIFFERENTIAL CALCULUS. (MATH 223 DIFF CALC) (3-0) *Credit 3. I.* Differentiation of algebraic and transcendental functions with applications to physics and geometry. Parametric equations, differentials, curvature. Prerequisite: Math 213.

313. INTEGRAL CALCULUS. (MATH 313 INTG CALC) (3-0) *Credit 3. I.* General methods of integration, and applications of the indefinite integrals to problems in physics and geometry. Prerequisite: Math. 223.

323. INTERMEDIATE CALCULUS (MATH 323 CALCULUS) (3-0) *Credit 3.* A continuation of Math. 313. Further applications of the definite integral, power series with applications; definition and meaning of partial derivatives; hyperbolic functions; multiple integrals; an introduction to differential equations. Prerequisite: Math. 313.

343. SOLID ANALYTICAL GEOMETRY. (MATH 343 ANAL GEOM) (3-0) *Credit 3.* Analytical Geometry of three dimensional space. Lines, planes, and quadric surface. Prerequisite: Math. 213.

353. METHODS OF TEACHING MATHEMATICS IN HIGH SCHOOLS. (MATH 353 H S METH) (3-0) *Credit 3. II.* See Department of Education (Education 333C).

401. MATHEMATICS COLLOQUIUM (MATH 401 COLLOQUIUM) (1-0) *Credit 1.* Detailed reports on selected high level topics in both theoretical and applied mathematics; students majoring in the department are required to report on at least one topic of a moderate degree of difficulty as a demonstration of their resourcefulness, ability, and achievement in the field of mathematics. Required of all majors in the mathematics department.

403. COLLEGE GEOMETRY. (MATH 403 COLL GEOM) (3-0) *Credit 3.* Directed segments and angles; similitude, inversion; geometry of the triangle, quadrilateral, and circle. Recommended for teachers of geometry in high school. Prerequisite: Consent of the instructor.

413. THEORY OF EQUATIONS. (MATH 423 EQUATIONS) (3-0) *Credit 3.* Complex numbers; rational integral equations; symmetric functions; determinants and matrices; systems of equations. Prerequisite: Math. 223.

423. DIFFERENTIAL EQUATIONS. (MATH 423 DIFF EQUATNS) (3-0) *Credit 3. I and II.* General methods for solving ordinary differential equations to include the general linear differential equation with constant coefficients, solution in series and applications. Prerequisite: Math. 323.

433. ELEMENTARY STATISTICS. (MATH 433 ELE STAT) (3-0) *Credit 3.* Collection and tabulation of data; bar charts; graphs; sampling; averages; dispersions; correlation; index numbers; normal curve; probability; applications to various fields. Prerequisite: one semester of college mathematics.

443. INTRODUCTION TO PROBABILITY. (MATH 443 INTRO PROB) (3-0) *Credit. 3.* Permutations and combinations, discrete sample spaces, combinatorial analysis, distributions, random variables, recurrent events and random walks. Prerequisite: Math. 313.

433. ELEMENTARY STATISTICS. (MATH 433 ELE STAT) (3-0) *Credit 3.* Collection and tabulation of data; bar charts; graphs; sampling; averages; dispersions; correlation; index numbers; normal curve; probability; applications to various fields. Prerequisite one semester of college mathematics.

443. FOUNDATION: OF MATHEMATICS. (MATH 443 FOUND) (3-0) *Credit 3.* Axiomatic method, elements of the theory of sets, groups and their significance for the foundations.

453. ARITHMETIC FOR ELEMENTARY TEACHERS. (MATH 453 ELEM METH). (3-0) *Credit* 3. I or II. Designed to develop methods and materials for teaching the fundamental concepts and meanings of quantitative thinking in elementary grades.

## ENGINEERING MATHEMATICS

115. ENGINEERING MATHEMATICS. COLLEGE ALGEBRA AND TRIGONOMETRY. (MATH 115 ALG TRIG) *Credit* 5. I. A basic course in mathematics for engineering students, including algebra and an introduction to trigonometry. Topics included are: exponents and radicals; quadratic equations, simultaneous quadratics, inequalities; proportion and variation, binomial theorem, progressions; introduction to the theory of equations; determinants and simultaneous linear equations; permutations, combinations, and probability; Trigonometric functions, identities, related angles, radian measure, and graphs.

124. ENGINEERING MATHEMATICS. TRIGONOMETRY AND ANALYTICAL. (MATH 124 TRIG GEOM) (4-0) *Credit* 4. II. Continuation of course 115 including the following topics in trigonometry and analytical geometry: simple trigonometric equations, sum and difference formulas, logarithms, solution of plane triangular coordinates, lines, circles, conic sections, symmetry, translation of axes, general equation of the second degree curves of higher degrees, rotation of axes, parametric equations, and polar coordinates. Prerequisite: Engineering Mathematics 115.

133. ENGINEERING MATHEMATICS. SOLID GEOMETRY. (MATH 133 SOL GEOM) (3-0) *Credit* 3. Study of point, line, plane, and curved surfaces in Euclidean Space.

214. ENGINEERING MATHEMATICS. DIFFERENTIAL CALCULUS. (MATH 214 DIFF CALC) (4-0) *Credit* 4. I. Differentiation and graphical representation of algebraic, trigonometric, and exponential functions, with application. Parametric equations, curvature, time rates, maxima and minima, hyperbolic functions, partial derivatives, and infinite series. Prerequisite: Engineering Mathematics 124.

224. ENGINEERING MATHEMATICS. INTEGRAL CALCULUS. (MATH 224 INTG CALC) (4-0) *Credit* 4. II. Integration of algebraic and trigonometric functions with various applications including: plane areas, arc length, volumes, areas of surface of revolution, center of gravity, moments of inertia, polar coordinates, multiple integrals, and elementary vector analysis. Prerequisite: Engineering Mathematics 214.

## DEPARTMENT OF MODERN FOREIGN LANGUAGES

No major is offered.

The general requirement in modern foreign languages is the equivalent of two years of study in college of one modern foreign language.

This department offers courses in three languages: French, German, and Spanish. A student may obtain a minor in French or Spanish. For a minor in language, eighteen semester hours in one language are required, six hours of which must be in courses numbered 300 or above, or 303 and 313.

The German courses are designed to meet the needs of students desiring to fulfill the language requirement for the Bachelor's degree and beyond. The Modern Foreign Language Department also aims to provide adequate training for those students who desire to acquire proficiency in the use of the language as a tool subject for the professional courses in science, pharmacy, engineering, music, and other fields.



## DESCRIPTION OF COURSES

### FRENCH

113, 123. ELEMENTARY FRENCH. (FREN 113 123 ELEM FREN) (3-0) *Credit 3.* I and II. The linguistic foundation of the French language; mastery of phonetics; verbs, grammar, and idiomatic usage.

213, 223. INTERMEDIATE FRENCH. READING AND GRAMMAR REVIEW. (FREN 213 223 READ GRAM) (3-0) *Credit 3.* I and II. French conversation, idioms, and verb drill; reading material; principles of French grammar and syntax. Prerequisite: French 123.

303. COMPOSITION AND CONVERSATION (FREN 303 COMP CONV) (3-0) *Credit 3.* Concentrated application of principles of grammar in oral and written French; conducted in French. Primarily for French minors and students interested in the practical use of French. Prerequisite: French 223 and approval of instructor.

313. SURVEY OF FRENCH LITERATURE. (FREN 313 SURV LIT) (3-0) *Credit 3.* Outline of the history of French literature; literary epochs. Reading materials from various periods. Prerequisite: French 303. Required for minors.

323. INTRODUCTION TO CLASSIC LITERATURE. (FREN 323 CLASSICS) (3-0) *Credit 3.* Representative selections from the classic period of French literature; readings and reports on Racine, Corneille, etc. Prerequisite: French 313.

403. MOLIERE. (FREN 403 MOLIERE) (3-0) *Credit 3.* Representative works of Moliere including his life and period are studied. Prerequisite: French 313.

503. INTRODUCTION TO ROMANTICISM. (FREN 503 ROMANTICISM) (3-0) *Credit 3.* Representative work of Hugo, Lamartine, Musset etc. Prerequisite: French 313.

### SPANISH

113, 123. ELEMENTARY SPANISH. (SPAN 113 123 ELEM SPAN) (3-0) *Credit 3.* I and II. Principles of pronunciation and grammatical construction; easy readings, daily oral practice. Reproduction of material from diction.

213, 223. INTERMEDIATE SPANISH. READING AND GRAMMAR. (SPAN 213 223 READ GRAM) *Credit 3.* I and II. Grammar review; idioms and idiomatic usage; conversation, practice in reading and translation. Prerequisite: Spanish 123.

303. COMPOSITION AND CONVERSATION. (SPAN 303 COMP CONV) (3-0) *Credit 3.* Salient principles of grammar in written work and in daily conversations. Prerequisite: Spanish 223. For minors and those students who want to acquire functional use of the language. Approval of instructor.

313 SURVEY OF SPANISH LITERATURE. (SPAN 313 SURV LIT) (3-0) *Credit 3.* Spanish literature from the beginning through the eighteenth century. Lectures, assigned readings, and reports. Prerequisite: Spanish 303. Required for minors.

323. SPANISH PROSE AND FREE COMPOSITION. (SPAN 323 FREE COMP) (3-0) *Credit 3.* A representative novel as the basis for classroom reading, translation, discussion, and composition. Prerequisite: Spanish 303.

### GERMAN

113, 123. ELEMENTARY GERMAN. (GERM 113 123 ELEM GERM) *Credit 3.* I and II. Ability to pronounce, read and understand simple and easy German; adequate basic vocabulary; fundamentals of grammar.

213, 223. INTERMEDIATE GERMAN. (GERM 213 223 INTERMEDT) *Credit 3.* I and II. Reading, grammar review; idiomatic German, vocabulary development; selected readings from German newspaper. Prerequisite: German 123.

283. SCIENTIFIC GERMAN. (GERM 283 SCIENTIFC) (3-0) *Credit 3.* May be taken instead of Intermediate German 223. Reading and selected reading from German newspaper. Designed primarily for science majors and those students preparing to enter professional schools and higher institutions of learning. Prerequisite: German 213.

## DEPARTMENT OF MUSIC

The Department of Music has planned a program that will provide opportunities for a more thorough recognition of the student's needs and interests, with special effort to help him discover and develop his potentialities and function as a contributing citizen in his community through the following aims:

### The Program—

1. To be a vital one functioning in keeping with the present trends of philosophy and practice in music education; providing the educational preparation and technical skill required of those who are planning to become teachers, performers or composers; and having meaning for those who are nonprofessional devotees of music.
2. To develop in the student those musical potentialities which may be latent and not as yet recognized.
3. To provide a more complete integration of music subject matter and other phases of the college curricula, with special emphasis on the inclusion of musical performance in the actual teaching situation.

### MAJOR REQUIREMENTS

The degree of Bachelor of Arts with a major in music is offered for the completion of 130 semester hours in the prescribed curriculum of music education with emphasis upon one of the applied fields. The minimum music requirement for the degree is 49 hours.

The degree of Bachelor of Music is offered for the completion of a minimum of 150 semester hours of which 75 in music are the minimum requirement.

The Bachelor of Music degree is designed to follow the music major baccalaureate with a curriculum of supplementary professionalized and specialized courses in music. Normally, five years are required to complete the work.

Students must maintain an average of "B" or above in 50 per cent of the music subjects in the freshman and sophomore year, and "B" or above in the entire major field in each of the remaining years.

### MINOR REQUIREMENTS

For a minor in music 24 hours are required, 8 of which must be applied music. The minor is offered with emphasis upon methods and materials, and theory.

### OTHER REQUIREMENTS

All students majoring in music are required to participate in vocal and instrumental organizations. All are required to play the piano of beginning sophomore level, regardless of the number of accumulated clock hours.

## MUSIC ORGANIZATIONS

The College Chorus, Mixed Glee Club, Men's Glee Club, Women's Glee Club, Concert Choir, Quartets, Band and Orchestras offer excellent opportunities for music participation and expression, and are under direct supervision of teachers of the department. The band is divided into three parts—Concert, Marching, and Military. The Military Band works in conjunction with the Department of Military Science.

## HONORARY SOCIETY

The Mu Alpha Sigma Honorary Society, organized in 1935-1936, gives recognition for achievement in meritorious performance, scholarship, research and creative efforts in music. Students are elected solely upon the foregoing qualifications, and not upon application for membership.

## COURSE SUMMARY OF MUSIC MAJOR REQUIREMENTS

<i>Course</i>	<i>Hrs.</i>
Applied (Piano, Voice, Instrument) .....	12
Voice (Methods) .....	2
Instruments (Orchestra) .....	8
Methods (Elem., High School and Instr., History, Conducting) .....	14
Theory .....	19
Education .....	24
English .....	12
Foreign Language .....	12
Mathematics .....	6
Natural Science .....	6
Government .....	6
Social Science .....	3
Physical Education (For Women) .....	3
History .....	6
	130

## COURSE SUMMARY OF MUSIC MINOR REQUIREMENTS

<i>Course</i>	<i>Hrs.</i>
Piano (Applied) .....	4
Voice .....	2
Instruments .....	2
Theory .....	8
Methods (6) and Conducting (2) .....	8
	24

## YEARLY DISTRIBUTION OF MINOR REQUIREMENTS

	FRESHMAN YEAR	
Piano (Applied) .....	4	4
	SOPHOMORE YEAR	
Voice .....	2	
Theory .....	8	10
	JUNIOR YEAR	
Methods .....	6	6
	SENIOR YEAR	
Instruments .....	2	
Conducting .....	2	4
		24

# SUGGESTED PROGRAM FOR A MAJOR IN MUSIC

## FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
History 173 .....	3	History 183 .....	3
U. S. 1492-1865		1865 to Present	
Mathematics 173 .....	3	Mathematics 183 .....	3
Business Applied Mathematics		Business Applied Mathematics	
Science 113 .....	3	Science 123 .....	3
College Science		College Science	
Piano 112 (other instruments or voice) .....	2	Piano 122 (other instruments or voice) .....	2
Elementary Piano		Elementary Piano	
Music 153 .....	3	Music 142 .....	2
Music Fundamentals		Voice Methods Class	
Military Science (Men) 111 .....	1	Military Science (Men) 121 .....	1
Elementary or		Elementary or	
Physical Education (Women) 111 .....	1	Physical Education (Women) 121 .....	1
Freshman Practice		Freshman Practice	
Choir 112 .....	(2)	Choir 122 .....	(2)
Choral Practice		Choral Practice	
Music 411 .....	(1)	Music 421 .....	(1)
Perspectives in Music		Perspectives in Music	
	18	Woodwinds or Brasses 132 .....	2
			19

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or		Elementary French or	
Elementary Spanish		Elementary Spanish	
Political Science 113 .....	3	Political Science 123 .....	3
National Government		State Government	
Piano 212 .....	2	Piano 222 (other instruments or voice) .....	2
Intermediate Piano		Intermediate Piano	
Music 152 .....	2	Music 162 .....	2
Aural Theory—Elementary Harmony		Aural Theory—Elementary Solf.	
Music 152 .....	2	Music 162 .....	2
Written Theory—Elementary Harmony		Written Theory—Elementary Harmony	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Strings 132 .....	2	Woodwinds 132 or Brasses 132 .....	2
String Class		Military Science (Men) 221 .....	1
Military Science (Men) 211 .....	1	Elementary or	
Elementary or		Physical Education (Women) 221 .....	1
Physical Education (Women) 211 .....	1	Sophomore Practice	
Sophomore Practice		Choir 222 .....	(1)
Choir 212 .....	(2)	Choral Practice	
Choral Practice		Music 441 .....	(1)
Music 431 .....	(1)	Perspectives in Music	
Perspectives in Music			18
	18		18

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	English 223 .....	3
Public Speaking		Introduction to Literature	
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Reading and Composition		Reading and Composition	
Music 252 .....	2	Music 262 .....	2
Aural Theory—Intermediate Solf.		Aural Theory—Intermediate Solf.	
Music 252 .....	2	Music 262 .....	2
Written Theory—Intermediate Harmony		Written Theory—Intermediate Harmony	
Music 373 .....	3	Music 393 .....	3
Elementary School Methods		Instrumental Music Education	
Choir 312 .....	(2)	Music 383 .....	3
Choral Practice		High School Methods	
Music 451 .....	(1)	Choir 322 .....	(2)
Perspectives in Music		Choral Practice	
Military Science 313 .....	(3)	Music 461 .....	(1)
Advanced		Perspectives in Music	
Education 393 or 323 .....	3	Military Science 323 .....	(3)
Education Problems or		Advanced	
High School Curriculum		Music 332 .....	2
	16	Conducting	
			18

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 323 or 393 .....	3	Education 406 or 306 .....	6
Percussion 132 .....	2	Practice Teaching .....	
Percussion Class		Education 423 .....	3
Physical Education Theory 203 .....	3	School and Community Relations .....	(2)
Music 013 .....	3	Choir 422 .....	(1)
Music History		Choral Practice .....	
Social Science 113 .....	3	Music 481 .....	(1)
Survey		Perspectives in Music .....	
Choir 412 .....	(2)		
Choral Practice			
Music 471 .....	(1)		
Perspectives			
	<hr style="width: 50%; margin: 0 auto;"/> 14		<hr style="width: 50%; margin: 0 auto;"/> 9

## DESCRIPTION OF COURSES

### BASIC MUSIC

012-022. BASIC MUSIC FOR THE CLASSROOM TEACHER THROUGH KEYBOARD EXPERIENCE. (MUSC 012 022 BASIC) (2-6) *Credit 2.* I and II. Basic musicianship needed to teach music in the public school through singing and playing in a very simple way, easy songs and games.

### MUSIC LITERATURE, HISTORY AND APPRECIATION

013. HISTORY OF MUSIC. (MUSC 013 HISTORY) (3-0) *Credit 3.* I and II. The great movements in the art of music from the Greek period to the present day.

032. APPRECIATION OF MUSIC. (MUSC 032 APPRECIAT) (2-0) *Credit 2.* I or II. General music appreciation, introducing and extending knowledge concerning music and background for intelligent listening to music. No previous music knowledge is required. This course is open to all students.

400. (411, 421, 431, 441, 451, 461, 471, 481) PERSPECTIVES IN MUSIC. (MUSC 400, 411, 421, 431, 441, 451, 461, 471, 481 PERSPECTV) (0-0) *Credit 1.* I and II. All four years. For music majors. Extensive individual and group study of problems in music for the development of musicality. Individual and ensemble performances before entire group.

### MUSIC THEORY

062. ANALYSIS OF FORM. (MUSC 062 ANAL FORM) (2-0) *Credit 2.* I or II. Practical analysis of simple and intermediate forms, as illustrated in the works of such composers as Mendelssohn, Haydn, Mozart, Beethoven and Schubert. Prerequisite: Aural Theory 162-252 and Written Theory 162-252.

FUNDAMENTALS 153. (MUSC 153 FUNDAMNTLS) *Credit 3.* The study of notes, note values, rhythm, scale construction, chord construction, transposition, composers, style, instruments and simple forms, and easy sight singing exercises.

AURAL THEORY 152. (MUSC 152 SGHT SING) ELEMENTARY SIGHT SINGING AND EAR TRAINING. (2-1) *Credit 2.* Drill in aural recognition and vocal execution of scales and intervals; sight reading in the treble and bass clefs; simple melodic dictation in the treble clef.

WRITTEN THEORY 152. ELEMENTARY HARMONY. (MUSC 152 ELEM HARM) (2-0) *Credit 2.* Harmonic phenomena of tones through scales, intervals and chords, and chordal progression; general harmonizations through the secondary triads; keyboard harmony.

AURAL THEORY 162. (MUSC 162 SGHT SING) INTERMEDIATE SIGHT SINGING AND EAR TRAINING. (2-0) *Credit 2.* Drill in aural recognition of chords and intervals; the introduction of simple embellishments; vocal execution of technical exercises of moderate difficulty; melodic dictation in the bass and treble clefs.

WRITTEN THEORY 162. INTERMEDIATE HARMONY. (MUSC 162 HARMONY) (2-0) *Credit 2*. Harmonizations through the inversions of the dominant seventh chord; simple harmonic dictation on materials related to the course; analysis of chorals of Bach and simple hymn tunes; keyboard harmony.

AURAL THEORY 252. (MUSC 252 SIGHT SING) INTERMEDIATE SIGHT SINGING AND EAR TRAINING. (2-0) *Credit 2*. Vocal execution of intervals and embellishments, and melodic harmonic dictation in the soprano, mezzo-soprano, alto and tenor clefs.

WRITTEN THEORY 252. INTERMEDIATE HARMONY. (MUSC 252 HARMONY) (2-0) *Credit 2*. Secondary sevenths through the Neapolitan sixth chord, including the analysis of representative materials from the eighteenth and nineteenth centuries; continuation of harmonic dictation; keyboard harmony.

AURAL THEORY 262. (MUSC 262 SIGHT SING) ADVANCED SIGHT SINGING AND EAR TRAINING. (2-0) *Credit 2*. Advanced work in singing intervals and embellishments; melodic and harmonic dictation involving transposition and modulation in all seven clefs.

WRITTEN THEORY 262. ADVANCED HARMONY. (MUSC 262 ADV HARM) (2-0) *Credit 2*. Augmented sixth chords through chromatic alterations in general; and some modern harmony; analysis of works from the nineteenth and twentieth centuries; harmonic dictation continued; keyboard harmony.

273-283. SCORING FOR BAND AND ORCHESTRA. (MUSC 273 283 SCORING) (3-0) *Credit 3*. I and II. Elementary practical art of band and symphonic scoring.

332. CONDUCTING. (MUSC 332 CONDUCTING) (2-0) *Credit 2*. I or II. Baton technique, choral and instrumental conducting in the elementary and high school.

353-363. COUNTERPOINT. (MUSC 353 363 COUNTERPT) (3-0) *Credit 3*. I and II. Two, three, and four-part counterpoint in all species; invertible counterpoint; canonic imitation, and writing in the contrapuntal forms.

453-463. ELEMENTARY COMPOSITION. (MUSC 453 463 ELEM COMP) (3-0) *Credit 3*. I and II. Basic elements of writing. Creative work in the smaller forms for voice, piano and orchestral instruments.

## APPLIED MUSIC—ELEMENTARY COURSES

CLARINET 112-122. (MUSC 112 122 CLARINET) (OR OTHER WOODWIND INSTRUMENT, (2-6) *Credit 2*. I and II. Tone production, embouchure, breathing, scales and articulation; methods of Rubank and Stubbins for clarinet; Weissenborn for bassoon; Rubank and Wagner for flute, and Barret and Gekeler for oboe. Music fee: \$12.00.

CORNET 112-122. (OR OTHER BRASS INSTRUMENT.) (MUSC 112 122 CORNET) (2-6) *Credit 2*. I and II. Fundamentals of attack; breath control; formation of embouchure; scale, methods of Arban and Goldman for cornet; Anton Horner and Oscar Franz for French horn; Simera-Hovey for trombone, and Rubank for saxophone. Music fee: \$12.00.

VIOLIN 112-122. (MUSC 112 122 VIOLIN) (OR OTHER STRING INSTRUMENT) (2-6) *Credit 2*. I and II. Major and minor scales and arpeggios, first position methods of Gruenberg and Wohlfahrt for violin; Kummer for violoncello; Primrose for viola, and Butler and Simandl for bass. Music fee: \$12.00.

ORGAN 112-122. (MUSC 112 122 ORGAN) (2-6) *Credit 2*. I and II. Preparatory manual exercises and pedal technique; the playing of trios (two manuals and pedals); playing of chorals and preludes, and shorter works for the organ. Organ students must demonstrate ability in piano before admittance to organ classes. Methods of Dickinson and Stainer. Music fee: \$5.00 per month.

PIANO 112-122. (MUSC 112 122 PIANO) (2-6) *Credit 2*. I and II. Hannon, The Virtuoso Pianist, Part II; Czerny, The School of Velocity, first half; Bach, Two-Part Inventions; Chopin, Preludes; all major and minor scales in four octaves using double and triple rhythms in various accents. Music fee: \$12.00.

VOICE 112-122. (Musc 112 122 VOICE) (2-6) *Credit 2.* I and II. Study of tone production, breathing flexibility and phrasing. Simple classics in English and from the Italian Anthology. Music Fee: \$12.00.

### INTERMEDIATE COURSES

CLARINET 212-222. (Musc 212 222 CLARINET) (OR OTHER WOODWIND INSTRUMENT.) (2-6) *Credit 2.* I and II. Chromatic scales; sustained tones; broken chords in all keys; etudes for the instrument; tenor clef for the bassoon; methods of Magnani, Klose and Rose for clarinet; F. Oubrodous and Weissenborn for bassoon; Maquarre and Popp-Sousman for flute and Barret and Ferling for oboe. Music fee: \$12.00.

CORNET 212-222. (Musc 212 222 CORNET) (OR OTHER BRASS INSTRUMENT) (2-6) *Credit 2.* I and II. Double and triple articulations; legato technique; transposition; methods and studies of Arban, Williams and Clarke for cornet; Kopprasch, Oscar Franz and Gally for French horn; Alban, Cimera and Endresen for trombone, and Pares, Klose and Magnani for saxophone. Music fee: \$12.00.

VIOLIN 212-222. (Musc 212 222 VIOLIN) (OR OTHER STRINGED INSTRUMENT) (2-6) *Credit 2.* I and II. Exercises in change of position; Rode and Dancla, Op. 73 Etudes for violin, Spohr Concerto No. 9 for violin; etc. Scales and arpeggios on the viola; three octaves; Gavinies, 24 Etudes for the viola, etc. Duport and Popper Etudes for 'cello; Sonatas by Brevai, Sarmortini or Eccles for 'cello; Bach, Suite in D Minor for 'cello; positions as far as the seventh for the double bass Watson method and Edouard Nanny, exercises for double bass; double bass method by Simandl, Part II etc. Music fee: \$12.00.

ORGAN 212-222. (Musc 212 222 ORGAN) (2-6) *Credit 2.* I and II. A continuation of technical exercises; the extension of repertory through Preludes and Fugues by Bach; works of Guilman, Carl, Mendelssohn, etc.; use of organ for church and concert purposes. Music fee: \$5.00 per month.

PIANO 212-222. (Musc 212 222 PIANO) (2-6) *Credit 2.* I and II. Hanon, The Virtuoso Pianist completed; Czerny, The School of Velocity completed; Bach, Three-Part Invention; early keyboard music; Chopin, Waltzes; Haydn, Sonatas. Music fee: \$12.00.

VOICE 212-222. (Musc 212-222 VOICE) (2-6) *Credit 2.* I and II. Diatonic and chromatic scales; tone production, vocal embellishments, legato and staccato style; the simple trill; additional songs from a selected list of English songs; selections in Italian and French; an Italian aria from a Mozart opera or another composer of Italian opera; recitatives and arias from such works as "St. Paul," "Elijah," and "Messiah." Music fee: \$12.00.

### ADVANCED COURSES

CLARINET 312-322; 412-422; 512-522. (Musc 312 322 412 422 512 522 CLARINET) (OR OTHER WOODWIND INSTRUMENT) (2-12) *Credit 2.* I and II. Advanced technical studies; repertory, including sonatas and concertos; classical, romantic and modern literature. Music fee: \$12.00.

CORNET 312-322; 412-422; 512-522. (Musc 312 322 412 422 512 522 CORNET) (OR OTHER BRASS INSTRUMENT) (2-12) *Credit 2.* I and II. Advanced technical studies; repertory, including sonatas and concertos; classical, romantic and modern literature. Music fee: \$12.00.

VIOLIN 312-322; 412-422; 512-522. (Musc 312 322 412 422 512 522 VIOLIN) (OR OTHER STRINGED INSTRUMENT) (2-12) *Credit 2.* I and II. Advanced technical studies; repertory including sonatas and concertos; classical, romantic and modern literature. Music fee: \$12.00.

ORGAN 312-322; 412-422; 512-522. (Musc 312 322 412 422 512 522 (ORGAN)) (2-12) *Credit 2.* I and II. Advanced technical studies; service playing, extemporization; repertory, including chorals, sonatas, selected symphonic movements and concertos; classical, romantic and modern literature. Music fee \$5:00 per month.

PIANO 312-322; 412-422; 512-522. (Musc 312 322 412 422 512 522 PIANO) (2-12) *Credit 2.* I and II. Advanced technical studies including Czerny, The Art of Finger Dexterity; Beethoven, Sonatas; Chopin, Etudes and Ballades; Bach, The Well-Tempered Clavichord, The English Suites and The French Suites; repertory, including solos and concertos of classical, romantic and modern composers. Music fee: \$12.00.

VOICE 312-322; 412-422; 512-522. (Musc 312 322 412 422 512 522 VOICE) (2-12) *Credit 2.* I and II. Advanced technical studies; repertory, including oratorio and opera recitatives and arias in English, Italian, French and German; classical, romantic and modern literature. Music fee \$12.00.

## METHODS AND MATERIALS

BRASSES 132. (GROUP INSTRUCTION) (Musc 132 BRASSES) (2-6) *Credit 2.* I or II. Fundamental technique for playing the brass instruments as an aid in understanding how to organize bands and orchestras in the elementary and high school.

PERCUSSION 132. (GROUP INSTRUCTION) (Musc 132 PERCUSSION) (2-6) *Credit 2.* I or II. Fundamental technique for playing the percussion instruments as an aid in understanding how to organize bands and orchestras in the elementary and high schools.

STRINGS 132. (GROUP INSTRUCTION) (Musc 132 STRINGS) (2-6) *Credit 2.* I or II. Fundamental technique for playing the stringed instruments as an aid to understanding how to organize orchestras in the elementary and high school.

WOODWINDS 132. (GROUP INSTRUCTION) (Musc 132 WOODWINDS) (2-6) *Credit 2.* I or II. Fundamental technique for playing the woodwind instruments as an aid in understanding how to organize bands and orchestra in the elementary and high school.

142. (VOICE CLASS METHODS) (Musc 142 VOICE METH) (2-6) *Credit 2.* I or II. Basic principles and problems in voice instruction as related to groups as well as the individual with emphasis on the participation approach.

253-263. ELEMENTARY SCHOOL METHODS. (Musc 253 263 ELEM METH) (Elementary Education Majors) (6-0) *Credit 6.* (Both semesters) Grade school music methods and materials, care and development of the child voice.

342. (ORGANIZATION AND ADMINISTRATION OF CHORAL GROUPS) (Musc 343 ORG ADM) (2-0) *Credit 2.* I and II. Technique of organization and administration of elementary and high school choral groups, including tone interpretation, and choral literature. Clinical aspects of the rehearsal and performance.

373. (SUPERVISION AND ADMINISTRATION OF GRADE SCHOOL MUSIC) (Musc 373 GRADE SCH) (3-0) *Credit 3.* I or II. Evaluative criteria of music teaching and supervision in junior and senior high school.

383. TEACHING MUSIC IN HIGH SCHOOL. See Education 333, Teaching High School subjects.

393. (INSTRUMENTAL MUSIC EDUCATION) (Musc 393 INSTRMNTL) (3-0) *Credit 3.* I or II. Evaluation of current principles and procedures in the teaching of instrumental music in the elementary and high school including methods of instruction, and organization of materials.

403. (OBSERVATION AND PRACTICE TEACHING OF APPLIED MUSIC) (Musc 403 OBSV TCHG) (3-0) *Credit 3.* I or II. Teaching of applied music in groups and to individuals through apprenticeship and upon one's own under the guidance of a critic teacher.

442. (THE STUDY OF PIANO ACCOMPANYING) (Musc 442 ACCOMPNYG) (2-6) *Credit 2.* I or II. Accompanying vocal and instrumental soloists and groups. Acquaintance with accompaniments of standard literature (orchestral, operatic, oratorio, etc.).

## MUSIC ENSEMBLES

112, 122, 212, 222, 312, 322, 412, 422. (Musc 112 122 212 222 312 322 412 422 CHOIR) (CHORAL PRACTICE) (College choir) (1/2-4) *Credit 2.* I and II. All four years. Sacred and secular choral music, cantatas and oratorios—offering excellent practical opportunities for expression in part singing. A cappella and accompanying singing.



111, 121, 211, 221. (MILITARY-CONCERT BAND) (MUSC 111 121 211 221 CONG BAND) (1-4) *Credit I.* I and II. All four years. A military concert organization for concert and military music. Experience in advanced band literature.

410. (TWO-PIANO PLAYING.) (MUSC 410 TWO PIANO) (0-6) *No Credit.* I or II. Excellent opportunity for obtaining poise in piano playing, and for developing an accurate rhythmic sense.

420. (STRING ENSEMBLE) (MUSC 420 ENSEMBLE) (0-6) *No Credit.* I or II. A small ensemble serving as the nucleus for the symphony orchestra.

## DEPARTMENT OF NATURAL SCIENCE

The Department of Natural Science includes Biology, Chemistry, Physics and Science. Each section has a chairman and its respective requirements for major and minor students.

The department offers courses designed to prepare students for industry, the teaching profession, preprofessional studies in the medical sciences and other sciences which require a scientific background. Credits earned here are accepted by all class A medical schools.

### PREPROFESSIONAL STUDIES IN THE MEDICAL SCIENCES

Students who plan careers in Medicine, Dentistry, Veterinary Medicine or any of the Medical sciences are advised to take the course of study outlined for a major in Biology or Chemistry.

Such students will be advised by the Premedical Advisory Committee. Announcements of The Medical Admission Tests and the Dental Aptitude Tests will be made prior to the dates they will be given.

Listed below are the minimum requirements of the State colleges and the American Society of Clinical Pathologists. Students who contemplate study in these fields are advised that the requirements listed are the minimum requirements and that good grades (an average of "B" or better) and a college degree should enhance ones possibilities of acceptance. Those who plan to attend professional schools should consult the catalog of the specific school they plan to attend before beginning their preparatory work.

### PRE-DENTISTRY

1. A minimum of 60 semester hours which must be approved by the Dean of Admissions of respective school.
2. The grade average must be a "C" or better in each course.
3. Courses required:
  - A. 12 semester hours of General Biology or General Zoology, including Comparative Anatomy.
  - B. 8 semester hours of General Physics which includes laboratory credit.
  - C. 8 semester hours in General Chemistry with laboratory.
  - D. 6 semester hours in Organic Chemistry with laboratory.
  - E. 6 semester hours in English Composition and Rhetoric (Freshman).
  - F. 6 semester hours of American Government.
  - G. 6 semester hours of History of the United States.

4. It is suggested that candidates should complete 12 hours of English of which 6 semester hours must be in Composition and Rhetoric; also 4 hours in Quantitative (volumetric) Analysis.
5. Courses recommended as electives:
  - A. Mathematics.
  - B. Psychology.
  - C. Sociology.
  - D. Economics.
  - E. Genetics (Hereditary).
  - F. Embryology.
  - G. A Foreign Language.

## PRE-MEDICINE

Ninety semester hours. Prescribed courses must include:

- 12 semester hours in English (does not include public speaking);
- 12 semester hours in Biology or Zoology. Must include Comparative Anatomy (with laboratory);
- 8 semester hours Physics (with laboratory);
- 8 semester hours General Inorganic Chemistry (with laboratory);
- 6 semester hours Organic Chemistry (with laboratory);
- 4 semester hours in Quantitative Analysis (volumetric);
- 3 semester hours of Algebra;
- 3 semester hours of Trigonometry or Analytical Geometry.

Courses in foreign languages, mathematics, physical chemistry, general history, and philosophy are strongly recommended.

## PRE-VETERINARY MEDICINE

A minimum of sixty semester hours are required. These must include:

- 6 to 8 hours inorganic chemistry;
- 6 to 8 hours organic chemistry;
- 6 hours of Zoology;
- 6 hours of Mathematics (Algebra and Trigonometry);
- 6 to 8 hours of Physics;
- 8 hours English (6 in Rhetoric and Composition);
- 3 hours American Government;
- 6 hours Animal Husbandry.

## PRE-MEDICAL TECHNOLOGY

The minimum requirement is 60 semester hours, however, students who have more academic training applications are likely to receive more consideration. Upon the completion of the minimum requirements a student must complete 12 consecutive month in training in an approved school of Medical Technology.

The 60 semester hours should include:

- 8 semester hours of Chemistry;
- 4 semester hours of Organic Chemistry;
- 4 semester hours of Zoology;
- 8 semester hours of other Biology.

## PRE-PHARMACY

Most pharmacy schools will accept students who graduate from accredited high schools with the basic sciences. Many do, however, recommend a year or two of preparatory work in the sciences.

## PRE-NURSING

Students who plan to study nursing may follow the suggested curriculum below for Pre-Nursing:

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 103 .....	3	English 113 .....	3
Mathematics 173 .....	3	Mathematics 183 .....	3
Physical Education 111 .....	3	Physical Education 121 .....	1
Social Science 113 .....	3	Social Science 123 .....	3
Intro. to Chem. 104 or Zoology 114 .....	4	Intro. to Chem. 124 or Zoology 124 .....	4
	<hr/> 14		<hr/> 14

## BIOLOGY

The courses in Biology fall primarily into three groups: those satisfying the basic requirements of general education, those intended to give sufficient knowledge to support majors in other fields (Agriculture, Chemistry, Education, Home Economics, Nursing Education, Physical Education), and those designed primarily to furnish a foundation for professional work in Biology and Medicine.

### MAJOR REQUIREMENTS

For the degree of Bachelor of Science with a major in biology, a minimum of 34 semester hours is required. Courses are prescribed as follows:

Biology 115, 125—General Zoology .....	10 hours
Biology 134—General Botany .....	4 hours
Biology 314, 324—Human Physiology .....	8 hours
Biology 414—Vertebrate Embryology .....	4 hours
Biology 424—Comparative Vertebrate Anatomy .....	4 hours
Elective in Biology (Advanced level) .....	4 hours

In addition to the above requirements for major the following courses must be presented: Chemistry 115, 125, Physics 214, 224 and Mathematics 113 and 123. Each present in thesis from the result of a scientific investigation.

### MINOR REQUIREMENTS

For a minor in biology, twenty-two semester hours in addition to Science 333—Teaching of High School Science (for those who plan to teach), which counts as Education, are necessary. The courses are prescribed as follows:

Biology 115, 125—General Zoology .....	10 hours
Biology 134—General Botany .....	4 hours
Biology 314, 324—Human Physiology .....	8 hours

In addition to the twenty-two semester hours each minor of Biology must present the following courses:

Chemistry 114, 124—General Chemistry .....	8 hours
Biology 402—Laboratory Technique .....	2 hours

All major or minor students must attain an average of "C" or above in all science courses; if a student's average drops below "C" at the end of the sophomore year, he will be asked to change to another major or minor field. He is expected to maintain a "C" average throughout his junior and senior years.

# SUGGESTED OUTLINE FOR A MAJOR IN BIOLOGY FOR PRE-MEDICAL STUDENTS\*

## FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 115 .....	5	Biology 125 .....	5
General Zoology		General Zoology	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 113 .....	3	Mathematics 123 .....	3
College Algebra		Trigonometry	
Social Science 103 .....	3	History 173 .....	3
Survey of Social Science		United States to 1865	
German 113 .....	3	German 123 .....	3
Elementary German or		Elementary German or	
French 113 .....	3	French 123 .....	3
Elementary French		Elementary French	
Physical Education 111 (Women) .....	1	Physical Education 121 (Women) .....	1
Freshman Practice or		Freshman Practice or	
Military Science 111 (Men) .....	1	Military Science 121 (Men) .....	1
Elementary		Elementary	
	<hr style="width: 50%; margin: 0 auto;"/> 18		<hr style="width: 50%; margin: 0 auto;"/> 18

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 314 .....	4	Biology 324 .....	4
Human Anatomy and Physiology		Human Anatomy and Physiology	
Chemistry 115 .....	5	Chemistry 125 .....	5
General Inorganic Chemistry		General Inorganic Chemistry	
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
German 213 .....	3	German 223 .....	3
Intermediate German or		Intermediate German or	
French 213 .....	3	French 223 .....	3
Reading and Grammar Review		Reading and Grammar Review	
Biology 402 .....	2	Biology 502 .....	2
Laboratory Technique		Laboratory Technique	
History 183 .....	3	Electives .....	3
United States 1865 to Present		Physical Education 221 (Women) .....	1
Physical Education 211 (Women) .....	1	Sophomore Practice or	
Sophomore Practice or		Military Science 221 (Men) .....	1
Military Science 211 (Men) .....	1	Elementary	
Elementary			
	<hr style="width: 50%; margin: 0 auto;"/> 21		<hr style="width: 50%; margin: 0 auto;"/> 21

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 414 .....	4	Biology 424 .....	4
Vertebrate Embryology		Comparative Anatomy	
Chemistry 204 .....	4	Chemistry 214 .....	4
Qualitative Analysis		Quantitative Analysis	
Physics 214 .....	4	Physics 224 .....	4
General Physics		General Physics	
Electives .....	3	English 433 .....	3
		American Literature	
	<hr style="width: 50%; margin: 0 auto;"/> 15		<hr style="width: 50%; margin: 0 auto;"/> 15

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 134 .....	4	Elective in Major Field .....	4
Botany		Chemistry 325 .....	5
Chemistry 315 .....	5	Organic Chemistry	
Organic Chemistry		Political Science 123 .....	3
Political Science 113 .....	3	State Government	
National Government		Electives .....	6
Electives .....	6	Biology 461 .....	1
Biology 451 .....	1	Research	
Research			
	<hr style="width: 50%; margin: 0 auto;"/> 19		<hr style="width: 50%; margin: 0 auto;"/> 19

\* Students choosing this Curriculum in Biology are required to obtain a statement from the parent that the student does not expect to teach.

## SUGGESTED FOUR-YEAR PROGRAM FOR A TEACHING MAJOR IN BIOLOGY

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 115 .....	5	Biology 125 .....	5
General Zoology		General Zoology	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Social Science 113 .....	3	College Science 113 .....	3
Survey of Social Science		Survey of College Science	
Mathematics 113 .....	3	Mathematics 123 .....	3
College Algebra		Trigonometry	
French 113 .....	3	French 123 .....	3
Elementary French or		Elementary French or	
German 113 .....	3	German 123 .....	3
Elementary German		Elementary German	
Physical Education 111 (Women) .....	1	Physical Education 121 (Women) .....	1
Freshman Practice or		Freshman Practice or	
Military Science 111 (Men) .....	1	Military Science 121 (Men) .....	1
Elementary		Elementary	
	18		18

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 314 .....	4	Biology 324 .....	4
Human Physiology		Human Physiology	
Chemistry 115 .....	5	Chemistry 125 .....	5
General Inorganic Chemistry		General Inorganic Chemistry	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
French 213 .....	3	French 223 .....	3
Reading and Grammar Review or		Reading and Grammar Review or	
German 213 .....	3	German 223 .....	3
Intermediate German		Intermediate German	
Physical Education 211 (Women) .....	1	Physical Education 221 (Women) .....	1
Sophomore Practice or		Sophomore Practice or	
Military Science 211 (Men) .....	1	Military Science 221 (Men) .....	1
Elementary		Elementary	
Biology 402 .....	2	Biology 502 .....	2
Laboratory Technique		Laboratory Technique	
	21		21

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 414 .....	4	Biology 424 .....	4
Vertebrate Embryology		Comparative Anatomy	
History 173 .....	3	History 183 .....	3
United States to 1865		United States, 1865 to Present	
Minor (Elective) .....	3	Education 333 .....	3
Education 323 .....	3	Teaching of High School Science	
High School Curriculum		Physics 224 .....	4
Military Science 313 (Men) .....	3	General Physics	
Advanced		Military Science 323 (Men) .....	3
Physics 214 .....	4	Advanced	
General Physics		Minor (Elective) .....	3
	20		20

### SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 134 .....	4	Education 423 .....	3
General Botany		School and Community Relations	
Political Science 113 .....	3	Political Science 123 .....	3
National Government		State Government	
Education 393 .....	3	Education 406 .....	6
Educational Problems		Student Teaching	
Biology 451 .....	1	Electives .....	6
Research		Biology 461 .....	1
Elective in Major Field .....	4	Research	
Minor (Elective)		Military Science 423 (Men) .....	3
Electives .....	3	Advanced	
Military Science 413 (Men) .....	3		
Advanced			
	18 or 21		19 or 22

## DESCRIPTION OF COURSES

### BIOLOGY

114. GENERAL ZOOLOGY. (BIOL 114 GEN ZOO) (2-4) *Credit 4*. Fundamental principles of Biology from the study of embryology, structure and physiology of the frog. (For non-majors and minors.) Laboratory fee: \$2.00.

115. GENERAL ZOOLOGY. (BIOL 115 GEN ZOO) (3-4) *Credit 5*. For majors and minors in Biology; a detailed study of morphology, physiology, ecology, and taxonomy of the vertebrates. Laboratory fee \$2.00.

124. GENERAL ZOOLOGY. (BIOL 124 GEN ZOO) (2-4) *Credit 4*. Morphology, physiology and relationship in invertebrate groups. Prerequisite: Biology 114. (For non-majors and minors.) Laboratory Fee: \$2.00.

125. GENERAL ZOOLOGY. (BIOL 125 GEN ZOO) (3-4) *Credit 5*. For majors and minors in Biology; a detailed study of morphology, physiology, ecology, and taxonomy of the invertebrates. Laboratory Fee: \$2.00.

134. GENERAL BOTANY. (BIOL 134 BOTANY) (2-4) *Credit 4*. Morphology, physiology of flowering plants; structure, method of reproduction and biotic relationships of types representative of lower plants Laboratory fee: \$2.00.

153-163. HUMAN ANATOMY AND PHYSIOLOGY FOR STUDENT NURSES. (BIOL 153 163 ANAT PHYS) (2-4) *Credit 3*. The structure and function of the human body; the structure of each of the systems demonstrated by models, charts and animal dissections; their function studied by experiments. Laboratory Fee: \$2.00.

174. (EQUIVALENT TO NE 123) GENERAL MICROBIOLOGY AND PATHOLOGY. (BIOL 123 BACT AND PATH) (2-2) *Credit 3*. Morphology and physiology and micro-organisms related to health and sanitation; asepsis, disinfection, and the growth and control of those organisms causing common infectious diseases. Laboratory fee: \$2.00.

254. GENETICS. (BIOL 254 GENETICS) (2-4) *Credit 4*. Laws and principles governing heredity in plants and animals; relation to plant and animal improvement and to Eugenics. Prerequisite: Biology 134, 114. Laboratory fee: \$2.00.

304. PHYSIOLOGY FOR STUDENTS OF HOME ECONOMICS. (BIOL 304 PHYSIOL) (2-4) *Credit 4*. Structure of function of human organs and systems as related to Home Economics and good health. Laboratory fee: \$2.00.

314-324. HUMAN PHYSIOLOGY AND ANATOMY. (BIOL 314 324 PHYS ANAT) (Majors and Physical Education Majors.) (2-4) *Credit 4*. Structure; physiology of human organ system and related principles. Prerequisite: Biology 114, 124 Laboratory fee: \$2.00.

334. GENERAL MICROBIOLOGY. (Bacteriology) (BIOL 334 MICROBIOL) (2-4) *Credit 4*. Morphology, physiology, classification, cultivation of microorganisms, relation to agriculture, premedics, and industry. Prerequisite: General Chemistry, Biology 134 and 114. Laboratory fee: \$2.00.

364. ANIMAL HISTOLOGY. (BIOL 364 HISTOLOGY) (2-4) *Credit 4*. Microscopic study of tissues and organs of vertebrates; relation of structure to function. Laboratory fee: \$2.00.

403. PLANT BREEDING AND IMPROVEMENT. Equivalent to Pl. Sc. 403 (BIOL 403 BREEDING) (3-0) *Credit 3*. II. Principles involved in breeding economic important crop plants with emphasis on improvements in resistance to disease, drought, insects and extreme temperatures, and for machine harvesting and cultivation. Laboratory fee \$2.00.

414. VERTEBRATE EMBRYOLOGY (BIOL 414 VERT EMBR) (3-5) *Credit 4*. Structure, principles and progress in vertebrate development; chicken and pig as principal laboratory material. Prerequisite: Biology 115-125 Laboratory Fee \$2.00.

423. PLANT PATHOLOGY. (BIOL 423 PLNT PATH) (2-2) *Credit 3*. II. A study of disease in plants; diseases found in the economic important crop plants. Laboratory Fee \$2.00.

424. COMPARATIVE ANATOMY. (BIOL 424 COMP ANAT) (3-5) *Credit 4*. Anatomy of organs and organ systems, their function and evolution in major vertebrate types. Prerequisites: Biology 114, 124, 414. Laboratory Fee: \$2.00.

434. BACTERIOLOGY OF DAIRY PRODUCTS. (BIOL 434 BACTERIOL) (2-2) *Credit 3*. I. Influence of micro-organisms on the quality of milk products; sanitary control of farm and commercial dairies. Laboratory fee: \$2.00.

464 PLANT PHYSIOLOGY. (BIOL 464 PLANTS) (2-4) *Credit 4*. I. Structure, physiology of plant organ systems and related principles. Laboratory fee: \$2.00.

451-461. RESEARCH. (BIOL 451 RESEARCH) (0-2) *Credit 1*. I or II. Library and laboratory work on specific problems studied for investigative paper (required of all majors).

402-502. LABORATORY TECHNIQUE. (BIOL 402-502 LAB TECH) (1-5) *Credit 2*. I or II. A training course in laboratory methods for prospective teachers of biology. Required of students electing Biology as a major field.

## DEPARTMENT OF CHEMISTRY

### Major and Minor Requirements

For a B. S. Degree in Chemistry, 38 semester hours are required of which 16 hours must be courses numbered 300 or above.

For a B.S. Degree in Chemistry, 40 semester hours are required of which 16 hours must be courses numbered 300 or above.

Twenty-four semester hours are required for a minor in Chemistry, of which five hours must be in courses numbered 300.

All students who major or minor in Chemistry must include the following courses: Chemistry 115, 125, 204, 214, and 315. Pre-medical students are advised to take Chemistry 325. In addition to the above courses, all persons majoring in Chemistry must take the following courses: Mathematics 113, 123, 213, and 224, and Physics 224. Math. 313 is recommended.

Students who plan to major or minor in chemistry will be expected to maintain an average of "C" which is the minimum requirement and must take courses 115 and 125 which are designed for students who plan to major and minor in chemistry. This is effective for students who matriculate for the first time September, 1951.

## SUGGESTED OUTLINE FOR A MAJOR IN CHEMISTRY WITH MINOR IN MATHEMATICS

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 115 .....	5	Chemistry 125 .....	5
General Inorganic Chemistry		General Inorganic Chemistry	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 113 .....	3	Mathematics 123 .....	3
College Algebra		Trigonometry	
Social Science 113 .....	3	History 173 .....	3
Introduction to Social Science		American History	
Physical Education 111 (Women) .....	1	Physical Education (Women) 121 .....	1
Freshman Practice or		Freshman Practice, or	
Military Science (Men) 111 .....	1	Military Science 121 (Men) .....	1
Elementary		Elementary	
Industry, Chemistry 302—Lab Tech. ....	2	Political Science 113 .....	3
		American National Government	
	17		18

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 204 .....	4	Chemistry 214 .....	4
Qualitative Analysis		Quantitative Analysis	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Physics 214 .....	4	Mathematics 213 .....	3
General Physics		Analytical Geometry	
French 113 or German 113 .....	3	French 123 or German 213 .....	3
Elementary French or German		Elementary French or German	
Physical Education 211 (Women) .....	1	Physical Education 221 (Women) .....	1
Sophomore Practice, or		Sophomore Practice, or	
Military Science 211 (Men) .....	1	Military Science 221 (Men) .....	1
Elementary		Elementary	
Government 123 .....	3	Physics 224 .....	4
American State Government		General Physics	
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	18		17

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 315 .....	5	Chemistry 325 .....	5
General Organic Chemistry		General Organic Chemistry	
Mathematics 223 .....	3	Mathematics 313 .....	3
Differential Calculus		Integral Calculus	
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
Military Science 313 .....	3	Military Science 323 .....	3
Advanced		Advanced	
Physical Education Theory* .....	3	Education 333 .....	3
Women		Methods of Teaching Science	
Education 393 .....	3	French 213 or German 283 .....	3
Education Problems		Reading and Grammar Review	
French 213 or German 213 .....	3		
Reading and Grammar Review			
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	17 or 20		20

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 414 .....	4	Chemistry 424 .....	4
Physical Chemistry		Physical Chemistry	
Education 406 .....	6	Elective Mathematics .....	3
Practice Teaching		Elective	
Education 423 .....	3	Military Science 423 .....	3
School and Community		Advanced	
History 183 .....	3	Electives .....	6
American History			
Chemistry 451 .....	1	Chemistry 461 .....	1
Research		Research	
	<hr style="width: 100%; border: 0.5px solid black;"/>		<hr style="width: 100%; border: 0.5px solid black;"/>
	17		17

## DESCRIPTION OF COURSES

### CHEMISTRY

104. INTRODUCTION TO GENERAL CHEMISTRY. (2-4) *Credit 4*. Introductory course in General Chemistry, designed for Pre-Nursing Students. Credit for this course is not accepted in place of courses 113 or 114.

113-123. CHEMISTRY FOR NURSES. (CHEM 113 123 NURS CHEM) (2-1) *Credit 3*. I and II. For students of Nursing and Nursing Education: the essentials for inorganic biological chemistry requisite for nursing Laboratory fee: \$2.00.

114-124. GENERAL INORGANIC CHEMISTRY. (CHEM 114 124 INORGANIC) (3-4) *Credit 4*. The first semester deals chiefly with fundamental laws and theories, the periodic chart, formulas, equations, solutions, and elementary calculations. The second semester includes chemical equilibrium, detailed consideration of inorganic compounds and the introduction of Organic Chemistry. Laboratory Fee: \$2.00.



*These courses are for non-majors and non-minors—for students in Home Economics, Agriculture, and Engineering.*

115-125. GENERAL INORGANIC CHEMISTRY. (CHEM 115 125 INORGANIC) (3-4) *Credit 5.* For students majoring or minoring in chemistry; composition, structure, changes of matter and the laws governing these changes; fundamentals of the most modern concepts. The second semester deals largely with properties and preparation of the elements and their inorganic compounds. Laboratory fee: \$2.00.

204. QUALITATIVE ANALYSIS. (CHEM 204 QUAL ANAL) (2-4) *Credit 4.* Analytical reactions from the point of view of the laws of chemical equilibrium applied to solution of electrolysis; laboratory work of the separation and detection of both metal and nonmetal; micro-qualitative laboratory techniques; prerequisite: Chemistry 115 and 125. Laboratory fee: \$2.00.

214 - 224. QUANTITATIVE ANALYSIS (CHEM 214 224 QUAN ANAL) (2-4) *Credit 4..* I and II. Volumetric and gravimetric analysis, stoichiometrical relations practical applications. Laboratory work consists of the analysis of samples of salts, ores, water and limestone. Prerequisite: 204. Laboratory fee: \$2.00.  
114, 124. Laboratory fee: \$2.00.

244. ELEMENTARY PHYSIOLOGICAL CHEMISTRY. (CHEM 244 PHYSIOLOGY) *Credit 4. II.* For students of Home Economics and Agriculture. Study of the composition and metabolism of the fats, proteins, carbohydrates, and vitamins. Prerequisite: Chemistry 114, 124. Laboratory Fee: \$2.00.

314. INTRODUCTORY ORGANIC CHEMISTRY. (CHEM 314 ORGANIC) (2-4) *Credit 4. I.* For students majoring in Agriculture, and Home Economics. An introduction to aliphatic and aromatic compounds, fats, carbohydrates, and proteins. Prerequisite: Chemistry 114, 124. Laboratory fee: \$2.00.

315 and 325. GENERAL ORGANIC CHEMISTRY. (CHEM 315 325 ORGANIC) (3-4) *Credit 5. I and II.* For Chemistry majors and minors, pre-medical, pre-dental, and student nursing education. Aliphatic and aromatic compounds; preparation and testing of representative compounds of the aliphatic and aromatic substances. Prerequisite: Chemistry 115, 125 and 204 and 214. Laboratory fee: \$2.00.

401. JOURNAL READING AND CHEMICAL LITERATURE. (CHEM 401 JOURNALS) (1-0) I or II. For Chemistry majors. Reports and discussion on current chemical literature and research. Prerequisite: Major in Chemistry or permission of Instructor.

402. ORGANIC PREPARATIONS. (CHEM 402 ORG PREP) (1-4) *Credit 2.* I or II. Preliminary work in the synthesis of organic compounds and a study of the reaction of compounds of the aretical and industrial importance. Prerequisite: Chemistry 325 fee: \$2.00.

414-424. PHYSICAL CHEMISTRY (CHEM 414 424 PHYSICAL) (3-4) *Credit 4. I and II.* Three one-hour lectures per week and one four-hour laboratory period (or two laboratory periods consisting of two hours each). Properties of gases, liquids and solids, solutions, thermodynamics and thermochemistry, homogeneous and heterogenous chemical equilibrium, chemical kinetics, electrochemistry, atomic and molecular structure, elements of the quantum theory, and photochemistry. Prerequisite: Quantitative Analysis, College Physics, and Integral Calculus with an average of "C" or better. Laboratory fee: \$2.00.

434. BIOCHEMISTRY. (CHEM 434 BIOCHEM) (2-4) *Credit 4. I or II.* An introductory course on the chemistry of living matter, foods, metabolism and nutrition. The laboratory works deal with the examination of tests of foods, nutritional studies and the qualitative and quantitative examination of blood and urine. Prerequisite: Chemistry 214, 315 and 325 or permission of instructor. Laboratory fee: \$2.00.

451, 461. RESEARCH. (CHEM 451 461 RESEARCH) (0-2) *Credit 1.* I or II. Library and laboratory work on specific problems to be studied for investigative paper required of all majors.

# PHYSICS

## MAJOR AND MINOR REQUIREMENTS

The course offering in Physics is designed for the preparation of three classes of students: those who must present Physics as a prerequisite to the study of medicine, dentistry, engineering, and those to whom Physics will be an aid to a fuller and more precise interpretation of physical problems.

A major in Physics consists of Physics 214, 224, 403 and additional credits to make a total of 32 hours. A minor consists of Physics 214, 224 and additional credit to make a total of 22 hours.

In addition to the above requirements for a major or minor in Physics, the following courses must be presented: Chemistry 114, 124; and Mathematics 113, 123; and a course in differential and integral calculus.

A person majoring in Physics must maintain an average of "C" or above. If a student's average drops below "C" at the end of his sophomore year, he will be asked to change to another major field.

## SUGGESTED OUTLINE FOR MAJORS IN PHYSICS

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 115 .....	5	Chemistry 125 .....	5
General Inorganic Chemistry with Introductory Qualitative Analysis		General Inorganic Chemistry with Introductory Qualitative Analysis	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 113 .....	3	Mathematics 123 .....	3
College Algebra		Trigonometry	
Social Science 113 .....	3	Social Science 123 .....	3
Introduction to Social Science		Introduction to Social Science	
Physical Education Practice 111 .....	1	Biology 114 .....	4
Freshman Practice (Women) or		General Zoology	
Military Science 111 .....	1	Physical Education Practice 121 .....	1
Elementary (Men)		Freshman Practice (Women) or	
		Military Science 121 .....	1
		Elementary (Men)	
	16		19

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Physics 214 .....	4	Physics 224 .....	4
General Physics		General Physics	
French 113 .....	3	French 123 .....	3
Elementary French		Elementary French	
Political Science 113 .....	3	Political Science 123 .....	3
American National Government		American State Government	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Mathematics 224 .....	3	Mathematics 313 .....	3
Differential Calculus		Integral Calculus	
Physical Education 211 .....	1	Physical Education Practice 221 .....	1
Sophomore Practice (Women) or		Sophomore Practice (Women) or	
Military Science 211 (Men) .....		Military Science 221 (Men) .....	
Elementary		Elementary	
	17		17

JUNIOR YEAR			
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Physics 312 .....	2	Physics 322 .....	2
Electrical Measurements		Electrical Measurements	
Physics 313 .....	3	Physics 323 .....	3
Electrical Measurements		Electrical Measurements	
Mathematics 213 .....	3	Mathematics 343 .....	3
Analytical Geometry		Solid Analytical Geometry	
Elective .....	3	Education 333 .....	3
Physical Education Theory .....	3	Methods of Teaching Science	
Introduction to Physical Education		History 173 .....	3
Military Science 313 (Men) .....	3	American History	
Advanced		Physical Education Theory .....	3
Education 393 .....	3	Playground and Community Rec.	
Educational Problems		Military Science 323 (Men) .....	
	17 or 20		17

SENIOR YEAR			
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 406 .....	6	Physics 423 .....	3
Physics 413 .....	3	Electronics	
Electronics		Physics 423B .....	3
Physics 413A .....	3	Advanced Light	
Advanced Heat and Sound		Electives .....	9
History 183 .....	3	Military Science 423 (Men) .....	
American History		Advanced	
Military Science 413 (Men) .....	3		
Advanced			
Education 423 .....	3		
School and Community			
	18		15

## DESCRIPTION OF COURSES

### PHYSICS

214, 224. GENERAL PHYSICS. (PHYS 214 224 GEN. PHYS) (2-4) *Credit 4. I and II.* Mechanics, heat, sound, electricity, and light. Prerequisite: Mathematics 113 and 123, which may be taken concurrently with course.

215-225. GENERAL PHYSICS. (PHYS 215 225 GEN PHYS) (2-6) *Credit 5. I and II.* Offered for majors in engineering, mechanics, heat, sound, electricity, and light. Prerequisite: Mathematics 113 and 123, which may be taken concurrently with course.

312-322. ELECTRICAL MEASUREMENTS. (PHYS 312 322 ELEC MSRM) (0-4) *Credit 2. I and II.* Offered for majors in Electrical Engineering. A laboratory course covering the theory and use of electrical apparatus. Methods of measuring current, power, electromotive force, ferro-magnetism, inductance and capacity. Prerequisite: Physics 214, 224 and Calculus; the Calculus may be taken concurrently with this course.

313-323. ELECTRICAL MEASUREMENTS (PHYS 313 323 ELEC MSRM) (3-0) *Credit 3. I and II.* The theory of electricity and magnetism. Physics 312 and 322 must accompany this course.

303. ELEMENTARY PHOTOGRAPHY. (PHYS 413, 423 ELECTRONICS) (1-4) *Credit 3. I and II.* The theory of the diode, triode, multi-element tubes; the cathode ray tubes, photobulbs and their application to engineering; considerable laboratory practice. Prerequisite: Physics 214, 224 and Calculus may be taken concurrently with this course.

413. ADVANCED HEAT AND SOUND. (PHYS 413 ADV SOUND) (1-4) *Credit 3. I.* Properties of gases, elementary theory of thermodynamics and the kinetic theory; laboratory practice in modern methods of temperature measurement, expansion properties of matter, and colorimetry; the transmission and production of sound resonance and vibrational properties of matter. Prerequisite: Physics 214, 224 and Calculus.

423B. ADVANCED LIGHT. (PHYS 423 ADV LIGHT) (1-4) *Credit 3. II.* The theory of lenses, interference diffraction, polarization; the importance and use of optical instruments; corresponding laboratory work required. Prerequisite: Physics 214, 224 and Calculus.

403. **ADVANCED LABORATORY TECHNIQUE.** (PHYS 403 LAB TECH) (0-6) *Credit 3.* I or II. Required of all majors in Physics. An advanced experimental problem is given under direction. The problem may take the form of a former classical problem in Physics. The outcome of this investigation is recorded as a thesis. This course is open to only majors in Physics.

#### COLLEGE SCIENCE AND SCIENCE EDUCATION

113-123. **SURVEY OF COLLEGE SCIENCE.** (SCI 113 123 SURVEY) (3-0) *Credit 3.* I and II. A course designed to give students an orientation in science; to cultivate scientific attitudes and methods of procedure; seeks to broaden concepts, generalizations and outlook; to open new avenues of interest and satisfaction; to enable the individual to meet the problems of existence with available knowledge and requisite skills and to develop scientific appreciation. In addition to the text, the course provides special lectures by the instructor and by other specialists in the various fields of science.

333. **THE TEACHING OF HIGH SCHOOL SCIENCE.** (SCI 333 H S METHODS) (3-0) *Credit 3.* Methods and materials in teaching of science in the junior and senior high school; training course for prospective teachers of science; lectures or conferences and field and laboratory work. Required of students who expect to get a teacher's certificate in science.

413. **ELEMENTARY SCHOOL SCIENCE.** (SCI 413 ELEM SCH SCI) (3-0) *Credit 3.* Prerequisites: Ed. 273-283, Ed. 363, and Ed. 393, I and II. Basic science concepts, the scientific attitude, and science method; methods of teaching, selecting and organizing subject matter and a variety of science experiences appropriate for elementary school age children through the use of simple materials, community resources, and visual material on science.

533. **THE TEACHING OF SCIENCE IN THE ELEMENTARY GRADES.** (SCI 533 TCH ELEM SCI) (3-0) *Credit 3.* Contributions of science learning experiences as an integral part of the elementary school curriculum; in curricular and instructional aspects of science education at the elementary level; develop skill in the use of a variety of science experiences through the use of simple materials, community resources, and visual aids suitable for children. Individual members aided in the development of plans or materials for the enrichment of science learning experiences in their local schools.

## DEPARTMENT OF PHYSICAL EDUCATION, HEALTH AND RECREATION

The department of Physical Education, Health and Recreation offers a four-year plan of study leading to the Bachelor of Science degree with a major in Physical Education. Minors are offered in Physical Education, Health and Recreation.

Major requirement for the degree of Bachelor of Science with a major in Physical Education is a minimum of thirty-one semester hours.

Each major must maintain a "C" average or above to continue in the program. If a student's average is below "C" at the end of his Sophomore year, he will be asked to change to another major field. In addition to maintaining the required scholastic average each major or minor must be able to pass departmental motor ability and physical fitness tests.

### PHYSICAL EDUCATION

For a major in Physical Education 31 semester hours are required. Courses are prescribed as follows:

P. E. 111,121, 211, 211 Physical Education Practice .....	4 hrs.
P. E. 102 and 202 Elementary Modern Dance or 332 and 322 Gymnastics ..	4 hrs.
P. E. 132 or 142 Individual Sports (Badminton, Archery, Golf Tennis) ..	2 hrs.
P. E. 172 History and Principles of Physical Education .....	2 hrs.

P. E. 313 Knesiology .....	3 hrs.
P. E. 323 Physical Education Methods and Materials for Secondary Schools .	3 hrs.
P. E. 342 or 302 Care and Prevention of Athletic Injuries or First Aid ....	2 hrs.
P. E. 463W or 453 Coaching and Officiating of Team Sports (Football, Basketball, Track, Baseball) .....	3 hrs.
P. E. 463W Coaching and Officiating Team Sports for Women (Field Hockey, Soccer, Speedball) .....	3 hrs.
P. E. 483 Organization and Administration of Physical Education .....	2 hrs.
P. E. 203 Personal Hygiene .....	3 hrs.

In addition to the above requirements each major in Physical Education is required to present the following courses:

Biology 114-124, Zoology .....	4 hrs.
Chemistry 114-124, General In Organic .....	8 hrs.
Biology 314-24, Anatomy and Physiology .....	8 hrs.

#### MINOR REQUIREMENTS

The department of Health and Physical Education and Recreation offers a minor in Physical Education, in Health Education and in Recreation. Courses are prescribed as follows:

#### PHYSICAL EDUCATION

For a minor in Physical Education 19 Semester hours are required. Courses are prescribed as follows:

P. E. 111, 121, 211, 221 Physical Education Practice .....	4 hrs.
P. E. 102 and 202 Elementary Modern Dance or 332 and 332 Gymnastics .....	4 hrs.
P. E. 172 History and Principles of Physical Education .....	2 hrs.
P. E. 261 Folk Dancing .....	1 hrs.
P. E. 323 Health and Physical Education Methods and Materials for Secondary Schools .....	3 hrs.
P. E. 463M or 453M Coaching and Officiating of Team Sports (Football, Basketball, Track, Baseball) .....	3 hrs.
P. E. 463W Coaching and Officiating Team Sports for Women .....	3 hrs.
P. E. 482 Organization and Administration of Physical Education .....	2 hrs.

In addition to the above requirements each minor in Physical Education is required to present the following courses:

Biology 114-124, Zoology .....	8 hrs.
Bology 314-324, Anatomy and Physiology .....	8 hrs.

#### HEALTH EDUCATION

For a minor in Health Education 19 semester hours are required. Courses are prescribed

H. E. 123 Elementary Nutrition (Home Economics Dept.) .....	3 hrs.
P. E. 203 Personal Hygiene .....	3 hrs.
P. E. 243 Methods and Materials in Health Education .....	3 hrs.
P. E. 253 Public School and Community Hygiene .....	3 hrs.
P. E. 392 Principles of Hygiene .....	2 hrs.
P. E. 302 First Aid .....	2 hrs.
P. E. 553 Driver Education and Safety .....	3 hrs.

#### RECREATION

For a minor in Recreation 19 semester hours are required. Courses are prescribed as follows:

E. D. 253 Arts and Crafts (Education Dept.) .....	3 hrs.
P. E. 352 Special Activities .....	2 hrs.
P. E. 373 Program Planning in Recreation .....	3 hrs.
P. E. 383 Theory and Practice in Outdoor Education .....	3 hrs.
P. E. 402 Fieldwork in Recreation* .....	2 hrs.
P. E. 403 Playground and Community Recreation* .....	3 hrs.
P. E. 453 Youth Agencies .....	3 hrs.

\*These two courses must be taken together.

One uniform is required of non-major students, and two uniforms for major Female students; a blue one-piece suit for non-majors; and a white and blue one-piece suit for women majors. White regulation basketball shoes are also required. The approximate cost of each of these costumes is \$6.50. Women should come either equipped with or prepared to purchase these uniforms for their work in Physical Education.

For men majoring in Physical Education regulation uniform and shoes prescribed by the department are required.

## INTRAMURAL ATHLETICS

This program, combining work in physical education and recreation, is designed primarily to give students an opportunity to learn and to participate in a variety of sports. A major or minor must at all times be a candidate for one of the varsity or intramural teams.

## SUGGESTED FOUR-YEAR PROGRAM WITH A MAJOR IN PHYSICAL EDUCATION

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 173 or 113 .....	3	Mathematics 183 or 123 .....	3
Applied Mathematics or College Algebra		Applied Mathematics or College Algebra	
Biology 114 .....	4	Biology 124 .....	4
General Zoology		General Zoology	
History 173 .....	3	History 183 .....	3
The United States		The United States	
Physical Education 172 .....	2	Physical Education 203 .....	3
History and Principles of Physical Education		Personal Hygiene	
Physical Education 102 .....	2	Physical Education 202 .....	2
Elementary Modern Dance		Intermediate Modern Dance	
or		Physical Education 322	
Physical Education 322		Gymnastics	
Gymnastics		Physical Education 121 .....	1
Physical Education 111 .....	1	Military Science 121 .....	1
Military Science 111 .....	1	Elementary	
Elementary Military Science			
	18 or 19		19

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	English 223 .....	3
Public Speaking		World Literature	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French or Spanish		Elementary French or Spanish	
Chemistry 114 .....	4	Chemistry 124 .....	4
General Inorganic Chemistry		General Inorganic Chemistry	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Political Science 113 .....	3	Political Science 123 .....	3
National Government		State Government	
Physical Education 252 .....	2	Physical Education 262 .....	2
Individual Sports		Folk Dancing	
Physical Education 211 .....	1	Physical Education 221 .....	1
Physical Education Practice		Physical Education Practice	
Military Science .....	1	Military Science 123 .....	1
Elementary		Elementary	
Industry .....		Industry .....	
	19 or 20		19 or 20

JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 393 .....	3	Physical Education 363 .....	3
Foundation of American Education or Social Science 113 .....	3	Tests and Measurements .....	3
Home Economics 123 .....	3	Physical Education 333 .....	3
Family Life Education .....	3	Physical Education Methods For Secondary Schools .....	2
Biology 314 .....	4	Physical Education 482 .....	2
Anatomy and Physiology .....	3	Organization and Administration of Physical Education .....	2
Physical Education 463M .....	3	Physical Education 442 .....	2
Coaching and Officiating .....	3	Care and Prevention of Athletic Injuries or Physical Education 402 .....	3
Physical Education 463W .....	3	First Aid .....	3
Coaching and Officiating Team Sports For Women .....	3	Physical Education 343 .....	3
		Coaching and Officiating .....	4
		Biology 324 .....	4
		Anatomy and Physiology .....	4
	<hr/> 13		<hr/> 17

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 406 .....	3	Education 406 .....	6
Student Teaching .....	2	Student Teaching .....	3
Physical Education 402 .....	11	Education 323 .....	8
Fieldwork in Recreation .....	11	High School Curriculum .....	8
Minor Field and Electives .....	11	Minor Field and Electives .....	8
	<hr/> 17		<hr/> 17

## DESCRIPTION OF COURSES

### THEORY COURSES IN PHYSICAL EDUCATION

ZOOLOGY 114-124—See Department of Biology for Description. Required of all Majors and Minors.

CHEMISTRY 114-124—See Department of Chemistry for description. Required of all majors.

HUMAN PHYSIOLOGY 314 (& 324—See Department of Biology for description. Required of all majors and minors.

132. INDIVIDUAL SPORTS (P E 132 SPORTS) (2-0) *Credit* 2. I. Designed to give understanding of skill and strategy of individual games and sports.

142. INDIVIDUAL SPORTS. (P E 142 SPORTS) (2-0) *Credit* 2. II. Continuation of Physical Education 132.

102. INTRODUCTION TO PHYSICAL EDUCATION AND RECREATION. (P E 102 INTRODUCTION) (2-0) *Credit* 2. II. Introduction to principles, aims objectives, methods, content, (offered every other year).

172. HISTORY OF PHYSICAL EDUCATION. (P E 172 HISTORY) (1-0) *Credit* 2. I. Historic development from ancient times to present.

232. THEORY OF DANCE. (P E 232 DANCE) (2-0) *Credit* 2. I. History, principles, theory and philosophy underlying dance; trends and theory, especially as to place of dance in physical education of today.

252. INTRAMURAL SPORTS. (P E. 252 INTRAMURAL) (1-1) *Credit* 2. I. Methods of organizing and running off tournaments, meets, and field days; organization and administration of the intramural program in high school. (Offered every other year.)

313. KINESIOLOGY (P E 313 KINESIOLOGY) (2-1) *Credit* 3. I. Musculature and bone structure of body in relationship to the science of movement, joint mechanism, leverage and muscle action with special application to athletics and training.

333. METHODS AND PRINCIPLES FOR TEACHING HEALTH AND PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS. (P E 333 ELEM METH) (3-0) *Credit* 3. I. Organization and classification of activities. Each student will be expected to teach activity classes and to evaluate methods of teaching for elementary teachers.

343M. COACHING AND OFFICIATING. (P E 343 COACHING) (0-3) *Credit* 2. II. Theory Strategy.

463M. COACHING. (P E 153 COACHING) (0-3) *Credit* 3. I. Continuation of Physical Education.

343. METHODS AND PRINCIPLES IN PHYSICAL EDUCATION. (P E 343 H S METH) (Same as Education 333) (4-0) *Credit* 3. II. Organization and classification of activities play areas, equipment and supplies; each student will be expected to teach activity classes in physical education, and to evaluate methods of teaching physical education (activities). Required of all majors and minors.

353. COACHING. (P E 353 COACHING) (0-1) *Credit* 3. I and II. Continuation of Physical Education 343.

302. SPECIAL ACTIVITIES. (P E 302 SPEC ACTV) (1-2) *Credit* 2. I and II. Organization and administration of playdays, drill and pep squads, cheer leaders, and dramatic presentation as associated physical education. (Offered every other year).

363. TESTS AND MEASUREMENTS. (P E 363 TEST MEAS) (2-2) *Credit* 3. II. Theory of measurement in physical education; construction of knowledge tests; measurement of motor capacity; sports skill and strength with special application to the public school program. (Offered every other year).

442. CARE AND PREVENTION OF ATHLETIC INJURIES. (P E 442 INJURIES) (1-2) *Credit* 2. II. Theory and practice of preventing and treating athletic injuries; practice in technique of message, bandaging.

463W. COACHING AND OFFICIATING TEAM SPORTS FOR WOMEN. (P E 463W TEAM SPORTS) (3-0) *Credit* 3. II. Continuation of Physical Education 453; field Hockey, soccer, speed ball.

482. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION. (P E 482 ORG ADM) (3-0) *Credit* 2. II. Policies in the organization, management and supervision of the physical program. Required of all majors.

## PRACTICE COURSES

No courses may be selected for two semesters either in the same year or in different years, except in case of failure in a course. Each student must select two of the courses from the 100 group, and two from the 200 group thereby completing the practice requirements in physical education. These courses should be taken in the Freshman and Sophomore years.

111W. FRESHMAN PRACTICE. (P E 111 PRACTICE) (0-2) *Credit* 1. I. Low organization games and activities; softball, volleyball, for women only.

111M. FRESHMAN PRACTICE. (P E 111 PRACTICE) (0-2) *Credit* 1. I. Low organization games and activities; touch football, volleyball, gymnastics, for men only.

121W. FRESHMAN PRACTICE. (P E 121 PRACTICE) (0-2) *Credit* 1. II. Basketball and hockey, for women only.

121M. FRESHMAN PRACTICE. (P E 121 PRACTICE) (0-2) *Credit* 1. II. Gymnastics, basketball, softball, tennis, for men only.

102. ELEMENTARY MODERN DANCE. (P E 102 MOD DANCE) (1-2) *Credit* 2. I and II. Fundamental steps designed for beginners.

202. ELEMENTARY MODERN DANCE. (P E 202 MOD DANCE) (1-2) *Credit* 2. I and II. Continuation of 102.

201. INTERMEDIATE MODERN DANCE. (P E 201 MOD DANCE) (2-0) *Credit* 1. I and II. A continuation of Modern Dance 101. Free and natural movements; self-expression through original and creative dance patterns.

211W. SOPHOMORE PRACTICE. (P E 211 PRACTICE) (0-2) *Credit* 1. I. Low organization games and activities, speedball, and soccer, for women only.



211M. SOPHOMORE PRACTICE. (P E 211 PRACTICE) (0-2) *Credit 1*. I. Low organization games and activities, speedball, gymnastics, hockey and soccer, for men only.

221W. SOPHOMORE PRACTICE. (P E 221 PRACTICE) (0-2) *Credit 1*. II. Badminton, archery, for women only.

221M. SOPHOMORE PRACTICE. (P E 221 PRACTICE) (0-2) *Credit 1*. II. Speedball, archery, and badminton, for men only.

331-321. GYMNASTICS. (P E 331 321 GYMNASTIC) (1-2) *Credit 1*. I and II. Theory and practice in gymnastics (tumbling, stunts, and selftesting) for majors and minors.

261. FOLK DANCING. (P E 261 FOLK DANC) (1-2) *Credit 1*. I and II. History appreciation and interpretation of the folk songs, folk stories and folk customs; mastery of steps in folk dancing.

301. ADVANCED MODERN DANCE. (P E 301 MOD DANCE) (0-2) *Credit 1*. I and II. Brief history of the dance; practice in technique and composition; selection and manipulation of materials for composition.

## HEALTH EDUCATION COURSES

H. E. 123. ELEMENTARY NUTRITION. (See Department of Home Economics for description.) Required of all minors in Health Education.

203. PERSONAL HYGIENE. (P E 203 PERS HYG) (3-0) *Credit 3*. I and II. Personal health problems; biological basis of life; attitudes toward health, fatigue, ventilation and habit forming drugs. Required of all majors and minors.

243. METHODS AND MATERIALS OF HEALTH INSTRUCTION. (P E 243 HLTH INST) (3-0) *Credit 3*. II. The sources of material and techniques in the field. Required of all majors and minors.

353. PUBLIC SCHOOL AND COMMUNITY HYGIENE. (P E 353 COMM HYG) (3-0) *Credit 3*. I and II. Health problems related to the school and community.

392. PRINCIPLES OF HEALTH. (2-0) *Credit 2*. II. Programs now in operation; evaluation in terms of various hygiene and scientific criteria. Required of all majors.

402. FIRST AID. (P E 402 FIRST AID) (1-0) *Credit 2*. I and II. Techniques of first aid to the injured in home, school and community; safety measures and accident prevention. Course meets the requirements for American Red Cross certificate.

553. DRIVER EDUCATION AND SAFETY. (P E 553 DRIVER ED) (1-2) *Credit 3*. I and II. Basic knowledge of automobile operation; practice driving, learning information, developing necessary skills to pass written and road test necessary to secure a driver's license.

## RECREATION

EDUC. 253. ART AND CRAFTS. (See Department of Education for description.) Required of all minors in Recreation.

352. SPECIAL ACTIVITIES. (P E 352 SPEC ACTV) See description under course description for Physical Education 362.

373. PROGRAM PLANNING IN RECREATION. (P E 373 RECREATN) (3-0) *Credit 3*. I. Principles and theory underlying planning recreation program. (Actual practice is gained by helping plan the college recreational program.)

383. THEORY AND PRACTICE IN OUTDOOR EDUCATION. (P E 383 OUTDOOR) *Credit 3*. I and II. In addition to classroom work in the various aspects of Recreation and Camping Education, course deals with actual laboratory experiences in the development of such programs. These include the organization of camps, community centers, playgrounds and consider health and safety aspect, work experiences, social leadership activities and practice in the dance, games and sports skills.

402. FIELDWORK IN RECREATION. (P E 402 FIELD WRK) (0-2) *Credit 2.* I and II. Recreation Practice in the local community (must be taken at the same time as P. E. 403 Playground and Community Recreation).

403. PLAYGROUND AND COMMUNITY RECREATION. (P E 403 COMM REC) (3-0) *Credit 3.* I and II. A brief historical review of the growth of the play movement; organization and community activities.

**PHYSICS:** See Department of Natural Sciences.

## DEPARTMENT OF POLITICAL SCIENCE

Students who meet the entrance standards of the College are eligible to major in political science. Thirty semester hours of course work in political science are required for a major in the field, and eighteen semester hours must be completed for a minor. Students majoring in political science must take at least one semester course, in addition to Political Science 103, Political Science 113 or Political Science 123, in each of the following areas of the discipline: politics, public administration, public law, political theory and international relations. Bibliography and Methods in Political Science, Political Science 223, is required of all majors. Majors and minors are required to earn two grade points for each semester hour of credit in political science.

### INTEGRATED MINOR IN THE SOCIAL SCIENCES

Students may elect an integrated minor in the Social Sciences. The minor in the Social Sciences is planned primarily for the training of teachers, but may be chosen by other students who do not intend to teach when such a program meets their particular needs for professional training in other fields.

Students who elect such a program must complete twenty-one semester hours of course work in the social sciences exclusive of the general college requirement of six hours in American Government, and the method course in the teaching of Social Science Studies. Courses comprising this program must be drawn from the Departments of History and Philosophy, Economics, Political Science, and Sociology. Elements of the integrated Social Science minor shall consist of a minimum of six semester hours each of American History and Economics, three semester hours each of Geography, Political Science and Sociology. Any exceptions from and additions to the integrated minor prescribed above are to be arranged in consultation with the Head of the Department of History and Philosophy.

For further information see the various offerings in the Departments of Social Science (History and Philosophy, Economics, Political Science and Sociology.)

# SUGGESTED FOUR-YEAR PROGRAM FOR POLITICAL SCIENCE MAJORS

## FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science		College Science	
Mathematics 173 or 113 .....	3	Mathematics 183 or 123 .....	3
Elements of Applied Mathematics or College Algebra		Elements of Applied Mathematics or Trigonometry	
Political Science 113 .....	3	Political Science 123 .....	3
American National Government		American State and Local Government	
History 143 .....	3	Economics 173 .....	3
Survey of Western Civilization to 1715		Introduction to Geography	
Military Science 111 (Men) .....		Military Science 121 (Men) .....	
Elementary or		Elementary or	
Physical Education 111 (Women) .....	1	Physical Education 121 (Women) .....	1
Freshman Practice		Freshman Practice	
Electives .....	2	Electives .....	2
	<hr/>		<hr/>
	18		18

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	English 223 .....	3
Public Speaking		Introduction to Literature	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Elementary French, Spanish, or German		Elementary French, Spanish or German	
Political Science 223 .....	3	Political Science 273 .....	3
Bibliography and Methods in Political Science		Introduction to Public Administration	
Political Science 213 .....	3	Political Science 383 .....	3
Political Parties		International Law and Relations	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development		Pupil Growth and Development	
Military Science 211 (Men) .....		Military Science 221 (Men) .....	
Elementary or		Elementary or	
Physical Education 211 (Women) .....	1	Physical Education 221 (Women) .....	1
Sophomore Practice		Sophomore Practice	
Electives .....	2	Industry .....	2
	<hr/>		<hr/>
	18		18

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Foreign Language 213 .....	3	Foreign Language 223 .....	3
Intermediate German, French or Spanish		Intermediate German, French, or Spanish	
Political Science 393 (Men) .....	3	Political Science 303 .....	3
International Organization		Ancient and Medieval Political Theory	
Economics 213 .....	3	Economics 223 .....	3
Principles of Economics		Economic Problems	
Education 323 .....	3	History 213 .....	3
High School Curriculum		United States, 1492-1837	
Education 393 .....	3	Sociology 383 .....	3
Educational Problems		Methods of Teaching Social Studies in Secondary Schools	
Military Science 313 (Men) .....		Military Science 323 (Men) .....	3
Advanced or		Advanced	
Physical Education 203 (Women) .....	3	Electives .....	2
Personal Hygiene			
Industry .....	2		
	<hr/>		<hr/>
	17 or 20		17 or 20

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Political Science 393 (Women) .....	3	Education 423 .....	3
International Organization		School and Community Relations	
Political Science 413 .....	3	Education 406 .....	6
American Constitutional Law		Student Teaching	
Political Science 323 .....	3	Military Science 423 (Men) .....	3
Comparative Government		Advanced	
Sociology 263 .....	3	Electives .....	3
General Sociology			
History 223 .....	3		
United States, 1837 to Present			
Military Science 413 (Men) .....	3		
Advanced			
Electives (Men) .....	3		
Electives (Women) .....	2		
	17 or 18		12 or 15

## DESCRIPTION OF COURSES

### AMERICAN GOVERNMENT

103. STATE AND NATIONAL GOVERNMENT. (PoSc 103 FEDRL Gov) (3-0) *Credit 3*. Government of Texas and the United States (May be taken by advanced R.O.T.C. students and students working toward certificates in various technical schools of the College).

113. AMERICAN NATIONAL GOVERNMENT. (PoSc 113 NATL Gov) (3-0) *Credit 3*. Constitutional foundations and development, structure, private rights, political processes and functions of the national government (required of all students for graduation and a prerequisite for all political science courses except Political Science 123 and Political Science 103). (Formerly Political Science 263.)

123. AMERICAN STATE AND LOCAL GOVERNMENT. (PoSc 123 LOCAL Gov) (3-0) *Credit 3*. American state and local government; constitutional development, political parties and elections, structure, functions and intergovernmental relations; special concern for Texas government. (Required of all students for graduation and a prerequisite for all political science courses except Political Science 103 and Political Science 113.) (Formerly Political Science 203.)

203. AMERICAN STATE GOVERNMENT. (PoSc 203 STATE Gov) See Political Science 123.

263. AMERICAN NATIONAL GOVERNMENT. (PoSc 263 NATL Gov) See Political Science 113.

### PUBLIC ADMINISTRATION

243. MUNICIPAL ADMINISTRATION AND POLITICS. (PoSc 243 MUNICIPAL) (3-0) *Credit 3*. An examination of the organization, planning and problems of municipal administration and government; operation of the policy making process at the municipal level.

273. INTRODUCTION TO PUBLIC ADMINISTRATION. (PoSc 273 PUBL ADM) (3-0) *Credit 3*. Organization, responsibility, personnel management, fiscal processes, functions and problems of public administration.

453. PUBLIC PERSONNEL ADMINISTRATION. (PoSc 453 PUBL PERS) (3-0) *Credit 3*. Development and problems of the public service; recruitment, examination, placement, remuneration, morale, retirement, loyalty, and responsibility.

### POLITICAL THEORY

223. BIBLIOGRAPHY AND METHODS IN POLITICAL SCIENCE. (PoSc 223 BIBL METH) (3-0) *Credit 3*. The discipline, its authorities and its methodology; use of public documents and other source materials. (Required of all majors in political science.) (Formerly Political Science 363.)

303. ANCIENT AND MEDIEVAL POLITICAL THEORY. (PoSc 303 POL THRY) (3-0) *Credit 3*. Political theories of the Greek, Roman and medieval European thinkers; special attention to Plato, Aristotle, Cicero, St. Augustine, John of Salisbury, St. Thomas Aquinas, and Dante.

313. MODERN POLITICAL THEORY. (PoSc 313 MOD THRY) (3-0) *Credit 3*. Political theories from the Reformation to the present; special attention to Machiavelli, Bodin, Hobbes, Montesquieu, Locke, Rousseau, Jefferson, the Mills, Hegel, Marx and the socialist theorists (formerly Political Science 353).

353. POLITICAL THEORY. (PoSc 353 POL THRY) (See Political Science 313).

363. BIBLIOGRAPHY AND METHODS OF RESEARCH. (PoSc 363 BIBL METH) (See Political Science 223).

## INTERNATIONAL RELATIONS

323-333. COMPARATIVE GOVERNMENT. (PoSc 323 333 COMPARATV) (3-0) *Credit 3*. I and II. Comparison of the organization, functions, and processes of governments of the world; special attention to Great Britain, France, Germany and the Soviet Union.

383. INTERNATIONAL LAW AND RELATIONS. (PoSc 383 INTL LAW) (3-0) *Credit 3*. Nature, function and enforcement of international law; and historical and analytical study of the politics of international affairs.

393. INTERNATIONAL ORGANIZATION. (PoSc 393 INTL ORGN) (3-0) *Credit 3*. Development of international organization; the organization, functions, structure, accomplishments, and major problems of the United Nations.

433. AMERICAN FOREIGN RELATIONS. (PoSc 433 FOR RELTN) (See Political Science 483).

483. SEMINAR IN AMERICAN FOREIGN POLICY. (PoSc 483 FOR POLCY) (3-0) *Credit 3*. Analytical and historical study of the content of American foreign policy; governmental machinery and political processes involved in its formulation (formerly Political Science 433).

493. POLITICS OF THE EAST. (PoSc 493 POL EAST) (3-0) *Credit 3*. International implications of the domestic and foreign policies of countries of the Near, Middle and Far East; reference to China, Japan, India, Egypt, Turkey, Iran, Indio-China, Phillipines, Indonesia and Israel.

## POLITICS

213. POLITICAL PARTIES. (PoSc 213 PARTIES) (3-0) *Credit 3*. Nature, function, evolution and organization of the American party system.

343. PROPAGANDA, PUBLIC OPINION AND PRESSURE GROUPS. (PoSc 343 PROPAGANDA) (3-0) *Credit 3*. Functions and techniques of pressure groups; the nature, the role and identification of public opinion and propaganda.

433. THE PRESIDENCY. (PoSc 433 PRESIDENCY) (3-0) *Credit 3*. Evolution of the office of the president of the United States; his powers in the areas of politics, administration, legislation, war and foreign affairs.

463. THE LEGISLATIVE PROCESS. (PoSc 463 LEG PROCS) (3-0) *Credit 3*. Nature and elements of the legislative process; organization and procedure of legislative bodies.

## PUBLIC LAW

403. ADMINISTRATIVE LAW. (PoSc 403 ADM LAW) (3-0) *Credit 3*. The law made by and the law controlling the operations and personnel of the federal administrative system.

413. AMERICAN CONSTITUTIONAL LAW. (PoSc 413 CONST LAW) (3-0) *Credit 3.* Basic principles of the American constitutional system; judicial interpretation and application of these principles in construing the powers of government and the rights of persons.

423. THE CONSTITUTION AND PRIVATE RIGHTS. (PoSc 423 RIGHTS) (3-0) *Credit 3.* Rights and duties of United States citizenship; crucial issues of individual freedom, subversion, loyalty and governmental authority as adjudicated by federal courts.

473. INTRODUCTION TO JURISPRUDENCE. (PoSc 473 JURISPRDN) (3-0) *Credit 3.* Schools and theories of jurisprudence; historical development of legal systems, legal reasoning, and juristic processes.

## DEPARTMENT OF SOCIOLOGY AND SOCIAL SERVICE

This department provides a focus for either a liberal arts education or a pre-professional career in those areas concerned with human behavior. Thus students select a major in this department for one of two reasons: (1) to receive a broad general education with concentration in Sociology or (2) to build a strong foundation in preparation for vocational objectives.

The principal vocational goals toward which a major in Sociology or Social Service may lead are (1) teaching sociology and the social sciences at either the secondary or college level; (2) social welfare work as case workers, group workers, community organizers or public welfare administrators; (3) public relations work in either public or private agencies and institutions; and (4) social research positions with governmental agencies and private research foundations.

Students planning to teach must complete the requirements for a teachers' certificate as set up by the Texas Education Agency. The student should include a wide range of courses in history, government and economics to complement the work in the major field. A heavier weighting of the various social problems courses in sociology is advisable.

Students majoring in Social Service as pre-professional preparation for social work should plan on entering an accredited school of social work and obtaining the master's degree, although it is possible in many states to obtain positions without an advanced degree.

Thirty semester hours in Sociology or Social Service are required for a major in the field, and eighteen semester hours must be completed for a minor. Majors and minors are required to earn two grade points for each semester hour of credit in the department.

In addition to the thirty semester hours in Sociology and Social Service, the student qualifying for a teaching certificate will complete fifteen semester hours distributed as follows.

Economics 213, 223 .....	6 hours
History 143 .....	3 hours
Geography (Elective) .....	3 hours
Psychology 103 .....	3 hours

In addition to the thirty semester hours in Sociology and Social Service, the student not qualifying for a teaching certificate will complete twelve semester hours distributed as follows.

Economics 213, 223 .....	6 hours
Psychology 103, 343 .....	6 hours

Required courses for all majors in the department are:

- Soc. 213 and 223 Introductory I and II
- Soc. 303 The Family
- Soc. 313 Social Statistics
- Soc. 333 Social Psychology
- Soc. 373 Introduction to the Field of Social Work

Additional required courses for students majoring in Sociology proper are:

- Soc. 343 Modern Social Problems
- Soc. 463 Methods of Research

Additional required courses for students majoring in Social Service are:

- Soc. 423 Introduction to Social Group Work
- Soc. 493 Problems of Child Welfare

Required courses for all minors in the department are:

- Soc. 213 and 223 Introductory I and II
- Soc. 303 The Family
- Soc. 333 Social Psychology
- Soc. 343 Modern Social Problems

## SUGGESTED PROGRAM FOR A MAJOR IN SOCIOLOGY

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition .....		Grammar and Composition .....	
Natural Science 113 .....	3	Natural Science 123 .....	3
College Science .....		College Science .....	
Mathematics 173 .....	3	Mathematics 183 .....	3
Basic Mathematics .....		Basic Mathematics .....	
Political Science 113 .....	3	Political Science 123 .....	3
American National Government .....		State and Local Government .....	
European History 143 .....	3	Psychology 103 .....	3
Europe 1500-1815 .....		General Psychology .....	
Industry (Elective) .....	2	Industry (Elective) .....	2
Military Science 111 (Men) .....	1	Military Science 121 (Men) .....	1
Elementary .....		Elementary .....	
Physical Education 111 (Women) .....	1	Physical Education 121 (Women) .....	1
Freshman Practice .....		Freshman Practice .....	
	<hr/> 18		<hr/> 18

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	English 223 .....	3
Fundamentals of Speech .....		Introduction to Literature .....	
Sociology 213 .....	3	Sociology 223 .....	3
Introductory Sociology .....		Introductory Sociology .....	
Foreign Language 113 .....	3	Foreign Language 123 .....	3
Reading and Grammar .....		Reading and Grammar .....	
History 213 .....	3	History 223 .....	3
The U. S. 1492-1837 .....		The U. S. 1837-1898 .....	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development .....		Pupil Growth and Development .....	
Military Science 211 (Men) .....	1	Military Science 221 (Men) .....	1
Elementary .....		Elementary .....	
Physical Education 211 (Women) .....	1	Physical Education 211 (Women) .....	1
Sophomore Practice .....		Sophomore Practice .....	
	<hr/> 16		<hr/> 16

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Sociology 303 .....	3	Sociology 333 .....	3
The Family .....		Social Psychology .....	
Sociology 383 .....	3	Sociology 313 .....	3
Methods of Teaching .....		Social Statistics .....	
Economics 213 .....	3	Economics 223 .....	3
Principles of Economics .....		Principles of Economics .....	
Education 423 .....	3	Education 393 .....	3
High School Curriculum .....		Foundations of American Education .....	
Elective .....	3	Elective .....	3
	<hr/> 15		<hr/> 15

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Sociology 373 .....	3	Sociology 343 .....	3
Introduction to Social Work .....		Modern Social Problems .....	
Sociology 463 .....	3	Sociology (Elective) .....	3
Social Research .....		Sociology (Elective) .....	3
Geography (Elective) .....	3	Education 406 .....	6
Education 423 .....	3		
School and Community Relations .....			
Elective .....	3		
	15		15

## SUGGESTED PROGRAM FOR A MAJOR IN SOCIAL SERVICE\*

FRESHMAN YEAR  
(See Sociology)

SOPHOMORE YEAR  
(See Sociology)

JUNIOR YEAR  
(See Sociology)

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Sociology 373 .....	3	Sociology 423 .....	3
Introduction to Social Work .....		Introduction to Social Group Work .....	
Sociology (Elective) .....	3	Sociology 493 .....	3
Geography (Elective) .....	3	Problems of Child Welfare .....	
Education 423 .....	3	Sociology (Elective) .....	3
School and Community Relations .....		Education 406 .....	6
Elective .....	3	Student Teaching .....	
	15		15

NOTE.—The suggested programs for Sociology and Social Service majors are designed for those persons qualifying for a teaching certificate. Those persons not qualifying for a teacher's certificate are asked to consult the head of the department for assistance in formulating their programs.

## DESCRIPTION OF COURSES

### SOCIOLOGY

**210. SOCIOLOGY 103. MARRIAGE AND FAMILY LIVING.** *Credit 3.* I. A discussion of the findings of recent research in several pertinent disciplines as they have practical application to the many adjustments to marriage and family living. The course is based on the premise that realization and happiness in marriage and family life is a desirable value, the achievement of which may be aided by preparation. Note: This is not counted as a course toward the satisfaction of major and minor requirements.

**213. INTRODUCTORY SOCIOLOGY.** (SOC 213 INTRODUCT) (3-0) *Credit 3.* I. General phenomena of human society emphasizing fundamental social processes and social problems.

**223. INTRODUCTORY SOCIOLOGY.** (SOC 223 INTRODUCT) (3-0) *Credit 3.* II. Continuation of Sociology 213; institutional structure and function, fundamental social processes and social problems.

**233. RURAL SOCIOLOGY.** (SOC 233 RURAL SOC) (3-0) *Credit 3.* I. Analysis of structure and function of rural society, its people, institutions, communities, and problems. Prerequisites. Sociology 213 or Introduction to Social Science.

\* In May 1951 the Social Service program of Prairie View A. & M. College was approved by the National Association of Schools of Social Administration which at that time admitted Prairie View to membership.



263. GENERAL SOCIOLOGY. (SOC 263 GENERAL) (3-0) *Credit 3*. II. Fundamental concepts of Sociology and Social Problems for non-majors.

303. THE FAMILY. (SOC 303 FAMILY) (3-0) *Credit 3*. I or II. Nature and development of the family; marital choice and adjustments and crises in family life. Points of view in recent literature.

323. RACE RELATIONS. (SOC 323 RACE RELT) (3-0) *Credit 3*. II. Analysis of nature of race and culture contacts; rise and course of American race problems, and methods of racial adjustment. Prerequisites: Soc. 213 and 223.

333. SOCIAL PSYCHOLOGY (SOC 333 SOC PSYCH) (3-0) *Credit 3*. I. Personality development through personal-social and cultural-social conditioning; larger group relationships. Prerequisites: Soc. 213 and 223. Open to graduate students by special permission.

343. MODERN SOCIAL PROBLEMS. (SOC 343 MOD PROB) (3-0) *Credit 3*. II. Analysis of processes of personal, family and community disorganization; methods and measures of social reform.

383. METHODS OF TEACHING SOCIAL STUDIES IN SECONDARY SCHOOLS. (3-0) *Credit 3*. I. Methods and devices for teaching History, Economics, Sociology, and Political Science, as well as various social studies on the secondary level. Selection and use of appropriate instructional materials.

413. URBAN SOCIOLOGY. (SOC 413 URBAN SOC) (3-0) *Credit 3*. I. Considers the city and its hinterland as a sociological entity; urban neighborhoods, population groupings and movements, social processes, trends, and problems in the light of historical, ecological and social factors.

443. PRINCIPLES OF SCOUTING. (SOC 443 SCOUTING) (2-0) *Credit 2*. II. History and development of the Boy Scout movement. Understanding the boy and fitting a program to his needs. Specialized programs such as cubbing, senior scouting, sea scouting, etc.

483. (formerly 513) SOCIAL THEORY. (SOC 483 SOC THRY) (3-0) *Credit 3*. I. Historical development of theories of social science; the process by which sociology and the various social sciences came into systematic bodies of knowledge. Prerequisite: Twelve hours of Sociology.

463. (formerly 563) SOCIAL RESEARCH. (SOC 463 RESEARCH) (3-0) *Credit 3*. I. Technique of social investigation; case study, historical statistical and ecological techniques; student required to do one piece of social investigation. Prerequisite: Twelve hours of Sociology.

313. (formerly 573) SOCIAL STATISTICS. (SOC 313 SOC STAT) (3-0) *Credit 3*. II. Techniques of calculating values common to statistical analysis; simple measures of central tendencies through correlation and regression; use of calculating machines. Prerequisite: College Algebra.

363. (formerly 583) CULTURAL ANTHROPOLOGY. (SOC 363 ANTHROPGY) (3-0) *Credit 3*. I or II. A study of the origin and development of human culture. Special emphasis is upon schools of culture and contemporary culture. Prerequisite: Nine hours of Sociology. Open to graduate students.

483. (formerly 523) JUVENILE DELINQUENCY (SOC 483 JUV DELINQUENCY) (3-0) *Credit 3*. I or II. Nature, extent, and conditions giving rise to juvenile delinquency; outstanding literature surveyed; programs treating delinquency discussed. Prerequisite: six hours of sociology.

473. (formerly 553) SOCIOLOGY SEMINAR. (SOC 473 SEMINAR) (0-3) *Credit 3*. I or II. For Seniors and Graduate students desiring to do independent research or study in fields not covered by current offering. A staff member supervises the work of each student.

## SOCIAL SERVICE

373. (formerly 533) INTRODUCTION TO THE FIELD OF SOCIAL WORK. (SOC 373 SOCIAL WRK) (3-0) *Credit 3*. I or II. Orientation course in the history and field of Social Work; case work, group work, and social welfare planning as well as professional organization. Required for majors and minors in Social Service.

403. INTRODUCTION TO SOCIAL CASE WORK. (SOC 403 CASE WORK) (3-0) *Credit 3.* I or II. The point of view of the social case worker regarding human relationships; appreciation of needs and problems causing individuals to seek help of social agencies; some understanding of the basic process of social case work practice; broad cultural as well as practical value to students going into social work, teaching (especially visiting teaching), Medicine, and related profession.

423. INTRODUCTION TO SOCIAL GROUP WORK. (SOC 423 GROUP WRK) (3-0) *Credit 3.* I or II. Fundamentals of professional group work; group process and behavior; interpersonal relations; the contribution of allied fields, leadership, programs, and agencies as a background for employment, in-service training, or professional education.

453. (formerly 503) SUPERVISED FIELD WORK. (SOC 453 FIELD WRK) (0-3) *Credit 3.* I or II. Limited individual experience and controlled observation with established social agencies where social work techniques previously learned can be applied.

493. (formerly 603) PROBLEMS OF CHILD WELFARE. (SOC 493 CHLD WELF) (3-0) *Credit 3.* I or II. Child welfare movements and contemporary children's agencies and their services; programs for substitute care; safeguarding health; employment protection; delinquency prevention and other needs of children and youth.

## INTEGRATED MINOR IN THE SOCIAL SCIENCES

Students may elect an integrated minor in the Social Sciences. The minor in the Social Sciences is planned primarily for the training of teachers, but may be chosen by other students who do not intend to teach when such a program meets their particular needs for professional training in other fields.

Students who elect such a program must complete twenty-one semester hours of course work in the social sciences exclusive of the general college requirements of six hours in American Government and the method course in the teaching of Social Studies. Courses comprising this program must be drawn from the Department of History and Philosophy, Economics, Political Science, and Sociology. Elements of the integrated Social Science minor shall consist of a minimum of six semester hours each of American History and Economics, three semester hours each of Geography, Political Science and Sociology. Elements of the integrated Social Science minor shall consist of a minimum of six semester hours each of American History and Economics. Any exceptions for and additions to the integrated minor prescribed above are to be arranged in consultation with the Head of the Department of History and Philosophy.

For further information see the various offerings in the Departments of Social Science (History and Philosophy, Economic, Political Science and Sociology.)

SCHOOL OF

*Engineering*

# School of Engineering

The School of Engineering offers Four-Year Curricula in Architectural Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, each leading to the degree of Bachelor of Science in the particular branch of the profession selected.

These programs of study provide an opportunity for broad scientific education with the proper amount of specialization in the respective fields of study. They are designed to train students thoroughly in mathematics, the physical sciences, and engineering principles, and to teach them to apply these fundamentals to the various types of problems that are encountered in engineering practice. Laboratory work and problem courses are provided so that the student may learn more readily the applications of these fundamentals to the solution of real engineering problems. The courses are Professional Engineering courses, and are planned to prepare for design, research, operation, management, testing, or maintenance of engineering projects. In addition to these technical objectives, there is the further objective that the training shall equip the graduates of the school for positions of responsibility in business and public affairs.

The first year's program is the same for all curricula. To a limited extent, substitutions may be made for courses listed as required where there appears to be a good reason for them. Each substitution must have the approval of the Dean of the School.

## OBJECTIVES

### ARCHITECTURAL ENGINEERING

The curriculum in Architectural Engineering is designed to give the student practical and theoretical training in Architecture and Building Construction. Although it emphasizes the structural and mechanical phases of architecture, it includes architectural design, properties and uses of building materials, estimating construction costs, specification writing, and other phases important to the architectural profession. The aim is to prepare men for careers in the construction industry as: Draftsmen, Designers, Estimators, and Building Supervisors, and provide them with the necessary foundation for future independent architectural practice.

Students selecting this option should get practical experience during the summer, either on construction projects or in the office of an architect or engineer.

### CIVIL ENGINEERING

The field covered by Civil Engineering is wide, embracing surveying, highway, hydraulic, structural, sanitary, and construction engineering. It

is the aim of this curriculum to give broad general training, which will serve as a foundation for technical, administrative and commercial positions, both private and governmental. The training is largely fundamental in nature, but sufficiently-detailed practice is included to enable the graduate to occupy immediately a productive, remunerative position in the field of Civil Engineering.

#### ELECTRICAL ENGINEERING

The curriculum in Electrical Engineering is intended to prepare students for entry into one of the many branches of electrical industry, such as manufacturing, transportation, electrical power, wire and radio communication. In any of these fields, the engineer may engage in design, construction, repair and maintenance, administration, or he may deal with the commercial aspects of industry. By arranging certain substitutes and taking some extra work, the student may qualify for teaching Mathematics and Science.

#### MECHANICAL ENGINEERING

This curriculum offers training in the scientific principles underlying Mechanical Engineering, and correlates this by application to specific fields of machine design, heat, power, heating, ventilating, and air conditioning, refrigeration, power plants, and industrial management.

Lectures and class instruction are supplemented by shop practice and laboratory investigations, designed to emphasize the engineering and economic principles involved. Students selecting this option should spend at least two summers in some shop or plan doing mechanical work.

#### GRADUATION REQUIREMENTS

The requirements for graduation from the School of Engineering are the satisfactory completion of all courses in one of the prescribed curricula, with a "C" average.

#### OWNERSHIP OF STUDENT WORK

The School of Engineering reserves the right to retain, exhibit, and reproduce the work submitted by students for credit in any course.

#### ENGINEERING COURSES

UNIFORM FRESHMAN YEAR*			
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
College Algebra and Trigonometry	5	Trigonometry and Analytical Geometry	4
Chemistry 114	4	English 123	3
Inorganic Chemistry		Reading and Composition	
General Engineering 113	3	Chemistry 124	4
Engineering Drawing I		Inorganic Chemistry	
General Engineering 111	1	General Engineering Drawing 122	2
Engineering Lectures		Descriptive Geometry	
English 113	3	General Engineering 162	2
Grammar and Composition		Engineering Problems and Slide Rule	
Military Science 111	1	Civil Engineering 122**	2
Elementary or		Elementary Surveying	
Physical Education 111	1	Military Science 121	1
Freshman Practice (Women)		Elementary or	
		Physical Education 121	1
		Freshman Practice (Women)	
		Architecture 131***	1
		Shade, Shadows, and Perspective	
	17		18 or 19

\* Freshman year is the same for all four-year curricula in Engineering.

\*\* Architectural Engineering students will take Architecture 212, Freehand Drawing. Mechanical Engineering students will take Mechanical Engineering 112, Welding and Heat Treatment.

\*\*\* Required only of Architectural students.

# ARCHITECTURAL ENGINEERING

CIVIL ENGINEERING

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 214 .....	4	Mathematics 224 .....	4
Differential Calculus		Integral Calculus	
Physics 215 .....	5	Physics 225 .....	5
Engineering Physics I		Engineering Physics II	
English 213 .....	3	Civil Engineering 243 .....	3
Public Speaking		Statics	
Architecture 213 .....	3	Architecture 223 .....	3
Elements of Architecture I		Elements of Architecture II	
Architecture 222 .....	2	Civil Engineering 122 .....	2
Freehand Drawing II		Elementary Surveying	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary or		Elementary or	
Physical Education 211 .....	1	Physical Education 221 .....	1
Sophomore Practice (Women)		Sophomore Practice (Women)	
	18		18

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Political Science 123 .....	3	Civil Engineering 343 .....	3
State Government		Engineering Materials	
Civil Engineering 314 .....	4	Civil Engineering 322 .....	2
Strength of Materials		Materials Testing Laboratory	
Architecture 313 .....	3	Architecture 343 .....	3
Architectural Design		History of Architecture II	
Architecture 372 .....	2	Architecture 383 .....	3
Building Equipment		Building Construction	
English 223 .....	3	Architecture 323 .....	3
Composition and Literature		Architectural Design	
Architecture 333 .....	3	Civil Engineering 323 .....	3
History of Architecture I		Structural Analysis I	
Military Science 313 .....	3	Military Science 323 .....	3
Advanced		Advanced	
	18 or 21		17 or 20

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Economics 213 .....	3	Architecture 452 .....	2
Principles of Economics		Architectural Practice	
Architecture 432 .....	2	Mechanical Engineering 433 .....	3
Architectural Design		Heating, Ventilating, and	
Architecture 363 .....	3	Air-Conditioning	
Working Drawings and Specifications		Architecture 373 .....	3
Electrical Engineering 453 .....	3	Working Drawings and	
Wiring and Illumination		Specifications	
Civil Engineering 432 .....	2	Civil Engineering 425 .....	5
Structural Analysis II		Structural Design	
Civil Engineering 413 .....	3	Political Science 113 .....	3
Reinforced Concrete and		National Government	
Masonry Structures		History 183 .....	3
History 173 .....	3	American History	
American History		Military Science 423 .....	3
Military Science 413 .....	3	Advanced	
Advanced			
	19 or 22		19 or 22

Number of hours required for graduation 145

# CIVIL ENGINEERING

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 214 .....	4	Mathematics 224 .....	4
Differential Calculus		Integral Calculus	
Physics 215 .....	5	Physics 225 .....	5
Engineering Physics		Engineering Physics	
English 213 .....	3	Civil Engineering 223 .....	3
Public Speaking		Advanced Surveying	
General Engineering 212 .....	2	Civil Engineering 243 .....	3
Engineering Drawing II		Statics	
Civil Engineering 213 .....	3	Mechanical Engineering 242 .....	2
Topographic Surveying		Welding, Machine Shop, Heat Treatment, and Foundry Practice	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary, or		Elementary, or	
Physical Education 211 .....	1	Physical Education 221 .....	1
Sophomore Practice (Women)		Sophomore Practice (Women)	
	18		18

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Civil Engineering 314 .....	4	Civil Engineering 323 .....	3
Strength of Materials		Structural Analysis I	
Political Science 113 .....	3	English 223 .....	3
National Government		Composition and Literature	
Civil Engineering 333 .....	3	Civil Engineering 343 .....	3
Dynamics		Engineering Materials	
History 173 .....	3	Civil Engineering 322 .....	2
American History		Materials and Testing Laboratory	
Civil Engineering 353 .....	3	Civil Engineering 363 .....	3
General Geology		Fluid Mechanics	
Economics 213 .....	3	Civil Engineering 321 .....	1
Principles of Economics		Hydraulics Laboratory	
Military Science 313 .....	3	Civil Engineering 324 .....	4
Advanced		Soil Engineering	
		Military Science 323 .....	3
		(Advanced)	
	19 or 22		19 or 22

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
History 183 .....	3	Electrical Engineering 311 .....	1
American History		Electrical Engineering Laboratory	
Civil Engineering 412 .....	2	Electrical Engineering 303 .....	3
Water Supply Engineering		Principles of DC and AC Machinery	
Mechanical Engineering 423 .....	3	Civil Engineering 423 .....	3
Heat Power Engineering		Contracts, Specifications, and Engineering Reports	
Civil Engineering 433 .....	3	Civil Engineering 422 .....	2
Highway Engineering		Sewage	
Political Science 123 .....	3	Civil Engineering 425 .....	5
State Government		Structural Design	
Civil Engineering 432 .....	2	Civil Engineering 443 .....	3
Structural Analysis II		Engineering Construction	
Civil Engineering 413 .....	3	Military Science 423 .....	3
Reinforced Concrete and Masonry Structures		Advanced	
Military Science 413 .....	3		
	19 or 22		17 or 20

Number of hours required for graduation, 146

## ELECTRICAL ENGINEERING

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 214 .....	4	Mathematics 224 .....	4
Differential Calculus		Integral Calculus	
Physics 215 .....	5	Physics 225 .....	5
Engineering Physics I		Engineering Physics II	
English 213 .....	3	Civil Engineering 243 .....	3
Public Speaking		Statics	
General Engineering 212 .....	2	Mechanical Engineering 242 .....	2
Engineering Drawing II		Welding, Machine Shop, Heat Treatment and Foundry Practice	
Military Science 211 .....	1	Electrical Engineering 213 .....	3
Elementary, or		Basic Electrical Engineering	
Physical Education 211 .....	1	Military Science 221 .....	1
Sophomore Practice (Women)		Elementary or	
Electrical Engineering 253 .....	3	Physical Education 221 .....	1
Illumination		Sophomore Practice (Women)	
	18		18

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Electrical Engineering 314 .....	4	Civil Engineering 343 .....	3
A. C. Circuits		Engineering Materials	
Electrical Engineering 333 .....	3	Political Science 113 .....	3
D. C. Machinery		National Government	
Electrical Engineering 311 .....	1	English 223 .....	3
D. C. Lab.		Composition and Literature	
Mathematics 423 .....	3	Electrical Engineering 373 .....	3
Differential Equations		Electrical Measurements	
Civil Engineering 314 .....	4	Electrical Engineering 371 .....	1
Strength of Materials		Electrical Measurements Lab.	
Electrical Engineering 343 .....	3	Electrical Engineering 383 .....	3
Electronics I		Electronics II	
Electrical Engineering 341 .....	1	Electrical Engineering 381 .....	1
Electronics I Lab.		Electronics II Lab.	
Military Science 313 .....	3	Civil Engineering 322 .....	2
Advanced		Materials Testing Lab.	
		Military Science 323 .....	3
		Advanced	
	19 or 22		19 or 20

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Electrical Engineering 413 .....	3	Electrical Engineering 421 .....	1
A. C. Machinery I		A. C. Lab. II	
Electrical Engineering 411 .....	1	Mechanical Engineering 463 .....	3
A. C. Lab. I		Industrial Management	
Electrical Engineering 463 .....	3	Civil Engineering 333 .....	3
Electrical Design		Dynamics	
Mechanical Engineering 314 .....	4	History 183 .....	3
Thermodynamics		American History	
Economics 203 .....	3	Political Science 123 .....	3
Survey of Economics		State Government	
Mechanical Engineering 411 .....	1	Business Adm. 463 .....	3
Heat Power Lab.		Business Law	
History 173 .....	3	Electrical Engineering 423 .....	3
American History		A. C. Machinery II	
Military Science 413 .....	3	Military Science 423 .....	3
Advanced			
	18 or 21		19 or 21

Number of hours required for graduation 146



# MECHANICAL ENGINEERING

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 214 .....	4	History 173 .....	3
Differential Calculus		American History	
Physics 215 .....	5	Mathematics 224 .....	4
Engineering Physics I		Integral Calculus	
English 213 .....	3	Physics 225 .....	5
Public Speaking		Engineering Physics II	
General Engineering 212 .....	2	English 223 .....	3
Engineering Drawing II		Composition and Literature	
Mechanical Engineering 362 .....	2	Civil Engineering 243 .....	3
Foundry		Statics	
Civil Engineering 122 .....	2	Military Science 221 .....	1
Elementary Surveying		Elementary or	
Military Science 211 .....	1	Physical Education 221 .....	1
Elementary or		Sophomore Practice (Women)	
Physical Education 211 .....	1		
Sophomore Practice (Women)			
	<hr/>		<hr/>
	19		19

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Civil Engineering 314 .....	4	Civil Engineering 343 .....	3
Strength of Materials		Engineering Materials	
Mechanical Engineering 333 .....	5	Civil Engineering 322 .....	2
Mechanism		Materials Testing Lab.	
Mechanical Engineering 314 .....	4	Electrical Engineering 213 .....	3
Thermodynamics I		Basic Electrical Engineering	
Pol. Sci. 113—National Government .....	3	Civil Engineering 363—Fluid Mechanics .....	3
Economics 203—Survey of Economics .....	3	Civil Engr. 333—Dynamics .....	3
Machine Shop 222 .....	2	Mechanical Engineering 323 .....	3
Machine Tool Work		Heat Power Engineering	
Military Science 313—Advanced .....	3	Mechanical Engineering 322 .....	2
		Heat Power Lab.	
		Military Science 323—Advanced .....	3
	<hr/>		<hr/>
	19 or 22		19 or 22

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Electrical Engineering 333 .....	3	History 183 .....	3
D. C. Machinery		American History	
Electrical Engineering 311 .....	1	Electrical Engineering 413A .....	3
D. C. Lab.		A. C. Circuits and Machinery	
Mechanical Engineering 415 .....	5	Electrical Engineering 411 .....	1
Machine Design		A. C. Lab.	
Mechanical Engineering 412 .....	2	Mechanical Engineering 433 .....	3
Mechanical Engineering Lab.		Heating, Ventilating and	
Business Administration 463 .....	3	Air-Conditioning	
Business Law		Political Science 123 .....	3
Mechanical Engineering 343 .....	3	State Government	
Internal Combustion Engines		Mechanical Engineering 463 .....	3
Mechanical Engineering 472 .....	2	Industrial Management	
Thermodynamics II		Mechanical Engineering 442 .....	2
Military Science 413 .....	3	Power Plant Engineering	
Advanced		Civil Engineering 321 .....	1
		Hydraulics Laboratory	
		Military Science 423 .....	3
		Advanced	
	<hr/>		<hr/>
	19 or 22		19 or 22

Number of hours required for graduation 149

## DESCRIPTION OF COURSES

### ARCHITECTURAL ENGINEERING

131. SHADES, SHADOWS AND PERSPECTIVE. (ARCH 131 SHADES) (0-1) *Credit 1.* I and II. The conventional shades and shadows of common geometrical solids and architectural members; the theory of perspective as applied to simple solids and problems from architectural practice.

212-222. FREEHAND DRAWING. (ARCH 212 222 FRHD DRAW) (0-6) *Credit 2.* I and II. Drawing of plants and objects; drawing from life in charcoal and pencil; training of eye and hand; application in architectural presentation and drawing.

213-223. ELEMENTS OF ARCHITECTURE. (ARCH 213 223 ELEMENTS) (0-9) *Credit 3.* I and II. Fundamentals of architectural design by their application in the original solution and presentation of simple architectural problems.

313-323. ARCHITECTURAL DESIGN. (ARCH 313 323 DESIGN) (0-9) *Credit 3.* I and II. Design of small buildings; development of plan, based on definite requirements, fenestration, influence of materials and construction on design; preparation of working drawings. Prerequisite: Arch. 223.

333-343. HISTORY OF ARCHITECTURE. (ARCH 333 343 HIST ARCH) (3-0) *Credit 3.* I and II. The development of architecture as related to human habitation; ancient, medieval, and modern architecture.

363-373. WORKING DRAWINGS AND SPECIFICATIONS. (ARCH 363 373 WORK DRAW) (0-9) *Credit 3.* I and II. Preparing complete working drawings and specifications for a small building. Prerequisite: Civil Engineering 314.

372. BUILDING EQUIPMENT. (ARCH 372 EQUIPMENT) (2-0) *Credit 2.* I. Plumbing, sanitation systems, mechanical and electrical equipment of buildings.

383. BUILDING CONSTRUCTION. (ARCH 383 CONSTRCTN) (3-0) *Credit 3.* II. Common methods of building construction; occasional visits to buildings under construction. Prerequisite: Civil Engineering 213.

410. INSPECTION TRIP. (ARCH 410 INSP TRIP) *No Credit.* Required of all Seniors.

432. ARCHITECTURAL DESIGN. (ARCH 432 DESIGN) (0-6) *Credit 2.* I. Continuation of Architecture 323, advanced problems, time problems, and rapid sketches at frequent intervals.

452. ARCHITECTURAL PRACTICE. (ARCH 452 PRACTICE) (0-6) *Credit 2.* I. Special problems in architectural design and development; the preparation of building documents; interpretation of building codes, and analysis of documents; interpretation of the American Institute of Architects; office organization, client and contractor relationships.

### CIVIL ENGINEERING

122. ELEMENTARY SURVEYING. (C E 122 SURVEYING) (0-6) *Credit 2.* II. Use of tape and chain, engineer's level and transit; methods of surveying infield practice. Prerequisite: G. E. 113 and Mathematics 123.

213. TOPOGRAPHIC SURVEYING. (C E 213 TOPH SURV) (1-6) *Credit 3.* I. Use of tape, transit and level; complete topographic survey, using the stadia method and plane table; astronomical observations for azimuth, time and latitude; drafting of topographic maps from field notes. Prerequisite: Civil Engineering 122.

223. ADVANCED SURVEYING. (C E 223 ADV SURV) (2-3) *Credit 3.* II. Horizontal vertical alignment for railways and highways; grades and grade reduction; curves, turn-outs, and earthwork, principles of economic location surveys, plans and estimates. Prerequisite: Civil Engineering 213.

243. APPLIED MECHANICS I—STATICS. (C E 243 STATICS) (3-0) *Credit 3.* II. Composition and resolution of forces; systems of forces in equilibrium; laws of friction; centers of gravity; moments of inertia; special problems to illustrate the application of theory to engineering. Prerequisite: Physics 225 and enrollment in Mathematics 314.

314. STRENGTH OF MATERIALS. (C E 314 STRENGTH) (4-0) *Credit 4*. I. Engineering properties and behavior of standard engineering materials in stress strain tension and compression, torsion, shear, and moment, combined stresses and deflection; riveted joints, stresses in columns and the design of beams; use of engineering handbooks. Prerequisite: Civil Engineering 243.

321. HYDRAULIC LABORATORY. (C E 321 HYDRAULIC) (0-3) *Credit 1*. II. Measurement of flow, friction in pipes, pumping and power. Prerequisite: Registration in Civil Engineering 363.

322. STRENGTH OF MATERIALS LABORATORY. (C E 322 STRENGTH) (0-6) *Credit 2*. II. The testing of materials. Prerequisite: Civil Engineering 313, and registration in Civil Engineering 343.

323. STRUCTURAL ANALYSIS I. (C E 323 ANALYSIS) (3-0) *Credit 3*. I. Analysis of stress in statically determinate structures. Prerequisite: Civil Engineering 313, and registration in Civil Engineering 343.

324. SOIL ENGINEERING. (C E 324 SOIL ENGR) (2-6) *Credit 4*. II. Description, origin, structure, identification and classification of soils for engineering purposes; determination and application of their physical properties. Prerequisite: Civil Engineering 313.

333. APPLIED MECHANICS II—DYNAMICS. (C E 333 DYNAMICS) (3-0) *Credit 3*. II. Velocities and accelerations of various types of mechanics, rectilinear, and curvilinear translation of particles and rigid bodies rotation of rigid bodies about fixed axis, work energy and power, impulse and momentum, moments and products of inertia, and rigid bodies; elementary problems in vibration. Prerequisite: Civil Engineering 243.

343. ENGINEERING MATERIALS. (C E 343 MATERIALS) (3-0) *Credit 3*. I. Constituents, properties and manufacture of standard structural materials. Prerequisites: Chemistry 144 and registration in Civil Engineering 313.

353. GEOLOGY. (C E 353 GEOLOGY) (3-0) *Credit 3*. II. General principles of geology and their application to engineering problems. Prerequisite: Chemistry 124.

363. FLUID MECHANICS. (C E 363 FLUIDS) (3-0) *Credit 3*. I. The laws governing the action of fluids at rest and in motion, as related to engineering problems; the measurement of the flow of fluids; the description and theory of reaction turbines, impulse wheels and centrifugal pumps. Prerequisite or parallel: Civil Engineering 243.

410. INSPECTION TRIP. (C E 410 INSP TRIP) *Noncredit Course*. Required of all Seniors.

412. WATER SUPPLY ENGINEERING. (C E 412 WATER) (0-6) *Credit 2*. I. Finances, hydraulics, demands, resources, reservoirs, pipe lines, pumping machinery, materials, distribution systems. Prerequisite: Civil Engineering 363.

413. REINFORCED CONCRETE. (C E 413 CONCRETE) (3-0) *Credit 3*. I. Properties of concrete, effect of water cement ratio, design of beams and floor systems; rigid frame construction, columns, retaining walls, masonry dams, and pile footings. Prerequisite: Civil Engineering 314.

414. STRUCTURAL DESIGN. (C E 414 DESIGN) (2-6) *Credit 4*. I. Theory of design and design of framed structures. Primarily building design. Prerequisite: Civil Engineering 313.

422. SEWERAGE. (C E 422 SEWERAGE) (0-6) *Credit 2*. II. Sewerage systems, surveys and plants, hydraulics, house sewerage, rainfall and stormwater flow, size and capacity of sewers, appurtenances, estimates, and specifications construction. Prerequisite: Civil Engineering 363.

423. CONTRACTS, SPECIFICATIONS AND ENGINEERING REPORTS. (C E 423 CONTRACTS) (3-0) *Credit 3*. II. A study of contracts, specifications and reports required by engineers; preparation of documents. Prerequisite: Senior standing.

425. STRUCTURAL DESIGN. (C E 425 DESIGN) (3-6) *Credit 5*. II. Design of Civil Engineering structures. Welded and riveted connections. Working drawings including the necessary details for actual construction, economic considerations, the correlation of analysis and design. Mostly steel and timber structures. Prerequisite: Civil Engineering 432.

432. STRUCTURAL ANALYSIS II. (C E 423 ANALYSIS) (2-0) *Credit 2*. I. Continuation of Civil Engineering 323. Prerequisite: Civil Engineering 323.

433. HIGHWAY ENGINEERING. (C E 433 HIGHWAY) (2-3) *Credit 3*. I. Highway laws and the administration of street and highway improvements; the design and construction of streets and highways. Prerequisite: Civil Engineering 324.

443. ENGINEERING CONSTRUCTION. (C E 443 CONSTRUCTN) (3-0) *Credit 3*. II. Management of construction projects; methods of construction, equipment, form design, quantity take-offs and estimating; frequent visits to building projects. Prerequisite: Senior standing.

463. FOUNDATIONS. (C E 463 FOUNDATNS) (3-0) *Credit 3*. II. Design of foundations for pavements, bridges, and buildings. Prerequisite: Civil Engineering 343.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

503. EARTH AND MASONRY STRUCTURES. (C E 503 STRUCTURS) (2-3) *Credit 3*. I, II. Design and construction of dams, retaining walls, abutments and piers, culverts, grain elevators and bins.

513. PUBLIC HEALTH ENGINEERING. (C E 513 PUBL HLTH) (3-0) I. Design of water purification works and principles of sanitation.

533. REINFORCED DESIGN. (C E 533 CONC DSGN) (2-3) *Credit 3*. I. Theories of action beams, slabs and columns of reinforced concrete; codes and specifications and their influence on design; effect of continuity.

563. STATICALLY INDETERMINATE STRUCTURES. (C E 563 STRUCTURS) (1-6) *Credit 3*. II. Outer forces, reactions, moments and shears for fixed and moving loads, the use of influence lines, the determination of deflections of structures by methods of moment areas, elastic loads, virtual work and Williot diagrams. Methods of solution for stresses in statically indeterminate structures by virtual work, slope deflection, and moment distribution. Continuous beams, trusses, building frames and arches. Prerequisite: Civil Engineering 323.

#### ELECTRICAL ENGINEERING

213. BASIC ELECTRICAL ENGINEERING. (E E 213 BASIC ENG) (3-0) *Credit 3*. II. Introduction to the fundamental principles underlying all branches of electrical engineering; the analysis of electric, magnetic, and electrostatic circuits. Prerequisite or parallel: Physics 125 and Mathematics 314.

253. WIRING AND ILLUMINATION. (E E 253) (3-0) *Credit 3*. I. Fundamentals of commercial and industrial wiring and illumination practice.

303. PRINCIPLES OF ELECTRICAL ENGINEERING. (E E 303 PRINCIPLS) (3-0) *Credit 3*. Prerequisite: Physics 225. The fundamental principles of direct-current and alternating-current circuits and machinery.

311. DIRECT-CURRENT MACHINERY LABORATORY. (E E 311 D C MACH) (3-0) *Credit 1*. I. Characteristics of direct-current machines. Prerequisite or parallel: Electrical Engineering 333.

313. INTRODUCTION TO CIRCUIT ANALYSIS. (E E 313 CIRC ANAL) (3-0) *Credit 3*. I. Electric and magnetic units and circuits; graphical and mathematical treatment of periodic current circuits; special problems in alternating current network; electrostatic circuits; wave analysis. Prerequisite: Physics 215, 225; Math. 223, and registration in Math. 313.

314. ALTERNATING-CURRENT CIRCUIT. (E E 314 A C CIRC) (4-0) *Credit 4*. I. A mathematical treatment of alternating-current phenomena in single and polyphase circuits. Prerequisite: Electrical Engineering 213.

333. DIRECT-CURRENT MACHINERY. (E E 333 D C MACH) (3-0) *Credit 3*. I. Principles of operation and characteristics of direct-current generators and motors. Prerequisite: Electrical Engineering 213.

341-381. ELECTRONICS LABORATORY. (E E 341 381 ELECTRONC) (0-3) *Credit 1*. I, II. Laboratory studies on the basic electronic circuits and characteristics and industrial electronic equipment.

343-383. ELECTRONICS RECITATION. (E E 343 385 ELECIRONC) (3-0) *Credit 3.* I and II. Fundamental principles of electronic tubes; study of electronic circuits, amplifiers, oscillators, and rectifiers. Prerequisite or parallel: Electrical Engineering 314.

371. ELECTRICAL MEASUREMENTS LABORATORY. (E E 371 ELEC MEAS) (0-3) *Credit 1.* II. Measurement of resistance, current, electromotive force, capacity, inductance watts, and energy. Prerequisite or parallel: Electrical Engineering 373.

373. ELECTRICAL MEASUREMENTS RECITATION. (E E 373 ELEC MEAS) (3-0) *Credit 3.* II. Methods for electrical and magnetic measurements; resistance, capacity, electromotive force, current, inductance, and power. Prerequisite: Electrical Engineering 314.

411-421. ALTERNATING-CURRENT MACHINERY LABORATORY. (E E 411 A C MACH) (0-3) *Credit 2.* I and II. Experiments illustrating the characteristics of alternating-current circuits and transformers. Prerequisite or Parallel: Electrical Engineering 413.

413-423. ALTERNATING-CURRENT MACHINERY RECITATION. (E E 413 A C MACH) (3-0) *Credit 3.* I and II. Principles of design, construction, and operating of transformers, alternating-current generators, polyphase induction motors, synchronous motors, converters, rectifiers, and accessory apparatus. Prerequisite: Electrical Engineering 314.

413A. ALTERNATING-CURRENT, CIRCUITS AND APPARATUS. (E E 413A A C CIRC) (3-0) *Credit 3.* II. A special course in alternating-current, circuits and machinery for mechanical engineering students. Prerequisite: Electrical Engineering 333.

463. ELECTRICAL DESIGN. (E E 463 ELEC DSGN) (2-3) *Credit 3.* I. A study of the details of electrical design; station layouts, wiring diagrams, switchboards, installation of electrical machinery and equipment, oil circuit breakers, protective relays, and miscellaneous equipment. Two lecture-recitation periods, and one three-hour drafting room period per week. Prerequisite: E. E. 413.

473. WIRE COMMUNICATION. (E E 473 WIRE COMM) (3-0) *Credit 3.* II. Principles of wire communication; telephone and telegraph switching systems, line loading, repeaters and carrier currents. Prerequisite: Electrical Engineering 314.

483. RADIO COMMUNICATION APPARATUS. (E E 483 RADO COMM) (3-0) *Credit 3.* II. Fundamental circuits of and phenomena in radio communication apparatus; measurements of radio frequency circuit parameters; wave propagation; performance of transmitters and receivers. Prerequisite: Senior standing, Electrical Engineering.

493. ELECTRICAL COMMUNICATIONS LABORATORY. (E E 493 ELEC COMM) (0-9) *Credit 3.* I. Experimental methods in the solution of communication problems; theory and use of modern laboratory instruments; vacuum tubes and their circuits, artificial lines, and other networks, radio frequency and acoustical measurements; practice in designing and constructing components of communication systems. Prerequisite: Senior standing in Electrical Engineering, registration in Electrical Engineering 483.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

513. ADVANCED COMMUNICATION CIRCUIT ANALYSIS. (E E 513 CIRC ANAL) (3-0) *Credit 3.* Theorems and properties of communication networks in steady-state and transient conditions.

523. ULTRA-HIGH FREQUENCIES. (E E 523 U H FREQ) (3-0) *Credit 3.* I, II. Radio transmission and reception, including ultra-high frequency techniques.

533. ELECTRIC POWER GENERATION. (E E 533 ELEC POWR) (3-0) *Credit 3.* I, II. Economics and technique of electric power generation. Effect of load curve on costs; thermal efficiency and commercial economy of various heat cycles; general layout of the generating station; division of load among generating units; by-products generation.

574. TELEVISION. (E E 574 TELEVISN) (3-3) *Credit 4.* I and II. Theory of scanning television, cathode-ray tubes, pulse generators, video amplifiers and circuits, and television transmitters and receivers. Prerequisite: Electrical Engineering 523.

#### GENERAL ENGINEERING

111. ENGINEERING LECTURES. (G E 111 ENGR LECT) (1-10) *Credit 1.* I. Fundamental principles of profession; a general survey of field; reviews of articles in the technical

press; reports of engineering projects; industrial experiences and lectures by prominent men engaged in the profession.

113. ENGINEERING DRAWING I. (G E 113 ENGR DRAW) (1-6) *Credit 3*. I. Use of drafting instruments; freehand Gothic and Roman lettering (vertical and inclined); introductory orthographic projection; isometric drawing; freehand technical sketching, dimensioning, and tracing with pencil on vellum tracing paper, and in ink on tracing cloth.

122. DESCRIPTIVE GEOMETRY. (G E 122 DESC GEOM) (0-6) *Credit 2*. II. Principles of descriptive geometry, as related to the projection of points, lines, planes, and solids, and their applications to problems of engineering and architecture; development, intersections, double curved and warped surfaces. Prerequisite: Engineering Drawing 113.

162. PROBLEMS AND SLIDE RULE. (G E 162 SLIDE RLE) (1-3) *Credit 2*. II. Solution of simple engineering problems; use of the slide rule; and the correct form of presenting problem work.

212. ENGINEERING DRAWING II. (G E 212 ENGR DRAW) (0-6) *Credit 2*. I. Review of orthographic projection; working drawings, isometric, oblique, perspective, chart, and diagram, topographical, instrumental, and wiring diagrams.

313. ESTIMATING BUILDING COSTS. (G E 313 ESTIMATNG) (3-0) *Credit 3*. I and II. Problems in the preparation of cost estimates from plans and specifications. Problems in comparative costs of construction, and preparation of costs for bids on construction projects.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

513. ADVANCED SHOP PRACTICE. (G E 513 ADV SHOP) (2-3) *Credit 3*. I. Opportunity is offered to specialize, to a limited degree, along such lines as heat treatment, machine tool work, welding, jib, fixtures, pattern making, and any shop work that may be of special interest to the student. All assignments must be approved by the Dean of the Engineering School.

523. SURVEY OF INDUSTRIAL PRODUCTS. (G E 523 SURV PROD) (1-6) *Credit 3*. I and II. Survey of the design methods used in industry; methods of presentation; production methods; and client-designer relations. Prerequisites: General Engineering 122 and Architecture 212.

562. ADVANCED DESCRIPTIVE GEOMETRY. (G E 562 DESC GEOM) (1-5) *Credit 2*. I, II. Graphical representation and the application of plane and space curves; advanced problems in single curved and doubled curved surfaces including the involute and their developments; fundamentals of perspective and other pictorial means of representation.

#### MECHANICAL ENGINEERING

112. WELDING AND HEAT TREATMENT. (M E 112 WELD HEAT) (0-6) *Credit 2*. General Metal Work; gas and electric welding, the heat treatment of metals.

242. WELDING, MACHINE SHOP, HEAT TREATMENT AND FOUNDRY PRACTICE (M E 242 WELD HEAT) (0-6) *Credit 2*. General metal work including machine tool operation, welding, foundry practice, and the heat treatment of metals.

312. MACHINE SHOP AND TOOL DESIGN. (M E 312 MACH SHOP) (0-6) *Credit 2*. I. An introduction to machine shop practice and tool design to meet the need of non-mechanical engineering students. Prerequisite: Mathematics 123.

314. THERMODYNAMICS I. (M E 314 THERMODYN) (4-0) *Credit 4*. I. Transformation of energy, theoretical limitations; second law, absolute temperature, entropy and available energy; properties of gases, liquids, vapors and vapor mixtures. Prerequisite: Mathematics 224; Physics 215 and 225.

322. HEAT POWER LABORATORY. (M E 322 HEAT POWR) (0-6) *Credit 2*. II. Practical experience with steam engines, boilers, turbines, internal combustion engines, fuel and combustion, power plant equipment and air compressors.

323. HEAT POWER ENGINEERING. (M E 323 HEAT POWR) (3-0) *Credit 3.* II. Heat power engineering including steam engines, boilers, turbines, internal combustion engines, fuels and combustion, power plant equipment, and air compressors. Prerequisite: Mechanical Engineering 314.

333. MECHANISM. (M E 333 MECHANISM) (3-0) *Credit 3.* I. Elements of machinery with references to the transmission of motion, and force, cams, gears; graphical construction; kinetics; balancing; arrangement in actual machines. Prerequisite: Mathematics 123.

343. INTERNAL COMBUSTION ENGINES. (M E 343 ENGINES) (3-0) *Credit 3.* II. Fundamentals of internal combustion engines; cycles capacity, efficiency, thermodynamics, combustion and operating conditions.

362. FOUNDRY. (M E 362 FOUNDRY) (0-6) *Credit 2.* II. Pattern making floor bench, and machine moulding; brass furnace and cupola practice; metallurgy of gray iron; sand testing.

411. HEAT POWER LABORATORY. (M E 411 HEAT POWR) (0-3) *Credit 1.* I and II. Heat power equipment for non-mechanical engineering students.

412. MECHANICAL ENGINEERING LABORATORY. (M E 412 ENGR LAB) (0-6) *Credit 2.* I. Instruments and tests of steam prime movers, boilers, pumps, fans, internal combustion engines, air compressors, air-conditioning equipment, and flow of compressible media; engineering reports.

415. MECHANICAL ENGINEERING DESIGN. (M E 415 ENGR DSGN) (3-6) *Credit 5.* II. Design of machinery subjected to heavy variable stresses. Prerequisite: Civil Engineering 322 and 313; Mechanical Engineering 333.

423. HEAT ENGINEERING. (M E 423 HEAT ENGR) (3-0) *Credit 3.* II. Principles of thermodynamics; properties of gases; saturated and superheated vapors; fuels, combustion and flue gas analysis; steam boilers, engines, and their auxiliaries; steam turbines; condensers, pumps, compressed air and internal combustion engines. Prerequisite: Senior standing in Civil or Electrical Engineering.

433. HEATING, VENTILATING, AND AIR-CONDITIONING. (M E 433 HEAT VENT) (3-0) *Credit 3.* II. Steam boilers and water heaters, direct and indirect heating, gravity systems; district heating, ventilation and air analysis; air-conditioning. Prerequisite: Mechanical Engineering 314.

442. POWER PLANT ENGINEERING. (M E 442 POWR PLNT) (0-6) *Credit 2.* II. Study and operation of modern steam power plant. Prerequisite: Mechanical Engineering 323 and senior standing.

463. INDUSTRIAL MANAGEMENT. (M E 463 IND MGT) (3-0) *Credit 3.* II. Problems of the industrial executive; organization; plant location; selection and arrangement of buildings and equipment; production planning and control; simplification and standardization; time and motion study; job methods standardization; control of inventory and cost; personnel and problems and business policy.

472. THERMODYNAMICS II. (M E 472 THERMODYN) (2-0) *Credit 2.* I. Continuation of Thermodynamics I including modern power cycles, fluid flow, gas turbine cycles and jet propulsion, refrigeration, and an introduction to heat transfer. Prerequisite: Mechanical Engineering 314.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

503. REFRIGERATION. (M E 503 RERRIGRTN) (3-0) *Credit 3.* I or II. The application of thermodynamics to problems of refrigeration; types of refrigeration machines and plants, refrigerants, ice making, cold storage, cooling of air, liquids, and solids; construction details of commercial and household refrigerating plants and their economic operation.

523. FLOW OF FLUIDS AND HEAT TRANSFER. (M E 523 FLUIDS) (3-0) *Credit 3.* I or II. Review of first and second laws of thermodynamics, compressors, refrigeration cycles; the design of apparatus for heat transfer by conduction, convection, and radiation; heat exchanges, air preheaters, economizers, evaporators, boilers and condensers, transformation of heat and work.

SCHOOL OF

*Home Economics*



# School of Home Economics

The School of Home Economics aims to give training for home and family living to both men and women and also to provide special opportunity for study of the problems of homemaking, extension, and other phases of the home economics field. Students desiring to major or minor in home economics education, textiles and clothing, dietetics, foods and nutrition, household economics and child development, should consult the Dean of the School.

The School of Home Economics offers some opportunities for graduate study. The bulletin of the Graduate School gives full information concerning requirements and nature of the work.

*Informal Instruction:* An important aspect of the School of Home Economics is the consultant-teaching service offered to men and women who request assistance with problems of grooming; etiquette; budgeting; the care, selection, modeling, or construction of clothing; the daily tasks of management; the use of equipment; and the purchase and preparation of food for themselves or groups. Thus through out-of-class informal experiences, men and women are helped to meet practical problems involved in personal and group living and in personal and social development.

The School of Home Economics offers curricula with a major or minor in Foods and Nutrition, Dietetics, Textiles and Clothing, Dressmaking and Design, Household Economics, and Home Economics Education, Child Development and Art. These curricula are arranged in a manner sufficiently flexible to provide for needs of the following specific groups:

1. Those who wish to enrich their general and cultural education by electing courses from the Home Economics Curriculum.
2. Those who wish to take a minor in Home Economics.
3. Those who wish to become proficient in one phase of Home Economics in preparation for a career other than teaching.
4. Those who wish to become teachers of homemaking in High School or some phase of Home Economics in College.
5. Students who wish to take refresher work, or who plan to become candidates for a Master's Degree.
6. Persons desiring a special curriculum in Dietetics, Clothing, Dressmaking and Design, Foods and Nutrition, or Household Economics and Child Development.
7. Those who desire to follow a Career in Social Welfare or Public Health.

## REQUIREMENTS FOR GRADUATION

To receive the degree of Bachelor of Science in Home Economics a student must complete a minimum of 132 semester hours, with an average of "C" or above and a standing of two grade points. At least thirty (30) semester hours are required for a major and 16-24 semester hours for a minor in all areas. Unless otherwise provided for the student will consult adviser about satisfying the six hours of American History requirement.

### HOME ECONOMICS EDUCATION

#### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 114 .....	4	Chemistry 124 .....	4
Inorganic Chemistry .....		Inorganic and Qualitative .....	
English 113 .....	3	English 123 .....	3
Grammar and Composition .....		Reading and Composition .....	
Mathematics 173 .....	3	Physical Education 121 .....	1
Applied Mathematics .....		Freshman Practice .....	
Physical Education 111 .....	1	Home Economics 123 .....	3
Freshman Practice .....		Family Life Education .....	
House 123 .....	3	Foods 123 .....	3
Introduction to Family Economics .....		Elementary Nutrition .....	
Art 113 .....	3	Clothing 123 .....	3
Elementary Design .....		Textiles and Clothing .....	
	17		17

#### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Industrial Education 203 .....	3	Political Science 123 .....	3
Household Mechanics .....		State Government .....	
Political Science 113 .....	3	English 223 .....	3
National Government .....		Introduction to Literature .....	
Economics 203 .....	3	Physical Education 221 .....	1
Survey of Economics .....		Sophomore Practice .....	
English 213 .....	3	Foods 223 .....	3
Public Speaking .....		Family Nutrition .....	
Physical Education 211 .....	1	Clothing 223 .....	3
Sophomore Practice .....		Children's Clothing .....	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development .....		Pupil Growth and Development .....	
	16		16

#### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 304 .....	4	Sociology 323 .....	3
Physiology .....		The Family .....	
Household Economics 313 .....	3	Household Economics 393 .....	3
General Home Management .....		House Planning, Furnishings and Equipment .....	
Clothing 323 .....	3	Household Economics 283 .....	3
Dressmaking .....		Personal and Family Finance .....	
Home Economics Education 363 .....	3	Home Economics Education 343 .....	3
Special Methods .....		Adult Education .....	
Electives .....	3	Foods 323 .....	3
History 173 .....	3	Meal Planning, Preparation and Service .....	
United States 1492 to 1865 .....		History 183 .....	3
Parent Education 401 .....	1	United States 1865 to Present .....	
Nursery School Observation .....			
	17		18

### SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
*Home Economics Education 406	6	*House 463	3
Practice Teaching		Home Economics Agriculture	
*House 403	3	*Home Economics Education 503	3
Supervised Home Management		Methods and Materials in	
*Parental Education 413	3	Extended Programs	
Child Guidance		*Education 323	3
*Clothing 414	4	High School Curriculum	
Advanced Clothing Problems		*Education 393	3
*Foods 413	3	Foundations of American Education	
Advanced Nutrition		*Education 423	3
		School and Community Relations	
	<hr style="width: 50%; margin: 0 auto;"/>		<hr style="width: 50%; margin: 0 auto;"/>
Total Semester Hours—135	19		15

### MINOR IN HOME ECONOMICS

#### SOPHOMORE YEAR

	<i>Semester Hrs.</i>
Clothing 123	3
Art 113	3
Family Life Education 123	3

#### JUNIOR YEAR

Foods 123	3
Child Guidance 413	3
Nursery School Observation 403	3

#### SENIOR YEAR

Household Economics 283	3
Personal and Family Finance	
Foods 323	3

### MINOR IN RELATED ART

#### FRESHMAN YEAR

	<i>Semester Hrs.</i>
Elementary Design 113	3
Design 123	3
Crafts 103	3

#### SOPHOMORE YEAR

Art Education 373	3
Figure Drawing 213	3
	<hr style="width: 50%; margin: 0 auto;"/>
	15

#### SENIOR YEAR

Costume Design 322	2
	<hr style="width: 50%; margin: 0 auto;"/>
	17

### CLOTHING AND TEXTILES

#### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 114	4	Chemistry 124	4
Inorganic		Inorganic and Qualitative	
Art 113	3	English 123	3
Elementary Design		Reading and Composition	
English 113	3	Physical Education 121	1
Grammar and Composition		Freshman Practice	
Mathematics 173	3	Home Economics 123	3
Applied Mathematics		Family Life Education	
Physical Education 111	1	Foods 123	3
Freshman Practice		Elementary Nutrition	
Clothing 103	3	Clothing 124	4
Elementary Textiles		Clothing for the Family	
	<hr style="width: 50%; margin: 0 auto;"/>		<hr style="width: 50%; margin: 0 auto;"/>
	17		18

\* Either Semester

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Industrial Education 203 .....	3	Political Science 123 .....	3
Household Mechanics .....		State Government .....	
Political Science 113 .....	3	English 223 .....	3
National Government .....		Introduction to Literature .....	
English 213 .....	3	Physical Education 221 .....	1
Public Speaking .....		Sophomore Practice .....	
Physical Education 211 .....	1	Chemistry 244 .....	4
Sophomore Practice .....		Elementary Physiological .....	
Clothing 223 .....	3	Foods 223 .....	3
Children's Clothing .....		Family Nutrition .....	
Education 273 .....	3	Education 283 .....	3
Pupil Growth and Development .....		Pupil Growth and Development .....	
History 173 .....	3		
United States 1492 to 1865 .....			
	—		—
	19		17

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 304 .....	4	Sociology 323 .....	3
Physiology .....		The Family .....	
Household Economics 313 .....	3	Home Economics Education 363 .....	3
General Home Management .....		Special Methods .....	
Clothing 423 .....	3	Clothing 374 .....	4
Advanced Textiles .....		Men's Wear .....	
French 113 .....	3	Leatherwork 203 .....	3
Elementary French .....		Leathercraft .....	
Art 322 .....	2	Art Education 353 .....	3
Costume Design .....		Drawing and Composition .....	
Clothing 313 .....	3	French 123 .....	3
Tailoring for Women .....		Elementary French .....	
	—		—
	18		19

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
*Home Economics Education 406 .....	6	*Clothing 402 .....	2
Practice Teaching .....		Clothing Clinic .....	
*House 403 .....	3	Tailoring 123 .....	3
Home Management Residence .....		Elementary Tailoring .....	
*Parental Education 401 .....	1	Clothing 412 .....	2
Nursery School Observation .....		Consumer Economics .....	
*Clothing 413 .....	3	Electives .....	9
Clothing Problems .....			
Electives .....	3		
History 183 .....	3		
United States 1865 to Present .....			
	—		—
	19		16

Total Semester Hours—143

## MINOR IN CLOTHING

	<i>Semester Hrs.</i>
Art 113 .....	3
Clothing 124 .....	4
Children's Clothing 223 .....	3
Consumer Education 412 .....	2
Clothing 314 .....	4
	—
	16

\* Either Semester

# DRESSMAKING AND DESIGN

## TWO YEAR COURSE

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 173 .....	3	Mathematics 183 .....	3
Applied Mathematics		Applied Mathematics	
Art 113 .....	3	Physical Education 121 .....	1
Elementary Design		Freshman Practice	
Physical Education 111 .....	1	Home Economics 123 .....	3
Freshman Practice		Family Life	
Clothing 103 .....	3	Clothing 124 .....	4
Elementary Textiles		Clothing for the Family	
Leatherwork 203 .....	3	Clothing 423 .....	3
Leathercraft		Advanced Textiles	
	<hr/>		<hr/>
	16		17

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 213 .....	3	Clothing 414 .....	4
Public Speaking		Clothing Problems	
Industrial Education 203 .....	3	English 223 .....	3
Household Mechanics		Introduction to Literature	
Physical Education 211 .....	1	Clothing 374 .....	4
Sophomore Practice		Men's Wear	
Art 322 .....	2	Clothing 402 .....	2
Costume Design		Clinic	
Natural Science 113 .....	3	Foods 123 .....	3
College Science		Elementary Nutrition	
Clothing 314 .....	4	Clothing 412 .....	2
Tailoring for Women		Consumer Economics	
	<hr/>		<hr/>
	16		18

NOTE.—Students interested in Dressmaking, a two-year course, will see Dean or Adviser for guidance.

Total Semester Hours—67

## FOODS AND NUTRITION

FRESHMAN YEAR			
<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 114 .....	4	Chemistry 124 .....	4
Inorganic Chemistry		Inorganic Chemistry	
Art 113 .....	3	English 123 .....	3
Elementary Design		Reading and Composition	
English 113 .....	3	Physical Education 121 .....	1
Grammar and Composition		Freshman Practice	
Mathematics 173 .....	3	Home Economics 123 .....	3
Applied Mathematics		Family Life Education	
Physical Education 111 .....	1	Foods 103 .....	3
Freshman Practice		Food Selection and Preparation	
Foods 123 .....	3	Slothing 123 .....	3
Elementary Nutrition		Textiles and Clothing	
	<hr/>		<hr/>
	17		17

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Political Science 113 .....	3	Political Science 123 .....	3
National Government		State Government	
English 213 .....	3	English 223 .....	3
Public Speaking		Introduction to Literature	
Physical Education 211 .....	1	Physical Education 221 .....	1
Sophomore Practice		Sophomore Practice	
Physics 214 .....	4	Chemistry 244 .....	4
General Physics		Physiological	
Education 273 .....	3	Foods 223 .....	3
Pupil Growth and Development		Family Nutrition	
Foods 203 .....	3	Education 283 .....	3
Food Selection and Preparation		Pupil Growth and Development	
	<hr/>		<hr/>
	18		17

JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 304 .....	4	Sociology 323 .....	3
Physiology .....		The Family .....	
History 173 .....	3	Home Economics Education 363 .....	3
United States 1492 to 1865 .....		Special Methods .....	
Economics 213 .....	3	Biology 334 .....	4
Principles .....		Bacteriology .....	
Household Economics 313 .....	3	Foods 323 .....	3
General Home Management .....		Meal Planning, Preparation, and Service .....	
Education 393 .....	3	Education 283 .....	3
Foundation of American Education .....		High School Curriculum .....	
Elective .....	2	History 183 .....	3
		United States 1865 to Present .....	
	—		—
	18		19

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
*Foods 303 .....	3	*Foods 423 .....	3
Techniques of Demonstration .....		Advanced Nutrition .....	
*House 403 .....	3	*Foods 343 .....	3
Home Management Residence .....		Food Preservation .....	
*Parental Education 401 .....	1	*Foods 422 .....	2
Nursery School Observation .....		Seminar in Foods and Nutrition .....	
Foods 403 .....	3	*Home Economics Education 406 .....	6
Experimental Cookery .....		Practice Teaching .....	
Cooking and Baking 215 .....	5	Electives .....	4
Quantity Cookery III .....			
	—		—
	15		18

Total Semester Hours—138

NOTE.—Students interested in Food Preparation as a two-year course must see the Dean

MINOR IN FOODS AND NUTRITION

	<i>Semester Hrs.</i>
Foods 103 .....	3
Food Selection and Preparation .....	
Foods 203 .....	3
Advanced Food Selection .....	
Foods 223 .....	3
Family Nutrition .....	
Foods 323 .....	3
Meal Planning, Preparation and Service .....	
Foods 413 .....	3
Special Food Problems .....	
Foods 422 .....	2
Seminar in Foods and Nutrition .....	
Electives .....	7
	—
Total Semester Credit Hrs.	24

NOTE.—See Dean or Department Head for selection of electives.

DIETETICS AND INSTITUTIONAL ADMINISTRATION CAREERS

Individuals choosing the curriculum for dietetics and institution administration may qualify for positions as hospital dietetians; dietetians in research laboratories, industrial concerns, schools, colleges, and universities, restaurants, tea rooms, motels, hotels, and other commercial eating shops, test kitchens, commercial air lines and Government agencies. Individuals may become chefs and Food Supervisors as well as work with public health and social welfare agencies, newspapers and magazines, television and radio.

\* Either Semester

# DIETETICS AND INSTITUTIONAL ADMINISTRATION CURRICULUM

## FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 114 .....	4	Chemistry 124 .....	4
Inorganic Chemistry		Inorganic Chemistry	
Art 113 .....	3	English 123 .....	3
Elementary Design		Reading and Composition	
English 113 .....	3	Home Economics 123 .....	3
Grammar and Composition		Family Life Education	
Mathematics 173 .....	3	Clothing 124 .....	4
Applied Mathematics		Textiles and Clothing	
Physical Education 111-W .....	1	Cooking and Baking 113 .....	3
Freshman Practice		Elementary Food Preparation	
*Foods 103 .....	3	Physical Education 121 .....	1
Food Selection and Preparation		Freshman Practice	
	17		18

## SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Education 273 .....	3	*Political Science 123 .....	3
Pupil Growth and Development		State Government	
Physics 214 .....	4	English 223 .....	3
General Physics		Introduction to Literature	
Physical Education 211-W .....	1	Education 283 .....	3
Sophomore Practice		Pupil Growth and Development	
English 213 .....	3	Physical Education Education 121 .....	1
Public Speaking		Sophomore Practice	
Chemistry 314 .....	4	Foods 223 .....	3
Introductory Organic		Family Nutrition	
Cooking and Baking 233 .....	3	Chemistry 244 .....	4
Organization and Management		Elementary Physiological	
	18		17

## JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 334 .....	4	Education 323 .....	3
Bacteriology		High School Curriculum	
Cooking and Baking 215 .....	5	Home Economics Education 363 .....	3
Quantity Cookery III		Special Methods	
Education 393 .....	3	*Biology 304 .....	4
Foundation of American Education		Physiology	
Cooking and Baking 213 .....	3	Clothing and Textiles 323 .....	3
Sanitation		Dressmaking	
History 173 .....	3	History 183 .....	3
United States 1492 to 1865		United States 1865 to Present	
	18	Political Science 113 .....	3
		American National Government	
			19

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
*Home Economics Education 406 .....	6	Foods 443 .....	3
Practice Teaching		Diet in Health and Disease	
*House 403 .....	3	Education 423 .....	3
Home Management Residence		School and Community Relations	
Cooking and Baking 263 .....	3	*Child Development 403 .....	3
Advanced Food Preparation		Problems and Practices in Nursery School	
Household Economics 393 .....	3	Foods 323 .....	3
Equipment and Management		Meal Planning, Preparation and Service	
Economics 203 .....	3	Cooking and Baking 223 .....	3
Survey of Economics		Food Service	
	18		15

Total Semester Hours- 140

\* Either Semester

## SUGGESTED ELECTIVE COURSES FOR MEN ENROLLED IN DIETETICS AND INSTITUTIONAL ADMINISTRATION

Semester Hrs.

<i>School of Agriculture</i>	
Animal Husbandry 343 .....	3
Farm Meats	
Poultry 403 .....	3
Poultry Marketing	
<i>School of Industrial Education</i>	
Cooking and Baking 113 .....	3
Elementary Food Preparation	
Cooking and Baking 123 .....	3
Elementary Food Preparation	
Cooking and Baking 127 .....	7
Quantity Food Laboratory II	
Cooking and Baking 253 .....	3
Advanced Food Preparation	
<i>School of Home Economics</i>	
Clothing 374 .....	4
Men's Wear	
Clothing 412 .....	2
Clothing Economics	
Household Economics 453 .....	3
Consumers in the Market	

### AMERICAN DIETETICS ASSOCIATION MINIMUM REQUIREMENTS

Students who wish to qualify for Dietetic Internships must take the following required courses and semester hours. Numbers in parenthesis indicate minimum credit hours required by the American Dietetics Association.

#### Chemistry (12)

- General Inorganic
- Organic
- Physiological Chemistry with Laboratory

#### Social Sciences (9)

- Two of the following:
- Psychology
- Sociology
- Economics

#### Foods (6)

- Food Selection and Preparation
- Meal Planning and Service

#### Biology (6)

- Human Physiology
- Bacteriology

#### Education (3)

- One of the following:
- Educational Psychology
- Methods of Teaching
- Principles of Education

#### Nutrition and Dietetics (6)

- Normal Nutrition (General)
- Advanced Nutrition
- Diet and Disease

#### Institution Management (6)

- Quantity Cookery
- Organization and Management

### HOUSEHOLD ECONOMICS AND CHILD DEVELOPMENT

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Chemistry 114 .....	4	Chemistry 124 .....	4
Inorganic Chemistry		Inorganic and Qualitative	
English 113 .....	3	English 123 .....	3
Grammar and Composition		Reading and Composition	
Mathematics 173 .....	3	Physical Education 121 .....	1
Applied Mathematics		Freshman Practice	
Physical Education 111 .....	1	Home Economics 123 .....	3
Freshman Practice		Family Life Education	
Household Economics 123 .....	3	Foods 123 .....	3
Introduction to Family Economics		Elementary Nutrition	
Art 113 .....	3	Clothing 123 .....	3
Elementary Design		Textiles and Clothing	



SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Industrial Education 203 .....	3	Political Science 123 .....	3
Household Mechanics		State Government	
Political Science 113 .....	3	English 223 .....	3
National Government		Introduction to Literature	
English 213 .....	3	Physical Education 221 .....	1
Public Speaking		Sophomore Practice	
Physical Education 211 .....	1	History 173 .....	3
Introduction		United States 1492 to 1865	
Clothing 223 .....	3	Foods 223 .....	3
Children's Clothing		Family Nutrition	
Household Economics 233 .....	3	Child Development 413 .....	3
Survey of Home Management		Child Guidance	
	<hr/>		<hr/>
	16		16

JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Biology 304 .....	4	Sociology 323 .....	3
Physiology		The Family	
Household Economics 313 .....	3	Household Economics 393 .....	3
General Home Management		Equipment and Furnishing	
Education 173 .....	3	Child Development 403 .....	3
Pupil Growth and Development		Nursery School Observation	
History 183 .....	3	Foods 323 .....	3
United States 1865 to Present		Meal Planning, Preparation, and Service	
Home Economics Education 363 .....	3	Household Economics 283 .....	3
Special Methods		Personal and Family Finance	
		Education 183 .....	3
		Pupil Growth and Development	
	<hr/>		<hr/>
	16		18

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Household Economics 423 .....	3	Household Economics 403 .....	3
Housing		Home Management Residence	
Home Economics Education 406 .....	6	Child Development 323 .....	3
Practice Teaching		Parent Education	
Child Development 453 .....	3	Home Economics Education 343 .....	3
Problems of Child Development		Adult Education	
Electives .....	5	Electives .....	8
	<hr/>		<hr/>
	17		17

EARLY CHILDHOOD EDUCATION

Specialization in this department prepares students for nursery school and elementary school teachers, supervisors, and directors.

The purpose of this department is to give students a better understanding and appreciation for children. The infants in the home management house; the nursery school children, ages two to five; the play group made up of kindergarten and elementary school children, offer unique opportunities to observe child life at the various age levels.

It is recommended that the student have a general background in home economics, but students with training in psychology, sociology, elementary education, and nursing education may be accepted.

Students are advised to select courses with assistance of their advisers or the Dean.

## HOME ECONOMICS INDUSTRY FOR ARTS AND SCIENCE STUDENTS

Clothing	112-122-212-222
Foods	112-122-212-222

A student who takes either of the sequences listed above may be eligible, as a Junior, for the regular advanced courses taken by Home Economics majors. A minor or major may be secured, by adding sufficient hours to the 8 hours of industry courses. Any of the other Home Economics courses, for which there are no prescribed prerequisites or for which prerequisites have been taken may be elected by any student, enrolled in the College.

### DESCRIPTION OF COURSES

#### ART

113. ELEMENTARY DESIGN. (ART 113 ELEM DSGN) (1-4) *Credit 3*. I. Basic Design principles applied to everyday living. Space, pattern, texture, line and color as related to clothing, home furnishings and arrangement and table decoration. Art appreciation.

123. DESIGN. (ART 123 DESIGN) (1-4) *Credit 3*. II. Basic Design principles applied to composition. Media-Tempera, pen and ink pastels.

133. CRAFTS. (ART 133 CRAFTS) (0-6) *Credit 3*. II. Creative design through a variety of crafts; clay modeling and plaster casting, leathercraft; textile design (stenciling, block printing, silk screen printing) and metal craft.

213. FIGURE DRAWING. (ART 213 FIGURES) (0-6) *Credit 3*. I. Fundamentals of structure and anatomy; a study of the human figure to establish a sense of figure proportion and relationships.

322. COSTUME DESIGN. (ART 322 CSTM DSGN) (0-4) *Credit 2*. I. Adaptation and creation of fashions; selection of appropriate costumes and accessories for occasions; fashion illustration; media, pencil, charcoal, pen, ink, and water color.

#### CHILD DEVELOPMENT

302. CHILDREN'S LITERATURE. (CHDV 302 CHILD LIT) (2-0) *Credit 2*. II. Literature as a resource in the child's living; relation of children's literature to world literature; traditional and modern forms; illustration in children's books.

313. HISTORY AND PHILOSOPHY OF EARLY CHILDHOOD EDUCATION. (CHDV 313 CHILDHOOD) (3-0) *Credit 3*. I. The educational position of the young child in twentieth-century America; the view of social philosophers concerning the problems of early childhood; family education in America out of which evolved the kindergarten and nursery school; observation in kindergartens and early grades in the community.

322. NURSERY EDUCATION MUSIC AND CREATIVE ARTS. (CHDV 322 NURS MUSC) (3-2) *Credit 2*. II. Selection of books, stories, music and art for children two to ten years old.

323. PARENT EDUCATION. (CHDV 323 PARENT) (3-0) *Credit 3*. II. Parent needs in relation to children; investigation of methods, materials, and literature used in work with parents.

413. CHILD GUIDANCE (CHDV 413 CHILD GUID) (3-0) *Credit 3*. The development characteristics of young children; needs and principles involved in the guidance of children at the pre-school age.

333. PHYSICAL DEVELOPMENT OF CHILDREN. (CHDV 333 CHLD DVLP) (3-0) *Credit 3*. I. Nutritional requirements and growth patterns of children; factors influencing this growth.

401. NURSERY SCHOOL OBSERVATION. (CHDV 401 NUR SC OB) (0-1) *Credit 1*. I or II. Observation of pre-school children; participation in nursery school activities; meetings with parents.

403. PROBLEMS AND PRACTICES IN NURSERY AND KINDERGARTEN OBSERVATION. (CHDV 403 PROBLEMS) I or II. Evaluation of changing practice in school procedures; teacher-child relationship; individual needs and group structure; implications of current therapeutic techniques for teaching.

414. PROBLEMS IN OBSERVATION AND PARTICIPATION IN NURSERY SCHOOL. (CHDV 414 OBSV PROB) (1-14) *Credit 4*. I or II. Work as assistant in Nursery School; experience to be earned in a selected nursery school away from campus. (9 weeks.) Elective.

422. HOME NURSING. (CHDV 422 HOME NURS) (3-0) *Credit 2*. I or II. Personal and family health problems in homes.

453. PROBLEMS OF CHILD DEVELOPMENT. (CHDV 453 DVLP PROB) (3-0) *Credit 3*. I. Opportunities to discuss problems of the classroom, the community and related fields.

463. NURSERY SCHOOL ADMINISTRATION. (CHDV 463 NURS ADM) (3-0) *Credit 3*. II. Administration in the areas of housing, equipment, costs, staff program, health protections and community relations.

513. CURRICULUM IN EARLY CHILDHOOD EDUCATION. (CHDV 513 CURRICULUM) (3-0) *Credit 3*. I. Analysis of basic needs, activities, and interests of young children; how to plan a school environment best adapted to fulfill these needs. Physical, intellectual, and social development as aspects to the total sequence of integrated growth.

## CLOTHING AND TEXTILES

103. ELEMENTARY TEXTILES. (CLO 103 ELEM TEXT) (1-4) *Credit 3*. I. A study of basic and special weaves and finishes in fabrics. Experience in the use of the weaving machine. The creating of designs for printed and woven textiles as well as the application of design to cloth.

123. TEXTILES AND CLOTHING. (CLO 123 TEXT CLO) (1-4) *Credit 3*. II. Analyzing personal finances in relation to standards of selection, construction, wear and care of the wardrobe.

124. CLOTHING FOR THE FAMILY. (CLO 124 FAMILY) (2-4) *Credit 4*. II. Construction, cost, care and maintenance of clothing for the family.

223. CHILDREN'S CLOTHING. (CLO 223 CHILD CLO) (1-4) *Credit 3*. I or II. Selection and construction of garments for infants and young children.

312. FABRICS IN HOME FURNISHINGS. (CLO 312 FABRICS) (1-2) *Credit 2*. A study and use of color, design, textures, and accessories in household fabrics. Upholstering, making of slip covers, draperies and bed spreads. One field trip.

313. TAILORING FOR WOMEN. (CLO 313 TAILORING) (1-4) *Credit 3*. I. Experience in handling various types of woollens and the problems involved in the construction of a suit, coat and slacks. Prerequisites: Clothing 124, 223. Estimate for materials and supplies: \$40.00.

374. MEN'S WEAR AND CLOTHING RECLAMATION. (CLO 374 MENS WEAR) (2-2) *Credit 4*. II. Use of commercial and custom made patterns in construction of simple garments for men; remodeling and dyeing of garments. Estimate for supplies, \$5.00.

402. CLOTHING CLINIC. (CLO 402 CLINIC) (0-4) *Credit 2*. I or II. Experience in clothing construction; fitting and design for customers.

412. CONSUMER ECONOMICS. (CLO 412 CONS ECON) (2-0) *Credit 2*. II. Living and cultural background and clothing consumer problems.

413. ADVANCED CLOTHING PROBLEMS. (CLO 413 ADV PROB) (1-4) *Credit 3*. Pattern study. Draping, drafting and fitting; individuality in dress; garments designed from foundation patterns.

423. ADVANCED TEXTILES. (CLO 423 ADV TEXT) (1-4) *Credit 3.* Nature of the raw materials; economic, chemical and physical applications involved in their manufacture and use; methods and significance of physical testing. Prerequisites: Chemistry 114, 124, 224, 214; Biology 304; Physics 214.

## FOODS AND NUTRITION

103. FOOD SELECTION AND PREPARATION. (FDS 103 SELC PREP) (1-4) *Credit 3.* Marketing; choice of foods and selection of methods of preparation of protein, carbohydrate and fats, Emphasis on breakfast foods.

113. ELEMENTARY NUTRITION. (FDS 113 EDEM NUTR) (3-0) *Credit 3.* Developing food selection habits which meet nutritional standards; developing and scientific knowledge of foods.

123. ELEMENTARY NUTRITION. (Same as 113 Elem. Nutr.)

203. ADVANCED FOOD SELECTION AND PREPARATION. (FDS 203 ADV SELC) (1-4) *Credit 3.* Fundamentals of selecting, serving and preparing food in large quantities; rudiments of cafeteria and institutional management; menu planning, preparation and serving large groups. Fee: \$2.00.

213. FOOD PROBLEMS. (FDS 213 PROBLEMS) (2-0) *Credit 3.* I. Food selection habits which meet nutritional standards; social significance of food and standard of food selection at various economic levels; resources and uses. Laboratory Fee: \$2.00.

223. FAMILY NUTRITION AND CHILD FEEDING. (FDS 223 FAML NUTR) (1-4) *Credit 3.* I or II. Preservation and discussion of current ideas on feeding children and their families; relation of nutrition to physical growth and development. Prerequisite: Elementary Nutrition. Fee: \$2.00.

303. TECHNIQUES AND PRINCIPLES OF DEMONSTRATION. (FDS 303 DEMNSTRAT) (1-4) *Credit 3.* I or II. Purpose and technique of demonstration in food preparation and nutrition. Each student expected to prepare and give several demonstrations. Fee: \$2.00.

323. MEAL PLANNING AND PREPARATION. (FDS 323 MEAL PLNG) (1-4) *Credit 3.* II. Planning, marketing, preparing and serving palatable, nutritious and attractive meals for families at various economic levels; use and care of equipment and table appointments. Laboratory Fee: \$2.00.

343. FOOD PRESERVATION. (FDS 343 PRESRVATN) (1-4) *Credit 3.* I. Equipment, recipes and directions for home food preservation. Taught in School of Agriculture.

403. EXPERIMENTAL COOKERY. (FDS 403 EXPR COOK) (1-4) *Credit 3.* I or II. Factors involved in meal planning; preparation and serving of food with special units on food experimentation and comparison of commercial and home products. Fee: \$2.00.

413. INDIVIDUAL PROBLEMS IN FOODS AND NUTRITION. (FDS 413 IND PRMBL) (1-4) *Credit 3.* II. Advanced course for students wishing to do work in a special phase of Foods and Nutrition before graduation. Laboratory Fee \$2.00.

423. ADVANCED NUTRITION AND DIET THERAPY. (FDS ADV NUTR) (1-4) *Credit 3.* II. Principles of human nutrition; energy, mineral, vitamin, fat, and carbohydrate requirements of human body. Practical application of recent developments in the dietary treatment of disease in which nutrition plays a major role by planning diets for various diseases. Laboratory fee: \$2.00.

422. SEMINAR IN FOOD AND NUTRITION. (FDS 422 SEMINAR) (2-0) *Credit 2.* Recent trends and findings in foods and nutrition topics related to practical problems in human nutrition. Prerequisites: Physiology, chemistry and nutrition.

FOODS 443. DIET IN HEALTH AND DISEASE. (DIET IN HLTH) (3-0) *Credit 3.* Principles involved in diet for health individuals and abnormal individuals.

FOODS 463. ORGANIZATION AND MANAGEMENT (ORGN AND MGT) (3-0) *Credit 3.* Discussion and application of techniques in organizing and managing. Food Service institutions.

## HOME ECONOMICS EDUCATION

123. FAMILY LIFE EDUCATION. (H E 123 FAMILY LIFE) (3-0) *Credit 3.* I or II. Family life problems and experiences in solving them.

332. SUMMER AND HOME EXPERIENCES. (H ED 223 HOME EXPR) (2-0) *Credit 2.* I. Summer and home experiences as methods to us in increasing effectiveness of teaching; study reports of the experiences.

343. ADULT EDUCATION. (H ED 343 ADULT ED) (3-0) *Credit 3.* II. Objectives of adult education planning program; teaching procedures; and discussion of special problems.

363. SPECIAL METHODS. (H ED 363 SPEC METH) (3-0) *Credit 3.* I or II. Curriculum, methods of teaching, management, and other problems of the homemaking teacher.

382. CLUB WORK. (H ED 382 CLUB WORK) (2-0) *Credit 2.* N. H. A. as an integral part of the homemaking program.

406. STUDENT TEACHING AND PROBLEMS. (H ED 406 STUD TCHG) (6-0) *Credit 6.* I or II. Supervised teaching of homemaking in schools for a period of 9 weeks.

503. METHODS AND MATERIALS IN EXTENDED PROGRAMS. (H ED 503 METHODS) (3-0) *Credit 3.* I or II. A study of aims and values of home and summer experiences and club work; consideration of special problems, present trends; methods of promotion; selection and organization of subject matter.

## HOUSEHOLD ECONOMICS

123. INTRODUCTION TO FAMILY ECONOMICS. (HSE 123 INTRODUCT) (3-0) *Credit 3.* II. Major social and economics problems faced by home managers in bringing about good family relationships.

313. GENERAL HOME MANAGEMENT. (HSE 313 HOME MGT) (3-0) *Credit 3.* Analysis and critical evaluation of social and economic problems of the home.

283. PERSONAL AND FAMILY FINANCE. (HSE 283 FINANCE) (3-0) *Credit 3.* Specific financial problems confronting individuals and family groups; a study of the legal aspects of a successfully run home.

393. HOUSE PLANNING, FURNISHINGS AND EQUIPMENT. (HSE 393 HSE PLNG) (3-0) *Credit 3.* Consideration of dwellings, their environment, plans and space requirements; selection, use, and care of certain furniture and equipment used in the home, which promote effective utilization of family resources.

403. SUPERVISED HOME MANAGEMENT. (HSE 403 RESIDENCE) (1-4) *Credit 3.* I or II. Home residence provides for the application of principles related to satisfactory home life; opportunity is provided for experience in group living and for management of the human and material resources of a home.

423. HOUSING. (HSE 423 HOUSING) (3-0) *Credit 3.* II. Housing standards and conditions; home ownership, financing, house design from consumer's point of view; government housing. Prerequisite: Household Economics 393.

463. KITCHEN GARDENING. (HSE 463 KITCH GRDN) (3-0) *Credit 3.* I. (Same as Foods 343 and Horticulture 343 taught in School of Agriculture.) Equipment, recipes and directions for home food preservation.

233. SURVEY OF HOME MANAGEMENT. (HSE 233 MGT SURV) (3-0) *Credit 3.* I or II. Introduction to major social and economic problems faced by homemakers.

## MISCELLANEOUS

H. E. 100. INVESTIGATIVE PAPER. Seniors in all curricula are required to present a paper on some phase of work in the major field.

NOTE.—Students in all curricula will consult advisers relative to courses for certification.

NOTE.—Unless otherwise provided for, the student will consult adviser about satisfying American History requirement.

DIVISION OF

*Industrial Education*

# Division of Industrial Education

## GENERAL INFORMATION

The Division of Industrial Education offers an educational program designed to help prepare young men and women to meet the demands of industry, society and life. The Division of Industrial Education is made up of two departments, the Industrial Arts Department and the Vocational Industrial Education Department. The division offers undergraduate courses leading to the Bachelor of Science Degree in Industrial Education and Trade Certificates in the following industrial fields:

Auto Mechanics	Machine Shop
Broom and Mattress Making	Masonry
Cabinet Making	Painting and Decorating
Carpentry	Plumbing
Commercial Cooking	Printing
Drafting	Radio and Television
Dry Cleaning	Sheet Metal
Electricity	Shoemaking and Leatherwork
Foundry	Tailoring
Laundrying	Welding: gas and electric

The Division of Industrial Education has a physical plant occupying over 48,000 square feet of floor space and valued above one quarter million dollars. The offices, classroom and shops are housed in the following buildings:

1. *Industrial Education Building*—In this building are located the administrative offices; classrooms; library and reading rooms; drafting rooms and shops for instruction in broom and mattress making, shoemaking and leatherwork, printing, woodwork, painting and decorating, plumbing, sheet metal and auto mechanics.
2. *N. Y. A. Shop*—In this building are located shops for instruction in bench and machine metalwork, welding and foundry. This building is fully equipped with hand tools, machine tools, testing and processing equipment in order to maintain a first-rate instructional program for the metalworking industry.
3. *Industrial Education Annex*—In this building are located classrooms for related instruction and shops for instruction in radio, television, electricity and masonry. This building is equipped with the latest radio, television and electronic equipment in order to provide the students with the best possible instruction.

Due to changes in industry, education and our advancing technology, the Division may make, from time to time, appropriate changes in its curricula in order to maintain always an up-to-date and adequate educational program. Students shall follow the prescribed outline of courses

which were required at the time they entered a particular curriculum. All substitutions of courses must be approved by the Director of the Division prior to the time they are made.

## ADMISSION

In order to pursue the courses leading to a Degree in Industrial Education or to a Trade Certificate, the student must satisfy the same entrance requirements as are required for entrance to freshman college courses. Students transferring from a college of similar standing to that of Prairie View A. & M. College shall be given credit for the courses transferred whenever they are equivalent or similar to prescribed courses in the Division of Industrial Education.

## GRADUATION REQUIREMENTS\*

The requirements for graduation from the Division of Industrial Education are the satisfactory completion of all courses in one of the prescribed curricula, with at least a "C" average.

## INDUSTRIAL ARTS DEPARTMENT

The Industrial Arts Department is designed to offer experiences for the following purposes: (1) To prepare young men and women as teachers of Industrial Arts Education at the elementary, junior or senior high school levels, (2) To assist persons to become supervisors, coordinators and directors of Industrial Arts programs, and (3) To assist students who might wish to develop a hobby, develop elementary skill in using tools and industrial materials or increase their general understanding, knowledge and appreciation of the industrial world in which they live.

Upon the completion of the prescribed undergraduate curriculum the student will receive the Bachelor of Science Degree in Industrial Education. He will be entitled to make application and receive a certificate valid to teach Industrial Arts Education in any public school in the State.

### MAJOR

The requirements for a major in Industrial Education consist of not less than 56 semester hours. Ten semester hours shall be in courses above the sophomore level. Majors shall select one of the following plans:

#### PLAN I

##### UNIT SHOP TEACHER

The shop major shall consist of at least 12 semester hours of drawing, including general drawing and technical sketching. A major concentration of 30 semester hours in shop work shall be selected from the areas listed

\* See detailed explanation of requirements for graduation from the College in Academic Information Section of this bulletin.



below. An additional 14 hours of related shop courses will go to make up the remainder of the requirements under Plan I.

Auto Mechanics	Painting and Decorating
Broom and Mattress Making	Plumbing
Commercial Cooking	Printing
Dry Cleaning	Radio-Television
Electricity	Sheet Metal
Laundrying	Shoemaking and Leatherwork
Masonry	Tailoring
Metalwork	Woodwork-Carpentry

## PLAN II

### GENERAL SHOP TEACHER

The shop shall consist of at least 12 semester hours drawing, including general drafting and technical sketching. A minimum of 12 semester hours in shop work is required in three of the areas listed below. An additional 8 semester hours of electives in the same areas will make up the remainder of the requirements under Plan II.

Auto Mechanics	Machine Shop
Broom and Mattress Making	Masonry
Carpentry	Painting and Decorating
Cabinet Making	Plumbing
Commercial Cooking	Printing
Crafts	Radio-Television
Dry Cleaning	Sheet Metal
Electricity	Shoemaking and Leatherwork
Foundry	Tailoring
Laundrying	Welding

### MINOR

A minor in Industrial Education requires the completion of 24 semester hours in drawing and shopwork. At least 6 semester hours shall be in drawing, including general drafting and technical sketching. The remaining hours must be in shop work with not less than 6 semester hours in any area selected.

## DEGREE REQUIREMENTS

### BACHELOR OF SCIENCE DEGREE IN INDUSTRIAL EDUCATION

To earn the Bachelor of Science Degree in Industrial Education, the student must complete 140 semester hours of academic and shop work, including 4 semester hours Military Science (men) or 4 semester hours Physical Education (Women). Thirty-six (36) semester hours of total semester hours required for graduation must be in courses above the sophomore level. The academic and shop work shall be distributed as follows:

### MAJOR

Fifty-six (56) semester hours, including 10 semester hours in advanced courses, in drawing and shop work according to Plan I or II.

## PROFESSIONAL REQUIREMENTS

A minimum of 26 semester hours is required from the following list, to include 6 semester hours which shall bear upon high school teaching and 6 of which shall consist of study methods, observation of methods and practice teaching.

Industrial Education 111 and 121 ..... 2	Industrial Education 533 ..... 3
Orientation	Methods in Industrial Education
Industrial Education 113 ..... 3	Audio-Visual Education 303 ..... 3
Principles of Industrial Education	Utilization of Audio-Visual Materials
Industrial Education 273 ..... 3	Education 383 ..... 3
Shop Organization and Management	Educational Psychology
Industrial Education 323 ..... 3	Industrial Education 406 ..... 6
Course Making	Supervised Teaching

## GENERAL EDUCATION REQUIREMENTS

The following courses are required of all majors in Industrial Education:

Mathematics ..... 6	History ..... 6
College Algebra 3 hours	American History
Trigonometry 3 hours	English ..... 12
Science ..... 18	Composition and Grammar 3 hours
Chemistry 8 hours	Reading and Composition 3 hours
Physics 10 hours	Public Speaking 3 hours
Government ..... 6	Introduction to Literature 3 hours
State Government 3 hours	Social Science ..... 3
National Government 3 hours	Electives as necessary to satisfy the curriculum

## THESIS REQUIREMENTS

A comprehensive theme paper will be required of each student pursuing the Bachelor of Science Degree in Industrial Education. This paper shall be devoted to work in his specific concentration of study or to the general field of Industrial Education. The paper should demonstrate an ability to gather, organize, and report Industrial Education information.

## VOCATIONAL INDUSTRIAL EDUCATION DEPARTMENT

The Vocational Education Department (Trades and Industries) is designed to offer experiences for the following purposes: (1) To prepare students to enter various skilled trades and manufacturing industries as workers, supervisors, technicians or sales personnel, (2) To allow students who cannot afford the time or expense of taking a four-year course to take a two-year course and apply their limited time directly to acquiring skill in some industry in order to follow it as a trade, (3) To provide trade extension or refresher courses to those who wish to extend their knowledge, skill, and efficiency for the purpose of personal improvement, professional advancement, and job promotions, (4) To provide special trade courses for individuals who have special needs, i.e., industrial rehabilitation students or students who wish to learn only a part of a trade such as linotype operation, lettering, motor winding, etc., and (5) To prepare teachers of vocational industrial education subjects.

A student in the Department of Vocational Industrial Education may qualify for the Bachelor of Science Degree by showing satisfactory proof of having 3 years of experience as a journeyman in a recognized trade and completing the following courses:

Mathematics .....	6 semester hours
Chemistry .....	8 semester hours
Physics .....	10 semester hours
History .....	6 semester hours
Government .....	6 semester hours
English .....	12 semester hours
Social Science .....	3 semester hours
Industrial Education .....	28 semester hours
Electives (Minor) .....	18 semester hours

A student may enter the two-year program in Vocational Industrial Education (Trades and Industries) and work toward a trade certificate in the following areas:

Auto Mechanics	Masonry
Broom and Mattress Making	Metalwork, Foundry, Welding
Cabinet Making	Painting and Decorating
Carpentry	Plumbing
Commercial Cooking	Printing
Drawing and Design	Radio-Television
Dry Cleaning	Sheet Metal
Electricity	Shoemaking and Leatherwork
Laundering	Tailoring

## INDUSTRIAL INTERNSHIP

It is indeed imperative that the industrial education student have close contact with some industry or industrial occupation during his program at the college. It is for this reason that an opportunity is provided for each student to engage in supervised work in industry and receive college credit for the same. Students will enroll in I. E. 200, Industrial Internship. Credit will be allowed on the following basis: One semester hour of college credit for each 100 clock hours on the job. A maximum of 12 semester hours can be earned in this manner. All internship programs must be approved by the Director of Industrial Education prior to the student actually going on the job.

## SPECIAL STUDENTS

Special courses shall be arranged in order to meet the needs of rehabilitation students or students who desire to undertake special study without working towards a degree or a certificate. These courses shall be arranged and supervised by the Director of the Division

The following course numbers will be used by those persons enrolling in classes for rehabilitation students:

<i>School Period</i>	<i>Course No.</i>
1st regular session .....	010
2nd regular session .....	020
1st summer session .....	030
2nd summer session .....	040

The above numbers will also carry the name of the department in which the student is enrolled, e.g., Auto Mechanics 010 indicates a class in auto mechanics for rehabilitation students offered the first session of the regular school year.

## DISTRIBUTIVE EDUCATION

In the field of Distributive Education, courses are offered in business practices, how to teach an employee, wholesale and retail selling and buying, advertising, display, bookkeeping, salesmanship, employer-employee relations, public relations, retail record keeping, laws of retailing, professional development in retail selling, grocery procedure and food service. These courses will be offered in the field in short units, and carry no college credit. Any one or all may be taken on request. Summer Business and Distributive Education Clinics will be held upon demand.

## INDUSTRIAL EDUCATION

Curriculum outline for a major in Industrial Education who expects to teach Industrial Arts.\*

### FRESHMAN YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 113 .....	3	Mathematics 123 .....	3
College Algebra .....		Trigonometry .....	3
English 113 .....	3	English 123 .....	3
Grammar and Composition .....		Reading and Composition .....	3
Industrial Education 113 .....	3	Social Science 113 .....	3
Principles of Industrial Education .....		Drawing 123 .....	3
Drawing 113 .....	3	General Drafting .....	
General Drafting .....		Industrial Laboratory 123 .....	3
Industrial Laboratory .....	3	Industrial Education 121 .....	1
Industrial Education 111 .....	1	Orientation .....	
Orientation .....		Military Science 111 .....	1
Military Science 111 .....	1	Elementary or .....	
Elementary or .....		Physical Education 111 .....	1
Physical Education 111 .....	1	Freshman Practice (Women) .....	
Freshman Practice (Women) .....			
	17		17

### SOPHOMORE YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Political Science 113 .....	3	Political Science 123 .....	3
National Government .....		State Government .....	3
English 213 .....	3	English 223 .....	3
Public Speaking .....		Introduction to Literature .....	3
Drawing 203 .....	3	Drawing (Elective) .....	3
Technical Sketching .....		Chemistry 124 .....	4
Chemistry 114 .....	4	Inorganic Chemistry .....	
Inorganic Chemistry .....		Industrial Laboratory .....	3
Industrial Laboratory .....	3	Military Science 221 .....	1
Military Science 211 .....	1	Elementary Military Science .....	
Elementary Military Science .....		Physical Education 211 .....	1
Physical Education 211 .....	1	Sophomore Practice (Women) .....	
Sophomore Practice (Women) .....			
	17		17

### JUNIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Physics 215 .....	5	Physics 225 .....	5
General Physics .....		General Physics .....	
Industrial Education 273 .....	3	Education 383 .....	3
Shop Organization .....		Educational Psychology .....	
History 173 .....	3	History 183 .....	3
Survey of American History, I .....		Survey of American History, II .....	
Industrial Laboratory .....	7	Industrial Laboratory .....	7
	18		18

\* Students who wish to earn the Bachelor of Science degree in Industrial Education but do not wish to teach may substitute industrial laboratory electives for Professional Education courses upon the approval of the Director of the Division of Industrial Education.

## SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Industrial Education 303 .....	3	Audio-Visual Education 303 .....	3
Course Making		Utilization of Audio Visual Materials	
Industrial Education 413 .....	3	Industrial Education 406 .....	6
Methods of Teaching		Student Teaching	
Industrial Laboratory .....	9	Industrial Laboratory .....	9
Electives .....	3		
	18		18

## CURRICULUM OUTLINE FOR TWO-YEAR TECHNICAL COURSES

### AUTOMOBILE MECHANICS

#### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting		Technical Sketching	
Applied Science 133 .....	3	Applied Science 143 .....	3
Related Mathematics		Related Mathematics	
English 133 .....	3	English 143 .....	3
English for Trade Students		English for Trade Students	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation		Orientation	
Auto Mechanics 153 .....	3	Auto Mechanics 163 .....	3
Auto Mechanics Practice		Auto Mechanics Practice	
Auto Mechanics 133 .....	3	Auto Mechanics 123 .....	3
The Chassis		Power I	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary		Elementary	
	17		17

#### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations		Industrial Management	
Metal Work 113 .....	3	Welding 103 .....	3
Bench Work		General Welding	
Science 113 .....	3	Sociology 263 .....	3
College Science		General Sociology	
Auto Mechanics 213 .....	3	Auto Mechanics 263 .....	3
The Fuel System		Chassis II	
Auto Mechanics 233 .....	3	Auto Mechanics 243 .....	4
The Electrical System		Power II	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary		Elementary	
	17		17

## BROOM AND MATTRESS MAKING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113	3	Drawing and Design 203	3
General Drafting		Technical Sketching	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Broom and Mattress Making 117	7	Broom and Mattress Making 127	7
Elementary Broom Making		Advanced Broom and Mattress Making	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213	3	Applied Science 223	3
Business Relations		Industrial Management	
Electives	2	Electives	2
Science 113	3	Sociology 263	3
College Science		General Sociology	
Broom and Mattress Making 217	7	Broom and Mattress Making 227	7
Elementary Mattress Making		Broom and Mattress Making II	
Military Science 211	1	Military Science 221	1
Elementary		Elementary	
	16		16

## CARPENTRY

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113	3	Drawing and Design 203	3
General Drafting		Technical Sketching	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
Carpentry 117	7	Carpentry 127	7
Elementary Carpentry I		Elementary Carpentry II	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213	3	Applied Science 223	3
Business Relations		Industrial Management	
Drawing and Design 303	3	Painting 123	3
Working Drawings		Elementary Painting	
Science 113	3	Sociology 263	3
College Science		General Sociology	
Carpentry 217	7	Carpentry 227	7
Advanced Carpentry I		Advanced Carpentry II	
Military Science 211	1	Military Science 221	1
Elementary		Elementary	
	17		17

## COOKING AND BAKING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Cooking and Baking 132	2	Cooking and Baking 142	2
Nutrition		Nutrition	
Cooking and Baking 112	2	Cooking and Baking 122	2
Food Products		Food Products	
Cooking and Baking 113	3	Cooking and Baking 123	3
Elementary Food Preparation		Elementary Food Preparation	
Cooking and Baking 117	7	Cooking and Baking 127	7
Quantity Cookery I		Quantity Cookery II	
English 133	3	Mathematics 173	3
English for Trade Students		Applied Mathematics	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
	19		19

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Cooking and Baking 213	3	Cooking and Baking 223	3
Sanitation		Food Service	
Cooking and Baking 233	3	Cooking and Baking 243	3
Business Management		Menu Planning	
Cooking and Baking 253	3	Cooking and Baking 263	3
Advanced Food Preparation		Advanced Food Preparation	
Cooking and Baking 215	5	Cooking and Baking 225	5
Quantity Cookery III		Quantity Cookery IV	
Political Science 103	3	Sociology 263	3
American Government		General Sociology	
Military Science 211	1	Military Science 221	1
Elementary		Elementary	
	18		18

## DRAWING AND DESIGN

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Drawing and Design 113	3	Drawing and Design 123	3
General Drafting		General Drafting	
Architectural Engineering 212	2	Architectural Engineering 222	2
Freehand Drawing		Freehand Drawing	
Science 113	3	Architectural Engineering 243	3
College Science		Architectural Drawing	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	16		16

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 113	3	Mathematics 123	3
College Algebra		Trigonometry	
Applied Science 213	3	Applied Science 223	3
Business Relations		Industrial Management	
Electives	3	Sociology 263	3
Architectural Engineering 244	4	General Sociology	
Architectural Drafting		Architectural Engineering 263	3
Architectural Engineering 363	3	Architectural Drawing	
Working Drawings		Architectural Engineering 273	3
Military Science 211	1	Working Drawings	
Elementary		Military Science 221	1
	17	Elementary	
			16

## DRY CLEANING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting		Technical Sketching	
Applied Science 133 .....	3	Applied Science 143 .....	3
Related Mathematics		Related Mathematics	
English 133 .....	3	English 143 .....	3
English for Trade Students		English for Trade Students	
Dry Cleaning 117 .....	7	Dry Cleaning 127 .....	7
Dry Cleaning		Dry Cleaning	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation		Orientation	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary		Elementary	
	<hr/>		<hr/>
	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations		Industrial Management	
Laundering 112 .....	2	Tailoring 113 .....	3
Laundering, Elementary		Tailoring, Elementary	
Science 113 .....	3	Sociology 263 .....	3
College Science		General Sociology	
Dry Cleaning 217 .....	7	Dry Cleaning 227 .....	7
Dry Cleaning		Dry Cleaning	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary		Elementary	
	<hr/>		<hr/>
	16		17

## ELECTRICITY

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting		Technical Sketching	
Applied Science 133 .....	3	Applied Science 143 .....	3
Related Mathematics		Related Mathematics	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation		Orientation	
English 133 .....	3	English 143 .....	3
English for Trade Students		English for Trade Students	
Electricity 114 .....	4	Electricity 124 .....	4
Elementary Electricity		Elementary Electricity	
Electricity 113 .....	3	Electricity 123 .....	3
Electrical Wiring and Repair		Electrical Wiring and Repair	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary		Elementary	
	<hr/>		<hr/>
	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations		Industrial Management	
Electricity 132 .....	2	Electricity 142 .....	2
D.C. Motor-Generator Repair		A.C. Motor-Generator Repair	
Science 113 .....	3	Sociology 263 .....	3
College Science		General Sociology	
Electricity 217 .....	7	Electricity 227 .....	7
Electrical Wiring and Illumination		Electrical Wiring and Illumination	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary		Elementary	
	<hr/>		<hr/>
	16		16



## LAUNDERING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting		Technical Sketching	
Applied Science 113 .....	3	Applied Science 143 .....	3
Related Mathematics		Related Mathematics	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation		Orientation	
English 133 .....	3	English 143 .....	3
English for Trade Students		English for Trade Students	
Laundering 117 .....	7	Laundering 127 .....	7
Elementary Laundering		Elementary Laundering	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary		Elementary	
	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations		Industrial Management	
Science 113 .....	3	Tailoring 112 .....	2
College Science		Tailoring	
Laundering 217 .....	7	Sociology 263 .....	3
Laundering		General Sociology	
Dry Cleaning 102 .....	2	Laundering 227 .....	7
Dry Cleaning Lab.		Laundering	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary		Elementary	
	16		16

## MASONRY

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting		Technical Sketching	
Applied Science 133 .....	3	Applied Science 143 .....	3
Related Mathematics		Related Mathematics	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation		Orientation	
English 133 .....	3	English 143 .....	3
English for Trade Students		English for Trade Students	
Masonry 117 .....	7	Masonry 127 .....	7
Elementary Masonry		Elementary Masonry	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary		Elementary	
	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations		Industrial Management	
Drawing and Design 303 .....	3	Carpentry 224 .....	4
Working Drawings		General Carpentry	
Science 113 .....	3	Sociology 263 .....	3
College Science		General Sociology	
Masonry 217 .....	7	Masonry 227 .....	7
Advanced Masonry		Advanced Masonry	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary		Elementary	
	17		18

# METALWORK, WELDING, FOUNDRY

## FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting .....		Technical Sketching .....	
Applied Science 133 .....	3	Applied Science 143 .....	3
Related Mathematics .....		Related Mathematics .....	
English 133 .....	3	English 143 .....	3
English for Trade Students .....		English for Trade Students .....	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation .....		Orientation .....	
Welding 113 .....	3	Welding 123 .....	3
Electric Welding .....		Gas Welding .....	
Metalwork 113 .....	3	Metalwork 123 .....	3
Bench Work .....		Machine Work .....	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary .....		Elementary .....	
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	17		17

## SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations .....		Industrial Management .....	
Foundry 213 .....	3	Sociology 263 .....	3
Foundry I .....		General Sociology .....	
Science 113 .....	3	Foundry 223 .....	3
College Science .....		Foundry II .....	
Metalwork 213 .....	3	Metalwork 323 .....	3
Advanced Machine Shop .....		Materials and Processes .....	
Welding 213 .....	3	Welding 223 .....	3
Advanced Electric .....		Advanced Gas .....	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary .....		Elementary .....	
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	16		16

# PAINTING

## FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113 .....	3	Drawing and Design 203 .....	3
General Drafting .....		Technical Sketching .....	
Applied Science 133 .....	3	Applied Science 143 .....	3
Related Mathematics .....		Related Mathematics .....	
Industrial Education 111 .....	1	Industrial Education 121 .....	1
Orientation .....		Orientation .....	
English 133 .....	3	English 143 .....	3
English for Trade Students .....		English for Trade Students .....	
Painting 117 .....	7	Painting 127 .....	7
Elementary Painting .....		Elementary Painting .....	
Military Science 111 .....	1	Military Science 121 .....	1
Elementary .....		Elementary .....	
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	18		18

## SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213 .....	3	Applied Science 223 .....	3
Business Relations .....		Industrial Management .....	
Painting 213 .....	3	Carpentry 224 .....	4
Furniture Finishing .....		General Carpentry .....	
Science 113 .....	3	Sociology 263 .....	3
College Science .....		General Sociology .....	
Painting 217 .....	7	Painting 227 .....	7
Advanced Painting .....		Advanced Painting .....	
Military Science 211 .....	1	Military Science 221 .....	1
Elementary .....		Elementary .....	
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	17		18

## PLUMBING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113	3	Drawing and Design 203	3
General Drafting		Technical Sketching	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Plumbing 117	7	Plumbing 127	7
Industrial and Elementary Plumbing		Industrial and Elementary Plumbing	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	<hr/> 18		<hr/> 18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213	3	Applied Science 223	3
Business Relations		Industrial Management	
Welding 103	3	Sheetmetal 113	3
General Welding		Elementary Sheet Metal	
Science 113	3	Sociology 263	3
College Science		General Sociology	
Plumbing 217	7	Plumbing 227	7
Advanced Plumbing		Advanced Plumbing	
Military Science 211	1	Military Science 221	1
Elementary		Elementary	
	<hr/> 17		<hr/> 17

## PRINTING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
Printing 112	2	Printing 124	4
Typography I		Typography II	
Printing 152	2	Printing 162	2
Platen Presswork I		Cylinder Presswork I	
Printing 113	3	Printing 172	2
Graphic Arts Survey		Platen Presswork II	
Printing 133	3	Printing 182	2
Layout, Design and Lettering		Machine Composition I	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	<hr/> 18		<hr/> 18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213	3	Sociology 263	3
Business Relations		General Sociology	
Printing 211	1	Printing 262	2
Bindery Operations		Cylinder Presswork III	
Printing 252	2	Printing 283	3
Cylinder Presswork II		Machine Composition III	
Printing 273	3	Printing 222	2
Machine Composition II		Typography IV	
Printing 212	2	Printing 243	3
Estimating		Plant Management	
Electives	2	Printing 294	4
Printing 234	4	Printing Production	
Typography III		Military Science 221	1
Military Science 211	1	Elementary	
Elementary			
	<hr/> 18		<hr/> 18

# RADIO

## FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 113	3	Drawing and Design 203	3
General Drafting		Technical Sketching	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
Electricity 114	4	Electricity 124	4
Elementary Electricity		Elementary Electricity	
Radio 113	3	Radio 123	3
Radio Servicing		Radio Servicing	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	<hr/> 18		<hr/> 18

## SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Mathematics 113	3	Mathematics 123	3
College Algebra		Trigonometry	
Applied Science 213	3	Applied Science 223	3
Business Relations		Industrial Management	
Electricity 102	2	Radio 222	2
Electrical Appliances		Test Instruments	
Radio 217	7	Radio 227	7
Radio Servicing		Radio Servicing	
Military Science 211	1	Military Science 221	1
Elementary		Elementary	
	<hr/> 16		<hr/> 16

# SHOEMAKING AND LEATHERWORK

## FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 133	3	Drawing and Design 143	3
Applied Drawing I		Applied Drawing II	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
Shoe Repair 117	7	Shoe Repair 127	7
Shoemaking		Shoemaking	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
	<hr/> 18		<hr/> 18

## SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213	3	Applied Science 223	3
Business Relations		Shop Management	
Drawing and Design 233	3	Leathercraft 203	3
Applied Drawing III		Leathercraft	
Shoe Repair 217	7	Shoe Repair 227	7
Shoemaking		Shoemaking	
Science 113	3	Sociology 263	3
College Science		General Sociology	
Military Science 211	1	Military Science 221	1
Elementary		Elementary	
	<hr/> 17		<hr/> 17

## TAILORING

### FIRST YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Drawing and Design 133	3	Drawing and Design 143	3
Applied Drawing I		Applied Drawing II	
Applied Science 133	3	Applied Science 143	3
Related Mathematics		Related Mathematics	
English 133	3	English 143	3
English for Trade Students		English for Trade Students	
Industrial Education 111	1	Industrial Education 121	1
Orientation		Orientation	
Tailoring 117	7	Tailoring 127	7
Elementary Tailoring		Elementary Tailoring	
Military Science 111	1	Military Science 121	1
Elementary		Elementary	
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	18		18

### SECOND YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
Applied Science 213	3	Applied Science 223	3
Business Relations		Shop Management	
Science 113	3	Sociology 263	3
College Science		General Sociology	
Drawing and Design 223	3	Drawing and Design 243	3
Applied Drawing III		Applied Drawing IV	
Dry Cleaning 113	3	Electives	3
Elementary Dry Cleaning		Tailoring 225	5
Tailoring 215	5	Advanced Tailoring	
Advanced Tailoring		Military Science 121	1
Military Science 211	1	Elementary	
Elementary			
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	18		18

## DESCRIPTION OF COURSES

### INDUSTRIAL EDUCATION

111-121. ORIENTATION. (I E 111 121 ORIENTATN) (1-0) *Credit 1*. Required of all freshmen in the Division of Industrial Education. Deals with the problems facing beginning college students.

113. PRINCIPLES OF INDUSTRIAL EDUCATION. (I E 113 PRINCIPLS) (3-0) *Credit 3. I*. An introductory course in Industrial Education outlining present philosophical concepts of industrial education. A developmental study of the programs that make up modern industrial education, including industrial arts, vocational industrial education, apprenticeship and school-industry programs. An outline study of the teaching methods, organization systems, aims and objectives and requirements of prospective teachers of industrial education and probably future trends in the field of industrial education.

273. SHOP ORGANIZATION AND MANAGEMENT. (I E 273 SHOP MGR) (3-0) *Credit 3. I*. Shop planning, management, organization, supply sources, types of shops, shop plans, selection, purchase, installation, arrangement of equipment, shop class organization, pupil personnel management. Records, including inventories, progress charts, reports, requisitions, etc.

303. CURRICULUM CONSTRUCTION AND COURSE MAKING IN INDUSTRIAL EDUCATION. (I E 303 COURS MKG) (3-0) *Credit 3. I*. Principles of curriculum construction and study of industrial education curricula as used throughout leading high schools; analytical technique in curriculum construction; course making and syllabus construction.

343. TRADE AND JOB ANALYSIS. (I E 343 JOB ANAL) (3-0) *Credit 3. II*. A study of analysis technique as it has been developed by various leaders in industrial education; job analysis for the purpose of determining the content of training for an occupation; related content analysis for determining what should be taught as classroom materials; analysis of a trade, industry or industrial plant for determining the general outline of a program of trade or industrial training. (For undergraduates only.)

413. METHODS IN INDUSTRIAL EDUCATION. (I E 413 METHODS) (3-0) *Credit 3.* I. Methods, devices, techniques as applied to teaching industrial subjects; analysis and evaluation of student learning difficulties and teaching responsibilities in industrial classes; nature, preparation and use of instruction sheets.

406. STUDENT TEACHING IN INDUSTRIAL EDUCATION. (I E 406 STUD TCHG) (2-12) *Credit 6.* I and II. Problems that confront beginning industrial education teachers; brief historical study of industrial education; relationship of industrial education to other phases of education; selection of subject matter; preparation and presentation of instructional materials; teaching plans, tests, and standard evaluation devices for measuring results. Directed observation of teaching, followed by actual supervised teaching for the individual student. Prerequisite: I. E. 413.

#### FOR GRADUATE AND UNDERGRADUATE CREDIT

513. CURRICULUM CONSTRUCTION AND COURSE MAKING IN INDUSTRIAL EDUCATION. (I E 513 COURS MKG) (3-0) *Credit 3.* I. Principles of curriculum construction and study of industrial education curricula as used throughout leading high schools; analytical technique in curriculum construction; course making and syllabus construction.

523. TEST AND MEASUREMENTS IN INDUSTRIAL EDUCATION. (I E 523 TEST MEAS) (3-0) *Credit 3.* II. Sources of instructional testing and evaluating materials; construction and use of test and evaluating devices; administering, scoring, recording, and interpreting tests, progress charts, diagnosis of difficulties, analysis of teaching problems as related to evaluation.

533. INSTRUCTIONAL METHODS IN INDUSTRIAL EDUCATION. (I E 533 METHODS) (3-0) *Credit 3.* I. Methods, devices, techniques as applied to teaching industrial subjects; analysis and evaluation of student learning difficulties and teaching responsibilities in industrial classes; natures, preparation and use of instruction sheets.

563. THE GENERAL SHOP. (I E 563 GEN SHOP) (3-0) *Credit 3.* II. The general shop organization; its contribution to attainment of cardinal objectives of the modern high school; current practices as to type of shops, equipment, instructional materials and procedures.

583. INDUSTRIAL ARTS FOR ELEMENTARY SCHOOL. (I E 583 IND ARTS) (3-0) *Credit 3.* I and II. For teachers, supervisors, principals of elementary schools; fundamental concepts, philosophies of industrial arts in the elementary school; function and scope, organization, administration, activities and methods of teaching industrial arts on the elementary level.

603. WORKSHOP AND INSTITUTES IN INDUSTRIAL EDUCATION. (I E 603 WORKSHOPS) *Credit 3.* I and II. A study of and the development of solutions for problems in Industrial Education.

- A. Cosmetology Institute
- B. Industrial Arts Teacher Workshop
- C. Vocational-Industrial Teacher Workshop
- D. Administrators Workshop

#### \*VOCATIONAL-INDUSTRIAL EDUCATION

The following courses are designed to meet the certificate requirements of Vocational-Industrial Education teachers under the Texas State Plan for Vocational Education. College credit may be arranged for these courses with the written approval of the teacher-trainer for Vocational Industrial Education and the Director of the Division of Industrial Education.

402. INTRODUCTION TO TRADE AND INDUSTRIAL TEACHING. (I E 402 IND TCHG) Orientation Course: 10 to 30 clock hours. Definition of vocational education; fields of vocational education; types of classes, requirements; the administration of vocational education; courses and course material available and the organization of course; analysis of teaching and lesson content.

\* Offered in summer session only.

412. DEVELOPMENT, ORGANIZATION, AND USE OF INSTRUCTIONAL MATERIAL. (I E 412 INSTR MAT) 45 clock hours. Study of available instructional material and its adaptation; development and preparation of teaching aids; organization of material for effective coordination with courses of study.

422. METHODS OF TEACHING. (I E 422 TCHG METH) 45 clock hours. Brief review of how people learn; evaluation of various teaching methods; adaptation of methods to types of lessons for effective instruction; "4-step method" of presenting lessons; analysis for lesson content; preparation of lesson plans and practice teaching.

432. SHOP AND CLASSROOM ORGANIZATION AND MANAGEMENT. (I E 432 ORGNZ MGT) 45 clock hours. Organization plans for classrooms and shops for efficient instruction and management, including roll-keeping, grading, recording, and reporting systems; specifying, purchasing, receiving, storing, installing, and inventorying of tools, equipment, and supplies; heating, lighting, ventilation, sanitation and accident prevention; recitation and library centers; tool, supply and project storing and issuing systems.

442. ANALYSIS AND COURSE MAKING. (I E 442 ANALYSIS) 45 clock hours. A study of analysis available in the teacher's field of work; reviewing systems of analysis; adaptation of principles of analysis to fit the teacher's needs; the organization of a course of study to fit the teacher's specific needs developed from the adopted, modified, or developed analysis.

462. AIMS AND OBJECTIONS OF VOCATIONAL EDUCATION. (I E 462 Voc EDUC) 30 clock hours. A basic course for administrators, supervisors, and teachers; history and aims of vocational education; its economic, social, and educational values; different phases of vocational education; Federal and State laws; training of teachers.

472. SELECTION, PLACEMENT, AND FOLLOW-UP IN VOCATIONAL EDUCATION. (I E 472 PLACEMENT) 45 clock hours. Factors which influence the schooling, work opportunities, and educational objectives of young people; techniques of interviewing and advising young people in regard to vocational courses; factors affecting placement in suitable employment either part or full-time; methods of follow-up and coordination.

482. DEVELOPMENT AND USE OF VISUAL AIDS. (I E 482 VisL Aids) 45 clock hours. The study of visual aids on the commercial market and their adaptability to vocational education; the development of types of visual aids and techniques teachers can use for more effective teaching. These are to include motion pictures, strip films, slides, cut-aways, blowups, mock-ups, posters, charts, pictures and blackboard illustrations.

492. PROBLEMS IN COOPERATIVE TRAINING. (I E 492 COOP TRNG) 45 clock hours. A review of the duties of the teacher-coordinator; the solution of actual problems; procedures and techniques involved in community surveys; interpretation of survey data; program expansion; guidance and counselling; organization and coordination of all types of part-time and evening classes.

## APPLIED SCIENCE

133-143. RELATED MATHEMATICS. (APSC 133 143 REL MATH) (3-0) *Credit 3*. I and II. Numeral manipulation as applied to the trade and industry fields.

203. HOUSEHOLD MECHANICS. (APSC 203 HSLD MECH) (2-3) *Credit 3*. I. Practical and the theoretical training in the maintenance of various home appliances; the upkeep of household furnishings; fire protection and minor repairs.

213. BUSINESS RELATIONS. (APSC 213 BUS RELTN) (3-0) *Credit 3*. I. Basic principles of business involved in building contracting or operating a small trade and industrial shop.

223. INDUSTRIAL MANAGEMENT. (APSC 223 IND MGT) (3-0) *Credit 3*. I. Problems of managing a building contracting company or a small trade and industrial shop, industrial shop planning, selection of equipment and personnel, cost and wage analysis, design of production flow systems, and material purchasing.

## AUTOMOBILE MECHANICS

112-122. INTRODUCTION TO AUTO MECHANICS. (AUTO 112 122 INTRODUCT) (1-6) *Credit 3*. I. How the problems of appearance, comfort, convenience, safety, economy, and power have produced the modern automobile.

133-263. THE CHASSIS. (AUTO 133 263 CHASSIS) (9-0) *Credit 3*. II. This unit includes a study of the purposes, structure, operation, and service of the frames, springs, shock absorbers, front end suspension, steering assembly, front end alignment, clutches, transmissions, universals, propeller shafts, final drive, brakes, and chassis lubrication.

123-243. THE POWER. (AUTO 123 243 THE POWER) (0-9) *Credit 3*. II. A thorough and comprehensive study of the automobile engine; the principles of the internal combustion engine, the gasoline engine, and all of their fundamental parts; the most common causes of engine failures; diagnosis and repair.

213. THE FUEL SYSTEM. (AUTO 213 FUEL SYST) (0-9) *Credit 3*. I. This unit includes a study of the parts of the fuel system, principles of carburetion, and maintenance and service of the fuel lines, fuel pumps, filters, etc.; servicing of the most popular makes of carburetors.

153-163-223. AUTO MECHANIC PRACTICE. (AUTO 153 163 223 MECH PRAC) (0-9) *Credit 3*. I and II. Actual shop conditions; automobile trouble, diagnosis and service on a basis that is comparable to that in the best shops; jobs taken as they come and handled by individual students as they will operate in commercial situations.

233. THE ELECTRICAL SYSTEM. (AUTO 233 ELEC SYST) (0-9) *Credit 3*. I The fundamental information needed by an automobile mechanic; principles, parts, operation, maintenance, and servicing of all the units of the automobile's electrical system, including batteries, motors, generators, ignition and accessories.

304. ADVANCED AUTO MECHANIC PRACTICE. (AUTO 304 ADV PRAC) (0-12) *Credit 4*. I and II. Continuation of Auto Mechanics 223.

404. ADVANCED AUTO MECHANIC PRACTICE. (AUTO 404 ADV PRAC) (0-12) *Credit 4*. I and II. Continuation of Auto Mechanics 223.

## AUDIO-VISUAL EDUCATION

### UNDERGRADUATE

102-303. UTILIZATION OF AUDIO-VISUAL MATERIALS. (AUDO 102 303 UTILIZATN) (1-3) (2-3) *Credit 3*. I and II. Practical experience in the use of audio-visual aids, construction and development of various audio-visual aids and devices; sources of audio-visual aids; selection, evaluation and techniques of using audio-visual aids in education, study of movie projectors, slides, film strips, opaque projectors, etc.

### GRADUATE, UNDERGRADUATE

503. UTILIZATION OF AUDIO-VISUAL MATERIALS. (AUDO 503 UTILIZATN) (2-3) *Credit 3*. I and II. Practical experience in the use of audio-visual aids, construction and development of various audio-visual aids and devices; sources of audio-visual aids; selection, evaluation and techniques of using audio-visual aids in education, study of movie projectors, slides, film strips, opaque projectors, etc.

513. ADMINISTRATION AND SUPERVISION OF AUDIO-VISUAL EDUCATION. (AUDO 513 ADM SUPV) (3-0) *Credit 3*. I. Emphasis on the supervision of budget and planning of an audio-visual program—for teachers appointed as audio-visual coordinators in their schools, as well as for principals, classroom teachers and students planning a teaching career.

523. PREPARATION OF GRAPHIC MATERIALS. (AUDO 523 MATERIALS) (1-6) *Credit 3*. II. Emphasis on the construction of audio-visual materials for classroom teaching. Basic production techniques of audio-visual material for various teaching areas.

543. LABORATORY IN AUDIO-VISUAL AIDS. (AUDO 543 AIDS LAB) (1-6) *Credit 3*. II. Practical experience in the mechanical manipulation of the various audio-visual aids and devices. Includes mechanical theory of aids.



## BROOM AND MATTRESS MAKING

102-202. BROOM AND MATTRESS MAKING. (IND 102 202 BRM MATT) (0-6) *Credit 2*. I and II. Broom and Mattress Making as an industry course for students of School of Arts and Sciences only.

117. ELEMENTARY BROOM MAKING. (BRM 117 BROOMKG) (2-15) *Credit 7*. I. Assortment of broom corn; trimming and seeding machinery; putting the corn into working order; dyeing and bleaching broom corn; names and care of tools and machinery; making plain light household broom; scraping, sewing, clipping, and bunching brooms.

127. ADVANCED BROOM AND MATTRESS MAKING. (BRM 127 ADV BRMKG) (2-15) *Credit 7*. II. Large household brooms; warehouse brooms; different types and styles of finishes; whisk brooms; ceiling or wall brooms; quantity and cost estimating; mop making; different kinds and grades of mattress ticking; cutting and making ticking for the full mattress; duofold mattresses, day bed and baby bed; non-tack and sectional feather mattresses, making pillows and renovating mattresses.

217. ELEMENTARY MATTRESS MAKING. (MATT 217 MATT MKG) (2-15) *Credit 7*. I. Nomenclature, use and care of mattress making tools and machines; measuring, cutting and making ticking for the 1-2, 2-3, and 3-4 mattress.

227. BROOM AND MATTRESS MAKING II. (MATT 227 MATT MKG) (2-15) *Credit 7*. II. Continuation of course 217.

## CARPENTRY

117. ELEMENTARY CARPENTRY I. (CARP 117 ELEM CARP) (2-15) *Credit 7*. I. Name, use and care of tools, materials and equipment; woods, wood joints, techniques and methods of house construction; surveying and study building sites, laying out from blueprints, practicing elementary frame construction.

204. GENERAL CARPENTRY. (CARP 204 GEN CARP) (2-6) *Credit 4*. II. Designed for Industrial Education students. Information and skills in the layout, framing, and finishing small frame buildings.

217. ADVANCED CARPENTRY I. (CARP 217 ADV CARP) (2-15) *Credit 7*. I. Continuation of Carpentry 127. Advanced framing complex roof and stair construction; close-in and finished carpentry work studied and practice; hardware and other utilities installed and studied.

224. GENERAL CARPENTRY. (CARP 224 GEN CARP) (2-6) *Credit 4*. II. Designed for Industrial Education students. Information and skills in the layout, framing, and finishing small frame buildings.

227. ADVANCED CARPENTRY II. (CARP 227 ADV CARP) (2-15) *Credit 7*. Continuation of Carpentry 217. The use of power machines in carpentry work; techniques of mass production in the manufacture of prefabricated homes; millwork techniques in the construction of cabinets, stairs, doors, windows, interior and exterior trim.

## CRAFTS

102-3. ELEMENTARY PHOTOGRAPHY. (M A 102-103 PHOTOGRPH) (0-6) (1-6) *Credit 2-3*. I and II. The picture making process; cameras, enlargers, printer, film, papers, elementary skill in developing, processing and printing.

133. ART METAL. (M A 133 ART METAL) (1-6) *Credit 3*. I and II. Designing, layout, shaping, polishing, finishing aluminum, pewter, copper, brass and silver.

203. LEATHERCRAFT. (M A 203 LTHCRFT) (1-6) *Credit 3*. I, II. Designing, laying out, cutting, tooling, dyeing, lacing construction of project in leather.

## COOKING AND BAKING

112. FOOD PRODUCTS. (C B 112 FOOD PROD) (2-0) *Credit 2*. I. The production of fruits and vegetables, sugar, beverages, fats and oils; the variety of foods, their production centers and distribution.

132-142. NUTRITION. (C B 132 142 NUTRITION) (2-0) *Credit 2*. I. Nutrition standards as applied to quantity cookery.

113. ELEMENTARY FOOD PREPARATION. (C B 113 FOOD PREP) (3-0) *Credit 3*. Preparation and fixing; waste testing and portion control; cooking and serving vegetables and potatoes; preparation, fixing, waste testing, portion control, serving of salad and salad dressing.

117. QUANTITY COOKERY I. (C B 117 QUAN COOK) (2-15) *Credit 7*. I. Experimentation and practice in preparing and serving foods in large quantities.

122. FOOD PRODUCTS. (C B 122 FOOD PROD) (2-0) *Credit 2*. II. Continuation of C. B. 112; variety, production centers, distribution of dairy products, poultry and game, meat, fish, condiments, cereals and their products.

123. ELEMENTARY FOOD PREPARATION. (C B 123 FOOD PREP) (3-0) *Credit 3*. II. Preparation, fixing, waste testing, portion control, and serving appetizers, sandwiches and breakfast dishes.

127. QUANTITY COOKERY II. (C B 127 QUAN COOK) (2-15) *Credit 7*. II. Experimentation and practice in preparing and serving food in large quantities.

213. SANITATION. (C B 213 SANITATN) (3-0) I. Principles of sanitation as applied to meats, milk, milk products, and other foods; sanitation and personal hygiene.

233. BUSINESS ORGANIZATION AND MANAGEMENT. (C B 233 BUS ORGNZ) (3-0) *Credit 3*. I. Selection and arrangement of equipment, food purchasing, cost and wage systems and other factors related to production in a commercial establishment.

253. ADVANCED FOOD PREPARATION. (C B 253 FOOD PREP) (2-3) *Credit 3*. The breakdown of whole animal carcasses for restaurant use; classifying and precasting standard cooking methods of meat and poultry; preparation of soups, and sauces.

215. QUANTITY COOKERY III. (C B 215 QUAN COOK) (0-15) *Credit 5*. I. Experimentation and practice in preparing and serving food.

223. FOOD SERVICE. (C B 223 FOOD SERV) (3-0) *Credit 3*. Proper methods of handling food service in dining rooms, banquets, special occasions; service of liquids with meals.

243. MENU PLANNING. (C B 243 MENU PLNG) (3-0) *Credit 3*. Analysis of dietary (food) habits, customs and prejudices; food as sources of nutrients; practice in planning meals in normal nutrition; menu planning for banquets, community meals, formal meals, teas, buffet service and foreign buffets.

263. ADVANCED FOOD PREPARATION. (C B 263 FOOD PREP) (3-0) *Credit 3*. Preparation and service of basic doughs, pies, cakes, cookies, creams, jello, puddings, ice cream; testing and precasting of items prepared; utilization of leftovers; preparation of fish and shellfish, service of cold buffet.

225. QUANTITY COOKERY IV. (C B 225 QUAN COOK) (0-15) *Credit 5*. II. Experimentation and practice in preparing and serving foods.

## DRAWING AND DESIGN

113-123. GENERAL DRAFTING. (DRAW 113 123 DRAFTING) (1-6) *Credit 3*. I, II. Use of drafting tools, freehand and perspective sketching in industrial design; orthographic, isometric, oblique and cabinet drawing as applied to industrial products. Applied descriptive geometry; meets the need of Industrial Education students.

133-134. APPLIED DRAWING I AND II. (DRAW 133 134 APPL DRAW) (1-6) *Credit 3-4*. I and II. Drawing which will be in line with the student's needs in applying it to a trade where such a specific course is not otherwise designated.

203. TECHNICAL SKETCHING. (DRAW 203 SKETCHING) (1-6) *Credit 3*. I, II. Freehand drawing and design as applied to industrial products.

233-243. APPLIED DRAWING III AND IV. (DRAW 233 243 APPL DRAW) (1-6) *Credit 3*. I and II. An advanced drawing course in line with the student's needs in applying it to a trade where such a specific course is not otherwise designated.

303. WORKING DRAWINGS. (DRAW 303 WRKG DRAW) (1-6) *Credit 3. I and II.* Preparing working drawings and specifications for specific construction problems.

313. DESIGN. (DRAW 313 DESIGN) (1-6) *Credit 3. I and II.* A study of line, color, form and their organic relationship; study of design principles; opportunity for creative expression in three dimensional form using woods, metals, plastic, glass, stone, etc.

## DRIVER EDUCATION

102-202. DRIVER EDUCATION. (AUTO 102 202 DRIVER ED) (0-6) *Credit 2. I, II.* A general education course in driver education; a basic knowledge of the operation of the automobile; practice driving, learning information and developing necessary skills to pass the written and road test necessary to secure a driver's license.

303. DRIVER EDUCATION. (AUTO 303 DRIVER ED) (1-6) *Credit 3. I, II.* Preparation for teaching driver education in workshops or secondary schools; state laws and regulations, safety practice, teaching methods, course construction, testing devices, psycho-physical traits and measurements; principles and methods of road skill testing; practice in training drivers using a dual control car.

## DRY CLEANING

112-212. DRY CLEANING. (IND 112 212 DRY CLEAN) (0-6) *Credit 2. I and II.* Dry Cleaning as an industry course for School of Arts and Sciences students only.

113. DRY CLEANING. (DRCL 113 DRY CLEAN) (0-9) *Credit 3. I.* First steps in the care of fabrics; woven fabric construction; leathers and fur; cleaning fluid other than water; inspection of materials for cleaning; dry cleaning equipment and its care; static electricity, its prevention; motors, belts and their care; dry cleaning aids.

117. DRY CLEANING. (DRCL 117 DRY CLEAN) (2-15) *Credit 7. I.* Dry Cleaning and spotting, fibers in fabric; moisture, its source and effect; materials that may be dry cleaned; dry cleaning equipment and its care; dry cleaning solvent; inspecting garments for cleaning.

123. DRY CLEANING. (DRCL 123 DRY CLEAN) (0-9) *Credit 3. II.* Soil in garments and sorting; care of garments in cleaning; fur and leather cleaning; purification of dirty-used solvent; first steps in the spotting of garments; wool fibers, artificial wool fibers, their behavior; pure silk, weighted silk and its behavior; rayon, two classifications discussed.

127. DRY CLEANING. (DRCL 127 DRY CLEAN) (2-15) *Credit 7. II.* Miscellaneous cleaning problems, chemical analysis and trouble finding, spotting of garments, pure silk and its behavior and identification.

213. DRY CLEANING. (DRCL 213 DRY CLEAN) (0-9) *Credit 3. I.* Cotton, its origin and use; linen, jute and tinsel fibers, their use, behavior and identification; identification of all fibers in plant practices; spotting, basic dyestuffs, acid dyestuff, color change of dyestuff in wear, storage cleaning.

217. DRY CLEANING. (DRCL 217 DRY CLEAN) (2-15) *Credit 7. I.* Cotton, its origin, use, behavior and identification; identification of fibers as an aid in all cleaning plant practices; basic dyestuffs; acid dyestuffs; color change of dyestuff in wear, storage, staining, cleaning; stains and how to know them.

223. DRY CLEANING. (DRCL 223 DRY CLEAN) (0-9) *Credit 3. II.* Simple tests to know all dyestuffs; equipment, its care and operation; policies, good and bad, in receiving dyeing; study chart for over dyeing; chart for tinting; blending colors.

227. DRY CLEANING. (DRCL 227 DRY CLEAN) (2-15) *Credit 7. II.* Spotting tools, their use and care; wet and dry system, its use and limits; pressing, all types of materials, silk finishing; shop management.

## ELECTRICITY

102. ELECTRICAL APPLIANCES. (ELEC 102 APPLIANCS) (0-6) *Credit 2.* I. Construction, repair, maintenance and servicing.

114-124. ELEMENTARY ELECTRICITY. (ELEC 114 124 ELEM ELEC) (2-6) *Credit 4.* I. and II. Fundamental principles of electricity and electrical machinery; construction, simple wiring; theory of magnetic and direct current circuits.

113-123. ELECTRICAL WIRING AND REPAIR. (ELEC 113 123 WIRING) (0-9) *Credit 3.* I and II. Practice in house wiring; general repairs to wiring and electrical equipment; installation and servicing of motors, telephones, transformers and generators.

115. DIRECT CURRENT APPARATUS AND CIRCUITS. (ELEC 115 D C CIRC) (0-15) *Credit 5.* I. Direct current circuit and magnetic circuit theory and calculations; principles of design and construction of direct-current motors and generators, theory, concerning torque, flux, speed, voltage and speed regulations, commutation, and armature reaction of shunt and compound machines, parallel operations, and mechanical couplings of electrical machinery; theory and practice of direct current control equipment for generators and motors.

125. ALTERNATING-CURRENT APPARATUS AND CIRCUITS. (ELEC 125 A C CIRC) (0-15) *Credit 5.* II. Relations of simple harmonic electromotive forces and current phase difference; active, reactive, and apparent power, power factor and reactive factor, resistance, inductance, and capacitances; series, parallel, and resonant circuits; polyphase circuits, balanced and unbalanced; construction, characteristics and operation of alternators, induction motors, transformers, synchronous motors, synchronous converters, mercury-arc rectifiers and their regulating and control devices; fundamentals of telephone transmission. Prerequisite: Electricity 115.

217-227. ELECTRICAL WIRING AND ILLUMINATION. (ELEC 217 227 WIRING) (2-15) *Credit 7.* I, II. Fundamentals of commercial and industrial wiring and illumination practice.

232. DIRECT-CURRENT MOTOR-GENERATOR REPAIR. (ELEC 232 D C MOTOR) (0-6) *Credit 2.* I. Repair of direct-current motors and generators.

242. ALTERNATING-CURRENT MOTOR-GENERATOR REPAIR. (ELEC 242 A C MOTOR) (0-6) *Credit 2.* II. Repair of alternating-current motors and generators.

## FOUNDRY

213. FOUNDRY I. (M A 213 FOUNDRY) (1-6) *Credit 3.* I. Processes used in casting non-ferrous alloys, kiln-drying and moisture fired furnaces, moulding and casting non-ferrous metals, foundry layouts.

223. FOUNDRY II. (M A 223 FOUNDRY) (1-6) *Credit 3.* II. Processes used in casting ferrous alloys; mostly cast iron, cupola practices, sand testing, core-making; practice in moulding and casting ferrous metals, metallurgy of gray iron.

## LAUNDERING

112-212. LAUNDERING. (IND 112 212 LAUNDERNG) (0-6) *Credit 2.* I, II. Laundering as an industry course for School of Arts and Sciences students only.

113-117. ELEMENTARY LAUNDERING. (M A 113 117 LAUNDERNG) (1-6) (2-15) *Credit 3-7.* I. Laundry terms, care and operation of machinery; kind of machinery; use and structure of machines.

123-127. ELEMENTARY LAUNDERING. (M A 123 127 LAUNDERNG) (1-6) (2-15) *Credit 3-7.* II. Checking in, marking and separation of garments; finishing flat work; starch work and other wearing apparels.

213-217. LAUNDERING (M A 213 217 LAUNDERNG) (1-6) (2-15) *Credit 3-7.* I. Classification; mechanical aids to washing; chemical aids to washing; the washing formula.

223-227. LAUNDERING. (M A 223 227 LAUNDERNG) (1-6) (2-15) *Credit 3-7.* II. White work washing processes; washing processes for colors, silk, rayons and woolsens.

## MASONRY

112-212. MASONRY. (IND 112 212 MASONRY) (0-6) *Credit 2.* I, II. Masonry as an industry course for School of Arts and Sciences students only.

113. ELEMENTARY MASONRY. (MASN 113 ELEM MASN) (1-6) *Credit 3.* I. Use, care and values of tools; the common materials and methods used in bricklaying; mortar making and spreading; laying straight walls using standard bonds.

123. ELEMENTARY MASONRY. (MASN 123 ELEM MASN) (1-6) *Credit 3.* II. Spread and stepped footings; foundations, walls and piers in concrete, plain and reinforced concrete mortars, underpinnings; laying out foundations; excavating.

117-127. ELEMENTARY MASONRY. (MASN 117 127 ELEM MASN) (2-15) *Credit 7.* I, II. Use, care and values of tools; the common materials and methods used in bricklaying; mortar making and spreading; laying straight walls using standard boards; concrete footings, walls, piers, plain and reinforced mortars, underpinnings; laying out foundations; excavating.

213. INTERMEDIATE MASONRY. (MASN 213 INTERMEDT) (1-6) *Credit 3.* I. Theory and practice in building walls using various structural bonds, running veneer wall against hollow tile and frame backings; building construction work to include openings, arches, builder's iron, windows, doors, flues and vents.

223. PLASTERING. (MASN 223 PLASTERNG) (1-6) *Credit 3.* I. Theory and practice in use, care, value of plastering tools; proportioning, mixing of mortars; application and finishing of plain and ornamental plastering, including stucco work.

217-227. ADVANCED MASONRY. (MASN 217 227 ADV MASN) (2-15) *Credit 7.* I, II. Theory and practice in advanced brick and concrete work; laying fire brick, dry brick-laying, fireplace work, gate piers, garden walls, etc.

323. ORNAMENTAL CONCRETE. (MASN 323 ORNM CONC) (1-6) *Credit 3.* II. Theory and practice of ornamental and decorative work in concrete, moldings, pedestals, columns, pottery, vases, benches and other decorative work.

413. CONCRETE, STONE AND TILE WORK. (MASN 413 CONC WORK) (1-6) *Credit 3.* I. Theory and practice of simple reinforced concrete work, forms; mixing and placing concrete; testing; finishing; stone cutting, setting, tile and bric-a-brac work.

423. ADVANCED MASONRY. (MASN 423 ADV MASN) (0-9) *Credit 3.* II. Theory and practice in special construction in brick and concrete work; laying fire brick, dry brick-laying, fireplace work, gate piers, garden walls, etc.

## METALWORK

102-113. BENCHWORK. (MACH 102 113 BENCHWORK) (0-6) (1-6) *Credit 2-3.* I. Units that lay a foundation for further metal work, hand tools, precision measuring instruments, laying out, filing, tool grinding, use of tap and dies, drill press and the use of metals and their cutting speeds.

123. MACHINE SHOP. (MACH 123 MACH SHOP) (1-6) *Credit 3.* II. Fundamental operations; chucking, facing, centering, straight and taper turning, plain milling, plain shaping, thread cutting with lathe, counter-sinking, boring and chuck and mandrel work—mostly lathe study.

213. ADVANCED MACHINE SHOP. (MACH 213 MACH SHOP) (1-6) *Credit 3.* I. The index head, milling square surfaces, hexagonal surfaces, milling keyways for plain and Woodruff keys, gear cutting, spur and miter gears, cylindrical and surface grinding.

223. TOOLMAKING. (MACH 223 TOOLMAKNG) (1-6) *Credit 3.* II. Making jig and fixtures and special tooling for quantity production of some mechanical units to be produced in the shop; emphasis on modern precision toolmaking methods.

313. HEAT TREATMENT. (MACH 313 HEAT) (1-6) *Credit 3.* I. The heat treatment of ferrous alloys, heat treating operations, microstructure and physical properties, hardenability, grain size testing, machineability and some heat treating operations as applied in industry.

323. MATERIAL AND PROCESSES. (M A 323 MATERIAL) (1-6) *Credit 3. II.* The limitation and usefulness of materials, techniques of processes; their relative importance industrially and their relation to one another.

## PAINTING

112-212. ELEMENTARY PAINTING. (PNT 112 212 ELEM PNTG) (0-6) *Credit 2. I, II.* Elementary painting as an industry course for students in the School of Arts and Sciences.

113. ELEMENTARY PAINTING. (PNT 113 ELEM PNTG) (1-6) *Credit 3. I.* Various kinds of paints, varnishes, stains, lacquers, and their ingredients; the relation and recognition of color; tools, equipment and their uses; practical experience.

117. ELEMENTARY PAINTING. (PNT 117 ELEM PNTG) (2-15) *Credit 7. I.* Various kinds of paints, varnishes, stains, lacquers, and their ingredients; the relation and recognition of colors; tools, equipment and their uses; practical experience.

123. ELEMENTARY PAINTING. (PNT 123 ELEM PNTG) (1-6) *Credit 3. II.* Preparation for exterior surfaces; mixing and applying paints; the effect of weather conditions upon paint jobs; color analysis and color matching; practical experience.

127. ELEMENTARY PAINTING. (PNT 127 ELEM PNTG) (2-15) *Credit 7. II.* Preparation of exterior surfaces; mixing and applying paints; the effect of weather conditions upon a paint job; color analysis and color matching; practical experience.

213. FURNITURE FINISHING. (PNT 213 FURN FNISH) (1-6) *Credit 3. I.* Knowledge of woods used in furniture building; use of stains, fillers, shellac and varnish and oils; producing natural stain, varnish and oil finishings.

217. ADVANCED PAINTING. (PNT 217 ADV PNTG) (2-15) *Credit 7. I.* Preparing interior surfaces; blending colors with furniture; effects of position and light upon interiors; modernistic wall finishing; practical experience.

223. UPHOLSTERING. (PNT 223 UPHOLSTRG) (1-6) *Credit 3. II.* Knowledge of tools and materials for upholstering; reupholstering simple pad back and cushion chairs; resetting springs in overstuffed furniture; use of webbing and pad and platform cloth.

227. ADVANCED PAINTING. (PNT 227 ADV PNTG) (2-15) *Credit 7. II.* Simple steps in paper hanging; shop management and furniture finishing; estimating and practical experience.

243. PAPER HANGING. (PNT 243 PAPER HNG) (1-6) *Credit 3. II.* Knowledge and practicing the best methods of hanging wall papers; proper use and care of tools and equipment, preparing surfaces; measuring and cutting patterns and plain papers.

313. ADVANCED PAINTING. (PNT 313 ADV PNTG) (1-6) *Credit 3. I.* Preparing interior surfaces; blending color with furniture; effect of position and light upon interiors; modernistic wall finishing; practical experience.

323. ADVANCED PAINTING. (PNT 323 ADV PNTG) (1-6) *Credit 3. I.* Advanced knowledge and experience of interior and exterior painting; producing flat, gross and sand finished walls; blended, stippled, mottled, and plastic finishes.

343. ADVANCED FURNITURE FINISHING. (PNT 343 FURN FNISH) (1-6) *Credit 3. I.* Producing natural finishes with shellac, varnish and lacquer; graining and enameling; polishing and striping.

413. ADVANCED PAPER HANGING. (PNT 413 PAPER HNG) (1-6) *Credit 3. I.* Advanced work in the best methods of hanging high grade wall papers, plain and pattern; cutting and matching high grade papers; estimating the amount of materials for given jobs; practical experience to require speed, neatness, and accuracy.

423. ADVANCED UPHOLSTERY. (PNT 423 UPHOLSTRG) (1-6) *Credit 3. II.* Best methods of estimating materials; reupholstering overstuffed chairs and sofas; reupholstering curved backs; slip covering.

## PLUMBING

112-212. PLUMBING. (IND 112 212 PLUMBING) (0-6) *Credit 2.* I, II. Plumbing and steam fitting as an industry course for School of Arts and Sciences students only.

113. ELEMENTARY PLUMBING. (PLMB 113 ELEM PLMB) (1-6) *Credit 3.* I. Theory and practice in measuring, cutting and threading steel pipe; cutting and caulking cast iron pipe; repairing faucets and cocks; soldering, grading, and laying sewer lines.

117. INDUSTRIAL AND ELEMENTARY PLUMBING. (PLMB 117 IND PLMB) (2-15) *Credit 7.* I. Care and use of tools; plumbing and heating layouts; measuring, cutting and threading steel pipe; cutting and caulking cast iron pipe; repairing faucets and cocks; soldering, grading, and laying sewer lines.

123. ELEMENTARY PLUMBING. (PLMB 123 ELEM PLMB) (1-6) *Credit 3.* II. Theory and Practice in leadwork and gas pipe work.

127. INDUSTRIAL AND ELEMENTARY PLUMBING. (PLMB 127 IND PLMB) (2-15) *Credit 7.* II. Leadwork; roughing in for, and setting fixtures on small plumbing and heating jobs; material bills, tapping and venting.

217-227. ADVANCED PLUMBING. (PLMB 217 227 ADV PLMB) (2-15) *Credit 7.* I and II. Small heating systems; installation of boilers of one and two-pipe heating systems; transmission lines, layouts, layouts and codes, etc. Making estimates for labor and material for small plumbing and heating jobs; distribution of hot and cold water; estimating yearly supplies for boarding schools.

313. ADVANCED PLUMBING. (PLMB 313 ADV PLMB) (1-6) *Credit 3.* I. Theory and practice of small heating systems to include boiler work for house and small commercial uses.

323. ADVANCED PLUMBING. (PLMB 323 ADV PLMB) (1-6) *Credit 3.* II. Theory and practice in advanced problems of hot and cold water distribution; heaters and other plumbing features in homes and commercial businesses.

## PRINTING

102-202. PRINTING. (IND 102 202 PRINTING) (0-6) *Credit 2.* I, II. Printing as an industry course for Arts and Science students only.

112. TYPOGRAPHY. I. (PRNT 112 TYPOGRPHY) (0-6) *Credit 2.* I. Hand composition; basic problems and techniques in setting type; setting of straight matter and simple display jobs; proofing; care of type and material.

113. GRAPHIC ARTS SURVEY. (PRNT 113 GRAPH ART) (3-0) *Credit 3.* I. The history of printing; general survey of allied processes, methods and practices followed.

121. BINDERY OPERATION. (PRNT 121 BINDERY) (3-0) *Credit 1.* I. Folding, inserting, gathering, stitching, gluing on backs, and trimming; proper methods of wrapping.

133. LAYOUT, DESIGN, AND LETTERING. (PRNT 133 LAYOUT) *Credit 3.* I. Skill development in drawing letters for layouts and reproduction purposes, fundamentals of design, incorporating "thumbnail," "rough," space break-up, movement, balance, type legibility, and copyfitting.

124. TYPOGRAPHY II. (PRNT 124 TYPOGRPHY) (2-6) *Credit 4.* II. Advanced problems in composition and selection of type; proportion, balance, shape, harmony, contrast, color; designing of letters, folders, broadsides, brochures, etc., their function and solving problems involved in their production.

152. PLATEN PRESSWORK I. (PRNT 152 PRESSWORK) (0-6) *Credit 2.* I. Operation of the platen press; feeding and simple make-ready.

162-163. CYLINDER PRESSWORK. (PRNT 162 163 CYL PRSWK) (0-6) (0-9) *Credit 2, 3.* II. Operation and care of small cylinder presses; the make-ready and feeding of commercial job forms.

172-173. PLATEN PRESSWORK. (PRNT 172 173 PRESSWORK) (0-9) *Credit 2, 3. II.* Advanced make-ready on half-tones and more intricate work; introduction to automatic platen press.

182. MACHINE COMPOSITION. (PRNT 182 MACH COMP) (0-6) *Credit 2. II.* Elementary phases of linotype operation; keyboard fingering, and practice in setting from simple copy.

211. BINDERY OPERATION. (PRNT 211 BINDERY) (3-0) *Credit 1. I.* Folding, inserting, gathering, stitching, gluing on backs, and trimming; proper methods of wrapping.

212. ESTIMATING. (PRNT 212 ESTIMATING) (2-0) *Credit 2. II.* Application of the elements of cost-finding to jobs of printing in process.

234. TYPOGRAPHY III. (PRNT 234 TYPOGRAPHY) (2-6) *Credit 4. II.* Trade practice in handling typical jobs, training in application of principles in experimental typography; working up of different kinds of type and combination form; imposition and lockup beginning with single forms.

222. TYPOGRAPHY IV. (PRNT 222 TYPOGRAPHY) (0-6) *Credit 2. II.* Craftsmanship and efficiency in handling typical jobs; creative and experimental typography.

243. PLANT MANAGEMENT. (PRNT 243 PLANT MGT) (3-0) *Credit 3. II.* Solution of problems of finance, profits, plant layout, equipment, operation, and employee relations.

252-253. CYLINDER PRESSWORK. (PRNT 252 253 CYL PRSWK) (0-6) (0-9) *Credit 2, 3. I.* Advanced Presswork, make ready and feeding, including newspaper and book work; press mechanism and adjustments. Introduction to simple color work.

262-263. CYLINDER PRESSWORK. (PRNT 262 263 CYL PRSWK) (0-6) (0-9) *Credit 2, 3. II.* Operation and care of large cylinder presses; make-ready of half-tone and process color work.

272-273. MACHINE COMPOSITION. (PRNT 272 273 MACH COMP) (0-6) (0-9) *Credit 2, 3. I.* Accuracy, development of speed, correct handling of straight matter, simple tabular work, and moderately complex composition.

282-283. MACHINE COMPOSITION. (PRNT 282 283 MACH COMP) (0-6) (0-9) *Credit 2, 3. II.* The development of trade accuracy and speed; understanding and practice of accepted typographic usage; setting for color separation, headings, display and advertising matter; twin-matter composition; work in the routine care of machines.

292-294. PRINTING PRODUCTION. (PRNT 292 294 PRNT PROD) (0-6) (2-6) *Credit 2, 4. II.* Planning, estimating, scheduling and complete manufacture of printing jobs.

## RADIO

112-212. RADIO. (IND 112 212 RADIO) (0-6) *Credit 2. I, II.* Radio as an industry course for School of Arts and Sciences students only.

113-123, 217-227. RADIO SERVICING. (RADO 113 123 217 227 SERVICING) (0-9) (2-15) *Credit 3, 7. I, II.* Measuring and testing instruments; vacuum tube voltmeters, output meters, frequency meters, signal generators, and cathode-ray oscilloscopes; analysis and interpretation of measurements results; "trouble-shooting" and repairing commercial radios.

212. TEST INSTRUMENTS. (RADO 212 TEST INST) (2-0) *Credit 2. I.* Commercial test instruments in use by repairmen and technicians; operation and repair; repairs to the d'Arsonval type meter.

213. RADIO THEORY. (RADO 213 THEORY) (3-0) *Credit 3. I.* Detectors; superhetrodyne theory, A. F. amplifiers; R. F. amplifiers; filters, special circuits; sound and sound production.

223. RADIO THEORY. (RADO 223 THEORY) (3-0) *Credit 3. II.* Trouble in A. C. and D. C. sets; radio measurements; classification and use of meters; tube troubles; repairs and replacements; superheterodyne troubles and remedies.



273. FREQUENCY MODULATION. (RADO 273 FREQ MODL) (0-9) *Credit 3.* I. General principles and advantages; block diagram of transmitter; block diagram of receiver; use of limiter and discrimination.

274. TELEVISION. (RADO 274 TELEVISN) (2-6) *Credit 4.* I and II. Theory and laboratory experience with television receivers and antennas, including installation, aligning, trouble shooting, and practice with television receivers and antennas.

423. RESEARCH AND PROBLEMS. (RADO 423 RESEARCH) *Credit to be arranged.* I. Every student taking Radio Repair as a trade must do intensive research work on it. The result of his project or problem must be written and presented in a regular seminar.

## SHEET METAL

112-212. SHEET METAL. (IND 112 212 SHEET MTL) (0-6) *Credit 2.* I, II. Sheet metal as an industry course for School of Arts and Sciences students only.

113. ELEMENTARY SHEET METAL. (M A 113 SHEET MTL) (1-6) *Credit 3.* I. Fundamental machine and hand tool operation. Study of materials; development and execution of simple patterns.

117-127. ELEMENTARY SHEET METAL. (M A 117 127 SHEET MTL) (2-15) *Credit 7.* I, II. Templates, soldering, brazing, seaming, and study and use of sheet and bar materials.

123. ELEMENTARY SHEET METAL. (M A 123 SHEET MTL) (1-6) *Credit 3.* II. Continuation of Sheet Metal 113 to include direct layouts and short methods.

213. ELEMENTARY SHEET METAL. (M A 213 SHEET MTL) (1-6) *Credit 3.* I. Use of templates, soldering, brazing, seaming, drafting of irregular patterns by means of triangulation.

217-227. ADVANCED SHEET METAL. (M A 217 227 SHEET MTL) (2-15) *Credit 7.* I, II. Different types of sheet and wrought-iron works as applied to furniture, building construction, heating ducts, and ornament; welding and brazing. Prerequisite: Elementary Sheet Metal 127.

223. INTERMEDIATE SHEET METAL. (M A 223 SHEET MTL) (1-6) *Credit 3.* II. Continuation of Sheet Metal 213, including advanced problems.

313. INDUSTRIAL ARTS SHEET METAL. (M A 313 SHEET MTL) (1-6) *Credit 3.* I. Sheet metal for industrial arts classes in the typical secondary school. Suitable projects, materials, tools and equipment.

323. INDUSTRIAL ARTS SHEET METAL. (M A 323 SHEET MTL) (1-6) *Credit 3.* II. Advanced operations such as raising, forming, stretching, shrinking, bending, spinning, chasing, seaming, piercing, etching, coloring; applied in projects in the working of copper, brass, aluminum, and other materials used in the industrial arts shop.

## SHOEMAKING AND LEATHERWORK

112-212. SHOEMAKING. (IND 112 212 SHOEMAKING) (0-6) *Credit 2.* I and II. Shoemaking as an industry course for students in the School of Arts and Sciences only.

117. SHOEMAKING. (SHOE 117 SHOEMAKNG) (2-15) *Credit 7.* I. Care of shop; care and use of tools; making bristled waxed thread ends; sewing with hand sewing awl; tempering shoe leather; moulding whole and half soles for bottom use; fitting half soles; sewing rips in uppers and soles by hand.

127. SHOEMAKING. (SHOE 127 SHOEMAKNG) (2-15) *Credit 7.* I. Selection of lasts to correct the shape of shoes to be repaired; nailing shoes previously fitted; repairing leather and wood heels; lock stitching; trimming edges by hand; classification on soles and upper patch leather; fitting needles and the repair of the universal feed machine; getting outlines of vamp; quarter and sole patches; putting on cement; vamp and sole patches; sewing soles by the hand method.

217. SHOEMAKING. (SHOE 217 SHOEMAKNG) (2-15) *Credit 7.* I. The care of the finishing machine; fitting and preparing cement soles; repairing light half soles on

shoes; history of footwear; fitting insoles; repairing turn soles by the turn method; sewing welts; putting on plain bottoms; stitching soles with machine and trimming and finishing edges with machine.

227. SHOEMAKING. (SHOE 227 SHOEMAKNG) (2-15) *Credit* 7. II. The use and care of the McKay Self-channeling Machine; fitting needles in the machine; general repairs to machine; the use and care of the rough rounding machine; the lip channel method of fastening whole sole with the stitches; general organization and shop management; keeping books and job records.

## TAILORING

112-212. TAILORING. (IND 112 212 TAILORING) (0-6) *Credit* 2. I and II. Tailoring as an industry for students in the School of Arts and Sciences only.

113. ELEMENTARY TAILORING. (TAIL 113 ELEM TAIL) (0-9) *Credit* 3. I. Names and uses of various stitches; trouser cutting and making; the tailor's square and its uses; trouser measurements.

117. ELEMENTARY TAILORING (TAIL 117 ELEM TAIL) (2-15) *Credit* 7. I. Names and uses of various stitches; trouser cutting and measurements; the tailor's square and its uses.

123. ELEMENTARY TAILORING. (TAIL 123 ELEM TAIL) (0-9) *Credit* 3. I. Use and care of tailoring machines; skirt drafting, cutting and making.

127. ELEMENTARY TAILORING. (TAIL 127 ELEM TAIL) (2-15) *Credit* 7. I. Trouser drafting, trimming and making; serges and worsteds; use and care of tailoring machines; skirt drafting, cutting and making.

213. TAILORING. (TAIL 213 TAILORING) (0-9) *Credit* 3. II. Proportionate vest cutting, drafting and making; collar and canvas construction.

215. ADVANCED TAILORING. (TAIL 217 ADV TAIL) (0-15) *Credit* 5. Coat and vest measurement; direct and proportionate vest cutting, drafting and making; collar and canvas construction.

223. TAILORING. (TAIL 223 TAILORING) (0-9) *Credit* 3. II. Sack coat cutting, trimming and making.

225. ADVANCED TAILORING. (TAIL 227 ADV TAIL) (0-15) *Credit* 5. II. Coat cutting, trimming, drafting, and making; alterations and repairs; hand and machine made coats; methods of lining and relining.

313. TAILORING. (TAIL 313 TAILORING) (0-9) *Credit* 3. II. Tuxedo and full-dress coat cutting, trimming and making.

323. TAILORING. (TAIL 323 TAILORING) (0-9) *Credit* 3. II. Alterations and repairs to garments worn by women and men; methods of lining and relining.

## WELDING

103. GENERAL WELDING. (WELD 103 GEN WELD) (1-6) *Credit* 3. I and II. An exploration of the welding field. An introduction to the fundamentals of oxyacetylene, electric arc and resistance welding, including cutting.

113. WELDING I—ELECTRIC. (WELD 113 ELEC WELD) (1-6) *Credit* 3. I and II. Theory and practice of techniques in arc welding maintenance and fabrication; servicing of equipment and controls; a study of welding symbols.

123. WELDING II—GAS. (WELD 123 GAS WELD) (1-6) *Credit* 3. I and II. Theory and practice of techniques in gas welding fabrication and maintenance; storage and manufacture of gas; servicing and regulation of equipment.

213. ADVANCED WELDING I—ELECTRIC. (WELD 213 ADV ELEC) (1-6) *Credit* 3. I and II. Further practice in arc welding; a study of some of the modern techniques in welding; types of tests used in the testing of welded joints; calculating costs, job rating and design, and industrial application of resistance welding.

223. ADVANCED WELDING II—GAS. (WELD 223 ADV GAS) (1-6) *Credit 3.* I and II. Modern techniques of gas welding; methods of fusion and bronze welding, cast iron and methods of welding non-ferrous metals.

## WOODWORK

112-212. GENERAL WOODWORK. (IND 112 212 GEN WDWK) (0-6) *Credit 2.* I, II. An exploration of the woodwork field and a study of its related socio-economic problems; development of an appreciation for wood and its aesthetic qualities; the construction of general small projects using correct tools, materials and operational procedures. (For students of School of Arts and Sciences only.)

113-123. FUNDAMENTAL WOODWORK. (WDWK 113 123 FUND WDWK) (1-6) *Credit 3.* I, II. Care, use, and selection of fundamental woodworking tools, materials and equipment; skill in hand construction of approved projects which must embody good construction and good design values; training in ability to analyze a problem into its learning units and to plan procedure in execution of a job.

121. MAINTENANCE OF SHOP EQUIPMENT. (WDWK 121 EQUIPMENT) (0-3) *Credit 1.* I, II. The care and upkeep of shop tools and equipment; gumming, milling, jointing, sharpening of circular saws, setting and filing hand saws, brazing band saws, sharpening jointer knives.

214. CABINETMAKING. (WDWK 214 CABNETMKG) (2-6) *Credit 4.* I. Introduction to woodworking machines through their use and care; construction of small pieces of period furniture embodying good design and specific units of instruction. Prerequisite: Fundamental woodworking, freehand drawing.

223. WOOD TECHNOLOGY. (WDWK 223 WOOD TECH) (3-0) *Credit 3.* II. Structures and properties of woods; characteristics and distribution of common species; lumbering, saw-milling, kilning, grading, measurements, markets.

314. MACHINE WOODWORKING. (WDWK 314 MACH WDWK) (2-6) *Credit 4.* I, II. Production method in use of power machines. Practical experience with techniques of modern mass production. Prerequisite: Woodwork 113-214.

322. PATTERN MAKING. (WDWK 322 PATRNMKG) (0-6) *Credit 2.* II. Care and use of bench and machine tools used in pattern making, materials used in making patterns; meaning, use, and construction of patterns to illustrate principles of draft, shrinkage, finish, warp, and core prints.

323. WOOD TURNING. (WDWK 323 WOOD TURN) (1-6) *Credit 3.* II. Proper care and use of the lathe and lathe tools; the principles of cutting and scraping; the making of projects with emphasis on good design. Prerequisite: Woodwork 214.

414. FURNITURE AND CABINETMAKING. (WDWK 414 FURNITURE) (2-6) *Credit 4.* I. Advanced course with emphasis on art and design in furniture construction; construction of period and modern style furniture.

DIVISION OF

*Nursing Education*

# Division of Nursing Education

The Division of Nursing Education offers two basic curricula; one, over a period of three years, leading to a Diploma in Nursing; and the other, over a period of four years, leading to the degree of Bachelor of Science in Nursing. Upon completion of either curriculum, the nurse is eligible to take the Nurses' State Board Examination. An advanced curriculum has been developed for the graduate registered nurse. It is planned for the individual. The length of the program will depend upon the applicant's background.

Students with the highest scholastic rating in their respective high schools and students with one or more years of college credit are given preference among applicants for admission to the Division of Nursing Education. (Applicants must send two transcripts—one for the College Registrar and one for the Nursing Education records.)

## VACATION

A vacation of four weeks is given each year.

## SPECIAL REQUIREMENTS

In addition to the completion of an acceptable 4-year high school course of study (see admission requirements) the following special requirements must be met by those who desire to enter the Division of Nursing Education:

1. Applicants must be 17 years old upon entrance to the division and under 35.
2. Applicants must have a thorough pre-entrance physical examination as evidence of physical fitness.
3. Applicants will be required to take a pre-nursing and guidance test given by the College for which a fee of \$4.00 is paid.

Prairie View A. & M. College School of Nursing is affiliated with Jefferson Davis Hospital School of Nursing, Houston, Texas, The School of Nursing of the University of Texas, Medical Branch, University of Texas, Galveston, Texas, and Veterans Administration Hospital, Houston, Texas.

# DIPLOMA PROGRAM—CURRICULUM PLAN

## FIRST YEAR—FIRST SEMESTER

Course No.	Descriptive Title	Clock Hrs.	Lec.	Lab.	Sem. Hrs.
Nursing Education 113	Nursing Arts	45	1	2	1 1/2
English 113	Grammar and Composition	54	3	0	0
Biology 153	Anatomy and Physiology	72	2	2	3
Chemistry 173	General Chemistry	108	2	4	4
Nursing Education 141	Professional Ethics	18	1	0	1
Physical Education 111	Gymnastics	36	0	2	1
Psychology 113	General Psychology	54	3	0	3

## FIRST YEAR—SECOND SEMESTER

Nursing Education 113	Nursing Arts I. (Cont'd from 1st Semester)	45	1	2	1 1/2
Home Economics 143	Foods and Nutrition	72	2	2	3
English 123	Grammar and Composition	53	3	0	3
Biology 163	Anatomy and Physiology	72	2	2	3
Biology 123	Microbiology	108	2	4	4
Nursing Education 183	Pharmacology	54	3	0	3
Physical Education 121	Games and Gymnastics	36	0	2	1

## FIRST YEAR—SUMMER SESSION

Nursing Education 123	Nursing Arts II	90	2	3	3
Nursing Education 206	General Medical Nursing	10			2
Nursing Education 216	General Surgical Nursing	10			2
Nursing Education 211	Introduction to Community Health	12			2

## SECOND YEAR—FIRST SEMESTER

Nursing Education 206	General Medical Nursing				6
Nursing Education 216	General Surgical Nursing				6

## SECOND YEAR—SECOND SEMESTER

Nursing Education 206	Medical Nursing Specialities				6
Nursing Education 216	Surgical Nursing Specialities				6

## SECOND YEAR—SUMMER SESSION

Medical Nursing Specialities (Continued)  
Surgical Nursing Specialities (Continued)

## THIRD YEAR—FIRST SEMESTER

Nursing Education 304	Obstetric Nursing				
Nursing Education 314	Pediatric Nursing				

## THIRD YEAR—SECOND SEMESTER

Nursing Education 324	Psychiatric Nursing (Affiliation with University of Texas School of Nursing)				4
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## THIRD YEAR—SUMMER SESSION

Sociology 213	Introductory Sociology	54	3	0	3
Nursing Education 403	Trends in Professional Nursing	54	3	0	0
Nursing Education 413	Ward Administration and Clinical Teaching Electives	54	3	0	3

# DEGREE CURRICULUM

## FIRST YEAR—FIRST SEMESTER

Course No.	Descriptive Title	Clk. Hrs.	Lec.	Lab.	Sem. Hrs.	Wks. C. E.
English 113	Grammar and Composition	54	3	0	3	
Biology 153	Anatomy and Physiology	72	2	2	3	
Chemistry 173	General Chemistry	108	2	4	3	
Home Economics 143	Foods and Nutrition	72	2	2	3	
Nursing Education 141	Professional Ethics	18	1	0	1	
Physical Education 111	Freshman Practice	36	0	2	1	

**FIRST YEAR—SECOND SEMESTER**

<i>Course No.</i>	<i>Descriptive Title</i>	<i>Clk. Hrs.</i>	<i>Lec.</i>	<i>Lab.</i>	<i>Sem. Hrs.</i>	<i>Wks. C. E.</i>
Nursing Education 113	Nursing Arts I.	45	1	2		1 1/2
English 123	Grammar and Composition	54	3	0		3
Biology 163	Anatomy and Physiology	72	2	2		3
Chemistry 183	General Chemistry	108	2	4		3
Physical Education 121	Freshman Practice	36	0	2		1
Psychology 103	Psychology	54	3	0		3

**FIRST YEAR—SUMMER SESSION**

Nursing Education 113	Nursing Arts I. (Continued)	45	1	2		1 1/2
Nursing Education 183	Pharmacology	54	3	0		3
Biology 123	Microbiology and Pathology	108	2	4		4

**SECOND YEAR—FIRST SEMESTER**

Nursing Education 123	Nursing Arts II	90	2	3		3
Nursing Education 206	General Medical Nursing					2
Nursing Education 216	General Surgical Nursing					2

**SECOND YEAR—SECOND SEMESTER**

Nursing Education 206	General Medical Nursing					6
Nursing Education 216	General Surgical Nursing					6

**SECOND YEAR—SUMMER SESSION**

Nursing Education 206	Medical Nursing Specialities					6
Nursing Education 216	Surgical Nursing Specialities					6

**THIRD YEAR—FIRST SEMESTER**

Nursing Education 304	Obstetric Nursing	54				4
Nursing Education 314	Pediatric Nursing	54				4

**THIRD YEAR—SECOND SEMESTER**

Nursing Education 324	Psychiatric Nursing (Affiliation with University of Texas School of Nursing)	107	95	12		4
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**THIRD YEAR—SUMMER SESSION**

Nursing Education 353	Medical Specialities (Tuberculosis Nursing)					3
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**FOURTH YEAR—FIRST SEMESTER**

Nursing Education 406	Public Health Nursing	368	48	320		6
English 213	Public Speaking	54	3	0		3
Political Science 113	National Government	54	3	0		3
History 173	United States 1492-1865	54	3	0		3
Sociology 213	Introductory Sociology	54	3	0		3

**FOURTH YEAR—SECOND SEMESTER**

Nursing Education 413	Ward Administration and Clinical Teaching	54	3	0		3
Political Science 123	State Government	54	3	0		3
English 223	Introduction to Literature	54	3	0		3
Education 273	Pupil Growth and Development	54	3	0		3
History 183	United States, 1865 to Present	54	3	0		3
Nursing Education 453	Principles and Methods of Teaching in School of Nursing	54	3	0		3

**FOURTH YEAR—SUMMER SESSION**

Nursing Education 423	Seminar in Nursing	54	3	0		3
Nursing Education 403	Trends in Professional Nursing Electives	54	3	0		3
						6

## SUPPLEMENTARY DEGREE CURRICULUM

The supplementary degree program is designed for the graduate professional nurse of a three-year school of nursing who wishes to meet the requirements for the degree of Bachelor of Science in Nursing.

Each applicant is required to take the Graduate Nurse Qualifying Examination which will determine the number of credits allowed toward the degree. A total of 126 semester hours is required for graduation.

### FIRST SEMESTER

			<i>Clt.</i>			<i>Sem.</i>
			<i>Hrs.</i>	<i>Lec.</i>	<i>Lab.</i>	<i>Hrs.</i>
English	213	Public Speaking	54	3	0	3
Nursing Education	413	Trends in Nursing Education	54	3	0	2
Political Science	113	National Government	54	3	0	3
Philosophy	313	Introduction to Philosophy	54	3	0	3
Education	383	Educational Psychology	54	3	0	3

### SECOND SEMESTER

English	223	Introduction to Literature	54	3	0	3
History	173	American History	54	3	0	3
Nursing Education	423	Seminar in Nursing	54	3	0	3
Political Science	123	State Government	54	3	0	3
Philosophy	303	Philosophies of Life	54	3	0	3
Sociology	303	The Family	54	3	0	3

### SUMMER

Nursing Education	453	Principles and Methods of Teaching in Schools of Nursing	54	3	0	3
Nursing Education	513	Ward Administration and Clinical Teaching	54	3	0	3
History	183	American History	54	3	0	3
Nursing Education		Community Health	54	3	0	3

### SECOND YEAR

Nursing Education	406	Field Work (Public Health of Class Room Teaching	108	Arranged	6	
or						
Education	406					

## DESCRIPTION OF COURSES

113. NURSING ARTS I. (N E 113 NURS ARTS) (2-6) *Credit 3.* 90 hours. I. Principles of nursing with emphasis upon attitude towards the patient, existing social relationships, the physical requirements for the proper care of patients and the procedures found most helpful for the promotion of health.

123. NURSING ARTS II. (N E 123 NURS ARTS) *Credit 3.* Summer session. Principles and practice of the more advanced procedures used in caring for patients; planning the care of the patients as a whole—developing habits of observation, organization, economy of time and dexterity in nursing practice. The course is coordinated and integrated with courses in medical and surgical nursing; includes procedures for first aid care of patients in the hospital; in the home, in industry or other occupational environment as well as transportation and recreational accident emergencies.

123. GENERAL MICROBIOLOGY AND PATHOLOGY. (Bio 123 MICROBIOL) (2-2) *Credit 3.* I. Morphology and physiology of micro-organisms related to health and sanitation; asepsis, disinfection and the growth and control of those organisms causing common infectious diseases.

141. PROFESSIONAL ETHICS. (N E 141 PROF ADJ) I. Introduction to the program of the School of Nursing; a study of the qualities essential to adjustment in the nursing profession with emphasis on the development of nursing as a profession.

143. FOODS AND NUTRITION. (N E 143 FDS NUTR) (2-2) *Credit 3.* Fundamental knowledge of nutrition and its relation to the total health picture of the individual, the



family, and the community health. Includes planning simple menus, preparation of diets to meet the needs of individuals at different age levels, in varying kinds of occupation, and at varying economic levels. Lectures, recitation and laboratory, four hours weekly.

153, 163. ANATOMY AND PHYSIOLOGY. (Bio 153 163 ANAT PHYS) (3-0) *Credit 3.* I and II. Structure and functions of the human body; the structure of each of the systems demonstrated by models, charts and animal dissections; their functions studied by experiments.

173, 183. GENERAL CHEMISTRY. (CHEM 173 183 GEN CHEM) (2-4) *Credit 3.* I and II. Fundamental principles of organic chemistry; atomic structure, the electron theory of valences, chemical equilibrium, oxidation and reduction.

183. PHARMACOLOGY AND THERAPEUTICS. (N E 183 PHARMACOL) (3-0) *Credit 3.* Agents used in the treatment and prevention of disease (with emphasis on drugs), with consideration of the desired effects and any probable reactions. The place of the nurse in administration; the various social problems associated with the indiscriminate use of drugs. Integrated with medical and surgical nursing.

202. INTRODUCTION TO MEDICAL NURSING. (N E 202 MED NURS) (2-2) *Credit 2.* Gives the student a background in causes, prevention, and treatment of diseases, including, dietary and pharmacological aspects, integrated in Nursing Arts.

206. GENERAL MEDICAL NURSING. (N E 206 MED NURS) (2-12) *Credit 6.* Eight weeks clinical practice in medical nursing. Includes nursing in diseases of the heart and blood vessels and of the gastro-intestinal tract. Eight weeks clinical practice in medical nursing. Four weeks clinical practice in the therapeutic dietary department. Includes instruction in nursing in dermatological conditions, chronic diseases of the chest and communicable diseases. Emphasis is placed upon total nursing care of the patient and the nurse's part in prevention of diseases. The social, mental and economic aspects of these diseases are also considered. Causes, pathology, prevention, and treatment of medical conditions; the related emotional, social, nutritional, and rehabilitative aspects; and the nursing care essential to meet the needs of the individual patient. Guided practice in the nursing care of patients in the medical service.

212. INTRODUCTION TO SURGICAL NURSING. (N E 212 SURG NURS) (2-0) *Credit 2.* Familiarizes the student with the nursing care essential to meet the needs of surgical patients, and to aid them in their recovery. Taught in connection with Nursing Arts.

216. GENERAL SURGICAL NURSING. (N E 216 SURG NURS) (2-12) *Credit 6.* Causes and pathology, prevention and treatment of surgical conditions; the related emotional, social, nutritional, and rehabilitative aspects; nursing care essential to the needs of the patient. Guided practice in the nursing care of patients in the surgical services. Four weeks gynecological nursing. Four weeks urological nursing. Four weeks orthopedic nursing. The contents of this course is planned to give the student the principles underlying the treatment of disorders, requiring surgery, including nursing in surgical condition of the chest, nervous system, genito-urinary tract, and the bones and joints, the practice in giving nursing care to all types of surgical patients. Emphasis is placed on the total nursing care of the patient and includes physical, mental, social, economic and health aspects; also the nurse's role in the prevention of disease.

226. MEDICAL SPECIALITIES. (N E 226 MED SPEC) *Credit 6.* I. Survey of medical principles fundamental to nursing in the fields of diet therapy, pathology, communicable disease, dermatology, tuberculosis and geriatrics.

246. SURGICAL SPECIALITIES. (N E 246 SURG SPEC) *Credit 6.* I. Causes, treatment and prevention of the conditions requiring surgical intervention in the fields of orthopedics; gynecology; eye, ear, nose, and throat; urology; plastic and neurosurgery; nursing care, including rehabilitation; social and economical aspects related to the conditions at various age groups.

300. DIET THERAPY PRACTICE. (N E 300 DIET THRP) Modifications of the normal diet as a therapeutic measure in disease. Four weeks diet laboratory experience.

304. OBSTETRIC NURSING. (N E 304 OBSTETRIC) (2-6) *Credit 4.* The physiologic, psychologic, and pathologic aspects and public health implications of pregnancy, parturi-

tion and puerperium. The total care of mother and infant is stressed. Emphasis is placed on both theory and practice.

314. PEDIATRIC NURSING. (N E 314 PEDIATRIC) (2-3) *Credit 4*. Twelve weeks clinical experience in nursing care of children. Develop skill in planning and giving total nursing care to children. Beginning knowledge of growth and development, and understanding of the meaning of illness and awareness of the needs of the child and his family.

324. MENTAL HYGIENE AND PSYCHIATRIC NURSING. (N E 324 MENTL HYG) (4-0) *Credit 4*. I and II. (Given to one-fourth of the class at a time, parallel with clinical practice in psychiatric nursing.) Etiology, symptomatology, treatment, special therapy and nursing care of more common types of mental conditions; mental hygiene integrated throughout.

353. TUBERCULOSIS NURSING. (N E 353 T B NURS) (3-0) *Credit 3*. A six-weeks course providing lectures, classes and demonstrations presenting etiology, symptoms, treatments and nursing care of the disease.

333. SOCIAL PSYCHOLOGY. (N E 333 SOC PSYCH) (3-0) *Credit 3*. I. Personality development through personal-social and cultural-social conditioning; larger group relationships. Open to graduate students by special permission.

403. TRENDS IN PROFESSIONAL NURSING. (N E 403 PRO TRNDS) (3-0) *Credit 3*. Responsibilities of the graduate nurse to society, to herself, and to her professional group; personal and professional problems which confront graduate nurses; facilities in analyzing and judging situations in professional life; principles and methods helpful in situations; opportunities open to the professional nurse and the qualifications required.

403. COMMUNITY HEALTH NURSING. (H E 403 COMM HLTH) A study of public health nursing practice in relation to the total health program; organization and administration; consideration of the nurses' responsibilities in the prevention and control of diseases in all areas including schools, industries and community health agencies; the study of tools used in public health nursing, statistics and visual aids.

406. PUBLIC HEALTH NURSING. (N E 406 PUBL HLTH) (2-30) *Credit 6*. A generalized public health nursing program, arranged with local community agencies. Designed to give the students the opportunity through carefully planned and supervised observations and participation, to apply principles and skills to actual situation. Two lectures and a minimum of thirty (30) laboratory hours per week for twelve weeks.

413. TRENDS IN NURSING EDUCATION. (N E 413 TRNDS NURS) (3-0) *Credit 3*. Changes that have occurred within recent years; current nursing profession and implications for nursing in the future; social, economic, political and religious trends considered.

423. SEMINAR IN NURSING. (N E 423 SEMINAR) *Credit 3*. Summer Session. Application of principles and procedures to care of patients discussions; demonstrations and lectures.

453. PRINCIPLES AND METHODS OF TEACHING IN SCHOOLS OF NURSING. (N E 453 TCHG METH) *Credit 3*. Application of the principles and methods of general education to nursing.

513. WARD ADMINISTRATION AND CLINICAL TEACHING. (N E 513 WARD ADM) (3-0) *Credit 3*. Summer Session. A detailed study of the functions and responsibilities of the head nurse as a member of the hospital service-team; methods and practices of ward administration and teaching.

# Department of Military Science and Tactics

Instruction in General Military Science at this institution is a part of the Officer Procurement Program of the Armed Forces of the United States. Under provisions of the National Defense Act of 1920 as amended, a Senior Division (Army) ROTC Unit, Class CC (Civilian College) is established and maintained at this college. All instruction and training in General Military Science is conducted by U. S. Army personnel stationed at Prairie View A. & M. College, and in accordance with requirements of pertinent Army Regulations, Directives and Training Programs promulgated by the Department of the Army, Washington 25, D. C.

The General Military Science course of instruction is a conversion from the Infantry Course of Instruction. The purpose of the GMS Course is to produce Junior Officers with a basic knowledge essential to officers of all branches of the Active United States Army. Training in military leadership will be emphasized. Instruction will be given in subjects common to all branches of the Army.

Duration of the complete course of instruction comprises four years, with not less than 90 hours of instruction in each of the first two years of the course, and 150 hours of instruction in each of the last two years of the course. The complete course of instruction covers four broad and distinct areas of military knowledge and skill.

Enrollment of all able-bodied male students of the College in the two years of general military science is required except veterans, students who are past their 25th birthday upon initial entrance and those who enter with Advanced Standing. Successful completion of these first two years of General Military Science fulfills one of the college requirements for graduation. Enrollment in the last two years of the General Military Science course is limited to students who complete successfully the first two years or who are veterans of the Armed Forces, discharged after one or more years of honorable military service. Students enrolled in the last two years of the General Military Science Course are selected by the President of the College and the Professor of Military Science and Tactics. Successful completion of the General Military Science Course normally will result in the tender of a commission as Second Lieutenant, United States Army Reserve, in any one of the seventeen branches of the Army for which the student is qualified and as nearly as possible, in accordance with his desire. Outstanding students may be designated as Distinguished Military Students and may during the last year in ROTC be recommended for appointment as Second Lieutenants in the Regular Army on graduation from college.

## MONETARY ALLOWANCES

Students enrolled in the last two years of the General Military Science Course of Instruction will receive a monetary allowance which is known as Commutation of Subsistence. This allowance is paid at a rate prescribed by the Secretary of the Army and it is based on the cost of the Army Garrison Ration. The amount at present is computed at about ninety cents (\$.90) per day—about twenty-seven dollars (\$27.00) per month. Students are required to attend one summer ROTC camp, normally at end of the third year in the course. Such students receive pay of about one hundred and ten-dollars (\$110.00) and monetary allowance for travel from their home to the camp and return. Total pay and allowances for students in the last two years of the General Military Science Course is about seven hundred and fifty dollars (\$750.00).

## GRADUATION

The last two years of the General Military Science Course together with the required summer camp, becomes a requirement for graduation for each student electing such course unless he is released from ROTC. The student may sooner be discharged from ROTC at the convenience of the Government. Request for withdrawal, discharge from current contract, or reinstatement under prior contract will be approved or disapproved by the Army Commander whose decision will be based upon the merits of each individual case, and the recommendation of the Professor of Military Science and tactics. Except when withdrawal or discharge from the contract is for the convenience of the Government, the student should be required to refund to the Government any sums previously paid to him as commutation of subsistence. The withdrawal from the institution of a student under contract terminates his obligation to continue the ROTC training unless he returns within two (2) calendar years to the institution or enrolls in another institution which maintains a senior division Army ROTC Unit, in which case he will be required to fulfill the provisions of his contract.

## DEFERMENT

Students enrolled in the General Military Science Course may be granted a Military Deferment from induction for service under the Universal Military Training and Service Act of 1951, as amended. Such deferment when granted, shall be in force so long as the student meets academic, military, and other standards, and until completion or termination of the course of study in General Military Science.

## COURSES OFFERED IN GENERAL MILITARY SCIENCE

### MILITARY SCIENCE I

111, 121. (M S 111 121 ELEM M S) (2-2) *Credit 1.* I and II. Organization of the Army and ROTC; American Military History; Individual Weapons and Marksmanship; School of the Soldier and Exercise of Command.

### MILITARY SCIENCE II

211, 221. (M S 211 221 ELEM M S) (4-0) *Credit 1.* I and II. Crew-Served Weapons and Gunnery; Map and Aerial Photograph Reading; School of the Soldier and Exercise of Command.

**MILITARY SCIENCE III**

313, 323. (M S 313 323 Adv M S) (4-2) **Credit 3.** I and II. Small Unit Tactics and Communications; Organization, Function, and Mission of the Arms and Services; Military Teaching Methods; Leadership; School of the Soldier and Exercise of Command.

**MILITARY SCIENCE IV**

413, 423. (M S 413 423 Adv M S) (4-2) **Credit 3.** I and II. Logistics; Operations; Military Administration and Personnel Management; Service Orientation; School of the Soldier and Exercise of Command.

**EXTENSION SCHOOLS**

In an effort to serve the citizens of Texas at the point of their greatest need, Prairie View A. & M. College extends its intensive teacher education program to various centers in the state where a sufficient number of teachers show interest in professional growth. It is necessary that a teacher for an Extension Center be approved by the county and city superintendents before an organization and operation. The classes are designed primarily to meet the needs of teachers on the graduate level, but this does not preclude enrollment of other qualified professional or non-professional persons. It is possible for a full-time teacher to earn 9 semester hours per school year in all Extension Centers. The entrance requirements are the same as those for resident students. At present there are eight Extension Centers in operation in County 041-5: Vernon, Lubbock, Palestine, Texarkana, Henderson, Marshall, Dallas, Springtown, and Waco.

**ON-CAMPUS SATURDAY CLASSES**

Prairie View has extended its services to in-service teachers who wish to earn resident credit toward a higher degree by offering Saturday classes on the graduate level. These classes are designed to offer interested persons an opportunity for professional development as well as earn resident credit leading to the Master's Degree. Classes are offered in the following fields: Adult, Elementary Education, Administration, Supervision and Leadership. Persons interested in enrolling are asked to contact with the Director of Personnel Service for further information.

# Department of Extramural Activities

## EXTENSION SCHOOLS

In an effort to serve the citizens of Texas at the point of their greatest needs, Prairie View A. & M. College extends its in-service teacher education program to various centers in the state where a sufficient number of teachers show interest in professional growth. It is necessary that a request for an Extension Center be approved by the county and city superintendents before its organization and operation. The classes are designed primarily to meet the needs of in-service teachers on the graduate level, but this does not preclude enrollment of other qualified professional or non-professional persons. It is possible for a full-time teacher to earn 9 semester hours per school year in off-campus Extension Centers. The entrance requirements are the same as those for resident students.

At present there are eight Extension Centers in operation in Cuero, Galveston, Lubbock, Palestine, Texarkana, Henderson, Marshall, Sulphur Springs, and Waxahachie.

## ON-CAMPUS SATURDAY CLASSES

Prairie View has extended its services to in-service teachers who wish to earn resident credit toward a higher degree by offering Saturday classes on the graduate level. These classes are designed to offer interested persons an opportunity for professional development as well as earn resident credit leading to the Master's Degree. Classes are offered in the following fields of study: Elementary Education, Administration, Supervision and additional fields when requested. Persons interested in enrolling are asked to get in contact with the Director of Extramural Service for further information.

# PRAIRIE VIEW AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS

## ADMINISTRATIVE OFFICERS

- EDWARD B. EVANS, V.M.D., *President of the College*  
JESSE M. DREW, Ed.D., *Dean of Instruction, Dean of Graduate School*  
\*GEORGE L. SMITH, M.S., *Dean of School of Agriculture*  
JOHN C. WILLIAMS, M.S., *Acting Dean of School of Agriculture*  
THOMAS P. DOOLEY, Ph.D., *Dean of School of Arts and Sciences*  
CLAUDE L. WILSON, M.E., M.S., *Dean of School of Engineering*  
MRS. E. MAY GILLOWAY, M.S., *Dean of School of Home Economics*  
ALVIN I. THOMAS, M.S., *Director of Division of Industrial Education*  
MRS. MAIDA S. BRANNON, M.A., *Director of Division of Nursing Education*  
JONEL L. BROWN, Ph.D., *Director of Extramural Services*  
THOMAS R. SOLOMON, Ph.D., *Director of Student Life*  
HARRY E. FULLER, *Dean of Men*  
MRS. R. L. BLAND EVANS, M.S., *Dean of Women*  
THOMAS H. WRIGHT, B.S., *Lieutenant Colonel, Infantry, U.S.A.,  
PMS&T and Commandant, Reserve Officers Training Corps*  
LEMMON C. McMILLAN, M.A., *Registrar*  
ORESTES J. BAKER, M.L.S., *Librarian*  
HORACE D. MURDOCK, M.B.A., *Business Manager*  
WILLIAM C. DAVID, B.S., *State Director, Extension Service for Negroes*

## OFFICE OF THE PRESIDENT

- EDWARD B. EVANS, V.M.D., *President of the College*  
MISS EZRA L. HENDERSON, B.A., *Secretary*

## OFFICE OF DEAN OF INSTRUCTION

- JESSE M. DREW, Ed.D., *Dean of Instruction*  
MISS JAMIE L. WALKER, *Secretary*

## OFFICE OF THE REGISTRAR

- LEMMON C. McMILLAN, M.A., *Registrar*  
SAMUEL MONTGOMERY, B.S., *Assistant to the Registrar*  
MISS BERNICE B. BROOKS, B.A., *Recorder and Assistant to the Registrar*  
MISS ANNIE LOU HUBBARD, B.A., *Transcript Clerk*  
MISS EURETHA L. SMITH, *Receptionist and Admissions Clerk*  
MISS JEAN NORRIS, M.A., *Statistics, Research, and Publications Clerk*  
RAYMOND L. SCOTT, B.S., *Clerical Assistant*

\* On leave

## BUSINESS OFFICE

H. D. MURDOCK, M.B.A., *Business Manager*  
HARVEY R. TURNER, B.S., *Purchasing Agent*  
JAMES E. STAMPS, JR., B.S., *Accountant*  
LA VAUGHN C. MOSLEY, B.S., *Cashier*  
DANIEL L. BROOKS, B.S., *Auditor*  
WILLIAM H. BELL, JR., B.S., *IBM Supervisor*  
DORRIS X. C. KNOTTS, B.S., *Inventory Clerk*  
MRS. DORIS S. WILBORN, *Payroll Clerk*  
OLLIE C. POLK, B.A., *Bookkeeper*  
CLEOTIS B. HOLLOWAY, B.A., *Purchase Order Clerk*  
GRIFF W. KENDRICK, B.S., *Bookkeeper*  
MISS ANNIE M. ANDERSON, B.S., *Secretary*  
MRS. THELMA P. JOHNSON, *General Clerk*  
WILLIE E. RANSOM, B.S., *Acting Assistant Cashier*  
MRS. JEAN HENDERSON WRIGHT, B.A., *Key Punch Operation*  
MISS DINAH R. YOUNG, B.S., *Clerk-Typist*  
HERMAN L. SELMAN, B.S., *Clerk*

## STUDENT PERSONNEL SERVICE

THOMAS R. SOLOMON, PH.D., *Director of Student Life*  
WILLIAM L. CASH, PH.D., *Counselor*  
DAVID E. GREEN, B.A., *Director of Student Activities*  
MRS. BERTHA STARKS, B.S., *Assistant Director of Student Activities*  
MRS. R. L. BLAND EVANS, M.S., *Dean of Women*  
HARRY E. FULLER, *Dean of Men*  
LEROY MARION, B.S., *Assistant Dean of Men*  
MRS. VILMA BANKY BRYANT, *Secretary to Deans*  
JAMES P. BROWN, *Veteran's Counselor*  
EMORY R. OWENS, M.D., *Director of Student Health Services*  
MRS. ETHEL F. ALEXANDER, B.S., *Secretary, Student Life*  
MISS BESSIE L. WILLIAMS, B.S., *Secretary, Counseling Center*

## RESIDENCE HALLS

JAMES A. RICHARDSON, B.S., <i>Proctor</i> .....	Alexander Hall
MRS. LIEUTENANT A. B. TERRY, B.S. ....	Anderson Hall
MRS. MARY ANN HAWLEY, B.S. ....	Crawford Hall
MRS. LILLIAN SHELTON, B.S. ....	Evans Hall
MRS. CARRIE DORSEY .....	Blackshear Hall
MRS. WESTERFIELD KIMBLE, M.S. ....	Suarez Hall
MRS. A. B. BRADY .....	Luckie Hall
MRS. J. R. PHILLIP, M.S. ....	Suarez Hall
SAMUEL Z. HENDERSON, B.A. ....	Alexander Hall
MRS. KATIE S. BEASLEY, B.S. ....	Minor Hall

## THE W. R. BANKS LIBRARY STAFF

O. J. BAKER, A.B., B.L.S., M.L.S., *Librarian*  
MRS. LENORA BENSON BRACKSHEAR, B.S., *Circulation Assistant*  
MISS MARTHA JANE CHOPP, B.A., *Assistant Order Librarian*  
CHARLES DARRETT CHURCHWELL, B.S., M.L.S., *Instructor, Library Service-Education*  
MRS. BERTHA MYERS CRUMPTON, B.S., *Assistant in Serials*  
TIMOTHY HATCHETT, JR., B.S., *Order Assistant*  
MISS GLORIA FAYE JOHNSON, B.A., *Assistant Cataloger*  
MISS MARY E. LAW, A.B., *Reference Assistant*  
JAMES D. LOCKETT, A.B., *Reference Assistant*  
JAMES E. MCNAIR, B.S., M.Ed., *Serials Librarian*  
MRS. FAYRENE N. MAYS, B.S., *Circulation Assistant*



MISS MARGARET A. NOEL, B.A., M.S., in L.S., *Head of Acquisitions*  
SAM PETERS, B.S., *Assistant in Reference*  
MRS. JIMMIZINE B. TAYLOR, A.B., B.L.S., *Circulation Librarian*  
MRS. NAOMI P. THOMAS, A. B., B.L.S., *Order Librarian*  
RUFUS VENTERS, B.A., M.A., *Teachers Reserves Librarian*

#### HOSPITAL STAFF

EMORY R. OWENS, M.D., *Resident Physician*  
HOWARD NELSON, JR., D.D.S., *Resident Dentist*  
MISS ROSALYN SPENCER, R.N., *Head Nurse*  
KATIE TOLLIVER, B.S., *Dietician*  
MRS. LAVERNE SARGENT, *Nurse*  
MISS THELMA REEVES, R.N., *Night Nurse*  
MRS. ANNIE RICHARDS, *Ward Maid*  
MRS. MABLE WELLS, *Ward Maid*  
MRS. JEANETTE MOZEE, *Secretary*  
DAVE MAXWELL, *Custodian*

#### SCHOOL OF NURSING

MRS. MAIDA S. BRANNON, R.N., M.A., *Director of Nursing Education*  
MRS. ROSE E. HYNES, B.S., R.N., *Supervisor of Nurses and Assistant Director of Nurses*  
MRS. LORETTA P. WYNDON, B.S., R.N., *Nursing Arts Instructor*  
MISS LOLLIE Z. MARSHALL, M.A., R.N., *Nursing Education Instructor*  
MISS ELOIS M. HOLT, M.A., R.N., *Nursing Education Instructor*  
MISS WILLIE A. WILLIAMS, B.S., R.N., *Acting Public Health Director*

#### JEFFERSON DAVIS HOSPITAL (Nursing Affiliation)

MRS. VEDA NICHOLS, B.S., R.N., *Assistant Director, Prairie View Program*  
MRS. DAISY B. HAZE, R.N., *Clinical Coordinator*  
MRS. THEDOSIA TURNER, *Matron*  
MISS JOHNNIE M. PUNCH, *Matron*  
MISS CLEMINTEN RICHARDS, *Matron*  
MRS. EUNICE NEWSOME, *Matron*  
MRS. BETTY J. WILKINS, *Maid*  
MRS. CLARA BRANTLEY, *Matron*  
MISS ALIX V. SMITH, *Matron*

#### COLLEGE EXCHANGE

NATHANIEL C. HARDEN, M.S., *Manager*  
DONALD L. HUNTER, B.A., *General Assistant Clerk*  
MISS JOHNNIE MAE GASTON, B.A., *Secretary*  
MISS MAURICE HARRIS, B.S., *Clerk*  
MISS BETTY JEAN CARLOCK, B.S., *Clerk*

#### DINING HALL

JACOB L. BOYER, M.S., *Manager*  
COMPTON H. JOHNSON, M.S., *Supervisor*  
CALVIN MITCHELL, B.A., *Accountant*  
GEORGE HIGGS, B.A., *Storeroom Manager*  
MISS NELDA J. McDONALD, *Secretary*  
MADISON KILPATRICK, *Chef Cook*  
MISS GENERA SIGERS, B.S., *Supervisor, Faculty Cafeteria*  
MISS EMMA L. NELSON, *Cashier-Clerk*  
DURIA HENDERSON, *Head Baker*  
MRS. VERDELL BANKS, *Cafeteria Helper*

JAMES RICHARDSON, M.S., *Section Supervisor*  
 WILLIE B. HAYNES, *Assistant Chef*  
 MRS. IOLA F. CARPENTER, M.S., *Section Supervisor*  
 MRS. RUBY P. JOHNSON, *Section Supervisor*  
 PERCY CAMBRIC, *Head Butcher*  
 DARNELL WALKER, *Cook*  
 ESAU BROWN, *First Cook*  
 MAVIS JONES, *Bakery Foreman*  
 THOMAS SNELL, *Baker*  
 JAMES OSBY, *Baker*  
 JOHN L. STEWART, *Baker*  
 DEWITT RUTLEDGE, *Night Watchman*  
 WILLIE MCGOWN, *Janitor*  
 ERSKIN WHITE, *Head Dishwasher*  
 ELIJAH ANDERSON, *Dining Hall Helper*  
 MOSE HILLIARD, *Dining Hall Helper*  
 JAKE WOLFE, *Dishwasher*  
 LEE ANDREW EDWARD, *Janitor*  
 JESSIE RIBISBY, *Dishwasher*  
 GEORGE JOHNSON, *Kitchen Helper*  
 ALONZO WILLIAMS, *Cook Helper*  
 WILLIE MCDOWELL, *Cook Helper*  
 LORENZO WOLFE, *Cook Helper*  
 JOHN MORRISON, *Kitchen Helper*  
 LEVI JORDON, *Cook Helper*  
 JOHNNIE DEESE, *Cook Helper*  
 THOMAS TERRELL, *Pot Washer*  
 SIDNEY MANUEL, *Cook Helper*  
 MRS. LOU IDA OWENS, *Cafeteria Cook*  
 MRS. GEORGIA M. ROGERS, *Second Cafeteria Cook*  
 RICHARD WALKER, *Janitor*  
 MRS. EMMA L. WASHINGTON, *Assistant Section Supervisor*  
 MRS. EMMA JONES GREGORY, *Server*  
 MRS. CHRISTINE THOMPSON, *Server*  
 MRS. ROSIE L. SINGLETON, *Server*  
 MRS. RUTHIE L. RICHARDS, *Server*  
 MISS VELMA WILLIAMS, *Server*  
 MRS. MARY JOHNSON, *Cafe Helper*  
 MRS. MOZELL BENNETT, *Cafe Helper*  
 CAD WILLIAMS, *Assistant Butcher*  
 LEONARD JONES, *Cook Assistant*  
 CHRIS STEWART, *Cook Assistant*  
 ODUS OSBORNE, *Butcher*  
 ROBERT T. WILDER, *Butcher*  
 MACAROY McDONALD, *Cook Helper*  
 JAMES OAKS, *Butcher*  
 ELLIS SHAW, *Storeroom Assistant*  
 JOHN STUBBLEFIELD, *Cook Helper*  
 ARTHUR REESE, *Janitor*  
 WILBERT WARD, *Janitor*  
 JOE BENNIE LEWIS, *Bakery Helper*  
 JOE SIMPSON, *Bakery Helper*  
 BOBBY KEMP, *Bakery Helper*  
 JOHN LIVINGSTON, *Cook*

#### UTILITIES AND SERVICE DIVISION

CLAUDE L. WILSON, M.E., M.S., *Director*  
 ANDREW E. CHARLESTON, B.S., *Engineer, Steam Plant*  
 MISS HENRIETTA FARRELL, B.S., *Superintendent of Laundry*

\*FRANCIS G. FRY, B.S. in E.E., *Chief Engineer, Steam Plant*  
 MISS ERMA JEAN SMITH, B.S., *Telephone Operator*  
 ROBERT C. WICKLIFF, B.A., *Chief Clerk, School of Engineering*  
 MISS DOROTHY WILLIAMS, *Secretary, School of Engineering*  
 MISS WILLIE VELMA LEWIS, B.A., *Secretary, School of Engineering*  
 MRS. VERA ARMSTRONG, B.S., *Telephone Operator*  
 ALFRED RICHARDS, *Engineer, Steam Plant*  
 MISS JULIA V. BUTLER, B.S., *Telephone Operator*  
 Q. D. THOMAS, *Acting Chief Engineer, Steam Plant*  
 ELLI THOMPSON, *Fireman, Steam Plant*  
 CURTIS ANDERSON, *Fireman, Steam Plant*  
 JOE JACKSON, *Repairman, Steam Plant*  
 CECIL RICHARDS, *Repairman, Steam Plant*  
 MRS. FRANKIE RIGSBY, B.S., *Telephone Operator*  
 MISS MURLINE SCOTT, *Telephone Operator*  
 LACY MCKENZIE, *Repairman, Steam Plant*  
 PRINTEL BOGESS, *Repairman, Steam Plant*  
 JOSEPH R. PHILLIPS, M.S., *Engineer, Steam Plant*

#### MAINTENANCE DEPARTMENT

ALVIS A. LEE, *Superintendent of Maintenance*  
 ARLIE E. LEBEAUX, *Assistant Superintendent*  
 LORENZO L. TRAMBLE, B.S., *Clerk-Manager*  
 MISS EARLINE J. WADDLETON, *Secretary*  
 BENNY W. WHITEHEAD, B.A., *Clerk*  
 TRACHANZIE POOLE, *Head Custodian*  
 NORRIS FACIANE, *Assistant Head Custodian*  
 MISS EMMA COLEMAN, *Custodian*  
 CHARLEY GRANDERSON, *Custodian*  
 HARRY DENNIS, *Custodian*  
 MRS. JOHNETTA KING, *Custodian*  
 JOHNNIE LEE MOMON, *Custodian*  
 ROOSEVELT MAYES, *Custodian*  
 MISS MYRTLE SNELL, *Custodian*  
 JOHN H. LENO, *Repairman*  
 MRS. ALMA K. SWAIN, *Custodian*  
 MRS. ELLA M. DAVIS, *Custodian*  
 CLYDE COLLIER, *Custodian*  
 LONNIE GRANDERSON, *Custodian*  
 CECIL LANG, JR., *Custodian*  
 JAMES E. DAILEY, B.S., *Electrician*  
 CURLEY GREEN, *Electrician*  
 TRAVIS WASHINGTON, *Electrician*  
 W. S. KIDD, *Plumber*  
 LEON WASHINGTON, *Plumber*  
 WARNER O. MOSS, *Plumber*  
 WALTER R. BOYKIN, B.S., *Repair Shop Foreman*  
 GRANERSON DAVIS, *Repairman*  
 R. V. CORNISH, *Repairman*  
 JAMES RICHARDS, SR., *Repairman*  
 JOHN H. LENO, *Custodian*  
 ERNEST SALIENS, *Repairman*  
 ANDREW C. TOLER, *Repairman*  
 FLETCHER WILLIAMS, *Repairman*  
 RICHARD L. WILLIAMS, *Repairman*  
 JULIUS C. RUTLEDGE, *Repairman*  
 MARION JENKINS, *Painter*  
 ROY THOMPSON, *Painter*

\* On leave

FLOYD E. RAGSTON, *Painter*  
CLAUDE B. WAIR, *Painter*  
TIERY GAINES, *Transportation Forman*  
JAMES RAGSTON, *Transportation*  
FRED THOMAS, *Transportation*  
JESSE RICHARDS, *Warehouse Clerk*  
ANDREW J. WYNN, *Warehouse Clerk*  
WILLIE L. WATSON, *Auto Mechanic*

#### DEPARTMENT OF GROUNDS

HAROLD PERKINS, B.S., *Superintendent*  
CLAUDE CLARK, *Foreman*  
ISAAC BENNETT, *Yardman*  
HOWARD LEE, *Yardman*  
WILLARD JOHNSON, *Truck Driver*  
ISAAC BENNETT, SR., *Truck Driver*  
A. J. KING, *Truck Driver*  
ELIJAH JACKSON, *Truck Driver*  
COSIE DAVIS, *Worker*  
MORRIS JONES, *Worker*

#### TEXAS AGRICULTURAL EXPERIMENT STATION SUB-STATION NO. 18

JOHN C. WILLIAMS, M.S., *Professor*  
MISS ELIZABETH DURHAM, PH.D., *Professor*  
OLIVER SMITH, M.S., *Agronomist*  
ULYSSES S. WALLACE, B.S., *Foreman*  
MRS. ALICE LEE WATKINS, *Secretary-Bookkeeper*  
ERNEST WALKER, *Laborer*  
JOHNATHAN DAVIS, *Laborer*  
HENRY M. WHITE, *Laborer*

#### OFFICE OF INFORMATION

CURTIS A. WOOD, Ed.D., *Director*  
MRS. ELETHA COLES, *Stenographer*

#### INTERSCHOLASTIC LEAGUE AND PLACEMENT OFFICE

O. J. THOMAS, M.S., *Director*  
MRS. RUBY L. H. DAVIS, *Secretary*

#### OFFICE OF EXTRAMURAL ACTIVITIES

JONEL LEONARD BROWN, PH.D., *Director*  
MISS ADELAIDE R. WILCOX, *Secretary*

#### PANTHER INN

SIR JIM RICHARDSON, B.S., *Manager*  
MRS. JOHNNIE MAXIE, B.A., *General Manager*  
LORENZO L. DAVIS, *Cook*

#### CLERICAL STAFF MEMBERS OF SCHOOLS AND DIVISIONS

MRS. ETHEL ALEXANDER, B.S., *Secretary, School of Nursing*  
MISS SYLVIA FRANKLIN, *Secretary, School of Nursing*  
MRS. WANDA WASHINGTON, B.A., *Secretary to Dean of School of Home Economics*  
MISS WANDA L. ROBINSON, *Stenographer, Officer of Home Economics, Teacher Trainer*  
MISS WILLIE VELMA LEWIS, B.A., *Stenographer, School of Engineering*

ROBERT WICKLIFFE, *Clerk, School of Engineering*  
MRS. NELLIE V. BUSBY, *Secretary, School of Agriculture*  
MISS LULA TURMAN, *Secretary to Dean of School of Agriculture*  
MISS VEIDA N. WILLIAMSON, *Secretary to Director, Division of Industrial Education*  
MRS. BRENDOLY DARDEN, *Stenographer, Division of Industrial Education*  
GEORGE A. WALKER, B.A., *Clerk, Division of Industrial Education*  
MRS. ESTER J. TYLER, *Stenographer to Dean of School of Arts and Sciences*  
MISS CAROLE E. JETER, B.S., *Stenographer, School of Arts and Sciences*  
MISS JACQUE SUE MORRISON, B.S., *Stenographer, School of Arts and Science*

#### OTHER OFFICERS

ERNEST KIMBLE, B.S., *Manager, College Barber Shop*  
OSCAR PIPKINS, *Night Watchman*  
SANDERS STREDICK, *Night Watchman*  
VERNON FREEMAN, *Night Watchman*  
A. C. BEAN, *Night Watchman*

# Officers of Instruction, 1956-57

(As of February 14, 1957)

- ALEXANDER, AARON CHARLES (1950) ..... *Social Science*  
B.A., Prairie View A. & M. College, 1947; M.A.S.A., Ohio State University, 1950; Prairie View  
A. & M. College, Summer 1952, First Semester 1954.
- ALFORD, MISS ANNIE B. (1956) ..... *English*  
B.A., Langston University, 1956; University of Oklahoma, Summers 1954, 1955, 1956.
- ANDERSON, BERNARD (1956) ..... *Chemistry*  
B.S., Southern University, 1948; M.S., Duquesne University, 1950; University of Texas, 1953-54,  
1954-55, 1955-56, Summer 1956.
- ARNOLD, ADAM S. (1953) ..... *Head, Department of Business Administration*  
B.S., West Virginia State College, 1947; M.B.A., University of Wisconsin, 1948; Ph.D., *ibid.*, 1951;  
C.L.U., American College of Life Underwriters, 1955.
- BELL, WILLIE JAMES (1949) ..... *Printing*  
Certificate in Printing, Prairie View A. & M. College, 1948; Certificate in Mechanisms of the  
Linotype Machine, Mergenthaler Linotype School, 1951.
- BERRY, JEWEL E. (1956) ..... *Biology*  
A.B., Fisk University, 1951; M.A., *ibid.*, 1953; Ph.D., Notre Dame University, 1956.
- BOULWARE, MARCUS H. (1955) ..... *English*  
A.B., Johnson C. Smith University, 1931; M.A., University of Michigan, 1936; Ph.D., University  
of Wisconsin, 1952; Workshop in Special Education, Wayne University, Summer 1954.
- BOWDEN, LEONARD L. (1953, 1956) ..... *Music*  
Mus.B., Chicago Conservatory, 1951; Mus.M., Los Angeles Conservatory of Music and Arts, 1956.
- BOWMAN, MRS. DOROTHY W. (1955) ..... *English*  
Certificate and Diploma, Mary Allen College, 1939; A.B., Allen University, 1949; M.S., South  
Carolina State College, 1954.
- BOYER, JACOB L. (1955) ..... *Cooking and Baking*  
B.S., Prairie View College, 1943; M.S., *ibid.*, 1947.
- BRANNON, MRS. MAIDA S. (1928, 1937, 1953, 1956) ..... *Dean,*  
*School of Nursing Education*  
Diploma in Nursing, Tuskegee Institute School of Nursing, 1923, Diploma in Education, Tuskegee  
Institute, 1925; B.S. in Nursing Education, University of Minnesota, 1949; University of Maryland,  
1952-53; M.A. in Nursing Education and Administration, Columbia University, 1956.
- BROOKINS, TERRY M. (1956) ..... *Business*  
B.A., Morehouse College, 1947; A.M., University of Pennsylvania, 1949; New York University  
Summers 1953, 1955.
- BROWN, JONEL LEONORD (1943) ..... *Head, Department of*  
*Economics, Director of Extra Mural Services*  
B.A., Morehouse College, 1930; M.A., University of Wisconsin, 1942; Ph.D., *ibid.*, 1946
- BURDINE, MISS DOROTHY I. (1933, 1938) ..... *Education*  
A.B., Colorado State College of Education, 1927; A.M., *ibid.*, 1933; University of Denver, Summer  
1936, 1942, 1947, 1951.
- \*BURRELL, MONTRUST Q. (1956) ..... *Mechanical Engineering*  
B.S., in M.E., Howard University, 1951.
- BYRD, L. L. .... *College Science*  
B.S., Tuskegee Institute, 1949; M.A., New York University, 1955.
- CAMPBELL, MISS ANNE LUCILLE (1932) ..... *Head, Department of English*  
B.A., Bradley University, 1930; M.A., Northwestern University, 1935; Ph.D., New York  
University, 1956.

\*Part Year

- CARTER, PURVIS M. (1956) ..... *History*  
A.B., Tillotson College, 1948; M.A., Howard University, 1950; University of Denver, Summers 1954, 1955.
- CASH, WILLIAM LEVI, JR. (1953) ..... *Psychology*  
A.B., Fisk University, 1937; B.D., Oberlin Graduate School of Theology 1940; S.T.M., *ibid.*, 1950; A.M., University of Michigan, 1952; Ph.D., *ibid.*, 1954.
- CHANNEY, MISS AURELIA A. (1952) ..... *Education*  
B.S., Howard University, 1950; M.A., New York University, 1952.
- CHARLESTON, CUBE (1953) ..... *Printing*  
Certificate in Printing, Prairie View A. and M. College, 1951; Certificate in Printing, Mergenthaler School, 1953; Prairie View A. and M. College, 1956.
- CHURCHWELL, CHARLES DARRETT ..... *Library*  
B.S., Morehouse College, 1952; M.L.S., Atlanta University, 1953.
- CLEAVER, ARTHUR G. (1926) ..... *Broom and Mattress Making*  
Diploma, Prairie View State College 1911; Certificate, *ibid.*, 1911; Tuskegee Institute, Summer 1924.
- COLEMAN, ALVIN E. (1956) ..... *Biology*  
B.S., West Virginia State College, 1948; M.A., Michigan State University, 1955.
- \*COLEMAN, MRS. EMORIAL J. (1954) ..... *Child Development*  
B.S., Tillotson College 1949; M.S., Texas Southern University, 1953; University of Texas, 1954; Texas Southern University, 1956.
- COLEMAN, MRS. ZELIA S. (1947) ..... *Household Economics*  
B.S., Bishop College, 1930; B.S., Prairie View College, 1938; M.S., Kansas State College, 1943; University of Wisconsin, Summers 1948, 1949, 1950; University of California, Summer 1952; M.A., Prairie View A. and M. College, 1954; University of Pennsylvania, 1955; Ohio State University, 1956.
- COLLINS, EUGENE LOWELL (1953) ..... *Audio-Visual Education*  
A.B., Samuel Huston College, 1942; M.S., Boston University, 1953.
- COLLINS, LAWRENCE (1955) ..... *Architecture*  
B.A., Howard University, 1951; (Reg. Arch.).
- COLLINS, LIMONE CIRCE (1953) ..... *Biology*  
B.S., Prairie View University, 1947; M.S., *ibid.*, 1953; University of Texas Summers 1954, 1955, 1956.
- COLLINS, SAMUEL ROBERT (1949) ..... *Plumbing*  
B.S., Prairie View A. and M. College, 1949; M.S., *ibid.*, 1953.
- CORBETT, WILLIAM ULTON, *Captain, QMC, U.S.A.* (1954) ..... *Assistant Professor of Military Science and Tactics*  
B.S., Virginia State College, 1951.
- CORUTHERS, JOHN M. (1937) ..... *Agricultural Economics*  
B.S., Hampton Institute, 1925; M.S., University of Wisconsin, 1928; Ph.D., Cornell University, 1934; University of California, Summer 1954.
- COSS, MRS. CARRIE BELL (1946) ..... *Psychology*  
A.B., Howard University, 1926; B.E., University of Cincinnati, 1927; M.A., Columbia University, 1940; University of Texas, Summer 1955.
- \*COURSEY, BURNETT B. (1957) ..... *Economics*  
B.A., Prairie View A. and M., 1954; *ibid.*, 1956
- CULLINS, MISS ELLA WEBB (1942) ..... *Music*  
B.A., in Music, Philander Smith College, 1940; M.A., in Music, Boston University, 1942; University of Michigan, Summers 1945, 1948, 1949; Boston University 1953.
- DARNELL, MISS EMMA I. (1956) ..... *Education*  
B.A., Fisk University, 1953; M.A., Columbia University, 1955.
- DAVIS, ROBERT L. (1949) ..... *Ornamental Horticulture*  
B.S., Virginia State College, 1942; M.S., University of Wisconsin, 1949; Cornell University, 1953-54; Iowa State College, Summer 1955, 1955-56.
- DAVIS, SAMUEL WALTER (1948) ..... *Education*  
B.S., Southern Illinois Normal University, 1941; M.S., Loyola University, 1948; University of Chicago, Summers 1948, 1949, 1950, 1951-52.

\*Part Year

- DICKEY, MRS. MARY C. (1956) ..... *Clothing and Related Art*  
 B.S. in Home Economics, Texas College, 1946; Ohio State University, 1948; M.S. in Home Economics, University of Minnesota, 1952.
- DIXON, MRS. VITTORIA B. (1947, 1955) ..... *English*  
 B.A., Prairie View College, 1943; M.A., *ibid.*, 1944; New York University, Summer 1955; Trinity University, Summer 1956.
- DOOLEY, THOMAS P. (1934) ..... *Dean, School of Arts and Sciences*  
 B.A., Morehouse College, 1927; M.S., University of Iowa, 1931; Ph.D., *ibid.*, 1939.
- DOTSON, MRS. AZORES O. (1956) ..... *English*  
 B.A., Wiley College, 1934; *ibid.*, Summers 1950, 1951, 1952, 1953; Grambling College, 1954; Wiley College, 1955.
- DREW, JESSE MONROE (1943) ..... *Dean of College, Dean of Graduate School*  
 B.S., Lincoln University, 1929; M.S., Kansas University, 1939; Ed.D., Harvard University 1944.
- DUNSON, ALVIS A. (1954) ..... *Head, Department of Modern Foreign Languages*  
 A.B., Morehouse College, 1929; M.A., Columbia University, 1934; Certificate, University of Berlin, 1937; Ph.D., Ohio State University, 1954.
- DURHAM, MISS ELIZABETH (1954) ..... *Nutrition Education*  
 B.S. in Home Economics Education, Virginia State College, 1942; M.S. in Home Economics Education, 1943; Ph.D., in Human Nutrition, Pennsylvania State University, 1948.
- EASON, OSCAR (1952) ..... *Automotive Science*  
 B.A., Paul Quinn College, 1951; Prairie View A. and M. College, 1955-56.
- ECHOLS, JACK W. (1954) ..... *Education*  
 B.S., Prairie View College, 1943; M.S., *ibid.*, 1951; Ed.D., University of Denver, 1954.
- ENGRAM, LEWIS W. (1948) ..... *Dairy Husbandry*  
 B.S., Hampton Institute, 1940; M. S., Michigan State College, 1946; University of Minnesota, Summer 1956.
- \*FINLEY, SETH D., MAJOR, INFANTRY, U.S.A. (1956) ..... *Assistant Professor of Military Science and Tactics*  
 B.S., Western Michigan College, 1942.
- FOREMAN, MISS PEARL E. (1942) ..... *Home Management and Clothing*  
 A.B. in Romance Languages, Howard University, 1935; B.S. in General Home Economics, Columbia University, 1938; M.A. in Home Economics, *ibid.*, 1939; University of California at Los Angeles Summer, 1946; Columbia University, Summer 1951; Michigan State University, Summers 1955, 1956.
- FRANCIS, LUTHER (1950) ..... *General Engineering*  
 B.S., Prairie View A. and M. College, 1950; M.A., *ibid.*, 1952.
- \*FRY, FRANCIS G. (1920) ..... *Electrical Engineering*  
 B.S., E. E. Kansas State College, 1929.
- GALLOWAY, MRS. ELIZABETH C. MAY (1923) ..... *Dean, School of Home Economics*  
 B.S., Kansas State College, Summer 1919; M.S., *ibid.*, 1933; University of Chicago, 1930; University of Minnesota, 1938-39; University of California at Berkeley, 1946; Iowa State College, 1949.
- \*\*FRY, FRANCIS G. (1920) ..... *Electrical Engineering*  
 B.S., in Commerce, Emporia Teachers College, 1936; M.S., in Commerce, *ibid.*, 1951; Gregg Workshop, Northwestern University, Summer 1956.
- GARRETT, CONNALLY SHELTON (1948) ..... *Music*  
 B. A., Prairie View State College, 1943; M. Music, New England Conservatory of Music, 1948; Harvard University, Summers 1949, 1950, 1951, 1952; Eastman School of Music, Summer 1954.
- GLENN, KENNETH M. (1954) ..... *Acting Chairman, Physics Section*  
 B.S., Kansas State Teachers College, 1938; Electronic Institute, Inc. 1952-53, 1953-54; Kansas State Teachers College, Summer 1955.
- GLENN, MILTON A. (1952) ..... *Woodwork*  
 B.S., Kansas State Teachers College, 1950.
- GLOVER, ISRAEL E. (1955) ..... *Acting Head, Department of Mathematics*  
 B.S., Johnson C. Smith, 1935; M.A., University of Michigan, 1937; *ibid.*, 1937-38, 1939-40, Summer 1940; Oklahoma A. and M. College, 1952-53, Summer 1953, 1954-55.
- GOODSPEED, MRS. LUCY D. (1956) ..... *English*  
 B.A., Prairie View A. and M. College, 1954; *ibid.*, Summer 1956.

\*Part Year  
 \*\* On Leave



- GRAHAM, FREDERICK MITCHELL (1950) ..... *Civil Engineering*  
 B.S. in C.E., Iowa State College, 1948; M.S., *ibid.*, 1950.
- GRAY, BRUCY C. (1956) ..... *Mathematics*  
 B.S., Prairie View A. and M. College, 1956.
- GREAU, AUSTIN E. (1951) ..... *Architecture*  
 B.A., The Catholic University of America, 1950; *ibid.*, 1950, 1951.
- HALL, GENE E. (1956) ..... *Carpentry*  
 Certificate in Carpentry, Langston University, 1953; *ibid.*, 1955-56...
- HAMPTON, JOE W. (1956) ..... *Biology*  
 B.S., Prairie View A. and M. College, 1952; University of Kansas, 1954-55, 1955-56.
- HARDEN, MISS HILDA (1955) ..... *English*  
 B.A., Bishop College, 1935; M. of El. Ed., *ibid.*, 1953; Denver University, Summer 1956.
- HARRIS, MRS. MINNIE J. (1955) ..... *Physical Education*  
 B.S., Prairie View A. and M. College, 1953.
- HATCHER, MISS LORRAINE W. (1954) ..... *Physical Education*  
 B.S., of Ed. Lincoln University, 1954; University of Wisconsin, Summer 1955, 1956.
- HAUGHTON, FRANK A. (1955) ..... *Economics*  
 B.A., Iowa University, 1949; M.A., *ibid.*, 1951; *ibid.*, Summers 1951, 1954; 1954-55, Summer 1955.
- HAZEL, DAVID WILLIAM (1953) ..... *Social Science*  
 A.B., Tufts College, 1943; M.Ed., Boston University, 1946; University of Michigan, 1947-48, 1948-49, 1955-56.
- HENRY, EDGAR GEORGE (1946) ..... *Mathematics*  
 B.A., Prairie View A. and M. College 1931, *ibid.*, 1943-44 1944-45, 1945-46 1946-47; Texas Southern University, Summer 1954; Prairie View A. and M. College, Summer 1955.
- HENRY, MARION (1956) ..... *Photography and Leather Craft*  
 B.S., Southern University, 1952; M.S., Bradley University, 1953.
- \*HIGGS, MRS. OLIVETTE JACKSON (1956) ..... *Romance Languages*  
 B.A., Arkansas A. M. and N. College, 1954; M.A., Atlanta University, 1956.
- HILL, DONALD T. (1956) ..... *Physical Education*  
 B.S., Lincoln University, 1952; M.Ed., Missouri University, 1955; Lincoln University, Summer 1956.
- HILL, JESSE LEON (1945) ..... *Tailoring*  
 B.S., Prairie View College, 1940; Colorado A. and M. College, Summer 1948; Prairie View College, 1949.
- HOLLEY, THOMAS L. (1945) ..... *Industrial Education*  
 B.S., Prairie View College, 1930; B.S., *ibid.*, 1931; M.E., Colorado A. and M. College, 1947; University of Texas, 1949.
- \*HOLT, ELOIS M. (1956) ..... *Nursing Education*  
 Diploma, B.S., in Nursing, Dillard University, 1949; M.A., in Nursing Education, New York University, 1956.
- HOOD, MISS WILLA (1954) ..... *Romance Languages*  
 A.B., Tillotson College, 1939; M.A., National University of Mexico, 1949; Columbia University Teachers College, 1953-54; *ibid.*, Summers, 1954, 1955, 1956.
- HOUSTON, HASKELL S. (1942) ..... *General Engineering*  
 B.S., Prairie View College, 1933; Brooklyn Polytechnic Institute, Summer 1948; Illinois Institute of Technology, Summers 1950, 1951, 1952, 1953.
- HUBBARD, MISS VIVIAN (1955) ..... *Cooking and Baking*  
 B.S., Prairie View A. and M. College, 1952; *ibid.*, Summer 1955.
- HUNT, MRS. DELIA M. (1947) ..... *Clothing*  
 B.S., Prairie View College, 1935; Kansas State College Summers 1936, 1937; M.S., *ibid.*, 1945; University of California, Spring Quarter and Summer 1946; Traphagen School of Fashion, 1951 Colorado A. and M. College, Summer 1954.
- HUNT, MISS GRACE E. (1954) ..... *English*  
 A.B., Boston University, 1941; M.A., University of Michigan, 1948; Columbia University, Summers 1951, 1952.
- HUNT, KENNETH D. (1956) ..... *English*  
 B.A., Prairie View A. and M. College, 1956.

\*Part Year

- HYNES, MRS. ROSE E. (1955).....*Nursing Education and Nursing Service*  
Diploma, Provident Hospital, Baltimore, Maryland 1954; B.A., in Biology, Philander Smith  
College, 1942.
- JACKSON, BROADUS B. (1956).....*History*  
A.B., Fisk University, 1949, Indiana University, 1954-55, 1955-56.
- JACKSON, EUGENE G. (1955).....*Driver Education*  
B.S., Kansas State Teachers College, 1954; M.S., *ibid.*, 1955; Certificate in Driver Education  
*ibid.*, 1955; Certificate in Advanced Driver Education, Oklahoma A. and M. College, 1955.
- JACKSON, MISS MARLENE D. (1955).....*Business*  
B.S., Hampton Institute, 1954; M.A., Columbia University, 1955..
- JOHNSON, E. J. (1927).....*Automotive Science*  
Certificate, Prairie View College, 1919.
- JOHNSON, MISS FREDDIE LEATRICE (1953).....*Foods and Nutrition*  
B.S., Tennessee A. and I. College, 1943; M.A., Columbia University, Second Semester 1952-53;  
Iowa State College, Summer 1956.
- JOHNSON, NORMAN J. (1956).....*Physical Education*  
A.B., Kentucky State College, 1941; M.A., University of Michigan, 1947; *ibid.*, 1947-48, Second  
Semester 1949, Summers 1948, 1950, 1952, 1953.
- JOHNSON, TOBE (1956).....*Political Science*  
A..B., Morehouse College, 1954; Columbia University, 1956.
- JONES, EARL K. (1954).....*Chemistry*  
B.S. Knoxville College, 1937; M.S., Virginia State College 1949; Ohio State University, Summer  
1952, 1953.
- JONES, HERMAN T. (1947).....*Principal, Prairie View  
Training School, Education*  
A.B., University of Kansas, 1931; A..M., *ibid.*, 1933; *ibid.*, 1946.
- JONES, JOHN WILLIAM THOMPSON (1956).....*History and Philosophy*  
A.B., Ohio State University, 1950; M.A., *ibid.*, 1951; *ibid.*, Summer 1956.
- JONES, JULIUS BERTRAM (1951).....*Music*  
B.S., Ithaca College, 1931; Kansas University, 1948; University of Kansas, Summer 1955.
- JONES, ROBERT E. (1956).....*Mathematics*  
B.S., Huston-Tillotson College, 1955; University of Texas, 1955-56, Summer 1956.
- JORDAN, MISS KATHRYN NELL (1951).....*Music*  
B.A., Langston University, 1945; Northwestern University, Summers 1946, 1947; M.A., State  
University of Iowa, 1949; *ibid.*, Summer 1956.
- KELLY, GEORGE E. (1955).....*Electrical Engineering*  
B.S. in E.E., Prairie View A. & M. College, 1953; M.S., University of Texas, 1955.
- KIRKWOOD, JAMES IRVIN (1953).....*Agronomy*  
B.S., Kansas State College, 1952; M.S., *ibid.*, 1953.
- KROUSE, JOHN PHILLIP (1954).....*Industrial Education*  
B.S., Tuskegee Institute, 1938; M.A., New York University, 1953.
- KYNARD, ALFRED TENNYSON (1953).....*Brick Masonry*  
B.S., Hampton Institute, 1950; M.A., New York University, 1951.
- LEDBETTER, MRS. FRANKIE B. (1952).....*English*  
A.B., Bishop College, 1935; M.A., University of Colorado, 1952; *ibid.*, Summers 1952, 1953.
- LEE, MRS. ELOISE B. (1955).....*Home Economics Education*  
B.S., in Home Economics, Prairie View College, 1945; M.S. in Home Economics Education, Kan-  
sas State College, 1951; Colorado A. and M. College, Summer 1956.
- LEWIS EARL M. (1953).....*Head, Department of Political Science*  
A.B., Tougaloo College, 1942; A.M., Loyola University, 1948; Ph.D., University of Chicago, 1951.
- LEWIS, ROSCOE W. (1955).....*Poultry Husbandry*  
B.S., Prairie View College, 1939; M.S., Kansas State College, 1952; Ph.D. *ibid.*, 1955.
- \*LOCKETT, JAMES D. (1956).....*Library Service Education*  
B.A., Morehouse College, 1955; Atlanta University, 1956.

\*Part Year

- McCULLOUGH, MRS. ROSA L. (1954) ..... *Mathematics*  
 B.S., Johnson C. Smith University 1943; M.A., Columbia University, 1946; Columbia University  
 Teachers College, Summers 1947, 1948, 1950.
- McDUFFIE, MISS GWENDOLYN D. (1955) ..... *Business*  
 B.S., Hampton Institute, 1941; M.B.A., University of Chicago, 1948; New York University, Summer  
 1950; University of Southern California, Summer 1951; Ohio State University, 1953-54.
- McGHEE, LARRY C. (1956) ..... *Mechanical Drawing*  
 B.S. in Ind. Ed., Southern University, 1955.
- \*McKINNIS, HUGH L. (1950) ..... *Physical Education*  
 B.S., Indiana University, 1949; M.S., *ibid.*, 1950.
- McLURE, MISS CATHERINE D. (1955) ..... *Music*  
 B.M.Ed., Howard University, 1953; M.A., Columbia University, 1954; *ibid.*, Summer 1955.
- \*McNAIR, JAMES EADES (1956) ..... *Library Service Education*  
 B.S., Tuskegee Institute, 1953; M.Ed., *ibid.*, 1955.
- MACK, WILBUR OLLIO (1953) ..... *Agricultural Engineering*  
 B.S., Langston University, 1947; M.S., Oklahoma A. and M. College, 1954; (Reg. Prof. Engr.)
- MARSHALL, MISS LOLLIE Z. (1956) ..... *Nursing Education*  
 B.A. in Zoology, University of Michigan, 1954; *ibid.*, Second Semester 1954; Summers 1954, 1955,  
 Fall Semester 1955.
- MARTIN, DANIEL W. (1919) ..... *Electricity*  
 B.S., Prairie View College, 1928; Kansas State Teachers College, Summer 1933; Prairie View  
 College, Summers 1940, 1941.
- MARTIN, EDWARD W. (1952) ..... *Biology*  
 B.A., Fisk University, 1950; M.A., Indiana University, 1952; State University of Iowa, Summers  
 1954, 1955, 1956.
- MARTIN, MRS. EUNELL S. (1956) ..... *Education*  
 B.S., Prairie View A. and M. College, 1951; M.S., *ibid.*, 1956.
- MAXWELL, MORGAN (1956) ..... *Business Administration*  
 B.S. in Business Administration, University of Arizona, 1950; M.B.A., University of Southern  
 California, 1955; New York University, 1955, Summer 1956.
- MAZYCK, HAROLD E., JR. (1952) ..... *Education*  
 B.S., South Carolina State College, 1944; M.A., New York University, 1948; *ibid.*, Spring Semester  
 1948, Summers 1948, 1951; Western Reserve University, Summer 1951; New York University,  
 Summer 1955.
- MITCHELL, MISS HARRIET L. (1956) ..... *Political Science*  
 A.B., Spelman College, 1949; M.A., Atlanta University, 1952; Columbia University, Summer 1952;  
 John Hopkins University Summer 1954.
- MITCHELL, LUTHER J. (1950) ..... *Radio and Television*  
 B.S., Prairie View A. and M. College, 1950; Milwaukee School of Engineering, Summer 1951.
- MONTGOMERY, ALPHONSO C., CAPTAIN, U.S.A. (1953) .... *Assistant Professor of Military  
 Science and Tactics*  
 B.S., Prairie View A. and M. College, 1948.
- MONTGOMERY, CHARLES H. (1956) ..... *Chemistry*  
 B.S., Prairie View A. and M. College, 1948; M.S., *ibid.*, 1954; University of Texas 1954.
- \*MOORE, LEROY G., JR., (1956) ..... *Physical Education*  
 B.S., Langston University, 1948; M.S., Colorado State College of Education, 1949; *ibid.*, Summers  
 1950, 1951.
- MOZEE, TALLIE (1954) ..... *Music*  
 B.S., Langston University, 1950; M.A., State University of Iowa, 1954.
- NEAL, ROBERT B. (1954) ..... *Dry Cleaning*  
 B.S., Prairie View A. and M. College, 1952.
- NICHOLAS, CHARLES HAWKINS (1943) ..... *Chairman, Biology Section  
 Natural Science Department*  
 A.B., Talladega College, 1930; M.S., University of Michigan, 1939; Columbia University, Summer  
 1934; Atlanta University Workshop, Summer 1941; Chicago University, Summers 1947, 1948-49  
 Summers 1948, 1949.

\*Part Year

- NICKS, WILLIAM JAMES (1945).....*Head, Department of Physical Education and  
Director of Athletics*  
A.B., Morris Brown College, 1928; M.A., Columbia University, 1941.
- NORRIS, ERNEST MISHAEL (1927-28, 1937-45, 1946).....*Agricultural Education*  
B.S., Prairie View State College 1927; M.S., Cornell University, 1931; Ph.D., *ibid.*, 1934.
- O'BANION ELMER E. (1939, 1952) .....*Head, Department of Natural Sciences  
Chairman, Chemistry Section*  
A.B., Indiana University, 1934; M.A., *ibid.*, 1935; Ph.D., *ibid.*, 1942; Oakridge Institute of  
Nuclear Studies, 1950.
- OWENS, EMIEL W. (1948, 1952).....*Horticulture*  
B.S., Prairie View A. & M. College, 1947; M.S., *ibid.*, 1948; Ph.D., Ohio State University,  
1952; Case Institute of Technology, Summer 1955.
- OWENS, MISS WILLIE (1956)..... *Physical Education*  
B.S., Tillotson College, 1944; Xavier University, 1953-54, 1954-55.
- PAGE, MISS INDIANA (1956).....*Physical Education*  
B.S., Lincoln University, 1954; State University of Iowa, 1955-56..
- PENDERGRAFF, MRS. LOIS B. (1951).....*Home Economics Education*  
B.S., Prairie View College, 1931; M.S., *ibid.*, 1942; *ibid.*, Summers 1951, 1952, 1953, 1954; Uni-  
versity of California, Summer 1955; Colorado A. and M. College, Summer 1956.
- \*PERKINS, LEE E. (1954).....*Geography*  
B.A., Prairie View College, 1936; University of Michigan, 1937-38, M.A., *ibid.*, 1951; Columbia  
University, Summer 1952; University of Denver, 1955-56.
- PERKINS, MISS MADONNA (1956).....*Sociology*  
B.S., Indiana University, 1949; M.S., *ibid.*, 1950.
- PETERSON, ALANDRUS A. (1956).....*Dry Cleaning*  
B.S., Prairie View A. and M. College, 1952.
- PHILLIP, LEE C. (1932).....*History and Philosophy,  
College Chaplain*  
B.S., Prairie View State College, 1928; B.D., Howard University, 1931; Union Theological Sem-  
inary 1931-32; M.A., Howard University, 1939.
- POINDEXTER, ALFRED N. (1945).....*Veterinary Medicine*  
D.V.M., Kansas State College, 1945.
- POWELL, JOHN R. (1951).....*Agricultural Education*  
B.S., Prairie View College, 1937; M.S., *ibid.*, 1948...
- PRESTON, MRS. ANNE C. (1933-44, 1945).....*Education*  
B.S. in Elementary Education, Virginia State College, 1931; M.A., Columbia University, 1932;  
Certificate in Curriculum and Teaching, 1939; Denver University, Summer 1946; Temple Uni-  
versity, 1951.
- PRICE, RICHARD L. (1956) .....*Mathematics*  
B.S., Prairie View A. and M. College, 1955; University of Texas, 1955-56, Summer 1956.
- RAGLAND, GEORGE R. (1955).....*Head, Department of Sociology and  
Social Service*  
B.S., Langston University, 1938; M.A., State University of Iowa, 1939; Ph.D., *ibid.*, 1953.
- RANDALL, ALBERT W. (1923).....*Mathematics*  
B.S., Alcorn A. and M. College, 1916; A.M., University of Colorado, 1929; *ibid.*, Summers 1929,  
1937, 1940; State University of Iowa, Summer 1934; Ohio State University, Summer 1945.
- RANDOLPH, JAMES B. (1956).....*English*  
B.S., Florida A. and M. University, 1950; M. A., Western Reserve University, 1951; Karamu  
Theatre, 1950-51.
- RAYFORD, ROBERT WILLIE (1950).....*Dry Cleaning*  
B.S., Prairie View A. and M. College, 1947; *ibid.*, 1951-52.
- REID, WILLIAM E. (1954).....*Chemistry*  
B.S., North Carolina A. & T. College, 1944; M.S., North Carolina College, 1953.
- RETTIG, EOLUS V. (1953).....*Physical Education*  
B.S., Wilberforce University, 1934; M.S., Prairie View A. and M. College, 1953.
- RICHARDSON, MISS ROSALYN C. (1955).....*Romance Languages*  
A.B., Shaw University, 1944; M.A., University of Iowa, 1948; University of Havana, 1955; New  
York University, Second Semester 1955, Summer 1956.

\*Part Year

- ROY, CAESAR A. (1956)..... *College Science, Chemistry*  
B.S., Prairie View A. and M. College, 1954; *ibid.*, Summer 1956.
- SEWELL, MISS PEARL EVELYN (1953)..... *Art Education*  
B.A., Howard University, 1951; M.A., *ibid.*, 1953.
- SINKLER, GEORGE (1955)..... *History*  
A.B., Augustana College, 1953; M.A., Teachers College, Columbia University, 1954.
- \*\*SMITH, GEORGE L. (1931)..... *Dean, School of Agriculture*  
B.S., Hampton Institute, 1929; M.S., Kansas State College, 1941; *ibid.*, 1940-41.
- SMITH, HUBERT D. (1952)..... *English*  
B.A., Texas Southern University, 1948; M.A., New York University, 1952.
- SMITH, JAMES D. (1956)..... *Art Education*  
B.A., Southern University, 1952; M.F.A., University of Southern California, 1956.
- SMITH, LA VON E., MAJOR U.S.A. (1956)..... *Assistant Professor of Military Science and Tactics*  
B.S., Samuel Huston College, 1939.
- SMITH, MRS. LUCILLE B. (1953)..... *Cooking and Baking*  
Certificate in Cooking and Baking, Prairie View A. and M. College, 1939; Colorado State College, Summer 1939; Frank Wiggins Trade School, 1956.
- SMITH, OLIVER EMMITT (1949)..... *Agronomy*  
B.S., Prairie View A. and M. College, 1947; M.S., University of Nebraska, 1949.
- SMITH, ROBERT, JR., (1955)..... *Metal Work*  
B.S., New York State University, 1954; M.S., *ibid.*, 1955; San Francisco State Teachers College, Summer 1956.
- SOLOMON, THOMAS R. (1939)..... *Political Science*  
A.B., Wayne University, 1929; M.S., *ibid.*, 1933; Ph.D., University of Michigan, 1939.
- \*SOULDS, EDWARD H. CAPTAIN, INFANTRY, U.S.A. (1957)..... *Assistant Professor of Military Science and Tactics*  
B.A., San Jose State College, 1952.
- SPALDING, SYDNEY W. (1944)..... *English*  
A.B., Eureka College, 1929; A.M., University of Illinois, 1930; University of Michigan, 1933-34, 1937-38, 1938-39, *ibid.*, 1951; University of Colorado, Summer 1955.
- STARKS, MRS. BERTHA C. (1956)..... *Business Administration*  
B.S., Prairie View A. and M. College, 1956.
- STEWART, A. D. (1954)..... *Mathematics*  
A.B., Howard University, 1940; M.S., *ibid.*, 1949; University of Wisconsin, 1951-52, 1952-53, 1953-54.
- STICKNEY, WILLIAM H. (1945)..... *Printing*  
Diploma and Certificate in Printing, Alabama Agricultural and Mechanical Institute, 1924; Mergenthaler Linotype School, Summer 1925; Colorado State College, Summer 1931; Carnegie Institute of Technology, Summer 1933, 1934-35.
- STOKES, MISS CARRIE D. (1956)..... *Business*  
A.B., Morris Brown College, 1955; M.A., New York University, 1956.
- STORY, MRS. MARY BURTON (1952)..... *Business*  
B.S., Lincoln University, 1947; M.A., University of Southern California, 1952.
- STUBBLEFIELD, CEDRIC T. (1954)..... *Chemistry*  
B.S., Texas Southern University, 1942; M.S., Prairie View A. and M. College, 1947; Ph.D., State University of Iowa, 1954.
- TATUM, CHARLES E. (1953, 1956)..... *Economics*  
B.A., Prairie View A. and M. College, 1952; M.Ed., *ibid.*, 1953...
- TAYLOR, HAROLD (1955)..... *Chemistry*  
B.S., Prairie View A. and M. College, 1953.
- TAYLOR, MRS. JIMMIZINE B. (1945)..... *Library Service Education*  
B.A., Arkansas State College, 1940; B.L.S. Atlanta University, 1943.
- TEELE, ARTHUR E. (1954)..... *Chairman Department of Education*  
A.B., North Carolina College, 1934; A.M., Cornell University, 1941; Ph.D., *ibid.*, 1953.

\* Part Year  
\*\* On Leave

- THOMAS, ALVIN IGNANCE (1949) ..... *Director, Industrial Education Division*  
B.S., Kansas State Teachers College, 1948; M.S., *ibid.*, 1949; Pennsylvania State College, Summer 1951; Ohio State University, 1951-52, 1955-56.
- THOMAS, ELTON R. (1955) ..... *Teacher-Trainer, Trade and Industrial Education*  
B.S., Tuskegee Institute, 1941.
- THOMPSON, CHARLES E. (1953) ..... *Shoe Repair and Leatherwork*  
B.S., Tuskegee Institute, 1953..
- TINKER, WARREN HARDING (1953) ..... *Electrical Engineering*  
B.S. in E. E. Kansas State College, 1953.
- TOLSON, MELVIN BEAUNORUS, JR. (1946) ..... *Romance Languages*  
B.S., Wilcy College, 1942; B.D., Gammon Theological Seminary, 1946; M.A., Oklahoma A. and M. College, 1950; Diplome'de-la Litterature Francaise Contemporaine, University of Paris, 1955-56.
- VON CHARLTON, RUDOLPH EVERETT (1942) ..... *Head, Department of Music*  
B.S., Hampton Institute, 1931; M.Mus., University of Michigan, 1939; Ph.D., Columbia University, 1948.
- WARD, CLIFFORD LOUDIN (1951) ..... *Biology*  
B.S., Ohio State University, 1935; M.S., *ibid.*, 1936, *ibid.*, 1936-37, 1937-38, Summers 1948, 1949, 1951; Cornell University Workshop, Summer 1956.
- WEATHERSPOON, LINDSEY (1953) ..... *Animal Husbandry*  
B.S., Georgia State College,, 1948; M.S., Kansas State College, 1953.
- WEEMS, CARL C. (1954) ..... *Education*  
A.B., Fisk University, 1938; M.A., Arizona State College, 1949.
- WHITE, DON L. (1955) ..... *Music*  
A.A., Los Angeles City College, 1950; A.B., Los Angeles State College, 1952; University of Southern California 1954, 1955, Summer 1956.
- \*WILLIAMS, CLEVELAND A. (1955) ..... *Political Science*  
B.A., St. Michael's College, 1954; M.A., University of Chicago, 1955.
- WILLIAMS, ERNEST P. (1953) ..... *English*  
A.B., Moorehouse College, 1950; M.A., State University of Iowa, 1952.
- WILLIAMS, JAMES D. (1954) ..... *Mathematics*  
A.B., Tillotson College, 1948; University of California, Summer 1953; Prairie View A. and M. College, Summer 1955..
- WILLIAMS, JOHN CALVIN (1940) ..... *Acting Dean, School of Agriculture,  
Superintendent, Agricultural Experiment Station*  
B.S., Hampton Institute, 1932; M.S., Kansas State College, 1940; *ibid.*, 1948-49, Summer 1949.
- \*WILLIAMS, LEO P. (1954) ..... *Electrical Engineering*  
B.S. in E. E. University of Illinois, 1950; M.S., *ibid.*, 1953; (Reg. Prof. Engr.).
- WILLIAMS, MISS WILLIE ANN (1956) ..... *Nursing Education*  
Diploma, Meharry Medical College, 1944; B.S. P.H. Nursing, Michigan University, 1954.
- WILSON, CLAUDE L. (1925) ..... *Dean, School of Engineering*  
B.S. in M.E., Kansas State College, 1925; M.E., *ibid.*, 1929; M.S., *ibid.*, 1933; Michigan State College, Summer 1951; University of Minnesota, Summer 1956; (Reg. Prof. Engr.).
- WILSON, JESSE M. (1931) ..... *Tailoring*  
Certificate, Tuskegee Institute, 1927; Certificate, Master Designer's School of Designing, 1934; B.S., Kansas State Teachers College, 1941.
- WOOD, CURTIS A. (1947, 1954) ..... *Health Education*  
A.B., Knoxville College, 1938; M.A., Columbia University, 1946; Ed.D., Teachers College, Columbia University, 1956.
- WOODS, JOHNNIE J. (1945) ..... *Poultry Husbandry*  
B.S., Prairie View State College, 1938; *ibid.*, 1944; M.S., Kansas State College, 1948; Ohio State University, Summer 1956
- WOOLFOLK, GEORGE RUBLE (1943) ..... *Head, Department of History*  
B.A., Louisville Municipal College, 1937; M.A., Ohio State University, 1938; Ph.D., University of Wisconsin, 1947.
- WRIGHT, THOMAS H., LIEUTENANT COLONEL, U.S.A. (1955) ..... *Professor of Military  
Science and Tactics*  
B.S., Wilberforce. University, 1936.
- WYNDON, MRS. LORETTA P. (1955) ..... *Nursing Education*  
Diploma, Prairic View A. and M. College, 1954; B.S., *ibid.*, 1955.

\* Part Year

## RETIRED FACULTY MEMBERS

- ANDERSON, PIERCE ..... *Metal Work*
- BANKS, WILLETTE R. .... *History, Education*  
A.B., Atlanta University 1909; A.M., *ibid.* 1927.
- BUCHANAN, G. W. .... *Mathematics, Science*  
B.S., Prairie View Normal and Industrial College, 1914.
- CARPENTER, CHARLES E. .... *French*  
B.L., University of California, 1901; M.L., *ibid.*, 1908; Kansas State Teachers College, Summers 1923, 1925; University of Kansas, Summer 1932; University of Iowa, Summers 1935, 1937, Fall Semester 1940-41.
- JONES, N. A. .... *Machine Shop Practice*  
Langston University, 1910, 1918, 1920, 1929; Kansas State Teachers College, 1933.

## COOPERATIVE EXTENSION SERVICE

Prairie View A. & M. College has as one of its divisions, Agricultural Extension Service. The headquarters of this division is located on the campus of the college. At the present time 104 county agents are working in 61 counties. The function of this department is to give agricultural and homemaking information to rural people who are not attending college and to encourage application of this information.

## HEADQUARTERS STAFF

- W. C. DAVID ..... *State Leader*  
Graduate in Agriculture, Prairie View State Normal and Industrial College, 1917; B.S., Howard University, 1924; Prairie View State College, Summers 1939, 1941..
- MARSHALL V. BROWN ..... *Administrative Assistant*  
B.S., in Agriculture, 1931; Prairie College, Summers 1941, 1942; *ibid.*, 1942-43, and 1952.
- ALTON E. ADAMS ..... *State Agent in Farm and Home Development*  
B.S., in Agriculture, 1931; Prairie View State College..
- MRS. PAULINE R. BROWN ..... *Supervisor of Negro Home Demonstration Work  
And District Home Demonstration Agent*  
B.S. in Home Economics, Prairie View State College, 1931; M.S., *ibid.*, 1949.
- W. B. CLARK, JR., ..... *District Agent*  
B.S. in Agriculture, 1934; Prairie View A. and M. College.
- MYRTLE E. GARRETT ..... *District Agent*  
B.S. in Home Economics, Prairie View College, 1938; M.S. *ibid.*, 1955.
- RUBEN A. SANDERS ..... *District Agent*  
B.S. in Agriculture, Prairie View A. & M. College, 1952.
- MRS. PARRYE WASHINGTON ROUTT ..... *Extension Secretary*  
B.A., Tillotson College, 1947; Summers, 1949, 1950, Texas College.
- MAURICE CARTER ..... *Extension Secretary*

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS

### OFFICE OF THE PROFESSOR OF MILITARY SCIENCE AND TACTICS

- THOMAS H. WRIGHT, B.S., *Lieutenant Colonel, Infantry, U.S.A.; PMS&T and  
Commandant, Reserve Officers Training Corps*
- LAVON E. SMITH, B.S., *Major, Artillery, U.S.A.; Assistant PMS&T and Executive*
- SETH D. FINDLEY, *Major, Infantry, U.S.A.; Assistant PMS&T*
- ALPHONSO C. MONTGOMERY, B.S., *Captain, Infantry, U.S.A.; Assistant PMS&T*
- WILLIAM U. CORBETT JR., B.S., *Captain, QMC, U.S.A.; Assistant PMS&T*
- KERMIT L. JONES, *Master Sergeant, U.S.A., Sergeant Major, Instructor*
- HARRISON O'NEAL, *Master Sergeant, U.S.A., Operations NCO, Instructor*
- ARTIS STEWART, *Master Sergeant, U.S.A., Operations NCO, Instructor*

ROBERT L. CALHOUN, *Sergeant First Class, U.S.A. Maintenance NCO, Instructor*  
 CHARLES H. DOWNIE, *Sergeant First Class, U.S.A. Instructor*  
 HUBERT H. EDISON, *Sergeant First Class, U.S.A. Instructor*  
 RANDOLPH G. PHILPOTTS, *Sergeant First Class, U.S.A. Supply NCO, Instructor*  
 EMMETT REESE, B.S., *Sergeant First Class, U.S.A. Instructor*  
 FRANK HEARD JR., *Specialist Second Class, U.S.A. Instructor*  
 EDWARD H. SOULDS, B.A., *Captain, Infantry, U.S.A. Instructor*

## ICA — LIBERIA PROJECT

The College has recently moved forward in a new area. Under a contract with the United States International Cooperation Administration, effective for four years beginning November 1, 1954, the College accepted the bold challenge of helping to develop and expand vocational education in Liberia, the only Negro Republic in West Africa.

Under this agreement, the College will help to strengthen the vocational education program of the Booker Washington Institute, a Liberian Government supported trades school, located at Kakata, Liberia.

In order to implement the Liberian Project, Prairie View A. & M. College will send a team of outstanding technicians to Liberia, each of whom will be chosen on the basis of demonstrated professional competence. During their two-year tours of duty, members of the Project's field staff will supervise activities in the area of vocational education, including: (1) building construction trades; (2) metal trades and motor mechanics; (3) arts, handicrafts, and crafts; (4) agricultural education; (5) clerical and secretarial sciences; and (6) special services.

### HOME STAFF

T. R. SOLOMON ..... *Project Manager*  
 A.B., Wayne University, 1929; M.S., *ibid.*, 1933; Ph.D., University of Michigan, 1939.  
 MORGAN MAXWELL ..... *Assistant Project Manager*  
 B.S., Business Administration, University of Arizona, 1950; M.B.A., University of Southern California, 1955; New York University, 1955-1956.  
 FANNIE B. WASHINGTON ..... *Secretary*

### FIELD STAFF

GEORGE L. SMITH ..... *Chief Adviser*  
 B.S., Hampton Institute, 1929; M.S., Kansas State College, 1941; *ibid.*, 1940-41.  
 DONALD F. WHITE ..... *Technician-Draftsman*  
 B.S., Architecture, University of Michigan, 1931; M.S., Architecture, *ibid.*, 1934.  
 MARK L. ANDREW, JR. ..... *Technician-Electrician*  
 B.S., Electrical Engineering, South Carolina State College, 1940; M.A., Vocational Education, New York University, 1951; Wayne University, Summer 1952.  
 WADDELL BURWELL ..... *Technician-Carpenter*  
 B.S., Mechanical Arts, West Virginia State College, 1949.  
 SAMUEL C. MCGHEE ..... *Technician-Plumber*  
 B.S., and Trade Diploma, Hampton Institute, 1942; M.A., Vocational Education, New York University, 1949; *ibid.*, Summers 1950, 1951, 1953, 1954, 1955.  
 WALTER B. WATKINS ..... *Administrative Assistant*  
 B.S., Hampton Institute, 1948.  
 WILLIAM HOSKINS ..... *Cabinetmaker*  
 Prairie View A. & M. College, 1932-1935.  
 MRS. JIMMIE D. FIELDS ..... *Technician-Secretarial Science*  
 B.S., Prairie View College, 1941; M.A., University of Denver, 1955.  
 SILAS W. CULLIN ..... *Technician-Auto Mechanics*  
 B.S., Tuskegee Institute, 1949.  
 FRANCIS G. FRY ..... *Technician-Communications*  
 B.S. in E. E. Kansas State College, 1929.  
 ERNEST K. SHAW ..... *Technician-Agriculture*  
 B.S., Tuskegee Institute, 1950; M.S., Rutgers University, 1955; *ibid.*, Summer, 1955.  
 GLEN L. EVANS ..... *Technician-Arts, Handicrafts and Crafts*  
 B.S., University of Wisconsin, 1939; M.S., *ibid.*, 1940; University of Southern California, Summer 1948.



## ALUMNI OFFICERS

### OFFICERS OF THE ASSOCIATION

#### EXECUTIVE COMMITTEE

- MRS. LULA WHITE, '28, Houston  
*President*
- E. E. CLEAVER, '38, Lufkin  
*First Vice-President*
- OLIVER SMITH, '47, Prairie View  
*Second Vice-President*
- L. C. MOSLEY, '29, Prairie View  
*Executive Secretary*
- FAYE' M. WELLS, '44, Port Arthur  
*Secretary*
- FLETCHER MORGAN, '41, Houston  
*Treasurer*
- GEORGE STAFFORD, '48, Freeville, N. Y.  
*Editor*

#### BOARD OF DIRECTORS

- I. T. HUNTER, '26, Tyler, *Chairman*  
Dentist
- T. L. HOLLEY, '30, San Antonio  
Trade and Industrial Education
- E. M. NORRIS, '27, Prairie View  
Educator
- LEE G. JOLLEY, '26, Austin  
Business Executive
- MRS. MABLE KILPATRICK, '31, Houston  
Educator
- T. D. ARMSTRONG, '29, Galveston  
Business Executive
- L. U. MASON, '39, Marshall  
Agriculture

The Alumni and Ex-students Association is functioning under a constitution which was revised in May 1950 and a state Charter issued in November 1950. The association was organized in 1901 and includes in its membership both graduates and former students. It is a member of the National Alumni Association, and the American Alumni Council. The voting privilege is restricted to those who have paid their dues and are classified as active members. Two meetings are held each year—one in the fall and one the day before Commencement in the spring. Election of officers is held in May by ballot. The association has as its main objective a program of cooperation with the College Administration for the constant improvement of Prairie View A. & M. College.

The Association sponsors, and has encouraged, the organization of local clubs throughout the state and in many of the large cities throughout the country. The office of the Alumni Association located in the Administration Building acts as a central clearing agency for all alumni business.

# ENROLLMENT

## REGULAR SESSION 1956-57

ABBREVIATIONS: Agric.—Agriculture; A&S—Arts and Sciences; H.E.—Home Economics; Engr.—Engineering; I.E.—Industrial Education; N.E.—Nursing Education.

SYMBOLS: 1—Freshman; 2—Sophomore; 3—Junior; 4—Senior; 5—Graduate; 6—Special; Uncl.—Unclassified.

Classification shown as of September 1956 Students of first semester (1); as of February 1957 for students attending second semester only (2) or both semesters.

Hometown located in Texas, unless otherwise designated.

Abbs, Eronia M; A&S-1.....	Port Arthur	Anderson, Gerrod; A&S-2.....	Fort Worth
Abercrombie, Eldora; H.E.-2.....	Waco	Anderson, Helen G.; N.E.-1.....	Houston
Abrom, Burlean E; A&S-1.....	Washington	Anderson, James; A&S-1.....	Dallas
Adams, Almaric; A&S-2.....	Houston	Anderson, Jewel D.; A&S-2.....	Jefferson
Adams, Ambrose D; I.E.-3.....	Weimar	Anderson, Joe Louis; A&S-1.....	Greggton
Adams, Amelia E; H.E.-3.....	Hugo	Anderson, Lillian M.; A&S-4.....	Wharton
Adams, Ardel Marie; A&S-3.....	Dallas	Anderson, Lillie M.; I.E.-2.....	Wharton
Adams, Charles R. (2); .....	Port Arthur..	Anderson, Otis; Engr.-2.....	Prairie View
Adams, John Q; I.E.-3.....	Jacksonville	Anderson, Rebecca J. (1); A&S-1 .....	Prairie View
Adams, John R; A&S-3.....	Port Arthur	Anderson, T. J. Jr.; A&S-1.....	Houston
Adams, Joyce L; A&S-1.....	Houston	Andres, Barbara F.; A&S-2.....	Port Arthur
Adams, Kenneth L; Engr.-1.....	Jasper	Andrews, Carolyn G.; A&S-1.....	Gilmer
Adams, Lucille A; N.E.-2.....	Galveston	Andrews, Evelyn G.; N.E.-2.....	Gilmer
Adams, Ruby Jean; A&S-1.....	Fort Worth	Andrews, Margaret; A&S-3.....	Gilmer
Adkins, Franceal; A&S-1.....	Dallas	Andrews, Quinters; A&S-2.....	Austin
Ainsworth, Charles H; A&S-4.....	Fort Worth	Anthony, Ceola; A&S-3.....	Dallas
Albert, Clyde; A&S-3.....	Houston	Appling, Earl; I.E.-1.....	Houston
Alberty, Curtis D; A&S-3.....	Honey Grove	Archie, Nathelyne A.; Engr.-2.....	Conroe
Alexander, Leslye A; A&S-3.....	Cleburne	Ardoin, Ella Louise; H.E.-3.....	Port Arthur
Alexander, Arthur E; A&S-3.....	Reagan	Armstrong, Audrey L.; N.E.-4.....	Houston
Alexander, Carl I.E.-1.....	Waller	Armstrong, Jimmie C.; H.E.-3.....	McGregor
Alexander, Catherine; N.E.-2.....	Houston	Armstrong, Lemuel; I.E.-1.....	Waelder
Alexander, Curtis D.; A&S-4.....	Flynn	Arterberry, Birta D.; A&S-4.....	Troup
Alexander, Daisy M.; A&S-2.....	Rockdale	Arthur, Alton V.; I.E.-5.....	Houston
Alexander Ernest R. I.E.-1.....	Waller	Atchison, Hettie J.; H.E.-1.....	Mount Pleasant
Alexander, Hattie M.; A&S-2.....	Waco	Atkins, Audrie M.; H.E.-2.....	Port Arthur
Alexander, Robert; A&S-2.....	Dallas	Austin, Aubrey Jean; A&S-1.....	Palestine
Alexander, Roosevelt; A&S-4.....	Oakland	Bacy, Marion; N.E.-1.....	Rockdale
Alexander, Walter L.; I.E.-3.....	Dallas	Bailey, Doris L.; A&S-1.....	Oklahoma City, Okla.
Alford, Ida B.; A&S-3.....	Corsicana	Bailey, Ernest A.; A&S-1.....	San Antonio
Alford, John Thomas; A&S-3.....	Hearne	Bailey, Robert E.; Engr.-3.....	Clarksville
Alfred, Lester J.; N.E.-2.....	Baytown	Baines, Earline E. V.; A&S-1.....	Sublime
Alfred, Evelyn; A&S-6.....	Baytown	Baker, Birdie Mae A&S-1.....	Bremond
Aliniece, Arlene; A&S-2.....	Bay City	Baker, Charles W.; A&S-4.....	Fort Worth
Aliniece, Lillie M.; A&S-3.....	Bay City	Baker, Daniel E.; A&S-4.....	Mexia
Allen, Albert E. (2); A&S-3.....	Galveston	Baker, Roscoe C.; I.E.-2.....	Hearne
Allen, Betty; H.E.-3.....	Dallas	Baker, Willa Jean; A&S-2.....	Wharton
Allen Billie Joe; I.E.-2.....	Waxahachie	Baldridge, Arlene D.; A&S-4.....	Bay City
Allen, Daisy E.; A&S-3.....	Houston	Baldwin, Betty J.; A&S-1.....	Houston
Allen, Jo Ann; N.E.-2.....	Laneville	Baldwin, Bobby Lee; I.E.-1.....	Denison
Allen, John Robert (1); I.E.-2.....	Kilgore	Baldwin, Imogene; I.E.-2.....	Pierce
Allen, Lindy Jr.; I.E.-1.....	Fort Worth	Baldwin, Jeraldine; A&S-1.....	LaMarque
Allen, Mary Ann; H.E.-1.....	Dallas	Baldwin, Sidney Ray; A&S-1.....	Dayton
Allen, Melvin; A&S-2.....	Needville	Ball, Bessie B.; H.E.-3.....	Crockett
Allen, Ona J.; N.E.-2.....	Pittsburg	Ball, Mable Ann; N.E.-1.....	Trinity
Alley, Vivian W.; (1); A&S-2.....	Daingerfield	Ball, Mildred; N.E.-3.....	Galveston
Allison, James E.; A&S-2.....	Orange	Ball, Myrtle M. N.E.-3.....	Galveston
Allison, Robert L. (2); Engr.-1.....	Beckville	Bange, Leon; I.E.-3.....	Sherman
Alton, James H.; A&S-4.....	Mount Enterprise	Banks, Eddie (2); I.E.-1.....	Houston
Amev, Leotia; A&S-3.....	Pledger	Banks, William L.; A&S-1.....	Teague
Amos, Willie B; A&S-2.....	Garwood	Barber, Dorothy P.; A&S-1.....	New Boston
Anderson, Joseph; A&S-2.....	Beaumont	Barnes, Bertha M.; A&S-3.....	Houston
Anders, Herbert C.; A&S-2.....	Old Ocean	Barnes, Charles C.; I.E.-1.....	Jasper
Anderson, Coreace B.; H.E.-4.....	Smithville	Barnes, Dahl B.; A&S-1.....	Alto
Anderson, Curtis, Jr.; Engr.-1.....	Hempstead	Barnes, Eric; N.E.-4.....	Shepherd
Anderson, Elzada; A&S-4.....	Perris	Barnes, Jessie Ruth; A&S-4.....	Shepherd

Barnes Kathryn F.; A&S-1.....Jasper  
 Barnes, Leonard Van; I.E.-2.....Pledger  
 Barnes, Thomas E.; I.E.-3.....Camden  
 Barnett, John L.; Engr.-3.....Dallas  
 Barnett, Wilma Rose; A&S-2.....Houston  
 Barrett, Barnes R.; I.E.-2.....Palestine  
 Barrett, Charlotte; H.E.-1.....Mount Pleasant  
 Barron, Thomas P.; Engr.-1.....Timpson  
 Bass, Sara Jo; H.E.-4.....Waco  
 Baty, Reginald C.; Engr.-1.....Houston  
 Baugh, Luc Ella A&S-2.....Sweeney  
 Baylor, Bobby Joe; A&S-1.....Fort Worth  
 Bazille, Wade; I.E.-6.....Galveston  
 Beal, Golden F.; A&S-4.....Calvert  
 Bean, Albert R.; I.E.-1.....Hempstead  
 Beasley, Katie; I.E.-6.....Prairie View  
 Beasley, Mary C.; A&S-4.....Athens  
 Beasley, Maxine; A&S-3.....Gilmer  
 Bedell, James; Agric.-3.....Monrovia, Liberia  
 Bedford, Roylene; N.E.-1.....Cuero  
 Bell, H. B.; A&S-1.....LaRue  
 Bell, Hazel Arlene; H.E.-4.....Port Arthur  
 Bell, Ida Beatrice; H.E.-1.....Midland  
 Bell, Imogene, A&S-4.....Mincola  
 Bell, Juanita E.; Nurs.-1.....Bremond  
 Bell, Robert L.; A&S-1.....Seguin  
 Bell, Verna Joe; A&S-1.....Port Arthur  
 Bell, Verna M.; N.E.-2.....Sweeney  
 Bell, Willie J.; I.E.-6.....Prairie View  
 Beller, Minnie E.; A&S-2.....Conroe  
 Belvin, Shirley M.; A&S-1.....Alexandria, La.  
 Bennett, Gerland J.; Engr.-1.....Dallas  
 Bennett, George W.; A&S-1.....Vernon  
 Bennett, Glodene; I.E.-2.....Hempstead  
 Bennett, Maggie B. (1). A&S-2.....Navasota  
 Benton, Odis; A&S-1.....Normangee  
 Berry, Karma Joyce; A&S-4.....Dallas  
 Betts, Edweina L.; A&S-4.....DeKalb  
 Betts, Effie B.; I.E.-2.....DeKalb  
 Bias, Wade (2); A&S-1.....Beaumont  
 Bible, Wilmer J.; A&S-1.....Clifton  
 Biggs, Elnetia Y.; A&S-2.....Hearne  
 Bigsby, Winfred F.; H.E.-4.....Brenham  
 Bilton, Bertran W.; Engr.-1.....Waco  
 Birks, Raydell; N.E.-2.....Waco  
 Black, Evelyn Nell; A&S-3.....Douglassville  
 Black, George H.; I.E.-1.....Jacksonville  
 Black, Johnnie Ben; A&S-1.....Douglassville  
 Black, Nina Faye; A&S-2.....Waco  
 Blacklock, Opal Fae; H.E.-1.....Longview  
 Blackmon, Barbara J. (1);.....Houston  
 Blacknell, Roy; A&S-1.....Groesbeck  
 Blackshear, Carolyn A&S-4.....Baytown  
 Blackwell, Jessie E.; A&S-2.....Prairie View  
 Blackwell, Jessie M.; A&S-4.....Prairie View  
 Blackwell, Sarah J.; N.E.-1.....Beeville  
 Blake, Georgia Pearl; A&S-2.....Paris  
 Blakely, Billy L. (2); A&S-3.....Teague  
 Blakely, Clyde H.; A&S-3.....Odessa  
 Blakemore, Barbara A.; A&S-2.....Fort Worth  
 Blanton, James; I.E.-3.....Fort Worth  
 Blanton, Lola Mae; I.E.-2.....Cushing  
 Bluiett, Calvin C.; I.E.-1.....Kirbyville  
 Bluiett, Arlene B.; A&S-4.....Dallas  
 Boatner, Alton L.; A&S-4.....Victoria  
 Boatner, Horace; A&S-3.....Jasper  
 Boins, La Ray; A&S-3.....Nacogdoches  
 Bolden, Joseph B.; I.E.-2.....Houston  
 Bolen, Lauriee I.; A&S-2.....Galveston  
 Bolton, Ernest W.; I.E.-3.....Ennis  
 Bonner, Ceatria L.; A&S-2.....Fairfield  
 Booker, James E. (1); A&S-4.....Ennis  
 Booker, Joe ED; Engr.-1.....Paris  
 Booker, Joe Willie; A&S-1.....Marshall  
 Boone, Benny O.; A&S-3.....Wharton  
 Boone, Bobbie Jean N.E.-3.....Huntsville  
 Boone, Granison Jr.; I.E.-6.....Galveston  
 Boone, Gregory Eugenia (2); A&S-2.....Wharton  
 Boone, Shirley L.; N.E.-3.....Houston  
 Borsay, Jensen S. G.; Agric.-1. Monrovia, Liberia  
 Boson, Albert C.; Agric.-2.....Hempstead

Bostic, Scott Arthur; A&S-4.....Cleburne  
 Boulware, Marguerite; A&S-6.....Prairie View  
 Bowden, Dorothy M.; A&S-4.....Port Arthur  
 Bowder, George R.; A&S-3.....Dallas  
 Bowens, James A.; Engr.-1.....Marshall  
 Bowman, Lonnie M.; Engr.-1.....Athens  
 Bowman, Mattie P.; A&S-3.....Malakoff  
 Bowman, Theodis; A&S-1.....Paris  
 Boyd, Donald Gilbert; I.E.-2.....Ardmore, Okla.  
 Boyd, Jeward; Engr.-2.....Hawkins  
 Boyd, Jeanie M.; A&S-1.....Gladewater  
 Boyd, Lorenza; Agric.-1.....Hallsville  
 Boyd, Raymond E., A&S-4.....Houston  
 Boyer, Mary L.; A&S-3.....San Augustine  
 Boykins, Hugh E.; A&S-1.....Dallas  
 Boylan, Katie Mae; A&S-2.....Caldwell  
 Bozeman, Alton L.; I.E.-1.....Brookshire  
 Brackens, Harold; I.E.-1.....Galveston  
 Bradford, Booker T.; A&S-1.....Dallas  
 Bradford, Elnora (1); A&S-2.....Baytown  
 Bradford, Nettie J.; I.E.-1.....Henderson  
 Bradford, Ruth Ella; A&S-1.....Pecos  
 Bradford, William E.; Agric.-3.....Kerens  
 Bradley, Mae F.; A&S-4.....Bryan  
 Bradley, Ola Mae; A&S-1.....Conroe  
 Bradley, Thomas; Engr.-2.....Crosby  
 Brasher, Beradelin (2); A&S-1.....Dallas  
 Bradshaw, Maxine; A&S-1.....Waco  
 Brady, Alberta B.; A&S-4.....Prairie View  
 Brady, Arthur B.; I.E.-2.....Prairie View  
 Bragg, Alma Jean; A&S-3.....Hempstead  
 Brainsford, Glodean; A&S-3.....Burkeville  
 Brailsord, Marvin D.; A&S-2.....Burkeville  
 Branch, Clarence; A&S-1.....Leggett  
 Branch, Dale C.; A&S-3.....Port Arthur  
 Branch, Faye Joyce (2); A&S-1.....Pattison  
 Branch, Juarine M.; A&S-1.....Livingston  
 Branch, Kendell A&S-3.....Port Arthur  
 Branch, Loyce F.; H.E.-2.....Port Worth  
 Brannon, Willie; Engr.-2.....Port Arthur  
 Bratcher, Aubrey (1); Agri.-5.....Caldwell  
 Brazier, Georgia M.; A&S-2.....Weimar  
 Breckenridge, Joe J.; Agric.-4.....Jasper  
 Brewer, James A. Jr.; I.E.-4.....Houston  
 Brewer, Thomas E.; A&S-2.....Lufkin  
 Bridges, Ruth B.; A&S-3.....Bryan  
 Bridges, William H.; A&S-3.....Huntsville  
 Briggs, Clyde; I.E.-2.....China  
 Briggs, Edna Mae; A&S-4.....China  
 Briggs, Virgie Lee (2); H.E.-5.....China  
 Briggs, Stella M.; H.E.-4.....China  
 Briley, Mary Estelle; A&S-1.....Texarkana  
 Briscoe, Ann E.; N.E.-3.....Liberty  
 Briscoe, Dorothy J.; A&S-3.....Alvarado  
 Briscoe, Milton; A&S-1.....Dallas  
 Briscoe, Willie P.; A&S-1.....Coolidge  
 Britt, Jeanie Mae (1); A&S-4.....Houston  
 Brooks, Carl; A&S-4.....Corsicana  
 Brooks, Donna Ann; A&S-4.....Fort Worth  
 Brooks, Lady Cleve (1); A&S-5.....DeKalb  
 Brooks, Vera Jean; A&S-2.....Fort Worth  
 Brooks, Leon (1); A&S-3.....Corpus Christi  
 Broussard, Barbara J.; N.E.-2.....Eunice, La.  
 Broussard, Charles H.; A&S-3.....Orange  
 Broussard, Dorothy M.; A&S-2.....Beaumont  
 Broussard, Lavada; A&S-1.....Navasota  
 Brown, Aaron; Agric.-4.....LaRue  
 Brown, Annie Jean; H.E.-1.....Markham  
 Brown, Arletha L.; N.E.-2.....Homer, La.  
 Brown, Arthur Mae; A&S-1.....Fenton, Lo.  
 Brown, Barbara Ann; A&S-1.....Kendleton  
 Brown, Barbara J.; A&S-1.....Houston  
 Brown, Beauregard; A&S-4.....Beaumont  
 Brown, Bertrand K.; A&S-1.....Dallas  
 Brown, Betty Raye (2); A&S-1.....Dallas  
 Brown, Bobby Lee; A&S-3.....Dallas  
 Brown, Charlie B.; A&S-3.....Kilgore  
 Brown, Claude H.; A&S-2.....Weimar  
 Brown, Daniel L.; N.E.-2.....Houston  
 Brown, David; A&S-1.....Houston  
 Brown, Don H.; I.E.-4.....Fort Worth

Brown, Earl D.; A&S-3..... Lubbock  
 Brown, Emerson E.; A&S-2..... Palcstine  
 Brown, Frank T. A&S-1..... Dallas  
 Brown, Frank Z. (1); Engr-4..... Hawkins  
 Brown, George E.; Agric-1..... Prairie View  
 Brown, Gloria L.; A&S-1..... Teague  
 Brown Herman L.; A&S-3..... Bay City  
 Brown, Ida V. H.E.-3..... Prairie View  
 Brown, Jean E.; A&S-2..... Bay City  
 Brown, Jearelene A.; A&S-2..... Dayton  
 Brown, Jimmy W. (2); Agric-4..... Troup  
 Brown, John E.; I.E.-2..... Dallas  
 Brown, Josephine (2); A&S-1..... Opelousas, La.  
 Brown, Joyce M.; A&S-1..... Eimaton  
 Brown, Lillie M. (1); A&S-1..... Hearne  
 Brown, Lincoln F.; A&S-2..... Hempstead  
 Brown, Margo (2); A&S-1..... New Smyrna, Fla.  
 Brown, Marshall V.; Engr-1..... Prairie View  
 Brown, Mary S.; A&S-1..... Galveston  
 Brown, Ollie D.; A&S-1..... Corpus Christi  
 Brown, Oscar L. Jr.; I.E.-2..... Dallas  
 Brown, Patsy Ruth F.; A&S-4..... Moscow  
 Brown, Pearlne; A&S-3..... Houston  
 Brown, Shirley Ann; H.E.-1..... Markham  
 Brown, Shirley Ann; A&S-4..... Paducah  
 Brown, Tommie C.; A&S-4..... Rosenberg  
 Brown, Willy E.; A&S-2..... Tyler  
 Brossard, Louise D.; N.E.-2..... Houston  
 Bruce, Selina Mae; H.E.-2..... Texarkana  
 Bruce, William T.; I.E.-4..... Monrovia, Liberia  
 Bryant, Hazel Marie; A&S-1..... Terrell  
 Bryant, Jo Ann; A&S-2..... Port Arthur  
 Bryant, Lee Ruth; A&S-3..... Dallas  
 Bryant Lloyd M.; Engr-1..... Beaumont  
 Bryant, Norman I.E.-3..... Plainview  
 Bryant, Robert; A&S-1..... Abilene  
 Buchanan, Adell; A&S-1..... Houston  
 Buchanan, Elizabeth A.; H.E.-2..... Beaumont  
 Bundage, Barbara J.; A&S-3..... Fort Worth  
 Bundage, Eलय; A&S-1..... Oklahoma City, Okla.  
 Burford, Joyce Evelyn; N.E.-3..... Columbus  
 Burks, James E.; Agric-4..... Frankston  
 Burks, Joe L.; A&S-3..... Hempstead  
 Burks, Nathaniel L. Jr. (2); A&S-4..... Houston  
 Burks, Roy Lee (1); A&S-1..... Cleveland  
 Burleson, Norman Jean; A&S-4..... Dallas  
 Burnett, Fred D.; A&S-4..... Wichita Falls  
 Burns, Dessie Rec; A&S-2..... New Boston  
 Burrell, Ruby Lee; A&S-1..... College Station  
 Burt, Lamon; A&S-1..... Birmingham, Ala.  
 Burton, Margaret M. (1); A&S-4..... Paris  
 Burton, Thomas Jr.; A&S-4..... Paris  
 Bussey, Shirley M. (1); A&S-3..... Diboll  
 Busby, Nellie V.; A&S-6..... Prairie View  
 Butler, Dilley J; H.E.-2..... Palestine  
 Butler, Julia V.; A&S-5..... Galveston  
 Butler, Leo C.; I.E.-1..... Edna  
 Butler, Lucellia C.; N.E.-2..... Edna  
 Bynam, Holland E.; A&S-4..... Houston  
 Byrd, Gilla L.; A&S-6..... Prairie View  
 Byrd, Johnnie Mae; A&S-1..... Port Arthur  
 Byrd, Shirley Ruth; A&S-1..... Beaumont  
 Cabness, Donald G.; Engr-3..... Luling  
 Caldwell, Laura Ann; A&S-1..... Riesel  
 Calhoun, Donald Earl; A&S-1..... Hillsboro  
 Calhoun, Maurice; Engr-4..... Houston  
 Calhoun, Robert R.; A&S-3..... Hillsboro  
 Callies, Ameal; A&S-4..... Houston  
 Callies, Dorothy M.; N.E.-3..... Houston  
 Calloway, Jerry L. Jr.; A&S-2..... Dallas  
 Calloway William E.; A&S-1..... Longview  
 Calloway, Zollie D.; A&S-1..... Gary  
 Cammon, Rosa Mary; H.E.-1..... Norco, La.  
 Campbell, Carrie Lee; N.E.-1..... Floydada  
 Campbell, Earnest; A&S-2..... Freeport  
 Campbell, Harold; A&S-4..... Freeport  
 Campbell, Lelan Ann; A&S-1..... Opelousas, La.  
 Campbell, Percy L. (2);  
 Canady, Benny Lee; I.E.-1..... Cameron  
 Canady, Evera Lue; A&S-3..... Cameron  
 Canady, Verdell Engr.-1..... Cameron  
 Cannon, Bara J.; A&S-2..... Dallas  
 Cannon, Mary L. (1); A&S-2..... Texarkana  
 Cannon, Thelma Lee; N.E.-1..... Gladewater  
 Canton, Lillian G.; I.E.-2..... San Augustine  
 Canty, Marilyn G.; A&S-4..... Hempstead  
 Carey, Bernice P.; A&S-1..... Port Arthur  
 Carmon, Celma Gene A&S-2..... Beaumont  
 Carothers, Homer Jr.; A&S-1..... Lubbock  
 Carothers, Lewis; A&S-5..... Bay City  
 Carr, Bonnie R.; A&S-1..... Baytown  
 Carr, Charles E.; A&S-4..... Houston  
 Carrethers, Frank L.; A&S-1..... Detroit  
 Carrington, Doyle D.; Engr-4..... Dallas  
 Carroll, Parnell; I.E.-3..... Richland  
 Carson, Erma Jewell; A&S-1..... Dallas  
 Carson, Gladys M.; A&S-4..... Dallas  
 Carter, Bonita M. (2); A&S-3..... Fairheld  
 Carter, Caldonia M.; I.E.-2..... Port Arthur  
 Carter, Hattie Pearl A&S-1..... Tomball  
 Carter, Jerry S.; A&S-2..... Dallas  
 Carter, John B. (1); A&S-4..... Palestine  
 Carter, Maurice; A&S-6..... Prairie View  
 Carter, Thomas C.; A&S-3..... Dallas  
 Carter, Weldon; Engr-1..... Amarillo  
 Cartwright, George; I.E.-2..... Center  
 Cartwright, Irene (2); A&S-3..... Crosby  
 Cartwright, Robert L.; A&S-1..... Tyler  
 Cash, Edward Earl; Engr-1..... Pampa  
 Casteel, Betty J.; N.E.-3..... Marietta  
 Cavil, Barbara Jean; A&S-4..... Glen Flora  
 Chaison, Elmo; A&S-3..... Beaumont  
 Chambers, John E.; A&S-3..... Dallas  
 Chambers, Ella A.; A&S-3..... Dallas  
 Chambers, Frances L.; A&S-4..... Groesbeck  
 Chambers, Horace H.; Engr-1..... Dallas  
 Chandler, Lloyd Jr.; A&S-2..... Dallas  
 Chandley, Della R.; A&S-1..... Dallas  
 Chaney, Frances M.; A&S-1..... Ennis  
 Chapple, David S.; A&S-4..... Carthage  
 Chapman, George; A&S-4..... Somerville  
 Chappell, Alonzo; Agric-3..... Dallas  
 Chappell, Melba Jean; H.E.-4..... Tyler  
 Charles, Roy Lee (1); I.E.-1..... Port Arthur  
 Charleston, Cube; I.E.-6..... Prairie View  
 Chatman, Charles W.; I.E.-1..... Houston  
 Chatman, Curtis H.; A&S-3..... San Antonio  
 Chatman, Dorothy M.; A&S-3..... Midlothian  
 Chatman, Geneva; A&S-4..... Midlothian  
 Chenier, Delores Ann; N.E.-3..... Houston  
 Chenier, Margaret L.; A&S-2..... Houston  
 Chester, Alvin A.; A&S-2..... Overton  
 Chester, Ira M.; A&S-3..... Overton  
 Chew, Bobbie Jean (1); A&S-2..... Lubbock  
 Chew, Leonard (1); A&S-3..... Lubbock  
 Childress, Helene; A&S-3..... Coleman  
 Childress, Hermia J.; A&S-1..... Coleman  
 Childress, Howard B.; A&S-4..... Coleman  
 Childs, Don O'Neil; A&S-1..... Lubbock  
 Choice, Bobbie; I.E.-1..... Dallas  
 Choice, Emma L.; H.E.-1..... Tyler  
 Christwell, Samantha; A&S-2..... Houston  
 Christian, Ora Jane; A&S-1..... Jacksonville  
 Clack, Clara N.; H.E.-2..... Gonzales  
 Clack, Edward L. Agric-3..... Gonzales  
 Clark, Barbara Jean; A&S-2..... Beaumont  
 Clark, Betty Jean; A&S-4..... Beaumont  
 Clark, Doris; A&S-1..... Houston  
 Clark, Erma J.; A&S-2..... McGregor  
 Clark, Jimmie L.; A&S-1..... Dallas  
 Clark, Mary Jean (1); A&S-2..... Dallas  
 Clark, Ola Mae; N.E.-1..... Tyler  
 Clark, Pansy; I.E.-1..... Prairie View  
 Clark, Vernon L.; A&S-3..... Denton  
 Clarkson, Charles E.; A&S-2..... Fort Worth  
 Clay, James C.; I.E.-2..... Ganado  
 Cobb, Clyde A.; A&S-4..... Gilmer  
 Clayton, Gloria D.; N.E.-3..... Houston  
 Clemons, Billie Jean; A&S-1..... Ennis  
 Clemons, Earline H.; N.E.-4..... Houston  
 Clemons, James A. (2); Engr-2..... Corpus Christi  
 Clinton, Wallace; A&S-1..... Giddings

Clopton, Pearl M.; A&S-3	Kerens
Close, Delores P.; A&S-1	Galveston
Cobb, Dorothy L. (1); N.E.-3	Waco
Cobb, Mary E.; N.E.-1	Waco
Cobbs, Alma; H.E.-3	Austin
Cobbs, Marjorie; A&S-1	Austin
Cockrell, Constance; N.E.-2	Hitchcock
Coit, Elmair; A&S-1	Dallas
Cole, Edward; Engr.-1	Fort Worth
Cole, Lorenzo D.; A&S-4	Caldwell
Cole, Robert P. B.; Engr.-2	Houston
Coleman, Dorothy; N.E.-3	Longview
Coleman, Herbert G.; A&S-2	Witchita Falls
Coleman, Lelia N. (2); N.E.-1	Fenton, La.
Coleman, Lorraine (1); N.E.-3	Midland
Coleman, Robert L. Jr.; Engr.-4	Houston
Coleman, Willie M.; A&S-2	Nacogdoches
Coleman, Zelia S.; H.E.-6	Prairie View
Collier, McAlvin; A&S-3	Altair
Collier, Woodie V. (2); A&S-5	Altair
Collins, Edna Belle; H.E.-4	Temple
Collins, Henry F.; I.E.-4	Galveston
Collins, James; A&S-2	Huntsville
Collins, Joseph D. (2); A&S-1	Houston
Collins, Leola W.; A&S-4	Houston
Collins, Maurice; A&S-1	Dallas
Collins, Muriel L.; A&S-6	Prairie View
Colvin, Dorris W.; Agric.-1	Burton
Colvin, Roosevelt; Agric.-2	Burton
Compton, Odella; N.E.-2	Galveston
Conley, Leola R.; A&S-2	Amarillo
Conley, Lillie E.; A&S-3	Wichita Falls
Conner, Charles H.; I.E.-3	Brenham
Conner, Claudia M. (1); A&S-5	Caldwell
Conway, Alphonse N.; A&S-3	New Orleans, La.
Cook, Freddie; A&S-3	Marlin
Cooks, Verline (1); N.E.-1	Hooks
Cooper, Chester M.; I.E.-1	Forrester
Cooper, Espanolia; A&S-4	Henderson
Cooper, John W.; I.E.-2	Caldwell
Cooper, Talton C.; I.E.-1	Mineral Wells
Cooper, Vernell V.; A&S-1	Henderson
Cooper, Winfree B. (Deceased); A&S-4	Crockett
Cormier, Harry Lee; Agric.-1	Beaumont
Cormier, Ralph A.; A&S-1	Beaumont
Cosey, Ellis P.; A&S-3	Houston
Cosey, Jerline; A&S-4	Diboll
Collier, Lois C.; A&S-3	Dallas
Cotton, Dorothy M.; A&S-2	Mexia
Cotton, Hayes Jr.; Engr.-2	Mexia
Cotton, Joe Willie; Agric.-1	Mexia
Cotton, Lavinia; A&S-2	Conroe
Coulter, Willie A.; A&S-2	Nashville, Arkansas
Coursey, Burnett B.; A&S-5	Cleburne
Craft, James E.; Agric.-4	Scaly
Crawford, Glasier; Agric.-2	Marshall
Crawford, Lawander H. (1); IE.-1	Tyler
Crawford, Shirley J.; A&S-2	Port Arthur
Crawford, William B. (2); Engr.-3	Gainesville
Crayton, Nellie G.; A&S-2	Giddings
Crayton, Willie L.; A&S-2	Giddings
Gregler, Mary Jo; H.E.-3	Gilmer
Crenshaw, Betty Jo (2); I.E.-5	Austin
Crenshaw, Effie L.; A&S-4	Dale
Crenshaw, Julia F.; N.E.-1	Austin
Crosby, Erma Jean; A&S-4	Fort Worth
Cross, Herbert Joseph; A&S-3	Mineral Wells
Cross, Leslie W.; A&S-4	Mineral Wells
Cross, Ruby F. B.; A&S-3	Madisonville
Cuerington, Rae V.; A&S-1	San Francisco, Calif.
Cuerington, Wallace O. (1); Engr.-2	Bryan
Culton, Archie C.; Agric.-3	Normangee
Culton, Erma Lee; A&S-3	Normangee
Culton, Shirley Jean; A&S-4	Normangee
Cummings, Prince; I.E.-2	Monrovia, Liberia
Cunningham, Catherine (1); I.E.-1	Burton
Cunningham, Johnny R.; A&S-1	Dallas
Cunningham, Oscar; I.E.-2	Bryan
Currie, Ruth H.; N.E.-1	Dallas
Currington, Tommy L.; I.E.-6	Houston
Curry, Earnest A. (1); I.E.-1	Corpus Christi
Curry, Marva Jo (2); A&S-1	Dallas
Curtis, Aric Mariah; A&S-2	Fort Worth
Curtis, David; A&S-1	Hempstead
Curtis, Deloris M.; A&S-4	Magnolia
Curtis, Marvin H.; A&S-2	Jasper
Curtis, Tommy; I.E.-3	Hempstead
Cyrus, Henry Lee Jr.; A&S-4	Windom
Dabney, Tommie M.; A&S-3	Bryan
Daniel, Jimmie Lee; A&S-3	Fort Worth
Daniels, Andrew T.; A&S-4	Bryan
Daniels, Bettie Jo; A&S-1	Henderson
Daniels, Clemon Jr.; A&S-2	McKinney
Daniels, Howard Jr.; Agric.-2	Livingston
Daniels, Jimmy E.; I.E.-4	Kilgore
Daniels, Mac Dell; A&S-4	Greenville
Daniels, Marva R.; A&S-2	Greenville
Daniels, Percy J.; Engr.-1	Ben Wheeler
Daniels, Melissa; N.E.-4	Port Arthur
Daniels, Samuel R.; Engr.-3	Greenville
Daniels, Thomas D.; I.E.-2	Corpus Christi
Dansby, Kathryn L.; H.E.-2	Houston
Darden, Dorothy J.; A&S-3	Gonzales
Darden, Percy Gene (2); I.E.-2	Bellville
Davenport, Geraldine; H.E.-2	Abbott
Davis, Annie Liza; A&S-2	Centerville
Davis, Barbara Jean; A&S-4	Rosenberg
Davis, Bettie J.; N.E.-2	Eagle Lake
Davis, Billy; Agric.-2	Linden
Davis, Charles S. (2); Engr.-1	Dallas
Davis, Charlie (2); A&S-5	Seguin
Davis, Earl Jr.; Engr.-2	Lufkin
Davis, Elva Lea; A&S-1	Houston
Davis, Fernita M.; A&S-1	Dallas
Davis, Geraldine M.; A&S-2	Houston
Davis, Gertie Mae; A&S-2	Port Arthur
Davis, Gladys M. (2); A&S-4	Dallas
Davis, Grover Alton; I.E.-2	Troup
Davis, Hulen M.; A&S-4	Waco
Davis, Iva J.; H.E.-2	Houston
Davis, J. V.; I.E.-4	Amarillo
Davis, Janie B.; A&S-2	Yoakum
Davis, Jo Ann; A&S-2	Galena Park
Davis, Joe Ann; A&S-4	Bay City
Davis, Joe Louis; A&S-1	Navasota
Davis, L. V.; I.E.-1	Cleveland
Davis, Leonard R.; A&S-4	Monahans
Davis, Leslie; Engr.-2	New Braunfels
Davis, Lois J.; A&S-1	Cleveland
Davis, Mary Lee; A&S-4	Centerville
Davis, Mary Loyce; A&S-4	Kilgore
Davis, Nelson; A&S-3	Fort Worth
Davis, Percy Ray; I.E.-4	Longview
Davis, R. C.; I.E.-4	Centerville
Davis, Raymond Jr. (1); A&S-1	Calvert
Davis, Robert Lee; A&S-2	Galveston
Davis, Rosa Jean; N.E.-2	Elton, La.
Davis, Ruby Jewel; A&S-2	Dallas
Davis, Theodore O. Jr.; I.E.-3	Marshall
Davis, Voncella; A&S-4	Terrell
Davis, Wendell C.; A&S-4	Bryan
Davis, Willie Maye; A&S-4	Longview
Dawkins, Rosa Lee; A&S-1	Miami, Fla.
Dawson, Edward J. (2); A&S-1	Waco
Dawson, Elizabeth A.; H.E.-2	Clarksville
Dawson, Erastus S.; A&S-3	Sweetwater
Daye, Donna M. Lee; A&S-1	Kaufman
Dean, Callie Ruth; A&S-1	Kaufman
Dean, George Louis; A&S-3	Forney
Dean, Margie Marie; A&S-1	Forney
Dean, Sam W.; I.E.-1	Forney
Deason, Carnell; A&S-3	Groveton
Deberry, Shirley; A&S-1	Diboll
Debose, Claudia B.; A&S-4	Stoneham
Debose, Gloria M.; A&S-4	Lufkin
Decuir, Clarence; A&S-2	Beaumont
Degay, Mildred; A&S-2	Orange
Denmon, Barbara Jean; A&S-1	Giddings
Denmon, Francis M.; N.E.-4	Giddings
Dennis, Betty Joe; A&S-4	Dallas
Dennis, George W.; A&S-3	San Antonio
Dennis, Geraldine; A&S-2	San Antonio
Dennis, Mattie Pearl; A&S-1	Houston

Dennwiddie, Herman E.; Agric-1 ..... Detroit  
Denmore, Opal M. J.; A&S-1 ..... Mount Enterprise  
Dennwiddie, Hugh D.; A&S-1 ..... Detroit  
Derrick, Gloria D. (1); A&S-4 ..... Gilmer  
Derrick, Wanda Jean; A&S-5 ..... Gilmer  
Derry, Eva Gladys; A&S-2 ..... Waelder  
Deshotel, Joan; A&S-1 ..... Beaumont  
Devault, Fred W.; A&S-4 ..... Dickinson  
Dever, Gladys E.; H.E.-2 ..... Brenham  
Devereaux, Fred; Engr.-4 ..... Jacksonville  
Devereaux, Joy; H.E.-4 ..... Athens  
Devor, Willie H. (2); A&S-2 ..... Anahuac  
Dewalt, Mazarine; A&S-3 ..... Livingston  
Dial, Estella Willois A&S-4 ..... Palestine  
Dial, Shirley Yvonne; H.E.-1 ..... Palestine  
Dickerson, John H. Jr.;  
Engr.-1 ..... Daytona Beach, Florida  
Dickerson, William; A&S-2 ..... Clarksville  
Dickey, James Lee; A&S-3 ..... Taylor  
Dickey, James R.; A&S-3 ..... Kilgore  
Dickson, Albert Jr.; A&S-3 ..... West Columbia  
Dickson, Colister, Jr.; A&S-1 ..... Houston  
Diggs, Johannna; H.E.-4 ..... Dallas  
Dilworth, Bobbie Jean; A&S-3 ..... Corpus Christi  
Dix, Barbara J.; I.E.-2 ..... Caldwell  
Dix, Doris Mae; A&S-3 ..... Houston  
Dix, Ruby Lee; H.E. .... Houston  
Dixon, Barbara D.; A&S-2 ..... Dallas  
Dixon, George D.; A&S-3 ..... Normangee  
Dockery, Thelma J.; N.E.-2 ..... Houston  
Doggett, David V.; I.E.-1 ..... Houston  
Donahoe, Franklyn L.; A&S-2 ..... Houston  
Donato, Barbara A.; A&S-2 ..... Liberty  
Donley, Theodore R.; A&S-1 ..... San Angelo  
Donovan, Arlene; A&S-4 ..... Dime Box  
Dorsey, Barbara L.; H.E.-1 ..... Riesel  
Dorsey, Billy Frank; I.E.-1 ..... Riesel  
Dorsey, Carrie H.; A&S-2 ..... Prairie View  
Dorsey, Eddy F.; A&S-5 ..... Waco  
Dorsey, Luther L.; Engr.-1 ..... Waco  
Dorsey, Sam F. Jr.; I.E.-6 ..... Beaumont  
Dotson, Marie E. (2); A&S-1 ..... Houston  
Douglas, Kenneth A.; Engr.-1 ..... Dallas  
Douglas, Mary Alice; A&S-1 ..... Crowley, La.  
Douglass, Yvonne C. H.E.-1 ..... Caldwell  
Dozier, Dorothy M.; A&S-3 ..... Ennis  
Dozier, Thelma; A&S-4 ..... Ennis  
Drennan, Arletha M.; A&S-2 ..... Houston  
Drenon, Jessie Mae; H.E.-1 ..... Crosby  
Driver, Harold Gene; I.E.-2 ..... Timpson  
Driver, Mary Lou; A&S-4 ..... Timpson  
Dubose, Herbie K.; I.E.-1 ..... Itasca  
Duffy, Margaret L.; A&S-1 ..... Fort Worth  
Dugas, Frank, Jr. (2); A&S-3 ..... Port Arthur  
Duncan, Andrew Lee; I.E.-4 ..... Smithville  
Duncan, Charles C.; I.E.-2 ..... Corpus Christi  
Dunkins, Reva G.; H.E.-3 ..... Waskom  
Dunn, Tommie L.; A&S-1 ..... Crockett  
Dunn, Zelma L.; A&S-4 ..... Mexia  
Dupont, Lena Rose; A&S-3 ..... Richmond  
Dupree, Lonnie; I.E.-2 ..... High Bank  
Durham, Bettye J. (1); N.E.-3 ..... Fairfield  
Durham, Bobby J.; A&S-4 ..... Oakwood  
Dyer, Norman E.; A&S-3 ..... Waxahachie  
Dyers, Orec; Engr.-4 ..... Milwaukee, Wis.  
Dykes, James T.; Engr.-1 ..... Waco  
Easley, Shirley R.; N.E.-3 ..... Houston  
Eason, Andrew C.; I.E.-1 ..... West Columbia  
Eason, Oscar; I.E.-6 ..... San Antonio  
Easter, Helen Arez; N.E.-1 ..... Hillsboro  
Easterling, Harry W.; A&S-3 ..... Denison  
Eaton, Arthur D.; A&S-4 ..... College Station  
Echols, Joyce Marie; A&S-1 ..... Mexia  
Echols, Mattie Bell; A&S-3 ..... Prairie View  
Echols, Ruth Ann; H.E.-4 ..... San Antonio  
Edmond, Charlie M. Jr.; Engr.-1 ..... Belton  
Edmond, Dorothy Jean; H.E.-1 ..... Lodi  
Edmond, James H.; Agric.-1 ..... Linden  
Edmond, Vernon (2); Agric.-4 ..... Smithville  
Edmonson, Bobbie J.; H.E.-3 ..... Waco  
Edwards, Marva Y; A&S-1 ..... Stuttgart, Ark..  
Edwards, Davis; A&S-2 ..... Bryan  
Edwards, Dorothy L. (1); A&S-4 ..... Greenville  
Edwards, Frances (1); HE-4 ..... Dallas  
Edwards, Herlan H.; I.E.-1 ..... West Columbia  
Edwards, Leon; A&S-1 ..... Yoakum  
Edwards, Marvin R.; I.E.-3 ..... Dallas  
Edwards, Ruby Jean; A&S-4 ..... Taylor  
Elis, Isaac L.; Engr.-1 ..... Port Worth  
Eleby, Minnie Mae; H.E.-3 ..... Livingston  
Ellis, Julius Q.; I.E.-2 ..... Houston  
Ellis, Ruby Wellie; N.E.-2 ..... Bryan  
Elliott, James Willie (2); Agric.-1 ..... Brenham  
Ellison, Rothchild; A&S-4 ..... Dale  
Elmore, Collins C.; Agric.-4 ..... Coldsprings  
Elmore, Ruby Marion; A&S-3 ..... Coldsprings  
Elston, Russell; I.E.-4 ..... Dallas  
Elum, Willie F.; H.E.-4 ..... Houston  
Emanuel, Annie L.; A&S-1 ..... Oakwood  
Emanuel, Mary A.; A&S-1 ..... Oakwood  
Enette, Nattale M.; A&S-3 ..... Port Arthur  
English, George E.; I.E.-3 ..... Marlin  
English, Luther M. (1); A&S-1 ..... Trinity  
Epps, Bettie Jean; H.E.-3 ..... Linden  
Epting, Walter O.; A&S-2 ..... Sulphur Springs  
Ervin, Clarence H.; Agric.-2 ..... Tyler  
Ervin, Clifford G.; Engr.-1 ..... Houston  
Esprit, Lee Gerland; A&S-2 ..... Port Arthur  
Estrada, Sergio (2); Engr.-1. Artemisa, P.del Rio  
Evans, Betty Jean; A&S-1 ..... Dallas  
Evans, Floyd Jr.; Engr.-1 ..... Marshall  
Evans, John G.; I.E.-2 ..... Hempstead  
Evans, Mary Ella; A&S-2 ..... Brookshire  
Ewing, Robert Lee; A&S-3 ..... Austin  
Fagan, Jack D.; A&S-1 ..... Maud  
Fairax, Jessie Mae (2); A&S-1 ..... Dallas  
Fairfax, Louwetta M.; A&S-2 ..... Dallas  
Fantroy, James Lee; A&S-1 ..... Teague  
Farmah, John N.; Agric.-1. Monrovia, Liberia  
Farrington, John B.; A&S-1 ..... Houston  
Farris, Ida K.; A&S-1 ..... Calvert  
Faulkner, Betty Jean; A&S-2 ..... Dallas  
Feast, Ora Lee; N.E.-3 ..... Beaumont  
Felious, Nancy; N.E.-1 ..... Birmingham, Ala.  
Felton, June M.; A&S-4 ..... Houston  
Fennell, Donald L.; A&S-3 ..... Lampasas  
Ferdinan, Leona; A&S-1 ..... Crosby  
Ferguson, Claudette L.; A&S-1 ..... Pittsburgh  
Ferguson, Floyd A.; Engr.-3 ..... Overton  
Ferrell, Annie M.; A&S-2 ..... Dallas  
Ferris, Robert; A&S-2 ..... San Angelo  
Field, Fred B. Jr.; I.E.-1 ..... Port Arthur  
Fielder, Kathryn E.; N.E.-3 ..... Houston  
Fields, Myrtle A.; A&S-1 ..... Floydada  
Finley, Isaac William; I.E.-2 ..... Mount Pleasant  
Finney, Bert N.; I.E.-2 ..... Winsboro  
Fisher, Charles L.; I.E.-1 ..... Marshall  
Fisher, Cleophus; I.E.-3 ..... Douglassville  
Fitzgerald Bennie L.; I.E.-2 ..... Port Lavaca  
Fleming, Arthur (2); Agric.-1  
Fleming, David; A&S-1 ..... Waxahachie  
Fleming, Irma Irene (1); N.E.-3 ..... Houston  
Fleming, Roy Frances; A&S-1 ..... Somerville  
Flim, Dennis; Engr.-1 ..... Cleveland  
Flores, Eperesonna; N.E.-3 ..... Huntsville  
Flournoy, Willie M.; A&S-1 ..... Flint  
Flournoy, Bernard; A&S-3 ..... Dallas  
Flowers, Maurie L.; H.E.-2 ..... Jefferson  
Flowers, Precious L. (1); A&S-3 ..... Dallas  
Flowers, Wilbert; Engr.-1 ..... Port Arthur  
Floyd, Carrie M.; A&S-1 ..... Corpus Christi  
Floyd, Willie Grant (1); ..... Corpus Christi  
Fluellen, Elisha Jr.; I.E.-1 ..... Hempstead  
Flukus, Henry; A&S-4 ..... Paris  
Flye, Robert Lee; I.E.-2 ..... Bay City  
Fobbs, Willie Lee; A&S-3 ..... Fort Worth  
Fontenot, Birdell; A&S-4 ..... Crockett  
Fontenot, Clarence H.; Agric.-1 ..... Beaumont  
Fontenot, Ella M.; N.E.-1 ..... Liberty  
Fontenot, Fred Earl; A&S-4 ..... Palmetto, La.  
Ford, Curtis; I.E.-2 ..... Fort Worth  
Ford, Doris J.; A&S-2 ..... Tyler  
Ford, Bryan

Ford, Lester E. (2); A&S-1 ..... Vernon  
 Ford, Mose M.; A&S-3 ..... Liberty  
 Ford, Royce; I.E.-2 ..... San Antonio  
 Ford, Yvonne; A&S-1 ..... Ore City  
 Foreman, Doris Jean; N.E.-4 ..... Teague  
 Fort, Ostine E.; A&S-3 ..... Hooks  
 Fort, Willie; I.E.-4 ..... Terrell  
 Foster, Charles H.; A&S-1 ..... Houston  
 Foster, Dorothy Jean (2); A&S-4 ..... Brandon  
 Foster, Joyce A.; A&S-1 ..... Galveston  
 Foster, Quincy C.; A&S-1 ..... Galveston  
 Foster, Loia F.; A&S-1 ..... Fort Worth  
 Foster, Sarah Jo; A&S-2 ..... Dallas  
 Fowlks, Annie Pearl; A&S-3 ..... Terrell  
 Fowlks, Edison R.; Agric-1 ..... Terrell  
 Foy, Mentha G.; A&S-2 ..... Waco  
 Francis, Vivian L.; A&S-1 ..... Beaumont  
 Francois, George E.; A&S-3 ..... Beaumont  
 Francois, Clarence A&S-4 ..... Beaumont  
 Frank, Bobbie Jean; A&S-4 ..... Beaumont  
 Frank, Gracie Lee; A&S-1 ..... Houston  
 Franklin, Benjamin; Engr-4 ..... Denton  
 Franklin, Eram Lee; N.E.-3 ..... Temple  
 Franklin, Imogene (2); A&S-1 ..... Dallas  
 Franklin, Mildred; N.E.-3 ..... Galveston  
 Franklin, Lindsey (2); Engr-2 ..... Troup  
 Franklin, Moshall; A&S-4 ..... Lyons  
 Franklin, Pearly M. N.E.-4 ..... Houston  
 Franklin, Sylvia; A&S-6 ..... Prairie View  
 Franklin, Willie M.; N.E.-2 ..... Galveston  
 Franks, Clifton; A&S-3 ..... Woodville  
 Franks, Irby Eugene; A&S-2 ..... Athens  
 Franks, John Lee Jr.; A&S-1 ..... Woodville  
 Frazier, Creola A. T.; A&S-2 ..... Woodville  
 Frazier, Ethel J.; A&S-3 ..... Woodville  
 Frazier, Franklin D.; A&S-3 ..... Woodville  
 Frazier, Maud Jr.; Agric-5 ..... Woodville  
 Frederick, Lois D.; A&S-2 ..... Ennis  
 Frederick, Frankie M.; A&S-1 ..... Ennis  
 Freeman, Gloria D.; N.E.-1 ..... Camden  
 Freeman, Jessie Lee; N.E.-1 ..... Tyler  
 Freeman, Ruby Pearl; A&S-3 ..... Coolidge  
 Freeman, Theresa V.; A&S-1 ..... Coolidge  
 French, Shirley HE.-2 ..... Texas City  
 French, William H.; Engr-1 ..... Iuka, Mississippi  
 Friday, Mary E.; N.E.-2 ..... Abilene  
 Fromayan, Alfred; Agric-1 ..... Monrovia, Liberia  
 Fry, Dorris L.; A&S-2 ..... Dallas  
 Fry, Valeria J.; A&S-4 ..... Greenville  
 Fryer, Cloteal; A&S-4 ..... Gonzales  
 Fryer, Lawrence W.; Agric-5 ..... Gonzales  
 Fulbright, Donald C. (2); A&S-5 ..... Prairie View  
 Fulbright, Dorothy (1); H.E.-4 ..... Paris  
 Fulbright, Gerald G. (2); A&S-1 ..... Dallas  
 Fuller, Theodore J.; Agric-2 ..... Hempstead  
 Fuqua, Dorothy Jean; N.E.-4 ..... Baytown  
 Gabriel, Benny Ray A&S-2 ..... Fairfield  
 Gabriel, Mattie; A&S-3 ..... Fairfield  
 Gaines, Mary L.; N.E.-3 ..... Austin  
 Gamble, James Lee; A&S-4 ..... Westpoint  
 Gamble, Jewel P.; N.E.-1 ..... Omaha  
 Garcia, Charles L.; A&S-4 ..... Rosenberg  
 Garcia, Herbert Lee; I.E.-2 ..... Rosenberg  
 Garcia, Mae; A&S-1 ..... Dallas  
 Garland, Arquilla M.; A&S-3 ..... Dallas  
 Garland, Evelyn M.; A&S-4 ..... Paris  
 Garland, William B. Jr.; A&S-4 ..... Dallas  
 Garner, Arthur B.; Agric-2 ..... Tomball  
 Garner, Bobbie Joe (1); A&S-1 ..... San Augustine  
 Garner, Elijah; Agric-4 ..... Nacogdoches  
 Garner, John; A&S-3 ..... Cuero  
 Garner, Lamar; A&S-3 ..... San Augustine  
 Garrett, Dorothy C.; A&S-1 ..... Galveston  
 Garrett, Ernestine; N.E.-2 ..... Riesel  
 Garrett, Grady; I.E.-1 ..... Beckville  
 Garrett, Marva J. (1); N.E.-2 ..... Beaumont  
 Garrett, Paul, Jr.; A&S-5 ..... San Augustine  
 Garrison, Herbert E. (2); A&S-1 ..... Texarkana  
 Gary, Alfred J.; Engr-1 ..... Midland  
 Gaskin, James B.; A&S-1 ..... ElCampo  
 Gates, Barbara J.; N.E.-2 ..... Houston

Gates, Ernell L.; N.E.-2 ..... LaMarque  
 Gatson, Excell; A&S-1 ..... Fairfield  
 Gbadecyan, Samuel O.; Agric-1 Nigeria, W. Africa  
 Gee, Leonard; Engr-3 ..... Houston  
 Gee, Malachi, Jr.; I.E.-1 ..... Galveston  
 Gee, Mirian Odessa; A&S-3 ..... Tyler  
 Gee, Robbie Rae; A&S-3 ..... Galveston  
 Gee, Shirley Marie; N.E.-1 ..... Houston  
 Gentry, Rosa Lee; A&S-2 ..... Burton  
 George, Charlie Lee; I.E.-4 ..... Corsicana  
 George, Christine L.; A&S-1 ..... Sweeney  
 George, Donald; A&S-2 ..... Weatherford  
 George, Robert D.; Agric-1 ..... Monrovia, Liberia  
 Gibson, Billee L.; A&S-4 ..... Calvert  
 Gibson, Dorothy B.; A&S-3 ..... Texarkana  
 Gibson, Dorothy M.; A&S-2 ..... College Station  
 Gibson, Emmett; A&S-1 ..... Houston  
 Gibson, George A.; Engr-1 ..... Richmond  
 Gibson, Jerry J.; I.E.-1 ..... Houston  
 Gibson, James E.; A&S-5 ..... Abilene  
 Gibson, Jessie Earl; Engr-2 ..... Waxahachie  
 Gibson, Shelly S.; A&S-4 ..... Richmond  
 Gibson, Sylster; H.E.-2 ..... Texarkana  
 Gibson, Zenobia D.; A&S-4 ..... Dallas  
 Giddings, James Ray; A&S-2 ..... Highbank  
 Gilbert, Bessie Lee; A&S-3 ..... Coleman  
 Gilder, Versie Lee; A&S-4 ..... Colmesneil  
 Gilford, Flora Dell; N.E.-2 ..... Galveston  
 Gill, Jonathan; A&S-1 ..... Woodville  
 Gilliard, Clifton R.; A&S-1 ..... Galena Park  
 Gillis, Evelyn J.; A&S-2 ..... Hitchcock  
 Gillis, Rosie L.; A&S-1 ..... West Columbia  
 Gillis, Thurman Jr.; A&S-3 ..... West Columbia  
 Gilmore, Cleo Joyce; A&S-4 ..... Bryan  
 Gilmore, Juanita C. (1); A&S-2 ..... Dallas  
 Gilmore, Merlie F.; A&S-1 ..... Oakwood  
 Gipson, Ollie Bell; A&S-1 ..... Houston  
 Givans, Eugene (2); A&S-1 ..... Detroit, Michigan  
 Givens, La Vaughn M.; A&S-4 ..... Wallis  
 Givens, Elsie Ray (2); A&S-1 ..... Wallis  
 Givens, Lula Mae; A&S-4 ..... Crockett  
 Givens, Shelton Lee; I.E.-1 ..... Bonham  
 Glasco, Kay Frances; A&S-2 ..... San Antonio  
 Glasco, Richard A.; Engr-3 ..... San Antonio  
 Glass, Gladys Marie A&S-2 ..... Schulenburg  
 Glass, Mattie; N.E.-4 ..... Houston  
 Glenn, Shearlie S.; A&S-1 ..... Baytown  
 Glosson, Joyce; N.E.-3 ..... San Antonio  
 Glover, Edward E.; Agric-2 ..... Altair  
 Glover, Mamie Lee; A&S-2 ..... Altair  
 Glover, Marian M.; N.E.-2 ..... San Antonio  
 Godfrey, Grover C.; Agric-1 ..... Marshall  
 Goffney, Dorothy Lee; A&S-1 ..... Trinity  
 Goffney, Lois L.; A&S-3 ..... Conroe  
 Goodall, Andrew W.; I.E.-2 ..... Point Blank  
 Goode, Lastine, I.E.-3 ..... Houston  
 Gooden, Alice F.; A&S-1 ..... Madisonville  
 Gooden, Billy L.; I.E.-3 ..... Wharton  
 Gooden, Charles; I.E.-1 ..... Hempstead  
 Gooden, Wilma E.; A&S-4 ..... Madisonville  
 Gordon, Earnestine (1); A&S-2 ..... LaMarque  
 Gordon, Elie; A&S-3 ..... Wharton  
 Gordon, Morris L.; I.E.-2 ..... Quitman  
 Gordon, Priscilla L.; H.E.-1 ..... Beaumont  
 Gordon, Ruby Jean, N.E.-4 ..... LaMarque  
 Gorman, James E.; A&S-3 ..... Sugarland  
 Grace, Vertie Bell; H.E.-1 ..... Cleveland  
 Gradney, Vernon A.; Engr-1 ..... Raywood  
 Grady, Elijah; A&S-1 ..... San Antonio  
 Graham, Merlecan; A&S-4 ..... Dallas  
 Granderson, Rufus W.; I.E.-2 ..... Temple  
 Granger, Melina (2); A&S-1 ..... Port Arthur  
 Granger, Mary L. (1); N.E.-1 ..... Beaumont  
 Grant, Delphine L. (2); A&S-3 ..... Hallettsville  
 Grant, Joan; A&S-3 ..... Dallas  
 Grant, Doris Jean (2); A&S-1 ..... Houston  
 Grant, Johnetta; A&S-1 ..... Galveston  
 Grant, Lewis E., Jr. (2); I.E.-1 ..... Huntsville  
 Grant, Rose M.; N.E.-2 ..... Eunice, La.  
 Grant, Ruby Jewel; A&S-4 ..... Dallas  
 Graves, Lawrence S.; I.E.-2 ..... Gonzales

Gray, Bobby Gene; Agric-1 ..... Livingston  
 Gray, Olivia Mac; A&S-1 ..... Dallas  
 Gray, Linda J.; H.E.-1 ..... Honey Grove  
 Gray, Thomas; Agric-3 ..... Tatum  
 Grayer, Vayron; Engr-1 ..... Malakoff  
 Green, Belva Ann; A&S-1 ..... Houston  
 Green, Bettye Fae; A&S-2 ..... Lubbock  
 Green, Dorothy L.; A&S-1 ..... Bryan  
 Green, Elizabeth; A&S-2 ..... Houston  
 Green, Fredrick L.; A&S-1 ..... Quitman  
 Green, Gladys Nell; N.E.-2 ..... Bryan  
 Green, Herman; I.E.-6 ..... Bremond  
 Green, James Arthur (1); I.E.-3 ..... Bryan  
 Green, Jesse John; Engr-3 ..... Houston  
 Green, Mildred J.; N.E.-3 ..... Terrell  
 Green, Ruby Jean; A&S-3 ..... Normangee  
 Greene, David E.; A&S-6 ..... Beaumont  
 Greenhouse, Donald P.; A&S-2 ..... Houston  
 Greenleaf, Bettye J.; A&S-2 ..... Houston  
 Greenleaf, Lee; Agric-3 ..... Coldsprings  
 Greenleaf, Nettie J.; A&S-3 ..... Houston  
 Greenway, Iris J.; A&S-1 ..... Queen City  
 Greer, Eli Jr.; A&S-1 ..... Kaufman  
 Gregory, Flora Nell (2); H.E.-1 ..... Dallas  
 Gregory, George J.; Engr-1 ..... Waco  
 Gregory, Gwendolyn D.; A&S-3 ..... Dallas  
 Griffin, Betty Jean; A&S-3 ..... Mineola  
 Griffin, Bobbie Faye; H.E.-1 ..... Caldwell  
 Griffin, Darris E.; N.E.-2 ..... Alto  
 Griffin, Richard C.; Agric-5 ..... Athens  
 Grimes, Harold A.; A&S-1 ..... Houston  
 Grimes, Juanita; A&S-1 ..... Silsbee  
 Grimes, Pansy; A&S-2 ..... Beaumont  
 Grimes, Robert E.; Agric-2 ..... Houston  
 Grimes, Roland (2); I.E.-1 ..... Goodrich  
 Grisby, Hiram J.; A&S-2 ..... Jefferson  
 Grisby, Robert E.; Engr-3 ..... Douglass  
 Guidry, Cliffie A.; A&S-2 ..... Port Arthur  
 Guinn, Billie Renee; A&S-5 ..... Oakland, Calif.  
 Gunter, Donniss C.; A&S-4 ..... Tyler  
 Guy, Dorothea D.; A&S-1 ..... Kansas City, Mo.  
 Guy, Elsie Laverne (1); A&S-1 ..... Taylor  
 Hackney, Alberta D.; N.E.-3 ..... Houston  
 Hackworth, Bobbie M.; H.E.-1 ..... Elm Mott  
 Hackworth, Rosetta; A&S-3 ..... Elm Mott  
 Hadnot, Bobby Joe; I.E.-1 ..... Jasper  
 Hadnot, Rosa B.; A&S-1 ..... Silsbee  
 Haggins, Charles B. (2); A&S-1 ..... Diana  
 Hailey, Dixie J.; A&S-2 ..... Odessa  
 Hall, Arthur L.; A&S-4 ..... Waco  
 Hall, Carl A.; A&S-1 ..... Brenham  
 Hall, Derrall; I.E.-5 ..... Freeport  
 Hall, Edmond; A&S-3 ..... Paris  
 Hall, Hayden E.; Engr-4 ..... Whitewright  
 Hall, Mable; A&S-2 ..... Lovelady  
 Hall, Pearl B.; I.E.-2 ..... Austonia  
 Hall, Queen Ester (1); A&S-4 ..... Lovelady  
 Hamilton, Aliene S.; N.E.-1 ..... Pittsburg  
 Hamilton, Hilton (1); Engr-4 ..... Pittsburg  
 Hamilton, Maurine (1); A&S-2 ..... Abilene  
 Hamilton, Mollie (1); A&S-4 ..... Texarkana  
 Hamilton, Welton E.; A&S-3 ..... Pittsburg  
 Hampton, Hope N.; A&S-3 ..... Texarkana  
 Handcox, Berl L.; Engr-1 ..... Denton  
 Handy, Vernell L.; A&S-3 ..... Lufkin  
 Hankins, Wilma L. (2); A&S-3 ..... Beaumont  
 Hannibal, Margaret A.; A&S-1 ..... Houston  
 Hansell, Margaret R.; Engr-2 ..... Dallas  
 Hardaway, Pervis P.; A&S-3 ..... Seguin  
 Harden, Catherine; A&S-4 ..... Arp  
 Harden, Jesse E.; I.E.1 ..... Houston  
 Hardaway, Robbie J.; N.E.-3 ..... Taylor  
 Hardiman, Mary L.; A&S-1 ..... Dallas  
 Hardy, Carol J.; H.E.-2 ..... Wharton  
 Hardy, Leonard C.; Agric-3 ..... Houston  
 Hardy, Searcy Albert; A&S-1 ..... Dallas  
 Hargest, Conrad A.; A&S-1 ..... Gilmer  
 Hargro, Sylvester; A&S-4 ..... Houston  
 Harkless, Ella Mae; A&S-2 ..... Cedar Lane  
 Harkless, Mildred; A&S-4 ..... Cedar Lane  
 Harmon, Charles E.; A&S-1 ..... Cameron  
 Harper, Willie Jean (1); A&S-1 ..... Dallas  
 Harris, Archie (2); Agric-1 ..... Waco  
 Harris, Arthamous N.; A&S-1 ..... Sabine Pass  
 Harris, Bobby R.; Engr-2 ..... Dallas  
 Harris, Emmett; A&S-3 ..... Houston  
 Harris, Ethel J. (2); A&S-1 ..... Port Arthur  
 Harris, Frank P.; Agric-2 ..... Port Worth  
 Harris, Irma Jean; A&S-3 ..... Gonzales  
 Harris, Linnie Mae; N.E.-4 ..... Gary  
 Harris, Lee Etta (1); N.E.-3 ..... Port Arthur  
 Harris, Lois Faye; A&S-1 ..... Ennis  
 Harris, Mamie L.; A&S-1 ..... Dallas  
 Harris, Mattie P.; A&S-1 ..... Bryan  
 Harris, Melton; A&S-1 ..... Bellville  
 Harris, Raymond E. (2); Engr-1 ..... Galveston  
 Harrison, Dorothy J.; A&S-1 ..... Beaumont  
 Harrison, Lucille F.; H.E.-1 ..... Belton  
 Harry, John Arthur (2); I.E.-1 ..... Galveston  
 Hart, Emma Jean; N.E.-2 ..... Houston  
 Hart, Robbie Mae; A&S-1 ..... Bay City  
 Hartfield, Phyllis E.; A&S-2 ..... Lovernia  
 Harvey, Betty Lou; A&S-1 ..... Galveston  
 Harvey, Ethel L.; N.E.-2 ..... Baton Rouge, La.  
 Harvey, Vecola; H.E.-4 ..... Houston  
 Harvey Vera Dell; A&S-3 ..... Texarkana  
 Harvey Vera Lee; A&S-1 ..... Chappell Hill  
 Haskins, Maxine G.; A&S-3 ..... Port Arthur  
 Hawkins, Frank T.; A&S-3 ..... Hearne  
 Hawkins, Symolia L.; A&S-5 ..... Galveston  
 Hawkins, Symolia L.; A&S-5 ..... Galveston  
 Hawley, Lendell (1); Agric-4 ..... Gladewater  
 Hayes, Edward; A&S-3 ..... Galveston  
 Hayes, Gene; A&S-1 ..... Birmingham  
 Hayes, Richard D.; I.E.-4 ..... Houston  
 Haynes, Aaron; Engr-1 ..... Nacogdoches  
 Hayes, Clinton; A&S-1 ..... Tene Harte  
 Haynes, Faye H.; A&S-4 ..... Ennis  
 Haynes, Gabe W. (1); I.E.-1 ..... Trinity  
 Haynes, Ollie Ruth; A&S-2 ..... Beaumont  
 Hayward, Barbara J.; A&S-1 ..... Houston  
 Haywood, Robbie Jean; A&S-3 ..... Texarkana  
 Heard, Claudie May; H.E.-1 ..... Stephens, Ark.  
 Heard, Frank Jr.; Agric-6 ..... Stephens, Ark.  
 Heard, Georgia W.; A&S-2 ..... Houston  
 Heard, Reuben L.; I.E.-3 ..... Houston  
 Heath, Mattie L.; A&S-1 ..... Pittsburg  
 Heath, Willie Nell; A&S-2 ..... Houston  
 Hebert, Shirley L.; A&S-2 ..... Port Arthur  
 Heiskell, Vernon W. Jr.; Engr-1 ..... Dallas  
 Henderson, Betty J.; A&S-2 ..... Athens  
 Henderson, Bobbie D.; Engr-3 ..... Naples  
 Henderson, Ezra L.; A&S-5 ..... Waco  
 Henderson, Herbert H.; A&S-2 ..... Houston  
 Henderson, John R.; A&S-1 ..... Houston  
 Henderson, Sandra S.; A&S-1 ..... Houston  
 Henderson, Sidney; I.E.-4 ..... San Antonio  
 Henderson, Thomas L.; A&S-3 ..... Athens  
 Henderson, Vivian N.; A&S-1 ..... Robstown  
 Hendricks, Thomas J.; A&S-3 ..... Dallas  
 Henley, Grace L. (1); A&S-3 ..... Sommerville  
 Henry, Cartelian; A&S-2 ..... Centerville  
 Henry, Clifton M.; I.E.-3 ..... Centerville  
 Henry, Martha Ann; A&S-4 ..... Prairie View  
 Henry, Ruby Lee; I.E.-3 ..... Beaumont  
 Hensley, Robert; A&S-1 ..... Houston  
 Henson, Bettie Jean; A&S-2 ..... Houston  
 Herron, Arthur Lee; A&S-2 ..... Prairie View  
 Herron, Jimmy Don; A&S-3 ..... Corsicana  
 Hervey, Billy Ted; Engr-2 ..... Naples  
 Hicks, Gwendolyn (2); A&S-1 ..... Beaumont  
 Higgs, George; A&S-5 ..... Prairie View  
 Higgs, Olivette J.; A&S-9 ..... Prairie View  
 Hilburn, Madero H.; A&S-1 ..... Longview  
 Hill, Augustes E.; A&S-1 ..... Fort Worth  
 Hill, Clarence E.; I.E.-3 ..... Yoakum  
 Hill, Damon H.; I.E.-1 ..... Austin  
 Hill, Fred L.; I.E.-4 ..... Denton  
 Hill, Eloise G.; A&S-1 ..... Wharton  
 Hill, Ira Stanford; I.E.-4 ..... Austin  
 Hill, Moses L.; A&S-1 ..... Houston  
 Hill, Prince Albert (1); I.E.-4 ..... Austin



Hill, Robert P.; I.E.-4 ..... Little Rock, Ark.  
Hill, Samuel; A&S-4 ..... Hankamer  
Hill, Tommie L.; A&S-1 ..... Dallas  
Hilliard, Bessie L.; A&S-2 ..... Denison  
Hiner, Gloria J.; A&S-2 ..... Naples  
Hinton, Alfred; I.E.-2 ..... Glen Flora  
Hitchens, Ruddle E.; A&S-3 ..... Houston  
Hobbs, Barbara H. (2); A&S-4 ..... Houston  
Hobbs, Betty Jean; N.E.-1 ..... League  
Hobbs, Edith Jean; N.E.-4 ..... Paris  
Hodge, Bennie Jewel; A&S-2 ..... Lincoln  
Hodge, Delmareese; H.E.-2 ..... Highbank  
Hodge, Verdell; A&S-2 ..... Calvert  
Hodge, Norman R.; A&S-1 ..... Lincoln  
Hodge, Verdell; A&S-2 ..... Calvert  
Hodge, Willie B.; I.E.-2 ..... Jefferson  
Hodrick, Cora E.; A&S-2 ..... Caldwell  
Hoffman, Robert L.; Engr.-2 ..... Houston  
Hogan, Archie C.; A&S-2 ..... Brenham  
Hogan, Elnora; N.E.-4 ..... Texas City  
Holford, Donald L.; A&S-4 ..... Bonham  
Holliston, Shankle; Engr.-1 ..... Newton  
Holland, Barbara Jean; A&S-2 ..... Kilgore  
Holland, Helen M. (2); A&S-1 ..... Dallas  
Holland, Margaret F.; A&S-3 ..... Bay City  
Holland, Sarah L. (2); ..... Denton  
Hollins, James A.; A&S-1 ..... Crane  
Hollins, Lanetta B.; A&S-2 ..... Bryan  
Holloway, Manuel Lee; A&S-1 ..... Beaumont  
Holloway, Peggy Lou; A&S-1 ..... Beaumont  
Holloway, Reginald; Engr.-1 ..... San Antonio  
Holman, Rhence Joyce (2); N.E.-6 ..... Houston  
Holmes, Dixie Jo; A&S-2 ..... Highbank  
Holmes, Marion C.; A&S-4 ..... Baytown  
Holt, Bettie F.; A&S-2 ..... Huntsville  
Holt, Earline; A&S-2 ..... Bethany, La.  
Holt, Barbara A.; N.E.-1 ..... Liberty  
Holtz, Maudry J.; N.E.-3 ..... LaMarque  
Hood, Shirley Jan; A&S-1 ..... Houston  
Hooks, Wilena R.; A&S-3 ..... DeKalb  
Horn, Alrethia; N.E.-1 ..... Galveston  
Hornsby, Gentris L.; A&S-2 ..... San Antonio  
Horse, Dorothy Jean; A&S-3 ..... DeKalb  
Houston, Gloria R.; A&S-4 ..... Bremond  
Houston, John E.; Engr.-3 ..... Austin  
Houston, Johnnie P. (2); H.E.-1 ..... Milford  
Houston, Mary E.; N.E.-5 ..... Houston  
Houston Samuel D.; A&S-3 ..... Tyler  
Howard, Avalonia W. (2); I.E.-1 ..... Shelbyville  
Howard, Bobbie Jean; A&S-4 ..... Marlin  
Howard, Charles G.; A&S-3 ..... Roseberg  
Howard, Darlene L.; A&S-3 ..... Brenham  
Howard, Myrtle M.; A&S-3 ..... Call  
Howard, Robert J.; Engr.-2 ..... Point Blank  
Howard, Sandra Ann; A&S-1 ..... Point Blank  
Howard, William; Agric.-2 ..... Brenham  
Howell, Nancy Marie; A&S-4 ..... Dallas  
Hubbard, Bessie M.; A&S-4 ..... Hubbard  
Hubbard, Claudia Dell; A&S-1 ..... Lone Oak  
Hubbard, Curtis W.; Agric.-1 ..... Houston  
Hubbard, Dorothy M.; A&S-1 ..... Houston  
Hubbard, Marjorie; H.E.-2 ..... Trinity  
Hubbard, Netra M.; A&S-2 ..... DeKalb  
Hubbard, Otis O.; I.E.-2 ..... Hooks  
Hubbard, Uneeda Mae; A&S-3 ..... Hooks  
Hudgins, Willie Mae; A&S-3 ..... Bay City  
Hudson, Joan M.; A&S-1 ..... Houston  
Hudspeth, George O.; I.E.-3 ..... Hempstead  
Huff, Talmadge; I.E.-1 ..... Ledbetter  
Hughes, Lake Zack; Agric.-4 ..... Gilmer  
Hughes, Vernell (2); A&S-2 ..... Gilmer  
Hulin, Joyce M.; A&S-1 ..... Port Arthur  
Humphrey, Dorothy M.; A&S-1 ..... Belton  
Humphrey, Montie L.; Engr.-1 ..... Galveston  
Humphrey, Royland O.; Agric.-3 ..... Coleman  
Hunt, Franklin D.; A&S-4 ..... Waclder  
Hunt, Herbert Lee; A&S-2 ..... Palestine  
Hunt, Jimmie L.; A&S-1 ..... Atlanta  
Hunt, Jimmie O'Neal; I.E.-1 ..... Palestine  
Hunt, Zeta E. (1); H.E.-4 ..... Port Arthur

Hunter, Barbara Jeane (1); A&S-1 ..... Paris  
Hunter, Etiza J.; N.E.-3 ..... Malakoff  
Hunter, Jeremian; Engr.-1 ..... Dallas  
Huntre, William C.; A&S-2 ..... Galveston  
Huntty, Mary J.; A&S-4 ..... Dallas  
Hurd, Alican M.; H.E.-4 ..... Beasey  
Hurd, Johnnie Mae; A&S-4 ..... Greggton  
Hurst, Fannie Fay; Engr.-1 ..... Houston  
Hutchison, Harold T.; A&S-1 ..... Dallas  
Hutcnison, Nannette B.; H.E.-5 ..... Waco  
Hyman, J. C.; A&S-4 ..... New Boston  
Ieans, John Henry; A&S-4 ..... Beaumont  
Ingram, Leroy; Engr.-2 ..... Houston  
Isaac, Eva Mae; A&S-4 ..... Beckville  
Isabel, Frank H.; H.E.-1 ..... Tyler  
Isadore, Jettie M.; A&S-2 ..... Grapeland  
Jackson, Alice M.; A&S-2 ..... El Campo  
Jackson, Arthur; I.E.-1 ..... Brenham  
Jackson, Bonnie (1); I.E.-2 ..... Houston  
Jackson, Claudie B.; A&S-3 ..... Naples  
Jackson, Coretha H. (1); A&S-4 ..... Hempstead  
Jackson, Donrell; N.E.-3 ..... Houston  
Jackson, Dorothy McBay (2); A&S-5 ..... Mexia  
Jackson, Eartis; Engr.-2 ..... Baytown  
Jackson, Elias B.; A&S-1 ..... Lincoln  
Jackson, Ella May; A&S-4 ..... Forth Worth  
Jackson, Elsie M. (1); A&S-1 ..... Dallas  
Jackson, Eva June; A&S-4 ..... Palestine  
Jackson, Florence L.; A&S-1 ..... Richmond  
Jackson, Freddie L. (2); Engr.-3 ..... Houston  
Jackson, George R.; A&S-3 ..... Plano  
Jackson, Georgia M.; N.E.-3 ..... Houston  
Jackson, Gloria A.; N.E.-3 ..... Marlin  
Jackson, Gwendolyn R.; A&S-3 ..... La Marque  
Jackson, Harry W., Jr.; I.E.-2 ..... Fort Worth  
Jackson, Helen J. (1); A&S-3 ..... Carthage  
Jackson, Herbert; A&S-4 ..... Waco  
Jackson, Herman D.; Engr.-2 ..... Port Arthur  
Jackson, James M.; A&S-2 ..... Taylor  
Jackson, Jerrrell M.; I.E.-1 ..... Tyler  
Jackson, Johnie C.; A&S-1 ..... Tyler  
Jackson, Johnny Ray; A&S-1 ..... Hearne  
Jackson, Jonas W.; I.E.-2 ..... San Antonio  
Jackson, L. V.; I.E.-2 ..... Dallas  
Jackson, Laverne; A&S-4 ..... Denton  
Jackson, Lela Mae; A&S-4 ..... Denton  
Jackson, Lillian D.; A&S-3 ..... Bay City  
Jackson, Lowell (2); A&S-5 ..... San Antonio  
Jackson, Lucy Gene; H.E.-1 ..... Eagle Lake  
Jackson, Margaret L.; H.E.-4 ..... Greenville  
Jackson, Margie A.; A&S-1 ..... Fort Worth  
Jackson, Mathie Lee; Agric.-4 ..... Grapeland  
Jackson, Nettie D.; H.E.-3 ..... San Antonio  
Jackson, Nolah M.; A&S-4 ..... Devers  
Jackson, October M. M.; A&S-5 ..... Austin  
Jackson, Roosevelt Jr.; A&S-4 ..... Mineral Wells  
Jackson, Ruth Ethel; A&S-2 ..... Greenville  
Jackson, Ruth J.; H.E.-3 ..... Cold Spring  
Jackson, Samuel C.; A&S-3 ..... Galveston  
Jackson, Thelma C.; A&S-1 ..... Plano  
Jacobs, Anne F.; N.E.-1 ..... Henderson  
Jacobs, Thomas E., Jr.; (2) Engr.-1 ..... Fort Worth  
Jacques, Shirley M.; A&S-4 ..... Conroe  
James, Albert G.; A&S-3 ..... Houston  
James, Evie A.; I.E.-1 ..... Conroe  
James, Freddie Lee; A&S-1 ..... Atlanta  
James, Hallie R.; A&S-3 ..... Conroe  
James, Lawrence (1); A&S-1 ..... Houston  
James, Monroe L.; A&S-2 ..... Marshall  
James, Lester A.; I.E.-3 ..... Houston  
James, Wilma Jean; N.E.-2 ..... Houston  
James, Winifret J. (2); H.E.-1 ..... Lufkin  
Jameson, Ruby F.; A&S-4 ..... Brenham  
Jameson, Sue Addie; A&S-2 ..... Brenham  
Jamison, Jerona E.; A&S-3 ..... Miami, Fla.  
Jammer, Carrie B.; H.E.-1 ..... Brazoria  
Jammer, Perline E.; A&S-1 ..... Brazoria  
Jarmon, Van Sterling; A&S-1 ..... Itasca  
Jasper, Thomassine; N.E.-4 ..... LaMarque  
Jay, Mary E.; A&S-4 ..... Abilene  
Jeffero, Hattie Ruth; A&S-2 ..... Huntsville

Jefferson Barbara J.; A&S-2 .....Wharton  
 Jefferson, Joe Allen; I.E.-1.....Wharton  
 Jefferson, Dorothy; N.E.-2 .....Palestine  
 Jefferson, Martha L.; A&S-4.....Calvert  
 Jeffery, Gala Ruth; A&S-3.....Crane  
 Jekls, Joyce M. T.; A&S-3.....Floydada  
 Jemerson, Radie; I.E.-1.....Dallas  
 Jenkins, Eddie L.; Engr.-1.....Lutkin  
 Jenkins, Evelyn L.; N.E.-2.....Houston  
 Jenkins, Jewel, Jr.; A&S-3.....Fort Bend  
 Jenkins, Shirley L.; H.E.-2.....Conroe  
 Jennings, Freddie; Agric.-3.....Center  
 Jennings, Orstella; A&S-1.....Center  
 Jernigan, James, Jr. (2); I.E.-1.....Marshall  
 Jernigan, Mary H.; A&S-3.....Ballinger  
 Jessie, Jimmie R.; A&S-4.....Athens  
 Jimmerson, Dorothy, R.; A&S-1.....Kerens  
 Joe, Jewell Jeanette; H.E.-2.....Palestine  
 Joe, Vera A.; A&S-1.....Port Arthur  
 Johns, Antonio M.; Engr.-1.....San Antonio  
 Johns, Elizabeth A.; A&S-4.....Cleburne  
 Johnson, Alphonse; A&S-3.....Angleton  
 Johnson, Amye Lee; N.E.-1.....Longview  
 Johnson, Annie Bell; A&S-2.....Jewett  
 Johnson, Bernard C.; A&S-4.....Prairie View  
 Johnson, Betty Jean; A&S-3.....Longview  
 Johnson, Betty Ruth; A&S-1.....Beaumont  
 Johnson, Billy Joe; A&S-1.....West  
 Johnson, Billy M.; Agric.-1.....Greenville  
 Johnson, C. H. (2); A&S-5.....Prairie View  
 Johnson, Callie Mae; H.E.-1.....Fairfield  
 Johnson, Charles W. (1); A&S-2.....McKinney  
 Johnson, Cherrie Lee; A&S-1.....Magnolia  
 Johnson, Claude G.; A&S-1.....Beaumont  
 Johnson, Clevester; A&S-2.....Coolidge  
 Johnson, Clyde C.; A&S-2.....Bent  
 Johnson, Diane M.; A&S-4.....Dallas  
 Johnson, Donnie J.; A&S-2.....Cuney  
 Johnson, Doris L.; A&S-3.....Houston  
 Johnson, Dorothy L.; A&S-4.....Plano  
 Johnson, Dorothy L.; A&S-4.....Pleasanton  
 Johnson, Earl T.; I.E.-3.....San Angelo  
 Johnson, Elaine R.; N.E.-3.....Tyler  
 Johnson, Elliott L.; A&S-1.....Oakwood  
 Johnson, Elroy Jr.; Agric.-3.....Hallettsville  
 Johnson, Fores; I.E.-1.....College Station  
 Johnson, George D.; I.E.-1.....Austin  
 Johnson, Hallouise; A&S-4.....Beaumont  
 Johnson, Herbert; A&S-3.....Hempstead  
 Johnson, Herbert R.; A&S-2.....Mexia  
 Johnson, John Lund; A&S-1.....Gilmer  
 Johnson, Joyce E.; A&S-3.....Columbus  
 Johnson, Juanita J.; A&S-3.....Keltys  
 Johnson, Lillian R.; N.E.-2.....Houston  
 Johnson, Lillie L.; H.E.-2.....Caldwell  
 Johnson, Lorene V.; I.E.-1.....Houston  
 Johnson, Loretta C. F.; (2) A&S-1.....Dallas  
 Johnson, Luther Allen; A&S-4.....Calvert  
 Johnson, Maggie G. (2); H.E.-2.....Houston  
 Johnson, Margie N.; N.E.-1.....Tyler  
 Johnson, Marline N.; N.E.-1.....Gause  
 Johnson, Mary Ann; A&S-3.....Mexia  
 Johnson, Mary C.; N.E.-1.....Nacogdoches  
 Johnson, Mary L.; A&S-2.....Brazoria  
 Johnson, Milton Jr.; A&S-1.....Hitchcock  
 Johnson, Naomi; N.E.-1.....Bay City  
 Johnson, Nathaniel; A&S-1.....New Boston  
 Johnson, Richard V.; Agric.-2.....Harrison  
 Johnson, Rudolph; A&S-4.....Houston  
 Johnson, Ruth; A&S-3.....Cuero  
 Johnson, Shirley R.; H.E.-3.....Fairfield  
 Johnson, Tommy; A&S-2.....Houston  
 Johnson, Vera Lee; A&S-1.....Jasper  
 Johnson, Walter C.; A&S-2.....Fort Worth  
 Johnson, William D.; I.E.-1.....Glen Flora  
 Johnson, Zelma L.; H.E.-1.....Waskom  
 Joiner, Charles H.; Agric.-4.....Rice  
 Jolayemi, James O.; Agric.-2.....Challenge, Nigeria  
 Jolly, Ernest; Engr.-4.....Nome  
 Jones, Alex; Engr.-4.....Nome  
 Jones, Annie J.; A&S-4.....Winnsboro

Jones, Arah Jewel; A&S-1.....Overton  
 Jones, Arlene Frances; A&S-3.....Gilmer  
 Jones, Calvin; Engr.-2.....Dallas  
 Jones, Earlie; A&S-3.....Columbus  
 Jones, Edna E.; N.E.-1.....Caldwell  
 Jones, Elmo, Jr.; I.E.-1.....Placedo  
 Jones, Emric L.; H.E.-2.....Marshall  
 Jones, Ernest; I.E.-2.....Vernon  
 Jones, Gwendolyn B.; A&S-5.....Prairie View  
 Jones, Hazel; H.E.-1.....Clarksville  
 Jones, Hazel B.; A&S-4.....Atlanta  
 Jones, Homer L.; I.E.-2.....Troup  
 Jones, James C.; Engr.-1.....Houston  
 Jones, John B.; A&S-3.....Naples  
 Jones, Joseph; A&S-3.....Silsbee  
 Jones, Lillie Marie; A&S-1.....Terrell  
 Jones, Loretta; H.E.-2.....Livington  
 Jones, Lottie M. (2); A&S-1.....Montgomery  
 Jones, Lula Belle; A&S-2.....Cleburne  
 Jones, Maxine; N.E.-2.....Many, La.  
 Jones, Melcse M.; I.E.-2.....Port Arthur  
 Jones, Murdie V.; A&S-2.....Marlin  
 Jones, Norris G.; A&S-3.....Dallas  
 Jones, Orez L. Neal; N.E.-1.....Overton  
 Jones, Reed J.; A&S-1.....Detroit  
 Jones, Roosevelt G.; A&S-4.....Dallas  
 Jones, Rosie Marie; A&S-4.....Livington  
 Jones, Ruby Nell; H.E.-2.....Trinity  
 Jones, Sarah Lee; N.E.-2.....Beaumont  
 Jones, Shirley Mae; H.E.-1.....Floydada  
 Jones, Vonzella; A&S-3.....San Augustine  
 Jones, Willa M.; H.E.-4.....Conroe  
 Jones, Willene; A&S-4.....Columbus, Ga.  
 Jones, William E.; Engr.-4.....Overton  
 Jones, Willie B.; A&S-2.....Honey Grove  
 Jones, Willie F.; A&S-4.....Houston  
 Jones, Woodie; A&S-3.....Prairie View  
 Jordan, Bettie J.; N.E.-2.....Houston  
 Jordan, Virginia R.; A&S-4.....Houston  
 Jordan, Yvonne T. (1); A&S-4.....West Columbia  
 Joseph, Irma J.; A&S-3.....Houston  
 Joseph, Willie Mae; N.E.-1.....Port Arthur  
 Joseph, William Jr.; A&S-3.....Houston  
 Joyce, Roy Allen; Engr.-1.....Liberty  
 Justice, Berdie Jean; N.E.-1.....Houston  
 Kellum, Charles E.; Engr.-2.....Fort Worth  
 Keener, Harold H.; A&S-4.....Houston  
 Keeze, Donny R.; A&S-2.....Waco  
 Kelley, Wade; A&S-1.....Gonzales  
 Kelly, Arthur (2); A&S-1.....Cameron  
 Kelly, Dorothy M.; A&S-2.....Cameron  
 Kendall, Ernestine E.; N.E.-1.....Corpus Christi  
 Kendall, Williams; A&S-2.....Corpus Christi  
 Kendrick, Willia K.; A&S-2.....Sulphur Springs  
 Kennard Audrey J.; N.E.-1.....Houston  
 Kennard, Georgia; N.E.-1.....Bryan  
 Kennard, Georgia Ann; N.E.-1.....Bryan  
 Kennedy, Willie E.; A&S-4.....Ben Wheeler  
 Kennon, Crystal E.; H.E.-2.....San Antonio  
 Kessce, Gladys W.; A&S-1.....Houston  
 Key, Frank A.; Engr.-1.....Marshall  
 Keys, Sarah Lee; N.E.-1.....Rosharon  
 Kimble, Betty L.; A&S-4.....Denton  
 Kimble, Bobbie J.; A&S-1.....Denton  
 Kindley, Elma A.; A&S-1.....Fort Worth  
 Kindred, James W.; Engr.-2.....Ellis  
 King, Billy R.; I.E.-2.....Bloomington  
 King, Charles E. (1); I.E.-1.....Bloomington  
 King, Doris M.; H.E.-2.....Benchley  
 King, Dorothy L.; A&S-1.....Winnfield  
 King, Emanuel (2); A&S-3.....Port Arthur  
 King, Harvey C.; A&S-4.....Houston  
 King, Julia M.; A&S-4.....Victoria  
 King, Leola Jean; A&S-3.....Atlanta  
 King, Lonnie L.; A&S-1.....Atlanta  
 King, Nathalia C.; A&S-2.....Crockett  
 King, Otris M.; I.E.-2.....Benchley  
 Kinnard, Audrey; N.E.-1.....Houston  
 Kinnard, Hazel J.; A&S-1.....Bellville  
 Kirby, Herbert C.; A&S-1.....Hempstead  
 Kirkwood, Daniel (1); A&S-1.....Colmesieil

Kirkwood, James I.; A&S-9.....Prairie View  
 Kirven, Mae Lois; A&S-4.....Dallas  
 Knight, Elmer Jr.; A&S-1.....Calvert  
 Knight, Iola; A&S-1.....Big Lake  
 Knox, Edward H.; A&S-2.....Bryan  
 Knox, John J.; Agric.-2.....Bryan  
 Krause, Victor; I.E.-2.....Monrovia, Liberia  
 Krouse, John P.; I.E.-5.....Prairie View  
 Kyle, Annie M.; A&S-2.....Houston  
 Kyle, Charles E.; Engr.-1.....Jasper  
 Kyle, Edward A.; A&S-3.....Dallas  
 Lacey, Dora; A&S-2.....Fort Worth  
 Lacy, Frankie Mae; A&S-2.....Fort Worth  
 Lampkin, Johnnie M.; A&S-2.....Nacogdoches  
 Lampley, Gloria E.; A&S-3.....Thompson  
 Landry, Barbara Ann (2); A&S-1.....Port Arthur  
 Lang, Corlandus; Engr.-1.....Lubbock  
 Langlanais, Helen J.; A&S-1.....Port Arthur  
 Langley, Melvin H.; A&S-4.....Malakoff  
 Langston, Julius L.; Agric.-3.....Corsican  
 Lartique, Julia L.; N.E.-2.....Eunice  
 Law, Mary Earle (2); A&S-6.....Prairie View  
 Lawson, Edna L. (1); N.E.-5.....Houston  
 Laymond, Rose E.; H.E.-4.....Calvert  
 Leake, Billie G.; N.E.-1.....Houston  
 Leblanc, Rubye Pearl; A&S-1.....Beaumont  
 Lee, Eloise B.; H.E.-9.....Tyler  
 Lee, Herbert James; I.E.-1.....Houston  
 Lee, Hubert J.; A&S-3.....Chandler  
 Lee, Lois Kathryn; A&S-2.....Greenville  
 Lee, Maxie Miles; A&S-1.....Port Worth  
 Lefall, Lucy M.; A&S-1.....Marshall  
 Lemons, Minnie Lee; N.E.-3.....Houston  
 Lemuel, James Earl; I.E.-2.....Dallas  
 Leonard, Joe E.; A&S-3.....Crockett  
 Leonard, Joyce J.; A&S-3.....Lawton, Okla.  
 Leonard, Lloyd; I.E.-1.....Houston  
 Leopold, Evelyn M.; A&S-2.....Port Arthur  
 Lester, John E.; Engr.-1.....Brenham  
 Livingston, Alberta; A&S-1.....Fort Worth  
 Levy, Joyce M.; A&S-4.....Port Arthur  
 Levy, Lemer C.; I.E.-3.....Port Arthur  
 Lewis, Barbara J.; H.E.-2.....Belton  
 Lewis, Cammie (2); Engr.-2.....Evergreen, La.  
 Lewis, Dorothy Nell; A&S-3.....Odessa  
 Lewis, Dorothy V.; A&S-2.....Bay City  
 Lewis, Durrie E.; Engr.-1.....Omaha  
 Lewis, Eugene; A&S-3.....Baytown  
 Lewis, Flora Ann; A&S-2.....Waxahachic  
 Lewis, Geraldine (1); N.E.-1.....Woodville  
 Lewis, Gladys (1); N.E.-1.....Rockport  
 Lewis, Grace Lee; A&S-1.....Pecos  
 Lewis, Herbert J.; A&S-1.....Houston  
 Lewis, Horace A.; A&S-4.....Anahuac  
 Lewis, James W.; Engr.-9.....Houston  
 Lewis, Joe L.; A&S-1.....Houston  
 Lewis, Juanita E.; A&S-3.....Texarkana  
 Lewis, Margaret (1); I.E.-4.....Port Arthur  
 Lewis, Melvin; I.E.13.....Houston  
 Lewis, Patricia A.; A&S-4.....Corpus Christi  
 Lewis, Pennie Ella; A&S-1.....Burkeville  
 Lewis, Richard Earl; Engr.-1.....Longview  
 Lewis, Ross E.; A&S-4.....Ennis  
 Lewis, Thomas E. (2); A&S-3.....Corpus Christi  
 Lewis, Vera E.; H.E.-3.....Houston  
 Ligon, Freddie M.; A&S-2.....Houston  
 Lilly, Emmet Jean (2); A&S-1.....Houston  
 Limbrick, Thurman; Agric.-1.....Jasper  
 Lincoln, Jarvis; A&S-3.....Eagle Lake  
 Lincoln, Willie I.; I.E.-1.....Tyler  
 Lindsay, Horace A. Jr.; Engr.-2.....Houston  
 Lindsey, Lawrence C.; Engr.-4.....Texarkana  
 Lindsey, Barbara L.; A&S-2.....Dallas  
 Lintz, Gene A.; Engr.-1.....Dallas  
 Linwood, Joe M.; (1) I.E.-1.....Pittsburgh  
 Lister, Odell (1); Agric.-1.....Kaufman  
 Little, Edna (2); A&S-4.....Wichita Falls  
 Little, Robert James; Agric.-6.....Independence  
 Littleton, Mary L.; A&S-1.....Dallas  
 Livingston, Eddie R.; H.E.-4.....Waco  
 Lockett, Lou V.; N.E.-3.....Linden  
 Lockett, Vollie R.; Agric.-4.....Linden  
 Loftis, Elizabeth (1); A&S-1.....Mt. Enterprise  
 Loftis, Ettie Jean; I.E.-1.....Laneville  
 Long, Ruby H.; A&S-4.....Lufkin  
 Lott, Ella Mae; N.E.-1.....Wellborn  
 Lott, Joyce; N.E.....West  
 Lovell, Jenella Mary; H.E.-2.....Port Arthur  
 Love, Betty J.; A&S-1.....Port Worth  
 Love Gladys J. J.; A&S-2.....Fort Worth  
 Love, Gwendolyn R.; A&S-2.....Waxahachic  
 Love, Jewel R. (2); Engr.-1.....Fort Worth  
 Lovell, Doris H.; A&S-4.....Houston  
 Lovings, Margaret; A&S-1.....Burton  
 Lowe, Bettye J.; A&S-2.....Sulphur Springs  
 Lowe, Shellia (1); H.E.-2.....Altair  
 Lucas, Orice Lee; N.E.-2.....Houston  
 Luckey, Roosevelt; I.E.-3.....Bryan  
 Luke, Evelyn M.; A&S-2.....Gonzales  
 Lusk, Ava Nell; N.E.-2.....Gilmer  
 Luster, Lewis L.; A&S-4.....McKinney  
 Lydia, Jimmy E.; A&S-1.....Fort Worth  
 Lydia, Sherry A. (1); A&S-4.....Averton  
 Lyles, Helen J.; A&S-3.....Nacogdoches  
 Lynch, Georgia L.; A&S-3.....Carthage  
 Lynch, Johnnie L.; H.E.-3.....Crockett  
 Lyons, Bernardine (1); A&S-4.....Port Arthur  
 Lyons, Delmon Dennis; A&S-3.....Abilene  
 McBay, Joyce P.; A&S-4.....Dallas  
 McBride, Berda M.; A&S-3.....Temple  
 McCald, Lloyd Bje; A&S-1.....Anderson  
 McCann, Jessie M.; H.E.-2.....Egypt  
 McCann, Joyce; A&S-4.....Egypt  
 McCarty, Vera L.; A&S-3.....Detroit  
 McCauley, Joe Ella; A&S-4.....Houston  
 McClellan, Ocia L.; Engr.-3.....Terrell  
 McClellan, Woddie R.; Engr.-1.....Terrell  
 McClendon, Lloyd; Agric.-2.....Beckville  
 McClendon, James H.; A&S-4.....Bryan  
 McCloud, Frances; A&S-3.....Denison  
 McCloud, Lulal; A&S-2.....Fort Worth  
 McCluskey, Gladys; H.E.-1.....Anahuac  
 McCormick, Frank M. (1); Engr.-2.....Tyler  
 McCoy, Charlie D.; Agric.-4.....Giddings  
 McCoy, Edward; A&S-3.....Palestine  
 McCoy, Gwendolyn E.; A&S-4.....Wichita Falls  
 McCray, Helen J. (2); A&S-3.....Beaumont  
 McCullough, Laverne (1); A&S-4.....Avinger  
 McCullough, Margaret; A&S-1.....Hitchcock  
 McCullough, Mary J. (2); A&S-2.....Fort Worth  
 McDaniel, Dan; A&S-1.....Port Arthur  
 McDaniels, Louis C.; Agric.-1.....Port Arthur  
 McDonald, Annie L.; H.E.-3.....Silsbee  
 McDonald, Artie L.; A&S-2.....Corpus Chrsi  
 McDonald, David; A&S-3.....Orange  
 McDonald, Martha J.; A&S-1.....Beaumont  
 McDowell, Janis O.; A&S-4.....Lincoln  
 McDuffy, Henry E.; Engr.-1.....Shepherd  
 McDuffy, Jane D.; A&C-4.....Shepherd  
 McElroy, Annetta Y.; A&S-1.....Houston  
 McElroy, Selma Irene (1); N.E.-1.....Port Arthur  
 McEwing, Delores (2); N.E.....Jacksonville  
 McGee, Annie Laura; N.E.-3.....Houston  
 McGary, James M. (2); I.E.-1.....Douglasville  
 McGill, Clara M.; A&S-2.....Mt. Pleasant  
 McGill, Cleopatra; A&S-1.....Hillsboro  
 McGill, Ella Ruth; A&S-4.....Mt. Pleasant  
 McGill, Eula Mae; N.E.-1.....Hillsboro  
 McGinty, Joseph; A&S-3.....Navasota  
 McGlothen, Mattie L.; H.E.-3.....Huntsville  
 McGowan, Joyce P.; A&S-4.....Houston  
 McGruder, Janet; A&S-3.....Sherman  
 McGruder, Marjorie; A&S-2.....Lufkin  
 McIlveen, Marcie M.; A&S-4.....Fairfield  
 McIlveen, Shirley J.; A&S-1.....Fairfield  
 McIntosh, Florence A.; N.E.-4.....Hawkins  
 McKee, Frank C.; I.E.-1.....Rockdale  
 McKinney, Harlee; A&S-3.....Vanalstyne  
 McKinney, James E.; I.E.-1.....Dickinson  
 McKinney, Lillie B.; A&S-3.....Conroe  
 McKinney, Robert L.; A&S-2.....Van Alstyne  
 McKinze, Scott; I.E.-4.....Prairie View

McKnight, Gloria E.; A&S-4 ..... Denison  
 McKnight, Leslie L.; A&S-3 ..... Denison  
 McKnight, Mary V.; A&S-3 ..... Dallas  
 McLemore, Lizzie M.; A&S-1 ..... Conroe  
 McLennan, Necye N. B.; A&S-3 ..... Austin  
 McNary, Ida Bell; A&S-4 ..... Victoria  
 McNeil John W.; A&S-1 ..... Kendleton  
 Mack, John Lee (2); I.E.-1 ..... LaMarque  
 Mack, Laverne; A&S-3 ..... LaMarque  
 Madison, Frank H. Jr.; Engr.-1 ..... Fort Worth  
 Madison, Joe Earl; A&S-1 ..... Fort Worth  
 Madson, Norma J.; A&S-1 ..... Lufkin  
 Madkins, Eva Sue; A&S-1 ..... Henderson  
 Madkins, Martha L.; A&S-3 ..... Nacogdoches  
 Madkins, Wimster L. Jr.; I.E.-1 ..... Nacogdoches  
 Mallard, Robbie J.; H.E.-2 ..... Palestine  
 Mallard, Bobbie J.; H.E.-2 ..... Palestine  
 Mallory, Annie Lois; A&S-1 ..... Longview  
 Mallory, Orata; A&S-4 ..... Jacksonville  
 Malone, Charlie L. Jr.; Engr.-1 ..... Terrell  
 Malone, Frances L.; N.E.-2 ..... Oakwood  
 Malone, Marlin A.; I.E.-4 ..... Longview  
 Malone, Sylvester Jr.; A&S-2 ..... Waxahachie  
 Malone, Thomas E.; I.E.-1 ..... Huntsville  
 Malone, Verda (1); A&S-3 ..... Huntington  
 Malone, Viola N.; A&S-2 ..... Baytown  
 Mangram, Bennie W.; I.E.-1 ..... Pittsburg  
 Manor, Maxine (2); H.E.-3 ..... Elgin  
 Manoy, Viola; A&S-4 ..... Sherman  
 Mangram, Sallie R.; A&S-1 ..... El Paso  
 Manning, Archie T.; I.E.-3 ..... Waco  
 Mardis, Luther; I.E.-1 ..... Timpson  
 Mark, Chester A. Jr.; A&S-5 ..... Dallas  
 Mark, Clyde E.; I.E.-2 ..... Apple Spring  
 Mark, Zerlina J.; N.E.-2 ..... Apple Spring  
 Marlin, Earline A. (2); A&S-4 ..... El Paso  
 Marshall, Alma Mary; A&S-4 ..... Wichita Falls  
 Marshall, Betty J.; A&E-2 ..... Memphis  
 Marshall, Lewis M.; A&S-4 ..... Austin  
 Marshall, Otis; .....  
 Marshall, Zelema; A&S-1 ..... Beaumont  
 Martin, Bettye J.; H.E.-4 ..... Port Arthur  
 Martin, Charlie M. (2); A&S-2 ..... Dallas  
 Martin, Delores A.; A&S-2 ..... Port Arthur  
 Martin, Ddot; Agric.-1 ..... Clarksville  
 Martin; Evor Lois; A&S-1 ..... Nacogdoches  
 Martin, Nadine T. (2); A&S-1 ..... Atlanta  
 Martin, Otis Lee; N.E.-1 ..... San Antonio  
 Martin, Robert M.; A&S-2 ..... Temple  
 Martin, Wesley (2); I.E.-1 ..... Atlanta  
 Martin, Zealous D. (1); A&S-5 ..... Newton  
 Mason, Margaret A.; A&S-1 ..... Elmendorf  
 Massey, Billy H. (2); A&S-2 ..... Dallas  
 Masters, Elmond B.; A&S-3 ..... Tyler  
 Mathews, Zerlee A.; A&S-1 ..... Oakwood  
 Mathis, Dorothy; A&S-1 ..... Houston  
 Mathis, Jesse Lee; Agric.-4 ..... Groveton  
 Mathis, Joe A.; A&S-2 ..... Cuero  
 Matthews, Albert G.; A&S-4 ..... Fort Worth  
 Matthews, Dora M.; A&S-2 ..... Port Arthur  
 Matthis, Marlene; A&S-1 ..... Dallas  
 Maxey, Constance J.; A&S-1 ..... Houston  
 Maxey, Joyce M.; A&S-1 ..... Temple  
 Maxie, Doris Mae; I.E.-1 ..... Brownwood  
 Maxwell, Marvis J.; N.E.-3 ..... Houston  
 Mayberry, Clinnon; I.E.-2 ..... Gonzales  
 Mayes, Frankie B.; (1) A&S-1 ..... Houston  
 Mayes, Harold; A&S-2 ..... Hempstead  
 Mayes, Kennie H.; Engr.-1 ..... Dallas  
 Mayes, Lester J.; I.E.-3 ..... Wichita Falls  
 Mayfield, Sammie M.; A&S-3 ..... Kilgore  
 Mays, Frankie Lee; A&S-1 ..... Fort Worth  
 Mays, Goldia F.; N.E.-1 ..... Timpson  
 Mays, Oveta V.; A&S-4 ..... Anahuac  
 Mays, Thelma; A&S-3 ..... Bellville  
 Mayse, Curtis Lee; Agric.-1 ..... El Campo  
 Melancon, Detroy; I.E.-2 ..... Port Arthur  
 Melton, Claude L.; A&S-4 ..... Beasley  
 Melton, Ernestine; Agric.-2 ..... Houston  
 Metters, Mary E.; A&S-2 ..... Amarillo

Metters, Samuel; Engr.-4 ..... Amarillo  
 Miles, Edgar A.; A&S-3 ..... Hearne  
 Miles, Ella Louise; A&S-1 ..... Hearne  
 Miles, Irma Jean; A&S-4 ..... Marshall  
 Miles, Mamie Nell; A&S-2 ..... Hearne  
 Miles, Robert G.; A&S-2 ..... Hearne  
 Miller, Lloyd R.; A&S-2 ..... Marion  
 Miller, Lois Jean; A&S-3 ..... Fort Worth  
 Miller, Martha A.; A&S-4 ..... Bryan  
 Miller, Nona J.; A&S-2 ..... Bay City  
 Miller, Sammie M.; N.E.-1 ..... Hillsboro  
 Miller, Thomas L. (2); A&S-2 ..... Dallas  
 Miller, Velma; A&S-4 ..... Palestine  
 Milton, Napoleon; I.E.-2 ..... Monrovia, Liberia  
 Mims, Arthur L. Jr.; A&S-1 ..... Daingerfield  
 Mims, Marva; N.E.-2 ..... Dallas  
 Mitchell, Barbara B.; N.E.-4 ..... Wallis  
 (1) Mitchell, Bonnie M.; A&S-5 ..... Mart  
 Mitchell, Burnis; I.E.-3 ..... Kildare  
 (2) Mitchell, Dempsey; A&S-1 ..... Dallas  
 Mitchell, Emma J.; A&S-2 ..... Houston  
 Mitchell, Eura M.; H.E.-3 ..... Normangee  
 Mitchell, Gaynell M.; A&S-1 ..... Beaumont  
 (1) Mitchell, J. B.; I.E.-1 ..... Kerens  
 Mitchell, Joe Clyde; A&S-2 ..... Midway  
 Mitchell, Norman E.; I.E.-1 ..... West  
 Mitchell, Wyalon; I.E.-4 ..... Denton  
 Mize, Bessie M.; H.E.-2 ..... Conroe  
 Modisette, Ivison L.; A&S-1 ..... Lufkin  
 Modisette, Marjorie; A&S-1 ..... Lufkin  
 Moffitt, Jo Helen; A&S-4 ..... Farmersville  
 (2) Molo, Elmyra; A&S-4 ..... Los Angeles, Calif.  
 Monmouth, William M.; Agric.-4 ..... Lufkin  
 (2) Montgomery, Charles; A&S-6 ..... Prairie View  
 Montgomery, Rosa A.; N.E.-3 ..... Columbus  
 Moon, Carlos W.; I.E.-1 ..... Marshall  
 (2) Moore, Arine Mae; A&S-5 ..... Marlin  
 Moore, Charlie L.; I.E.-1 ..... Waxahachie  
 (1) Moore, Clara L.; N.E.-2 ..... Houston  
 Moore, Clarence; A&S-4 ..... Wharton  
 Moore, David; A&S-2 ..... Fort Worth  
 Moore, Dorothy D.; A&S-2 ..... Waco  
 (1) Moore, Elsie M.; A&S-5 ..... Brenham  
 Moore, Mary D.; A&S-2 ..... Houston  
 (2) Moore, John A.; A&S-2 ..... Lyons  
 Moore, Murphy L.; N.E.-3 ..... Plum  
 Moore, Preston E.; A&S-4 ..... Jasper  
 Moore, Verdie M.; A&S-2 ..... DeKalb  
 (1) Moore, Vivian Faye; A&S-1 ..... McCreagor  
 Morgan, Ethel L.; H.E.-3 ..... Calvert  
 Mooring, Olen E.; A&S-4 ..... Houston  
 (2) Morton, Hazel Jean; A&S-1 ..... Pittsburg  
 Morgan, Imar J.; H.E.-1 ..... Levelland  
 Morris, Henry B.; I.E.-2 ..... Houston  
 Morris, Louis J.; I.E.-1 ..... Devers  
 Morris, Maxine G.; A&S-3 ..... Liberty  
 Morrison, John C.; I.E.-2 ..... Nacogdoches  
 Morrison, Julia A.; N.E.-2 ..... Rosebud  
 Morton, Mary Alice; A&S-2 ..... Dallas  
 Morton, Shirley Jean; A&S-4 ..... Dallas  
 Mosby, Carlton L.; Engr.-1 ..... Dallas  
 Mosby, Eva M. H.E.-1 ..... Austin  
 Mosley, Norma J.; A&S-4 ..... Tenaha  
 Mosley, William H.; I.E.-2 ..... Fort Worth  
 Moses, Doris J.; N.E.-3 ..... Hearne  
 Mosley James C.; I.E.-4 ..... Bryan  
 Mosley Jessie Lee; A&S-1 ..... Lufkin  
 (2) Mosley, Jon A.; A&S-4 ..... Marlin  
 Mosley, Peggy, J.; N.E.-1 ..... Beaumont  
 (2) Mosley, Novella L.; A&S-2 ..... Mexia  
 Mosley, Stacy T. Jr.; I.E.-2 ..... Tyler  
 Moss, Otharie; H.E.-1 ..... Gause  
 Moss, Robert; A&S-1 ..... San Antonio  
 Moten, Freddie M.; A&S-3 ..... Houston  
 Moten, Jewel E.; H.E.-2 ..... Smithville  
 Moten, Melvin J.; Engr.-3 ..... Houston  
 (1) Muchison, Verda M.; N.E.-1 ..... Angleton  
 Muckelroy, Cotos H.; Agric.-4 ..... Prairie View  
 (2) Munson, Gertha M.; A&S-4 ..... Waco  
 Murchison, George C.; A&S-1 ..... Crockett  
 Murphy, Helen D.; A&S-1 ..... La Marque

Murphy, Oron; I.E.-2 ..... Centerville  
 (1) Murphy, Rosie Lee; A&S-2 ..... Schulenburg  
 Muse, Gloria J.; I.E.-2 ..... Hempstead  
 Muse, Hazel H.; A&S-1 ..... Tyler  
 (2) Muse, Robert; A&S-4 ..... Palestine  
 (1) Murray, George W.; I.E.-2 ..... Shreveport, La.  
 Myers, Melvin L.; I.E.-2 ..... Warton  
 Narcisse, Marie G.; N.E.-2 ..... Beaumont  
 Neal Charles F.; A&S-1 ..... Crockett  
 Neal, Curtis E; Engr.-3 ..... Yoakum  
 Neall, Eddie C.; Engr.-4 ..... Cameron  
 Nally, Erma L.; N.E.-3 ..... Houston  
 Nelson, Bob; I.E.-2 ..... Wharton  
 Nelson, Emma; A&S-6 ..... Silsbee  
 Nelson, Mary; A&S-1 ..... Silsbee  
 Nelson, Ollie Lee; A&S-3 ..... Baytown  
 Nelson, Prince; A&S-3 ..... Baytown  
 Nelson, Thelma M.; A&S-2 ..... New Boston  
 Netherly, Gwendolyn; A&S-3 ..... Houston  
 Newman, Barbara J.; A&S-2 ..... Port Arthur  
 Newton, Erma Jewel; A&S-1 ..... Houston  
 Newsome, Herman H.; Engr.-1 ..... Dallas  
 (1) Newton, Emma V.; N.E.-1 ..... Houston  
 Nichols, Harold R.; Agric.-1 ..... Beaumont  
 Nicholson, Bobbie A.; A&S-4 ..... Omaha, Neb.  
 Nickerson, Lois D.; A&S-4 ..... Houston  
 Nix, George A.; H.E.-1 ..... Lyons  
 (1) Noble, Hazel D.; A&S-4 ..... Cleveland  
 Noel, Katie L.; N.E.-6 ..... Cameron  
 (1) Nolan, Ollie Alfred; A&S-4 ..... Houston  
 Nolan, Willie C.; A&S-1 ..... Fairfield  
 Norman, Leola E.; A&S-1 ..... Houston  
 North, Willie Jr.; Engr.-1 ..... Houston  
 Nowlin, Hattie Pearl; A&S-1 ..... Spur  
 (2) Nowlin, Rose; N.E.-4 ..... Houston  
 Nunn, Albert Lee; A&S-2 ..... Terre Haute  
 Ocktree, Willie P.; H.E.-1 ..... Austin  
 Oderbert, Carol Ann; A&S-2 ..... Port Arthur  
 Odum, Lee Ester; I.E.-4 ..... Burkeville  
 Odoms, Nelson; A&S-4 ..... El Paso  
 Oliphant, Ella McAdam; N.E.-4 ..... Huntsville  
 Oliphant, John A.; I.E.-3 ..... Huntsville  
 Oliver, Marjorie T.; A&S-2 ..... Houston  
 Olney, Alphonso J.; A&S-1 ..... Brenham  
 Oneal, William L.; I.E.-1 ..... Pampa  
 Orum, Dianah J.; A&S-4 ..... Nacogdoches  
 Osborne, Artie L.; A&S-2 ..... Oklahoma City, Okla.  
 Overstreet, Earl; A&S-3 ..... Bremond  
 Overton, Eula F.; A&S-2 ..... Waxahachie  
 Owens, Barbara J.; A&S-1 ..... Ballinger  
 Owens, Benjamin; A&S-1 ..... Beaumont  
 Owens, James R.; A&S-2 ..... Port Worth  
 (1) Owens, Lonnie L.; A&S-2 ..... Houston  
 Pace, Doris M.; I.E.-4 ..... Huntsville  
 (1) Pace, Emma Jean; N.E.-4 ..... Bryan  
 Pace, Royce E.; A&S-1 ..... Bryan  
 Page, Ernest J.; A&S-2 ..... Dallas  
 Palmer, Dorothy Jean; H.E.-1 ..... Jasper  
 Palmer, Jo Ann; A&S-3 ..... Temple  
 Palmer, Milton M.; I.E.-4 ..... Temple  
 Pannell, Ralph J.; Agric.-4 ..... Reagan  
 Paris, Betty Jean; A&S-2 ..... Dallas  
 (2) Parish, Elmer C.; A&S-5 ..... Corsicana  
 Parker Betty L.; A&S-1 ..... Port Arthur  
 (2) Parish, Willie F.; A&S-3 ..... Port Worth  
 (1) Parker, Elbert; A&S-4 ..... Fort Worth  
 (2) Parker, Don C.; A&S-2 ..... Bonham  
 Parker, Louis; Engr.-2 ..... New Braufel  
 Parker William M.; A&S-4 ..... Omaha  
 Parks, Robert E.; A&S-1 ..... Lufkin  
 Parks, Shirley A.; A&S-3 ..... Houston  
 Parnell, Dennystine R.; A&S-4 ..... Dallas  
 Patch, John A.; A&S-1 ..... Dallas  
 Patrick, John V.; A&S-4 ..... Galveston  
 (2) Patrick, Joseph D.; A&S-3 ..... Galveston  
 (1) Patterson, Elizabeth; N.E.-1 ..... Galveston  
 Patterson, Vivian A.; A&S-2 ..... Gilmer  
 Patton, Geneva; A&S-1 ..... Crockett  
 Paul, A. J.; Agric.-2 ..... Shiro  
 Paul, Donald J.; A&S-3 ..... Port Arthur  
 Paul, Joann; A&S-3 ..... Dayton  
 Paul, Peggy Jo; A&S-1 ..... Wichita Falls  
 Pauldo, Henry; A&S-3 ..... Baytown  
 Payne, Ezra D.; A&S-1 ..... Houston  
 Payne, Imogene L.; A&S-2 ..... Palestine  
 (1) Payne, Jo Ann; H.E.-1 ..... Conroe  
 (1) Payne, Romie L.; A&S-5 ..... Mexia  
 Peacock, Darlene; A&S-4 ..... Jamestown  
 Peacock, Lillian R.; A&S-1 ..... Jamestown  
 Peacock, Sherman; Engr.-1 ..... Jamestown  
 Peacock, Shirley R.; H.E.-2 ..... Jasper  
 Peel, Donell; N.E.-5 ..... Naples  
 Peoples, Hiram P.; I.E.-3 ..... Jacksonville  
 Perkins, Elroy; A&S-4 ..... El Campo  
 Perkins, Joe W.; Engr.-1 ..... Texarkana  
 Perkins, Lora M.; A&S-1 ..... Dallas  
 (1) Perpener, Andrew E.; A&S-2 ..... Fort Worth  
 Perry, Bennie D.; H.E.-1 ..... Houston  
 Perry, Billy Gene; Agric.-2 ..... Bonham  
 Perry, Charlie G.; I.E.-1 ..... McKinney  
 Pettit, Lee Roy; I.E.-2 ..... Hallettsville  
 Pettus, Frank; I.E.-2 ..... Eagle Lake  
 Pettus, Wilma Ann; A&S-1 ..... Birmingham, Ala.  
 (2) Petty, Leon; A&S-4 ..... Sulphur Springs  
 Phillip, Cecelia M. A.; A&S-2 ..... Prairie View  
 Phillips, Blossie T.; A&S-3 ..... Bryan  
 Phillips, Elizabeth; A&S-2 ..... Palestine  
 Phillips, Isaiah; I.E.-1 ..... Bryan  
 Phillips, Stanley J.; I.E.-1 ..... Houston  
 Phillips, James Lee; A&S-1 ..... Houston  
 (2) Phillips, Loretta; H.E.-3 ..... Dallas  
 Phillips, Ola F.; A&S-1 ..... Centerville  
 Phillips, Ververy; A&S-4 ..... Dallas  
 Phipps, Earlene; A&S-1 ..... Diboll  
 (2) Phipps, James Earl Agric.-1 ..... Trinity  
 (1) Pickard John L. Jr.; A&S-4 ..... El Paso  
 Pickett, Donald; I.E.-4 ..... Sugarland  
 (1) Pickett, Evelyn L. B.; N.E.-1 ..... Stafford  
 Pierre, Allen; A&S-4 ..... Port Arthur  
 Pickett, Harold L.; Engr.-1 ..... Houston  
 Pierce, Russel Jr.; A&S-2 ..... Port Arthur  
 Pierre, Vivia M.; A&S-4 ..... Temple  
 Pierce, Wilbert; A&S-2 ..... Port Arthur  
 Person, Jessie Lee; A&S-1 ..... Conroe  
 Pigford, Rosemary L.; A&S-4 ..... Tyler  
 Pilot, Jewel E.; N.E.-3 ..... Nacogdoches  
 Pilot, Kaye F.; I.E.-2 ..... Center  
 Pine, Laverne; A&S-1 ..... Waco  
 Pinkard, Edmond R.; I.E.-3 ..... Dallas  
 Pinkard, Thomas H. Engr.-1 ..... Dallas  
 (1) Pipkin, Lorenzo Jr.; A&S-4 ..... Beaumont  
 Pipkins, Lionel W.; A&S-3 ..... Beaumont  
 Pistole, Eula M.; A&S-2 ..... Jewett  
 Pittman, Deola; I.E.-2 ..... Caldwell  
 Pittman, Joe A.; Agric.-4 ..... Gonzales  
 Pittman, Mildred; A&S-2 ..... Gonzales  
 Ponder, Rachael T.; A&S-9 ..... Prairie View  
 Ponter, Eunice N.; N.E.-4 ..... Texas City  
 Polk, Clayborne L.; Agric.-4 ..... Garwood  
 Pointer, Windell; A&S-2 ..... Ennis  
 Polk, Gwendolyn C. J.; A&S-2 ..... Corpus Christi  
 Polk, Juanita P.; N.E.-2 ..... Garwood  
 Pollard, Irvin; A&S-3 ..... Caldwell  
 Pollard, Norveline; A&S-3 ..... Caldwell  
 (1) Pollard, Rebecca N.E.-2 ..... Columbus  
 Pool, Roscoe; A&S-1 ..... Cleveland  
 Pope, John A&S-4 ..... Henderson  
 (1) Porch, Samuel Lee; I.E.-9 ..... Galveston  
 Porter, Lester; I.E.-1 ..... San Antonio  
 Porter, McKinley; A&S-1 ..... Beaumont  
 Portis, Gloria H.; A&S-2 ..... Calvert  
 Portis, William D. Jr.; A&S-1 ..... Calvert  
 (2) Powell, Alex F.; I.E.-2 ..... Smithville  
 Powell, Geneva Leune; A&S-1 ..... Austin  
 Powell, Lila Mae; A&S-1 ..... Calvert  
 Powell, Lillie P.; A&S-1 ..... Kerrville  
 Powell, Lloyd B.; A&S-3 ..... Houston  
 Powell, Oweta L.; H.E.-4 ..... Waco  
 Powell, Rena Mae; A&S-2 ..... Athens  
 Powell, Ruby M.; N.E.-1 ..... Limestone  
 Powell, Ruth N.; A&S-3 ..... Rosenberg  
 Powell, Steve R.; A&S-3 ..... Port Worth

Powell, Vincent J. A&S-4.....Kerens  
Powell, Willie H.; A&S-4.....Dallas  
Powers, Oma Lee; A&S-4.....Nacogdoches  
(1) Powers, Rosa Lene; A&S-4.....Nacogdoches  
President, Curley Lee; A&S-3.....Baytown  
Price, Hunter; I.E.-4.....Paris  
Price, Jack; A&S-4.....Dallas  
Price, Marion M.; H.E.-2.....Eagle Lake  
Prince, Alvis W.; Engr.-2.....Houston  
Proctor, Ada Marie; A&S-2.....Austin  
Proffitt, Arthur; A&S-2.....La Porte  
Prothro, John L.; A&S-4.....Houston  
Pruitt, Harris Lee; A&S-2.....Linden  
Pruitt, Piedro; A&S-2.....Detroit, Michigan  
Pruitt, Theron; I.E.-1.....Houston  
Prayer, Wilford E.; Agric.-4.....Smithville  
Quate, Herbert D.; A&S-1.....Waxahachie  
Quate, James P.; A&S-1.....Waxahachie  
Rabon, Walter E.; A&S-3.....Wharton  
Radin, Martha Ruth; N.E.-1.....Galveston  
Raibon, Ella Mae; N.E.-3.....Houston  
Rain, Audria M.; N.E.-3.....Houston  
Randall, Mary Fren; A&S-2.....Dallas  
Randall, Winfred C.; A&S-3.....Dallas  
Randle, Adam Don; A&S-3.....Patterson  
(2) Ray, Willis Earl; I.E.-1.....Bryan  
Randle, Francis Nell; A&S-1.....Nacogdoches  
Randle, Marie; A&S-1.....Fort Worth  
Randolph, Emmett Jr.; A&S-1.....La Grange  
Randolph, William F.; Engr.-3.....Crockett  
Ransom, Freddie; H.E.-3.....Longview  
Ratcliff, Marjoria J.; H.E.-3.....Galena Park  
Rausaw, Evelyn L.; A&S-1.....Nacogdoches  
Ray, James D.; I.E.-3.....Bryan  
Ray, Leon C.; A&S-4.....Longview  
Raynolds, Willie Ray; I.E.-3.....Hempstead  
Reager, Theatlas E.; I.E.-1.....Abilene  
Redic, Peggy J.; A&S-1.....Overton  
Redmond, Raymond E.; A&S-1.....Center  
Reece, Mercy Diane; H.E.-4.....Conroe  
Reed, Alice; A&S-2.....Longview  
Reed, Betty Kathryn; A&S-2.....McKinney  
Reed, Frederick O.; A&S-1.....Dallas  
Reed, Jerome D.; A&S-4.....Houston  
(2) Reed, Louis H., Jr.; A&S-5.....Brownwood  
Reedy, Evelyn M.; A&S-1.....Alto  
(2) Reeves, Bennie Mae; N.E.-1.....Lane City  
Reeves, Raymond; Engr.-4.....Palestine  
Renfro, Willie L.; A&S-1.....Houston  
Rheams, Albert E.; A&S-3.....Odessa  
Rhoden, Bonnie Lee; A&S-2.....Greenville  
Richard, Elmer Jean; A&S-2.....Cleburne  
Richard, John A. A&S-3.....Fort Worth  
Richards, Bryant; I.E.-3.....Hempstead  
Richards, Mildred E.; A&S-2.....Center  
Richardson, Barbara H.; A&S-1.....Prairie View  
Richardson, Bennie J.; H.E.-2.....Texarkana  
Richardson, Betty Jo; A&S-1.....San Antonio  
Richardson, Carl; Engr.-3.....Abilene  
Richardson, Clarence; Engr.-3.....Fort Worth  
Richardson, Jimmie L.; H.E.-3.....Riverside  
Richardson, Joe P.; I.E.-3.....Crockett  
Richardson, Lee Van; A&S-5.....Hillsboro  
Richardson, Thelma J.; A&S-2.....Greggton  
Rickett, James Lloyd; A&S-2.....Beaumont  
Rickett, Lois J.; A&S-4.....Beaumont  
Rider, Jesse E.; I.E.-2.....Tyler  
Rivers, Dorothy Mae; A&S-2.....San Antonio  
Roach, James E.; A&S-1.....Odessa  
Roach, Lonnie V.; A&S-3.....Odessa  
Roberson, Christine Y.; A&S-1.....Dallas  
Roberson, Clara B.; N.E.-2.....Brazoria  
Roberson, Delores M.; A&S-1.....Overton  
Roberson, Gladye F.; A&S-4.....Sweetwater  
Roberson, Lucille; A&S-4.....Pledger  
Roberson, Magvina; A&S-4.....Crawford  
Roberson, Willie M.; A&S-4.....Rosharon  
Roberts, Bobbie L.; I.E.-2.....Windom  
Roberts, Dorothy E.; A&S-1.....Brenham  
Roberts, Dorothy M.; A&S-4.....Mt. Belvieu  
Roberts, Elmo James; A&S-1.....San Antonio  
Roberts, Georgia Mae; N.E.-3.....Lyons  
Roberts, Jeffrey Lee; I.E.-2.....Houston  
Roberts, Johnson Van; Engr.-1.....Cameron  
Roberts, Robbie L.; A&S-4.....Lyons  
(1) Roberts, Mary L.; A&S-4.....Richland  
Roberts, Rosie Lee; A&S-3.....Windom  
Roberts, Shirley D.; A&S-3.....Thompson  
Robertson, Elward; Agric.-3.....Rosser  
Robertson, Katha R.; A&S-2.....Calvert  
Robertson, Clarence L.; I.E.-2.....Tyler  
Robertson, Georgia N.; A&S-4.....Frost  
Robinson, Jo Ann; A&S-3.....Freedport  
Robinson, Joann; A&S-3.....Dallas  
Robinson, Mary F.; A&S-1.....Naples  
(1) Robinson, Rose Nell; H.E.-2.....Houston  
Robinson, Sadie M.; I.E.-2.....Dallas  
Robinson, Tommy Gene; I.E.-2.....New Willard  
Rodgers, Conrad D.; Engr.-1.....Gilmer  
(1) Rodgers, Doris Faye; A&S-2.....Gilmer  
(2) Rodgers, R. D.; A&S-4.....Diboll  
Rog-ers, Charlie; A&S-4.....Dallas  
Rogers, John D.; I.E.-3.....Grapeland  
Rogers, Virginia; N.E.-3.....Wills Point  
Rhone, Dwane V.; Engr.-2.....Texarkana  
Roland, James M.; A&S-2.....Beaumont  
Roland, Roger; Engr.-3.....Pampa  
Roland, William M.; A&S-2.....Pampa  
Roland, John Paul; A&S-3.....Jacksonville  
Roney, Martha Ann; A&S-1.....Fort Worth  
Roper, Jane Alice; A&S-1.....Beaumont  
Ross, Jesse Lee; A&S-3.....Mexia  
(2) Ross, Letonia K.; A&S-5.....San Antonio  
Ross, Rudolph; A&S-1.....Houston  
Ross, Rosetta; A&S-4.....Houston  
(2) Ross, Valrie E.; H.E.-5.....Port Lavaca  
Rouse, Rosa Lee; A&S-4.....College Station  
(2) Rutt, Patricia Ann; A&S-1.....Houston  
Roy, Cleveland Jr.; A&S-4.....Houston  
Roy, Frank O.; A&S-3.....Houston  
Royal, Constance; A&S-4.....Fort Worth  
(2) Royal, Eugene; A&S-3.....Athens  
Royal, Thelma R.; A&S-2.....Hughes Springs  
Ruckett, Mary Lois; A&S-1.....Navasota  
Ruffin, Peggy Jo; A&S-1.....Navasota  
Rugeley, Vera C.; A&S-1.....Van Vlek  
(2) Runnal, Cloteal; A&S-4.....Dallas  
Russeau, Bertia J.; A&S-2.....Mineral Wells  
(2) Russell, Dennis I.; A&S-1.....Van Vlek  
Russell, Ernest L.; Engr.-1.....Houston  
Ruth, Wilma J.; A&S-3.....San Augustine  
Rutledge, Paul L.; A&S-2.....Palestine  
Ryan, Dorothy P.; N.E.-1.....Bonham  
Salter, Evelyn J.; A&S-4.....Timpson  
Sam, Phillip; A&S-2.....Beaumont  
Sampson, Sylvester A.; Engr.-3.....Cuero  
Sams, James D.; A&S-2.....Indianapolis, Ind.  
Samuel, Babe Ruth; Agric.-3.....Bonwier  
Samuel, June E.; A&S-1.....Beaumont  
Samuel, Lawrence; A&S-2.....Vernon  
Samuel, Willie L.; Engr.-1.....Texarkana  
Samuels, Joyce E.; A&S-1.....San Antonio  
Sanders, Ammie Ellen; H.E.-4.....Plano  
Sanders, Betty J.; N.E.-3.....Corpus Christi  
Sanders, Eleanor F.; A&S-1.....Corsicana  
Sanders, Frankie L.; A&S-4.....Midlothian  
Sanders, Genia Mae; A&S-1.....Fort Worth  
Sanders, Jimmie Lee; A&S-2.....Kaufman  
Sanders, Margie V.; N.E.-1.....Nacogdoches  
Sanders, Rachel J.; A&S-3.....Huntsville  
Sanders, Ruby Elsie; A&S-2.....Granger  
Sanders, Ruby Stene; N.E.-2.....Longview  
Sandles, Joe N.; Engr.-2.....Mexia  
Sanders, Thearon H.; H.E.-1.....Marlin  
Sanford, Amelia Ruth; N.E.-4.....Streetman  
Sanford, Earline J.; A&S-2.....Galena Park  
Sapenter, Hensley W.; A&S-1.....San Antonio  
(2) Sargent, Earnest C.; Agric.-5.....Navasota  
Sargent, Travis E.; Engr.-4.....Beaumont  
Sartin, James; I.E.-3.....Jacksonville  
Sasser, Joe Denny; I.E.-3.....Atlanta

**Sauls, James H.; A&S-2**.....Greenville  
 Scates, Ruby Jean; H.E.-2.....Baytown  
 Scott, Calvin John; A&S-2.....Houston  
 Scott, Catherine; A&S-3.....Beaumont  
 Scott, Don L.; Engr.-3.....Jasper  
 Scott, Helen R.; H.E.-4.....Waco  
 Scott, Imogene; A&S-3.....Douglass  
 Scott, Ivory D.; A&S-3.....Waller  
 Scott, Johnny Mae; A&S-4.....Douglass  
 Scott, Joyce M.; N.E.-2.....Houston  
 Scott, Levy S.; A&S-2.....East Bernard  
 Scott, Mary E.; A&S-1.....Beaumont  
 Scott, Zoia L.; A&S-4.....Houston  
 Scranton, Philip J.; A&S-3.....Houston  
 Scruggs, Margaret A.; A&S-3.....Sherman  
 Scurlock, Ohara L.; A&S-1.....Houston  
 Scurry, Annie V.; A&S-1.....Houston  
 Scurry, C. L. A&S-1.....Corsicana  
 Seals, Elmer C.; Agric.-3.....Bellville  
 Seastrunk, Billie S.; H.E.-1.....Huntington  
 See, Florence Edna; A&S-3.....Calvert  
 (1) Sellers, Lee Audrey; A&S-1.....Houston  
 Sells, Leola; A&S-2.....Jamestown  
 Servance, Billy Gene; I.E.-1.....Fairfield  
 Sewall, Arthur Lee; A&S-1.....Houston  
 Sewell, Pearl A&S-6.....Baltimore, Md.  
 Sexton, Wilma F.; H.E.-4.....Nacogdoches  
 Shankle, Faye Mae; N.E.-3.....Newton  
 Shanklin, Julius; A&S-2.....Wharton  
 Shanks, Ikie Mae; A&S-4.....Houston  
 Shanks, Nellie; A&S-1.....Thompsons  
 Shannon, Ollie J.; A&S-4.....La Marque  
 Sharpe, Leatha M.; A&S-2.....Austin  
 Shaw, Emanuel A.; A&S-4.....Hillsboro  
 Shaw, Floyd Ray; Agric.-3.....Bonham  
 Shaw, Lawrence J.; Agric.-5.....Jasper  
 Shaw, Robert; Agric.-1.....Jasper  
 (2) Shaw, Robert, Jr.; A&S-1.....West  
 Shaw, Troy Lee; Agric.-1.....Bonham  
 Sheffield, Carl L.; Engr.-2.....Hockley  
 Sheffield, Charles E.; A&S-2.....Palestine  
 Shelby, Helen; A&S-4.....Dallas  
 Shelton, Allen E. G.; A&S-1.....Angleton  
 Shelton, Lillian; A&S-6.....Tyler  
 Shepard, Maudie L.; A&S-2.....Dallas  
 Shephard, Carl E.; Engr.-1.....Hockley  
 Shepherd, Grace D.; A&S-3.....Gilmer  
 Shepherd, James; A&S-1.....Brookshire  
 Shepherd, Jewel; A&S-2.....Houston  
 Shepherd, Jim Ward; Agric.-4.....Brookshire  
 Shepherd, Willie E.; A&S-3.....Maud  
 Sheppard, Martha A.; H.E.-1.....Fort Worth  
 Sherman, Brenett; A&S-4.....Houston  
 Shipp, Yvonne; H.E.-1.....Sabine  
 Showers, Frances Dean; A&S-2.....Mineral Wells  
 Sibley, Lorine; A&S-2.....Alto  
 Sibley, Mary D.; A&S-1.....Jefferson  
 Sigure, Gloria Dean; A&S-1.....Beaumont  
 Silas, Wesley B.; I.E.-3.....San Antonio  
 Simien, John T.; Engr.-3.....Galveston  
 (2) Simmons, Alexander; A&S-1.....Beaumont  
 Simmons, Billie J.; N.E.-4.....Pineland  
 (2) Simmons, Alice Lee; A&S-6.....Prairie View  
 Simmons, Bobby; I.E.-2.....Groesbeck  
 Simmons, Darlene; A&S-4.....Hemphill  
 Simmons, Jewellean E.; A&S-2.....Newton  
 Simmons, Joyce R.; A&S-2.....Stoneham  
 Simmons, Vertie; A&S-4.....Hemphill  
 Simon, Laverne; H.E.-3.....Cushing  
 Simpson, Barbara J.; A&S-1.....Galveston  
 Simpson, Charlene; A&S-3.....Houston  
 Simpson, Jimmie K.; Engr.-3.....Dallas  
 Simpson, Ocleris; Agric.-1.....Normangee  
 Simpson, Robert; Engr.-1.....Booth  
 Simpson, Walter E.; A&S-1.....Houston  
 Sims, Clarence; A&S-3.....Galveston  
 Sims, Dorothy M.; A&S-2.....Wharton  
 Sims, Lawrence E.; I.E.-3.....Overton  
 Sims, Mary Alice; A&S-4.....Lamesa  
 Sims, Ocie Maye; I.E.-3.....Hooks  
 Sims, Wilma Faye; A&S-2.....Wharton

Sims, Wonder Jr.; I.E.-3.....La Porta  
 Singleton, Jewelene M.; A&S-1.....Orange  
 Singleton, Maggie L.; N.E.-1.....Galveston  
 Singleton, Maggie L.; A&S-3.....Hempstead  
 Singleton, Mary E.; N.E.-1.....Galveston  
 Singleton, Oscar; A&S-2.....Hempstead  
 (2) Singleton, Patricia J.; A&S-1.....Galveston  
 Sinkler, Albertha A.; A&S-9.....Prairie View  
 Sledge, Ely Dixon; Engr.-3.....Pilot Point  
 (2) Smith, Eureka L.; A&S-6.....Prairie View  
 (1) Sloan, Frank Engr.-1.....Eagle Lake  
 Smith, Abe Jr., Engr.-1.....Kilgore  
 Smith, Annie Mae; A&S-1.....Houston  
 Smith, B. B.; A&S-2.....Silsbee  
 (2) Smith, Dennis; I.E.-1.....  
 Smith, Carl Anthony; A&S-3.....Galveston  
 Smith, Cetta; A&S-4.....Gilmer  
 Smith, Christine; A&S-2.....Centerville  
 (1) Smith, Clarence K.; A&S-4.....Alto  
 Smith, Claude W.; A&S-4.....Palestine  
 Smith, Claudette L.; A&S-1.....Houston  
 Smith, Doris R.; A&S-2.....San Antonio  
 Smith, Dorothy J.; A&S-4.....Longview  
 Smith, Dorothy J.; A&S-3.....Dallas  
 Smith, Elene D.; A&S-1.....Gilmer  
 (1) Smith, Elizabeth A.; A&S-4.....Houston  
 Smith, Faye Robinson; A&S-1.....Fort Worth  
 Smith, Forest Jr.; A&S-2.....Houston  
 Smith, Frankie; A&S-1.....Prairie View  
 Smith, Fred G.; A&S-2.....Bryan  
 Smith, Freddie Louise; A&S-4.....Woodville  
 (1) Smith, Glodean; A&S-4.....Tenaha  
 Smith, Haywood C. Jr.; A&S-5.....Glidden  
 Smith, Helen Marie; H.E.-2.....Beaumont  
 (2) Smith, Helen Marie H.E.-2.....Galveston  
 Smith, James E.; Agric.-5.....Luling  
 Smith, James L.; I.E.-1.....Hempstead  
 Smith, James Rodney; A&S-3.....Port Arthur  
 Smith, John David; A&S-2.....San Antonio  
 (1) Smith, John; Engr.-1.....Beaumont  
 Smith, Joseph; A&S-3.....Beaumont  
 Smith, Juanita; A&S-4.....Dallas  
 Smith, Kathryn Tula; A&S-2.....Anderson  
 Smith, Lester C.; A&S-5.....Baytown  
 Smith, Lillie E.; A&S-1.....Hempstead  
 Smith, Lois F.; H.E.-1.....San Antonio  
 Smith, Marjorie; A&S-4.....Dallas  
 Smith, Mary L.; A&S-4.....Palestine  
 Smith, Mary Lea; A&S-1.....Mexia  
 Smith, Maurice; I.E.-3.....Carthage  
 Smith, Moses Jr.; A&S-4.....Bay City  
 Smith, Myrtle Y.; A&S-3.....Marshall  
 (2) Smith, Odell L.; I.E.-1.....Long Branch  
 Smith, Robert E.; I.E.-2.....Gilmer  
 Smith, Roland M.; A&S-3.....Greenville  
 Smith, Roy Stene; I.E.-1.....Garrison  
 Smith, Shirley R.; A&S-1.....Dallas  
 Smith, Welton O.; I.E.-1.....Long Branch  
 Smothers, Benjamin; A&S-4.....Malakoff  
 Smothers, Claiborne W.; A&S-3.....Malakoff  
 (2) Snell, Joe E.; I.E.-4.....Lubbock  
 Snoddy, George R.; A&S-2.....Longview  
 (1) Solomon, Edna B.; A&S-3.....Port Arthur  
 Solomon, Willie M.; A&S-1.....Tomball  
 Sorrell, Earnest J.; I.E.-1.....Cedar Lane  
 Sparks, Hubert B.; A&S-4.....Tyler  
 Sparks, Jessie G.; A&S-3.....Tyler  
 (2) Sparks, Robert B.; I.E.-4.....Tyler  
 Spates, Theodore Jr.; I.E.-9.....Wallis  
 Spence, Winnie Z.; N.E.-4.....Streetman  
 Spencer, Algerita; A&S-4.....Diboll  
 Spencer, Willie Jr.; I.E.-2.....Apple Springs  
 Spicer, Roker L. J.; N.E.-3.....Dallas  
 (2) Spikes, Jean Warren; A&S-4.....Tyler  
 Spillman, Henry E.; I.E.-1.....Fort Worth  
 Spivey, Opal J.; A&S-4.....Huntsville  
 Spivey, Serena L.; I.E.-1.....Madisonville  
 Standifer, Samuel; Engr.-2.....Beaumont  
 Stanley, Marshall D.; Engr.-1.....Houston  
 (2) Starks, Bertha M.; A&S-5.....Prairie View  
 Starr, Luther; A&S-1.....Fort Worth

Statin, Geneva D.; H.E.-3 ..... Houston  
 Stearne, Gwendolyn G.; A&S-1 ..... Bryan  
 Steen, Esther Ray; H.E.-1 ..... College Station  
 Steen, Ethel M.; H.E.-4 ..... College Station  
 Stein, Yvonne; A&S-4 ..... Mt. Enterprise  
 (2) Stell, Florence E. S. A&S-4 ..... Beaumont  
 Stell, William A.; A&S-3 ..... Ennis  
 Stephens, Bozie; A&S-1 ..... Camden  
 Stephens, Dorothy; I.E.-1 ..... Shreveport  
 Stephens Furtis; I.E.-2 ..... Camden  
 Steptone, Shirley Ann; A&S-3 ..... Hillsboro  
 Stevens, Wilford E.; Engr.-1 ..... Fayetteville  
 (1) Stevenson, Bobbie R. A&S-2 ..... Alvarado  
 Stewart, Charles E.; A&S-3 ..... Vernon  
 Stevenson Palma L. B.; H.E.-5 ..... Newton  
 Stewart, Alderus J.; A&S-2 ..... Waco  
 Stewart, Carmen L.; A&S-3 ..... Houston  
 Stewart, Carrington H.; Engr.-1 ..... Waco  
 Stewart, Frank R.; A&S-4 ..... Jefferson  
 Stewart, Gerald; A&S-1 ..... Silsbee  
 Stewart, Lila L. (2); A&S-1 ..... Fort Worth  
 (1) Stewart, Myrna; A&S-4 ..... Greenville  
 Stewart, Nettie M.; N.E.-2 ..... Gloster  
 Stewart, Lurlean A.; A&S-4 ..... Jacksonville  
 Stigger, Arvesor P.; A&S-2 ..... Commerce  
 Stimpson, Andrew J.; A&S-2 ..... Plano  
 Stinger, Betty Mae; A&S-1 ..... Beaumont  
 Stoneham, Betty Jean; I.E.-1 ..... Galveston  
 (2) Storms, Esther R.; A&S-1 .....  
 Storms, William L.; I.E.-1 ..... San Saba  
 Strickland, Cecil L.; Agric.-1 ..... Pittsburg  
 Strode, Russell; Agric.-2 ..... Beaumont  
 Strong, Bettye Jean A&S-3 ..... Houston  
 Stubblefield, Mary A.; H.E.-5 ..... Prairie View  
 Stucey, Delores K.; A&S-1 ..... Houston  
 Sturns, Riley L. Jr.; I.E.-1 ..... Reklaw  
 (1) Suell, Johnnie Mae; I.E.-3 ..... Lufkin  
 (1) Swann, Ben Alvin, Engr.-1 ..... Troup  
 Swann, Marshall C.; I.E.-4 ..... Troup  
 Swanson, Henrietta; A&S-2 ..... Dallas  
 Sweat, Frances; A&S-1 ..... Beaumont  
 Sweet, Phillip; A&S-2 ..... Beaumont  
 Sweet, Mattie F.; A&S-2 ..... Port Arthur  
 Tanner, William S.; A&S-1 ..... San Antonio  
 Tapscott, Richard C.; A&S-2 ..... Houston  
 Tarrow, Delores A.; A&S-2 ..... College Station  
 Tarver, Johnnie Mae; N.E.-4 ..... Lyons  
 Tate, Arthur Lee; A&S-4 ..... Beaumont  
 Taylor, Alice F.; I.E.-1 ..... Rayburn  
 Taylor, Charles W.; A&S-4 ..... Beasley  
 (1) Taylor, Charles Wilmer; A&S-4 ..... Floydada  
 Taylor, Dorothy Mae; A&S-1 ..... Lincoln  
 (2) Taylor, Edna Marie; H.E.-4 ..... Palestine  
 Taylor, Emmitt; A&S-2 ..... Greggton  
 Taylor, Flossie M.; A&S-1 ..... Lincoln  
 Taylor, Gene L.; A&S-2 ..... Tyler  
 Taylor, George E.; A&S-4 ..... Houston  
 Taylor, Gus B.; A&S-2 ..... Galveston  
 Taylor, Harold; A&S-3 ..... Daingerfield  
 Taylor, James E.; A&S-1 ..... Gilmer  
 Taylor, Lesley M.; A&S-3 ..... Greggton  
 Taylor, Mary Lee; A&S-3 ..... Brazoria  
 (2) Taylor, Norma; A&S-1 ..... Houston  
 Taylor, Shirley R.; A&S-1 ..... Fort Worth  
 Taylor, Thaddeis; A&S-4 ..... Waxachachie  
 Taylor, Ulma Jean; A&S-1 ..... Houston  
 Tealer, Sarah M.; H.E.-3 ..... Gonzales  
 Teel, Florazelle; A&S-5 ..... Prairie View  
 Temple, Shirley Jo; A&S-2 ..... Texarkana  
 (1) Templeton, Joseph; A&S-2 ..... Athens  
 Terrell, Daisy J.; A&S-2 ..... D-Illas  
 Terrell, Jewel R.; A&S-1 ..... Fort Worth  
 Terry, Lt A. B.; I.E.-9 ..... Bellville  
 Terry, Sara Ethel; A&S-1 ..... Rockdale  
 (1) Thaxton, Mentie Lois; A&S-2 ..... Houston  
 Thibodeaux, Geroline; A&S-1 ..... Liberty  
 Thomas, Bobbie Nell; H.E.-1 ..... Sulphur Springs  
 Thomas, Carrie Bell; A&S-4 ..... Galveston  
 Thomas, Charles F.; A&S-3 ..... Sugarland  
 Thomas, Cleveland R.; I.E.-4 ..... Beaumont  
 Thomas, Effie Raye; A&S-1 ..... Fort Worth  
 Thomas, Ethelyn L.; H.E.-4 ..... Brooklyn, N. Y.  
 Thomas, Hazel Mae; N.E.-2 ..... Columbus  
 Thomas, John Evans; A&S-3 ..... Beaumont  
 Thomas, Juanita; A&S-1 ..... Hemphill  
 Thomas, Lois Juanita; N.E.-3 ..... New Orleans, La.  
 (1) Thomas, Marie F.; A&S-3 ..... Galveston  
 Thomas, Melba; A&S-3 ..... Fort Worth  
 Thomas, Mona M.; A&S-3 ..... Beaumont  
 Thomas, Regena V.; N.E.-1 ..... Houston  
 Thomas, Ruby Lee; A&S-1 ..... Bellville  
 Thomas, Silton E.; Engr.-2 ..... Houston  
 Thomas, Vera L.; A&S-1 ..... Nacogdoches  
 Thompkin, Obra D.; I.E.-1 ..... Hempstead  
 Thompson, Betty J.; A&S-4 ..... Montgomery  
 Thompson, Dorothy L.; A&S-1 ..... Dallas  
 Thompson, Eddie M.; A&S-3 ..... Houston  
 Thompson, Ernest; I.E.-2 ..... West Columbia  
 Thompson, Flora Mae; I.E.-1 ..... Hempstead  
 Thompson, Hilda R.; A&S-1 ..... Dallas  
 Thompson, Hirma A.; A&S-2 ..... Belton  
 Thompson, Homerzell; Engr.-1 ..... Jacksonville  
 Thompson, Hugh Daniel; Agric.-2 ..... Lufkin  
 Thompson, Ina Rae; H.E.-4 ..... Clarksville  
 Thompson, Joe M.; A&S-3 ..... Lufkin  
 Thompson, Joyce M.; N.E.-2 ..... Houston  
 Thompson, Marie C.; N.E.-4 ..... Houston  
 (1) Thompson, Patricia A.; N.E.-2 ..... Houston  
 (2) Thompson, Rosetta P.; N.E.-4 ..... Houston  
 Thompson, Ruthie Lee; N.E.-1 ..... Bivins  
 Thompson, Shirley A.; A&S-2 ..... Lufkin  
 Thorne, Tommy L.; Engr.-1 ..... Bastrop  
 Thornton, Franklyn; A&S-3 ..... Tulsa, Okla.  
 Tibbs, Haron Gene; Engr.-4 ..... Baytown  
 Tidwell, Grace E.; A&S-2 ..... Alto  
 Tilley, Helen D.; A&S-2 ..... Jacksonville  
 Tilley, Norma Jean; A&S-4 ..... Jacksonville  
 Tillman, Bobbie Lee; N.E.-3 ..... Houston  
 Tinsley, Minor; A&S-1 ..... Douglass  
 Tipps, Azil L.; I.E.-2 ..... Cushing  
 Tipps, Gloria O.; A&S-3 ..... Cushing  
 Tisdale, Celestine M.; A&S-2 ..... Wharton  
 Tisdell, Lucile R.; A&S-2 ..... Waller  
 Tolbert, Claude E.; A&S-3 ..... Dallas  
 Toles, Laura E.; A&S-2 ..... Calvert  
 Toleston, Jimmy L.; Engr.-1 ..... Dallas  
 Toliver, Pearl Eva M.; A&S-2 ..... Alto  
 (2) Toney, Mable W.; I.E.-1 ..... Lincoln  
 Toomer, Maxine; A&S-2 ..... Beaumont  
 Touchstone, Billy; A&S-3 ..... Waco  
 Touchstone, James E.; A&S-4 ..... Waco  
 Townsel, Howard; I.E.-2 ..... Houston  
 Tramble, Otis; I.E.-1 ..... Bryan  
 Traylor, Alice F.; A&S-1 ..... Dallas  
 Traylor, Elbert; A&S-1 ..... Jasper  
 Traylor, Helen J.; A&S-1 ..... Mt. Pleasant  
 Traylor, Josie P.; A&S-1 ..... Hughes Springs  
 (1) Trimble, Egbert; A&S-4 ..... Overton  
 Trotty, Betty J.; A&S-1 ..... Lufkin  
 Trotty, Lois M.; A&S-4 ..... Houston  
 Truvillon, Modestine; A&S-2 ..... Newton  
 (1) Tubbs, George; A&S-4 ..... Texarkana  
 Tubbs, Tommie L.; A&S-2 ..... Texarkana  
 Tubman, Moses; Agri.-1 ..... Monrovia, Liberia  
 Tucker, Roland W.; A&S-2 ..... Houston  
 Tucker, Rubye J.; A&S-4 ..... Madisonville  
 Tucker, Sarah L.; M.E.-4 ..... Elhart  
 Tucker, William R. Jr.; I.E.-2 ..... Wills Point  
 (2) Turman, Lula; A&S-6 ..... Prairie View  
 Turner, Adrian; A&S-3 ..... Houston  
 Turner, Chauncy L.; I.E.-2 ..... Caldwell  
 Turner, Edna Mae; N.E.-1 ..... Dallas  
 Turner, Goldie; A&S-4 ..... Omaha  
 Turner, Leonard E.; Engr.-1 ..... Texarkana  
 Turner, Minevah V.; N.E.-2 ..... Houston  
 (2) Turner, Robert; I.E.-1 ..... Houston  
 Turner, Velma R.; A&S-1 ..... Dallas  
 (2) Turner, Zuma V.; A&S-4 ..... Dallas  
 Twine, Gracie B.; A&S-4 ..... Wiergate  
 Twine, Margaret J.; A&S-1 ..... Galveston  
 Tyler, Doris Jean; A&S-1 ..... Hallettsville  
 (2) Tyler, Esther J.; A&S-6 ..... Prairie View



Tyler, Rosie N.; A&S-1..... Beaumont  
 Upshaw, Ravoy; A&S-1..... Nacogdoches  
 Vaughn, Carl E.; Engr.-3..... Brookshire  
 Vaughn, Johnnie R.; A&S-2..... Boling  
 Vaults, George U.; A&S-3..... Bryan  
 Venters, Rufus; A&S-9..... Corsicana  
 Vernon, Charlie J.; Engr.-1..... Fairfield  
 Verse, Doris J.; A&S-1..... Fort Worth  
 Verse, Jewel Dolores; A&S-4..... Fort Worth  
 Vickers, Thomas J.; Engr.-2..... Houston  
 Vinson, Charles Etta; A&S-4..... Columbus  
 Vonner, Horace Ray; I.E.-1..... Elm Mott  
 Vonner, Laura Fay; A&S-1..... Waco  
 Waddleton, Alice L.; N.E.-1..... Hawkins  
 (1) Waddleton, Alnetta; A&S-4..... Winnsboro  
 Waddleton, Earline J.; A&S-9..... Winnsboro  
 Waddleton, Florence; A&S-1..... Winnsboro  
 Waddleton, Lodean; I.E.-2..... Winnsboro  
 Waddleton, Vernitia; A&S-3..... Winnsboro  
 Wade, Annetta H.; A&S-1..... Giddings  
 Wade, Freddie J.; A&S-3..... Daingerfield  
 Wagner, Donald H.; A&S-2..... Grapeland  
 Wagner, Franklin D.; A&S-2..... Grapeland  
 (2) Wagner, Henry J. A&S-1..... Grand Prairie  
 Wagner, Ora Dean; A&S-1..... Grapeland  
 (1) Wagner, Rody E.; Agric.-4..... Flynn  
 Waites, Dolores; A&S-4..... Fort Worth  
 Waldon, Ora D. P.; A&S-4..... College Station  
 Walker, Andrew H.; A&S-1..... Port Arthur  
 Walker, Anita B.; A&S-3..... Fort Worth  
 Walker, Christene L.; A&S-2..... Tyler  
 Walker, Claudine; A&S-2..... Navasota  
 Walker, Clyde J.; A&S-2..... Sulphur, Springs  
 Walker, Dolores D.; A&S-4..... Brenham  
 Walker, Edwin Agric.-2..... Waller  
 Walker, Johnnie C.; Engr.-1..... Corpus Christi  
 Walker, Katie Mae; N.E.-1..... Houston  
 Walker, Kenneth G.; Engr.-2..... New Orleans, La.  
 Walker, Lloyd; A&S-2..... Brazos  
 (1) Walker, Lonnie B.; N.E.-1..... Gilmer  
 Walker, Robert, Jr.; I.E.-2..... Fort Worth  
 Walker, Velma J.; A&S-1..... Pecos  
 Wallace, Corgia L.; A&S-4..... DeBerry  
 (1) Wallace, David; Engr.-3..... San Antonio  
 Wallace, Faye A.; A&S-3..... Houston  
 Wallace, Gladys; A&S-2..... Prairie View  
 Wallace, Larue; A&S-3..... Gilmer  
 Wallace, Mae Ester; A&S-3..... Centerville  
 Wallace, Ulysees S.; Agric.-5..... Prairie View  
 Waller, Calvin A. H.; A&S-2..... Houston  
 Walthall, Benny Joe; Engr.-1..... Linden  
 Walton, Joy Faye; N.E.-3..... Winona  
 Ward, David Charles; Engr.-1..... Cameron  
 Ward, Ernest C.; Engr.-1..... Cameron  
 (2) Ward, Ethel; A&S-6..... Prairie View  
 Ward, James R.; A&S-2..... Houston  
 Ware, Kathleen; A&S-3..... Denton  
 Ware, Thelma Jean; A&S-3..... Denton  
 Warning, Melvin L.; A&S-3..... Douglassville  
 Warren, Barbara L.; N.E.-1..... San Antonio  
 Warren, Ethel Eugene; A&S-2..... Waelder  
 Warren, Pearl M.; A&S-1..... Tyler  
 Wash, Pleas; Engr.-3..... Jefferson  
 Washington, Annie L.; A&S-2..... Austin  
 Washington, Cora Lee; A&S-1..... Tenaha  
 Washington, Estella; H.E.-2..... Port Arthur  
 Washington, George W.; A&S-4..... Henderson  
 Washington, Hazel; A&S-1..... Chriesman  
 Washington, Irma J.; A&S-1..... Marnetta  
 Washington, Isiah Jr.; I.E.-2..... Port Arthur  
 Washington, Mary L.; A&S-4..... Texarkana  
 Washington, Maxine G.; A&S-4..... Dickinson  
 Washington, Mercy D.; A&S-1..... Port Arthur  
 Washington, Pauline; I.E.-4..... Lincoln  
 (2) Washington, Peter Mae; A&S-1..... Dallas  
 Washington, Shirley J.; A&S-1..... Camilla  
 Washington, Vernedia; A&S-4..... Tenaha  
 (1) Washington, Vivian; H.E.-4..... Port Arthur  
 (1) Washington, Walter B. Engr.-4..... Austin  
 Washington, Willie M.; A&S-1..... Dickinson  
 Waters, Minnie Mae; A&S-2..... Dallas  
 Waters, Roscoe; Agric.-1..... Groesbeck  
 Watkins, Iva Lee; N.E.-2..... Palestine  
 Watkins, Mary L.; N.E.-4..... Houston  
 (1) Watson, Beever; A&S-4..... Franklin  
 Watson, Pearl Mac; N.E.-3..... Houston  
 Watson, Richard S.; Engr.-2..... Dallas  
 Watson, Roosevelt; Engr.-3..... Grand Prairie  
 Weathers, Evelyn F.; A&S-1..... Ennis  
 Webb, Juanita V.; A&S-4..... Dallas  
 Webb, Margaret A.; N.E.-4..... Houston  
 (1) Webber, Georgie Mae; H.E.-1..... Hearne  
 Webster, David A.; Engr.-1..... Houston  
 (2) Webster, Mabel; A&S-3..... Texarkana  
 Wedgeworth, Gloria; A&S-4..... Dallas  
 Wells, Helen J.; N.E.-1..... Calvert  
 Wells, Shirley Ruth; A&S-1..... Galveston  
 Wesley, Clemon H.; Engr.-4..... Hawkins  
 Wesley, Mae Alice; A&S-1..... Hawkins  
 Wesley, William P.; I.E.-3..... Hawkins  
 West, Burton G.; A&S-5..... Port Arthur  
 Westbrook, Scott C.; A&S-1..... Houston  
 Whalen, Dolores M.; N.E.-1..... Houston  
 Wheeler, Ethel R.; A&S-1..... Granger  
 Whitaker, James L.; A&S-1..... Fort Worth  
 Whitaker, Norma Joan; A&S-3..... Tenaha  
 White, Betty Jean; A&S-2..... Rusk  
 White, Calvin; A&S-3..... Houston  
 White, Charlie; I.E.-3..... Huntsville  
 White, Clarence W.; Agric.-4..... Houston  
 White, Cleophus; A&S-3..... Queen  
 (1) White, Dorothy J.; A&S-2..... Bartlett  
 White, Edd L.; I.E.-2..... Livingston  
 White, Eddie L.; A&S-1..... Navasota  
 White, Geraldine; N.E.-4..... Crockett  
 White, Harold O.; A&S-3..... Waco  
 White, Harry D.; Engr.-1..... Bastrop  
 White, Iona; A&S-4..... Groveton  
 White, James Arthur; I.E.-2..... San Antonio  
 White, Joyce Ray; A&S-3..... Crockett  
 White, Harrel L.; I.E.-1..... Hempstead  
 White, Kenneth; A&S-2..... Rusk  
 White, Laura E.; I.E.-1..... Houston  
 White, Loretta Ford; N.E.-4..... Houston  
 White, Mary Frances; N.E.-3..... Victoria  
 (2) White, Mary L. P.; H.E.-1..... Waller  
 (1) White, Mary V.; N.E.-4..... Hackensack, N.J.  
 (1) White, Mildred B.; A&S-2..... Houston  
 White, Ramona; H.E.-1..... Curtis  
 Whitehead, Era M.; N.E.-1..... Bryan  
 Whitters, Norma; A&S-1..... Dallas  
 (1) Whiteside, Willie C.; A&S-4..... Vernon  
 (2) Whiffield, Willie; Agric.-1..... Somerville  
 Whitfield, Wyrine J.; A&S-4..... Oakwood  
 (2) Whitten, Harriett D.; A&S-1..... Houston  
 Whittenberg, Earlene; A&S-2..... Fort Worth  
 (1) Whorton, Dee L.; Engr.-1..... Mexia  
 Wickliff, Laura M.; N.E.-3..... Liberty  
 Wickliffe, Robert Jr.; A&S-5..... Port Arthur  
 Wilborn, Estherlene; A&S-4..... Wellborn  
 Wilborn, Lorenzo; A&S-1..... Wellborn  
 Wilcox, Adlaide, R.; A&S-9..... Prairie View  
 Wilcox, Philbert; A&S-3..... Fort Worth  
 Wiley, Charles W.; I.E.-3..... Houston  
 Wiley, George; Agric.-2..... Beaumont  
 Wiley, Wade Webber; I.E.-2..... Midway  
 Wilkerson, Eddie Jr.; I.E.-3..... Cameron  
 Wilkerson, Geneva L.; A&S-4..... Ennis  
 Wilkerson, Milton N.; A&S-4..... Ennis  
 Wilkerson, Ozell; I.E.-3..... Ennis  
 Wilkins, Eardis; I.E.-3..... Houston  
 Wilkins, Jackie; A&S-1..... Van Alstyne  
 (1) Wilkins, Lydia; N.E.-1..... Riesel  
 Wilkinson, Rudolph; A&S-4..... Fort Worth  
 Willard, Riley L.; A&S-3..... Vernon  
 Williams, Albert J.; Engr.-1..... Fort Worth  
 Williams, Aljeriah; H.E.-2..... Houston  
 Williams, Amy L.; N.E.-1..... La Marque  
 Williams, Andrew W.; A&S-3..... Calvert  
 Williams, Annie V. T.; A&S-4..... Marlin  
 Williams, Bernice O.; H.E.-3..... Point Blank  
 Williams, Bessie V.; A&S-1..... Prairie View

Williams, Carl Jr.; A&S-2.....	Lufkin
Williams, Cecil L.; I.E.-3.....	Gonzales
(2) Williams, Charles E.; Engr-1.....	Atlanta
Williams,, Charles J.; Engr.1.....	Houston
Williams, Clara M.; A&S-2.....	Houston
Williams, Clarence A.; A&S-3.....	Texarkana
Williams, Clarence L.; A&S-1.....	Fort Worth
Williams, Claudette C.; A&S-4.....	Conroe
Williams, Cornelia D.; A&S-2.....	Brazoria
Williams, Cornell A.; A&S-2.....	Wharton
Williams, Dora B.; A&S-4.....	Seguin
(1) Williams, Earnestine; A&S-1.....	Houston
Williams, Earnestine; H.E.-2.....	Rosharon
Williams, Eddie; A&S-4.....	Beaumont
Williams, Edward E.; Agric.-2.....	Marshall
Williams, Elizabeth; A&S-1.....	Nacogdoches
Williams, Elroy; Agric.-3.....	Bastrop
Williams, Emmie L.; A&S-1.....	Conroe
Williams, Freddy L.; I.E.-1.....	Markham
Williams, George M.; A&S-1.....	Fort Worth
Williams, Gloria V.; A&S-4.....	Bryan
Williams, Gwendolyn; H.E.-1.....	Calvert
Williams, Henry F.; Engr.-2.....	Houston
Williams, Herman E.; I.E.-4.....	Bryan
Williams, Herman Mac; A&S-3.....	Conroe
Williams, Iris D.; N.E.-5.....	Gallatin
Williams, Jacquelyn; A&S-1.....	Athens
Williams, James D.; A&S-5.....	Austin
Williams, James T.; A&S-2.....	Fort Worth
Williams, Jesse Jr.; I.E.-3.....	Camden
Williams, Joe; A&S-4.....	Colorado City
(1) Williams, Joe L.; I.E.-1.....	El Campo
Williams, Johnelle H.; A&S-4.....	Brazoria
Williams, Joseph G.; A&S-1.....	Bryan
Williams, Juretta; A&S-4.....	Overton
Williams, Lee V.; A&S-4.....	Shepherd
(2) Williams, Leo P.; A&S-1.....	Port Arthur
Williams, Leona M.; A&S-4.....	Port Arthur
Williams, Leonard O.; I.E.-2.....	Fort Worth
Williams, Louretha; A&S-1.....	Waco
Williams, Malinda A.; A&S-1.....	Longview
Williams, Melva J.; N.E.-2.....	Mincoke
Williams, Prenis; I.E.-4.....	Lubbock
Williams, Robert L.; Agric.-2.....	Waco
Williams, Roland C.; Engr.-3.....	Texarkana
Williams, Ruby Jewel; A&S-4.....	Cameron
Williams, Ruby L.; A&S-1.....	Atlanta
Williams, Shirley A.; A&S-2.....	DeKalb
Williams, Thelma L.; N.E.-2.....	Houston
Williams, Thomas E.; A&S-4.....	Ore City
Williams, Tommy; A&S-1.....	Wichita Falls
Williams, Wilbert L.; Agric.-1.....	Powell
Willis, Hazel Mae; A&S-1.....	Sealy
Willis, Helen D.; A&S-4.....	Wharton
Willis, Thelma L.; H.E.-4.....	Fort Worth
Wilson, Dortha Nell; A&S-1.....	Hughes Springs
Wilson, Earl James; Engr.-3.....	Pilot Point
Wilson, Elroy; A&S-3.....	Seguin
Wilson, Geraldine D.; H.E.-3.....	Seguin
Wilson, Harold L.; I.E.-2.....	Shreveport, La.
(2) Wilson, Herman Lee; I.E.-1.....	Prairie View
Wilson, Jesse M.; I.E.-2.....	Prairie View
(2) Wilson, Johnnie; A&S-1.....	Dallas
Wilson, Johnny; A&S-1.....	Hockley
Wilson, L. K.; Agric.-2.....	Jefferson
Wilson, Lois Jean; N.E.-4.....	Bastrop
(1) Wilson, Onie M.; A&S-5.....	Houston
Wilson, Ralph Jr.; Agric-1.....	Jefferson
Wilson, Stanley L.; A&S-2.....	Abilene
Wilson, Sue Frances; A&S-1.....	Jasper
Wilson, Virginia A. B.; A&S-4.....	Alto
Wilson, Willie S.; A&S-4.....	Hughes Springs
Windom, Arvalia M.; A&S-4.....	Tatum
Windom, Clarence T.; A&S-1.....	Galveston
Winslett, Lee E.; A&S-2.....	Houston
Winfrey, Pearl M.; I.E.-1.....	Huntsville
Winslett, Lee E.; A&S-2.....	Houston
Wolridge, Rubye Mae; N.E.-1.....	Marshall
Womack, Betty Joyce; A&S-1.....	Trinity
Wood, Lou Lee; A&S-9.....	Prairie View
(2) Wood, Ruth E. B.; A&S-4.....	Marietta
Woodard, Edna E.; A&S-2.....	Dallas
Woods, Audrey D.; A&S-4.....	Richmond
(1) Woods, Cleal Marie; I.E.-1.....	Kilgore
Woods, Dovie Jean; A&S-1.....	Fort Worth
Woods, Gloria D.; A&S-3.....	Fulshear
Woods, Ida Mae; A&S-4.....	Houston
Woods, W. D.; A&S-1.....	Kaufman
Woods, Yvonne J.; N.E.-2.....	Forney
Woodson, Roy Lee; Engr.-3.....	Weimar
Wooley, Elmer W.; A&S-2.....	Houston
(1) Woolridge, Mary L.; A&S-1.....	Bartlett
Wooten, Claude A.; Engr.-3.....	Crockett
Wooten, James Green; A&S-1.....	Houston
Wooten, Shirley; N.E.-1.....	Houston
Wormely, Tensel L.; I.E.-2.....	Victoria
Wright, Archie D.; A&S-2.....	Waxahachie
(2) Wright, Dorothy M.; A&S-1.....	Bastrop
Wright, Eloise J.; H.E.-2.....	Angleton
Wright, Etta M.; A&S-2.....	Bastrop
Wright, Henry V.; I.E.-3.....	Houston
(1) Wright, John O.; A&S-1.....	Liberty
Wright, Joseph A.; A&S-2.....	San Antonio
Wright, Raymond A.; Engr.-1.....	Beaumont
Wright, Raymond J.; I.E.-1.....	Bastrop
Wright, Ruby D.; A&S-2.....	Houston
Wright, Hugh; A&S-4.....	Chilton
Wyatt, Thelma J.; N.E.-1.....	Galveston
Wyche, George N.; I.E.-4.....	Houston
Wylie, Wiley Dee; Engr.-1.....	Dallas
Wynne, Dorothy M.; H.E.-4.....	Huntsville
Wynne, James R.; A&S-3.....	Crockett
Wynne, Willie B.; A&S-4.....	Galveston
Yancy, Floyd E.; Agric.-1.....	Karnack
Yarborough, Arris L.; A&S-1.....	Houston
Yarbrough, Frank; Agric-1.....	Garrison
Yarbrough, Rudolph; Agric.-3.....	Flint
Yates, Billy Roy; Agric.-4.....	Conroe
Young, Billie E.; Engr.-1.....	Wichita Falls
Young, Carl Lee; A&S-2.....	Belton
Young, Degie L.; A&S-1.....	Wichita Falls
Young, Floyd D. Jr.; I.E.-1.....	Brenham
Young, Larry L.; A&S-1.....	Denver, Colo.
Young, Loretta; A&S-3.....	Waco
Young, Mary E.; A&S-3.....	Brenham
Young, O'Neal; I.E.-1.....	Newton
Young, Paul; A&S-3.....	Amarillo
Youngblood, Remoner M.; N.E.-1.....	Vicawa
Younger, Margaret A.; A&S-2.....	Daingerfield

## PRAIRIE VIEW SATURDAY CLASS STUDENTS -- 1956-57

(1) Attended 1st Semester only; (2) Attended 2nd Semester only.

Name	School	Classification	*Hometown
Anderson, Hattie H. —	A&S-Grad.		Cameron
(1) Bailey, Catherine Janet —	A&S-Gaard.		Teague
(1) Bell, Alyene Meyers —	A&S-Grad.		Marlin
(2) Beuregard, Dorothy C. —	A&S-Grad.		Luling
Burks, Henrietta Doretha —	A&S-Grad.		Milano
(2) Callis, David V. —	A&S-Grad.		Wharton
(2) Carrington, Dorothy L. —	A&S-Grad.		Dallas

(2) Callis, Edwyna H.; — A&S-Grad.	Wharton
Caviel, Jessie Mae — H.E.-Grad.	Glen Flora
(2) Coleman, Vina Harvey; — A&S-Grad.	Bellville
(2) Criner, Louie J.; — Agric.-Grad.	Hooks
(1) Curtis, Martin Van Buren; — A&S-Grad.	Jasper
(2) Darthard, Recilla; — A&S-Grad.	Houston
(1) Davis, Clara Mae; — A&S-Grad.	Prairie View
Davis, Naomi Lee; — A&S-Grad.	Bryan
Dial, Estella Bernice; — A&S-Grad.	Houston
(1) Eason, Oscar; — I.E., Grad.	San Antonio
Edmonds, William Franklin — A&S-Grad.	Kerens
Emanuel, Jimmie L.; — Agric., Grad.	Granger
(1) Evans, Sweetie V.; — A&S-Grad.	La Porte
(2) Forney, Samuel; — A&S-Grad.	Waco
Freeman, John Lane; — Agric., Grad.	Raywood
(1) Gibson, Nettie Blakeley — A&S-Grad.	Teague
(1) Grant, Callie — A&S-Grad.	Yoakum
(1) Grant, Oscar Mae Allen; — A&S-Grad.	Victoria
Grays, Inez Marie; — A&S-Grad.	Hearne
Grays, Zack William — Agric., Grad.	Hearne
Hall, Mildred Louise — H.E.-Grad.	Richards
(1) Hall, Walter J.; — A&S-Grad.	Port Arthur
(1) Harris, Birdie G.; — A&S-Grad.	Waelder
(2) Harrison, Eddie; — Agric.-Grad.	Brenham
(1) Haskin, Ozell Lewis; — A&S-Grad.	Brenham
(1) Herron, Emma Mae; — A&S-Grad.	Italy
* In Texas, unless otherwise specified.	
(1) Hiner, Harvy Harrison; — Agric.,-Grad	Pittsburgh
(1) Howell, Vina L. Hogan; — A&S-Grad.	Brenham
(1) Jackson, Timothy Williams; — A&S-Grad.	Navasota
(1) Jackson, Woodrow Wilson; — A&S-Grad.	Navasota
(1) Jessie, Louie Odell; — Agric.-Grad.	Navasota
(1) Johnson, Bunyan W.; — A&S-Grad.	Mexia
(2) Johnson, Lucy Fay; — A&S-Grad.	Mexia
(1) Johnson, Mary E. C.; — A&S-Grad.,	Brenham
King, Arizona A.; — A&S-Grad.	Mexia
(1) Kirby, Paul H.; — A&S-Grad.	Hempstead
(1) Langston, Thelma Colene Davis; — A&S-Grad.	Coriscana
(1) Manuel, Bertha Mosley; — A&S-Grad.	Teague
Mattox, Helen Verna; — A&S-Grad.	Marlin
(2) Miles, Cora Mae; A&S-Grad	Hearne
Moore, Arnie Mae; — A&S-Grad.	Marlin
(2) Moore, Johnnie L; — A&S-Grad.	Goodrich
(1) Moore, Wendell; — Agric., Grad.	Longview
(2) Neal, Robert B.; — A&S-Grad.	Franklin
Norman, Verbe; — Agric.-Grad.	Seguin
Palmore, Mae Nella; — A&S-Grad.	Teague
(2) Pettie, Oveta L.; — A&S-Grad.	Brenham
(1) Ransom, Davis L.; — Agric. Grad.	Mexia
(1) Roberts, Corine; A&S-Grad.	Lufkin
(1) Ross, Letona; A&S-Grad.	San Antonio
Russaw, Carl L.; A&S-Grad.	Richards
(1) Sansom, Emzy James; — A&S-Grad.	Rockdale
(1) Sansom, Susie Emma; — A&S-Grad.	Rockdale
Sargent, Ernest C.; — A&S-Grad.	Navasota
(1) Sauls, Mabell; — A&S-Grad.	Taylor
Scott, James Benard; — Agric.-Grad.	Mexia
(1) Seamon, George Abner; — A&S-Grad.	Paris
(1) Sheppard, Maggie McCowan; — A&S-Grad.	Bryan
(1) Shropshire, Mable C. Jones; — A&S-Grad.	Cuero
(1) Smith, Eudora Anne Laurie; — A&S-Grad.	Sommerville
(1) Snell, Davd Crockett Jr.; — Agric.,Grad.	Wiergate
(2) Sweeney, Lurline C.; A&S-Grad.	Fairfield
(1) Terrell, Ora Lee; — A&S-Grad.	Victoria
(2) Thompson, Johnnye K.; A&S-Grad.	Montgomery
(1) Thompson, Julia Bernice; — H.E.,-Grad.	San Antonio
Tramble, March Mae Lewis, — A&S,-Grad.	Prairie View
(2) Tubbs, Geretha B.; A&S-Grad.	Tyler
(1) Walker, Lummie Mae; — A&S-Grad.	Kerens
(1) Warren, Ethel Lee; — A&S-Grad.	Waelder
Warren, Thelma M.; — A&S-Grad.	Navasota
(1) Washington, Ada L. Hembra; — A&S-Grad.	Austin
(2) Whiting, Milton G.; — Agric.-Grad.	Bellville
(1) Williams, Alzonias; — A&S-Grad.	Crockett
(1) Williams, Virvus Lee Garrett; — A&S-Grad.	Kerens
Williamson, Andrew W.; — A&S-Grad.	Lockesburg, Arkansas
Wilson, Harold Lee; — A&S-Grad.	Fort Worth

# EXTENSION SCHOOL ENROLLMENT — 1956-57

(1) Attended 1st Semester only; (2) Attended 2nd Semester only

Name	School	Classification	*Hometown
(1) Alfred, A. C.; — A&S-Grad.			New Boston
(1) Allen, Fredna Mac; — A&S-Grad.			Italy
(2) Askew, Inez C.; A&S-Grad.			Sulphur Springs
(1) Ballenger, Claudia Victoria; — A&S-Grad.			Henderson
(1) Boiton, Eula Bernice; — A&S-Grad.			Longview
(1) Borders, Mattie R.; — A&S-Grad.			Waxahachie
(1) Bowser, Leora Rambo; — A&S-Grad.			Atlanta
(1) Boyd, Robbie E.; — A&S-Grad.			Waxahachie
(1) Bradley, Joe Lamar—A&S-Grad.			Longview
(2) Branch, Ernestine F. — A&S-Grad.			Jacksonville
(1) Bradley, Rosie Lee — A&S-Grad.			Dallas
(2) Brew, Ernest R.; — A&S-Grad.			Houston
(1) Brown, Claudine M.; — A&S-Grad.			Marshall
(1) Brown, Clinton O.; — A&S-Grad.			Henderson
(1) Brown, Geneva; — A&S-Grad.			Waxahachie
(1) Burns, Emma Lee. A&S-Grad.			Grapeland
(1) Byrd, Lonah Lee; — A&S-Grad.			Atlanta
(1) Calloway, Joe Martin; — A&S-Grad.,			Dallas
(2) Canady, Dorothy M.; — A&S-Grad.			Fairfield
(2) Chism, Ophelia C.; — A&S-Grad.			Dallas
(2) Clayton, Juanita C.; — A&S-Grad.			Sulphur Springs
(1) Colston, Mattie B.; — A&S-Grad.			Rusk
(1) Coleman, Willia T.; — A&S-Grad.			Marshall
(2) Cotton, Elizabeth M.; — H.E.-Grad.			Sulphur Springs
(1) Cox, Iphelma Lois; — A&S-Grad.			Henderson
(2) Crook, John E.; — A&S-Grad.			Sulphur Spring
(2) Crosby, Nannie K.; — H.E.-Grad.			La Rue
Curry, Virgie A.; — A&S-Grad.			Sulphur Springs
(2) Dean, Jewel M.; — A&S-Grad.			Tyler
(2) Dix, Eugene; — Agric.-Grad.			Palestine
(1) Daniels, Mozell J.; — A&S-Grad.			Henderson
(2) Davis, Rosa V.; A&S-Grad.			Sulphur Springs
(1) Dobbins, Naomi R.; — A&S-Grad.			Ferris
(1) Donovan, Alphonce; A&S-Grad.			Dime Box
(1) Edmond, Jesse; — A&S-Grad.			Lodi
(2) Edwards, Annie M.; — A&S-Grad.			Huntsville
(1) Everlart, Odell — A&S-Grad.			Longview
(1) Farmer, Connie B.; — A&S-Grad.			Shreveport, Louisiana
(2) Ferguson, Mildred R. E.;—A&S-Grad.			Yoakum
(1) Flemings, Alma Ruth;—A&S-Grad.			Galveston
(1) Flowers, Lelia S. —A&S-Grad.			Washington, Arkansas
(1) Fortson, Allie Fae Brown;—A&S-Grad.			Marshall
(1) Frazier, Dessor Rec;—A&S-Grad.			Galveston
(1) Fullalove, Ora Mac; — A&S-Grad.			Marshall
(2) Fuller, Earline; — H.E.-Grad.			Cuero
(2) Garrett, Iantha;—A&S-Grad.			Sulphur Springs
(2) Gibson, Nettie Blakely; —A&S-Grad.			Teague
(2) Goree, Virginia L.; —A&S-Grad.			Palestine
(1) Griffin, Stanley Edward—A&S-Grad.			Dallas
(2) Grant, Callie; —A&S-Grad.			Yoakum
(1) Hall, Minnie B.;—A&S-Grad.			Tatum
(2) Harris, Dorothy D.; —H.E.-Grad.			Sulphur Springs
(1) Herndon, Lessie Edwinia;— A&S-Grad.			Waxahachie
(1) Hopkins, Jimmie S.;—A&S-Grad.			Crockett
(2) Holloway, J. W.; — Agric.-Grad.			Jacksonville
(1) Houston, Louise Pomby; — A&S-Grad.			Athens, Louisiana
(2) Houston, Zula M; — A&S-Grad.			Cuero
(2) Hubbard, Lucille; — A&S-Grad.			Cuero
(1) Hunter, Joyce Ann; — A&S-Grad.			Malakoff
Irving, Arvetta; — A&S-Grad.			Galveston
(2) Jackson, Helen R.; — H.E.-Grad.			Marshall
(1) Johnson, George Irene; — A&S-Grad.			Grapeland
(1) Johnson, Norma Ruth;— A&S-Grad.			Tatum
(2) Jolly, Josse C.; —A&S-Grad.			Galveston
(2) Jones, Gertrude D.;— A&S-Grad.			Kennard
(2) Jones, Henry V.; — A&S-Grad.			Cuero
(1) Jones, Kay Frances; — A&S-Grad.			Jacksonville
(2) Jones, Nellie M.; — A&S-Grad.			Dallas
(1) Kelly, Marie W.; — A&S-Grad.			Sulphur Springs
(2) Kendrick, Dorothy N.; A&S-Grad.			Galveston
(2) Lamb, Billie B.; — A&S-Grad.			Sulphur Springs
(1) Leadon, Evelyn Lewis; A&S-Grad.,			Kennard
(2) Love, Mary N.; — A&S-Grad.			Henderson
(1) McCauley, Roberta Ester; — A&S-Grad.			Eustace
			Marshall

\* Located in Texas, unless otherwise specified.

(2) McCullough, Velma W.; — A&S-Grad.	Crockett
(1) Madkins, Pauline Session; — A&S-Grad.	Cherokee
(1) Maxwell, Annie Marie;—A&S-Grad.	Waxahachie
(2) Mayes, Hazel C.; — A&S-Grad.	Fairfield
(2) Mays, Hazel L.;—A&S-Grad.	Elkhart
(1) Melton, Marian Settle;—A&S-Grad.	Longview
(1) Menefee, Mattie Lou;—A&S-Grad.	Tatum
(1) Menter, Catherine Merle;—A&S-Grad.	Dallas
(1) Miles, Katie L. E.;—A&S-Grad.	DeKalb
(1) Miller, Vera Mac;—A&S-Grad.	Mansfield, Louisiana
(2) Moore, Ruth Hazel;—A&S-Grad.	Oakwood
(1) Moore, Lois R.; —A&S-Grad.	Italy
(2) Morton, Samuel R.; — A&S-Grad.	Sulphur Springs
(1) Mosley, Eileen Odessa; — A&S-Grad.	Shreveport, Louisiana
(1) Nelson, Vesta T.; — A&S-Grad.	Marshall
(1) Nolan, Angie Lucinda; — A&S-Grad.	Galveston
(1) Oliver, Gladys; — A&S-Grad.	Atlanta
(2) Rannels, Nadelle M.; — A&S-Grad.	Crockett
(1) Patterson, Jeanette Smith; — A&S-Grad.	Marshall
(1) Perry, Evelyn M.; — A&S-Grad.	Dallas
(2) Polk, Claude H.; —A&S-Grad.	Fairfield
(1) Pollard, Henry James; — A&S-Grad.	Tatum
(2) Pruitt, Cleo R. A&S-Grad.	Crockett
(2) Pruitt, Espanola V.; A&S-Grad.	Greenville
(2) Pruitt, John W.; — A&S-Grad.	Crockett
(2) Ricks, Elemr L.; A&S-Grad.	Tyler
(1) Rollins, Alice Marie; — A&S-Grad.	Dallas
(2) Rannels, Nodell M. — A&S-Grad.	Crockett
(2) Rutledge, Johnnie C.; — A&S-Grad.	Palestine
(2) Sampson, Sylvester; — A&S-Grad.	Cuero
(2) Schuler, Lillie M.; — A&S-Grad.	Cuero
(1) Singleton, Aldora; — A&S-Grad.	Ruston, Louisiana
(1) Shannon, E. L.; — A&S-Grad.	Texarkana, Arkansas
(2) Shropshire, Mabel J.; — A&S-Grad.	Cuero
(1) Smith, Ellene; — A&S-Grad.	Carthage
(2) Smith, Rubye; A&S-Grad.	Sulphur Springs
(2) Smothers, J. W.; — A&S-Grad.	Malakoff
(1) Spencer, Winfred W.; — A&S-Grad.	Texarkana
(2) Starling, Nola D.; — A&S-Grad.	Grapeland
(1) Starling, Wilma Geretha; — A&S-Grad.	Mt. Enterprise
(1) Stein, Martha G.; — A&S-Grad.	Mt. Enterprise
(2) Stevenson, Rosetta P.; — A&S-Grad.	Athens
(1) Taylor, Gloria Rosalyn; — A&S-Grad.	Dallas
(1) Taylor, Louella Elizabeth; — A&S-Grad.	Waxahachie
(1) Thompson, Carrie Beatrice; — A&S-Grad.	Marshall
(1) Tillis, Marion Ione; — A&S-Grad.	Longview
(1) Trotter, Augusta Lisida; — A&S-Grad.	Washington, Arkansas
(1) Tucker, Ora L.; — A&S-Grad.	Marshall
(1) Wade, Precious Jewel; — A&S-Grad.	Marshall
(2) Walker, Ethel; — A&S-Grad.	Crockett
(1) Walker, Mary T. — A&S-Grad.	Bernice, Louisiana
(1) Webster, Fannie Lee; — A&S-Grad.	Queen City
(2) Wells, Lucille J.; — A&S-Grad.	Jacksonville
(1) West, Atwell; — A&S-Grad.	Dallas
(1) White, Vada Odessa; — A&S-Grad.	Ozan, Arkansas
(1) Williams, Georgiana K.; — A&S-Grad.	Monroe, Louisiana
(1) Wilson,, Carrie Davenport; — A&S-Grad.	Houston
(1) Wilson, Ozie Rec; — A&S-Grad.	Hope, Arkansas
(2) Wimbish, Calle B.; A&S-Grad.	Cuero
(2) Wooten, Sallie L.; — A&S-Grad.	Sulphur Springs

## PRAIRIE VIEW TRAINING SCHOOL 1956-57

Symbols: Numerals—Age; PP—Pre-Primer; G1—First Grade; G2—Second Grade; G3—Third Grade; G4—Fourth Grade; G5—Fifth Grade; G6—Sixth Grade; G7—Seventh Grade; G8—Eighth Grade; G9—Ninth Grade; G10—Tenth Grade; G11—Eleventh Grade; G12—Twelfth Grade; M—Malc; F—Female.

Alexander, Jerry, 8, G2, M  
 Anderson, Alma Jean, 13, G8, F  
 Anderson, Annie Lorraine, 13, G8, F  
 Anderson, Arizona, 10, G2, F  
 Anderson, Floyd, 8, G1, M  
 Anderson, Isiah, 12, G6, M  
 Anderson, Juanita, 16, G9, F  
 Anderson, Melvin L., 17, G12, M  
 Anderson, Odessa, 15, G8, F  
 Anderson, Overda Mac, 17, G10, F  
 Anderson, Theodore, 6, G1, M  
 Anderson, Tom, 6, G1, M  
 Anderson, Velda N., 12, G6, F

Anderson, Walter, 12, G4, M  
 Arnold, Alicia, 8, G4, F  
 Austin, Wilbert, 15, G12, M  
 Bailey, Eddie Ray, 13, G7, M  
 Bailey, Ethel M., 11, G4, F  
 Barnes, Belinda, 7, G4, F  
 Barnes, Jessie Lee, 10, G3, F  
 Barnes, Cecil, 9, G3, M  
 Barnes, Charles, 7, G2, M  
 Barnes, Jessie, 17, G6, F  
 Barnes, Robert Lee, 14, G7, M  
 Barnes, Samuel, 13, G8, M  
 Bean, Dale, 16, G10, M

Bean, Edna C., 9, G5, F  
 Bean, James, 15, G8, M  
 Bean, Richard, 11, G6, M  
 Bennett, Clyde C., 10, G5, M  
 Bennett, Eula J., 12, G7, F  
 Bennett, Robert L., 12, G6, M  
 Bennett, Walter, 15, G10, M  
 Biggom, Willie Jean, 15, G8, F  
 Biggom, Wilmer Lee, 15, G8, M  
 Boggers, Margie, 13, G8, F  
 Boggers, Susie, 8, G3, F  
 Boulware, Marcus H., 16, G10, M  
 Boulware, James, 9, G4, M  
 Boulware, Philomena, 11, G5, F  
 Butler, Barbara, 9, G5, F  
 Butler, Berdie Lee, 10, G6, F  
 Butler, Eddie L., 6, G1, F  
 Butler, Herman, 8, G3, M  
 Butler, Linda, 7, G1, F  
 Butler, Mary Ann, 11, G4, F  
 Broughton, Harry Kent, 10, G7, M  
 Broughton, Marge D., 16, G11, F  
 Broughton, Ogie, 19, Jr. 12, M  
 Brown, Ashland, 10, G7, M  
 Brown, Charles, 9, G3, M  
 Brown, Doris E., 15, G11, F  
 Calloway, Shirley Ann, 11, G8, F  
 Calloway, Glory, 15, G11, F  
 Canty, Virgie Mare, 13, G8, F  
 Carrer, Velma, 15, G10, F  
 Chany, Shirley J., 6, G1, F  
 Charetier, Georgiana, 13, G7, F  
 Clark, Alice, 10, G3, F  
 Clark, Beulah, 7, G1, F  
 Clark, Columbus, 9, G3, M  
 Clark, Easter Belle, 10, G4, F  
 Clark, Helen, 7, G2, F  
 Clark, Jenne L., 6, G1, F  
 Clark, Lena Mae, 15, G7, F  
 Clark, Mary West, 12, G4, F  
 Clark, Weston, 13, G6, M  
 Collins, Eugene, 7, G2, M  
 Collins, John E., 6, G1, M  
 Day, Lillie, 7, G2, F  
 Day, Vernell, 15, G8, F  
 Deese, Bobby J., 14, G7, M  
 Dixon, Simon B., 7, G3, M  
 Dooley, Lois M., 14, G9, F  
 Echols, Ruby, 9, G4, F  
 Ellis, Ernestine, 14, G8, F  
 Faciane, Norris H. Jr., 6, G1, M  
 Felder, Samuel, 17, G9, M  
 Fields Robert E., 12, G7, M  
 Fitch, Leon, 8, G2, M  
 Fry, Francis G., 16, G11, M  
 Fuller, Edwilyn C., 15, G12, F  
 Gails, Birdie M. 6, G1, F  
 George, Annie Marie, 13, G7, F  
 George, Rita J., 13, G7, F  
 Glenn, Augustus, 9, G4, M  
 Glenn, Kenneth, 13, G8, M  
 Glenn, Sandra, 13, G8, F  
 Glenn, Sharon F., 6, G1, F  
 Glover, Eloise G., 11, G7, F  
 Graham, Frederick, 7, G2, M  
 Harden, Nathaniel, 9, G5, M  
 Haughton, Veleric, 7, G2, F  
 Hayes, James Johnson, 9, G3, M  
 Hazel, Cheryl, 8, G3, F  
 Henry, Edgar George, 17, G12, M  
 Henry, John Robert, 14, G11, M  
 Hill, Eleanor, 7, G2, F  
 Hill, Mary Catherine, 10, G6, F  
 Hill, Sonya, 10, G5, F  
 Humphery, Bonnie D., 14, G9, M  
 Humphery, Lewis Elwood, 19, G12, M  
 Humphery, Mae Dell, 17, G12, F  
 Jackson, Calvin, 17, G9, M  
 Jackson, Emanuel, 10, G4, M  
 Jackson, Gloria Mae, 12, G5, F  
 Jackson, James, 7, G1, M  
 Jackson, Joseph, 13, G6, M  
 Jeffery, Barbara, 8, G2, F  
 Jeffery, Carolyn, 8, G2, F  
 Jeffery, Glenn, 13, G8, M  
 Jeffery, William, 7, G1, M  
 Jeffery, Jacqueline, 10, G5, F  
 Johnson, Booker T., 13, G9, M  
 Johnson, John H., 6, G1, M  
 Johnson, Theodore, 12, G7, M  
 Jones, Alvin Landis, 7, G2, M  
 Jones, Bruce L., 6, G1, M  
 Jordon, Florine, 6, G1, F  
 Kilpatrick, Hortense,  
 Kilpatrick, Madison, 13, G8, M  
 Latique, Bobbie, 10, G3, M  
 Latique, Elite, 9, G3, M  
 Lawson, Theodora, 11, G7, F  
 Ledbetter, Beverly, 13, G9, F  
 Lee, Bettie Dale, 8, G4, F  
 Lee, Linda, 12, G8, F  
 Lee, Myrna J., 15, G12, F  
 Lenton, Charlene J., 18, G12, F  
 Lewis, Rosette, 11, G8, F  
 Loggins, Bobbie Jean, 10, G5, F  
 Love, Carolyn J., 10, G5, F  
 Mack, Ronald, 10, G6, M  
 Mack, Waymond, 8, G4, M  
 Manuel, Erma, 8, G2, F  
 Manuel, James, 7, G2, M  
 Marion, Leroy III, 6, G1, M  
 McDow, James, 14, G9, M  
 McDow, Wilma P., 13, G6, F  
 McKinzie, Scott, 6, G1, M  
 McMillan, Lemon, 12, G7, M  
 McMillan, Robert, 11, G6, M  
 McMillan, Samuel, 9, G5, M  
 Mosley, Harvey, 12, G8, M  
 Murdock, Horace D., 10, G6, M  
 Murdock, Ruth G., 9, G5, F  
 Muse, Beverly, 8, G3, F  
 Muse, Charles D., 11, G4, M  
 Muse, Delores, 17, G11, F  
 Muse, Edgar Lee, 13, G4, M  
 Muse, Erma Jean, 17, G11, F  
 Muse, Mary Louise, 13, G7, F  
 Muse, Wilma M., 11, G4, F  
 O'Banion, Charles H., 10, G7, M  
 O'Banion, Harriet, 9, G4, F  
 Owens, Henry, 13, G8, M  
 Pace, Cecil, 16, G10, M  
 Pipkin, Carolyn, 8, G3, F  
 Poindexter, Alfred N., 14, G9, M  
 Poindexter, Betti, 12, G7, F  
 Poindexter, Bruce, 8, G3, M  
 Poindexter, Paula M., 6, G1, F  
 Poole, Robert, 11, G4, M  
 Reed, Jack, 15, G9, M  
 Reed, Obie, 8, G3, M  
 Reed, Robert L., 6, G1, M  
 Richards, Doris, 8, G3, F  
 Richards, Joseph, 7, G1, M  
 Richards, Judy Carol, 7, G2, F  
 Richards, Robbie, 9, G4, M  
 Sampson, Shirley, 9, G4, F  
 Sams, Rosetta, 11, G7, F  
 Santee, Clarence, 19, G12, M  
 Santee, James L., 15, G8, M  
 Scott, Alvin V., 15, G8, M  
 Scott, Elmer L., 14, G9, M  
 Scott, Gloria D., 6, G1, F  
 Scott, Jimmie R., 13, G7, F  
 Scott, Ora Lee, 7, G2, F  
 Shepherd, George, 8, G3, M  
 Shepherd, James C., 10, G6, M  
 Shepherd, Jessie Lee, 15, G12, F  
 Shepherd, Melvin H., 19, G12, M  
 Shepherd, Sealy, 13, G8, F  
 Simmons, John H., 10, G6, M  
 Simon, Agnes, 6, G1, F  
 Simon, Lorena, 8, G2, F  
 Simon, Lorita, 15, G7, F  
 Simon, Louis, 11, G5, M

Simon, Mary Dean, 13, G6, F  
 Singleton, Helen, 15, G6, F  
 Spates, Leroy, 9, G4, M  
 Spates, Tursa, J., 6, G1, F  
 Stickney, Janice L., 15, G11, F  
 Stickney, William H., 11, G7, M  
 Tate, Jessie Mae, 12, G7, F  
 Taylor, Charlotte, 7, G3, F  
 Teele, Arthur, 10, G5, M  
 Teele, Syntha, 13, G8, F  
 Tisdell, Harold, 16, G10, M  
 Tolder, Bernice, 14, G9, F  
 Tolder, Carolyn, 9, G3, F  
 Tolder, Fred, 17, G10, M  
 Tolder, Raymond, 12, G6, M  
 Tolder, Robert, 16, G10, M  
 Tolder, Roy, 6, G1, M  
 Toler, Charles, 16, G10, M  
 Tompkins, Ada, 8, G3, F  
 Tompkins, Beverly, 8, G3, F  
 Tompkins, Evelyn J., 14, G9, F  
 Tompkins, Irene Y., 17, G12, F  
 Tompkins, Martha A., 16, G11, F  
 Tompkins, Roland, 11, G4, M  
 Tompkins, Sherlyn P., 6, G1, F  
 Tompkins, Willow, 9, G3, M  
 Tucker, Alton R., 14, G9, M  
 Tucker, Carlton, 13, G8, M  
 Tucker, James E., 6, G1, M  
 Tucker, Jeanette, 8, G3, F  
 Turner, Betty, 7, G2, F  
 VanDuren, Elmer, 15, G7, M  
 Walker, Arthur, 19, G12, M  
 Walker, Daisy, 9, G4, F  
 Walker, George D., 13, G6, M  
 Walker, Nancy A., 6, G1, F  
 Walter, Charles E., 14, G9, M  
 Ward, Clifford P., 14, G9, M  
 Ward, Gayle, 7, G2, F  
 Ward, Nolan, 11, G7, M  
 Watson, Alonzo I., 6, G1, M  
 Williams, Alva Justine, 12, G7, F

Williams, Angelette, 15, G7, F  
 Williams, Barbara Ann, 9, G4, F  
 Williams, Barbara Sue, 10, G6, F  
 Williams, Betty, 8, G2, F  
 Williams, Bobbie, 16, G10, F  
 Williams, Calvin Earl, 8, G2, M  
 Williams, Caroll J., 6, G1, M  
 Williams, Helen, 16, G7, F  
 Williams, Ininetti G., 17, G10, F  
 Williams, James, 9, G3, M  
 Williams, Joan, 13, G3, F  
 Williams, John C., 14, G9, M  
 Williams, Johnetta, 8, G4, F  
 Williams, Joyce, 9, G3, F  
 Williams, Joyce M., 15, G4, F  
 Williams, LaVerne, 7, G1, F  
 Williams, Lawrence, 8, G3, M  
 Williams, Martha M., 6, G1, F  
 Williams, Robert Earl, 10, G4, M  
 Williams, Warren, 8, G2, M  
 Wilson, Alfred, 17, G10, M  
 Wilson, Allen, 12, G4, M  
 Wilson, Annie Louise, 15, G8, F  
 Wilson, Carolyn A., 10, G6, F  
 Wilson, Leon, 16, G7, M  
 Wilson, Linda, 9, G3, F  
 Woodard, Esther, 11, G4, F  
 Woodard, Frester M., 6, G1, F  
 Woodard, Perry, 12, G4, M  
 Wood, Barbara, 10, G5, F  
 Wood, Craig, 7, G3, M  
 Wood, Curtis A., 15, G9, M  
 Wood, Garland, 12, G8, M  
 Woods, Henrine, 12, G8, F  
 Woods, Sanderson A., 15, G11, M  
 Woolfolk, George R., 7, G2, M  
 Wyatt, Mary Louise, 12, G7, F  
 Yell, Charles, 14, G6, M  
 Yell, Clarence, 10, G3, M  
 Yell, Clarence, 10, G3, M  
 Yell, Lois Jean, 7, G1, F  
 Yell, Marvin, 12, G8, M  
 Yell, Wilbert, 9, G3, M

## NURSERY SCHOOL ENROLLMENT

### Regular Sessions, 1956-57

M - Male; F - Female

Bell, Candra, F, 3  
 Brooks, Sheryll, F, 2  
 Brooks, Carl, M, 4  
 Faciane, Norbert, M, 5  
 Faciane, Wilda, F, 3  
 Hazel, David, M, 4  
 Herron, Twana, F, 4  
 Hill, Lary, M, 4  
 Hill, Harold M, 4  
 Jones, Brent M, 4  
 Jones, Patrica, F, 4  
 Kirkwood, Alledia, F, 3  
 Muse, Patricia, F, 4

Mozee, Jose, M, 3  
 Rayford, Ronald, M, 3  
 Reese, William, M, 4  
 Smith, Oliver, M, 3  
 Smith, Cathy, F, 2  
 Sinkler, Gregory, M, 4  
 Sinkler, Kenneth, M, 2  
 Thomas, Kenneth, M, 4  
 Thomas, Michael, M, 2  
 Wallace, Sheila, F, 2  
 Weatherspoon, Wendell, M, 3  
 Walker, Sewilla, F, 4  
 Wright, Tommy, M, 4

## NAMES OF GRADUATES

### January 1956

Name	Degree	Major and Minor
Allen, Leonard G. (Miss)	M.Ed.	Elementary Education and Health Education
Anderson, Claudia (Mrs.)	M.Ed.	Elementary Education and Health Education
Baker, Dorothy M.	B.S.	Elementary Education and Business Administration
Bateups, Edward H.	B.S.	Industrial Education
Bell, Yvonne J.	Certificate	Secretarial Science
Benton, Odis E. (Mrs.)	M.Ed.	Elementary Education and Health Education
Bowman, Thomas M.	B.A.	Business Administration and Economics
Bussey, Mildred L.	B.S.	Library Science-Education and Sociology Home Economics Education

Butler, Deloris	B.S.	Home Economics Education
Chiles, Lena Mae	B.S.	Elementary Education and Physical Education
Cloy, Larutha (Mrs.)	M.A.	English and Education
Cuerington, Iantha (Mrs.)	B.S.	Nursing Education
Cunningham, Henedricks	B.S.	Physical Educator and Education
Darden, Myrtle (Mrs.)	M.Ed.	Elementary Education and Administration and Supervision
Davis, Essie M.	B.S.	Elementary Education and Physical Education
Dotson, Thomas H.	Certificate	Plumbing
	B.S.	Industrial Education and Mathematics
Evans, Charles L.	B.S.	Industrial Education
Evans, Erma J. (Mrs.)	B.S.	Biology and Chemistry
Flowers, Earnie Lee	B.S.	Business Education and Sociology
Fontenot, Raymond	B.S.	Mathematics and Business Administration
Foster, Hazel M.	Diploma	Nursing
Frazier, Lucille E.	M.A.	English and Education
French, Irene	B.S.	Home Economics
Glenn, Melvin	B.S.	Agricultural Education
Hackney, Olivia (Mrs.)	M.Ed.	Elementary Education and Administration and Supervision
Harris, Maurice E. (Miss)	B.S.	Home Economics
Harvey, Freddie Mae	B.S.	Elementary Education and Kindergarten Education
Hicks, Lee Alton	B.S.	Agricultural Education
Higgs, George	B.S.	Business Education and Mathematics
Hodge, Julia (Mrs.)	M.Ed.	Elementary Education and Health Education
Hodges, Martha W.	B.A.	Business Administration and Social Science
Hopkins, Elna Jean	B.S.	Home Economics and Elementary Education
Houston, Mary A.	B.A.	Music and Secondary Education
Hunter, Joyce A.	B.S.	Elementary Education and Music
Jackson, Pheebia	B.S.	Home Economics
James, Ella M.	B.S.	Elementary Education and Library Science
Jeffero, Alganon	B.S.	Agricultural Education
Johnson, Barbara L.	B.A.	Music and Elementary Education
Johnson, Marion, Jr.	B.A.	Sociology and Political Science
Jones, Dorothy R.	B.S.	Library Service and Sociology
Jordan, Mack, Jr.	Certificate	Masonry
Justice, Evelyn	B.S.	Elementary Education and Physical Education
King, Algertha	B.S.	Home Economics
Laymond, Ruthie Mae	B.S.	Home Economics
Massie, Gloria D.	B.A.	Music and Elementary Education
Mercer, George, Jr.	M.S.	Biology and Administration and Supervision
Moore, Theresa (Mrs.)	M.S.	Elementary Education and Health Education
Mosley, Annie J.	B.S.	Mathematics and French
Nathan, Cordia L. (Mrs.)	M.Ed.	Elementary Education and Health Education
Parker, Mattie M.	B.A.	Music and Elementary Education
Phillips, Dorothy I.	B.S.	Home Economics Education
Polk, Jesse B.	M.Ed.	Administration and Supervision and Agricultural Economics
Scott, Oneida J.	B.S.	Elementary Education and Physical Education
Shelton, Emma C.	M.A.	English and Elementary Education
Shepherd, Mary A.	B.S.	Home Economics
Smiley, Etta H. (Mrs.)	M.Ed.	Elementary Education and Health Education
Smith, Clarence A.	B.A.	Music and Education
Spikes, Tyler	B.S.	Physical Education and Education
Stockton, Angieleen J.	B.S.	Dietetics and Education
Taylor, Alice L.	Diploma	Nursing
Taylor, Charles E.	B.S.	Elementary Education and Art
Waddleton, Betty A.	B.S.	Elementary Education and Physical Education
Wilhite, Johnnie A.	Diploma	Nursing
Williams, Tommy O.	B.S.	Physical Education and Health Education and Education
Wilson, Mary L.	B.S.	Home Economics
Wilson, Venora B.	M.Ed.	Elementary Education and Special Education
Wooten, Sallie L.	B.A.	Music Education and Elementary Education
Wright, Artimesie C.	M.Ed.	Elementary Education and Supervision
Wright, Clement U.	B.A.	Music Education
Wright, Trudie M.	Diploma	Nursing
Wynn, Mollie M.	M.Ed.	Elementary Education and Administration and Supervision

The title of Mrs. is placed behind the names of married women graduates.

The title of Miss is placed only behind those names which might be mistaken for masculine identity.

The first course of study given indicates the major; the second gives the minor



# SUMMARY OF DEGREES, DIPLOMAS AND CERTIFICATES

January 1956

	Male	Female	Total
Bachelor of Arts	2	1	3
Bachelor of Arts in Music	2	5	7
Bachelor of Science	5	3	8
Bachelor of Science in Agriculture	3	—	3
Bachelor of Science in Dietetics	—	1	1
Bachelor of Science in Education	1	11	12
Bachelor of Science in Home Economics	—	10	10
Bachelor of Science in Industrial Education	3	—	3
Bachelor of Science in Nursing	—	1	1
Master of Arts	—	3	3
Master of Education	1	11	12
Master of Science	1	1	2
Nursing Diplomas	—	4	4
Trade Certificates	2	1	3
	20	52	72

## NAMES OF GRADUATES

May 1956

Name	Degree	Major and Minor
Adams, Leona M.	B.A.	Music and French
Adams, Myrtle E.	B.A.	Music and Elementary Education
Alexander, Johnnie Mae	B.S.	Home Economics
Alexander, Roscoe	M.S.	Agricultural Economics and Agricultural Education
Alford, Hazel J.	B.S.	Home Economics
Alfred, Evelyn M.	B.A.	Business Administration and Education
Allen, John W.	M.S.	Industrial Education and Administration and Supervision
Allen, Margie N. (Mrs.)	B.S.	Mathematics and Spanish
Alton, Arthur, Jr.	B.S.	Biology and Chemistry
Anderson, Samuel A.	B.S.	Biology and Chemistry
Armstrong Bobbie L.	B.A.	Sociology and Social Science
Baker, Eldora	B.S.	Business Education and Spanish
Barber, John E.	B.A.	Political Science and Education
Barlow, Dora M. (Mrs.)	M.Ed.	Elementary Education and Administration
Barlow, Maggie Lee	B.S.	Elementary Education and Art Education
Barnes, Bozie, Jr.	B.S.	Animal Husbandry
Barnes, Elizabeth V.	B.S.	Mathematics and French
Basey, Alpha J.	B.S.	Physical Education and Secondary Education
Beasley, Juanita J.	B.S.	Home Economics
Bennett, Alton E.	B.S.	Elementary Education and Physical Education
Bennett, Rose M.	B.A.	Social Science and History
Benson, Bettye C. (Mrs.)	B.S.	Elementary Education and Clothing and Textiles
Bigsby, Lillian	B.S.	Physical Education and Secondary Education
Black, Frances	B.S.	Physical Education and Biology
Bluiett, Charlene L.	B.S.	Home Economics
Booker, Jeorline	B.S.	Elementary Education and Sociology
Boswell, Melba J.	B.S.	Elementary Education and Kindergarten Education
Boulden, Zelma	B.S.	Home Economics Education
Bowie, C. G.	B.A.	Music and Education
Bowie, Jessie Lee	B.S.	Physical Education and Health Education
Boykin, Claude E.	B.S.	Home Economics
Bradford, Charles H.	B.S.	Mathematics and Spanish
Bradford, Claresa D.	Diploma	Nursing
Branch, Raye M.	B.S.	Elementary Education and Library Sciences
Brashcar, Hollis N.	B.S.	Civil Engineering
Brent, Mableen	M.Ed.	Elementary Education and Health Education
Bridges, Mildred B.	B.A.	English and Spanish
Briscoe, Dorothy J.	Certificate	Secretarial Science
Brooks, Kathryn P. (Mrs.)	B.S.	Home Economics
Brown, Erma Lee	B.S.	Business Education and Physical Education
Brown, Novella M. (Mrs.)	B.S.	Elementary Education and Art
Brown, Pearl M.	B.S.	Business Education and Economics
Brown, Willard G.	B.S.	Physical Education and Biology
Bryant, Joe E. Jr.	B.S.	Elementary Education and English
Burnett, Hill, Jr.	B.S.	Animal Husbandry
Busby, Adam	B.S.	Industrial Education
Butler, Roosevelt	B.S.	Biology and French
Cage, Gloria	B.S.	Business Education and French
Calhoun, Welda M.	B.S.	Elementary Education and Art Education
Campbell, Easter	B.A.	Social Science and Education
Chandler, James O.	B.S.	Industrial Education and History and Carpentry
Chase, Sylvester E.	M.S.	Extension Education and Agricultural Education

Choice, Fred D.	B.A.	Economics and Business Administration
Chopp, Martha J.	B.A.	Business Administration and Spanish
Clack, Artstell	Certificate	Metalwork
Clark, Louis R.	B.S.	Mathematics and Physical Education
Clay, Elbert P.	B.A.	Sociology and Economics
Clayborne, Ruth E.	B.S.	Home Economics
Clayton, Deloris J.	B.S.	Business Education and Education
Cobb, Barbara L.	B.A.	Music and Elementary Education
Coleman, Johnnie Mae	B.S.	Business Education and Sociology
Coleman, Norma Lee	B.S.	Elementary Education and Art
Coleman, Novella	B.S.	Elementary Education and Physical Education
Collins, Doris M.	B.S.	Physical Education and Education
Colter, Grover B.	B.S.	Architectural Engineering
Conner, Delois	B.A.	Music Education and Elementary Education
Corbett, Gloria Y.	B.S.	Education and Spanish
Corbett, Joan J.	B.S.	Elementary Education and Business
Cotton, Dorothy J.	B.S.	Home Economics Education
Crawford, Raymond	B.A.	History and Social Science
Crosby, Lorenza	B.S.	Agricultural Education
Dabney, Rufus, Jr.	B.A.	Sociology and Spanish
Daniels, Ina Bell	B.A.	Business Administration and Sociology
Daniels, Ruby	B.S.	Business Education and Sociology
Davis, Ella L.	B.A.	English and Sociology
Davis, Ira Jean	B.S.	Elementary Education and Library Science
Davis, Jake E.	B.S.	Biology and Political Science
Davis, Marguaret J.	B.S.	Elementary Education and Library Science
Davis, Rosetta J.	B.S.	Elementary Education and English
Demus, Helen Ruth	B.S.	Elementary Education and Kindergarten Education
Denmore, Cary	B.S.	Agriculture
DeRouen, Herbert	B.S.	Biology and Chemistry
Derry, Rose M.	B.S.	Elementary Education and Physical Education
Devers, Shedrick	B.A.	Music and Education
Dorn, Gladys	B.S.	Home Economics
Douglas, Davella	B.S.	Mathematics and Education
Driver, Ruth G.	B.A.	Music and Secondary Education
Edwards, Calvin J.	B.S.	Industrial Education and Brickmasonry
Edwards, Elvin H.	B.S.	Physical Education and Education
Ellis, Johnny S.	Certificate	Cooking and Baking
Epps, Walter, Jr.	B.S.	Mathematics and Business Administration
Evans, Dan M.	B.A.	Sociology and Business Administration
Evans, Oler	Certificate	Cooking and Baking
Evans, Shirley Jean	B.A.	Business Education and Spanish
Ewing, Granvel	B.S.	Industrial Education and Physical Education
Favors, Naoma L. (Mrs.)	M.S.	Education and Supervision
Fields, Billie J.	B.S.	Home Economics Education
Fields, Effie J.	B.S.	Business Education and Spanish
Flowers, Dessie P.	B.S.	Elementary Education and Art
Forte, Johnie J.	B.A.	Political Science and Social Science
Foston, Viola E.	B.A.	Business Administration and Spanish
Fowlks, Joyce	B.S.	Home Economics
Fox, Arthur D.	B.S.	Elementary Education and Art Education
Franklin, Bernadett	B.S.	Elementary Education and Physical Education
Franklin, Jerelene	B.S.	Home Economics Education
Franklin, Ruth E.	B.S.	Home Economics
Franklin, Thomas J.	B.S.	Physical Education and Education
Franks, William, Jr.	B.S.	Business Education and Economics
Frazier, Verna L.	B.S.	Elementary Education and Physical Education
Freeman, Doris J.	B.A.	English and Business Administration
Freeman, Sidney E.	B.S.	Elementary Education and Physical Education
Freeman, William H.	B.S.	Biology and Political Science
Garnett, Burl	B.A.	Business Administration and Sociology
Garnett, Robert H.	B.S.	Industrial Education
Gaston, Johnnie M.	B.A.	Business Administration and French
Giddings, Leathia A.	B.A.	Business Administration and Education
Gilcrease, Cleveland	B.S.	Agriculture and Animal Husbandry
Gilmore, Drusilla	B.S.	Elementary Education and English
Gilstrap, Noble	B.S.	Industrial Education
Glasco, Jessie M.	Certificate	Tailoring
Golston, Billy R.	B.A.	Business Administration and Sociology
Gordon, Alfred	B.S.	Business Education and Spanish
Greene, Clarine	B.S.	Business Education and Spanish
Griffin, Eather	B.S.	Home Economics Education
Hall, Hollis J.	Certificate	Cooking and Baking
Hamilton, Bobby J.	B.A.	Music Education and Secondary Education
Hammon, Aubrey	B.S.	Chemistry and Biology
Hardway, Arista L. (Mrs.)	M.S.	Supervision and Elementary Education
Harris, Willie B.	B.S.	Business Education and Education
Hatchett, Timothy	B.S.	Business Education and Economics
Hawkins, Symolia L.	B.A.	Political Science and Education
Henderson, Georgia R. (Mrs.)	B.S.	Elementary Education and Art
Hicks, Clarence Reen (Miss)	B.S.	Business Education and Library Science

Hogan, Booker T.	B.S.	Chemistry and Biology
Houston, Gloria R.	Certificate	Secretarial Science
Hoxie, Fred C.	B.S.	Architectural Engineering
Huckaby, Henry L.	B.S.	Biology and Chemistry
Hunt, Kenneth D.	B.A.	English and French
Hunter, Barbara C.	B.A.	Business Administration and Sociology
Hurst, Muriel M.	B.A.	Business Administration and English
Hynor, Harry L.	B.S.	Chemistry and Mathematics
Jackson, Jamaxie	B.S.	Ornamental Horticulture
Jackson, Robert F.	B.S.	Elementary Education and Art Education
Jackson, Thelma L.	B.S.	Business Education and Physical Education
James, Vivian L.	B.S.	Elementary Education and Art Education
Johnson, Alvin	B.A.	Business Administration and Economics
Johnson, Bobbie Jean	B.A.	Business Administration and Education
Johnson, Byron	B.A.	Social Science and Economics
Johnson, Crestra	B.S.	Physical Education and French
Johnson, Dora A.	B.S.	Business Education and French
Johnson, Earl	B.S.	Physical Education and Biology
Johnson, Gloria F.	B.A.	Business Administration and Sociology
Johnson, Howard	B.S.	Physical Education and Health Education
Johnson, Malvin	B.S.	Mathematics and French
Johnson, Nancy J.	B.S.	Home Economics Education
Johnson, Rose M.	B.S.	Elementary Education and Physical Education
Jones, Curtis F.	B.S.	Biology and Chemistry
Jones, Emanuel	B.S.	Physical Education and Biology
Jones, Frank L.	B.S.	Biology and French
Jones, Helen J.	B.S.	Elementary Education and Art
Jones, Joyce E.	B.S.	Elementary Education and Social Science
Jones, Willie E.	M.S.	Agricultural Economics and Administration and Supervision
Kelley, Annie L.	B.A.	Sociology and Elementary Education
Kerr, Geraldine M. (Mrs.)	B.S.	Elementary Education and Sociology
Kimble, Ernest	B.S.	Business Education and Sociology
King, Glyn R.	B.A.	History and Social Science
Leake, Evelyn P.	B.S.	Home Economics
Lee, Lo Leta	B.S.	Elementary Education and Physical Education
Lee, Mary W.	B.S.	Elementary Education and Music
Lee, Robert E., Jr.	B.A.	Music and Education
Lewis, Mattie R.	B.S.	Home Economics
Locke, Mattie L.	B.A.	Sociology and French
Lorder, James	B.S.	Mathematics and Sociology
Loudd, Carrie J. (Mrs.)	M.S.	Extension Education and Administration and Supervision
McDonald, Mark T.	B.A.	Political Science and Social Science
McDonald, Theresa	B.A.	Business Administration and Sociology
McFadden, Muriel	B.A.	Business Administration and Sociology
Malone, Doris F.	B.S.	Physical Education and Education
Malone, K. H.	B.S.	Dairy Husbandry
Martin, Mary M.	B.A.	Music Education
Mason, Alexander M.	B.S.	Mathematics and Physical Education
Mason, Richard Lee	B.A.	Music and Education
Materson, Conice B. (Mrs.)	B.S.	Elementary Education and Art
Maxie, Jesse J.	B.S.	Civil Engineering
Mays, Ola M.	B.S.	Elementary Education and Physical Education
Melanson, Timothy	B.A.	Music and Elementary Education
Miller, Cherry Mae	B.S.	Physical Education and Education
Mills, Willie L.	B.A.	Political Science and Physical Education
Mitchell, Jame E.	B.S.	Agriculture
Molett, Barbara J.	B.S.	Home Economics
Moore, Clarence, Jr.	B.A.	Music and Secondary Education
Moore, Jeanette	B.S.	Industrial Education and Business Education
Morgan, Alton B.	B.S.	Agriculture
Morgan, Elizabeth B.	B.A.	Music and Secondary Education
Morris, Grady L.	B.A.	Music and Elementary Education
Mosley, LaVaughn	B.S.	Electrical Engineering
Mouton, Wilford J.	B.S.	Business Education and Mathematics
Moye, LaRuth	B.S.	Elementary Education and Art Education
Murphy, Janie M.	B.S.	Business Education and Economics
Neal, Loretta	B.S.	Elementary Education and Art
Nelson, Rosie Lee	B.A.	English and Business Administration
Newsome, Bettye J.	B.S.	Library Science Education and Recreation
Nichols, Theresa	B.A.	Sociology and Social Science
Nolan, Robert S.	B.S.	Business Education and Sociology
Parish, Elmer C.	B.S.	Business Education and Sociology
Parker, Dorothy L.	B.S.	Elementary Education and Kindergarten Education
Payton, John E.	B.S.	Physical Education and Biology
Perry, Ervin S.	B.S.	Civil Engineering
Perry, Mervin E.	B.S.	Animal Husbandry
Peterson, Atoy F. (Mrs.)	M.Ed.	Elementary Education and Supervision
Phillips, Wesley C. (Miss)	B.S.	Physical Education and Education
Platt, Lois E.	B.A.	English and Library Science
Powell, Nellie G. (Mrs.)	M.Ed.	Home Economics and Extension Education

Rafe, Mary L.	.B.S.	Business Education and Library Science
Ransom, Yvonne	.B.S.	Business Education and Library Science
Ray, Carlos L.	.B.S.	Elementary Education and Physical Education
Rayson, Luccionouse	Certificate	Radio
Reagan, Mark H.	Certificate	Shoe Repairing
Reddix, Lora J.	.B.S.	Mathematics and French
Roach, Earlene F.	.B.S.	Home Economics
Roan, Edward	.B.S.	Industrial Education
Roberts, Ruth E.	Certificate	Cooking and Baking
Robinson, David R.	.B.A.	Business Administration and Economic
Robinson, Myrtle M.	.B.S.	Physical Education and Biology
Robinson, Orena	.B.A.	Business Administration and Spanish
Ross, Miriam A. (Mrs.)	.M.Ed.	Elementary Education and Administration and Supervision
Rushin, John L.	Certificate	Automotive Mechanics
Ryan, Opal L.	.B.S.	Home Economics Education
Sauls, Clarence L.	.B.S.	Architectural Engineering
Scott, Audrey M.	.B.S.	Elementary Education and Social Science
Scott, Raymond L.	.B.S.	Mathematics and French
Scott, Thelma D. (Mrs.)	.M.Ed.	Home Economics Education and Extension Education
Scruggs, Naomi	.B.S.	Business Education and Library Science
Seals, Robert	.B.S.	Industrial Education
Sells, Janet	.B.S.	Elementary Education and Music
Selman, Herman	.B.S.	Business Education and Economics
Senigaur, Eddie	Certificate	Masonry
Senigaur, Edward	.B.S.	Music and French Secondary Education
Shavers, Hazel M.	.B.S.	Elementary Education and Art Education
Shelby, Laura L.	.M.Ed.	Elementary Education and Health Education
Shepherd, Eva Ruth	.B.S.	Elementary Education and Art Education
Sherman, Dorothy P.	.B.S.	Business Education and Library Science
Simien, Jean M.	.B.S.	Chemistry and Mathematics
Simmons, Iris L.	.B.S.	Elementary Education and Physical Education
Singleton, Dorothy J.	.B.S.	Physical Education and Elementary Education
Siverand, Alberta	.B.A.	Music and Secondary Education
Smith, Betty J.	.B.S.	Business Education and Economics
Smith, Dora Lee	.M.S.	Home Economics Education and Administration and Supervision
Smith, Edward Lee	.B.A.	Business Administration and Sociology
Smith, Mattie R.	.B.S.	Business Education and Spanish
Smith, Maurice R.	Certificate	Radio
Smith, Raymond W.	.B.A.	Political Science and Social Science
Smith, Ruth J.	.B.S.	Elementary Education and Sociology
Smith, Trixie Lee	.B.S.	Elementary Education and Library Science
Squire, Alice	.B.A.	English and French
Squire, Clark E.	.B.S.	Mathematics and French
Stafford, Glenna F.	.B.S.	Elementary Education and Tailoring
Standifer, Williams J.	.B.S.	Biology and Political Science
Starks, Bertha C.	.B.S.	Business Education and Library Science
Starks, Georgia M.	.B.A.	Business Administration and Sociology
Steen, Audrey L.	.B.S.	Elementary Education and Art Education
Stevenson, Wilbert	.B.S.	Chemistry and Biology
Steward, Bernice	.B.S.	Home Economics
Stimpson, John D.	.B.S.	Biology and Chemistry
Strawther, Everlena	.M.Ed.	Elementary Education and Administration
Strong, Harold E.	.B.S.	Agriculture
Sutton, Ruby D.	.B.S.	Business Education and Elementary Education
Sweats, Peter	.B.S.	Agriculture and Agriculture Economics and Sociology
Swoopes, Virginia	.B.A.	Business Administration and Sociology
Tarrant, George	.B.S.	Industrial Education
Taylor, Celestine D.	.B.S.	Home Economics
Thomas, Elwanda E.	.B.A.	Business Administration and Sociology
Thomas, Obie C.	.B.A.	Music and Education
Thomas, Peggy F.	.B.S.	Elementary Education and Physical Education
Thomas, T. J.	.B.S.	Animal Husbandry
Thompson, Calvin	Certificate	Cooking and Baking
Thompson, Lee Alyce	.B.S.	Elementary Education and Business Administration
Thompson, Melvin	.B.S.	Industrial Arts
Toland, Sallie M.	.B.A.	Business Administration and General Education
Tunson, Geneva	.B.S.	Elementary Education and Physical Education
Turner, Maxine	.B.S.	Elementary Education and Art
Ussery, Constance B.	.B.S.	Elementary Education and Art
Vonner, Thomas L.	Certificate	Masonry
Wagner, Rody E.	.B.S.	Agriculture
Walker, Barbara C.	.B.S.	Elementary Education and Clothing
Walker, George A.	.B.A.	Business Administration and Economics
Walker, Odell M.	.B.A.	Business Administration and Economics
Wallace, Barbara J.	.B.S.	Elementary Education and Clothing
Walton, Goldie F.	.B.S.	Physical Education and Health Education
Walton, Jessie M.	.M.Ed.	Elementary Education and Health Education
Walton, Pearlle M.	.B.S.	Elementary Education and Art
Ward, Lenora	.B.S.	Clothing and Textiles and Secondary Education

Ward, Raymond	B.A.	Business Administration and Economics
Ware, Rosie Lee	B.S.	Elementary Education and Home Economics
Warren, Clara M.	B.A.	Business Administration and Library Science
Warren, Minnie C.	B.A.	English and French
Washington, Ethel	B.S.	Elementary Education and French
Washington, Gloria D.	B.S.	Home Economics and Elementary Education
Webber, Roscoe W.	B.S.	Architectural Engineering
West, Martha	Certificate	Tailoring
Westbrook, Lillian E.	B.S.	Elementary Education and Spanish
White, Emma Scott	B.S.	Elementary Education and Tailoring
White, Mildred L. B.	B.S.	Elementary Education and Physical Education
White, Sarah	M.Ed.	Elementary Education and Guidance
Whitehead, Benny W.	B.A.	Business Administration and Economics
Whiting, Waymon W.	B.S.	Architectural Engineering
Whitley, Rosie M.	B.S.	Elementary Education and Library Science
Williams, Alonzo	B.S.	Chemistry and Mathematics
Williams, Augustus	B.A.	History and Economics
Williams, Beverly J.	B.S.	Elementary Education and Clothing
Williams, Birdia M.	B.S.	Biology and Chemistry
Williams, Elehue A.	B.S.	Architectural Engineering
Williams, Ernest S.	B.S.	Biology and Chemistry
Williams, Inez	B.A.	English and Spanish
Williams, James H.	B.A.	Business Administration and Economics
Williams, Jimmie Lee	B.S.	Electrical Engineering
Williams, Johnnie L.	Certificate	Tailoring
Williams, Lafayette B.	B.S.	Biology and Chemistry
Williams, Louis K.	Certificate	Cooking and Baking
Williams, Maggie B.	B.S.	Nursing
Williams, Patricia A.	B.S.	Elementary Education and Kindergarten
Williams, Ralstein O.	B.A.	Social Service and French
Williams, Travis L.	Certificate	Cooking and Baking
Williams, Wanda	B.A.	Sociology and History
Wilson, Delois M.	Certificate	Secretarial Science
Wilson, Doris Jean	B.S.	Elementary Education and Physical Education
Wilson, Monnie Ruth	B.S.	Home Economics
Wiseman, Billy D.	B.S.	Industrial Education and Electricity
Woodard, Charlene	B.S.	Elementary Education and Art Education
Woodard, Maurice	B.A.	Political Science and Economics and Social Science
Wright, Lauretta J.	B.A.	Sociology and Elementary Education
Wright, Naomi R.	B.A.	Business Administration and Spanish
Wright, Thomasene L.	B.A.	Sociology and Economics
Young, Dinah R.	B.S.	Business Education and Mathematics

## SUMMARY OF DEGREES, DIPLOMAS AND CERTIFICATES

May 1956

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Bachelor of Arts	27	36	63
Bachelor of Arts in Music	7	11	18
Bachelor of Science	42	41	83
Bachelor of Science in Agriculture	14	—	14
Bachelor of Science in Architectural Engineering	6	—	6
Bachelor of Science in Education	5	62	67
Bachelor of Science in Electrical Engineering	2	—	2
Bachelor of Science in Home Economics	—	26	26
Bachelor of Science in Industrial Education	11	1	12
Bachelor of Science in Nursing	—	1	1
Bachelor of Science in Civil Engineering	3	—	3
Master of Education	—	10	10
Master of Science	4	4	8
Nursing Diploma	—	1	1
Certificate	12	8	20
<b>Total</b>	<b>133</b>	<b>201</b>	<b>334</b>

## NAME OF GRADUATES

August 1956

Alexander, Yvetta	M.Ed.	Administration and Supervision and Elementary Education
Allen, Teddie S.	B.S.	Library Service Education and Education
Alton, Anna B. (Mrs.)	M.S.	Home Economics Education and Elementary Education
Anderson, Cecil K.	M.Ed.	Elementary Education and Administration
Anderson, Juanita L.	M.Ed.	Elementary Education and Administration
Antoine, Gertie M.	M.Ed.	Elementary Education and Special Education
Arnold, Antonio	B.S.	Electrical Engineering

Arnold, Helen S.	M.S.	Elementary Education and Administration and Supervision
Arnold, Obzema (Mrs.)	M.Ed.	Elementary Education and Supervision
Arnwine, Rose M.	B.S.	Nursing Education
Austin, Luke A.	B.S.	Physical Education and Education
Banks, Emma L.	B.S.	Nursing Education
Barrow, Lottie F.	M.Ed.	Home Economics Education and Elementary Education
Barton, Vashiti	M.Ed.	Elementary Education and Health Education
Beal, Ethelyn J.	B.S.	Nursing Education
Bennett, Ruth Ella	M.Ed.	Elementary Education and Special Education
Benson, Lula J.	M.Ed.	Elementary Education and Administration
Berry, Alzena L.	M.Ed.	Elementary Education and Health Education
Berry, Maron Iren (Miss)	B.A.	Social Service and Social Science
Blocker, Wilma Lee	M.Ed.	Home Economics and Elementary Education
Bolden, Opal J.	B.S.	Physical Education and Health Education
Boone, Lucille K.	M.Ed.	Elementary Education and Health Education
Bowden, Eloice	B.S.	Business Education and Sociology
Boyd, Ross Earl	B.S.	Industrial Education and Printing
Brailsford, Valree	M.Ed.	Administration and Supervision
Branch, Beatrice K.	M.Ed.	Elementary Education and Health Education
Brooks, Bennetta E.	B.A.	Social Service
Brooks, Wilhelmina	M.Ed.	Elementary Education and Health Education
Brown, Gus H.	M.S.	Industrial Education and Physical Education
Browne, Tommie Lola	M.A.	Business Education and Economics
Brown, Reginald	M.S.	Agriculture and Administration
Bryant, Doris H.	Diploma	Nursing Education
Bunton, Theresa L.	B.A.	Sociology and History
Burns, Hazel Smith	Diploma	Nursing
Caldwell, Anita	M.Ed.	Elementary Education and Home Economics
Caldwell, Azee	M.S.	Agricultural Economics and Administration
Calhoun, Virgie White	B.S.	Nursing Education
Candler, Willie W.	B.S.	Elementary Education and Agriculture
Canton, Leachie E.	M.Ed.	Elementary Education and Supervision
Carr, Wilburn C.	M.S.	Mathematics and Education
Castleberry, Sedalia	B.S.	Business Education and Economics
Champion, Bernice B.	M.Ed.	Elementary Education and Health Education
Childress, Helen M.	B.S.	Elementary Education and Art Education
Choyce, Martholcan	M.Ed.	Elementary Education and Health Education
Cleaver, Dorothy	M.Ed.	Elementary Education and Health Education
Collins, Charline	M.Ed.	Supervision and Elementary Education
Colvin, Ollie M.	Diploma	Nursing
Conally, Dorothy	M.Ed.	Home Economics and Elementary Education
Conner, Alpearl S.	M.Ed.	Home Economics and Elementary Education
Conner, Maxine	M.Ed.	Elementary Education and Health Education
Cooper, Rosa M.	Certificate	Tailoring
Craven, Freddie L.	B.S.	Chemistry and Biology
Crawford, Jack H.	M.Ed.	Elementary Education and Administration
Crawford, Morris James	M.S.	Agricultural Economics and Administration
Crawford, Therman	M.S.	Agricultural Education and Agricultural Economics
Creedy, Mary Lee	M.Ed.	Elementary Education and Health Education
Crisp, Ada L.	M.Ed.	Elementary Education and Supervision
Culberson, Barbara	B.A.	Sociology and Social Service
Cunningham, Tenonia	B.S.	Electrical Engineering
Curry, Bishop	M.S.	Agricultural Economics and Administration
Curvey, Dorothy	M.S.	Physical Education and Elementary Education
Davis, Helen C.	M.Ed.	Elementary Education and Health Education
Davis, John A.	B.A.	Music and Education
Davis, Ruby Polk	M.Ed.	Elementary Education and Health Education
Deary, Jannie V.	Diploma	Nursing
Demby, Elloine	B.S.	Home Economics and Education
Derrick, Wanda	B.S.	Physical Education and Health Education
Derry, Dolphus	M.S.	Agricultural Education and Agricultural Economics
Derry, Velna	B.S.	Elementary Education and Physical Education
Devall, Jessie J.	M.Ed.	Elementary Education and Special Education
Dickson, Lucille C.	M.Ed.	Elementary Education and Special Education
Dorsey, Jeanette	M.S.	Elementary Education and Health Education
Downs, Bessye L.	M.A.	English and General Education
Downs, Frankie L.	B.S.	Nursing Education
Duncan, Dorothy	M.Ed.	Elementary Education and Health Education
Dykes, George (Miss)	M.S.	Administration and Supervision
Eason, Oscar, Jr.	B.S.	Mechanical Engineering
Edwards, Calvin	Certificate	Masonry
Edwards, Darlene	M.Ed.	Elementary Education and Health Education
Elliott, Edward	B.S.	Physical Education and Biology
English, Cordelia	M.Ed.	Elementary Education and Health Education
Fitzgerald, Dorothy C.	M.Ed.	Elementary Education and Home Economics Education
Fitzgerald, Willie L.	M.Ed.	Administration and Agricultural Education
Flemings, Mary Love	B.S.	Elementary Education and Music
Ford, Leona	M.Ed.	Elementary Education and Administration
Francis, Hilda B.	M.Ed.	Elementary Education and Health Education
Francis, Viola B.	M.Ed.	Elementary Education
Freeman, Marcus A.	M.A.	History and Administration

Friday, Hortense	M.Ed.	Elementary Education and Home Economics
Garrett, A.D.	M.S.	Agricultural Education and Administration
Garrett, Alma J.	M.Ed.	Elementary Education and Health Education
Gerald, Grace	B.S.	Clothing and Home Economics Education
Gibson, Hazel Mack	B.S.	Physical Education and Health Education
Gilder, Lois L.	Diploma	Nursing
Giles, Margaret B.	M.Ed.	Home Economics and Elementary Education
Giles, Ruby Lee	M.Ed.	Home Economics and General Home Economics
Gilmore, Erma J.	Diploma	Nursing
Givens, James,	B.S.	Architectural Engineering
Gooden, Johnnie R.	B.S.	Library Service Education and General Education
Gray, Bruce	B.S.	Mathematics and Industrial Education
Gray, Wilmer O.	M.Ed.	Administration and Elementary Education
Griffin, Richard C.	B.S.	Agriculture
Guidry, Arreder	M.S.	Guidance and Administration
Hall, Vashti	B.S.	Elementary Education and Physical Education
Hall, Willard E.	M.Ed.	Secondary Administration and Mathematics
Hardway, Wheeler	M.S.	Supervision and Administration
Harper, McNoble	M.S.	Agricultural Education and Administration
Harris, Gladys B.	Diploma	Nursing
Hayes, Luther T.	M.S.	Agricultural Education and Administration
Hector, Minty L.	M.Ed.	Elementary Education and Health Education
Hemphill, Emeola	B.S.	Nursing Education
Henderson, Elnora	M.Ed.	Home Economics and Elementary Education
Henderson, Thelma V.	B.S.	Nursing Education
Henry, Minnie O.	M.Ed.	Education and Health Education
Henry, Nettie E.	M.Ed.	Elementary Education and Health Education
Hester, Willia A.	M.S.	General Education and English
Hicks, George	M.Ed.	Administration and Elementary Education
Hicks, Leonard D.	B.S.	Agricultural Education and Education
Hicks, Roy E.	M.A.	Voice and Music Education
Hightower, Vastine (Mrs.)	B.S.	Biology and Sociology
Hill, Booker T.	M.S.	Agricultural Economics and Administration
Hill, Carrie N.	M.Ed.	Elementary Education and Health Education
Hill, Gladys M.	M.A.	Economics and Education
Hilliard, Mollie K.	M.Ed.	Elementary Education and Physical Education
Holiday, Cordelia	M.Ed.	Elementary Education and Health Education
Hollis, Ida M.	M.Ed.	Elementary Education and Home Economics
Hubbard, Annie L.	B.A.	Business Administration and Sociology
Irving, Bobbie J.	M.A.	Voice and Music Education
Irving, Dorothy M.	Diploma	Nursing
Jackson, Barbara J.	B.S.	Home Economics
Jackson, Doris Jean	B.A.	Sociology and History
Jackson, Edith S.	M.Ed.	Elementary Education and Health Education
Jackson, Joseph A.	B.S.	Industrial Education and Sociology
Jackson, Mattie B.	Diploma	Nursing
Jackson, Sarah M.	M.Ed.	Elementary Education and Health Education
Jefferson, Calvin B.	M.S.	Agricultural Education and Elementary Education
Jeter, Carole E.	B.S.	Business Education and Spanish
Johnson, Dorsey F.	M.Ed.	Elementary Education and Administration
Johnson, Georgia R.	M.Ed.	Elementary Supervision and Elementary Education
Johnson, Lela	B.S.	Nursing Education
Johnson, Napoleon	M.Ed.	Elementary Education and Health Education
Johnson, Norma R.	B.S.	Elementary Education and Art Education
Johnson, Vada M.	M.Ed.	Elementary Education and Health Education
Jones, Alva L.	M.Ed.	Home Economics Education and General Home Economics
Jones, Dorothy M.	B.S.	Nursing Education
Jones, Earl H.	M.Ed.	School Administration and Elementary Education
Jones, Emma L.	B.S.	Elementary Education and Physical Education
Jones, Helen E.	B.S.	Physical Education and Secondary Education
Jones, Marion T.	M.S.	Physical Education and Health Education
Jones, Patsy L.	M.Ed.	Home Economics and Elementary Education
Justice, Irving	B.S.	Mathematics and French
Keaton, Leola M.	M.Ed.	Elementary Education and Supervision
Kemp, Hilliard D.	B.S.	Agriculture
King, Willeola	M.Ed.	Elementary Education and Industrial Education
Kirby, Paul H.	B.S.	Physical Education and Biology
Kirk, Dorothy L.	M.Ed.	Elementary Education and Supervision
Langley, Thelma	B.S.	Business Education and Economics
Langston, Lucille	B.S.	Elementary Education and Library Service
Lavert, Donald	B.A.	Music and Education
Lee, Elaine M.	B.S.	Nursing Education
Lee, Mary L.	B.S.	Home Economics Education
Levy, Julia M.	M.S.	Home Economics and Elementary Education
Lewis, Maggie N.	M.Ed.	Elementary Education and Administration
Lewis, Omega B.	M.Ed.	Elementary Education and Health Education
Lilly, Douglass P.	M.S.	Extension Education and Agricultural Education
Loudd, Johnnie A.	M.Ed.	Administration and Elementary Education
Love, Peggy Ruth	M.A.	Business Education and Economics
Lyday, Gloria L.	M.Ed.	Elementary Education and Health Education
Lynn, Eartha M.	M.Ed.	Elementary Education and Health Education

Lyons, Maurice E.	M.S.	Agricultural Education and Administration
McCann, Prince V.	B.S.	Biology and Chemistry
McClellan, Myrtle	M.S.	Home Economics Education and General Home Economics
McClellan, Van B.	M.S.	Agricultural Education and Administration
McCullough, Lloyd M.	B.S.	Industrial Education
McDade, Narcissie	B.S.	Elementary Education and Physical Education
McDavid, Jesse	B.S.	Agricultural Education
McDow, Eulalia O.	M.Ed.	Elementary Education and Health Education
McGe, Ruth Mary	M.Ed.	Elementary Education and Health Education
McKnight, Georgia M.	M.Ed.	Elementary Education and Business Education
McKnight, Glenda	M.S.	Health and Physical Education and Elementary Education
Manuel, Ophelia L.	M.Ed.	Elementary Education and Health Education
Martin, H. Eunell	M.Ed.	Elementary Education and Health Education
Mason, George	M.Ed.	School Administration and Elementary Education
Massey, Willie H.	M.Ed.	Administration and Supervision
Mathis, Edell M.	M.Ed.	Administration and Elementary Education
Meateris, Robert	M.S.	Physical Education and Health Education
Meador, Iva Jean	B.S.	Library Service and Social Science
Miller, Clarence Lee (Miss)	Diploma	Nursing
Miller, Effie M.	M.Ed.	Home Economics and Elementary Education
Miller, Joseph L.	M.S.	Agricultural Economics and Agricultural Education
Montgomery, Arthur	B.S.	Agricultural Education
Mooring, Betye Jones	B.S.	Elementary Education and Art Education
Morrison, Jacque Sue	B.A.	Business Administration and Sociology
Mosley, Ceola L.	M.Ed.	Elementary Education and Special Education
Moss, Warner O.	Certificate	Plumbing
Mylus, Myrtle M.	B.S.	Nursing Education
Newsome, Almarier	B.S.	Library Science and General Education
Noah, Leonia M.	Diploma	Nursing
Orman, Billie E.	M.Ed.	Administration and Elementary Education
Outland, Earline P. R.	B.S.	Elementary Education and Physical Education
Owens, Addie P.	M.A.	English and Elementary Education
Owens, Thay M.	M.Ed.	Home Economics and Homemaking
Palmer, Hattye D.	M.S.	Biology and Health Education
Parkinson, Bernice	B.S.	Nursing Education
Perry, Henry Lee	B.S.	Industrial Arts and Metal Work
Pete, Freddie	B.S.	Business Education and Sociology
Phegans, Lessie	M.Ed.	Elementary Education and Administration
Phillips, Cecil A.	M.S.	Physical Education and Health Education
Phillips, Missouri	B.A.	Music and Music Education
Phoenix, Ethel G.	M.Ed.	Supervision and Elementary Education
Pittman, Paul M.	M.Ed.	Administration and Elementary Education
Polk, Matthew B.	M.Ed.	Administration and Elementary Education
Pollard, Frankie	M.Ed.	Administration and Supervision
Price, Edward L.	M.Ed.	Supervision and Elementary Education
Proctor, Eliza	M.S.	Physical Education and Health Education
Pryor, Tommie Lee	M.Ed.	Elementary Education and Health Education
Ragston, Mary J. D.	B.S.	Elementary Education and Physical Education
Rawls, Maxine	B.A.	Social Service and Social Science
Reeves, Laura B.	Diploma	Nursing
Rhodes, James J.	M.Ed.	Elementary Education and Administration
Richardson, James	M.Ed.	Administration and Agricultural Education
Riley, Essie A.	Diploma	Nursing
Roberts, Doris M.	B.S.	Business Education and Sociology
Roberts, Lee L.	M.S.	Mathematics and Physical Education
Robinson, Jo Nelson	M.S.	Agricultural Engineering Agricultural Economics
Robinson, Marvin	M.S.	Agricultural Economics and Agricultural Education
Robinson, Maurine	M.Ed.	Home Economics and Elementary Education
Rogers, Frankie Lee	Diploma	Nursing
Rogers, Oland	M.S.	Biology and Health Education
Ross, Shelly R.	M.S.	Biology and Education
Sadberry, Gladys R.	M.Ed.	Elementary Education and Health Education
Salone, Jewelone R.	M.Ed.	Elementary Education and Health Education
Sampson, Juanita I.	M.Ed.	Elementary Education and Health Education
Samuel, Miller F.	M.Ed.	Administration and Agricultural Education
Scott, Alton E.	M.S.	Agricultural Economics and Administration
Scott, Jean E.	Diploma	Nursing
Shipman, Ethel F.	M.Ed.	Elementary Education and Home Economics
Simmons, Doris Lee	B.S.	Elementary Education and Art Education
Simmons, Zelma Lee	M.Ed.	Elementary Education and Health Education
Singletary, Willie L.	M.S.	Agricultural Engineering and Administration
Skinner, Jean E.	B.A.	Music and Secondary Education
Smith, George Lee	M.S.	Agricultural Education and Agricultural Economics
Smith, Heardi M.	M.Ed.	Elementary Education and Home Economics
Smith, Lena I.	M.Ed.	Elementary Education and Administration
Smith, Maerie L. Bryant	M.Ed.	Elementary Education and Health Education
Sneed, Bernice G.	M.Ed.	Elementary Education and Health Education
Spates, Clifford	M.S.	Physical Education and Health Education
Spears, Arthur G.	B.S.	Industrial Education
Spencer, Bessie M.	M.Ed.	Home Economics Education and General Home Economics
Spencer, Geneva J.	B.S.	Elementary Education and Kindergarten Education



Spencer, Myrtle B. ....	M.S.	Home Economics and Home Economics Education
Stein, Charles R. ....	B.A.	Music and Education
Steward, Geraldine ....	M.A.	Music Education and Music Theory
Stewart, Verna L. D. ....	M.Ed.	Elementary Education and Health Education
Taylor, Fannie J. ....	M.S.	Extension Education and Home Economics
Taylor, Joyce M. ....	Diploma	Nursing
Taylor, Lytle L. ....	M.Ed.	Administration and Elementary Education
Teele, Florazelle ....	M.Ed.	Elementary Education and Supervision
Thomas, Georgiana ....	M.S.	Extension Education and Elementary Education
Thomason, Bertha ....	Diploma	Nursing
Tyler, Pinus ....	M.S.	Agricultural Education and Agricultural Economics
Vinson, Lena M. ....	B.S.	Elementary Education and Kindergarten Education
Walker, Mattie J. ....	M.Ed.	Elementary Education and Health Education
Walton, Billye J. ....	B.S.	Home Economics Education and Education
Walton, Lois H. ....	M.Ed.	Elementary Education and Special Education
Ware, Lionel ....	M.S.	Mathematics and General Education
Washington, Eddie P. (Mrs.) ....	M.S.	Extension Education and Home Economics
Washington, Harold G. ....	B.S.	Industrial Education and Woodwork
Washington, Johnnie Ruth ....	B.A.	Music and Education
Washington, Thomas J. ....	M.S.	Mathematics and Administration
Waters, James E. ....	B.S.	Agriculture
Watson, Lillian S. ....	M.Ed.	Elementary Education and Health Education
Wells, John A. ....	M.S.	Elementary Education and Health Education
Wheeler, Elisha ....	M.S.	Extension Education and Agricultural Education
White, Mary F. ....	Diploma	Nursing
Whitefield, Iola M. ....	M.Ed.	Elementary Education and Health Education
Wilhite, Mildred M. ....	B.A.	Music and Secondary Education
Williams, Bettye B. ....	B.S.	Elementary Education Physical Education
Williams, Erma B. ....	M.Ed.	Elementary Education and Health Education
Williams, Exie V. ....	M.S.	Mathematics and Education
Williams, Iris D. ....	Diploma	Nursing
Williams, James R. ....	M.A.	Instrumental Music and Music Education
Wilson, Peggy J. ....	M.Ed.	Elementary Education and Administration
Winfield, Marcellene ....	M.Ed.	Elementary Education and Health Education
Woodson, Barbara ....	B.S.	Elementary Education and Home Economics
Wright, Harry F. ....	B.S.	Physical Education and Biology
Young, Bettye J. ....	M.A.	Music and Education
Young, Cornelius ....	M.Ed.	Administration and Elementary Education
Young, Thelma M. ....	Diploma	Nursing

## SUMMARY OF DEGREES, DIPLOMAS AND CERTIFICATES

### August 1956

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Bachelor of Arts .....	—	8	8
Bachelor of Arts in Music .....	3	4	7
Bachelor of Science .....	9	10	19
Bachelor of Science in Agriculture .....	6	—	6
Bachelor of Science in Architectural Engineering .....	1	—	1
Bachelor of Science in Education .....	2	19	21
Bachelor of Science in Electrical Engineering .....	2	—	2
Bachelor of Science in Home Economics .....	—	5	5
Bachelor of Science in Industrial Education .....	6	—	6
Bachelor of Science in Mechanical Engineering .....	1	—	1
Bachelor of Science in Nursing .....	—	12	12
Master of Arts .....	4	7	11
Master of Education .....	20	94	114
Nursing Diploma .....	—	20	20
Master of Science .....	35	18	53
Trade Certificate .....	2	1	3
<b>Total .....</b>	<b>91</b>	<b>198</b>	<b>289</b>

## SUMMARY OF ROTC ENROLLMENT AND COMMISSIONS GRANTED

Freshmen .....	285
Sophomores .....	186
Juniors .....	38
Seniors .....	67
Total .....	576
Summer Camp Attendance .....	44
Commissions Granted .....	55

NAMES OF GRADUATES COMMISSIONED AS  
SECOND LIEUTENANTS IN THE  
UNITED STATES ARMY RESERVE  
COMMISSIONED JANUARY 1956

Rank	Name	Home Town
2d Lt	BOWMAN, Thomas M.	Athens, Texas
2d Lt	FONTENOT, Raymond C.	Liberty, Texas
2d Lt	JOHNSON, Marion	Waco, Texas
2d Lt	TAYLOR, Charles H.	Houston, Texas
2d Lt	WILLIAMS, Tommy O.	Dallas, Texas

COMMISSIONED 20 MAY 1956

Rank	Name	Home Town
2d Lt	ALTON, Arthur E.	Texarkana, Texas
2d Lt	ANDERSON, Samuel A.	Ennis, Texas
2d Lt	BARNES, Bozic	Shepherd, Texas
2d Lt	BROWN, Willard G.	Cuero, Texas
2d Lt	BRADFORD, Charles H.	Plano, Texas
2d Lt	BARBER, John E.	New Boston, Texas
2d Lt	BRASHEAR, Hollis N.	Dallas, Texas
2d Lt	CHOICE, Fred D.	Henderson, Texas
2d Lt	CROSBY, Lorenza Jr.	Harleton, Texas
2d Lt	DAVIS, Jake	Yoakum, Texas
2d Lt	DEROUEN, Herbert	Raywood, Texas
2d Lt	EPPS, Walter Jr.	Marshall, Texas
2d Lt	FORTE, Johnnie	New Boston, Texas
2d Lt	FREEMAN, Sidney	Camden, Texas
2d Lt	GILCREASE, Cleveland	Columbus, Texas
2d Lt	GOLSTON, Billy R.	Denison, Texas
2d Lt	HOXIE, Fred C.	Houston, Texas
2d Lt	HUNT, Kenneth D.	San Augustine, Texas
2d Lt	HUCKABY, Henry L.	Houston, Texas
2d Lt	JOHNSON, Howard W.	West, Texas
2d Lt	JOHNSON, Malvin	Ballinger, Texas
2d Lt	JONES, Curtis F.	Overton, Texas
2d Lt	KING, Glyn R.	Orange, Texas
2d Lt	LORDER, James L. Jr.	Marlin, Texas
2d Lt	McFADDEN, Muriel W.	Houston, Texas
2d Lt	MALONE, K. H.	Huntsville, Texas
2d Lt	MASON, Alexander M.	San Antonio, Texas
2d Lt	MAXIE, Jesse J.	Dallas, Texas
2d Lt	MOUTON, Wilford	El Campo, Texas
2d Lt	PERRY, Ervin E.	Coldspring, Texas
2d Lt	PERRY, Mervin E.	Coldspring, Texas
2d Lt	ROBINSON, David R.	Houston, Texas
2d Lt	SCOTT, Raymond L.	Houston, Texas
2d Lt	SELMAN, Herman L.	Juett, Texas
2d Lt	STEVENSON, Wilbert C.	Port Arthur, Texas
2d Lt	STANDIFER, William	Texarkana, Texas
2d Lt	SMITH, Raymond	Colorado, Texas
2d Lt	WARD, Raymond	El Campo, Texas
2d Lt	WEBBER, Roscoe W. Jr.	Madisonville, Texas
2d Lt	WHITEHEAD, Benny	Hearne, Texas
2d Lt	WILLIAMS, Ernest S.	Cost, Texas
2d Lt	WILLIAMS, James	Atlanta, Texas
2d Lt	WILLIAMS, Augustus	Bay City, Texas

COMMISSIONED 3 AUGUST 1956

2d Lt	BUTLER, Roosevelt	Edna, Texas
2d Lt	MOSLEY, LaVaughn C.	Prairie View, Texas
2d Lt	WILLIAMS, Alonza	El Campo, Texas

COMMISSIONED 22 AUGUST 1956

2d Lt	ARNOLD, Antonio	New Orleans, La.
2d Lt	CUNNINGHAM, Tenonia	Fort Worth, Texas
2d Lt	GIVINGS, James	Lubbock, Texas
2d Lt	McCANN, Prince V.	Egypt, Texas

# SUMMARY OF ENROLLMENT

## First Term, Summer 1956

Classes	Agri.		A & S		H. E.		Engr.		I. E.		N. E.		Total		Com- bined Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Graduates.....	74	31	133	486		55	1	16	7				224	579	803
Seniors.....	12		57	171		28	6	16			51		91	250	341
Juniors.....	9		23	55		9	5	12	3		49		49	116	165
Sophomores.....	3		18	27		6	6	5	3		62		32	42	94
Freshmen.....	2		20	22		4	7	4	4				33	59	92
Special.....			5	18		4	1	6	1				12	23	35
<b>Total.....</b>	<b>100</b>	<b>31</b>	<b>256</b>	<b>779</b>		<b>106</b>	<b>26</b>	<b>59</b>	<b>18</b>		<b>162</b>		<b>441</b>	<b>1096</b>	<b>1537</b>

## Second Term, Summer 1956

Classes	Agri.		A & S		H. E.		Engr.		I. E.		N. E.		Total		Com- bined Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Graduates.....	35		105	343		34	1	17	5				157	382	539
Seniors.....	14		61	164		24	5	13	2		56		93	246	339
Juniors.....	2		29	22		8	4	8	1		41		43	72	115
Sophomores.....	2		19	20		4	3	3			54		27	78	105
Freshmen.....	2		13	13		2	4	5	1				24	16	40
Special.....			3	11		3	2	5	24				10	38	48
<b>Total.....</b>	<b>55</b>		<b>230</b>	<b>573</b>		<b>75</b>	<b>18</b>	<b>51</b>	<b>33</b>		<b>151</b>		<b>354</b>	<b>832</b>	<b>1186</b>

## Enrollment Without Duplication, Summer 1956

Classes	Agri.		A & S		H. E.		Engr.		I. E.		N. E.		Total		Com- bined Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Graduates.....	90	31	148	561		68	1	22	9				261	669	930
Seniors.....	13		59	197		30	6	17	2		53		95	282	377
Juniors.....	9		27	59		9	5	14	3		49		55	120	175
Sophomores.....	3		21	28		6	6	5	3		62		35	99	134
Freshmen.....	2		23	24		8	7	8	4				40	36	76
Special.....			6	21		1	1	7	25				14	47	61
<b>Total.....</b>	<b>117</b>	<b>31</b>	<b>284</b>	<b>890</b>		<b>122</b>	<b>26</b>	<b>73</b>	<b>46</b>		<b>164</b>		<b>500</b>	<b>1253</b>	<b>1753</b>

## First Semester 1956-57 (Includes 240 Veterans)

Classes	Agri.		A & S		H. E.		Engr.		I. E.		N. E.		Total		Com- bined Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Graduates.....	18	0	26	49	0	0	0	7	4	0	0	0	48	56	104
Seniors.....	25	0	119	226	19	0	0	35	32	3	0	16	195	280	475
Juniors.....	20	0	143	175	29	0	0	30	53	4	0	41	245	250	495
Sophomores.....	26	0	122	253	33	2	0	47	85	14	0	56	266	372	638
Freshmen.....	33	0	157	345	97	1	1	41	89	15	0	76	377	478	855
Special.....	1	0	3	13	1	0	0	2	10	2	0	0	15	17	32
Unclassified.....													19	85	104
<b>Total.....</b>	<b>123</b>	<b>0</b>	<b>570</b>	<b>1061</b>	<b>179</b>	<b>3</b>	<b>1</b>	<b>162</b>	<b>273</b>	<b>38</b>	<b>0</b>	<b>189</b>	<b>1165</b>	<b>1538</b>	<b>2703</b>

## Second Semester, 1956-57 (Includes 255 Veterans)

Classes	Agric.		A & S		Engr.		H. E.		I. E.		N. E.		Total		Com- bined Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Graduates.....	14	0	25	45	1	0	0	3	3	1	0	2	43	51	94
Seniors.....	24	0	101	206	16	0	0	26	31	2	0	18	172	252	424
Juniors.....	19	0	144	158	30	0	0	30	51	3	0	60	244	251	495
Sophomores.....	23	0	118	204	33	2	0	44	82	14	0	54	256	318	574
Freshmen.....	38	0	163	309	98	1	0	45	94	13	0	67	393	435	828
Special.....	0	0	4	14	1	0	0	1	9	9	0	0	14	15	29
<b>Total.....</b>	<b>118</b>	<b>0</b>	<b>555</b>	<b>936</b>	<b>179</b>	<b>3</b>	<b>0</b>	<b>149</b>	<b>270</b>	<b>33</b>	<b>0</b>	<b>201</b>	<b>1122</b>	<b>1322</b>	<b>2444</b>

# Enrollment Without Duplication, 1956-57

Classes	Agric.		A & S		Engr.		H. E.		I. E.		N. E.		Total		Com- bined Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Graduates.....	24	0	35	64	1	0	0	9	4	1	0	1	64	75	139
Seniors.....	27	0	124	241	19	0	0	36	34	3	0	18	204	298	502
Juniors.....	20	0	152	184	32	0	0	33	53	4	0	42	257	263	520
Sophomores.....	26	0	127	259	35	2	0	49	89	14	0	56	277	380	657
Freshmen.....	41	0	180	374	105	1	1	47	105	17	0	80	432	519	951
Special.....	1	0	6	19	1	0	0	2	10	2	0	0	18	23	41
Unclassified.....													19	85	104
<b>Total.....</b>	<b>139</b>	<b>0</b>	<b>624</b>	<b>1141</b>	<b>193</b>	<b>3</b>	<b>1</b>	<b>176</b>	<b>295</b>	<b>41</b>	<b>0</b>	<b>197</b>	<b>1271</b>	<b>1643</b>	<b>2914</b>

DIVISION OF

*Graduate Study*

# Division of Graduate Study

## ADMINISTRATIVE OFFICERS

- EDWARD B. EVANS, V.M.D., *President of the College*  
JESSE M. DREW, Ed.D., *Dean of Instruction, Dean of Graduate School*  
THOMAS P. DOOLEY, Ph.D., *Dean of School of Arts and Sciences*  
CLAUDE L. WILSON, M.E., M.S., *Dean of School of Engineering*  
\*GEORGE L. SMITH, M.S., *Dean of School of Agriculture*  
JOHN C. WILLIAMS, M.S., *Acting Dean of School of Agriculture*  
MRS. E. MAY GALLOWAY, M.S., *Dean of School of Home Economics*  
ALVIN I. THOMAS, M.S., *Director of Division of Industrial Education*  
MRS. MAIDA S. BRANNON, M.A., *Director of Division of Nursing Education*  
JONEL L. BROWN, Ph.D., *Director of Extramural Services*  
THOMAS R. SOLOMON, Ph.D., *Director of Student Life*  
HARRY E. FULLER, *Dean of Men*  
MRS. R. L. BLAND EVANS, M.S., *Dean of Women*  
THOMAS H. WRIGHT, B.S., *Lieutenant Colonel, Infantry, U.S.A.,  
PMS&T and Commandant, Reserve Officers Training Corps*  
LEMMON C. McMILLAN, M.A., *Registrar*  
ORESTES J. BAKER, M.L.S., *Librarian*  
HORACE D. MURDOCK, M.B.A., *Business Manager*  
WILLIAM C. DAVID, B.S., *State Director, Extension Service for Negroes*

## COMMITTEE ON GRADUATE STUDY

- JESSE M. DREW, Chairman ..... *Dean of Instruction*  
A. S. ARNOLD ..... *Head of Department of Business Administration*  
JONEL L. BROWN ..... *Head of Department of Economics*  
THOMAS P. DOOLEY ..... *Dean of School of Arts and Sciences*  
ELIZABETH M. GALLOWAY ..... *Dean of School of Home Economics*  
EARL M. LEWIS ..... *Head of Department of Political Science*  
ERNEST M. NORRIS ..... *Professor of Agricultural Education*  
ANNE C. PRESTON ..... *Professor of Elementary Education*  
THOMAS R. SOLOMON ..... *Director of Student Life*  
ALVIN I. THOMAS ..... *Director of Division of Industrial Education*  
JOHN C. WILLIAMS ..... *Acting Dean of School of Agriculture*  
CLAUDE L. WILSON ..... *Dean of School of Engineering*

## ADMINISTRATION

Administration of the Graduate Division is under the direction of the Committee on Graduate Study, which determines policies and administers them through its Chairman. Students seeking the Master's Degree are governed by the general rules of the catalogue and their work is under the general supervision of the Committee on Graduate Study.

\* On leave.

## ADMISSION TO THE GRADUATE DIVISION

Applicants for admission to the Division of Graduate Study should submit a regular application blank properly executed at least thirty days prior to the opening of the session in which they wish to register. This is to be accompanied by an official transcript of undergraduate work completed.

Students are admitted by the Committee on Graduate Study, acting through the Chairman, to whom application should be made. For admission to the Division of Graduate Study an applicant must have received his baccalaureate degree from a senior college of recognized standing.

Graduates of such institutions who have met the prerequisite requirements of the departments or divisions in which they wish to major are customarily accepted as graduate students in full standing if they graduated in the upper 50 per cent of their class while carrying an undergraduate program with a normal distribution of courses. All cases are considered on an individual basis. This includes a study of the courses taken and the grades made, which should average "B" or above at least in the junior-senior years of the undergraduate curriculum.

Students not eligible to admission in full standing as prospective candidates on probation or as Graduate Special students may be permitted to take individual courses with the approval of the instructors concerned.

## GRADUATE WORK BY SENIORS

A senior in this College who lacks six semester hours or less of having completed the requirements for the undergraduate degree may, with the approval of his undergraduate dean, and the Chairman of the Committee on Graduate Study, register for graduate courses, not to exceed six semester hours, while completing his undergraduate requirements. If graduate credit is desired for any part of the work carried, the combined load of the graduate and undergraduate courses must not exceed 15 semester hours.

Seniors who wish to register for graduate courses may apply to the Chairman of the Committee on Graduate Study for information as to procedure.

## FELLOWSHIPS

Prairie View Agricultural and Mechanical College offers ten graduate fellowships with a stipend of \$500.00 each, for the encouragement of research and advanced study.

The primary object of these appointments is to stimulate research and not to give pecuniary aid. The award is paid in twelve equal monthly installments and does not include a remission of college fees. The appointments are made for one year only, but application may be made for their renewal.

These fellowships are open to students who hold bachelor's degrees from colleges or universities in good standing. No student should apply for one of these awards who does not cherish a real and earnest desire to do a good quality of research and graduate work.

Forms for making application may be secured from the Dean of the Graduate School.

## REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS, MASTER OF SCIENCE, AND MASTER OF EDUCATION

Graduates of Prairie View Agricultural and Mechanical College or of any other college of approved standing may, on the satisfactory completion of an approved program of study, receive the degree of Master of Arts, Master of Science, or Master of Education. The degree received will depend upon the field of subject matter emphasized at the graduate and undergraduate level.

The requirements for the degree are:

### 1. *Admission to Candidacy*—

A graduate student enrolled in the Division of Graduate Study does not automatically become a candidate for the Master's degree. To become a candidate, the student must complete the following requirements:

- a. A candidate must be accepted by the department in which the major and minor are to be performed. A student to be considered for admission to candidacy for the Master's degree must present evidence of satisfactory preparation for graduate study in the fields chosen. The general undergraduate record, the record in the fields selected for graduate study, and the record on the graduate work completed will be considered in determining admission to candidacy. As further evidence of satisfactory preparation, the major department may require the candidate to pass a qualifying examination.
- b. The prerequisites for the Master of Education degree are eighteen semester hours and two years of teaching experience.
- c. After twelve semester hours of graduate work have been satisfactorily completed, with an average of "B" or better, a formal application must be made for admission to candidacy. This application, approved by the heads of the major and minor departments, must be submitted to the Director of the Division of Graduate Study not later than twelve weeks prior to the date on which the degree is to be conferred.

### 2. *Residence*—

The minimum residence requirement is two semesters of at least 12 semester hours of graduate in each, five six-week summer terms, or an equivalent approved by the Committee on Graduate Study.

### 3. *Course Requirements*—

- a. A minimum of thirty semester hours, exclusive of thesis, with an average grade of "B," or better, in courses approved for graduate credit, is required for the degrees of Master of Arts and Master of Science.
- b. Thirty-six semester hours of course work are required for the degree of Master of Education.



c. Ordinarily, at least twenty semester hours of graduate work in the major field and ten semester hours in the minor field will be required.

4. *Transfer of Credit*—

Credit obtained in a different, but recognized institution, not exceeding six semester hours, may be transferred and credited to the Master's degree, provided that the work was of graduate character and provided that acceptance of the transferred credit does not reduce the minimum residence period of one academic year. Transfer of advanced credit is not made unless requested by the student in a letter to the Director of Graduate Study. Such a transfer of credits from another institution to apply in partial fulfillment of the requirements for the Master's degree must be approved by the Graduate Committee. An "A" grade from another institution or earned in extension courses, may not be used to validate a grade of "C" earned in this college.

5. *Extension and Correspondence Courses*—

A student who has satisfied requirements for admission to the Division of Graduate Study may receive credit toward the Master's degree for extension courses, subject to the following conditions: (1) graduate credit will be given only for courses approved by the Committee on Graduate Study; (2) the courses fit in with the student's program of study; (3) graduate credit for extension courses shall not exceed six semester hours and shall not reduce the residence requirement for the degree; and (4) an "A" grade from another institution or earned in extension courses, may not be used to validate a grade of "C" earned in this college.

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 his undergraduate training.

6. Not more than a total of nine semester hours of extension and transferred credits combined may be counted toward the Master's degree.

7. *Quality of Work*—

A candidate must maintain at least a "B" average in all work taken in graduate study.

8. *English Usage Requirement*—

A student who is deficient in English usage but who is otherwise doing satisfactory work will be required to satisfy the Committee on English Usage with regard to his use of the English language, before he is allowed to graduate. Such deficiency might be determined by an English Usage examination or by reports of instructors of courses in which a student is registered.

9. *Foreign Language Option*—

At the option of the head of the department in which the major work is done, a reading and working knowledge of French, German, or Spanish may be required to complete the requirements for the Master of Arts degree.

10. *Thesis*—

- a. In addition to the thirty semester hours in graduate courses all candidates for the degrees of Master of Arts and 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 faculty of the Graduate Division in the department in which the individual is working. The thesis must have the approval of each member of the Student's Reading Committee. This work must be acceptable with respect to both scholarship and literary quality. A candidate for an advanced degree must have his thesis subject approved by his Chairman at least six months before the date he expects it to be filed with the Graduate Office. A candidate should complete his thesis not later than three weeks before the date of his intended graduation in order that it may be examined by each member of the Advisory Committee for the student. The following directions should be rigidly followed in the writing of the thesis.

The thesis should be typewritten, double-spaced on a durable rag bond, 8 1/2 x 11 inches, leaving the left hand margin at least an inch and a quarter wide, the right-hand margin at least three-quarters of an inch. Set up the title page according to the following form:

TITLE OF THESIS

A Thesis

Presented to the Graduate Division

of Prairie View Agricultural and Mechanical College

In Partial Fulfillment of the

Degree of

Master of .....

By

(Author's Name in Full)

(Date on which degree is to be conferred)

Two copies of the thesis must be filed in the Graduate Office.

- b. All candidates for the degree of Master of Education are required to enroll in a seminar in connection with which a seminar paper will be written in specially prepared form approved in writing by the instructor in charge of the seminar. This paper shall deal with a topic in the student's major field of concentration.

11. *Application for the Degree*—

Any candidate expecting to graduate at the end of a regular long session is required to file application for the degree expected during the first five days of the first semester of his attendance in that session on a blank available in the Registrar's Office. If graduation is expected at

the end of the summer session, the application for the degree should be made during the first three days of the first term of the student's attendance in that summer session. The application should be directed to the Registrar.

12. *Final Examination*—

After the thesis has been completed and filed with the Graduate Office, the candidate is required to pass a general comprehensive examination which shall be a test of the candidate's knowledge of the study which he has mainly pursued. This general examination is conducted by the Student's Advisory Committee of which the representative of the major field shall act as Chairman, and at least two other examiners to be appointed by the Director of the Graduate School, after consultation with the Advisory Committee. Any member of the Graduate Faculty may attend the examination as a visitor.

A candidate who fails in his general examination must register in the Graduate School and carry work for an additional semester before an opportunity will be given for a second examination, unless special permission is granted by the Committee on Graduate Study for an earlier examination and the request of the department concerned.

13. *Recommendation for the Degree*—

Upon completion of all requirements for the Master's degree, candidates are certified for graduation by the Chairman of the Committee on Graduate Study. Degrees are publicly conferred at the close of the regular and the summer sessions.

## TIME LIMIT ON WORK FOR MASTER'S DEGREE

A student must complete his Master's work within six consecutive years after his first enrollment in the Graduate Division.

## GRADING SYSTEM FOR GRADUATE STUDENTS

Course work of graduate students is reported as "A" (95-100); "B" (85-94); "C" (75-84); "D" (65-74); "F" (below 65); "I" (Incomplete); "K" (Delinquent Account); "W" (withdrew officially or withdrew passing); "Q" (withdrew unofficially or withdrew failing).

No graduation credit is given for courses in which a grade lower than "C" is received. In order to show satisfactory progress toward an advanced degree a student must receive an average grade of "B." A graduate student is expected to maintain a "B" average in all his work. An "A" grade from another institution, or earned in extension courses, may not be used to validate a grade of "C" earned in this college.

The work of a graduate student performed in connection with his thesis problem is reported as "satisfactory" or "unsatisfactory."

A graduate student may receive a grade of "I"—incomplete, in a course with the privilege of finishing the work at a later date. "Incomplete" work must be made up within twelve months after the close of the term in which the grade was earned, or no credit will be allowed for the course.

Graduate students registered in courses that are open to advanced undergraduates must do a certain amount of work in addition to that required of undergraduates. The nature of this additional work may be the reading of additional books on the subject and presenting a review of same, the making of reports, or such other work as the teacher in charge of the course may deem wise.

Special Note.—Any person reporting for matriculation as a graduate student without having filed an application and other necessary credentials for graduate status (two weeks prior) will be given only tentative graduate status, pending the proper evaluation of undergraduate work. The student should understand that after his credentials have been examined under this tentative arrangement, the institution reserves the right to deny him graduate status even though he has completed all other parts of his registration.

## FIELDS OF STUDY

Majors and Minors may be selected in the following fields:

Administration	Music
Agricultural Economics	Physical and Health Education
Agricultural Education	Elementary Education
Biology	Engineering
Business Education	English
Chemistry	Extension Education
Economics	History
Education	Political Science
Guidance	Rural Education
Home Economics Education	Secondary Education
Industrial Education	Sociology
Mathematics	Supervision

For further information regarding course offerings on the graduate level write the Office of the Registrar, or the Office of Graduate Study.

## SCHOOL OF AGRICULTURE

### AGRICULTURAL ECONOMICS

The prerequisite for majoring in Agricultural Economics is the Bachelor of Science Degree in Agriculture from a recognized college of agriculture.

To fulfill the requirements for a major in this field, one must complete at least twenty semester hours of work in Agricultural Economics. For the minor, the student is required to complete at least ten semester hours of work in the minor field agreed upon in consultation with the major professor and approved by the Dean. However, if it becomes necessary, the hours required in the major and minor fields may vary to the extent of two or three hours accumulated in either field. In such a case, the total hours must amount to thirty or more.

513. AGRICULTURAL FINANCE. (AGEC 513 FINANCE) (3-0) *Credit 3*. Financial requirements of individual farmers; emphasis placed on credit institutions serving the farmers. Prerequisite: Principles of Agricultural Economics.

523. MARKETING OF FARM PRODUCTS. (AGEC 523 MKTG PROD) (3-0) *Credit 3*. Study of the principles underlying successful marketing of farm products; study made of various middlemen through which farm products pass from the producer to the consumer; trips arranged for the class to visit and study markets. Prerequisite: Principles of Agricultural Economics.

552. AGRICULTURAL ECONOMICS SEMINAR. (AGEC 552 SEMINAR) (2-0) *Credit 2*. Current problems in Agricultural Economics discussed; topics reported by students.

713. ECONOMICS OF AGRICULTURAL PRODUCTION. (AGEC 713 PRODUCTION) (3-0) *Credit 3*. Principles of production economics applied to production of major farm products in various areas; economic geography and agriculture, national production programs and the tariff on agricultural products. Prerequisite: Principles of Agricultural Economics.

723. COOPERATIVE MARKETING OF FARM PRODUCTS. (AGEC 723 COOP MKTG) (3-0) *Credit 3*. Principles underlying the successful operation of cooperative marketing organizations; examples of successful fruit, vegetable, livestock and cotton marketing associations.

733. ADVANCED FARM MANAGEMENT. BUSINESS ORGANIZATION OF TEXAS FARMS. (AGEC 733 FARM MGT) (3-0) *Credit 3*. Use of farm management principles in the organization and operation of Texas farms; selecting farms, farm enterprises; planning cropping systems, equipment needs, and capital trips to representative farms by the class. Prerequisite: Principles of Agricultural Economics.

743. LAND TENURE AND PROBLEMS. (AGEC 743 TENURE) (3-0) *Credit 3*. Land as a factor of production, land utilization, tenure and income. Prerequisite: Principles of Agricultural Economics.

763. AGRICULTURAL LAND USE PLANNING. LOCAL REGIONAL AND NATIONAL. (3-0) *Credit 3*. County, state regional and national land use program, submarginal, and supermarginal lands; work of the Farm Security Administration. Department of the Interior, and National Resources Board.

## AGRICULTURAL EDUCATION

Undergraduate work equivalent to the Bachelor of Science Degree in Agriculture is required.

503. AGRICULTURAL EDUCATION SEMINAR. (AGED 503 SEMINAR) (1-0 or 2-0) *Credit 3*. Designed for all graduate students having majors in Agricultural Education. Only candidates for an advanced degree are eligible to take this course.

513. METHODS OF CONDUCTING PART-TIME AND EVENING SCHOOLS IN VOCATIONAL AGRICULTURE. (AGED 513 Voc AGRIC) (3-0) *Credit 3*. Teaching Vocational Agriculture. Permission of instructor is required. An analysis of the problems related to part-time and evening schools in Vocational Agriculture and to the development of objectives and procedures in the organization and conduct of such instruction.

523. SUPERVISED PRACTICE PROGRAM BUILDING. (AGED 523 PROG BLDG) (3-0) *Credit 3*. Teaching in Vocational Agriculture. Permission of instructor is required. Based upon researches in project accounting and analysis.

533. EXTENSION ORGANIZATION AND PROGRAM DETERMINATION. (AGED 533 EXTN PROG) (3-0) *Credit 3*. Best procedure to be followed in developing state, county, and community programs of work, and outlining of plans of work looking to the orderly development of specific projects; discussion of the place of local studies for the purpose of discovering points of contact and interest for cooperation in the conduct of extension work.

543. EXTENSION METHODS. (AGED 543 EXTN METH) (3-0) *Credit 3*. Aims and objectives of extension teaching and possible ways of measuring accomplishments reviewed and critically analyzed; various means and agencies employed in extension teaching as

result of demonstrations, method demonstrations, meetings, news articles, personal services, bulletins, exhibits, and circular letters; evaluated from the standpoint of their teaching functions, adaptability, relative influence, cost, interrelationship and general effectiveness.

553. ORGANIZATION AND CONDUCT OF 4-H CLUB WORK. (AGED 553 4-H CLUB) (3-0) *Credit 3*. Development of 4-H Club programs and organization; objectives; psychological groupings; community integration; program content; community, county, state, and Federal organization, selection and use of local leaders, annual plans of work, evaluation; methods employed in 4-H work; projects, club meetings, demonstrations, judging work exhibits, achievement days, camps, short courses, and leadership training.

562-563. SPECIAL PROBLEMS IN HOME ECONOMICS EXTENSION. (AGED 562 563 H E EXTN) (2-0 or 3-0) *Credit 2 or 3*. Extension research and other data of special significance to the organization and conduct of extension work with rural women; current problems of home demonstration workers.

571 and 571-B. YOUNG FARMERS I AND YOUNG FARMER PROBLEMS II. (1-2) (AGED 571 FRMR PROB) *Credit 1*. A correlate to 572 and 622; given on an unassembled basis for teachers in service who are enrolled in either Agricultural Education 572 or 622. The classroom instruction in these two courses is followed up on an individual enrollee on-the-job basis.

572. METHODS OF WORKING WITH OUT-OF-SCHOOL GROUPS AGED 572 GROUPS) (1-2) *Credit 2*. Special techniques for working with young-farmer and adult-farmer groups on farm and community problems; integration of such work into the total program of Agricultural Education in the community.

613. HISTORY AND PHILOSOPHY OF EXTENSION EDUCATION. (AGED 613 EXTN HIST) (3-0) *Credit 3*. Development of Agricultural Extension Education; socio-economic influence responsible for the establishment of extension education; development of agricultural policy that has a bearing on the philosophy of extension education.

622. SUPERVISED FARMING PROGRAM BUILDING FOR OUT-OF-SCHOOL GROUPS. (AGED 622 SUPV FARM) (1-2) *Credit 2*. Enterprise planning, accounting and analysis; selecting and developing over-all supervised farming programs with special reference to working with young-farmer and adult-farmer groups.

623. PUBLIC RELATIONS AND EXTENSION EDUCATION. (AGED 623 PUB RELTN) (3-0) *Credit 3*. Methods and practices of acquainting the public with the scope and purposes of extension work through print, radio, visual aids, and full use of written and spoken words.

633. PSYCHOLOGY FOR EXTENSION WORKERS. (AGED 533 EXTN PSY) (3-0) *Credit 3*. Significance of psychology to extension workers in relation to its meaning, the job of the extension worker, the meaning of education and of teaching; problem of motivation; nature of learning; basic principles and major types of learning; and conditions favorable for learning.

643. EXTENSION WORK EVALUATION. (AGED 643 EVALUATN) (3-0) *Credit 3*. Measuring results of extension work; sampling procedures, analysis and interpretation, and presentation and use of data in reference to study plans; methods of systematically appraising extension work.

712 or 713. PROBLEMS IN AGRICULTURAL EDUCATION. (AGED 712 713 PROBLEMS) (2-0) or (3-0) *Credit 2 or 3*. Community-program approach to agricultural problems; scientific approximation of aims, objectives and standards; participation in field experiences and field research.

722 or 723. PRINCIPLES OF TEACHING METHODS IN AGRICULTURAL EDUCATION. (AGED 722 723 PRIN METH) (2-0 or 3-0) *Credit 2 or 3*. Logical and psychological bases for selecting methods of teaching agriculture.

SPECIAL NOTE.— *Majors in Agricultural Education will be advised to select additional courses in the field of Rural Education.*

## AGRICULTURAL ENGINEERING

513. FARM STRUCTURES. (ENGR 513 STRUCTURS) *Credit 3*. The design and detail of construction of farm buildings; functional requirements and characteristics of materials; principles of sanitation, ventilation and water supply.

523. FARM SHOP WORK FOR TEACHERS. (ENGR 523 SHOP WORK) *Credit 3*. Presentation of purpose, plans and equipment of shops; organization of course of study; and methods of teaching farm shop work in vocational agricultural departments in high schools.

543. FARM POWER. (ENGR 543 FARM POWR) *Credit 3*. Trends in design and methods of stress analysis applied to typical agricultural machines; suitability of materials, power requirements, lubrication, safety, and economic factors.

553. SELECTION AND MANAGEMENT OF FARM MACHINERY. (ENGR 533 FARM MACH) *Credit 3*. Soil working, planting and forage handling, as well as processing machines from the mechanical, operational and economic standpoints.

573-583. SPECIAL PROBLEMS. (ENGR 573 583 SPEC PROB) *Credit 3*. Courses designed for students who are interested in working out problems not included in regular courses offered by the department.

561. SEMINAR. (ENGR 561 SEMINAR) *Credit 1*. Preparation, presentation and discussion of papers on agricultural engineering subjects.

593. RURAL ELECTRIFICATION. (ENGR 593 RUR ELEC) (Elective) *Credit 3*. Principles and applications of electrical apparatus included in modern farm equipment, electrical heating and motored appliances, protective devices, and lighting facilities.

603. WELDING AND IRONWORK. (ENGR 603 IRONWORK) (Elective) *Credit 3*. Advanced welding and metal work; repair and maintenance of farm machinery.

## AGRONOMY

501. GRADUATE SEMINAR. (AGRN 501 SEMINAR) (1-0) *Credit 1*. Each student will present organized papers on assigned subjects in crops, soils and genetics, based upon library and local research.

514. PLANT ECOLOGY. (AGRN 514 ECOLOGY) (2-4) *Credit 4*. Native and crop vegetation in relation to factors of environment. The application of environmental factors to general plant production.

523. ADVANCED FARM CROPS. (AGRN 523 ADV CROPS) (2-2) *Credit 3*. Emphasis will be placed on the geographical distribution, classification and physiology of the important farm crops.

533. PRINCIPLES OF PLANT PATHOLOGY. (AGRN 533 PLNT PATH) (2-2) *Credit 3*. Virus, bacterial and fungous diseases of field and horticultural crops. Symptoms and possible controls.

543. RANGE AND PASTURE IMPROVEMENT AND MANAGEMENT. (AGRN 543 PASTURES) (2-2) *Credit 3*. Types of pastures; pasture and range vegetation, methods of establishment and improvement.

553. PLANT BREEDING (AGRN 553 BREEDING) (2-2) *Credit 3*. Crossing and breeding techniques for the most important farm crops. Inheritance and disease resistance and susceptibility. Field plot technique.

554. SOIL CHEMISTRY. (AGRN 554 SOIL CHEM) (2-4) *Credit 4*. The application of the principles of chemistry to soils. The relationship between chemical properties and soil productivity.

563. DISEASES OF FIELD CROPS. (AGRN 563 DISEASES) (2-2) *Credit 3*. Common diseases found in field crops and best known methods of control.

573. FERTILIZERS AND SOILS. (AGRN 573 FERTLIZRS) (2-2) *Credit 3.* Fertilizer recommendations for various crops and localities. Soil types and fertilizer requirements.

583. SOIL MAPPING. (AGRN 583 SOIL MAPG) (1-3) *Credit 3.* The study of soil type characteristics by profiles; the mapping of selected local areas.

593. ADVANCED SOIL MANAGEMENT. (AGRN 583 SOIL MGT) (2-2) *Credit 3.* The application of the principles of soil management to the solution of practical farm problems.

## ANIMAL HUSBANDRY

503. MARKETING LIVESTOCK. (A H 503 LIVESTOCK) (3-0) Livestock marketing services, functions and prices.

434. BIOCHEMISTRY (A H 434 BIOCHEM) (2-4) An introductory course on the chemistry of living matter, foods, metabolism and nutrition. The laboratory works deals with the examination of tests of foods, nutritional studies and the qualitative examination of blood and urine.

513. A. H. EXTENSION PRACTICES. (A H 513 EXTN PRAC) (3-0) Accumulation, interpretation, and dissemination of published and pictorial information as related to livestock practices.

523. VETERINARY OBSTETRICS. (A H 523 OBSTETRIC) (3-0) Physiology of reproduction, principles of normal and abnormal parturition, diagnosing and treating sterility, abortion, and reproductive failures.

533. HERD AND FLOCK MANAGEMENT. (A H 533 FLOCK MGT) (3-0) Systematic studies of methods of breeding, feeding and management practices used in commercial livestock production.

543. RANGE AND PASTURE IMPROVEMENT AND MANAGEMENT. (A H 543 PASTURES) (3-0) The course deals primarily with the types of pasture, and pasture and range vegetation; methods of establishment and improvement.

401. SEMINAR. (A H 401 SEMINAR) (1-0) Reviews and discussions of animal research articles.

## DAIRY HUSBANDRY

533. DAIRY BACTERIOLOGY. (DAIR 533 BACTERIOL) *Credit 3.* Bacterial flora of milk products; milk sanitation, contamination and control—pure culture studies.

551. SEMINAR. (DAIRY PRODUCTION) (DAIR 551 SEMINAR) Current literature relating to various phases of milk production.

561. SEMINAR (DAIRY PRODUCTION). (DAIR 561 SEMINAR) Continuation of 551 prerequisite—Seminar D.H. 551.

572. SPECIAL PROBLEMS. (DAIR 572 SPEC PROB) Reports on special problems in dairy farm management.

582. SPECIAL PROBLEMS. (DAIR SPEC ER2 PROB) Continuation of 572.

523. DAIRY HUSBANDRY. (DAIR 523 DAIR HUSB) Specific examples of dairy farmer needs and how to meet them. Relationship between production, testing, artificial breeding association, sire proving, work of dairy production fieldman.

543. TECHNICAL DAIRY PRODUCTION. (DAIR 543 TECH PROD) *Credit 3.* Technical aspects of nutrition, milk secretion, and reproduction in dairy cattle.

434. BIOCHEMISTRY. (DAIR 434 BIOCHEM) *Credit 4.* An introductory course on the chemistry of living matter, foods, metabolism and nutrition. The laboratory works deal with the examination of tests of foods, nutritional studies and the qualitative examination of blood and urine.



## DAIRY INDUSTRY

422. SPECIAL PROBLEMS. (DAIR 422 SPEC PROB) Research problems in Animal Husbandry; planning, execution, compiling and summarizing the data in publication form.

434. BIOCHEMISTRY. (DAIR 434 BIOCHEM) *Credit 4.* An introductory course on the chemistry of living matter, foods, metabolism and nutrition. The laboratory works deal with the examination of tests of foods, nutrition. The laboratory works deal with the examination of tests of foods, nutritional studies and the qualitative examination of blood and urine.

514. DAIRY LABORATORY METHODS. (DAIR 514 LAB METH) *Credit 4.* Theory of and Practice in Analytical Methods used for control and research in dairy manufactories. Emphasis placed on various methods of fat determination, procedures for platform and plant quality tests, detergents, washing and sterilizing compounds.

503. DAIRY INSPECTION AND ORDINANCES. (DAIR 503 INSPECTN) *Credit 3.* Farm, plant, and products inspection; equipment and personnel; milk ordinances; standards.

533. DAIRY BACTERIOLOGY. (DAIR 533 BACTERIOL) *Credit 3.* Bacterial flora of milk products; milk sanitation, contamination and control—pure culture studies.

552. SPECIAL PROBLEMS. (DAIR 552 SPEC PROB) *Credit 2.* Reports on special problems in and relating to the dairy industry.

562. SPECIAL PROBLEMS. (DAIR 562 SPEC PROB) *Credit 2.* Continuation of D. I. 552.

571. SEMINAR. *Credit 1.* (DAIR 571 SEMINAR) Current literature review and reports in dairy manufacturing industry.

## HORTICULTURE

513. GENETICS. (HORT 513 GENETICS) (2-2) *Credit 3.* Plant genetics which include Mendel's Laws, chromosome phenomena and plant improvement.

523. SYSTEMATIC POMOLOGY. (HORT 523 POMOLOGY) (2-2) *Credit 3.* Description, nomenclature, classification and identification of deciduous and non-deciduous fruits with reference to varietal relationships. Exhibits and judging.

533. MARKETING OF FRUITS AND VEGETABLES. (HORT 533 MKT FRUIT) (2-2) *Credit 3.* A study of economic factors involved in the marketing of fruits and vegetables, transportation, methods of handling, middlemen and costs of distribution.

543. FERTILIZERS AND SOILS. (HORT 543 FERTILIZRS) (2-2) *Credit 3.* A study of soils and fertilizers in relation to production of stone, pome and small fruits, subsoils, drainage, elevation and contour.

553. ECONOMIC ENTOMOLOGY. (HORT 553 ECON ENT) (2-2) *Credit 3.* A course which deals with the study of insects which attack fruits and vegetables. Includes the use of spray calendars, insecticides and equipment.

563. DISEASES OF FRUIT AND VEGETABLE CROPS. (HORT 563 DISEASES) (2-2) *Credit 3.* Problems in the design of small land areas; orientation, arrangement and circulation, including instruction in drafting and presentation.

## ORNAMENTAL HORTICULTURE

513. INTRODUCTION TO LANDSCAPE DESIGN. (HORT 513 LANDSCAPE) *Credit 3.* Problems in the design of of small land areas; orientation, arrangement and circulation, including instruction in drafting and presentation.

523. TAXONOMY OF CULTIVATED PLANTS. (HORT 523 TAXONOMY) *Credit 3.* Principles of plant classification; bibliographic tools of systematic botany; methods of collection, preservation and study of vascular plants.

533. PROBLEMS IN THE PROPAGATION OF ORNAMENTAL PLANTS. (HORT 533 PLNT PROP) *Credit 2-4.* Problems in the propagation of ornamental plants in which the student is interested and which are approved by the instructor. Problems must be of a representative nature and must be worked out independently.

543. NURSERY PRINCIPLES AND PRACTICES. (HORT 543 NURS PRIN) *Credit 3.* Fundamentals and practices involved in the management of a modern nursery; status of the industry, its development, growing, merchandising, and marketing of nursery products in all phases. Trips to nurseries in the state will be made.

553. ECOLOGY OF ORNAMENTAL PLANTS. (HORT 553 ECOLOGY) *Credit 3.* Patterns of vegetation, local, regional and continental, relation of environmental conditions that limit the various plant communities and influence the growth of the competition in ornamental plants.

563. DISEASES OF FRUIT AND VEGETABLE CROPS. (2-2) *Credit 3.* Problems in the design of small and land areas; orientation, arrangement and circulation, including instruction in drafting and presentation.

573. COMMERCIAL GREENHOUSE PRODUCTION. (HORT 573 GREENHSE) *Credit 3.* Practical application of science to the production and marketing of greenhouse crops; the growing of seedling plants in the greenhouse, cloth house, and lath. Trips will be made to greenhouses in the State.

583. LANDSCAPE HORTICULTURE PROBLEMS. (HORT 583 PROBLEMS) *Credit 3.* Problems in landscaping in which the student is interested and which are approved by the instructor. Problems must be of a representative nature and must be worked out independently.

593. PLANTING DESIGN. (HORT 593 PLNT DSGN) *Credit 3.* The basic principles of planting design; arrangement and use of plants in landscape design with drafting and field practice; problems in color, texture, and mass in plants.

613. PROBLEMS IN LANDSCAPE HORTICULTURE. (HORT 613 PROBLEMS) *Credit 2-4.* Problem in landscaping in which the student is interested and which is approved by the instructor; problem must be of a representative nature and must be worked out independently.

623. PARK, CEMETERY, AND INSTITUTIONAL GROUNDS ADMINISTRATION. (HORT 623 PARK ADM) *Credit 3.* Lectures, collateral reading, and reports on visits to parks, cemeteries, and institutional grounds; lectures and discussions of problems connected with the administration of parks, cemeteries and institutional grounds.

## POULTRY HUSBANDRY

POULTRY 561. (POUL 561 SEMINAR) SEMINAR. Extensive and intensive review and reporting of literature in various phases of Poultry Husbandry.

POULTRY 523. POULTRY MANAGEMENT. (POUL 523 POUL MGT) A detailed study of all phases of farm and commercial flocks, including cost of production.

POULTRY 533. POULTRY DISEASE AND SANITATION. (POUL 533 DISEASE) Anatomy of domestic fowls; poultry sanitation and hygiene; infectious and manifectionous diseases of fowls; parasites, minor surgery.

POULTRY 502. SPECIAL POULTRY PROBLEMS. (POUL 502 PROBLEMS) Research problems of a practical nature in Poultry Husbandry.

POULTRY 542. (POUL 542 GAME BIRD) DOMESTIC PROPAGATION OF TURKEY, GEESE, DUCKS AND GAME BIRDS. The history, characteristics, economic importance, reproduction, and development of the leading breeds and varieties of turkeys, geese, ducks and game birds.

POULTRY 603. POULTRY BREEDING. (POUL 603 BREEDING). A study of inherited characteristics; factors affecting the economic characteristics of poultry.

POULTRY 512. TURKEY PRODUCTION. (POUL 512 TURKEYS) A study of the principles and practices of turkey production with special emphasis on breeding, brooding, feeding and marketing.

## COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

A graduate major leading to a Master of Science degree in Extension Education is offered. The major field of study, which is approximately two-thirds of the graduate work leading to the degree, may consist of courses selected from an approved list. The list of courses for a major in the field of Extension Education has been made from courses offered by the departments of Agricultural Education, Agricultural Economics, Education, Home Economics Education, English, Physical Education and Sociology.

The Extension worker is permitted an even broader selection of courses for his minor subjects. Minor courses, constituting approximately one-third of the graduate program, may be chosen from the various academic departments in the College in which the worker feels the greatest need for subject matter training.

To be permitted to work toward the Master of Science degree in Extension Education, the candidate is required to have the equivalent of a Bachelor of Science degree in Agriculture or Home Economics. Also, the candidate must have had at least two years of satisfactory Extension experience.

A master's thesis or master's written report will be required. It is expected that the work of gathering material for the thesis will provide information useful to the Extension worker.

Two plans are available for obtaining the master's degree. Subject to the approval of the major instructor, the candidate for the master's degree may choose.

PLAN I—with the Master's Thesis. This plan requires 30 semester hours of graduate credit plus a master's thesis.

PLAN II—without the Master's Thesis. This plan requires 36 semester hours of graduate credit plus a written master's report of research or problem on a topic in the major field.

Associated with the credit requirement is the residence requirement. Under either plan, a student must spend in residence a minimum of two semesters or two and one-half twelve-week summer sessions.

Graduate credit may be earned off the campus by enrolling in absentia for a limited amount of research or problem work on the recommendation of the head of the major department and with the approval of the Chairman of the Committee on Graduate Study.

Some Extension workers have earned graduate credit at other institutions. If this work comes within the time limitations mentioned below, and if it is of such nature as to fit in with the student's program of study at Prairie View A. & M. College, the Committee on Graduate Study will permit up to six semester hours to be transferred from approved institutions. A student who is allowed to transfer six semester hours from another institution may not, because of the residence requirement, be allowed to use credit obtained from off-campus work.

The work included in a program for the master's degree must be completed within a period of six years of the date of the final examination for the degree. Work taken previous to this time will be considered invalidated by the passage of time.

### SUGGESTED COURSES FOR A MAJOR IN THE FIELD OF EXTENSION EDUCATION

Agricultural Economics .....	713	Economics of Agricultural Production
	743	Land Tenure and Problems
Agricultural Education .....	533	Extension Organization and Program Determination
	543	Extension Methods
	553	Organization and Conduct of 4-H Club Work
	563	Special Problems in Home Economics Extension
	572	Methods of Working with Out-of-School Groups
	623	Public Relations and Extension Education
	633	Psychology for Extension Workers
	643	Extension Work Evaluation
	713	Problems in Agricultural Education
Agricultural Engineering.....Ag Engr	613	Farm Housing
Economics .....	543	Social and Labor Legislation
	583	Economic Problems of the Consumer
	573	Labor Problems
	773	Economics Theory and Social Policy
Education .....	Adm. 513	Vocational Guidance
	Sup. 723	Rural School Supervision
	Ed. 713	School and Community Relations
	Psy. 563	Mental Adjustment
	Home Ec. 623	Extension Clothing Methods
	Home Ec. 673	Nutrition for Extension Workers
Home Economics Education .....	703	Seminar in Nutrition
	705	Consumer Education
	743	Statistical Techniques
	793	Supervision of Home Economics
Physical Education .....	663	Advanced Personal and Community Hygiene
Health Education .....	583	Rural Health Problems
Health Education .....	683	Community Planning for Health
Health Education .....	693	Teaching of Health
Sociology .....	503	Introduction to Social Welfare
	603	Problems of Child Welfare
	643	Modern Social Problems

## SCHOOL OF ARTS AND SCIENCES

### BIOLOGY

A student entering graduate study in the field of biology should present at least an undergraduate minor, 20 hours or the equivalent, which includes: general zoology, botany, and physiology. It is preferable that he shall have had enough credits for an undergraduate minor in biology. 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 biology. It is expected that students who plan to qualify for the Master's Degree should become thoroughly grounded in the general principles of general zoology, botany, physiology, embryology and anatomy (comparative and microscopic).

Students who plan to minor in biology on the graduate level must have fulfilled all requirements for a minor in biology on the undergraduate level stipulated in the catalog. Prerequisite courses such as Vertebrate Embry-

ology (Biology 414) and Comparative Anatomy (Biology 424), which the student did not take while an undergraduate at this college, must be taken before the student begins the courses in the graduate program.

If the transcript of the undergraduate record of a student does not meet the above qualifications, additional satisfactory undergraduate work will be required before the student is admitted to graduate status.

## ADMISSION TO CANDIDACY

Action on admission for candidacy for a Master's Degree will be taken after the student has been in residence for at least one semester or summer session, earning at least twelve hours of graduate work in biology with an average of "B" or better. Research projects for the thesis will be assigned AFTER THE STUDENT HAS BEEN APPROVED AS A CANDIDATE.

The student failing to meet the above requirement will be continued on probation for a second semester. In the event he does not meet the requirements for candidacy at this time, it will be understood that no more graduate credits by him will be applicable to the M.S. Degree in Biology.

It is highly recommended that persons who plan to qualify for the M.S. Degree in Biology plan to spend one semester or at least one summer which can be devoted entirely to research.

The offerings in Biology on the graduate level have been divided into six fields: (1) Embryology; (2) Genetics; (3) Histology; (4) Microbiology; (5) Physiology; and (6) General Biology plus Special Courses in Biology.

Students seeking a Master's Degree in Biology should present well chosen courses from three of these fields and pursue further work in one field. Programs should be outlined in consultation with the Professors of Biology.

## I. EMBRYOLOGY

504. EMBRYOLOGY. (BIOL 504 EMBRYOLGY) (2-4) *Credit 4*. Descriptive embryology; vertebrate development with special reference to mammals; dissections and examination of selected embryological materials, including serial sections of the fetal pig. Prerequisite: Biology 114 and 124.

554. EXPERIMENTAL EMBRYOLOGY. (BIOL 554 EMBRYOLGY) (2-4) *Credit 4*. Modern problems and techniques of the development of the principles and mechanisms of development; analysis in factors operating in the morphogenesis, regeneration and development of selected vertebrates. Prerequisite: Biology 414 and 504.

604. ADVANCED VERTEBRATE EMBRYOLOGY. (BIOL 604 VERT EMBR) (2-4) *Credit 4*. Deals primarily with the very early stages in the formation of the human embryo, the mechanism of its implantation in the uterus; correlated changes in the reproductive organism of the mother, organogenesis and histogenesis. Each student takes a special problem in organogenesis. Prerequisites: Biology 414 and 504.

644. MYCOLOGY. (BIOL 644 MYCOLOGY) (2-4) *Credit 4*. The morphology, anatomy, classification and physiology of fungi; habitats, economic principles and taxonomic principles.

## II. GENETICS

574. GENETICS. (BIOL 574 GENETICS) See Biology 254.

673. **CYO-GENETICS.** (BIOL 673 GENETICS) (3-0) *Credit 3.* Lectures, reports and laboratory work on the inner cell structures with special reference to chromosome structure, related structures and processes involved as they affect heredity.

674. **PLANT BREEDING.** (BIOL 674 BREEDING) (2-4) *Credit 4.* The application of the principles of genetics to plant improvement. Discussion, reports, lectures, demonstrations and individual participation in techniques and methods are to be used as procedures of instruction. Prerequisite: Biology 254, Genetics.

683. **EXPERIMENTAL GENETICS.** (BIOL 683 GENETICS) (3-0) *Credit 3.* Through Experimentation to show how variations may be brought about; the techniques of mating and breeding to support accepted facts.

694. **ANIMAL BREEDING.** (BIOL 684 BREEDING) (2-4) *Credit 4.* Application of the principles of genetics to animal breeding and improvement. Comparison of various methods of selection and technique. Prerequisite: Biology 254, Genetics.

### III. MICROBIOLOGY

533. **PRINCIPLES OF PLANT PATHOLOGY.** (BIOL 533 PLNT PATH) (2-3) *Credit 3.* The fundamentals of parasitism as they affect plants and the means of controlling the diseases resulting from the various parasites which are detrimental to plants.

549. **GENERAL MICROBIOLOGY.** (BIOL 549 MICROBIOL) See Biology 334.

BIOLOGY 594. **SURVEY OF THE PLANT KINGDOM.** (2-4) *Credit 4.* Comparative morphology, taxonomy, physiology, and anatomy of representatives of the major taxa of the plant kingdom, including fungi, algæ, mosses, hepatics, ferns allies, and gymnosperms; theories of evolution in plants, taxonomic principles, comparison of life cycles and methods of reproduction, and biotic relationships of representatives of these groups; methods of culturing, collecting, and identification. Prerequisite: Biology 134 with minimum grade of "C," senior or graduate status.

614. **PROTOZOLOGY.** (BIOL 614 PROTOZOOL) (2-4) *Credit 4.* Structure, taxonomy, physiology, life history and adaptations of protozoa, especially the nonparasitic form. Prerequisite: Biology 114 and 124.

624. **GENERAL PARASITOLOGY.** (BIOL 624 PARASITOL) (2-4) *Credit 4.* Morphology, life history, diagnosis and control of the important parasites affecting man and other animals. Prerequisite: Biology 614.

724. **DAIRY BACTERIOLOGY.** (BIOL 724 BACTERIOL) (3-4) *Credit 4.* Importance of bacteria in dairy products; the number and types of bacteria in dairy products and significance of their occurrence.

### IV. HISTOLOGY

514. **HISTOLOGICAL TECHNIQUE.** (BIOL 514 HIST TECH) See Biology 354. In addition to the requirements of 354, the student is required to master some of the special techniques.

524. **HISTOLOGY.** (BIOL 524 HISTOLOGY) See Biology 364.

714. **CYTOLOGY.** (BIOL 714 CYTOLOGY) (2-4) *Credit 4.* Lectures, reports and laboratory work on the finer structured cells and processes.

### V. PHYSIOLOGY

534. **GENERAL PHYSIOLOGY.** (BIOL 534 PHYSIOLGY) (2-4) *Credit 4.* Functioning of the organ systems along with the chemical and physical processes involved; quantitative experimentation on warm-blooded animals basic physiological technique; original research on a problem. Whenever possible original research sources are consulted for information to acquaint the student with leading workers in the field and their methods. Prerequisite: Biology 452 and elementary courses in Physics and Chemistry.

544. **ENDOCRINOLOGY.** (BIOL 544 ENDOCRINL) (2-4) *Credit 4.* Organs of internal secretion, embryology, physiology, microscopic anatomy, and physiology. Prerequisite: Biology 114, 124 and 324.

584. SPECIAL PHYSIOLOGY OF MAMMALS. (BIOL 584 MAMMAL) (2-4) *Credit 4.* The experiments not given in the general courses.

634. NEUROLOGY. (BIOL 634 NEUROLOGY) (2-4) *Credit 4.* A brief review of the brain and cranial nerves of the shark; the morphology of the spinal cord and brain of a mammal; the principle tracts and nuclei (reaction systems) of the cord and brain of the human nervous system.

## VI. GENERAL BIOLOGY AND SPECIAL COURSES IN BIOLOGY

543. PLANT ECOLOGY. (BIOL 543 ECOLOGY) (2-3) *Credit 3.* The distribution of plants and the effect of environmental factors upon determining the geographical distribution. Prerequisite: Systematic Botany.

553. GENERAL ENTOMOLOGY. (BIOL 554 ENTOMOLOGY) (3-2) *Credit 3.* The structure, life history, habits and means of recognizing and classifying the more common insects. Attention is also given to their relations with man and other animals as well as plants.

563. ECONOMIC ENTOMOLOGY. (BIOL 564 ENTOMOLOGY) (3-2) *Credit 3.* Insect pests; identification, distribution and the principles and methods of various types of insect pest control. Literature and research methods are also studied.

564. SYSTEMATIC BOTANY. (BIOL 564 BOTANY) (2-4) *Credit 4.* Local flora, giving training in the identification and classification of the higher plants. Prerequisite: Botany 134.

664. GENERAL INVERTEBRATE ZOOLOGY. (BIOL 664 INVERTEBR) (2-4) *Credit 4.* Classification, morphology, embryology, physiology, and life histories of invertebrates exclusive of insects. Prerequisite: Biology 124.

704. BIOLOGY FOR TEACHERS. (BIOL 704 TEACHERS) A training course for prospective teachers of Zoology and Botany. Lectures or conferences, field and laboratory work. Prerequisite: at least Biology 604 and 644.

600. RESEARCH IN ZOOLOGY. (BIOL 600 RESEARCH) This course will vary in credit according to the work performed, its value being indicated at registration. Research in Zoology may be carried on in any area listed which the student has a sufficient background.

700. RESEARCH IN BOTANY. (BIOL 700 RESEARCH) This course will vary in credit according to the work performed, its value being indicated at registration. Research in Botany may be carried on in any area listed which the student has a sufficient background.

640-650. SEMINAR IN BIOLOGICAL PROBLEMS. (BIOL 640 650 BIOL PROB) Required of all graduate students in the department. No credit.

## CHEMISTRY

Persons who plan to pursue the graduate degree in chemistry must fulfill the undergraduate requirements, which are essentially: one year of inorganic chemistry, one year of analytical chemistry, one year of organic chemistry, one year 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.

Upon acceptance as a graduate student in chemistry an advisor will be assigned who shall advise the student on courses to pursue, etc.

At the completion of a minimum of twelve semester hours of graduate work in chemistry, satisfactorily completed with an average of "B" or better, a formal application must be made for admission to candidacy. This application must be approved by the heads of the major and minor department and submitted to the Director of the Graduate School for approval. Research projects for the thesis will be assigned AFTER THE STUDENT HAS BEEN APPROVED AS A CANDIDATE.

A reading knowledge of French or German is recommended for all candidates.

After approval of the thesis, the candidate will be given a written and/or oral preliminary examination in his major and minor fields. It is required that this exam must be taken at least six weeks before graduation.

The final examination will be oral and shall be over subject materials not covered in the preliminary exam and the thesis.

It is recommended that persons who plan to qualify for the M.S. Degree in chemistry spend at least two years 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 further 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 requirements.

## ANALYTICAL

<i>Course</i>	<i>Hrs.</i>
Identification of Organic Compounds .....	4 Lab and Lec
Organic theory .....	3 Lec
Physical Chemistry (Advanced) .....	3 Lec
Advanced Inorganic .....	3 Lec
Advanced Analysis .....	6 Lec and Lab
Seminar .....	
Research .....	
Biochemistry .....	4
<b>Total .....</b>	<b>24 Hrs. (Exclusive of research)</b>

## BIOCHEMISTRY

<i>Course</i>	<i>Hrs.</i>
Identification of Organic Compounds .....	4 Lab and Lec
Advanced Inorganic Chemistry .....	3 Lec
Advanced Analysis .....	3 Lec
Advanced Physical .....	3 Lec
Intermediate Metabolism .....	3 Lec
Advanced Organic .....	6 Lec
Seminar .....	2 Lec
Research .....	
<b>Total .....</b>	<b>24 Hrs. Exclusive of research)</b>

## INORGANIC CHEMISTRY

<i>Course</i>	<i>Hrs.</i>
Identification of Organic Compounds .....	4 Lec
Advanced Inorganic Chemistry .....	6 Lec and Lab
Advanced Physical .....	3 Lec
Advanced Organic .....	3 Lec
Advanced Analytical .....	3 Lec
Seminar .....	2 Lec
Biochemistry .....	4
<b>Total .....</b>	<b>25 Hrs. (Exclusive of research)</b>



## ORGANIC

Course	Hrs.
Identification of Organic Compounds	4 Lab and Lec
Advanced Organic Chemistry	6 Lab and Lec
Advanced Physical	3 Lec
Advanced Analytical	3 Lec
Seminar	2 Lec
Research	
Biochemistry	4
<b>Total</b>	<b>25 Hrs. (Exclusive of research)</b>

## COURSES

613 and 623. **ADVANCED INORGANIC CHEMISTRY.** (CHEM 613 623 ADV INORG) (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 electrolytes in non-aqueous solvents.

701. **CHEMICAL PRINCIPLES.** (CHEM 701 PRINCIPLES) (1-0) *Credit 1.* Fundamental concepts and principles of chemistry; designed especially for persons interested in the teaching of chemistry. Prerequisite: Graduate or advanced undergraduate standing.

704. **ADVANCED ANALYTICAL CHEMISTRY.** (CHEM 704 ANALYTICAL) (1-6) *Chemistry 4.* Lecture-recitation: Theory and picture of sampling, solution of refractory materials, special methods of precipitation, use of radioactive material, water analysis, special types of calculations.

Laboratory: Gravimetric and electrolytic separation (limestones and alloys), evolution methods, gas analysis, electrometric oxidation, reduction.

714. **IDENTIFICATION OF ORGANIC COMPOUNDS.** (CHEM 714 COMPOUNDS) (Qual. Organic Analysis). (2-4) *Credit 4.* The separation and identification of pure organic compounds and mixtures.

723. **QUANTITATIVE ORGANIC CHEMISTRY.** (CHEM 723 QUAN ORG) (1-4) *Credit 3.* The determination of elements and functional groups by micro-methods with an introduction to micromethods.

743. **ADVANCED TOPICS IN ORGANIC CHEMISTRY.** (CHEM 743 ORG TOPIC) (3-0) (a) Stereochemistry; (b) Reaction Mechanism; (c) Terpenes and Carbohydrates, 3 hours credit for each topic.

732. **ADVANCED ORGANIC CHEMISTRY.** (CHEM 732 ADV ORG) (2-0) *Credit 2.* A review of elementary organic chemistry with an extension of more advanced topics. Includes assigned current subject material.

752. **INTERMEDIARY METABOLISM.** (CHEM 752 METABOLISM) (0-4) *Credit 2.* A quantitative study of the intermediate formed in cellular metabolism of fats, carbohydrates, proteins, and minerals employing equipment currently used in biochemical research. Both manometric and spectrometric methods are included. Prerequisite 434, or taken concurrently with 753.

753. **INTERMEDIARY METABOLISM.** (CHEM 753 METABOLISM) (3-0) *Credit 3.* The intermediates formed in the metabolism of fats, carbohydrates, proteins, minerals and nucleic acids and interrelationship between the metabolic pathways in both plants and animals. Prerequisite: 434 and 424.

762. **ORGANIC SYNTHESIS.** (CHEM 762 SYNTHESIS) (1-4) *Credit 2.* Conferences and laboratory work dealing with the synthesis of various organic compounds. Prerequisite: one year of organic chemistry.

763. **BIOCHEMICAL AND CLINICAL ANALYSIS.** (CHEM 763 CLIN ANAL) (0-6) *Credit 3.* Conferences and laboratory work dealing with analysis of blood, urine and vitamin assay. Prerequisite: Chemistry 435.

764. **INSTRUMENTAL ANALYSIS.** (CHEM 764 INSTRMTL) (1-3) *Credit 4.* The theory and use of modern optical and electrical instruments in chemical analysis. These include

the polarograph, oscillogram, geiger counter, nephelometer, colorimeter, titrimer, potentiometer, pH meter and spectrophotometer. Prerequisite: Chemistry 424.

782. TOPICS IN THE CHEMISTRY OF NUTRITION. (CHEM 782 NUTRITION) (2-0) *Credit 2*. Lectures, assigned readings on the most recent developments in research on vitamins, amino acids, proteins, minerals and hormones as related to human and animal nutrition. Prerequisite: Chemistry 453.

783. ADVANCED PHYSICAL CHEMISTRY. (CHEM 783 PHYSICAL) (3-0) *Credit 3*. A lecture course consisting of advanced topics in physical chemistry: Thermodynamics, chemical kinetics, theories of solutions, phase rule. Prerequisite: Chemistry 424 and mathematics through differential and integral calculus.

802. ELECTROCHEMISTRY. (CHEM 802 ELECTRO) (0-4) *Credit 2*. Conferences, assigned readings and exercises in the laboratory dealing with the fundamental theories of electrochemistry and the preparation of certain inorganic and organic compounds. Prerequisite: Chemistry 424.

\*600, 700, 800, 900. RESEARCH. (CHEM 600 700 800 900 RESEARCH) *Credit Arranged*. Problems for investigation may be selected from one of the following fields of chemistry: 1. Analytical; 2. Biochemistry; 3. Inorganic Chemistry; 4. Organic Chemistry; 5. Physical Chemistry.

911 and 921. SEMINAR. (CHEM 911 921 SEMINAR) (1-0) Discussion of topics which are current in the various fields of chemistry.

## ECONOMICS AND GEOGRAPHY

Majors and minors are offered in the Department of Economics. Students desiring to major or minor in Economics should consult with the Head of the Department and plan a program in conjunction with the major professor.

The graduate courses in Economics permit intensive research and study of the integrated undergraduate courses in the various departments of the Social Sciences.

Among the specific objectives: development of ability to use available literature, facilities and techniques of investigating current socio-economic problems; advancement of independent thought and writing necessary for further study, experimentation and contribution to the field, one must complete twenty semester hours of satisfactory work. Students who plan to minor in the Department are required to complete a minimum of ten hours.

Students who have not completed an undergraduate major in Economics must take, under the guidance of the Head of the Department, certain undergraduate courses in Economics.

For course sequence or any other information, consult the Head of the Department and the professor offering the course.

## ECONOMICS

501. SEMINAR IN ECONOMICS. (ECON 501) (1-0) *Credit 1*. I or II. Informal seminar meeting once per week to allow staff members and majors and minor in economics to develop *esprit de corps* and to discuss contemporary economic developments. Open to others by consent of the instructor.

513. ECONOMIC HISTORY. (ECON 513 ECON HIST) (3-0) *Credit 3*. I. The development of agriculture, commerce, industry and transportation from colonial times to the present. Prerequisite: Economics 533.

523. PRINCIPLES OF ECONOMICS. (ECON 523 PRINCIPLES) (3-0) *Credit 3*. I. Basic economic principles as applied to contemporary economic institutions; determination of business and industrial organization; pricing, value, money and banking; and international trade and exchange.

533 ECONOMIC PROBLEMS. (ECON 533 PROBLEMS) (3-0) *Credit 3*. II. An application of economic principles to current economic problems and institutions; monopoly, business cycles, labor problems, public expenditures and revenue, public utilities, and comparative economics. Prerequisite: Economics 523. (This course is a prerequisite to all graduate courses in Economics.)

563. INTERNATIONAL TRADE. (ECON 563 TRADE) (3-0) *Credit 3*. II. Principles and practices of foreign trade with special emphasis upon international economic relations. Analysis of foreign exchange, balance of payments, foreign investment, tariff history and policy, currency problems, and world interdependence. Prerequisite: Economics 533 and consent of the instructor.

573. LABOR PROBLEMS. (ECON 573 LABOR) (3-0) *Credit 3*. I. Evolution of industrial society; labor movements as a "going government;" protective legislation dealing with wages, hours, and unemployment compensation; problems involving the employer-employee relationships. Prerequisite: Economics 533.

583. ECONOMIC PROBLEMS OF THE CONSUMER. (ECON 583 CONS PROB) (3-0) *Credit 3*. II. Family budgets, marketing, price controls, and other problems of the consumer. Prerequisite: Economics 533.

603. MONEY AND BANKING. (ECON 603 BANKING) (3-0) *Credit 3*. II. A study of the theory of money and banking with emphasis upon monetary policy. Special consideration is given to the implication of methods, monetary and banking control. Prerequisite: Economics 533.

653. ECONOMIC STATISTICS. (ECON 653 STATISTIC) (2-2) *Credit 3*. I. Techniques of gathering, assorting, tabulating and presenting statistical data. Prerequisite: Economics 533.

663. MODERN ECONOMIC THOUGHT. (ECON 663 MOD THGHT) (3-0) *Credit 3*. II. Analysis and appraisal of recent and contemporary economists and their contribution to public policy. Prerequisites: Economics 533 and 583.

703. PUBLIC FINANCE AND TAXATION. (ECON 703 TAXATION) (3-0) *Credit 3*. Introduction to the field of government finance; character and growth of public expenditures; public debt creation and fiscal policy; theories, principles and problems of taxation.

723. SEMINAR IN ECONOMIC THEORY. (ECON 723 THEORY) (3-0) *Credit 3*. II. Critical discussion of debatable topics in the field of economic theory, prices, value and distribution, reports will be made on recent contemporary theories and theorists. Prerequisite: Consent of instructor.

743. CAPITALISM AND SOCIALISM. (ECON 743 CAPITA'SM) (3-0) *Credit 3*. II. Capitalism, unionism, socialism, fascism, and individualistic anticapitalism, each viewed under the headings of conditions, theories and movements. A research course. Prerequisites: Economics 533, Sociology 213 and the consent of the instructor.

773. ECONOMIC THEORY AND SOCIAL POLICY. (ECON 773 SOC POLCY) (3-0) *Credit 3*. I. Analysis of economic theories involved in various institutional and governmental policies, especially those centering around farm control, education, housing, relief, protection of workers and consumers and social security. Prerequisites: Economics 533 and the consent of the instructor.

613-623. GEOGRAPHY FOR TEACHERS. (ECON 613 623 TCHR GEOG) (3-0) *Credit 3*. I and II. The relationship of geography to other fields of knowledge concerned with man and his adjustments. The use of geographic premises underlying the analysis of major industries. Tools of geography, space relations, weather, climate, vegetation, soils landforms population distribution, power and mineral resources. Each student will prepare resource units using materials available in the community and familiar to local students. Prerequisite: 12 hours in the social sciences (undergraduate and/or graduate).

713-723. THE TEACHING OF GEOGRAPHY. (GEOG 713 723 TCHING OF GEOG) (3-0) *Credit 3.* A foundation course for teachers and supervisors of Geography; organization of courses of study; how and where to obtain materials; the place and use of textbooks; and methods of presentation suitable for grades on the Junior and Senior high school level.

733. WORLD REGIONAL GEOGRAPHY. (GEOG 733 REGIONAL) (3-0) *Credit 3.* World regions as the home of man; a practical, logical and systematic approach to the field of geography; a survey of the world in terms of outlook; regional types.

## BUSINESS EDUCATION

The graduate program in business education is designed to provide for the professional development of commercial teachers. The primary purposes of the program are to offer advanced instruction in professional and subject-matter areas for teachers, and to develop research in the field.

The program is adapted to the needs of persons who have completed as undergraduates a course of study in business education or persons who have completed an undergraduate minor in business education.

The major in business education leading to the Master's degree consists of 21 hours of which the following are required:

Problems in Business Education .....	3 hours
Advanced Methods of Teaching Business Subjects .....	3 hours
Curriculum Construction in Business Education .....	3 hours
Seminar in Business Administration .....	3 hours
Business Statistics .....	3 hours

15

The minor in business education consists of 9 hours of which the following are required:

Problems in Business Education .....	3 hours
Seminar in Business Education .....	3 hours

6

## DESCRIPTION OF COURSES

523. PROBLEMS IN BUSINESS EDUCATION. (3-0) *Credit 3.* A survey course. Evolution of business and business practices. Business and Government-laws which govern and regulate business practices. Recent developments in business education.

533. ADVANCED METHODS OF TEACHING BUSINESS SUBJECTS. (3-0) *Credit 3.* Consideration is given to intensive review of subject content, selection of objectives and instructional materials, techniques and procedures in presenting educational activities, and to evaluating teaching effectiveness in Typewriting, Shorthand, Bookkeeping and Accounting, and Filing.

553-563. INTERMEDIATE ACCOUNTING. (3-0) *Credit 3.* Theory and problems of valuation of assets; application of funds; corporation accounts and statements and their interpretation.

573-583. BUSINESS LAW. (3-0) *Credit 3.* Fundamental principles of law most frequently involved in business transactions, including contracts, sales, partnerships, corporations, agency, negotiable instruments, property bailments and insurance.

593. CORPORATION FINANCE. (3-0) *Credit 3.* Corporate organization and control; securities; the management of fixed capital and working capital reserve, surplus and dividend policies; investment banking and the securities market.

623. CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION. (3-0) *Credit 3.* Criteria for solving curricular problems are studied and applied in devising business education curricular for the secondary school and in appraising present school offerings.

563. LIFE INSURANCE. (3-0) *Credit 3.* A study of the life insurance industry, companies, contracts and markets.

723. SEMINAR IN BUSINESS ADMINISTRATION. (3-0) *Credit 3.* Co-operative research in one or more economic problems; each member of the class concentrating on a selected phase of the common subject.

733. BUSINESS STATISTICS. (3-0) *Credit 3.* Elementary theory and technique of statistical methods in application to typical production, distribution, accounting and general administrative problems of business organization.

## EDUCATION

### MINIMUM REQUIREMENTS FOR A MASTER'S DEGREE IN THE DEPARTMENT OF EDUCATION

The minimum undergraduate preparation for the Master's Degree is eighteen semester hours of basic course credit in the field of the graduate major.

Attention is called to the requirements of the Texas Education Agency for the teaching certificate in the field of graduate concentration.

### ADMISSION TO CANDIDACY

Action on admission to candidacy for a Master's Degree will be taken after the student (1) has been residence for at least one semester or summer session, earning at least twelve hours of graduate course credit; (2) has maintained a "B" average or better; (3) has satisfactorily demonstrated proficiency in English usage and has satisfied all the classification requirements of the college.

The student failing to meet the above requirements will be continued on probation for a second semester. In the event he does not meet the requirements for candidacy at this time, it will be understood that no more graduate credits earned by him will be applicable to a Master's Degree.

#### SUGGESTED CURRICULUM FOR A MAJOR IN ELEMENTARY EDUCATION

Prerequisites: Legal certificate valid for teaching in the Elementary School and the following courses

Elementary Art .....	3 hrs.
Public School Music .....	3 hrs.
Teaching of Reading .....	3 hrs.
Elementary Science .....	3 hrs.
Child Growth and Development .....	3 hrs.

	15 hrs.
Psychology 533—Fundamentals of Statistics .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 683—Elementary School Curriculum .....	3 hrs.
Education 753—Teaching the Language Arts .....	3 hrs.
Education 793—Diagnosis and Remedial Treatment of Elementary School Subjects .....	3 hrs.
Education 743—Problems of the Elementary School Teacher (Seminar) .....	3 hrs.
Elective from the following: .....	3 hrs.
Education 653—Arts and Crafts in Public School	
Education 663—Special Projects in Public School Art	
Education 863—Audio-Visual Education	
Supervision 643—Elementary School Supervision	
Administration 633—Elementary School Administration	
Education 603—Survey Course in Education of Exceptional Children	
Education 563—Child Accounting	
Education 783—Modern Practices in Elementary Education	
Education 813—Kindergarten Methods and Materials	

21 hrs.

### SUGGESTED CURRICULUM FOR A MINOR IN ELEMENTARY EDUCATION

Prerequisites: Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 633—Teaching Reading in the Elementary Grades .....	3 hrs.
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	6 hrs.
Education 683—Elementary School Curriculum .....	3 hrs.
Education 753—Teaching the Language Arts .....	3 hrs.
Education 763—Teaching the Social Studies .....	3 hrs.
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	9 hrs.

### SUGGESTED CURRICULUM FOR A MAJOR IN SCHOOL ADMINISTRATION (ELEMENTARY SCHOOL PRINCIPAL) ELEMENTARY SCHOOL

Prerequisites: Legal certificate valid for teaching in the Elementary School and the following courses:

Teaching of Reading in the Elementary Grades .....	3 hrs.
Teaching of Science in the Elementary Grades .....	3 hrs.
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	6 hrs.
Psychology 533—Fundamentals of Statistics .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 683—Elementary School Curriculum .....	3 hrs.
Education 753—Teaching the Language Arts in the Elementary School .....	3 hrs.
Education 763—Teaching Social Studies in the Elementary School .....	3 hrs.
Administration 713—Fundamentals of School Administration .....	3 hrs.
Supervision 753—Principles and Practices of Supervision .....	3 hrs.
Education 713—School and Community Relations .....	3 hrs.
Administration 633—Elementary School Administration .....	3 hrs.
Administration 523—Administration of Student Personnel .....	3 hrs.
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	30 hrs.

### SUGGESTED CURRICULUM FOR A MAJOR IN SCHOOL ADMINISTRATION (SECONDARY SCHOOL PRINCIPAL)

Prerequisites: Legal certificate valid for teaching in Secondary School Subjects and six-hours of advance secondary level methods

Psychology 533—Fundamentals of Statistics .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 583—Secondary School Curriculum .....	3 hrs.
Administration 713—Fundamentals of School Administration .....	3 hrs.
Supervision 753—Principles and Practices of Supervision .....	3 hrs.
Education 713—School and Community Relations .....	3 hrs.
Administration 533—High School Administration .....	3 hrs.
Administration 523—Administration of Student Personnel .....	3 hrs.
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	24 hrs.

### SUGGESTED CURRICULUM FOR A MINOR IN ADMINISTRATION

Prerequisites: Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 683—Elementary School Curriculum or	
Education 583—Secondary School Curriculum .....	3 hrs.
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	6 hrs.
Administration 713—Fundamentals of School Administration .....	3 hrs.
Supervision 753—Principles and Practices of Supervision .....	3 hrs.
Administration 633—Elementary School Administration or	
Administration 533—High School Administration .....	3 hrs.
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	9 hrs.

### SUGGESTED CURRICULUM FOR A MAJOR IN SUPERVISION OF INSTRUCTION (ELEMENTARY SCHOOL)

Prerequisites: Legal certificate valid for teaching in the elementary school and the following courses:

Teaching of Reading in the Elementary Grades .....	3 hrs.
Teaching of Science in the Elementary Grades .....	3 hrs.
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	6 hrs.

Psychology 533—Fundamentals of Statistics .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 683—Elementary School Curriculum .....	3 hrs.
Education 753 —Teaching the Language Arts in the Elementary School .....	3 hrs.
Education 763—Teaching Social Studies in the Elementary School .....	3 hrs.
Supervision 753—Principles and Practices of Supervision .....	3 hrs.
Education 713—School and Community Relations .....	3 hrs.
Administration 633—Elementary School Administration .....	3 hrs.
Supervision 643—Elementary School Supervision .....	3 hrs.
Supervision 673—Trends in Supervision (Seminar) .....	3 hrs.

30 hrs.

### SUGGESTED CURRICULUM FOR A MAJOR IN SUPERVISION OF INSTRUCTION ( SECONDARY SCHOOL )

Prerequisites: Legal certificate valid for teaching in secondary school subjects and six hours advanced secondary level methods.

Psychology 533—Fundamentals of Statistics .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 583—Secondary School Curriculum .....	3 hrs.
Supervision 753—Principles and Practices of Supervision .....	3 hrs.
Education 713—School and Community Relations .....	3 hrs.
Administration 533—High School Administration .....	3 hrs.
Supervision 663—High School Supervision .....	3 hrs.
Supervision 673—Trends in Supervision (Seminar) .....	3 hrs.

24 hrs.

### SUGGESTED CURRICULUM FOR A MINOR IN SUPERVISION

Prerequisites: Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 683—Elementary School Curriculum or	
Education 583—Secondary School Curriculum .....	3 hrs.

6 hrs.

Administration 713—Fundamentals of School Administration .....	3 hrs.
Supervision 753—Principles and Practices of Supervision .....	3 hrs.
Supervision 643—Elementary School Supervision or	
Supervision 663—High School Supervision .....	3 hrs.

9 hrs.

### SUGGESTED CURRICULUM FOR A MINOR IN SPECIAL EDUCATION

Prerequisites: Psychology 563—Mental Adjustment .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Psychology 523—Principles and Practices of Educational Measurement.....	3 hrs.

9 hrs.

Education 603—A Survey Course in Education of Exceptional Children .....	3 hrs.
Education 613—Problems and Methods of Teaching Mentally Retarded Children .....	3 hrs.
Education 873—Adjustment of Teaching for Exceptional Children .....	3 hrs.
Education 853—Introduction to Speech Correction .....	3 hrs.

12 hrs.

### GRADUATE MAJOR IN SECONDARY EDUCATION

Prerequisites: Legal certificate valid for teaching in secondary school subjects; minor in content (subject matter) field.

Psychology 533—Fundamental of Statistics .....	3 hrs.
Psychology 593—Pupil Growth and Development .....	3 hrs.
Education 503—Principles of Secondary Education .....	3 hrs.
Education 583—Secondary School Curriculum .....	3 hrs.
Education 673—Methods of Teaching Secondary School Subjects .....	3 hrs.
Education 713—School and Community Relations .....	3 hrs.
Administration 533—High School Administration or	
Supervision 673—High School Supervision .....	3 hrs.

21 hrs.

### MINOR IN SECONDARY EDUCATION

Education 503—Principles of Secondary Education .....	3 hrs.
Education 583—Secondary School Curriculum .....	3 hrs.
Education 673—Methods of Teaching Secondary School Subjects .....	3 hrs.

9 hrs.

## SUGGESTED CURRICULUM FOR A MAJOR IN GUIDANCE

Prerequisites: Legal certificate valid for appropriate grade level served.	
Psychology 593—Pupil Growth and Development .....	3 hrs.
Guidance 543—Principles and Philosophy of Guidance .....	3 hrs.
Guidance 683—Organization and Administration of a Guidance Program .....	3 hrs.
Guidance 583—Occupational and Educational Information .....	3 hrs.
Psychology 553—Fundamentals of Statistics .....	3 hrs.
Psychology 513—Psychological Testing .....	3 hrs.
Guidance 733—Principles of Counseling .....	3 hrs.
	21 hrs.

## SUGGESTED CURRICULUM FOR A MINOR IN COUNSELING

Psychology 553—Psychology of Adjustment or Psychology 563—Mental Hygiene .....	3 hrs.
Guidance 733—Principles of Counseling .....	3 hrs.
Psychology 603—Theory of Counseling .....	3 hrs.
Guidance 603—Supervised Practice in Counseling and Guidance .....	3 hrs.
	12 hrs.

## SUGGESTED CURRICULUM FOR A MINOR IN GUIDANCE

Guidance 543—Principles and Philosophy of Guidance .....	3 hrs.
Guidance 693—Organization and Administration of a Guidance Program .....	3 hrs.
Guidance 583—Occupational and Educational Information .....	3 hrs.
Guidance 733—Principles of Counseling .....	3 hrs.

## ADMINISTRATION

513. VOCATIONAL GUIDANCE. (3-0) *Credit 3.* Open to all graduate students. Surveys required of all students. Vocational Guidance as a means of contributing to major objectives of secondary education; typical centers, movements, and programs as now carried on. Reading and reports.

523. ADMINISTRATION OF STUDENT PERSONNEL. (3-0) *Credit 3.* Open to students of senior and graduate standing. Common personnel problems of administrators and supervisors such as extra-curricular activities, guidance, student-faculty relationship, health, admission, discipline, records and reports, et cetera.

533. HIGH SCHOOL ADMINISTRATION. (3-0) *Credit 3.* A survey of problems in High School Administration with emphasis on the organization, administration and supervision of the high school program.

553. ELEMENTARY SCHOOL PRINCIPAL'S WORKSHOP. *Credit 3.* Study and solution of problems arising in elementary schools.

563. CHILD ACCOUNTING. (3-0) *Credit 3.* Principles and systems of child accounting Courses, attendance, progress, achievement, classification, and guidance records and reports.

633. ELEMENTARY SCHOOL ADMINISTRATION. (3-0) *Credit 3.* A survey of problems in elementary school administration with emphasis on the organization, administration and supervision of the high school program.

653. HIGH SCHOOL PRINCIPAL'S WORKSHOP. *Credit 3.* Study and solution of problems arising in secondary schools.

713. FUNDAMENTALS OF SCHOOL ADMINISTRATION. (3-0) *Credit 3.* General Principles of organization and administration with emphasis on problems of federal, state, and local school administrative organization.

763. PRINCIPLES OF RURAL SCHOOL ADMINISTRATION. (3-0) *Credit 3.* Open to graduate students holding administrative and supervisory positions in rural areas. Principles, practices, and problems of school administration with emphasis upon problems of schools located in rural areas. Reports required of all.



## ELEMENTARY EDUCATION

563. TEACHING OF ARITHMETIC IN ELEMENTARY GRADES. (3-0) *Credit 3*. A survey of current issues, including: teaching arithmetic through pupil's first-hand experiences, the place of meaning, thinking, and drill in effective learning, the grade placement of topics in arithmetic, approved procedures in adapting instruction to pupils of varying ability.
633. IMPROVEMENT OF READING INSTRUCTION. (3-0) *Credit 3*. Problems in the teaching of reading in elementary, junior and senior high schools. Analyzing student needs, using appropriate remedial and developmental techniques, providing for individual differences, and developing basic insights for continued growth of reading efficiency.
643. IMPROVEMENT OF READING INSTRUCTION. (3-0) *Credit 3*. Problems in the teaching of reading in elementary, junior and senior high schools. Analyzing student needs, using appropriate remedial and developmental techniques, providing for individual differences, and developing basic insights for continued growth of reading efficiency. (Graduate).
653. ARTS AND CRAFTS IN PUBLIC SCHOOL. (3-0) *Credit 3*. Teaches prospective elementary teachers how to present art to children.
663. SPECIAL PROJECTS IN PUBLIC SCHOOL ART. (3-0) *Credit 3*. Methods, procedures and phases of teaching art; problems of art education and methods of teaching art.
683. ELEMENTARY SCHOOL CURRICULUM. (3-0) *Credit 3*. Study of important developments in elementary education with particular attention to methods and materials which may be used to improve the development of pupils in elementary schools. Problems which are encountered in day-to-day teaching situations receive much attention.
743. PROBLEMS OF THE ELEMENTARY TEACHER. (3-0) *Credit 3*. Open to undergraduates who are teachers in service and to graduate students. Special projects, investigations, and reports required; attention given to problems presented by members of the class as the outgrowth of their experiences.
753. TEACHING THE LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. (3-0) *Credit 3*. For those interested in guiding and directing children of elementary school age in reading and in oral and written composition; special emphasis placed on diagnosis and remedial work in reading.
763. TEACHING SOCIAL STUDIES IN THE ELEMENTARY GRADES. (3-0) *Credit 3*. Emphasis upon improving the social learning which grows out of the entire life of children both in and out of school. Selection and organization of content, learning activities, problem solving and social acting skills, building social values and developing methods of unified and correlated social studies program.
773. TEACHING OF SCIENCE IN THE ELEMENTARY GRADES. (3-0) *Credit 3*. Emphasis is placed upon the principles, materials and methods of teaching science, and its influence upon the development of children, in the elementary grades. Laboratory work is designed to help the teacher develop a background of science understanding with suitable experiments, and suggestions for appropriate equipment and suitable materials for various age levels.
783. MODERN PRACTICES IN ELEMENTARY EDUCATION. (3-0) *Credit 3*. For in-service teachers.
793. DIAGNOSIS AND REMEDIAL TREATMENT OF ELEMENTARY SCHOOL SUBJECTS. (3-0) *Credit 3*. Techniques of diagnosis and remedial treatment of difficulties in the various elementary school subjects at all levels.
813. KINDERGARDEN METHODS AND MATERIALS. (3-0) *Credit 3*. A study of selection and use of materials for program organization, creative self-expression, physical and mental activities, directing work habits and informal experiences in language arts in number work.
823. METHODS OF TEACHING ART IN THE ELEMENTARY GRADES. (3-0) *Credit 3*. Procedures, methods and techniques of teaching Art in the Elementary School.

## GENERAL EDUCATION

703. MODERN EDUCATION TENDENCIES. (3-0) *Credit 3.* Current educational doctrines and controversies; fundamental problems considered with a view to the development of integrated outlook.

714. SCHOOL AND COMMUNITY RELATIONS. (3-0) *Credit 3.* Place of education, the responsibility of the public school, the curriculum, the reorganization of the educational administrative structure, and the provisions of special educational services, as they relate to child and community needs and methods for their provision from the standpoint of the whole child and the community as a whole. The community centered school philosophy emphasized.

733. THE RURAL ELEMENTARY CURRICULUM. (3-0) *Credit 3.* For rural school principals, supervisors and teachers specifically concerned with curriculum adaptations in rural elementary schools. The development of the curriculum in terms of environment, resources, and needs; and specifically adapted organization for school of one to four teachers; procedures for discovering environmental resources and needs and conditions in sample rural communities considered in their implications for selection and organization of curriculum materials.

803. PROBLEMS IN THE EDUCATION OF NEGROES. (3-0) *Credit 3.* Special problems in the education of Negroes which result from segregation and discrimination: attention given to such problems as adequacy of public education, equality of opportunities, the general status of Negro schools, educational facilities, etc.

843. TECHNIQUES IN EDUCATIONAL RESEARCH. (3-0) *Credit 3.* Study of research in education, the sources of information and techniques available, and approved form and style in preparation of research reports and thesis.

863. AUDIO-VISUAL AID. (3-0) *Credit 3.* Practical experience in the use of audio-visual aids, construction and development of various audio-visual aids and devices; sources of audio-visual aids; selection, evaluation and techniques of using audio-visual aids in education; study of movie projectors, slides, film strips, opaque projectors, etc.

913. HISTORY OF EDUCATION IN AMERICA. (3-0) *Credit 3.* Historical background of American Education and an analysis of the origin and development of educational practices.

## GUIDANCE

543. PRINCIPLES AND PHILOSOPHY OF GUIDANCE. (3-0) *Credit 3.* Introductory course. Survey of the field; emphasis on the role of the classroom teachers, supervisors, counselors and other persons in personnel work.

583. EDUCATIONAL AND OCCUPATIONAL INFORMATION. (3-0) *Credit 3.* Where and how to get facts and assemble information about occupations and education. To learn the methods of evaluating and using collected information.

603. SUPERVISED PRACTICE IN COUNSELING AND GUIDANCE. (3-0) *Credit 3.* This course deals with actual counseling experience. The class will be built around the problems encountered in the counseling situation, case discussions, role playing, demonstration of counseling, observations of counseling interviews, and a limited amount of counseling under supervision.

683. ORGANIZATION AND ADMINISTRATION OF A GUIDANCE PROGRAM. (3-0) *Credit 3.* Emphasis is placed upon purposes and functions of guidance services; initiating, organizing, and promoting a guidance program; selecting organizing, and using adequate tools, techniques, and physical facilities for guidance; developing and using evaluative procedures for a program of guidance; relationships, status and scope of the guidance program to the total school and community.

733. PRINCIPLES OF COUNSELING. (3-0) *Credit 3.* Introductory course, survey of the area; emphasis on acquainting the student with counseling as it relates to the total development of the individual through a study of the basic principles.

743. SEMINAR IN COUNSELING AND GUIDANCE (Research). (3-0) *Credit 3*. Opportunity will be given to advance graduate students to undertake individual research on counseling, guidance, and testing problems worthy of investigation. The nature of the research will be governed by the particular needs and abilities of each student.

## PSYCHOLOGY

513. PSYCHOLOGICAL TESTING. (3-0) *Credit 3*. Theory and Practice of Psychometrics, emphasis upon the individual intelligence test. Students will study a variety of tests and analyze the results.

523. PRINCIPLES AND PRACTICES OF EDUCATIONAL MEASUREMENT. (3-0) *Credit 3*. The place of tests and measurements in education; selection and construction of the most commonly used tests and measurements. Prerequisite: Education 433. See Education 433 in undergraduate catalog.

533. FUNDAMENTALS OF STATISTICS. (3-0) *Credit 3*. Understanding and techniques of collecting, tabulating and computing statistical data from central tendency through variability, relationship, and the significance of differences among such measures.

543. PSYCHOLOGY OF PERSONALITY. (3-0) *Credit 3*. Evaluation of theories in the field of personality. The development of personality as a pattern of strivings manifested in interpersonal relation. The convergence of constitutional, psychological, social cultural factors in the development of the normal individual and his adjustments.

553. PSYCHOLOGY OF ADJUSTMENT. (3-0) *Credit 3*. A systematic treatment of the principles of the dynamic psychology of human adjustment. The whole individual and how he adjusts to the situation—both outer and inner that confront him are considered.

563. MENTAL ADJUSTMENT. (3-0) *Credit 3*. Personality as an integrated force; psychology of the adjusted school child. Prerequisite: Psychology 103.

573. PSYCHOLOGY FOR STUDENTS OF EDUCATION. (3-0) *Credit 3*. See Education 383 in current catalog. General principles of human psychology as they relate to the learning process.

583. PSYCHOLOGY OF EXCEPTIONAL CHILDREN. (3-0) *Credit 3*. A study of the special psychological and educational problems of the child who deviates from the normal. Behavior patterns of the mentally retarded, the physically handicapped, and the superior children will be considered.

593. PUPIL GROWTH AND DEVELOPMENT. (3-0) *Credit 3*. A study of the growth and development of the individual. Emphasis on problems of inheritance, growth, learning, intelligence, emotion, and personality. Consideration given to fundamental psychological needs of the organism and the conditions under which they may be realized. Applications to educational procedure, on home, school and community.

603. THEORY OF COUNSELING. (3-0) *Credit 3*. To provide a perceptual framework specific to the counseling process and to familiarize the student with the many inter-relationships that enter into the counselor's contribution to total mental health program. The course will also give the student a laboratory introduction to actual counseling.

623. MEASUREMENT OF APTITUDE. (3-0) *Credit 3*. The course will be concerned with the nature of vocational aptitudes and the means of disclosing them. Practice in the application of tests and the interpretation of data will provide.

## SECONDARY EDUCATION

503. PRINCIPLES OF SECONDARY EDUCATION. (3-0) *Credit 3*. See general catalogue for course description, Education 313; Graduate students will be required to develop term papers and give special reports. Prerequisites: Education 113, 333.

583. SECONDARY SCHOOL CURRICULUM. (3-0) *Credit 3*. Principles of organizing and developing the high school curriculum, analyzed in relationship to the "prescribed" and "teacher made" course-of-study in individual schools. Various types of curriculum organization and the related teacher-pupil activities are studied in terms of community and

pupil needs. Methods and materials of the related activities of the curriculum, aside from instruction, are given consideration.

673. METHODS OF TEACHING SECONDARY SCHOOL SUBJECTS. (3-0) *Credit 3.* General methods treating the principles and practices of successful high school teaching.

## SPECIAL EDUCATION

603. A SURVEY COURSE IN THE EDUCATION OF EXCEPTIONAL CHILDREN. (3-0) *Credit 3.* Foundations for special education set forth; its history, philosophy, policy, case studies, measurements and guidance, selection, organization and qualifications of teachers.

613. PROBLEMS AND METHODS OF TEACHING MENTALLY RETARDED CHILDREN. (3-0) *Credit 3.* Characteristics and needs of the mentally retarded child; principles of adapting the curriculum materials and methods of teaching to the needs of the retarded child.

623. SPEECH PROBLEMS OF EXCEPTIONAL CHILDREN. (3-0) *Credit 3.* This course aims to acquaint the student with the speech problems connected with the education of the atypical child—the blind, the deaf, the crippled, speech defective, mentally retarded, partially seeing, cerebral palsied, gifted, and delicate.

643. CORRECTION OF SPEECH DISORDERS. (3-0) *Credit 3.* Designed to acquaint the student with speech disorders normally found in the public school population, including some pathology, management, and therapy.

693. AUDITORY TRAINING AND LIP READING. (3-0) *Credit 3.* Review of hearing disorders, use of hearing aid and its employment in auditory training and hearing rehabilitation, use of group auditory training units and principles and practice of speech reading.

853. INTRODUCTION TO SPEECH CORRECTION. (3-0) *Credit 3.* Training in the recogni-

853. INTRODUCTION TO SPEECH CORRECTION. (3-0) *Credit 3.* Training in the recognition, diagnosis, and treatment of minor speech defects, with discussion of classroom handling of major speech defects.

873. ADJUSTMENT OF TEACHING FOR EXCEPTIONAL CHILDREN. (3-0) *Credit 3.* Objectives of education for exceptional children and the curricular experiences which may attain them. Ways and mean of adapting materials and methods to special needs of exceptional children.

893. ADVANCED SPEECH CORRECTION. (3-0) *Credit 3.* A consideration of speech disorders traceable to the failure of some part of the speech apparatus to perform its basic and acquired functions, attention given to specific disorders as (a) articulatory defects, (b) cerebral palsy, (c) stuttering, (d) cleft palate, (e) laryngectomy, and less common disorders. Lectures, demonstrations, and case presentations.

## SUPERVISION

643. ELEMENTARY SCHOOL SUPERVISION. (3-0) *Credit 3.* Study of important developments in elementary Education with particular attention given to methods and materials which may be used to improve the development of pupils in elementary schools. Problems which are encountered in day-to-day teaching situations received much attention.

673. TRENDS IN SUPERVISION (Seminar). *Credit 3.* (3-0) Trends in the supervision of elementary and secondary public schools with emphasis upon democratic practices related to objectives, content, materials, methods of planning and presenting lessons, evaluation of teaching as well as supervision and the development of skills in group dynamics.

663. HIGH SCHOOL SUPERVISION. (3-0) *Credit 3.* The nature and philosophy of supervision, the needs of supervision, the activities of supervisors, the promotion of teacher growth, and the appraisal of teaching efficiency in the high school.

723. RURAL SCHOOL SUPERVISION. (3-0) *Credit 3.* Principles underlying presentday supervision. Relationship of classroom teachers to supervisor, principal and superintendent.

753. PRINCIPLES AND PRACTICE OF SUPERVISION. (3-0) *Credit 3.* Open to graduate students who hold or are appointed to supervisory or administrative positions or who have consent of Director. Some practice in application of principles required of all. Principles, practices and problems of supervision. Special attention is given to organization for supervision, supervisory programs, research in supervision, cooperation of special agencies, and qualification for supervisors.

773. THE HIGH SCHOOL PRINCIPAL AS A SUPERVISOR. (3-0) *Credit 3.* Improvement of instruction; evaluation of teaching procedures; selection and use of textbooks and other instructional materials in elementary grades.

783. THE ELEMENTARY SCHOOL PRINCIPAL AS A SUPERVISOR. (3-0) *Credit 3.* Improvement of instruction; evaluation of teaching procedures; selection and use of textbooks and other instructional materials in elementary grades.

793. SUPERVISOR'S WORKSHOP. (3-0) *Credit 3.* Study and solution of problems arising in the supervision of learning experiences.

## ENGLISH

### REQUIREMENTS FOR A MASTER OF ARTS DEGREE IN THE DEPARTMENT OF ENGLISH

#### ADMISSION:

For admission to graduate study in English a student should present at least an undergraduate minor, 15 semester hours in this field, excluding the English courses required of all students and English 463, the Teaching of English, which is counted as Education. A student is expected to pass an English Proficiency Test before admission to candidacy is approved.

Prerequisite courses such as The English Language (English 353), The Teaching of English: Education (English 463), which the student did not take while an undergraduate at this college, must be taken before the student begins the courses in the graduate program.

#### REQUIREMENTS FOR THE GRADUATE DEGREE:

Requirements are stated in terms of minimum essentials. Students are urged to indicate some effort at enrichment of background by including in their program more than the minimum essentials. The following courses are required to fulfill the 20 credit hours for a graduate major in English. The 20 credit hours must be in courses on the graduate level—numbered 500 or above:

#### THE MAJOR

<i>Course Number</i>	<i>Credit Hours</i>
English 533 .....	3
English 583 .....	3
English 513 .....	3
English 753 .....	3
English 803 .....	3
English 813 .....	3

#### THE MINOR

The following courses are required to fulfill the 12 credit hours required for a graduate minor in English:

<i>Course Number</i>	<i>Credit Hours</i>
English 513 .....	3
English 533 .....	3
English 753 .....	3
English 823 .....	3

For both the major and the minor, the candidate's program of studies is always subject to revision and approval by the Department.

## DESCRIPTION OF COURSES

### ENGLISH

513. STUDIES AND PROBLEMS IN SPEECH. (ENG 513 SPCH PROBL) *Credit 3.* Problems in speech activities confronting the secondary school teacher such as discussion, debate, dramatics, public speaking, radio and television.

523. TRAINING OF THE SPEAKING VOICE. (ENG 523 TRNG VOCE) *Credit 3.* Voice training for the teacher: to establish correct breathing habits and proper focusing of tone; to overcome voice problems such as nasality, throatiness, breathiness, and vocal fatigue; to develop efficient and pleasing use of the voice.

533. NINETEENTH CENTURY PROSE. (ENG 533 19TH CENT) (3-0) *Credit 3.* Ideas, political and social conditions as revealed in the writings of chief representatives of the period.

543. A STUDY OF THE SHORT STORY. (ENG 543 SHRT STRY) (3-0) *Credit 3.* Study and analysis of the short story.

553. WORLD MASTERPIECES. (ENG MASTERPCS) (3-0) *Credit 3.* Selected classics read in translation.

562. MILTON. (ENG 563 MILTON) (2-0) *Credit 3.* Chief poetic and prose works.

572. WORDSWORTH AND COLERIDGE. (ENG 572 WORDSWORTH) (2-0) *Credit 2.* Advanced critical study of poetry and prose works.

583. THE NOVEL. (ENG 583 NOVEL) (3-0) *Credit 3.* Relations between literature and social conditions as revealed in outstanding examples in the field of the novel.

592. BROWNING AND TENNYSON. (ENG 592 BROWNING) (2-0) *Credit 2.* Study and analysis of chief poetic works; comparative studies.

616. DRAMATIC WORKSHOP. (ENG 616 DRAM WKSP) (6-0) *Credit 6.* Opportunity for the graduate student to study all phases of drama, to assist and participate in the presentation of at least one play to be given on the campus during the summer. Field trips involving summer theatre productions and radio productions in Houston required.

623. PLAY PRODUCTION. (ENG 623 PLAY PROD) (3-0) *Credit 3.* Methods and principles involved in the directing of high school plays.

653. JOURNALISTIC WRITING AND PUBLICITY METHODS. (ENG 653 JOURNALISM) *Credit 3.* Practical Work in the forms.

753. SEMINAR IN MASTERPIECES OF LITERATURE. (ENG 753 SEMINAR) (3-0) *Credit 3.* Historical and comparative study of masters of English and American literature.

803. BIBLIOGRAPHY AND METHODS OF RESEARCH. (ENG 803 RESEARCH) (3-0) *Credit 3.* Exercises in minor research projects.

813. LITERARY CRITICISM. (ENG 813 CRITICISM) (3-0) *Credit 3.* Study of the great critics—classical, foreign, English, and American—from Plato to T. S. Eliot.

823. SEMINAR IN THESIS WRITING. (ENG 823 THESIS) (3-0) *Credit 3.* Open only to candidates who are now working on their thesis in English.

833. STUDIES IN THE TEACHING OF ENGLISH. (ENG 833 TCHG ENG) (3-0) *Credit 3.* Modern and contemporary English and American authors.

863. STUDIES IN THE ROMANTIC PERIOD. (ENG 863 ROMANTIC) (3-0) *Credit 3.*

873. ENGLISH WORKSHOP IN THE LANGUAGE ARTS. (ENG 873 WORKSHOP) (3-0) or (6-0) *Credit 3 or 6.*

883. CHAUCER. (ENG 883 CHAUCER) (3-0) *Credit 3.* The Canterbury Tales; linguistic studies.

In the summer session 1957 a student may begin a program which provides for both a major and a minor in the Department of English, major: Language and Literature, minor: Speech and Drama. To fulfill requirements for a Minor in Speech and Drama the following courses are required:

English 513—Studies and Problems in Speech .....	Credit 3
English 523—Training of the Speaking Voice .....	Credit 3
English 613—Dramatic Workshop .....	Credit 6
English 623—Play Production .....	Credit 3

## HISTORY

Majors and minors are offered in the Department of History and Philosophy. Students desiring a major in History should consult with the Head of the Department and plan a program in conjunction with the Major Professor.

All students are required to take a course in Research. Majors in History should register for History 563.

Arrangements should be made to take this course as early as possible after the commencement of work for the Master's Degree.

The offerings in History on the graduate level have been divided into three fields: (1) European History; (2) American History; (3) Training and Special Courses in History.

Twenty hours of satisfactory work are required for a major in the field of History, and ten hours for the minor. The satisfactory completion of a thesis, the subject of which to be determined in consultation with major professor, is required of all persons graduating with a major in this field. Minors in this field are allowable only if the candidate can demonstrate that the techniques in this field are necessary for his research project or that the minor field is reasonably associated with the major specialty in content and orientation.

Prerequisites for majoring or minoring in the field of History are: (a) lower college courses in American and European History corresponding to the lower college offering in the field at Prairie View; (b) at least an advance course in either modern and/or contemporary European or American History; (c) a cumulative average of "B" in their social science courses on the undergraduate level; (d) preliminary to the graduate regulation on candidacy for the degree, no person shall be acceptable for pre-candidacy status if at the end of the first semester he has not shown the proper inclination to master the skills and attitudes attendant upon graduate study.

### MASTER OF ARTS IN HISTORY WITH AMERICAN ORIENTATION

<i>Course</i>	<i>Hrs.</i>	<i>Course</i>	<i>Hrs.</i>
History 533 or 543—England, 1485 to the present .....	3	History 623—Problems in Latin American History .....	3
History 553—Europe, 1914 to the present .....	3	History 663—Great American Historians (elective)	
History 563—Historical Methods .....	3	History 613—American Revolution and the Constitution (elective)	
History 693—The New South, 1865 to the present .....	3	History 633 or 643—American Foreign Relations, 1775 to the present (elective)	
History 653—Contemporary U. S. History, 1898 to present .....	3	History 593 or 583—History of Civilization (elective methods)	

**MASTER OF ARTS IN HISTORY WITH  
EUROPEAN ORIENTATION**

<i>Course</i>	<i>Hrs.</i>	<i>Course</i>	<i>Hrs.</i>
History 533 or 543—England, 1485 to the present .....	3	History 623—Problems in Latin American History .....	3
History 553—Europe, 1914 to the present .....	3	History 563—Historical Methods .....	3
History 733—History of the Far East .....	3	History 633 or 643—American Foreign Relations, 1775 to the present (elective)	
History 523—Imperialism .....	3	History 653—Contemporary U. S. History, 1898 to present (elective)	
History 513—French Revolution and Napoleon (elective)		History 583 to 593—History of Civilization (elective Methods)	

Students seeking a Master's Degree in History should present well chosen courses from these fields and pursue further work in one field or a combination of fields in consultation with the Department of History.

**I. EUROPEAN HISTORY**

513. FRENCH REVOLUTION AND NAPOLEON. (HIST 513 FRENCH REV) (3-0) *Credit 3*. Causes of the revolution; reforms and discipline by Napoleon.

523. IMPERIALISM. (HIST 523 IMPERIAL) (3-0) *Credit 3*. Era of Imperialism; causes, results and techniques.

533 and 543. ENGLAND, 1485 TO THE PRESENT. (HIST 533 543 ENGLAND) (3-0) *Credit 3*. I. Development of Britain in modern historical perspective; Tudors and the Reformation; the Stuarts and Parliament; English expansion under Parliamentary; the Era of Reform and Empire; and World War I, Britain between the wars; the fight for survival—global war. Lectures, discussions, special reports. Offered in odd years.

553. EUROPE, 1914 TO THE PRESENT. (HIST 553 EUROPE) (3-0) *Credit 3*. I. 20th Century European development in its world setting; the background and causes of World War I; the war itself; the Versailles settlement and postwar efforts 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—form the subject matter of the course. Lectures, discussions, special reports. Offered in odd years.

**II. AMERICAN HISTORY**

613. AMERICAN REVOLUTION AND THE CONSTITUTION. (HIST 613 AMER REV) (3-0) *Credit 3*. Revolutionary philosophy; declaration of independence; union and drafting the constitution.

633 and 643. AMERICAN FOREIGN RELATIONS, 1775 TO THE PRESENT. (HIST 633 643 FOR RELT) (3-0) *Credit 3*. I and II. The United States in its relations with Latin-America and the rest of the world; public opinion and the economic, social and political forces that have determined American foreign policy and the agencies through which that policy has been executed. May be taken as Political Science 533 and 543.

653. CONTEMPORARY UNITED STATES HISTORY, 1898 TO THE PRESENT. (HIST 653 CONTEMPRY) (3-0) or (2-0) *Credit 3 or 2*. II. Twentieth Century American development thus: 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." Lectures, discussions, special reports.

663. ECONOMIC HISTORY OF THE UNITED STATES. (HIST 663 U S ECON) (3-0) *Credit 3*. I. 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 various mass movements; industrialization of the country and the necessity for governmental regulations; historical interpretation of trade unions, employer's associations, cooperatives. Lectures, discussions, readings, special reports.

673. ECONOMIC HISTORY OF THE SOUTH. (HIST 673 SOUTH ECO) (3-0) *Credit 3*. II. The agricultural and industrial development of the South; the industrialization of the



Southwest; field trips, contact with state historical societies to obtain documents, and preparation for the writing and publication of materials.

683. SECTIONALISM AND CIVIL WAR, 1700-1865. (HIST 683 SECTIONISM) (3-0) *Credit 3*. I. Regional hypothesis; socio-economic regionalism; government, politics, and the regional compromise in the middle period; ideas in imbrogio—issues and men; reconstruction and the new nation. Lectures, discussions, special reports.

693. THE NEW SOUTH, 1865 TO THE PRESENT. (HIST 693 NEW SOUTH) (3-0) *Credit 3*. II. 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. Lectures, discussions, readings, special reports.

703. GREAT AMERICAN HISTORIANS. (HIST 703 AMER HIST) (3-0) *Credit 3*. Survey of the writers of American history; their sociological, economic and political motivations.

### III. THE TRAINING AND SPECIAL COURSES

473. TECHNIQUES OF TEACHING HISTORY. (HIST 503 TCHG HIST) (3-0) *Credit 3*. Testing devices; visual aids; historical methods.

563. SURVEY OF THE CRITICAL ATTITUDE AND TOOLS OF SCIENTIFIC HISTORY. (HIST 563 TOOLS) (3-0) *Credit 3*. I or II. History and its relation to the Social Sciences; the Social Sciences; the subject and the collection and classification of sources; the criticism of data; exposition or the presentation of historical evidence. Lectures, laboratory exercises, special reports. History majors register for History 563.

572. HISTORICAL INVESTIGATIVE PAPER. (HIST 572 INV PAPER) (2-0) *Credit 2*. I and II. Credit allowed upon satisfactory completion of required thesis.

583. HISTORY OF CIVILIZATION TO 1500. (HIST 583 CIVILZATN) (3-0) *Credit 3*. Ideals and institutions connected with the political, social and economic life during periods of Greece, Rome, Feudalism, Renaissance, Reformation. Lectures, readings, tests, and special reports.

593. HISTORY OF CIVILIZATION FROM 1500 TO THE PRESENT. (HIST 593 CIVILZATN) (3-0) *Credit 3*. Ideals and institutions connected with political, social and economic life in the period of rational liberalism and nationalism, the French Revolution, Nineteenth Century English liberalism, nationalistic unifications, socialism, imperialism, and Twentieth Century fascism and democracy. Lectures, readings, test and special reports.

603. WESTERN AMERICAN HISTORY. (HIST 603 WEST AMER) (3-0) *Credit 3*. II. Seminar in the exploration, settlement and development of the region west of the Mississippi; designed in discover and preserve materials on the early Spanish, French, African and Anglo-Saxon explorations and the contributions of the immigrants who made their homes in the Western region later.

623. PROBLEMS IN LATIN-AMERICAN HISTORY. (HIST 623 LATN AMER) (3-0) *Credit 3*. I. 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.

733. HISTORY OF THE FAR EAST. (HIST 733 FAR EAST) (3-0) *Credit 3*. Political institutions of China, Japan and other Far Eastern countries.

### MATHEMATICS

A person holding the Bachelor of Science Degree with a major in Mathematics is eligible for admission to graduate study leading to the Master of Science in Mathematics with emphasis in Geometry, Algebra and Analysis.

Courses with emphasis in Geometry include:

- 343 Solid Analytic Geometry
- 363 College Geometry—Higher Plane Curves
- 713 Advanced Calculus
- 763 Differential Equations
- 773 Projective Geometry
- 783 Differential Geometry

Courses with emphasis in Algebra include:

- 703 Modern Algebra
- 713 Advanced Calculus
- 733 Advanced Algebra
- 793 Infinite Series
- 803 Numerical and Literal Solutions of Equations
- 813 Introduction to Algebraic Theory
- 833 Number Theory
- 873 Probability

Courses with emphasis in Analysis include:

- 623 Measure Theory
- 713 Advanced Calculus
- 743 Statistics
- 753 Partial Differential Equations
- 793 Infinite Series
- 853 Calculus of Variation
- 863 Real Variables
- 893 Complex Variables

## MATHEMATICS

573. HIGHER PLANE CURVES. (MATH 573 CURVES) (3-0) *Credit 3*. Properties of logarithmic curves, the lemniscate, strophoid, cardioid, witch, cycloid, epicycloids, the folium, and inversions and invariant characteristics.

623. MEASURE THEORY. (MATH 623 MEAS THRY) (3-0) *Credit 3*. Fundamental topics on sets and classes, including Lebesgue Measure, Jordan Measure, rings. Integrable simple functions and pointwise convergence.

633. THEORY OF NUMBERS. (MATH 633 NUMBERS) (3-0) *Credit 3*. Properties of H.C.F., solution of the diophantine equation  $ax + by = c$ , infinitude of primes, perfect numbers, simple continued fractions, beginning of periodicity, congruencies, residues of given order, quadratic residues, factoring by means of residues, and equations having no integral solutions.

703. MODERN ALGEBRA. (MATH 703 MOD ALG) (3-0) *Credit 3*. Fundamental concepts of Algebra, integral domains, fields. Introduction to such concepts as groups, vector spaces, and lattices.

713. ADVANCED CALCULUS. (MATH 713 ADV CALC) (3-0) *Credit 3*. Advanced topics of the calculus; differential equations. Prerequisites: Differential and Integral Calculus.

723. ANALYTIC MECHANICS. (MATH 723 ANAL MECH) (3-0) *Credit 3*. Statics, the study of equilibrium and dynamics, motion of particles, of rigid bodies, and simple cases of formable bodies under action of forces. Prerequisites: Differential and Integral Calculus.

733. ADVANCED ALGEBRA. (MATH 733 ADV ALG) (3-0) *Credit 3*. Topics not taken up in the elementary courses of college Algebra; inequalities, theory of probability, summation of series, etc. Prerequisite: College Algebra.

743. STATISTICS. (MATH 743 STATISTIC) (3-0) *Credit 3*. Processes of statistical methods with reference to applications in various fields. Prerequisite: Analytic Geometry.

753. THEORY OF EQUATIONS. (MATH 753 THRY EQUA) (3-0) *Credit 3*. Complex numbers, general calculations of the cubic and biquadratic, and Horner's and Newton's method. Prerequisites: Differential and Integral Calculus.

763. DIFFERENTIAL EQUATIONS. (MATH 765 DIFF EQUA) (3-0) *Credit 3*. Methods of solving type forms and the formulation of practical problems as solutions of differential equations. Prerequisites: Differential and Integral Calculus.

773. PROJECTIVE GEOMETRY. (MATH 773 PROJ GEOM) (3-0) *Credit 3*. Fundamental forms; harmonic sets, perspectivity and projectivity of forms, duality involution. Prerequisite: Calculus.

783. DIFFERENTIAL GEOMETRY. (MATH 783 DIFF GEOM) (3-0) *Credit 3*. Curves in the plane, space, and of surfaces; introduction to the study of curved spaces. Prerequisites: Calculus and Solid Analytic Geometry.

793. INFINITE SERIES. (MATH 793 INF SERES) (3-0) *Credit 3*. The convergence and divergence of sequences, and series; simple, absolute, and uniform convergence; summable series. Prerequisites: Differential and Integral Calculus.

803. NUMERICAL AND LITERAL SOLUTIONS OF EQUATIONS. (MATH 803 SOLUTIONS) (3-0) *Credit 3.* Methods of solving linear, simultaneous, quadratic, cubic, quartic, transcendental, and algebraic equations of higher degrees than the fourth for real roots, as well as methods for complex roots. Prerequisites: Theory of Equations, or consultation with the Head of the Department.

813. INTRODUCTION TO ALGEBRAIC THEORY. (MATH 813 ALGB THRY) (3-0) *Credit 3.* Theory of linear transformations by use of orthogonal unitary, and hermetian matrices. Linear dependence, covariants, invariants, and eliminants.

823. FINITE DIFFERENCES. (MATH 823 FINIT DIF) (3-0) *Credit 3.* Difference formulas, symbolic operators, finite integration, Bernoulli polynomials, interpolation, approximate integration, Beta and Gamma functions, and simple difference equations.

833. NUMBER THEORY. (MATH 833 NUMBER) (3-0) *Credit 3.* Solutions of linear congruences, the Pell equation and its solution by partial fraction expansion. Use of continued fractions to represent certain important constants.

853. CALCULUS OF VARIATIONS. (MATH 853 VARIATIONS) (3-0) *Credit 3.* The concept of maximizing an integral to determine a curve; Euler's equation, parametric equations, and Hamiltonian Principles, and applications to practical problems.

863. REAL VARIABLES. (MATH 863 VARIABLES) (3-0) *Credit 3.* Introduction to point sets, rigorous approach to the concept of function and limit, the Riemann integral, the Lebesgue integral, and some of their generalizations.

873. PROBABILITY. (MATH 873 PROBABLTY) (3-0) *Credit 3.* Theory of permutations, combinations, distributions, repeated trial, hitting a target, and discussion of the probability integral.

893. COMPLEX VARIABLES. (MATH 893 COMPL VAR) (3-0) *Credit 3.* Rational functions of a complex variable, conformal mapping, Cauchy-Riemann equations, analytic continuation, residues and applications.

Mathematics 433: FOUNDATIONS OF MATHEMATICS. (3-0) *Credit 3.* II. Fundamental definitions, algebraic systems, one-dimensional geometry, and topics in topology.

## MUSIC

The College offers courses leading to the degree of Master of Arts with a major in Music. This degree is open to persons holding a Bachelor of Music or Bachelor of Science or Arts with concentration in music from an institution of recognized standing. These degrees presented as entrance requirements in the graduate department must represent an amount of work equivalent to that prescribed in the School of Arts and Sciences at Prairie View A. & M. College.

Candidates for the master's degree may major in theory, piano, voice or music education.

## MUSIC EDUCATION

Requirements:

*12 to 15 hours—30 hours in all subjects*

1. Courses in the field:  
Courses in general education or psychology; or  
English Literature, Language or History as well as the music courses.  
Thesis: A written literary work involving original research.
2. Applied Music (6 hours minimum)  
Continuation of one's applied instrument.
3. Minor Cognates: Any one:—  
Aural Theory  
Written Theory  
Music Literature  
Any non-musical field of study for which the student has the requisite preparation in his bachelor's degree.

683. THE TEACHING OF MUSIC LITERATURE. (MUSC 683 TCHG LIT) (3-0) *Credit 3.* Problems in the presentation of music appreciation to high school students.

753. THE TEACHING OF VOCAL AND INSTRUMENTAL MUSIC IN THE ELEMENTARY SCHOOL. (MUSC 753 ELEM SCH) (3-0) *Credit 3.* Organization and administration of rhythm bands and small instrumental groups in the elementary school, and of choral groups.

773. PROBLEMS IN TEACHING SIGHT-SINGING AND EAR TRAINING. (MUSIC 773 SGHT SING) (3-0) *Credit 3.* Students must audit first-year courses and engage in practice teaching plus one hour of theory and one hour of lecture.

873. TEACHING OF VOCAL MUSIC IN THE HIGH SCHOOL. (MUSC RGC H S VOCAL) (3-0) *Credit 3.* Organization and administration of (a cappella) choirs, boys' chorus or glee clubs, girls' chorus or glee clubs, and voice training classes.

893. THE TEACHING OF INSTRUMENTAL MUSIC IN THE HIGH SCHOOL. (MUSC 893 H S INSTRM) (3-0) *Credit 3.* Organization and administration of bands and orchestras in the junior and senior high schools.

943. DRILL AND BAND FORMATION IN THE HIGH SCHOOL. (MUSC 943 H S BAND) (3-0) *Credit 3.* Signals, formations, maneuvers for the Marching Band; band shows and parades.

963. PIANO CLASS TEACHING. (MUSC 963 PIANO MTH) (3-0) *Credit 3.* Methods of teaching piano in groups of 10 to 30 students in the elementary and high schools.

973. SEMINAR IN MUSIC EDUCATION. (MUSC 973 SEMINAR) (3-0) *Credit 3.* Current philosophy of education; the place of music in the curriculum; review and criticism of music curricula, and evaluation of materials and methods of the various types of music schools existing in America; special study of some problems associated with that aspect of music teaching in which interested.

## THEORY

*12 to 15 hours—30 hours total for degree*

1. Thesis: A written literary work involving original research, or an arrangement of a work, or an original work for full symphony orchestra.
2. Student must include 953, 783, and 793 or 763.
3. Applied Music: (6 hours)  
Continuation of one's applied instrument
4. Minor cognate: Any one:—  
School Music  
Applied Music  
Music Literature  
Any non-musical field of study for which the student has the requisite preparation in his bachelor's degree.

*Twelve to fifteen hours (30 hours total in all subjects)*

653. ADVANCED SCORE READING. (MUSC 653 SCORE RDG) (3-0) *Credit 3.* Transposition and study of various clefs for instruments and voices; ranges of instruments; introduction to the playing of vocal and instrumental scores since the 16th century; practice in sight reading and studying such scores.

673. DICTATION AND SIGHT-SINGING. (MUSC 673 DICTATION) (3-0) *Credit 3.* Advanced courses in aural theory theory.

693. ANALYSIS OF FORM. (MUSC 693 ANAL FORM) (3-0) *Credit 3.* Practical analysis of intermediate and larger forms; eighteenth and nineteenth century harmony as illustrated in the works of Haydn, Mozart, Beethoven, Brahms, Franck, etc.

763. ADVANCED ORCHESTRATION. (MUSC 763 ADV ORCH) (3-0) *Credit 3.* Scoring for full symphony orchestra.

783. CONTRAPUNTAL AND CHROMATIC DICTATION. (MUSC 783 DICTATION) (3-0) *Credit 3.* Dictation in two and three-part counterpoint, and four-part chromatic harmony.

793. CHROMATIC AND MODERN HARMONY. (MUSC 793 MOD HARM) (3-0) *Credit 3.* Harmonic materials and technique from creative and analytical angles; harmonic idiom on the period from the late nineteenth century to the present.

833. ADVANCED ORCHESTRAL CONDUCTING. (MUSC 833 CONDUCTNG) (3-0) *Credit 3.* Conducting from chamber music and classical symphonic scores; conducting from Romantic and Modern scores. Examination of school music materials and classical symphonic scores. Interpretation of the larger forms of instrumental music.

953. ADVANCED ANALYTICAL HARMONY. (MUSC 953 ANAL HARM) (3-0) *Credit 3.* Harmonic analysis of Chorales of Bach; piano sonatas of Beethoven, violin sonatas of Brahms, and symphonic works of Mozart, Beethoven, Wagner and Franck.

## PIANO

### Requirements:

Undergraduate recital already given.

1. Three complete concertos
2. Material for two programs
3. Public performance of a concerto; chamber ensemble, and one recital program piano.
4. Must have two sequences in minor cognates as:

Aural Theory

Written Theory

Music Literature

Music Education or non-music subjects for which the student has adequate preparation. Also if desired, applied music other than

Four hours of daily practice; two one-hour lessons, one-hour studio class each week, if possible. Three hours each semester.

*12 to 15 hours credit required (In Piano alone, 30 hours total for degree)*

MUSIC 613. PIANJ. (MUSC 613 PIANO) (3-0) *Credit 3.* Three concertos of contrasting type (Mozart, Beethoven, Brahms, Schumann, Chopin, Liszt, Tchaikowsky, Rachmaninoff, etc.)

MUSIC 623. PIANO. (MUSC 623 PIANO) (3-0) *Credit 3.* Sufficient material for two programs including three or four major compositions of the classical and romantic school. These programs should also include a varied selection of the representative modern compositions.

Bach—Italian Concerto toccatos, transcription by Tausig, Busoni, Liszt, etc., Chromatic Fantasy and Fugue.

Beethoven—A sonata of the grade of difficulty of Op. 53, 57, 109, 110, 111, or Chopin Sonata, and an earlier sonata; or one of Mozart, or a modern one.

MUSIC 713. PIANO (MUSC 713 PIANO) (3-0) *Credit 3.* Romantic Composers—Schumann—(Etude Symphoniques); Franck—(Prel., Choral and Fugue); Brahms-Handel—(Variations and Fugue); Liszt—(Sonata, etc.)

MUSIC 723. PIANO (MUSC 723 PIANO) (3-0) *Credit 3.* Modern Composers—Debussy, Ravel, Schiabin, etc., Contemporary Moderns including American Composers.

## VOICE

### Requirements:

Undergraduate recital already given.

1. Two complete roles appropriate to the voice
2. Two complete oratorio roles
3. Public performance with orchestra (an aria); one recital (artist's).

Three hours of daily practice; 2 one-hour lessons; one-hour studio class if possible each week. Three hours credit each semester.

*12 to 15 hours credit required in voice alone (30 hours total for degree)*

VOICE 613. (MUSC 613) *Credit 3.* A minimum of 6 songs in each of the four languages (in addition to the undergraduate degree)—English, French, German and Italian.

- VOICE 623. (MUSC 623 VOICE) *Credit 3.* Four arias (Languages not specified).  
 VOICE 713. (MUSC 713 VOICE) *Credit 3.* Romantic Composers—Schumann; Schubert, Wagner, Liszt, etc.  
 VOICE 723. (MUSC 723 VOICE) *Credit 3.* Modern Composers—Debussy; Rachmanioff; etc., Contemporary writers including American Composers.

## DEPARTMENT OF PHYSICAL EDUCATION AND HEALTH

### REQUIREMENTS FOR MASTER OF SCIENCE DEGREE IN PHYSICAL EDUCATION

Students without undergraduate major or minor in Physical Education will be required to complete additional courses designed to give them competence in the areas of subject matter that are basic to this field. A demonstration of skill in teaching a wide variety of Physical Education activities is required. Courses listed below are prerequisite courses:

#### I. BASIC SCIENCE:

##### A. Minimum

1. Zoology (or its equivalent)
2. Anatomy
3. Physiology

#### II. HEALTH EDUCATION COURSES:

##### A. Minimum (choice of two)

1. Personal Hygiene
2. Principles of Health Education
3. Methods of Health Education
4. Health Education

#### III. TECHNICAL TRAINING IN PHYSICAL EDUCATION

- |   |         |
|---|---------|
| 1. Organization and Administration of Physical Education .. | 3 hours |
| 2. Methods and Materials in Physical Education .....        | 3 hours |
| 3. Kinesiology .....  | 3 hours |
| 4. Care and Prevention of Athletic Injuries .....           | 2 hours |
| 5. Minor Games and Sports .....                             | 2 hours |
| 6. Tests and Measurements in Physical Education.....        | 3 hours |
| 7. Adaptive Physical Education .....                        | 3 hours |
| 8. Coaching .....   | 2 hours |
| 9. Modern Dance .....                                       | 3 hours |

### PHYSICAL AND HEALTH EDUCATION

Prerequisites for a graduate major will ordinarily consist of not less than 30 semester hours of undergraduate credits in the chosen field or in some related field. A graduate minor will ordinarily be based upon not less than 12 semester hours of undergraduate work.

If the transcript of the undergraduate record of a student does not meet the above qualifications, additional satisfactory undergraduate work will be required before the student is admitted to graduate status.

It should be clearly understood that admission to the graduate school does not imply admission to candidacy for a degree.

Courses for which graduate credit may be obtained are numbered above 500. Courses numbered from 500 to 599 are for graduates and undergraduates.

Graduate courses required for a major in physical education:

613. Individual Physical Education or 763 Physical Education Curriculum . . .	3 hrs.
653. Administrative Problems in Physical Education . . . . .	3 hrs.
623. Physiology of Muscular Exercise . . . . .	3 hrs.
633. Tests and Measurements in Physical Education . . . . .	3 hrs.
703. Seminar I—Techniques of Research in Physical Education . . . . .	3 hrs.
713. Seminar II—Thesis . . . . .	3 hrs.
733. Mechanical Analysis of Motor Skills . . . . .	3 hrs.
753. Scientific Foundations of Physical Education . . . . .	3 hrs.

#### GRADUATE MINOR IN PHYSICAL EDUCATION

Students without an undergraduate major or minor in Physical Education will be required to complete additional courses. See the list of courses prerequisite for a graduate major in physical education.

Students who have satisfied undergraduate requirements will be required to take the following courses:

- 633. Tests and Measurements in Physical Education
- 653. Administrative Problems in Physical Education
- 753. Scientific Foundations of Physical Education
- 753. Physical Education Curriculum

#### DESCRIPTION OF COURSES

613. INDIVIDUAL PHYSICAL EDUCATION. (P E 613 INDIV P E) (3-0) *Credit 3.* I or II. Making a Physical Education program meet the needs of handicapped individuals; fundamental principles in the selection and adoption of activities in corrective procedure; abnormal physical conditions that come to the care or reports. Prerequisite: Physical Education 314 and 324.

623. PHYSIOLOGY OF MUSCULAR EXERCISES. (P E 623 MUSC EXER) (3-0) *Credit 3.* I or II. Affects of physical education activities on individual; general affects of exercise upon bodily functions and affects of special types of exercise upon bodily function.

633. TESTS AND MEASUREMENTS. (P E 633 TEST MEAS) (2-1) *Credit 3.* Tests available in the field for the various situation from elementary school to college. Use of various Anthropometric and strength tests instruments.

643. CONDITIONING OF ATHLETES AND CARE OF ATHLETIC INJURIES. (P E 643 INJURIES) (3-0) *Credit 3.* Conditioning athletes for the various sports; a practical course in first aid and the care of injuries in the athletic program.

653. ADMINISTRATIVE PROBLEMS IN PHYSICAL EDUCATION. (P E 653 ADM PROB) (3-0) *Credit 3.* I or II. Coordinations of the different phases of the program; administrative problems of physical education intramural and inter-collegiate athletics.

PE 703. SEMINAR—TECHNIQUES OF RESEARCH IN PHYSICAL EDUCATION. (P E 703 SEMINAR I) Techniques used in physical education research; historical, philosophical, descriptive (observation, questionnaire, interview, job analysis), experimental and comparative methods; methods of preparing bibliographies, of selecting and defining thesis problems. This course must be taken during the first semester of graduate work (*Credit 3.*)

PE 713. SEMINAR II— THESIS. (P E 713 SEMINAR) Guidance in thesis writing, analysis of data, presentation of thesis topics to seminar groups for discussion and criticism. To be taken after thesis data has been gathered or with the consent of the instructor. (*Credit 3.*)

PE 733. MECHANICAL ANALYSIS OF MOTOR SKILLS. (P E 733 MECH ANAL) Advanced kinesiological study; application to teaching methods and problems in sports, dance, body mechanics and conditioning. Prerequisite: Kinesiology. (*Credit 3.*)

753. SCIENTIFIC FOUNDATION OF PHYSICAL EDUCATION. (P E 753 FOUNDATN) (3-0) *Credit 3.* Principles taken from biology, sociology, psychology, anatomy and physiology basic to the teaching of physical education.

763. PHYSICAL EDUCATION CURRICULUM. (P E 763 CURRICULUM) (3-0) *Credit 3.* Study activities, aims, objectives and outcomes as they relate to courses of study and their construction; development of a course of study for the student's own particular situation.

## REQUIREMENTS FOR A MINOR IN HEALTH EDUCATION

### Prerequisites to a minor in Health Education

#### I. BASIC SCIENCE

##### A. Minimum: 4 hours

1. Zoology (or its equivalent) ..... 4 hours

#### II. TECHNICAL TRAINING IN HEALTH EDUCATION

##### A. Minimum: 9 hours

1. Personal Hygiene ..... 3 hours  
2. Methods and Materials in Health Education ..... 3 hours  
3. Public School and Community Hygiene ..... 3 hours

Students who have satisfied the above requirements may minor in Health Education by following the schedule below:

663. Health Care of Children ..... 3 hours  
673. Nutritional Aspects of Health Education ..... 3 hours  
863. Community Planning for Health ..... 3 hours  
693. Current Problems in Health Education ..... 3 hours

663. HEALTH CARE OF CHILDREN. (P E HLTH CARE) (3-0) *Credit 3.* The needs of the child at home and school; responsibility of the teacher, physician, nurse and administrator in providing the child with health knowledge as well as hygienic environment.

763. NUTRITIONAL ASPECTS OF HEALTH EDUCATION. (P E 673 NUTRITION) (3-0) *Credit 3.* Essentials of an adequate diet; the food of persons of different ages; and the nutritive values of common food materials considered; special concern given regarding the relationship of nutrition and health education; materials from the various agencies, diet surveys and projects included in the course.

683. COMMUNITY PLANNING FOR HEALTH. (P E 683 COMM PLAN) (3-0) *Credit 3.* Acquaints the prospective teacher of health education with the fundamentals, habits and knowledge necessary to healthful living; and an overview of prominent health problems in the school and community.

Special attention also given to progressive teaching methods and use of modern teaching aids in health education.

693. CURRENT PROBLEMS IN HEALTH EDUCATION. (P E 593 CURR PROB) (3-0) *Credit 3.* Current problems of Health Education; health services, healthful school living, and health instruction.

### MINOR IN RECREATION

#### Requirements for a Minor in Recreation

##### Prerequisites to a Minor in Recreation

- Ed. 253. Arts and crafts (see department of Education for description) ..... 3 hrs.  
P.E. 373 Program Planning in Recreation ..... 3 hrs.  
P.E. 452 Youth Agencies ..... 3 hrs.

Students who have satisfied the above requirements may minor in Recreation by following the schedule below:

- P.E. 823. Camp Administration  
Ed. 543. Principles and Philosophy of Counseling  
P.E. 833. Recreation Administration  
P.E. 843. Recreation Problems.

### DESCRIPTION OF COURSES

P.E. 823. CAMP ADMINISTRATION. (P E 823 CAMP ADM) (3-0) *Credit 3.* Organization and administration of public and private camps; their program requirements and standards; equipment, camp sites, budgets and staff; actual camping experience.

ED. 543. PRINCIPLES AND PHILOSOPHY OF COUNSELING. (EDUC 543 COHNSELNG) (See department of Education for description.)

P.E. 833. RECREATION ADMINISTRATION. (P E 833 RECREATN) (3-0) Evaluation of programs, activities, and workers, analyses of individual, group, and community needs, determining community resources for recreational programs. Administrative experience by operation of the campus program.

P.E. 843. RECREATION PROBLEMS. (P E 843 REC PROB) (3-0) *Credit 3.* Current problems in recreation; the student's own local recreational problem.



## POLITICAL SCIENCE

Students who concentrate their graduate studies in political science must elect Political Science 563 Bibliography and Methods in Political Science. Each student must also complete a master's thesis which has been prepared under the direction of and approved by the faculty of the Department of Political Science.

Prerequisites for a major in political science are: (1) an undergraduate major in political science, 30 semester hours of credit; or (2) undergraduate minor in political science, 18 semester hours; or (3) a major in social science with six semester hours in American Government. Those students who had an undergraduate major in political science may elect at least twenty semester hours in political science from four of the five fields listed below. Those who present a minor in political science will be required to elect 24 semester hours in four of the five fields required. Social Science majors will be required to present 24 semester hours in five fields of concentration. All other students desiring to major in political science will be required to complete thirty semester hours in the five fields of concentration.

Majors in political science are required to select courses from the following five fields of concentration: (1) Public Law; (2) Politics (3) Political Theory; (4) Public Administration; and (5) International Law and Relations. Programs of study should be constructed in consultation with an advisor from the faculty of the Department of Political Science.

## DESCRIPTION OF COURSES

### PUBLIC ADMINISTRATION

523-543. MUNICIPAL ADMINISTRATION AND POLITICS. (PoSc 523-543 MUNICIPAL ADM POL) (3-0) *Credit 3*. An examination of the organization, planning and problems of municipal administration and government; operation of the policy making process at the municipal level.

753-453. PUBLIC PERSONNEL ADMINISTRATION. (PoSc 753-453 PUBL PERS) (3-0) *Credit 3*. Development and problems of the public service; recruitment, examination, placement, remuneration, morale, retirement, loyalty and responsibility.

### POLITICS

503. SOCIAL LEGISLATION. (PoSc 503 LEG PROCS) (3-0) *Credit 3*. Origins, enactment, and administration of national welfare programs since 1930.

513-343. PROPAGANDA PUBLIC OPINION AND PRESSURE GROUPS. (PoSc 513-343 PROPAGANDA) (3-0) *Credit 3*. Functions and techniques of pressure groups; the nature, role and identification of public opinion and propaganda.

723. SEMINAR IN POLITICAL PARTIES AND ELECTION PROBLEMS. (PoSc 723 SEM POL PAR AND ELECT PROBS) (3-0) *Credit 3*. Selected electoral problems. Negro suffrage; prospects of development of two-party system in the South; non-voting; party finance; presidential electoral reform; presidential nominating politics.

743. PROBLEMS IN AMERICAN GOVERNMENT. (PoSc 743 PROBS AM GOVT) (3-0) *Credit 3*. Selected American governmental problems. Executive-legislative relations; legislative reorganization; reapportionment; lobbying; intergovernmental relations; legislative process.

## PUBLIC LAW

603-403. ADMINISTRATIVE LAW. (PoSc 603-403 ADM LAW) (3-0) *Credit 3*. The law made by the law controlling the operations and personnel of the federal administrative system.

633-413. AMERICAN CONSTITUTIONAL LAW. (Po Sc 633-413 CONST LAW) (3-0) *Credit 3*. Basic principles of the American constitutional system; judicial interpretation and application of those principles in construing powers of government and the rights of persons.

653-423. THE CONSTITUTION AND PRIVATE RIGHTS. (Po Sc 653-423 RIGHTS) (3-0) *Credit 3*. Rights and duties of United States citizenship; crucial issues of individual freedom, subversion, loyalty and governmental authority as adjudicated by federal courts.

## POLITICAL THEORY

563-223. BIBLIOGRAPHY AND METHODS IN POLITICAL SCIENCE. PoSc 563-223 BIBL METH) (3-0) *Credit 3*. The discipline, its authorities and its methodology; use of public documents and other source materials. (Required of all major in political science.) (Formerly Political Science 363).

603-303. ANCIENT AND MEDIEVAL POLITICAL THEORY (PoSc 603-303 POL THRY) (3-0) *Credit 3*. Political theories of the Greek, Roman and medieval European thinkers; special attention to Plato, Aristotle, Cicero, St. Augustine, John of Salisbury, St. Thomas Aquinas, and Dante.

613-313. MODERN POLITICAL THEORY. (PoSc 613-313 MOD THRY) (3-0) *Credit 3*. Political Theories from the Reformation to the present; special attention to Machiavelli, Bodin, Hobbes, Montesquieu, Locke, Rousseau, Jefferson, The Mills, Hegel, Marx and the socialist theorists.

703. SEMINAR IN AMERICAN POLITICAL THOUGHT. (PoSc 703 AM THOUGHT) (3-0) *Credit 3*. The theoretical adaptations and modifications of historic democratic concepts of government by leading American theorists.

## INTERNATIONAL LAW AND RELATIONS

593. INTERNATIONAL ORGANIZATION. (PoSc 593-393 INTL ORGN) (3-0) *Credit 3*. Development of international organization; major problems of United Nations.

623. INTERNATIONAL LAW. (PoSc 623 INTL LAW) (3-0) *Credit 3*. The nature, content, development and operation of the law of the international community.

633-433. SEMINAR IN AMERICAN FOREIGN POLICY. (PoSc 633-433 FOR POLICY) (3-0) (3-0) *Credit 3*. Analytical and historical study of the content of American foreign policy; governmental machinery and political process in its formulation.

693-493. POLITICS OF THE FAR EAST. (PoSc 693-943 POL EAST) (3-0) *Credit 3*. International implications of the domestic and foreign policies of countries of the Near, Middle and Far East; reference to China, Japan, India, Egypt, Turkey, Iran, Indo-China, Phillipines and Indonesia.

## SUMMARY OF GRADUATE CATALOG MODIFICATIONS

### CHANGES IN INTRODUCTORY POLICY STATEMENT

1. Requirement that Political Science 563, Bibliography and Methods in Political Science, be taken first semester of residence deleted
2. Requirement of master's thesis
3. Five rather than six fields of the discipline included

### COURSES ADDED

1. Pol. Sci. 753. Public Personnel Administration
2. Pol. Sci. 513. Propaganda, Public Opinion and Pressure Groups
3. Pol. Sci. 743. Problems in American Government
4. Pol. Sci. 603. Administrative Law
5. Pol. Sci. 603. Ancient and Medieval Political Theory
6. Pol. Sci. 613. Modern Political Thought

## COURSES DELETED

1. Pol. Sci. 513. American Local Rural Government
2. Pol. Sci. 583. Seminar in Public Administration
3. Pol. Sci. 613. Public International Law
5. Pol. Sci. 713. Seminar in Colonial Government and Problems of Imperialism
5. Pol. Sci. 743. Seminar in Comparative Government and Administration

## COURSES ALTERED AS TO NUMBER, TITLE, OR COURSE DESCRIPTION

1. Pol. Sci. 503. Seminar in International Organization (Number changed to Pol. Sci. 593 (393), International Organization, and description revised)
2. Pol. Sci. 703. Seminar in Political Theory (Changed as to title—Seminar in American Political Thought—and course description)
3. Pol. Sci. 563. Bibliography and Methods of Research (Title changed to Bibliography and Methods in Political Science and course description revised)
4. Pol. Sci. 503. Seminar in International Organization (Number changed to 593 and title changed to International Organization)
5. Pol. Sci. 533. American Foreign Relations (Numbered to 633 and title changed to Seminar in American Foreign Policy)
6. Poli. Sci. 623. Public International Law (Title change to International Law and description revised)
7. Pol. Sci. 523. Municipal Administration (Title changed to Municipal Administration and Politics and course description revised)
8. Pol. Sci. 603. American Constitutional Law (Number changed to 653 and title changed to The Constitution and Private Rights)
9. Pol. Sci. 703. Seminar in Political Theory (Title changed to Seminar in American Political Thought and course description revised)
10. Pol. Sci. 733. Seminar in Government and Politics of the Far East (Number and title changed to 693 and respectively, Politics of the Far East, description revised)
11. Pol. Sci. 573. Social Legislation (Number changed to 503 and description revised)

## SOCIOLOGY

Students seeking a Master's degree in Sociology should consider the following objectives and requirements:

1. A development of knowledge sufficient to make community surveys necessary for the formulation of programs of community organization.
2. A development of interest and ability of the student in the field of scientific sociology.
3. The development of an appreciation for the ability to interpret native and folk culture of the Nation and the Southwest.
4. The development of the ability to interpret mass behavior so as to make such interpretation functional in leadership.

## REQUIREMENTS

Students who major in Sociology must present a minimum of 9 semester hours in undergraduate Sociology with substantial credits in History, Political Science or Economics. Students who have had fewer than 18 hours will be required to complete additional undergraduate hours in Sociology before receiving a Master's Degree.

Students who minor in Sociology should present a minimum of 9 undergraduate hours in any of the Social Sciences.

403. INTRODUCTION TO SOCIAL CASE WORK. (SOC 403 CASE WORK) (3-0) *Credit 3.* I and II. Presents the point of view of the social case worker regarding human relationships, and appreciation of needs and problems causing individuals to seek help of social

agencies and some understanding of the basic process of social case work practices; broad cultural as well as practical value to students going into social work, as teaching (especially visiting teaching), medicine, and related professions.

423. INTRODUCTION TO SOCIAL GROUP WORK. (SOC 423 GROUP WRK) (3-0) *Credit 3*. I or II. Fundamentals of professional group work. Deals specifically with group process and behavior, interpersonal relations, the contribution of allied fields, leadership programs, and agencies as a background for employment, in-service training, or professional education.

503. INTRODUCTION TO SOCIAL WELFARE. (SOC 503 SOC WELF) (3-0) *Credit 3* I or II. Historical development of social work; fields of specialization; functions of agencies; job opportunities; and contributions of outstanding leaders. Prerequisite: Nine hours of sociology.

513. SOCIAL THEORY. (SOC 513 SOC THRY) (3-0) *Credit 3*. I. Historical development of theories of social science; the process by which sociology and the various social sciences came into systematic bodies of knowledge. Prerequisite: Twelve hours of sociology.

543. URBAN SOCIOLOGY. (SOC 543 URBAN) (3-0) *Credit 3*. I. 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.

563. SOCIAL RESEARCH. (SOC 563 RESEARCH) (3-0) *Credit 3*. II. A study of the various methods of social investigation, such as the social survey, the case study methods, 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. Students are required to complete an individual piece of social investigation.

573. SOCIAL STATISTICS. (SOC 573 SOC STAT) (3-0) *Credit 3*. II. Techniques of calculating values common to statistical analysis; simple measures of central tendencies through correlation and regression; speed and accuracy on calculating machine emphasized.

583. ANTHROPOLOGY. (SOC 583 ANTHROPGY) (3-0) *Credit 3*. I or II. A study of the origin and development of human culture. Special emphasis is placed upon schools of culture and contemporary culture. Prerequisite: Nine hours of Sociology.

593. SOCIOLOGY SEMINAR. (SOC 593 SEMINAR) (3-0) *Credit 3*. I or II. For seniors and graduate students desiring to do independent research or study in fields not covered by current offerings. A staff member supervises the work of each student.

603. PROBLEMS OF CHILD WELFARE. (SOC 603 CHLD WELF) (3-0) *Credit 3*. I or II. A study of child welfare movements and contemporary children's agencies and their services. Includes programs for improving the home and for substitute care, safeguarding health, employment protection, delinquency prevention, and other needs of children and youth.

643. MODERN SOCIAL PROBLEMS. (3-0) *Credit 3*. II. Analysis of processes of personal, family, and community disorganization, methods and measures of social reform. Prerequisite: Six hours of Sociology.

673. ADVANCED SOCIAL STATISTICS. (SOC 673 ADV STAT) (3-0) *Credit 3*. II. Deductive and inductive statistical methods in which sampling, probability, multiple and partial correlation, variance, and special population techniques are emphasized. Prerequisite: Sociology 573.

693. PSYCHIATRIC ASPECTS OF SOCIAL WORK. (SOC 693 PSYCHIATR) (3-0) *Credit 3* II. The influence of modern psychiatry upon social work practices; development and functioning of the emotional life of the individual and dynamics of behavior. Prerequisite: 12 hours of Sociology or Social Service.

733. CRIMINOLOGY. (SOC 733 CRIMINLGY) (3-0) *Credit 3*. I. Nature, extent and causes of crime; various schools of criminology, individualization of criminal treatment, and modern techniques of criminal investigation. Prerequisites: Sociology 213 and 223.

803. COMPARATIVE CULTURES AND INTERNATIONAL RELATIONS. (SOC 803 COMP CULT) (3-0) *Credit 3*. I and II. A course designed to (a) introduce the student to the various culture areas of the world and to point up the similarities and differences between these cultures; (b) point up the effects of social change occasioned by culture

contacts; (c) investigate the cultural causes of conflict in international relations, with some attention to possible solutions to some of these problems.

Approach will be both anthropological and political, and will consider both the cultures of Europe, Africa, Asia, the Middle East and Latin America, and the relations of the European States of the United States to those areas. Particular attention will be paid to the rise of nationalism in Africa and Asia. Prerequisites: Undergraduate major or minor in Sociology, the Social Studies, Political Science, History, or Anthropology, or substantial preparation with superior grades in the aforementioned fields.

## SCHOOL OF ENGINEERING

The School of Engineering offers major graduate work leading to the Master of Science degrees in the field of Architectural Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering, and minor graduate work for students majoring in other departments.

Prerequisite to graduate work in these fields is the completion of a four-year curriculum from a College or University of recognized standing, substantially equivalent to that required of the undergraduates in the School of Engineering. Students desiring to do graduate work who do not have the necessary prerequisites will be required to make up all deficiencies as directed by the Dean of the School of Engineering before they will be permitted to begin graduate courses.

For advanced work in the School, good library facilities and laboratory equipment are provided to carry on the work suggested. Certain research problems may be made available in cooperation with other departments of the College.

## CIVIL ENGINEERING

503. EARTH MASONRY STRUCTURES. (C E 503 STRUCTS) (2-3) *Credit 3.* I, II. Design and construction of dams, retaining walls, abutments and piers, culverts, grain elevators and bins.

513. PUBLIC HEALTH ENGINEERING. (C E 513 PUBL HLTH) (3-0) *Credit 3.* Design of water purification works and principles of sanitation.

533. REINFORCED CONCRETE DESIGN. (C E 533 CONC DSGN) (2-3) *Credit 3.* I. Theories of action of beams, slabs, arches, footings, retaining walls, and columns of reinforced concrete; codes and specifications and their influence on design; rigid frames and effect of continuity.

543. ADVANCED STRENGTH OF MATERIALS. (C E 543 STRENGTH) (3-0) *Credit 3.* I, II. Special problems met in engineering, limitations of the flexure and torsion formulas, unsymmetrical bending, curved beams, combined stresses, thin tubes, thick hollow cylinders, flat plates and localized stresses.

563. STATICALLY INDETERMINATE STRUCTURES. (C E 563 STRUCTS) (1-6) *Credit 3.* II. Outer forces, reactions, moments and shears for fixed and moving loads, the use of influence lines, the determination of deflections by methods of moment areas, elastic loads, virtual work and Williot diagrams, methods of solution for stresses in statically indeterminate structures by virtual work, slope deflection, and moment distribution; continuous beams, building frames and arches. Prerequisite: Civil Engineering 353.

743. STRUCTURAL THEORIES AND DESIGN. (C E 743 THRY DSGN) (2-3) *Credit 3.* II. Statically indeterminate trusses, continuous trusses; steel arches; secondary trusses; suspension bridges; long span roofs; skeleton steel buildings and space structures.

763. WATER POWER ENGINEERING. (C E 763 WATR POWR) (2-3) *Credit 3.* II. Estimates of water power from steam flow data; theory and practice of hydraulic turbines; elements of design of dam, waterway and powerhouse; cost and value of water power.

773. RESEARCH IN CIVIL ENGINEERING. (C E 773 RESEARCH) *Maximum credit 9 hours.* Original investigation or advanced study in some field related to the practice of Civil Engineering.

## ARCHITECTURE

### ELECTRICAL ENGINEERING

513. ADVANCED COMMUNICATION CIRCUIT ANALYSIS. (E E 513 CIRC ANAL) (3-0) *Credit 3.* Theorems and properties of communication networks in steady-state and transient conditions.

533. ULTRA-HIGH FREQUENCIES. (E E 533 U H FREQ) (3-0) *Credit 3. I, II.* Radio transmission and reception, including ultra-high frequency techniques.

543. ELECTRIC POWER GENERATION. (E E 543 ELEC POWER) (3-0) *Credit 3. I, II.* Economics and technique of electric power generation. Effect of load curve on costs; thermal efficiency and commercial economy of various heat cycles; general layout of the generating station; division of load among generating units; by-products generations.

743. ADVANCED ALTERNATING-CURRENT MACHINERY. (E E 743 A C MACH) (3-0) *Credit 3. I, II.* Analysis of more intricate electrical problems met in the operation of alternating-current machinery.

763. ELECTRICAL ENGINEERING RESEARCH. (E E 763 RESEARCH) (3-0) *Credit 3. I, II.* Original investigation of special problems in the field of electrical engineering; problem selected by the student with the approval of the Department.

### GENERAL ENGINEERING

513. ADVANCED SHOP PRACTICE. (G E 513 ADV SHOP) (0-9) *Credit 3. I.* Heat treatment, machine tool work, welding, jig, fixtures, pattern making, and any shopwork that may be of special interest to student. All assignments must be approved by the Dean of the School of Engineering.

523. SURVEY OF INDUSTRIAL PRODUCTS. (G E 523 SURV PROD) (1-6) *Credit 3. I and II.* Survey of the design methods used in industry, methods of presentation, production methods, and client designer relations. Prerequisites: General Engineering 122 and Architecture 212.

723. GRAPHICS OF FORMULAS. (G E 723 FORMULAS) (3-0) *Credit 3.* Simple empirical equations; curve tracing and fitting; diagramming of formulas; the construction of nomographic or alignment charts, interpolation, numerical and graphical integration and differentiation, and special slide rules.

562. ADVANCED DESCRIPTIVE GEOMETRY. (G E 562 DESC GEOM) (1-5) *Credit 2. I, II.* Graphical representation and the application of plane and space curves; advanced problems in single curved and doubled surfaces including the convolute and their developments; fundamentals of perspective and other pictorial means of representation.

### MECHANICAL ENGINEERING

503. REFRIGERATION. (M E 503 REFRIGRTN) (3-0) *Credit 3. I or II.* The application of thermodynamics to problems of refrigeration; types of refrigerating machines and plants, refrigerants, icemaking, cold storage, cooling of air liquids and solids, construction details of commercial and household refrigerating plants and their economic operation.

523. FLOW OF FLUID AND HEAT TRANSFER. (M E 523 FLUIDS) (3-0) *Credit 3. I or II.* Review of first and second laws of thermodynamics, compressors, refrigeration cycles. The design of apparatus for heat transfer by conduction, convection, and radiation, with particular reference to heat exchangers, air preheaters, economizers, evaporators, boilers and condensers.

703. ADVANCED POWER PLANTS. (M E 703 POWR PLNT) (3-0) *Credit 3. I or II.* Modern power plants; the design and installation of high-pressure boilers, economizers,

air preheater, modern fuel burning furnaces, and automatic combustion controls; various steam cycles and types of auxiliary drive; their effect on station heat balance; discussion of deaerators, evaporators, condensers, heaters, etc., including turbine and machinery foundations and layouts.

713. ADVANCED ENGINEERING THERMODYNAMICS. (M E 713 THERMODYN) (3-0) *Credit 3*. I, II. Review of basic concepts and laws. Equations of state and thermodynamic properties of gases, vapors, and mixtures. Thermodynamic functions and their differential relations. Analysis of thermodynamic cycles with critical examination of concepts of efficiency, availability, and other loss measurements. Thermodynamic equilibrium, supersaturation and supercooling, and combustion.

723. ADVANCED MACHINE DESIGN. (M E 723 MACH DSGN) (3-0) *Credit 3*. I or II. The advanced phases of machine design including advanced statics, vibration, dynamics and stress analysis applied to machines. Material selection, force and shrink fits, brakes, clutches, lubrication theory and practice, gear and flywheel design. Design practice and machine layout.

733. DYNAMICS OF MACHINERY. (M E 733 DYNAMICS) (3-0) *Credit 3*. II. Advanced dynamics of machinery; inertia effects, torque characteristics, flywheel design and the balancing of multiple cylinder engines and compressors; critical speed and the design of turbine drums.

793. RESEARCH IN MECHANICAL ENGINEERING. (M E 793 RESEARCH) *Maximum credit 9 hours*. Original investigation or advanced study in the field of Mechanical Engineering.

## SCHOOL OF HOME ECONOMICS

Students desiring to major in Home Economics on the graduate level must present undergraduate subject matter credits in the following areas: the social sciences, the physical sciences, biological sciences, art, and education which shall be satisfactory to the adviser under whose direction, the major work is to be done. In addition adequate preparation in undergraduate work in Home Economics is necessary.

Majors may be taken in Home Economics Education and General Home Economics. Minors may be taken in Education, Administration and Supervision, Home Economics Education, and General Home Economics.

Twenty (20) semester hours or more are required for a major, and ten (10) semester hours or more are required for a minor for the Master's Degree. Consult the Dean or major professor for additional information.

For the general requirements for admission to candidacy, residence, course requirements, transfer of credit, quality of work, thesis, and application for the Master's Degree, apply in the School of Home Economics. The student is urged to refer to the graduate bulletin for all desired information.

## GENERAL HOME ECONOMICS COURSES

513. STUDIES IN HOME MANAGEMENT. (3-0) *Credit 3*. I and II. A review of management studies, trends in the field and research related to management.

533. HOME FURNISHING WORKSHOP. (3-0) *Credit 3*. I and II. Appropriate interior decorations, proper arrangement of furniture and equipment for all rooms according to their location in the house. Experience in making slip covers, draperies and lampshades.

553. FAMILY LIFE PROBLEMS. (3-0) *Credit 3*. I or II. Ways different families achieve their purposes with resources available. Management procedures for families on various income levels. Individual problems according to needs of students enrolled.

563. CONSUMER ECONOMICS. (3-0) *Credit 3*. I and II. Family budgets, marketing, price control and other problems of the consumer.

583. METHODS AND TECHNIQUES OF CHILD STUDY. (3-0) *Credit 3*. I or II. Open to seniors and graduate students. Modern methods and suitable techniques for studying children. Experimentation by various methods of studying children.

703. SEMINAR IN NUTRITION. (3-0) *Credit 3*. I and II. Review and interpretation of the literature of field, emphasizing recent advances and involving individual assignments and reports.

713. PROBLEMS IN COSTUME DESIGN. (0-6) *Credit 3*. Draping, pattern making and design for students with adequate background.

733. SEMINAR IN FOODS. (3-0) *Credit 3*. I and II. Reviews and interpretations in the field of foods and experimental food preparation, involving individual assignments and oral and written reports.

753. CLOTHING SEMINAR. (3-0) *Credit 3*. I and II. Aspect of clothing which directly affect the consumer.

763. PROBLEMS IN HOME ECONOMICS. (3-0) *Credit 3*. I and II. Work in the field of major interest. Reports, discussion and term papers.

773. ADVANCED CLOTHING FOR GRADUATE STUDENTS. (3-0) *Credit 3*. Advanced problems in garment construction; selection, design and construction of suitable clothing for both children and adults.

803. CHILD DEVELOPMENT CURRICULUM. (3-0) *Credit 3*. I or II. Designed to explain the modern curriculum of the nursery school, kindergarten and elementary school. Emphasis on methods and materials in various subject areas.

HE EDUCATION 843. TECHNIQUES IN EDUCATIONAL RESEARCH (HE EDU 843 RESEARCH) (3-0) *Credit 3*. Research in home economics education, sources of information and form in preparation of research reports.

883. PERSONAL AND FAMILY FINANCE. (3-0) *Credit 3*. I or II. General problems of individual and family on handling of money. Especially planned for students with limited undergraduate background experience.

900. PRINCIPLES OF HUMAN NUTRITION. (3-0) *Credit 3*. Application of Nutrition to individual problems.

903. ORGANIZATION AND MANAGEMENT. (3-0) *Credit 3*. Management for Institutional feeding—personnel, marketing, preparation, service and sanitation.

913. PROBLEMS OF YOUTH. (3-0) *Credit 3*. Problems concerned with youth during adolescent years. Some attention given to problem cases, as found in Home and Family Life classes.

993. NUTRITION AND DIET THERAPY. (3-0) *Credit 3*. Planning diets for various diseases and conditions. Some experience in use of facilities and work with formula.

## HOME ECONOMICS EDUCATION

303. RESEARCH. (3-0) *Credit 0-3*. I or II. Thesis involving extensive study of chosen problems.

503. METHODS AND MATERIALS IN EXTENDED PROGRAMS. (3-0) *Credit 3*. I or II. A study of aims and values of home and summer experiences and club work; consideration of special problems, present trends; methods of promotion; selected and organization of subject matter.

523. RESEARCH PROBLEMS. (3-0) *Credit 3*. I and II. Methods used in collection, treatment and interpretation of data in the field of Home Economics. (Formerly called "Organization and Presentation.")

543. ADVANCED METHODS. (3-0) *Credit 3*. I and II. Newer trends in teaching Home Economics.

593. HOME ECONOMICS CURRICULUM. (3-0) *Credit 3*. I and II. The objectives of home economics in high schools; recent surveys and other methods used in determining content of curricula.

643. ADULT EDUCATION. (3-0) *Credit 3*. I or II. Objectives of adult education planning program; teaching procedures; and discussion of special problems. Special reports and bibliographies.



723. MEASUREMENT. (3-0) *Credit 3.* I and II. Home Economics subject matter tests, scales, construction and evaluation of objective devices.

743. STATISTICAL TECHNIQUES. (3-0) *Credit 3.* I and II. Methods of interpretation and utilization of data.

793. SUPERVISION. (3-0) *Credit 3.* I and II. Principles of supervision as applied to homemaking and Home Economics teaching and learning.

## DIVISION OF INDUSTRIAL EDUCATION

In the Division of Industrial Education, advance work is offered leading to the Degree of Master of Science and Master of Education in the field of Industrial Education.

Prerequisite to graduate work in these fields, is the completion of a four-year curriculum from a College or University of recognized standing, substantially equivalent to that required of undergraduates in the Division of Industrial Education. Students desiring to do graduate work who do not have the necessary prerequisites will be required to make up all deficiencies as directed by the Director of Industrial Education before they will be permitted to begin graduate courses.

To qualify for the Master's Degree with a major in Industrial Education at least fifteen (15) semester hours of the total required must be in courses offered to graduate students only. Also, all students will be required to take a course in Industrial Education 763.—Research and Thesis Writing. Two-thirds of the work should be in the major field of Industrial Education, and one-third should be in a minor field chosen with the advice and approval of the Director of Industrial Education.

For advanced work in the School, good library facilities and laboratory equipment are provided to carry out the work suggested. Certain research problems may be made available in cooperation with other departments of the College.

## AUDIO-VISUAL EDUCATION

503. UTILIZATION OF AUDIO-VISUAL MATERIALS. (2-3) *Credit 3.* I and II. Practical experience in the use of audio-visual aids, construction and development of various audio-visual aids and devices, sources of audio-visual aids; selection, evaluation and techniques, slides, film strips, opaque projectors, etc.

513. ADMINISTRATION AND SUPERVISION OF AUDIO-VISUAL EDUCATION (3-0) *Credit 3.* I. Emphasis on the supervision of budget and planning of an audio-visual program—for teachers appointed as audio-visual coordinators in their schools, as well as for principals, classroom teachers and students planning a teaching career.

523. PREPARATION OF GRAPHIC MATERIALS. (1-6) *Credit 3.* II. Emphasis on the construction of audio-visual materials for classroom teaching. Basic production techniques of audio-visual material for various teaching areas.

543. LABORATORY IN AUDIO-VISUAL AIDS. (1-6) *Credit 3.* II. Practical experience in the mechanical manipulation of the various audio-visual aids and devices. Includes mechanical theory of aids.

## INDUSTRIAL EDUCATION

513. CURRICULUM CONSTRUCTION AND COURSE MAKING IN INDUSTRIAL EDUCATION. (3-0) *Credit 3.* I. Principles of curriculum construction and course making; study of curriculum concepts as they have prevailed in modern education; comparative study

of Industrial Education curricula as used throughout leading high schools; analytical technique in curriculum construction; course making and syllabus construction.

523. TESTS AND MEASUREMENTS IN INDUSTRIAL EDUCATION. (3-0) *Credit 3*. II. Sources of instructional testing and evaluating materials; construction and use of test and evaluating devices; administering, scoring, recording and interpreting tests, progress charts, diagnosis of difficulties, analysis of teaching problems as related to evaluation.

533. INSTRUCTIONAL METHODS IN INDUSTRIAL EDUCATION. (3-0) *Credit 3*. I. Study of methods devices, techniques as applied to teaching industrial subjects; analysis and evaluation of student learning difficulties and teaching responsibilities in industrial classes; also study of the nature, preparation and use of instruction sheets.

542-3. TRADE AND JOB ANALYSIS. (2-0) (3-0) *Credit 2 or 3*. II. Analysis technique as it has been developed by various leaders in Industrial Education; job analysis for the purpose of determining the content of training for an occupation; related content analysis for determining what should be taught as classroom material; analysis of a trade, industry or industrial plant for determining the general outline of a program of trade or industrial training.

563. THE GENERAL SHOP. (3-0) *Credit 3*. II. The general shop organization, its contribution to attainment of cardinal objectives of the modern high school, current practices as to type of shops, equipment, instructional materials and procedures.

583. INDUSTRIAL ARTS FOR THE ELEMENTARY SCHOOL. (2-0) *Credit 2*. I and II. A course designed for teachers, supervisors, principals of elementary schools. Fundamental concepts, philosophies of Industrial Arts in the elementary school; function and scope, organization, administration, activities and methods of teaching Industrial Arts on the elementary level.

603. WORKSHOPS AND INSTITUTES IN INDUSTRIAL EDUCATION. *Credit 3*. I and II. A study of the development of solutions for problems in Industrial Education.

A. Cosmetology Institute

B. Industrial Arts Teacher Workshop

C. Vocational-Industrial Teachers Workshop

D. Administrators Workshop

712-3. ADMINISTRATION AND SUPERVISION OF INDUSTRIAL ARTS EDUCATION. (2-3) (3-0) *Credit 2 or 3*. I. How to organize, supervise and administer functioning programs of Industrial Arts; the duties of a supervisor and director of Industrial Arts; special problems of supervision and administration of Industrial Arts; relationships to local, state and federal educational authorities, correlating Industrial Arts with other phases of education.

722-3. ADMINISTRATION AND SUPERVISION OF VOCATIONAL-INDUSTRIAL EDUCATION. (2-0) (3-0) *Credit 2 or 3*. II. The administration and supervision of Vocational-Industrial Education in all day, part-time and evening programs, apprenticeship, school-industry programs, vocational rehabilitation; relation of federal to state, state to local each to the other; study of the legal administrative and supervisory aspects of Vocational-Industrial Education as it operates under the Smith-Hughes and George Barden Act; also, the State Plan for Vocational Education.

732-3. PHILOSOPHY OF INDUSTRIAL EDUCATION. (3-0) (3-0) *Credit 2 or 3*. I. Fundamental concepts of progressive Industrial Education; principles, beliefs, and assumptions in regard to Industrial Education; its objectives and relationship to other phases of education; its justification in the total scheme of modern education.

743. THE HISTORY OF INDUSTRIAL EDUCATION. (3-0) *Credit 3*. II. A survey of the early movements, experiments and writings concerning leaders of the United States and European countries. Intensive study of developments in Industrial Education since 1850. A comparative study of leaders, movements, institutions and literature in the field of Industrial Education.

753. PRACTICUM IN INDUSTRIAL EDUCATION. *Maximum credit 6 hours*. Development of current problems as reflected through the merging of practical experience with theoretical and scientific concepts.

763. RESEARCH AND THESIS WRITING. (3-0) *Credit 3*. I and II. Required of all majors in Industrial Education. Methods and techniques of research writing and reporting. Designed especially for students who are to write thesis or lesser reports.

783. PROBLEMS IN INDUSTRIAL EDUCATION. (3-0) *Credit 3.* I and II. Conferences and advisement in selection and preparation of an acceptable term paper or essay. Prerequisite: I. E. 763.

792-4. THESIS IN INDUSTRIAL EDUCATION. (2-0) (4-0) *Credit 2 or 4.* Conferences and advisement in relationship to the selection and preparation of an acceptable thesis for the Master of Science Degree. Prerequisite I. E. 763.

## MASTERS' DEGREES CONFERRED

### MASTER OF ARTS 1955-1956

BROWN, TOMMIE LOLA *Major*—Business Education *Minor*—Economics  
THESIS: *The Effect of Automation on Job Opportunities*

CLAY, LARUTHA *Major*—English *Minor*—Education  
THESIS: *A Critical Analysis of Eugene O'Neill's Treatment of the Negro Character in Four of His Plays*

DOWNES, BESSYE LUISE *Major*—English *Minor*—Education  
THESIS: *A Study of Cynicism in Selected Novels of Ernest Hemingway Including Reactions of Critics*

FRAZIER, LUCILE E. *Major*—English *Minor*—Education  
THESIS: *Biblical Aspects and Puritan Theology in John Milton's Major Poems, "Paradise Lost" and "Paradise Regained"*

FREEMAN, MARCUS ANTONIO *Major*—History *Minor*—Administration  
THESIS: *Taxes and Slavery in Texas, 1845-1860*

HICKS, ROY EDWARD *Major*—Voice *Minor*—Music Education  
THESIS: *(Graduate Recital in lieu of Thesis)*

HILL, GLADYS LLOYD *Major*—Economics *Minor*—Education  
THESIS: *Our General Banking System; A Lesson in Money Management*

IRVING, BOBBIE JOE *Major*—Voice *Minor*—Music Theory  
THESIS: *(Graduate Recital in lieu of Thesis)*

LOVE, PEGGY RUTH *Major*—Business Education *Minor*—Economics  
THESIS: *The Problem of Economic Instability*

OWENS, ADDIE PEARL *Major*—English *Minor*—Elementary Education  
THESIS: *Alexander Pope; Origins of Personal Literary Criticisms Found in Selected Works*

SHELTON, EMMA C. *Major*—English *Minor*—Elementary Education  
THESIS: *The Concept of God and Immortality in Selected Poems of Tennyson with Special Emphasis on "In Memoriam"*

STEWART, GERALDINE CORNELIA *Major*—Music Education *Minor*—Music Theory  
THESIS: *Procedures for Developing Some Music Activities for Elementary Grades*

WILLIAMS, JAMES RUSSELL *Major*—Music *Minor*—Music Education  
THESIS: *(Graduate recital in lieu of Thesis)*

YOUNG, BETTYE JEANNE *Major*—Music Education *Minor*—Elementary Education  
THESIS: *Musical Experiences in Auditory Training*

### MASTER OF EDUCATION

ALEXANDER, YVETTA YOUNG *Major*—Administration *Minor*—Elementary Education

ALLEN, LEONARD GERTRUDE *Major*—Elementary Education *Minor*—Health Education

ANDERSON, CECIL KELLEY *Major*—Elementary Education *Minor*—Administration

ANDERSON, CLAUDIA *Major*—Elementary Education *Minor*—Health Education

ANDERSON, JUANITA LOVE *Major*—Elementary Education *Minor*—Administration and Supervision

ANTOINE, GERTIE MAE *Major*—Elementary Education *Minor*—Physical Education

ARNOLD, OBZENA E. *Major*—Elementary Education *Minor*—Supervision

BARLOW, DORA M. *Major*—Elementary Education *Minor*—Health Education

BARROW, LOTTIE RAY *Major*—Home Economics Education *Minor*—Elementary Education

BARTON, VASHTI *Major*—Elementary Education *Minor*—Music and Physical Education

BENNETT, RUTH ELLA *Major*—Elementary Education *Minor*—Health Education

BENSON, LULA J. *Major*—Elementary Education *Minor*—Administration

BENTON, ODIS E. *Major*—Elementary Education *Minor*—Health Education

BERRY, ALZENA LOVE *Major*—Elementary Education *Minor*—Physical Education

BLOCKER, WILMA LEE *Major*—Home Economics Education *Minor*—Elementary Education

BOONE, LUCILLE K. *Major*—Elementary Education *Minor*—Health Education  
 BRAILSFORD, VALREE EUGENE *Major*—Administration *Minor*—Supervision  
 BRANCH, BEATRICE KEYS *Major*—Elementary Education *Minor*—Physical Education  
 BRENT, MABLEEN *Major*—Elementary Education *Minor*—Health Education  
 BROOKS, WILHELMINA WHITTING *Major*—Elementary Education *Minor*—Physical Education  
 CALDWELL, ANITA JEWELL *Major*—Elementary Education *Minor*—Home Economics Education  
 CANTON, LEACHIE ELIZABETH *Major*—Elementary Education *Minor*—Supervision  
 CHAMPION, BERNICE B. *Major*—Elementary Education *Minor*—Health Education  
 CHOICE, MARTHOLEAN *Major*—Elementary Education *Minor*—Health Education  
 CLEAVER, DOROTHY JUANITA *Major*—Elementary Education *Minor*—Special Education  
 CONNER, ALPEARL SADBERRY *Major*—Home Economics Education *Minor*—Elementary Education  
 CONNOR, MAXINE *Major*—Elementary Education *Minor*—Health Education  
 CONNALLY, DOROTHY B. *Major*—Home Economics Education *Minor*—Elementary Education  
 COLLINS, CHARLINE LUCILE *Major*—Administration *Minor*—Elementary Education  
 CRAWFORD, JACK HOWELL *Major*—Elementary Education *Minor*—Administration and Art Education  
 CRECY, MARY LEE *Major*—Elementary Education *Minor*—Health Education  
 CRISP, ADA LORENE *Major*—Elementary Education *Minor*—Administration  
 DARDEN, MYRTLE *Major*—Elementary Education *Minor*—Administration  
 DAVIS, HELEN C. BAKER *Major*—Elementary Education *Minor*—Health Education  
 DAVIS, RUBY POLK *Major*—Elementary Education *Minor*—Health Education  
 DEVAL, JESSIE JOYCE *Major*—Elementary Education *Minor*—Health Education  
 DICKSON, LUCILLE CATHERYN *Major*—Elementary Education *Minor*—Special Education  
 DUNCAN, DOROTHY DELORES *Major*—Elementary Education *Minor*—Physical Education  
 EDWARDS, DARLENE *Major*—Elementary Education *Minor*—Physical Education  
 ENGLISH, CORDELIA A. *Major*—Elementary Education *Minor*—Health Education  
 FITZGERALD, DOROTHY COOK *Major*—Elementary Education *Minor*—Home Economics Education  
 FITZGERALD, WILLIE L. *Major*—Administration *Minor*—Agriculture Education  
 FORD, LEONA *Major*—Elementary Education *Minor*—Administration  
 FRANCIS, HILDA BOULDIN *Major*—Elementary Education *Minor*—Health Education  
 FRANCIS, VIOLA B. *Major*—Elementary Education *Minor*—Physical Education  
 FRIDAY, HORTENSE JEANNETTE *Major*—Elementary Education *Minor*—Home Economics Education  
 GARRETT, ALMA J. McDONALD *Major*—Elementary Education *Minor*—Physical Education  
 GILES, MARGARET BURNIM *Major*—Home Economics Education *Minor*—Elementary Education  
 GILES, RUBY LEE *Major*—Home Economics Education *Minor*—General Home Economics  
 GRAY, WILMA OSCAR, SR. *Major*—Administration *Minor*—Education  
 HACKNEY, OLIVIA *Major*—Elementary Education *Minor*—Administration and Supervision  
 HALL, WILLARD EDWARD *Major*—Administration *Minor*—Mathematics  
 HECTOR, MINTY L. *Major*—Elementary Education *Minor*—Health Education  
 HENDERSON, ELNORA JENKINS *Major*—Home Economics Education *Minor*—Elementary Education  
 HENRY MINNIE O. *Major*—Elementary Education *Minor*—Health Education  
 HENRY, NETTIE E. *Major*—Elementary Education *Minor*—Health Education  
 HICKS, GEORGE PRESTON *Major*—Administration *Minor*—Elementary Education  
 HILL, CARRIE N. *Major*—Elementary Education *Minor*—Health Education  
 HILLIARD, MOLLIE M. KEMP *Major*—Elementary Education *Minor*—Health Education  
 HODGE, JULIA *Major*—Elementary Education *Minor*—Health Education  
 HOLIDAY, CORDELIA S. *Major*—Elementary Education *Minor*—Health Education  
 HOLLIS, IDA MAE *Major*—Elementary Education *Minor*—Home Economics Education  
 JACKSON, EDITH C. SMITH *Major*—Elementary Education *Minor*—Health Education  
 JACKSON, SARAH MAE *Major*—Elementary Education *Minor*—Health Education  
 JOHNSON, DOROTHY FRAZIER *Major*—Elementary Education *Minor*—Administration  
 JOHNSON, GEORGIA RENE SHAW *Major*—Administration *Minor*—Elementary Education  
 JOHNSON, NAPOLEON *Major*—Elementary Education *Minor*—Health Education  
 JOHNSON, VADA MAE *Major*—Elementary Education *Minor*—Physical Education  
 JONES, ALVA LOIS *Major*—Home Economics Education *Minor*—General Home Economics  
 JONES, EARL HERMAN *Major*—Administration *Minor*—Elementary Education  
 JONES, PATSY L. *Major*—Home Economics Education *Minor*—Elementary Education  
 KEATON, LEOLA M. *Major*—Elementary Education *Minor*—Supervision  
 KING, WILLEOLA *Major*—Elementary Education *Minor*—Industrial Education  
 KING, DOROTHY L. *Major*—Elementary Education *Minor*—Supervision  
 LEWIS, MAGGIE NICKERSON *Major*—Elementary Education *Minor*—Supervision

LEWIS, OMEGA BARNWELL *Major*—Elementary Education *Minor*—Physical Education  
 LOUDD, JOHNNIE ALEXANDER *Major*—Administration *Minor*—Elementary Education  
 LYDAY, GLORIA LOUISE *Major*—Elementary Education *Minor*—Health Education  
 LYNN, EARTHA MAE *Major*—Elementary Education *Minor*—Health Education  
 McDOW, EULALIA *Major*—Elementary Education *Minor*—Health Education  
 McGEE, RUTH MARY *Major*—Elementary Education *Minor*—Physical Education  
 McKNIGHT, GEORGIA MARTHA *Major*—Elementary Education *Minor*—Business Education  
 MANUEL, OPHELIA LAWRENCE *Major*—Elementary Education *Minor*—Physical Education  
 MARTIN, H. EUNELL SADBERRY *Major*—Elementary Education *Minor*—Health Education  
 MASON, GEORGE WILLIAM *Major*—Administration *Minor*—Elementary Education  
 MASSEY, WILLIE HENRY *Major*—Administration *Minor*—Health Education  
 MATHIS, EDELL MANUAL *Major*—Administration *Minor*—Elementary Education  
 MILLER, EFFIE MARIE *Major*—Home Economics Education *Minor*—Elementary Education  
 MOSLEY, CEOLA LAVERN *Major*—Elementary Education *Minor*—Health Education  
 NATHAN, CORDELIA LEWIS *Major*—Elementary Education *Minor*—Health Education  
 ORMAN, BILLIE EUGENE *Major*—Administration *Minor*—Elementary Education  
 OWENS, THAY MYRTLE *Major*—Home Economics Education *Minor*—General Home Economics  
 PETERSON, ATOY F. *Major*—Elementary Education *Minor*—Supervision  
 PHEGANS, LESSIE LOUVERA *Major*—Elementary Education *Minor*—Administration  
 PHOENIX, ETHEL GATES *Major*—Supervision *Minor*—Elementary Education  
 PITTMAN, PAUL MITCHELL *Major*—Administration *Minor*—Elementary Education  
 POLK, JESSE B. *Major*—Administration *Minor*—Agriculture Economics  
 POLK, MATTHEW BRANCH *Major*—Administration *Minor*—Elementary Education  
 POLLARD, FRANKIE BROWN *Major*—Administration *Minor*—Elementary Education  
 POWELL, NELLIE G. *Major*—Home Economics Education *Minor*—Extension Education  
 PRYOR, TOMMIE LEE *Major*—Elementary Education *Minor*—Health Education  
 RHODES, JAMES JOSEPH *Major*—Elementary Education *Minor*—Administration  
 RICHARDSON, JAMES ARMSTEAD *Major*—Administration *Minor*—Agricultural Economics  
 ROBINSON, MAURINE *Major*—Home Economics *Minor*—Elementary Education  
 ROSS, MIRIAM A. *Major*—Elementary Education *Minor*—Administration  
 SADBERRY, GLADYS RUTH *Major*—Elementary Education *Minor*—Health Education  
 SALONE, JEWELINE ROGERS *Major*—Elementary Education *Minor*—Health Education  
 SAMPSON, JUANITA IDELL *Major*—Elementary Education *Minor*—Health Education  
 SAMUEL, MILLER F. *Major*—Administration *Minor*—Agricultural Education  
 SCOTT, THELMA D. *Major*—Home Economics Education *Minor*—Extension Education  
 SHELBY, LAURA L. *Major*—Elementary Education *Minor*—Health Education  
 SHIPMAN, ETHEL LEE *Major*—Elementary Education *Minor*—Home Economics  
 SIMMONS, ZELMA LEE *Major*—Elementary Education *Minor*—Health Education  
 SMILEY, ETTA H. *Major*—Elementary Education *Minor*—Health Education  
 SMITH, HEARDIE M. *Major*—Elementary Education *Minor*—Home Economics  
 SMITH, LENA LOLA *Major*—Elementary Education *Minor*—Administration  
 SMITH, MAGGIE L. BRYANT *Major*—Elementary Education *Minor*—Health Education  
 SNEED, BERNICE LOFTON *Major*—Elementary Education *Minor*—Health Education  
 SPENCER, BESSIE MAE *Major*—Home Economics Education *Minor*—General Home Economics  
 STEWARD, VERNA L. DANIELS *Major*—Elementary Education *Minor*—Health Education  
 TAYLOR, LYTLE LOUIS *Major*—Administration *Minor*—Elementary Education  
 TEELE, FLORAZELLE SWAYZE *Major*—Elementary Education *Minor*—Supervision  
 WALKER, MATTIE JEWEL *Major*—Elementary Education *Minor*—Health Education  
 WALTON, LOIS HAZEL *Major*—Elementary Education *Minor*—Health Education  
 WATSON, LILLIAN SNELGRO *Major*—Elementary Education *Minor*—Health Education  
 WHITFIELD, LOLA MAE *Major*—Elementary Education *Minor*—Health Education  
 WILLIAMS, ERMA B. MILLER *Major*—Elementary Education *Minor*—Health Education  
 WILSON, PEGGY JO *Major*—Elementary Education *Minor*—Administration  
 WILSON, VENORA B. *Major*—Elementary Education *Minor*—Special Education  
 WINFIELD, MARCELLENE CLARK *Major*—Elementary Education *Minor*—Physical Education  
 WRIGHT, ARTIEMESIE C. *Major*—Elementary Education *Minor*—Supervision  
 WYNN, MOLLIE M. *Major*—Elementary Education *Minor*—Administration and Supervision  
 YOUNG, CORNELIUS *Major*—Administration *Minor*—Elementary Education

## MASTER OF SCIENCE

- ALEXANDER, ROSCOE Major—Agricultural Economics Minor—Agricultural Education  
THESIS: *Farm Tenancy and Its Influence on the Social and Economic Standards of Farmers in Leon County, Texas*
- ALLEN, JOHN W. Major—Industrial Education Minor—Administration and Supervision  
THESIS: *The Status of Industrial Education in the Public High Schools for Negroes in Texas*
- ALTON, ANNA B. DAVIS Major—Home Economics Minor—Elementary Education  
THESIS: *Provisions for Off Campus Student Teaching for Home Economics in Some Teacher-Training Institutions*
- ARNOLD, HELEN SMOOT Major—Elementary Education Minor—Administration  
THESIS: *Factors Associated with Absenteeism at Prairie View Elementary School*
- BROWN, GUS HENRY Major—Industrial Education Minor—Physical Education  
THESIS: *A Study of Relations of Vocational Interest to Intelligence, Mental Abilities, Curriculum Offerings and Occupational Opportunities of the Ninth Grade in Gibbons High School, Paris, Texas*
- BROWNE, REGINALD OSBY Major—Agricultural Education Minor—Administration  
THESIS: *The Role of the Vocational Agriculture Teacher in a Vocational Guidance Program in the A. M. Story High School, Palestine, Texas*
- CALDWELL, AZEE Major—Agricultural Economics Minor—Administration  
THESIS: *A Survey of the Conservation Practices of Fifty Negro Farmers in Lavaca County, Texas*
- CARR, WILBURN CULLEN Major—Mathematics Minor—Education  
THESIS: *A Representation of Quadratic Irrationals by Means of Continued Fractions*
- CHASE, SYLVESTER EVERTON Major—Extension Education Minor—Agricultural Education  
THESIS: *A Study of Recommended Practices for Small, Average, and Large Size Farms in Colorado County, Texas with a Proposed Agricultural Extension Program for this Area*
- CRAWFORD, MORRIS J. Major—Agricultural Economics Minor—  
THESIS: *An Historical Study of the Lower Colorado River Authority and Its Effect on the Farming Programs in Travis County, Texas*
- CRAWFORD, THERMAN C. Major—Agricultural Education Minor—Agricultural Economics  
THESIS: *A Proposed Program of Vocational Agriculture in the Dixie Community, Smith County, Texas*
- CURRY, BISHOP BENJAMIN, JR. Major—Agricultural Economics Minor—Administration  
THESIS: *The Use of Agricultural Credit Facilities by Fifty Negro Farmers of Hopkins County, Texas*
- CURVEY, DOROTHY JEAN Major—Physical Education Minor—Elementary Education  
THESIS: *A Proposed Physical Education Program for Girls for Setegast High School, Houston, Texas*
- DERRY, DOLPHUS JAMES Major—Agricultural Education Minor—Agricultural Economics  
THESIS: *A Plan to Increase Participation in Vocational Agriculture Classes in Area III*
- DORSEY, JEANETTE Major—Elementary Education Minor—Health Education  
THESIS: *Relationship Between Number Work and First Grade Childrens' Social Development*
- DYKES, GEORGE ETHYLN Major—Administration Minor—Supervision  
THESIS: *Social Adjustment Problems of Six-year Old Public School Beginners: An Exploratory Study*
- GARRETT, A. D. Major—Agricultural Education Minor—Agricultural Economics  
THESIS: *A Study of the Factors Affecting the Average Daily Attendance and Causing Drop-Outs in the Vocational Agriculture Department in the C. H. Daniel High School, Center, Texas*
- FAVORS, NAOMA L. Major—Elementary Education Minor—Supervision  
THESIS: *A Proposed Guide to Citizenship Through Student Government for N. W. Horllee School, Dallas, Texas*
- GUIDRY, ARREADER PLEANA Major—Guidance Minor—Special Education  
THESIS: *A Survey of the Methodology for Evaluating the Counseling Outcomes*
- HARDEWAY, ARISTA LUCILLE Major—Supervision Minor—Elementary Education  
THESIS: *An Analysis of the Supervisory Program for Language Arts in the H. S. Thompson Elementary School, Dallas, Texas*
- HARDEWAY, WHEELER Major—Supervision Minor—Administration  
THESIS: *A Suggested Program of Pupil Personnel Accounting Practices for the Dunbar High School in Mineral Wells, Texas*
- HARPER, MCNOBLE Major—Agricultural Education Minor—Administration  
THESIS: *A Study of the Sociological Effect of the Agricultural Situation in the Rambo Community, McLeod, Texas During the Period 1905-1955*
- HAYES, LUTHER TALIAFERRO Major—Agricultural Education Minor—Agricultural Economics  
THESIS: *Some Empirical Practices Among Negro Farmers in Marion County, Texas and Their Implications for Vocational Agriculture*
- HESTER, WILLA A. Major—Education Minor—English  
THESIS: *The Utilization of Available Facilities for the Improvement of Living Conditions in Rose Hill Community, Jasper County, Mississippi*
- HILL, BOOKER T. Major—Agricultural Economics Minor—Administration  
THESIS: *An Economic Study of the Farming System of Fifty Farmers of Rusk County, Texas*

- JONES, MARION TANIRICE Major—Physical Education Minor—Health Education  
 THESIS: *Criteria for the Evaluation of Health, Physical Education and Athletics at I. M. Terrell High School of Fort Worth, Texas*
- JEFFERSON, CALVIN B. Major—Agricultural Economics Minor—Elementary Education  
 THESIS: *Tenancy as it Affects the Negro*
- JONES, WILLIE EDWARD Major—Agricultural Economics Minor—Administration  
 THESIS: *Marketing of Tomatoes in Gregg County, Texas*
- LEVY, JULIA MARY Major—Home Economics Education Minor—Elementary Education  
 THESIS: *Responsibilities Assumed by Some Junior High Schools in Purchase and Care of Their Clothing*
- LILLY, DOUGLAS P. Major—Extension Education Minor—Agricultural Education  
 THESIS: *A Follow-Up Study of the Occupation Pursuits of Participants in 4-H Club Work in Oklahoma County, Oklahoma From 1940-55*
- LOUDD, CARRIE JENKINS Major—Extension Education Minor—Administration  
 THESIS: *An Appraisal of the Effectiveness of 4-H Club Work with Recommendations for Improving the Program of Grimes County, Texas*
- LYONS, MAURICE EUGENE Major—Agricultural Education Minor—Administration  
 THESIS: *The Effect of Motion Pictures on Learning in Anderson County, Texas Based on a Survey of One Hundred and Twenty High School Students*
- McCLELLAN, MYRTLE THOMAS Major—Home Economics Education Minor—General Home Economics  
 THESIS: *A Survey of the Housing Need of Selected Homemakers in the Patronage Age of Bragg Morris High School, Lindale, Texas*
- McCLELLAN, VAN BUREN Major—Agricultural Education Minor—Administration  
 THESIS: *The Influence of Technical Agricultural Agencies on Farm Operators in Winona, Smith County, Texas*
- McKNIGHT, GLENDA LEE Major—Physical Education Minor—Elementary Education  
 THESIS: *Proposed Plan for Grading and Evaluating of High School Girls Physical Education Program*
- MEADERIS, ROBERT LEE Major—Physical Education Minor—Health Education  
 THESIS: *Flexibility of Athletes and Non-Athletes in George Washington Carver High School, McGregor, Texas*
- MERCER, GEORGE, JR. Major—Biology Minor—Administration  
 THESIS: *Observations on the Stages of Development of *Balaninus (Curculio) Larva to Adult**
- MILLER, JOSEPH LEE Major—Agricultural Economics Minor—Agricultural Education  
 THESIS: *An Economic Study of Broiler Production in Walker County, Texas*
- MOORE, THERESA DeBRUHL Major—Elementary Education Minor—Health Education  
 THESIS: *A Diagnostic Study and Remedial Treatment of the Most Frequent Difficulties in Arithmetic Among Seventh Grade Pupils of Booker T. Washington Elementary School, Galveston, Texas*
- PALMER, HATTIE DELORES Major—Biology Minor—Health Education  
 THESIS: *The Effect of Emulsion of Four Species of Acorn on the Germination of Radish Seeds*
- PHILLIPS, CECIL AUGUSTUS Major—Physical Education Minor—Health Education  
 THESIS: *A Philosophical Study of the Pros and Cons of Little League Baseball for Boys*
- PRICE, EDWARD LEON Major—Physical Education Minor—Health Education  
 THESIS: *A Proposed System for the Purchase Care of Athletic Equipment*
- PROCTOR, ELIZA JANE Major—Supervision Minor—Elementary Education  
 THESIS: *A Suggested Program for Utilizing Community Resources in Instruction in the Woodland Elementary School, Mexia, Texas*
- ROBERTS, LEE LOUIS Major—Mathematics Minor—Physical Education  
 THESIS: *Some Classifications of Several Types of Transformations*
- ROBINSON, JOE N. Major—Agricultural Engineering Minor—Agricultural Economics  
 THESIS: *A Study and Calibration of Submerged Weir*
- ROBINSON, MARVIN RODNEY Major—Agricultural Economics Minor—Agricultural Education  
 THESIS: *A Study of the Use of Credit Resources by Negro-Farm Families of Shelby County, Texas*
- ROGERS, OLAND G. Major—Biology Minor—Health Education  
 THESIS: *A Classification of Frogs and Inhabiting Helminths Found in Camp County, Texas*
- ROSS, SHELLY ROCKINGHAM Major—Biology Minor—Education  
 THESIS: *Spermatogenesis in the Mole Cricket*
- SCOTT, ALTON EUGENE Major—Agricultural Economics Minor—Administration  
 THESIS: *The Marketing of Farm Products in Fall County, Texas*
- SINGLETARY, WILLIE LAVACA Major—Agricultural Engineering Minor—Administration  
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