

# CATALOG

# STATE COLLEGE RECORD

VOL. 20      No. 11



**APRIL, 1922**

**RALEIGH, N. C.**

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AGRICULTURE AND ENGINEERING

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**NORTH CAROLINA STATE COLLEGE  
OF  
AGRICULTURE AND ENGINEERING**



**1921-1922**

**STATE COLLEGE STATION  
RALEIGH**



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## COLLEGE CALENDAR

### 1922

Tuesday, June 13.....Summer School begins.  
Wednesday, July 26.....Summer School ends.  
Tuesday, September 5.....Fall Term begins. Registration days,  
Tuesday and Wednesday, September  
5 and 6.  
Thursday and Friday, October  
19 and 20.....Fair Week holidays.  
Saturday, November 11.....Armistice day.  
Thursday, November 30.....Thanksgiving day.  
Wednesday, December 20.....First Term ends.

### 1923

Wednesday, January 3.....Second Term begins. Registration  
days, Wednesday and Thursday, Jan-  
uary 3 and 4.  
Friday to Tuesday, March 30  
to April 3, inclusive.....Easter vacation.  
Tuesday, May 29.....Commencement day.

# CALENDAR

1922

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
													1							1							
1	2	3	4	5	6	7	2	3	4	5	6	7	8	2	3	4	5	6	7	8	1	2	3	4	5	6	7
8	9	10	11	12	13	14	9	10	11	12	13	14	15	9	10	11	12	13	14	15	8	9	10	11	12	13	14
15	16	17	18	19	20	21	16	17	18	19	20	21	22	16	17	18	19	20	21	22	15	16	17	18	19	20	21
22	23	24	25	26	27	28	23	24	25	26	27	28	29	23	24	25	26	27	28	29	22	23	24	25	26	27	28
29	30	31					30							30	31						29	30	31				
FEBRUARY							MAY							AUGUST							NOVEMBER						
				1	2	3	4		1	2	3	4	5	6		1	2	3	4	5				1	2	3	4
5	6	7	8	9	10	11	7	8	9	10	11	12	13	6	7	8	9	10	11	12	5	6	7	8	9	10	11
12	13	14	15	16	17	18	14	15	16	17	18	19	20	13	14	15	16	17	18	19	12	13	14	15	16	17	18
19	20	21	22	23	24	25	21	22	23	24	25	26	27	20	21	22	23	24	25	26	19	20	21	22	23	24	25
26	27	28					28	29	30	31				27	28	29	30	31			26	27	28	29	30		
MARCH							JUNE							SEPTEMBER							DECEMBER						
				1	2	3	4					1	2	3					1	2						1	2
5	6	7	8	9	10	11	4	5	6	7	8	9	10	3	4	5	6	7	8	9	3	4	5	6	7	8	9
12	13	14	15	16	17	18	11	12	13	14	15	16	17	10	11	12	13	14	15	16	10	11	12	13	14	15	16
19	20	21	22	23	24	25	18	19	20	21	22	23	24	17	18	19	20	21	22	23	17	18	19	20	21	22	23
26	27	28	29	30	31		25	26	27	28	29	30		24	25	26	27	28	29	30	24	25	26	27	28	29	30

1923

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6	1	2	3	4	5	6	7	1	2	3	4	5	6	7		1	2	3	4	5	6
7	8	9	10	11	12	13	8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
14	15	16	17	18	19	20	15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
21	22	23	24	25	26	27	22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
28	29	30	31				29	30						29	30	31					28	29	30	31			
FEBRUARY							MAY							AUGUST							NOVEMBER						
					1	2	3			1	2	3	4	5			1	2	3	4					1	2	3
4	5	6	7	8	9	10	6	7	8	9	10	11	12	5	6	7	8	9	10	11	4	5	6	7	8	9	10
11	12	13	14	15	16	17	13	14	15	16	17	18	19	12	13	14	15	16	17	18	11	12	13	14	15	16	17
18	19	20	21	22	23	24	20	21	22	23	24	25	26	19	20	21	22	23	24	25	18	19	20	21	22	23	24
25	26	27	28				27	28	29	30	31			26	27	28	29	30	31		25	26	27	28	29	30	
MARCH							JUNE							SEPTEMBER							DECEMBER						
					1	2	3						1	2						1							1
4	5	6	7	8	9	10	3	4	5	6	7	8	9	2	3	4	5	6	7	8	2	3	4	5	6	7	8
11	12	13	14	15	16	17	10	11	12	13	14	15	16	9	10	11	12	13	14	15	9	10	11	12	13	14	15
18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22	16	17	18	19	20	21	22
25	26	27	28	29	30	31	24	25	26	27	28	29	30	23	24	25	26	27	28	29	23	24	25	26	27	28	29
														30							30	31					

## BOARD OF TRUSTEES

GOVERNOR CAMERON MORRISON, *Ex Officio Chairman*

<i>Name</i>	<i>Postoffice</i>	<i>Term Expires</i>
M. B. STICKLEY.....	Concord.....	March 20, 1923
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T. E. VANN.....	Como.....	March 20, 1927
P. S. BOYD.....	Moorestown.....	March 20, 1927
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T. T. THORNE

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*President*

A.B. 1885, University of North Carolina; C.E. 1890, LL.D. 1917, Lehigh University; LL.D. 1917, Wake Forest College

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*Vice President and Professor of Chemistry*

A.B. 1883, A.M. 1885, D.Sc. 1917, Davidson College; Fellow in Chemistry 1889-1890, Cornell University

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B.S. 1886, S. C. Military Academy; Ph.D. 1891, Johns Hopkins University

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*Dean of Agriculture*

B.S. 1893, M.S. 1896, N. C. State College of Agriculture and Engineering; Graduate Scholarship Student 1896-7, Johns Hopkins University

ROBERT E. LEE YATES

*Professor of Mathematics and Head of the Department*

A.M. 1889, Wake Forest College

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*Professor of Textile Engineering*

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A.B. 1890, Certificate in Electrical Engineering 1892, Johns Hopkins University

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B.S. 1910, Pennsylvania State College

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B.S. 1908, University of Missouri; M.S. 1909, University of California

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FACULTY

9

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## STATE COLLEGE CATALOG

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*Instructor in Modern Languages*

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A.B. 1920, University of Missouri; M.S. 1921, N. C. State College of  
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MRS. CHARLES MCKIMMON

*State Demonstration Agent; Assistant in Agricultural Extension*

## OFFICERS

EDWIN BENTLEY OWEN, B.S.  
*Registrar*

ARTHUR FINN BOWEN, C.P.A.  
*Treasurer and Purchasing Agent*

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*Alumni Secretary*

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*General Secretary of the Young Men's Christian Association*

HARRY HARTSELL, B.E.  
*Director of Athletics*

ALTON COOK CAMPBELL, M.D.  
*Physician*

LOUIS HINES HARRIS  
*Steward*

MRS. ELLA I. HARRIS  
*Hospital Matron*

MRS. CHARLOTTE M. WILLIAMSON  
*Librarian*

MRS. NELLIE WILLIAMSON PRICE  
*Dietitian*

MISS ISABEL BRONSON BUSBEE  
*Secretary to the President*

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS

### RESERVE OFFICERS TRAINING CORPS

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of Military Science and Tactics.

JOHN ENGLISH HAYWOOD, Captain Infantry, D. O. L., U. S. A., Assistant.

HARRY ELMER FISCHER, Captain Infantry, D. O. L., U. S. A., Assistant.

NATHANIEL LEWIS SIMMONDS, Captain Infantry, D. O. L., U. S. A.,  
Assistant.

ROBERT EDWARD WYSOR, JR., Captain Infantry, D. O. L., U. S. A.,  
Assistant.

LESTER AUSTIN WEBB, Captain Infantry, D. O. L., U. S. A., Assistant.

HORACE CARTER THOMAS, Staff Sergeant, D. E. M. L., U. S. A., Instructor.

JACOB ELVERSON BAKER, Sergeant, D. E. M. L., U. S. A., Instructor.

ALBERT PORTER HAMMOND, Sergeant, D. E. M. L., U. S. A., Instructor.

## FARM DEMONSTRATION AGENTS

C. R. HUDSON, State Agent, Raleigh, N. C.

H. H. B. MASK, Assistant State Agent, Raleigh, N. C.

### DISTRICT AGENTS

J. M. GRAY, Mountain District, Asheville, N. C.

E. S. MILLSAPS, Piedmont District, Statesville, N. C.

T. D. McLEAN, Central District, Aberdeen, N. C.

E. W. GAITHER, Eastern District, Goldsboro, N. C.

O. F. McCrARY, Northeastern District, Washington, N. C.

### COUNTY AGENTS

<i>County</i>	<i>Name</i>	<i>Postoffice</i>
ALAMANCE.....	W. Kerr Scott.....	Haw River
ALEXANDER.....	U. A. Miller.....	Taylorsville
ANSON.....	J. W. Cameron.....	Polkton
AVERY.....	J. W. Goodman, Jr.....	Newland
BEAUFORT.....	B. T. Leppard.....	Washington
BLADEN.....	R. K. Craven.....	Clarkton
BRUNSWICK.....	J. E. Dodson.....	Supply
BUNCOMBE.....	C. C. Proffitt.....	Asheville
CABARRUS.....	R. D. Goodman.....	Concord
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CASWELL.....	J. L. Dove.....	Yanceyville
CATAWBA.....	J. W. Hendricks.....	Newton
CHOWAN.....	N. K. Rowell.....	Edenton
CLEVELAND.....	R. E. Lawrence.....	Shelby
COLUMBUS.....	J. T. Lazar.....	Whiteville
CUMBERLAND.....	F. W. Risher.....	Fayetteville
CRAVEN.....	J. G. Lawton.....	New Bern
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EDGECOMBE.....	Zeno Moore.....	Whitakers
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GUILFORD.....	E. B. Garrett.....	Greensboro
HERTFORD.....	H. L. Miller.....	Winton
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JACKSON.....	R. W. Gray.....	Sylva
JOHNSTON.....	S. J. Kirby.....	Smithfield
JONES.....	E. F. Fletcher.....	Trenton
LENOIR.....	C. M. Brickhouse.....	Kinston



<i>County</i>	<i>Name</i>	<i>Postoffice</i>
LINCOLN	J. G. Morrison	Lincolnton
MECKLENBURG	Kope Elias	Charlotte
MONTGOMERY	A. R. Morrow	Troy
MOORE	M. W. Wall	Carthage
NASH	G. D. Burroughs	Nashville
NEW HANOVER	J. P. Herring	Wilmington
ONSLOW	D. L. Latham	Jacksonville
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RICHMOND	W. H. Barton	Rockingham
ROBESON	O. O. Dukes	Lumberton
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SAMPSON	R. T. Melvin	Clinton
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VANCE	J. C. Anthony	Henderson
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G. M. GARREN	Assistant in Plant Breeding
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W. A. DAVIS	Assistant in Soil Survey
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T. B. MITCHELL	Assistant Entomologist
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A. G. OLIVER <sup>2</sup>	Poultry Extension
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E. G. WARDIN	Assistant Poultry Investigator and Pathologist
F. R. FARNHAM <sup>2</sup>	Assistant in Dairy Farming
A. C. KIMREY	Assistant in Dairy Farming
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	Extension Pathologist
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The Experiment Station and the Extension Service are supported and conducted jointly by the College and State Department of Agriculture. A joint committee from the Board of Trustees of the College and the Board of Agriculture, under agreement entered into by the Boards and authorized by an act of the Legislature in 1913, have direct charge of them.

<sup>1</sup>In coöperation with the United States Department of Agriculture, States Relations Service.

<sup>2</sup>In coöperation with the United States Department of Agriculture, Bureau of Animal Industry.

<sup>3</sup>In coöperation with the United States Department of Agriculture, Bureau of Plant Industry.

<sup>4</sup>In coöperation with the United States Department of Agriculture, Office of Roads and Rural Engineering.

<sup>5</sup>In coöperation with the United States Department of Agriculture, Bureau of Markets and Rural Organizations.

<sup>6</sup>In coöperation with the United States Department of Agriculture, Bureau of Entomology.

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WILBURN C. JOHN, Color Sergeant  
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LUCIAN J. DALE, Sergeant Bugler

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C. R. BARBER, 1st Sergeant

**BAND**

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EDWARD D. BARR, 1st Lieutenant  
LERA R. HARRILL, 1st Lieutenant  
RALPH F. MATTHEWS, 2d Lieutenant  
WILLIAM W. STARR, 2d Lieutenant  
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Z. M. HARRY, Sergeant  
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C. C. PARKER, Corporal  
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## GENERAL INFORMATION

During the years in which North Carolina was emerging from the economic havoc wrought by Civil War and Reconstruction, some farsighted men began to see the necessity of rearing industrially equipped men. They felt keenly the need of competent men to build and direct new industries, and to restore the fertility of the land. They recognized that men capable of doing what was needed would have to be educated in industrial schools and technical colleges.

The first organized body to take steps for the establishment of a State industrial institution in North Carolina was the Watauga Club. This club, composed of progressive young men, explained its mission by declaring that it was "an association in the city of Raleigh designed to find out and make known information on practical subjects that will be of public use." In 1885 this club presented to the Legislature a memorial urging that body "to establish an industrial school in North Carolina which shall be a training place for young men who wish to acquire skill in the wealth-producing arts and sciences."

This memorial quickened general interest in the proposed school, and several bills looking to its foundation were introduced in the Legislature of 1885. On March 7th, one of these bills, introduced by Hon. Augustus Leazar of Iredell County, became a law. This law provided that the Board of Agriculture should seek proposals from the cities and towns of the State, and that the school should be placed in the town offering the greatest inducements. The Board of Agriculture finally accepted an offer from the city of Raleigh.

Meantime, the ideas of the advocates of the school had been somewhat broadened as to the character of the proposed institution.

These men saw that Congress was about to supplement the original land grant by an additional appropriation for agricultural and mechanical colleges in each State. The originators of the conception then sought the aid of progressive farmers in order to change the school into an agricultural and mechanical college. Colonel L. L. Polk, the editor of the newly-established **Progressive Farmer**, threw the weight of his paper heartily into the idea. Meetings were held in various places, and two very large meetings in Raleigh considered the proposition. As a result, the school already provided for was by action of the Legislature of 1887 changed into an agricultural and mechanical college, and the Congressional Land Scrip Fund was given the newly formed institution. In addition, the law directed that any surplus from the

Department of Agriculture should go into the treasury of the College. Mr. R. Stanhope Pullen, one of Raleigh's most broad-minded citizens, gave the institution eighty-three acres of land in a beautiful suburb of Raleigh. Additional funds were afterwards provided by the Supplemental Morrill Bill passed by Congress in 1890, by the Nelson Bill of 1907, and by State appropriations. The first building was completed in 1889, and the doors of the College were opened for students in October, 1889. Seventy-two students, representing thirty-seven counties, were enrolled the first year. The faculty consisted of six professors and two assistants. From this small beginning in 1889 the College has grown steadily from year to year.

The College is beautifully located on the extension of Hillsboro street in the western part of Raleigh, a mile and a quarter from the State Capitol. The site is suitable in all respects.

There is an abundant supply of water from the city mains and from twelve deep wells on the College grounds. The water is analyzed, both chemically and bacteriologically, at regular periods. The College now owns four hundred and eighty-six acres of land. Fifteen hundred young trees and nine hundred and forty vines are growing in an orchard of twenty-five acres. Seven acres are devoted to truck growing. The campus consists of about thirty acres of rolling land, which is being improved as rapidly as circumstances permit.

### BUILDINGS

The College has the following buildings, all of which are well lighted, heated, and ventilated, and adequately protected against fire:

**Holladay Hall**, the administration building, 170 feet long by 64 feet deep, is a three-story brick structure with a basement. The basement floor is devoted to the classrooms and laboratories of the Physics Department. The main and second floors contain the offices of the Executives and classrooms of the Departments of English, Mathematics, Modern Languages, and Economics.

**Patterson Hall**, the main Agricultural building, is a buff press-brick structure, 204 feet long by 74 deep, of two stories and a basement. The lower floor is used as a dairy with washrooms and sterilization chamber. The first floor provides room for the offices of the Experiment Station and Extension Service, and for classrooms and laboratories of the departments of Agronomy, Horticulture, and Soils. The second floor accommodates the departments of Botany and Plant Pathology, and of Physiology and Veterinary Medicine.



**Ricks Hall** (Agricultural Extension Building). This latest addition to the agricultural group of buildings is now under construction and will be completed during the summer. It will be 61 by 184 feet, three stories high, with a full size, well lighted basement, making the equivalent of four stories. The frame work is to be of reinforced concrete and the exterior of pressed brick and granite, trimmed with limestone and terra cotta. It will be fire-proof throughout. The approximate cost is \$200,000.

When completed, the Extension Building will take care of all extension forces now housed in Patterson Hall and with the State Department of Agriculture, and will provide additional classrooms and laboratories for many of the agricultural courses.

**The Animal Husbandry Building** is of brick, two stories and basement. Rooms of the Poultry Department and a stock-judging room are included in the basement. The first floor is occupied by the departments of Animal and Poultry Husbandry. The second floor is devoted to the Department of Zoölogy and Entomology for laboratories and classrooms.

**Winston Hall** is built of brick, with reinforced concrete floors, three stories high, including the basement. The basement and main floor are occupied by the Civil and Electrical Engineering Departments for laboratories, instrument rooms, classrooms, and drafting rooms. The second floor contains recitation rooms and laboratories of the Department of Chemistry and the Chemical Department of the State Experiment Station.

**The Old Mechanical Engineering Building** is a plain, substantial two-story brick building furnishing room for the drawing and recitation rooms of the Mechanical Engineering Department, also for shop and storage space for the repair department.

**The Textile Building** is a two-story brick building, 150 by 75 feet, with a basement. Its construction is similar to that of a cotton mill, and is an illustration of standard construction of this class of buildings. The basement contains the dyeing department, the first floor the looms and warp preparation machinery, and the second floor the carding and spinning machinery.

**Primrose Hall**, one story and a basement, is used for the offices of the Rehabilitation Department, and also by the Extension Service for its department of Farm Demonstration.

**The Shop and Laboratory Building** is an illustration of the standard construction of modern shop buildings. It is a one-story and part basement L-shaped structure, one dimension being 170

feet and the other 195. The basement serves as a laboratory and storage room. The main floor embraces a machine shop, woodshop, forge shop, foundry and demonstration rooms, and tool rooms. Additions to this building under construction will be completed during the summer to provide spacious drawing rooms and recitation rooms for the department of Mechanical Engineering.

**Pullen Hall** is a two-story colonial brick building with a basement. The lower floor is used as an armory. The main floor gives quarters for the library and two classrooms. The upper story serves as the College auditorium, and seats about one thousand people.

**The Dining Hall**, which is 144 by 54 feet, will accommodate about seven hundred people. A large kitchen completely supplied with modern conveniences and utensils, the preparation rooms, serving rooms, store-rooms, etc., along with the hall proper, make this building an attractive feature of the College. Additions to this building now under construction will double its capacity.

**The Y. M. C. A. Building** is the home of the greater part of voluntary student activities. It is an attractive two-story and basement brick building handsomely equipped with mission furniture throughout. The basement contains the gymnasium, swimming pool, bowling alleys, shower baths, and athletic rooms. The main floor has a large lobby, with open reading and game rooms, an auditorium, a banquet hall, several bedrooms for visitors, and offices of the Association and of College publications. The upper floor contains two large society halls and rooms for Bible study classes.

**The Infirmary** is a two-story brick building containing separate rooms and wards for the care of the sick. Offices and rooms for the College physician and matron are also provided. The building is well equipped to serve its purposes.

**Watauga Dormitory** provides rooms for one hundred and twenty students. It is a three-story brick structure with a basement.

**Nineteen-Eleven Dormitory**, the largest dormitory on the grounds, is divided into sections by fireproof walls. It furnishes rooms for two hundred and forty students. Large and convenient bathrooms are located in the basement of the building.

**First Dormitory**, a two-story brick structure, affords accommodations for twenty students.

**Second Dormitory**, built on the same plan as the First Dormitory, will house twenty students.

**Third Dormitory** has rooms for twenty students.

**Fourth Dormitory**, a three-story brick structure, furnishes rooms for forty-eight students.

**South Dormitory** is a completed wing of what will soon be a handsome building similar to Nineteen-Eleven Dormitory. The wing furnishes rooms for forty-eight students. It is expected that by the opening of the fall term this building will be completed and ready for the accommodation of students. The dormitory will then contain 86 rooms, and provide homes for 172 students.

**The Two Unit Dormitories** provide accommodations for one hundred and forty students. These dormitories are of brick, two stories high. The rooms are all well lighted and well ventilated, with bathrooms on each floor. The buildings are fireproof throughout.

**The Farm Buildings** are nine in number: six barns, capacious and modern in every respect, for the housing of the stock and storing of feedstuffs and implements; the home of the dairyman, near the barns; two cottages for foremen of dairy and agronomy farms; the Horticulturist's home in the orchard; and the Poultry Plant, comprising the home of the instructor in charge and the various buildings and pens for the raising of fowls.

**The Central Power Plant** furnishes heat, light, and power for all the College buildings. The boiler plant consists of two 75-horsepower and two 150-horsepower boilers with a working steam pressure of 150 pounds. The engine plant is equipped with a 100-horsepower engine, generators, and steam and vacuum pumps.

## AGRICULTURAL EQUIPMENT

**Agricultural Engineering.** This department is well equipped with agricultural farm equipment for lecture, field, and laboratory student work. Through the generosity of numerous branch houses and manufacturers, the laboratory is equipped with all the modern tilling, seeding, harvesting, and fertilizer distributing machinery that is suitable for use on North Carolina farms. The farm motors laboratory is equipped with thirteen different types of stationary gas engines, three lighting plants and water systems, and seven different types of traction engines. The laboratory is also equipped with testing instruments such as traction dynamometers, prony brakes, planimeters, and speed counters.



The irrigation and terracing laboratory is equipped with levels, ranging poles, rods, taps, hand axes, pins, etc.; also with spades and drain cleaners for laying out farm drainage and terracing systems.

**Animal Husbandry and Dairying.** The Department is well equipped to instruct students in the profitable types of farm animals, how to handle them so as to get the best returns, how to select breeding stock, and how to feed and market all classes of farm animals. The offices, classrooms, and laboratories are attractive and are arranged to give the students all the advantages possible. The department operates a farm, which is a laboratory for students taking Animal Husbandry subjects. The dairy barns are filled with more than sixty registered cattle representing four breeds. A sufficient number of swine are kept to give students practice in every phase of the industry. The same is true of horses and sheep. The farm is organized to emphasize the growing of permanent and temporary pastures, small grains, hay, and silage crops, all of which are fed to the animals belonging to the department.

**Botany.** The Department of Botany has two student laboratory rooms, a well equipped bacteriological laboratory, a temperature room, a dark room, a preparation room, and two offices. The laboratories are equipped with the necessary microscopes, apparatus for physiological work, and collections of plant materials for student use. The Library, which is installed in the Department, contains most of the more important modern botanical books and extensive bound files of American botanical journals.

**Farm Crops.** The equipment for teaching Farm Crops consists of standard apparatus and type trays for the study and determination of market grades of cereal grains and cotton. Other equipment consists of type samples of all cultivated legumes, grasses, cotton, and tobacco, dried plants and their seeds, and illustrative material in the form of charts, lantern slides, and pictures. Modern equipment will be used on the department farm in the field study and practice of good cultural methods for the production of field crops. Standard equipment is available for use in the teaching of Farm Management.

**Horticulture.** The Department of Horticulture has a Service Building, Greenhouse, and a laboratory furnished with necessary apparatus. The Horticultural grounds of twenty-five acres contain student vegetable gardens, orchards, vineyards, planting of berries, and spaces used for nursery purposes. The department has charge of the development of the College campus.

**Poultry Husbandry.** The poultry plant contains breeding pens suited to poultry keeping in North Carolina. Incubators, brooders, and other equipment are supplied. The laboratories are furnished complete with poultry appliances.

**Soils.** A completely equipped laboratory affords exceptional facilities for instruction in general soils. The College farm is used for the practical work in drainage, terracing, fertilization, and study of soil types.

**Veterinary Science.** The laboratories and the dissecting and pharmacy rooms are supplied with all necessary apparatus. For class and laboratory instruction there are mounted skeletons, specimens of diseases, and a collection of parasites which infest domestic animals.

**Zoology and Entomology.** This department has the second floor of the Animal Husbandry Building. An excellent laboratory is provided with the usual equipment of a Zoological laboratory. The department has a museum and its own library.

The new insectary and beekeeping laboratory furnishes much additional space for the study of injurious and beneficial insects and for the study of better beekeeping. In the beekeeping laboratory there are special rooms for hive making and for extracting honey and for the study of the anatomy of the bee, with an especially full and modern equipment in all lines of work.

## ENGINEERING EQUIPMENT

**Civil Engineering.** The equipment consists of all instruments necessary for the laboratory and field practice in Civil Engineering, such as transits, levels, plane tables, sextants, etc. Apparatus is also furnished for testing cement. The department has its own library, and is well supplied with filing cases and reference maps.

**Electrical Engineering.** Quarters for this department are provided in Winston Hall. The classrooms are well equipped for lectures and demonstrations. The instrument laboratory is fully supplied with standardizing apparatus and measuring instruments. The dynamo laboratory is provided with various types and sizes of generators and motors and transformers, a complete equipment of measuring instruments, and ample capacity in storage batteries. Rooms for photometric measurements, high tension tests, and radio communication are provided, and a well equipped shop. A complete radio telephone transmitting station has been installed. Machinery of the College power plant is avail-

able for testing and inspection. The radio laboratory is well equipped for receiving and sending radio telephone and radio telegraph messages, as well as for carrying on experimental work in this field.

**Highway Engineering.** Complete laboratory for testing road-building material.

**Mechanical Engineering.** The Forge Shop is equipped with forty anvils and twenty double forges of the down-draft type, an exhaust system, a special gas furnace for the treatment of steel, and other necessary apparatus.

The Foundry equipment consists of a cupola, brass furnace, sand-sifter, core machine, core oven, molding machines, and all necessary tools for bench and floor work.

The Woodshop is excellently equipped with lathes, saws of various kinds, planes, jointers, mortisers, sanders, and other machinery essential to an up-to-date woodshop.

The Machine Shop contains lathes, shapers, drill presses, grinders, planer, milling machine, and a full equipment of necessary minor tools and conveniences.

The Mechanical Laboratory is supplied with steam, gasoline, oil, and automobile engines, with instruments for measuring, testing, and analyzing, and with 50,000-pound and 15,000-pound testing machines. The power plant is also available for tests.

The Drawing Rooms are equipped with tables, stools, cases for boards, reference files, and models. The Senior drawing room has a Universal Drafting machine in addition to other necessary equipment.

**Physics.** The William Kearney Carr Physical Laboratory includes two lecture rooms and six laboratories, excellently equipped. The research laboratories offer exceptional facilities for advanced study in Physics. They include a darkroom for work in light, a sound-proof room for acoustic work, and a shop and batten room. The equipment of these laboratories and the demonstration and research apparatus are of the highest grade.

### CHEMICAL EQUIPMENT

The entire second floor of Winston Hall is given over to three classrooms, three large laboratories, a library, and other rooms of the department of Chemistry. The equipment is extensive and complete for the many courses offered.



## TEXTILE EQUIPMENT

The equipment of this department consists of the latest types of cotton mill machinery, manufactured by American builders. Electricity is used as a motive power, the machinery of each department in the building being driven by a separate motor.

**Carding.** The card room is located on the second floor of the building. This room contains breaker, picker, finisher, lapper, cards, drawing frames, roving frames, combing outfit.

**Spinning.** This department is also located on the second floor. The equipment consists of five spinning frames, and machinery for spooling, twisting, reeling, winding, and warping.

**Weaving.** The entire main floor is given over to this department. For warp preparation the equipment consists of bobbin-winding machines, beaming machines, and a slasher. The looms, thirty in number, manufacture sheeting, gingham, toweling, and all kinds of fancy goods, including jacquards. The finishing is done by sewing and rolling, inspecting and brushing machines.

**Dyeing.** The basement of the building is fitted up with a classroom, laboratory, and dyehouse for instruction in dyeing, and with dyeing machinery. The laboratory has all the necessary apparatus for experimental and practical instruction. The dyehouse is equipped with the proper machinery needed in the dyeing of large quantities of material.

## THE AGRICULTURAL EXPERIMENT STATION

The North Carolina Agricultural Experiment Station was established originally as a division of the State Department of Agriculture, in accordance with an act of the General Assembly ratified March 12, 1877. Its work was greatly promoted by act of Congress of March 2, 1887, known as the Hatch Act, which made a donation to each State for the purpose of making investigations in agriculture, and for publishing the results. The funds of the Experiment Station were further supplemented by the act of Congress of March 16, 1906, known as the Adams Act. Under the requirements of the Hatch Act, the Station became a department of the College and was conducted jointly by the College and the Department of Agriculture from 1889 to 1907, with the exception of three years. Under an agreement entered into between the Board of Trustees of the College and the Board of Agriculture in January, 1912, and authorized by act of the Legislature of 1913, the work of the Experiment Station, which covers all of the

experimental work in agriculture in the State, is jointly conducted and supported by the College and State Department of Agriculture.

The experimental work in the field in agriculture, horticulture, stock and poultry raising, dairying, etc., is conducted on the College farm and on the test farms of the Department of Agriculture in different parts of the State, and the laboratory investigations are conducted in the laboratories of the two institutions.

The Station is always glad to welcome visitors and to show them the work in progress. The Station conducts a large correspondence with farmers and others concerning agricultural matters. It takes pleasure in receiving and answering questions.

Bulletins relating to general farm matters, embodying the results of the experiments, are sent free to all citizens of the State who request them. A request addressed to the Agricultural Experiment Station, State College Station, Raleigh, will bring these publications. The Station is glad also to answer letters of inquiry.

### AGRICULTURAL EXTENSION SERVICE

Yearly increasing amounts of Extension work have been done by the College and the North Carolina Department of Agriculture since their organization. At first this took the form of analyses of fertilizers, marls, phosphates, composts, and various agricultural products, and advice on these several matters. Farmers' Institutes were started at a later date and are continued at the present, and other forms of Extension service have been conducted along a number of lines. In 1906 Farm Demonstration work through county agents and special workers was begun, and Boys' and Girls' clubs were soon made a part of it.

This division conducts the Corn Clubs, Poultry Clubs, Pig Clubs, Potato Clubs, and Peanut Clubs for the boys and girls of the State, and the Canning Clubs for the girls. The active membership of these clubs is confined to young people between the ages of ten and eighteen years, but adults are permitted to join the Pig and Poultry Clubs, and get all instruction sent the active members. In these clubs the young people are taught to grow crops or animals upon their own farms according to the teachings of modern science, and are shown the wonderful possibilities of farming in accordance with a few fundamental scientific laws.

In addition to the instruction through monthly letters, bulletins, and visits of the Extension workers, club schools are held at the farm-life schools and at county-seats during the summer, at which the members are given two or three days of technical instruction.

There is also held at the State College of Agriculture and Engi-



neering during each August a one-week Short Course for members of all the clubs, conducted by the Extension Division.

Under a joint arrangement between the State College of Agriculture, the State Department of Agriculture, and the State Department of Education, perfected October 1, 1916, the State Agent in Boys' Club work was appointed State Supervisor of Secondary Agricultural Education. His duties pertain particularly to the supervision of the farm-life schools and the direction of agricultural teaching in the rural schools of the State.

Because of the very close relation between the club work and the school work, those in authority deemed it wise to place the direction of all this work under one supervision. The club work should be made the vitalizing agency for all agricultural teaching in the rural schools. By utilizing the "Home Project" plan and having all this work supervised from the same office, the teaching and practical work are more closely related.

In January, 1912, under an agreement entered into between the Board of Trustees of the College and the Board of Agriculture, and authorized by an act of the Legislature in 1913 (chapter 68, Public Laws of 1913), all of the Extension and Demonstration work in the State was brought together and conducted jointly by the two institutions, in coöperation with the United States Department of Agriculture.

The Congressional Smith-Lever Act of May 8, 1914, has made possible a larger development of the Extension Service. The Extension Service has for its main object the carrying of new information and good practices obtained in experimental work and in good farming to the farmers and farm women of the State, through county men and women agents and workers in special lines. These workers spend most of their time in the field in efforts to bring about better farming, better homes, coöperation among farmers, and more profitable marketing of farm products.

The Extension forces at headquarters are housed in the buildings of the College and of the State Department of Agriculture, offices and conveniences for work having been supplied by these two institutions, and in the main equipped by them.

### THE PURPOSE OF THE COLLEGE

The College is an institution where young men of character, energy, and ambition may fit themselves for useful and honorable work in many lines of industry in which training and skill are requisite to success. It is intended to train farmers, mechanics, engineers, architects, draftsmen, machinists, electricians, metallurgists, chemists, dyers, mill workers, manufacturers, stock

raisers, fruit growers, truckers, and dairymen, by giving them not only a liberal but also a special education, with such manual and technical training as will qualify them for their future work.

It offers practical and technical education in agriculture, horticulture, animal industry, business administration, social science, civil engineering, mechanical engineering, electrical engineering, chemistry, dyeing, and textile engineering. It also offers practical training in carpentry, woodturning, blacksmithing, machinists' work, mill work, boiler tending, engine tending, dynamo tending and installation, electric light wiring, armature winding, and other subjects relating to practical electricity.

Although the leading purpose of the College is to furnish technical and practical instruction, yet other subjects essential to a liberal education are not omitted. Thorough instruction is given in English, mathematics, political economy, physics, chemistry, botany, zoölogy, physiology, and geology.

The College is not a place for young men who desire merely a general education without manual or technical training, nor for lads lacking in physical development, mental capacity, or moral fiber, nor for those who are unable or unwilling to observe regularity, system, and order in their daily work.

#### **WHAT THE COLLEGE EXPECTS OF ITS STUDENTS**

The College does not have many rules. It expects that its students will live rightly for their own sakes and for the sake of the State that is educating them. The fundamental law of the College is this: Always and everywhere, be a gentleman.

A record is kept of every student. If it is apparent from this record that a student is not studying or that his conduct is not meeting the requirements of the College, such student will be required to withdraw. Scandalous, vicious, or immoral conduct will necessitate immediate dismissal.

Students attend this College to fit themselves for a technical business life. They are therefore expected to be businesslike in their habits, to be prompt in their attendance, and regular at chapel, classes, shops, drills, and all other duties. To prepare themselves for their daily work, students are expected to observe in their own rooms the regular morning and evening hours of study, and to be absent from College only at the regular specified periods.

Students are expected to keep their rooms neat and sanitary; to refrain from disturbing one another by noise in the buildings or on the grounds—in short, to conduct themselves in their College home with the same courtesy, self-respect, and propriety that they do in their own homes.



Visiting poolrooms, leaving College after 11 o'clock at night, willful destruction of College property, drinking, immorality, gambling in all forms, hazing of any kind, disrespect to members of the Faculty or officers of the College, any conduct unbecoming a gentleman—it is expected that a student's self-respect will lead him to abstain from these offenses, and should any student be found guilty of them he will be dismissed from the College.

### **REPORTS AND SCHOLARSHIP**

Regular reports of scholarship are sent by the Registrar to parents and guardians at the end of each term. Special reports are made whenever necessary. Whenever a student fails on a subject during a month, such failure is reported to his parents. Students who are persistently neglectful of duty, or manifestly unable to do the work required, will be discharged at any time. The Faculty will require any student to withdraw whenever it is plain that his stay in the institution is unprofitable to himself and to the college.

### **RELIGIOUS INFLUENCES**

All students are required to attend chapel exercises in Pullen Auditorium each morning. These services are conducted by the President, by some member of the Faculty, or by some visiting minister or layman.

Each student is expected to attend religious services in Raleigh on Sunday morning at the church of his choice. The students are always welcomed in the Sunday schools of Raleigh, and a large number of them attend these services.

### **THE YOUNG MEN'S CHRISTIAN ASSOCIATION**

The Young Men's Christian Association is a voluntary organization among the students for the purpose of centralizing and directing the moral and religious life of the student body. The work is under the direction of a General Secretary, who is employed to give his entire time to the work, and of the following student officers: president, vice president, corresponding and recording secretaries, and treasurer. Active assistance is also given by an Advisory Committee, which includes three members of the Faculty and six prominent business men in Raleigh. The president and treasurer of the Association are ex officio members of this committee.

The membership fee for all College students is four dollars a year. This small fee was made possible during the session of 1916-17, when the student body, as a whole, expressed its desire of having every student, at the beginning of each term, pay over

to the College Bursar one dollar as his dues for the ensuing term. The fee has since been voluntarily increased to four dollars per year. Only members of evangelical churches may become active members.

A large number of men are trained each year in active Christian service through membership on the following standing committees, all of which are trained by the General Secretary in their particular work: Bible Study Committee, which has charge of the organization of voluntary Bible Study classes among the students; Religious Meetings Committee, which provides speakers and arranges programs for the weekly meetings of the Association; Mission Study Committee, which provides for Mission Study among the students; Social Committee, which provides means of social entertainment and diversion; and Finance Committee. Each committee is held responsible for its part of the Association's activities.

The Association is supported by a yearly appropriation from the College, by gifts from the Faculty, the parents of the boys, and the Alumni, and by its regular membership.

The Y. M. C. A. occupies its own building, which was erected at a cost of \$41,000. This building is conveniently situated on the campus.

Parents or students wishing to obtain further information about the work of the Association may do so by addressing the General Secretary, State College Station, Raleigh, N. C.

## ATHLETICS

The Athletic Association is organized by the student body to promote physical health and manly spirit through athletic sports. Under the direction of the Athletic Committee of the Faculty it promotes practice in baseball, basketball, football, track athletics, etc. The Association employs a director who devotes all of his time to the interests of this department.

The Athletic Park, Riddick Field, is situated in the center of the campus, conveniently located to all dormitories and to the dressing rooms, shower baths, and bathing pool in the Y. M. C. A. building. It is provided with concrete bleachers, built on the unit plan, supplemented with temporary wooden stands, to take care of the overflow at the larger games.

It is the aim of the College to encourage general participation in athletic sports by the students. In order to promote interest in athletics the College teams are allowed to play a limited number of games with the teams of other colleges, while all students are allowed and encouraged to take part in intramural games. The College recognizes that college athletics are pro-



moted for the benefit of its bona fide students, and in order to prevent abuses the following regulations in regard to intercollegiate games are in force:

**Eligibility Rules of the North Carolina State College of  
Agriculture and Engineering**

Any student in good and regular standing shall be eligible to represent this College in athletic contests, subject to the following conditions:

1. Before any student can become a member of any athletic team in the College and take part in any intercollegiate contest, he must apply to the Faculty Committee on Athletics and secure its approval of his application. It shall be the duty of the Faculty Committee on Athletics to see that the said student is properly enrolled in the College.

2. It shall be the duty of the Athletic Committee to inquire into and make record of the athletic experience of the applicant, and it shall be the duty of the applicant to appear before the committee and answer on his honor such questions as the committee may see fit to ask, on request of the committee.

3. No person shall participate in intercollegiate athletics at this institution until after the expiration of twelve months from the date of his matriculation here, and until he shall have completed the scholastic requirements of this institution.

4. No student shall participate who is receiving, has received, or has been promised, directly or indirectly, any money or financial concessions as compensation for or prior consideration to his playing.

5. No student shall participate in athletic sports who does not matriculate within thirty days of the opening date of the term.

6. No student shall be eligible to participate in intercollegiate contests if he has played on any baseball team which is a member of an organized league operating under the national agreement and under the supervision of the National Baseball Commission.

7. No graduate student who is not a bona fide applicant for a degree conferred by this College shall be allowed to participate.

8. No undergraduate student shall take part in any athletic contest who is not pursuing one of the regular prescribed courses of instruction or its equivalent, nor will he be allowed to participate if his class work is unsatisfactory. A student must have fifteen units in order to take part in any athletic contest.

9. No student shall be allowed to represent the College in any intercollegiate contest during any month if he has been reported deficient on a majority of his work for the preceding month.

10. Participation in intercollegiate athletics shall be limited to three years, over a five-year period, counting from the time of

first matriculation. Participation in any intercollegiate sport in any college year shall constitute one year of athletic participation.

11. The object of these rules is to allow only bona fide students to take part in athletic contests, and if it shall appear to the Faculty Athletic Committee that any student is or has ever been a professional athlete, or that he is in College for the purpose of taking part in athletics and not of getting an education, such student shall not be allowed to represent the College in any athletic contests.

These rules will be amended from time to time to conform to the rules of the Southern Intercollegiate Conference.

### **LIBRARY AND READING ROOM**

The College Library occupies the first story of Pullen Hall. It contains over ten thousand volumes, in addition to a large number of uncatalogued Government documents and agricultural bulletins. There are reference libraries in connection with the various technical departments.

The reading room of the main library provides a good variety of literature, technical books, fiction, encyclopaedias, general reference books, and bound magazines. There are many periodicals, literary and scientific, and about one hundred daily papers.

No book may be taken from the library until it has been charged at the desk. Two weeks is the maximum period for which a book may be lent. No books may be borrowed while there are fines unpaid. Books not available for circulation are: (1) works of reference; (2) books temporarily reserved for the use of students in various courses of instruction; (3) bound magazines; (4) current periodicals; (5) books of especial value.

The library is open from 9 a. m. to 6 p. m., and two hours at night. On Sunday it is open from 2 p. m. to 6 p. m. The librarian, or an assistant, is always present to help the students in any line of research or reading.

### **STATE MUSEUM**

Students have free access to the large collections of the State Museum. These collections furnish most excellent opportunities for studies in Geology, Mineralogy, Mining, Forestry, and Natural History.

### **COLLEGE SOCIETIES**

Such college organizations are encouraged as tend to form good character, to develop manly physical vigor, and to promote literary, scientific, and technical research and training.

**The Biag Society** is composed of those students who have made the best record in biological and agricultural subjects. The membership is limited to twelve. The society meets monthly for the discussion of biological and agricultural questions.

**Farmers Progressive Association.** The students in the Farmers Course in Agriculture meet every Wednesday night during the winter term for a discussion of practical problems. The meetings are conducted in the manner of a Farmers Institute, and give training in conducting farmers' meetings, in ex tempore speaking on agricultural questions, and in the writing and reading of reports on various farm operations.

**The Agricultural Club.** The purpose of this club is to interest the Agricultural students in the practical side of Agriculture and start them to working along progressive lines.

Weekly meetings are held at which practical topics are discussed. Essays dealing with specific problems are read and debates held on current Agricultural questions. Liberal prizes are given in the various contests. A corn show open to all Agricultural students is held each year by the club.

**The Tompkins Textile Society.** The purpose of this society is to discuss textile problems and other subjects in connection with the textile industry. Meetings are held weekly, and great interest is taken in them by the textile students.

**The Mechanical Engineering Society** is a student branch of the American Society of Mechanical Engineers. The society is composed of Seniors and Juniors taking the Mechanical Engineering Course. It meets twice a month for the discussion of engineering subjects, and such work has proved very beneficial to its members.

**Electrical Engineering Society.** A student branch of the American Institute of Electrical Engineers was organized at the College several years ago. It holds weekly meetings for the reading and discussion of papers. At convenient intervals the society makes trips to inspect interesting electrical installations. From time to time addresses are made by visiting engineers.

**The Berzelius Society** meets weekly for discussion of chemical topics, and for reports upon the leading articles in the chemical journals.

**The Pullen and Leazar Literary Societies** afford excellent opportunities for practice in declamation, debate, composition, and parliamentary law, as well as opportunities for social pleasure and recreation.



## REQUISITES FOR ADMISSION

Each applicant for admission must be at least sixteen years of age and must bring a certificate of good moral character from the school last attended.

### FOUR-YEAR COURSES

Since September, 1921, 15 units of credit have been required for unconditioned admission to the four-year courses. Of these units  $8\frac{1}{2}$  are in specified subjects;  $6\frac{1}{2}$  are in elective subjects.

A unit is defined as a subject pursued in schools of approved grade for five periods a week throughout the year, each period being at least forty minutes.

#### Specified Subjects

	<i>Units of Credit</i>
English (standard requirements for college entrance) .....	3
History .....	2
Mathematics (Algebra through Progressions; Plane Geometry) .....	$2\frac{1}{2}$
Science (any one from Group A below) .....	1

#### Elective Subjects

##### SCIENCE AND VOCATIONAL SUBJECTS

Group A:	<i>Units of Credit</i>
Biology .....	$\frac{1}{2}$ or 1
Botany .....	$\frac{1}{2}$ or 1
Chemistry .....	$\frac{1}{2}$ or 1
General Science .....	$\frac{1}{2}$ or 1
Physics .....	$\frac{1}{2}$ or 1
Physiology and Hygiene.....	$\frac{1}{2}$ or 1
Zoology .....	$\frac{1}{2}$ or 1
 Group B:	
Agriculture and Farm Practice.....	1 to 6
Civics and Social Science.....	$\frac{1}{2}$ to 2
Commercial Subjects .....	$\frac{1}{2}$ to 2
Drawing (freehand or mechanical).....	$\frac{1}{2}$
Economics .....	1
Mechanic Arts .....	$\frac{1}{2}$ or 1
Mill Practice .....	$\frac{1}{2}$
Physical Geography .....	1



Foreign Languages :	Units of Credit
French .....	1 to 2
German .....	1 to 2
Latin .....	1 to 4
Spanish .....	1 to 2
History :	
American .....	1
English .....	1
General .....	1
Medieval and Modern.....	1
Ancient .....	1
North Carolina .....	1½

### Explanation

1. In Modern Languages, one unit of credit is allowed for each year's work. The first year's work should cover the grammar and about 200 pages of translation.

2. In Latin, one unit each is allowed for grammar and composition, Caesar (Books I-IV), Vergil (Books I-VI), and Cicero (six orations).

3. Standard high-school text-books are recommended for all subjects.

## COLLEGE ENTRANCE REQUIREMENTS IN LITERATURE

PART I. *The books presented for study are arranged in four groups, from each of which one selection is to be made.*

Group I. (Drama)—Shakespeare's *Macbeth*; *Hamlet*.

Group II. (Poetry)—Milton's *L'Allegro*, *Il Penseroso*, and *Comus*; the selections from Wordsworth, Keats, and Shelley in Book IV of Palgrave's *Golden Treasury* (First Series).

Group III. (Oratory)—Burke's *Speech on Conciliation with America*; Washington's *Farewell Address*; Webster's *First Bunker Hill Oration*, and Lincoln's *Gettysburg Address*.

Group IV. (Essays)—Carlyle's *Essay on Burns*, with a selection from Burns's *Poems*; Macaulay's *Life of Johnson*.

PART II. *Books prescribed for reading are arranged in five groups, from each of which at least two selections are to be made.*

Group I. (Classics in Translation)—The Old Testament, comprising at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *Kings*, and *Daniel*, together with the books of *Ruth* and *Esther*; the *Odyssey*, with the omission, if desired, of Books I-V, XV, XVI; the *Æneid*. The *Odyssey* and the *Æneid* should be read in English translations of recognized literary excellence. For any selection from this group a selection from any other group may be substituted.

Group II. (Drama)—Shakespeare's *The Merchant of Venice*, *As You Like It*, *Julius Caesar*.

Group III. (Prose Fiction)—Dickens's *A Tale of Two Cities*; George Eliot's *Silas Marner*; Scott's *Quentin Durward*; Hawthorne's *House of Seven Gables*.

Group IV. (Essays, Biographies, etc.)—Addison and Steele's *Sir Roger de Coverley Papers*; Macaulay's *Lord Clive*; Parkman's *The Oregon Trail*.

Group V. (Poetry)—Coleridge's *The Ancient Mariner*; Scott's *The Lady of the Lake*; Tennyson's *The Coming of Arthur*, *The Princess*, or *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herve Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, *The Pied Piper*, "De Gustibus," *Instans Tyrannus*; Arnold's *Sohrab and Rustum*.

NOTE.—Above is given the "Restricted List" of books for reading; the "Comprehensive List" can be had from publishers of text-books.

### **CERTIFICATES**

Applicants for admission to the Freshman Class who present certified statements on the official College admission blanks from proper officials of high schools or other preparatory schools of approved standing that the applicant has satisfactorily completed the 15 units required by the College will be admitted without further examination. These certificates must be submitted to the Dean of the College for approval. It is of distinct advantage to the applicant to send in his certificate as early as possible.

Certificates mailed to the College should be directed to the Registrar's Office.

No applicant will be registered until his certificate is presented in proper form.

### **ADVANCED CREDIT**

Students who have attended colleges of approved standing will be allowed credit for work done upon the presentation of proper certificates to the Dean, who, with the heads of the departments concerned, will determine their value. None except entrance credit is allowed for work done in secondary schools without examination at the College.

### **TWO-YEAR COURSES IN MECHANIC ARTS AND IN TEXTILE MANUFACTURING, AND THE ONE-YEAR COURSE IN AUTO MECHANICS**

Ten high-school units are required for admission to the Two-Year Course in Mechanic Arts and in Textile Manufacturing, and the One-Year Course in Auto Mechanics. Of these units, two in English, one in Algebra, and one in History are prescribed; the remaining six are to be offered from the Elective Subjects as indicated.

### **TWO-YEAR COURSE IN PRACTICAL AGRICULTURE**

The requirements for admission to the Two-Year Course in Practical Agriculture are Arithmetic through decimal fractions, English Grammar, and American History.

### **SESSION**

The College session lasts nine months, and opens annually the first Wednesday in September and closes the last Tuesday in May, with a vacation of about two weeks at Christmas.

## WASTE AND BREAKAGE

In order to promote greater care on the part of students in their use of college supplies and their treatment of college property, a deposit of \$5 is required of each student to cover unnecessary breakage and waste. All losses due to carelessness and wanton destruction will be charged to this fund, and whatever balance remains at the end of the session will be returned.

## EXPENSE

The total college expense of a Freshman student need not exceed \$375.

The total college expense of a Freshman student having a scholarship need not exceed \$330.

These amounts include cost of board, tuition, lodging, fuel and lights, fees and deposits, books, drawing instruments, laundry, and a moderate allowance for incidentals. They do not include allowance for clothing, pocket money, and contingencies.

It is suggested that the allowances which parents make their sons for contingencies and spending money should be kept small. Small allowances take away temptation to unwise living.

## Detailed Information

The largest payment is made in September. On entrance, a Freshman student will need \$150 to meet all of his various payments for the first month. But of this amount a payment of \$22.50 for tuition may be deferred, if desired, to the first of November. This will reduce the first or entrance cost to \$127.50. The \$150 includes payment to the College of \$104.50, of which \$30 is a deposit for military equipment, uniform, and breakage, refundable in whole or in part as the property may be returned in good or in damaged condition. In the case of day students, or students rooming and boarding out of College, tuition will be paid on entrance.

Board is \$18 per month, payable in advance on the first day of each calendar month from September through May. Board for less time than one month is charged for at the rate of 75 cents a day, or \$4.50 per week. Refunds for board will be made on the basis of these charges.

Students withdrawing from College within ten days from date of entrance will have refunded to their parents or guardians all money paid by them to the College Treasurer except charges for board and lodging during the time they are in College. In special cases the right is reserved to modify or revoke this rule.



Refunds to students withdrawing later than ten days from date of entrance will be made in proportion to the length of time the students are in College. The right in special cases to modify or to revoke this rule is reserved.

### Itemized Expense by Months

SEPTEMBER: Room rent, fuel, and lights, \$20; incidental fee, \$2; medical and hospital fee, \$3; lecture fee, \$1; Library fee, \$1; furniture fee, \$2; physical culture fee, \$5; Y. M. C. A. fee, \$2; military equipment and uniform deposit, \$25; waste and breakage deposit, \$5; board for September, \$16; a total of \$82 to be paid to the College. Tuition for one-half session, \$22.50, may be paid at this time, which will make a total of \$104.50 to be paid to the College. Forty-five dollars is required to buy books and drawing instruments and for incidentals.

OCTOBER: Board, \$18.

NOVEMBER: Board, \$18; tuition, if it was not paid in September, \$22.50.

DECEMBER: Board, \$12, through the 20th.

JANUARY: Tuition, \$22.50; lodging and fuel and lights, \$20; medical and hospital fee, \$3; furniture fee, \$2; physical culture fee, \$5; Y. M. C. A. fee, \$2; board, \$17. A total of \$71.50.

FEBRUARY: Board, \$18.

MARCH: Board, \$18.

APRIL: Board, \$18.

MAY: Board, \$18.

### Class Fees and Deposits

Fees and deposits for laboratory work and for supplies vary with the class, the course, and the division. They will not be collected at time of registration, but later as required by the various departments of instruction. These fees and deposits are given in the following tables for all classes and courses. Changes and variations will be made at any time where the need is indicated.



DEPARTMENTAL FEES AND DEPOSITS

AGRICULTURAL STUDENTS

ENGINEERING STUDENTS

SENIOR		JUNIOR		SENIOR		JUNIOR	
Farm Crops.....	\$ 2	Soils.....	\$ 2	Drawing.....	\$ 1	Drawing.....	\$ 1
Zoology.....	2	Bacteriology....	3	Mach. Shop.....	1	Mach. Shop.....	1
Chemistry.....	6	Farm Crops.....	2	M. E. Lab.....	1	D. C. Lab.....	2
Farm Surv. and		Entomology....	1	E. E. Lab.....	2	M. E. Lab.....	1
Ter.....	1	Plant Dis.....	1	Chemistry.....	10	Chemistry.....	6
Tractors.....	2	Veg. Gard.....	1	Design.....	3	Design.....	3
Research.....	3	Fruit Grow.....	1	Dyeing.....	3	Dyeing.....	3
Anatomy.....	2	Zoology.....	2				
Materia Medica....	1	Botany.....	1				
Pathology.....	1	Pruning.....	1				
Poultry.....	2	Chemistry.....	6				
Bacteriology.....	3	Farm Mach.....	1				
Soils.....	2	Farm Motors....	1				
		Farm Bldgs....	2				
		Histology.....	1				
		Anatomy.....	2				
		Pl. Physiol.....	3				
SOPHOMORE		FRESHMAN		SOPHOMORE		FRESHMAN	
Plant Prop.....	\$ 1	Botany.....	\$ 2	Drawing.....	\$ 1	Drawing.....	\$ 1
Dairying.....	3	Chem. Lab.....	2	Phys. Lab.....	1	Phys. Lab.....	1
Chem. Lab.....	3	Woodwork.....	1	Mach. Shop.....	1	Chem. Lab.....	2
Physics.....	1	Drawing.....	1	Chem. Lab.....	4	Mach. Shop.....	1
Zoology.....	2			Design.....	4	Botany.....	1

FEES AND DEPOSITS FOR SHORT COURSES

Two-year Course in Agriculture

Farm Shop .....	\$2.00
Farm Mechanics .....	2.00
Fruit Growing .....	1.00

Two-year Course in Mechanic Arts

FIRST YEAR :	
Shop and Drawing.....	\$2.00
SECOND YEAR :	
Shop and Drawing.....	2.00

**Two-year Course in Textile Industry****FIRST YEAR:**

Designing .....	\$4.00
Drawing .....	1.00
	<hr/>
	\$5.00

**SECOND YEAR:**

Designing .....	\$3.00
Dyeing .....	3.00
Shop .....	1.00
	<hr/>
	\$7.00

NOTE.—The College Treasurer is forbidden by the Trustees to give credit.

All unused deposits are refunded to the student at the end of the session or upon his withdrawal from College. If he has overdrawn his deposit he is required to pay the amount of the overdraft.

If the student has a scholarship, he does not pay tuition.

Students entering after September will pay on entrance all the items enumerated under "September," less a credit in part for board and room rent.

**WHAT A STUDENT NEEDS FOR HIS ROOM**

The College rooms are supplied with necessary furniture. Each student, however, should bring with him two pairs of blankets, two pairs of sheets, one pillow and two cases, and two bedspreads for a single bed.

**SCHOLARSHIPS CARRYING FREE TUITION**

**1. Regular Scholarships.** When the College was chartered the Legislature required the Trustees to admit, free of tuition, one hundred and twenty young men. The only conditions attached to these scholarships are that they shall go to young men (1) who are unable to pay for all their education, and (2) who are of excellent moral character. As far as possible, these appointments are distributed among the different counties. Appointments are made by the President of the College, after inquiries as to the needs and character of applicants and after a written recommendation from a member of the Legislature from the applicant's county. Certificates of inability to pay have to be made by the applicant and his parents. Blanks are furnished for this purpose.

**2. Agricultural Scholarships.** The Legislature of 1913 authorized the College Trustees to give a limited number of agricultural scholarships to students who agree to teach for two years in an agricultural school, or to serve in an agricultural experiment station, or to farm in the State for two years after graduation. The same conditions as to financial inability and moral worth go with these scholarships as with the regular ones.

**3. Textile Scholarships.** During the past year a number of scholarships have been awarded by cotton mills and individuals to students taking the textile course. These scholarships have been awarded as an encouragement to young men to take the textile course and a recipient must have a good record both in scholarship and deportment. Scholarships are known by the names of the donors and are as follows: Ten Aberfoyle Scholarships by Aberfoyle Manufacturing Co., Chester, Penn.; one Chadwick-Hoskins Scholarship by Chadwick-Hoskins Co., Charlotte, N. C.; one Draper Scholarship by Mr. Arthur J. Draper, Charlotte, N. C.; one Harriss Scholarship by Mr. W. H. Harriss, New York City; one Tolar, Hart & Holt Scholarship by Tolar, Hart & Holt Mills, Fayetteville, N. C.; one Miller Scholarship by Mr. R. M. Miller, Jr., Charlotte, N. C.

**4. Finley Loan Fund.** As a memorial foundation to William Wilson Finley, President of the Southern Railway Company at the time of his death, that company has established a Finley Loan Fund for needy students of agriculture. The fund consists of \$1,000. This will be lent to students who are making their way through college, and returned by them to the fund after they have finished college and gone to work. It will be administered by the Treasurer of the College and all beneficiaries will be named by the College.

### SELF-HELP

Some students who are alert and energetic frequently earn part of their expenses in college. Some of the agricultural students find work at odd hours on the farm, in the orchard, in the barn, in the dairy. Some students act as agents for merchants and pressing clubs. The College employs a few students in the dining room and elsewhere. A student's ability to help himself will depend largely on his own power to find work and to hold it after he finds it. It must, however, be remembered that the duties of the classroom take most of a student's time. As College duties begin at 8 a. m. and do not end until 4:30 p. m., hours for remunerative work are very limited.



### STUDENT LOAN FUND

The Alumni Association of the College established in the year 1900 a small fund to be lent to needy students of talent and character. This has been augmented from various sources, and now amounts to about \$7,000. The loans are made at 6 per cent, and good security is required. Sufficient time for repayment is given to enable the student to earn the money himself. The amount lent to each student is limited. The purpose is to help young men who are willing to help themselves and who cannot find sufficient employment while in college to meet all their necessary expenses.

Contributions are solicited for this fund from students, alumni, and friends of education generally. The fund is administered by the College Treasurer, under the direction of the President.

### TIME OF REGISTRATION

All students are required to register within twenty-four hours after reaching Raleigh. A failure to comply with this rule may lead the Faculty to decline to allow an applicant to register. A registration fee will be charged to students failing to register on the days appointed.

### ABSENCES FROM COLLEGE

The College authorities wish to emphasize the danger of allowing the students' work to be interrupted by unnecessary absences from College. Students wishing to visit their homes will be required to present requests from their parents, addressed to the Dean of Students. It should be remembered that all time missed must be made up, under disadvantages. Absences from college usually mean the accumulation of extra work for the student to do. Most students have their time fully occupied with regular work. It is, therefore, especially important that students who are not carrying their work well shall not run up absences. Nor should it be forgotten that students who are doing well in their studies lose much by absences from their regular duties here, not only in time actually lost but also in the attendant distraction from their work.

### BOARD AND LODGING

All students are required to board in the College dining hall or in approved boarding houses near the College, and to room in the College dormitories. An abundant supply of plain, nour-



ishing food, with as large a variety as possible, is furnished absolutely at cost. The charge at present is \$18 per month, payable in advance.

Rooms in the College dormitories are supplied with electric lights, steam heat, and all necessary furniture except sheets, blankets, pillowcases, pillows, bedspreads, and towels, which each student must furnish for himself. The charge for lodging is by the month, and there is no reduction in case of withdrawal.

### ROOMS

Dormitory accommodations at the College are sufficient now to provide for seven hundred students. The assignment of available rooms will be made on August 15th to young men who shall have applied for them, provided they are entitled to admission to College. Applicants for rooms will be furnished by the Registrar's office with blank forms for these applications. These blanks will carry some brief explanations, with rules regarding applications and assignments.

### MILITARY TRAINING

Under the provisions of an Act of Congress, June 3, 1916, a unit of the "Reserve Officers' Training Corps" has been established.

Students, physically fit, becoming members of the corps, will receive an allowance for uniforms from the Government.

The Corps was established in 1917 in order to qualify students to become reserve officers of the United States Army. The training is given with the least possible interference with their civil careers, so that in time of national emergency there may be a sufficient number of educated men trained in military science and tactics to officer and lead intelligently the units of the large armies upon which the safety of the country will depend. The Corps will be considered as a Federal organization for the above purpose only. There is no obligation to become a part of the National Guard or of the Regular Army; no oath is taken that service will be required other than for the purpose of education. A training camp will be held for six weeks at the end of each academic year, the expense of these camps to be borne by the Government, each student receiving five cents per mile going to and from camp, suitable uniforms and subsistence, and one dollar a day while in attendance. This camp is required of Juniors taking R. O. T. C., and is optional with other classes.

Not less than four hours weekly are devoted to this military training during the Freshman and Sophomore years, and five

hours weekly during the Junior and Senior years. Beginning with the Junior year, such students as have completed satisfactorily the Freshman and Sophomore work, may, if they wish and if selected by the President of the Institution and the Professor of Military Science and Tactics, undertake the five hours a week course. These students will be given, in addition to the allowance on their uniforms, an allowance (at present, 1921-22, forty cents per day) as commutation of rations, and includes the vacation period between the third and fourth years, deducting for the time spent in camp. This amount will, however, not be paid until the student enters upon his fourth year.

Upon completion of the military training course to the satisfaction of the College authorities, graduates become eligible for commission in the Officers' Reserve Corps of the U. S. Army, but there is no obligation to accept such commissions.

Military Science and Tactics, four hours weekly, are required of all Freshmen and Sophomores. Advanced R. O. T. C. work is optional in the upper classes.

Reserve officers may be called to active duty in any forces raised for national emergencies.

In the Military Training it is not the intention to install complete and rigid application of military discipline and methods to the instruction of the students and to their daily life. However, the following characteristics of an officer and a gentleman, which are inculcated by a proper disciplinary training, will be insisted upon: neatness in dress, the cultivation of the manners and habits of a gentleman, a dignified and military bearing, loyalty, truthfulness, punctuality, kindness, earnestness of purpose, and devotion to duty; the cultivation in the student body of esprit de corps, obedience of orders, acceptance of responsibility, and avoidance of excuses.

### CARE OF THE SICK

Every effort is made to protect the health of young men in the College. Regular inspections of the entire institution are made once a year, or oftener, by the State Board of Health. Similar inspections are made monthly by the College Physician.

Each student has a regular routine of daily life, including abundant physical exercise in the shops and on the drill grounds.

In case of sickness, a student is taken immediately to the College Infirmary, where he receives medical attention and careful nursing.

The College physician visits the Infirmary daily at 3 p. m., and in cases of serious illness, as frequently as may be required.

A trained nurse has charge of the Infirmary at all times. The payment of the medical fee entitles a student to all the privileges of the Infirmary; and this includes the regular visits of the College Physician for all ordinary sickness. If a special nurse is needed in case of serious contagious disease or in case of other serious illness, parents are of course expected to pay such nurse or nurses. The medical fee does not cover special surgical operations or the attention of any medical specialist.

### VACCINATION

By direction of the Trustees, no young man will be registered unless he has been successfully vaccinated within the past two years. The College greatly prefers that all applicants for admission should be vaccinated at home, and that a certificate of successful vaccination within the past two years be brought from the family physician. In case this cannot be done, the College Physician will vaccinate applicants before they are registered at the College, and a fee will be charged for vaccination. A blank form to be filled by the home physician will be mailed on application. It will save a great deal of time and trouble, therefore, to be vaccinated before applying for registration. In this way applicants will avoid the inconvenience and discomfort resulting from vaccination while at College. The size of scar resulting from a previous vaccination is not proof that revaccination is not needed.

### PHYSICAL EXAMINATION

Every student will be given a physical examination before his registration is completed, this examination being conducted by the College Physician or by the Professor of Military Science and Tactics. It is suggested that every student get himself in the best possible physical condition so that he may begin his work without any avoidable physical handicap. The object of this examination is to discover any physical defects and to take proper steps to correct them.

### TYPHOID INOCULATION

Believing that students may be safeguarded from typhoid fever by inoculation against this disease, to which young people are peculiarly susceptible, the College offers this preventive free of charge, and urges, but does not require, all of its new students to take the treatment. Parents are requested to join the College in recommending that their sons be inoculated here or to have them inoculated at home.



## **COURSES OF INSTRUCTION**

The College offers courses of instruction in the following subjects:

### **I. Agriculture.**

- a. Four-year Course in General Agriculture.
- b. Four-year Specialized Courses in Agricultural Chemistry, Agricultural Engineering, Animal Husbandry, Biology, Farm Crops, Horticulture, Poultry Science, Rural Life, Soils, Veterinary Medicine, and Vocational Education.
- c. Two-year Course in Practical Agriculture.
- d. Winter Course in Agriculture.

### **II. Business Administration and Social Science.**

- a. Four-year Course in General Business Administration.
- b. Four-year Course in Shop Management and Manufactures.
- c. Four-year Course in Agricultural Administration.

### **III. Chemistry.**

- a. Four-year Course in Agricultural Chemistry (I. b.).
- b. Four-year Course in Chemistry.
- c. Four-year Course in Textile Chemistry and Dyeing (V. c.).

### **IV. Engineering and Mechanic Arts.**

- a. Four-year Courses in Civil Engineering: Architectural Engineering, Civil Engineering, and Highway Engineering.
- b. Four-year Course in Electrical Engineering.
- c. Four-year Course in Mechanical Engineering.
- d. Four-year Course in Textile Engineering (V. b.).
- e. Two-year Course in Mechanic Arts.
- f. One-year Course in Auto Mechanics.

### **V. Textile.**

- a. Four-year Course in Textile Manufacturing.
- b. Four-year Course in Textile Engineering.
- c. Four-year Course in Textile Chemistry and Dyeing.
- d. Two-year Course in Textile Manufacturing.

### **VI. Graduate Courses.**

Extending over one or more years and leading to advanced degrees. These are intended for students who have completed the Four-year Course and who desire further instruction and training in special subjects.



**VII. Summer Session.**

A six-weeks Summer Session for teachers, for school officials, and for candidates for admission to college. The work is adapted to the needs of teachers of primary, grammar, and high school grades.

**Degrees.**

The four-year courses offer a combination of practice and theoretical work, about half the time being devoted to lectures and recitations, and the other half to work in the shops, laboratories, drawing rooms, greenhouses, dairies, poultry yards, fields, and mills. They are intended to furnish both technical and liberal education. The degree of Bachelor of Science is conferred upon a graduate of the four-year courses in Agriculture, in Chemistry, and in Dyeing; and the degree of Bachelor of Engineering is conferred upon a graduate of the four-year Engineering course, or the four-year Textile course.

The short courses include nearly all of the practical work of the four-year courses with less theoretical instruction. They are intended for students who desire chiefly manual training. They do not lead to a degree.

## **I. AGRICULTURAL COURSES**

- a. Four-year Course in General Agriculture.**
- b. Four-year Specialized Courses in Agricultural Engineering, Animal Husbandry, Biology, Farm Crops, Horticulture, Poultry Science, Rural Life, Soils, Vocational Education, Veterinary Medicine, and Agricultural Chemistry.**
- c. Two-year Course in Practical Agriculture.**
- d. Winter Course in Agriculture.**

### **FOUR-YEAR COURSES IN AGRICULTURE**

The Agricultural Courses are so organized and arranged that they will enable students to acquire a correct knowledge of agriculture as an applied science, and at the same time become proficient in the best agricultural practices. The subjects taught in the first two years of the courses are fundamental and cultural, and give the information and training necessary for the best attainment and utilization of the technical work given as the courses progress. Thus the curricula of all the Agricultural Courses include English, Mathematics, Chemistry, Physics, Botany, Zoology, Geology, Soils, etc. Beginning with the Junior year, all students will be required to take the prescribed basic work in Agriculture, but each may choose his electives in the course in General Agriculture to fit himself better as a general farmer, or in one of the specialized courses—Farm Crops, Animal Husbandry, Horticulture, Soils, Vocational Education, Agricultural Engineering, Poultry Science, Biology, Agricultural Chemistry, or Rural Life—to prepare himself for some professional line of Agriculture. It is felt by the College that increasingly large numbers of young men taking Agriculture each year will find it wise to prepare themselves better to return to the farm by taking the General Course in Agriculture rather than for professional work by taking one of the specialized courses.

Instruction is given by text-books, lectures, and reference readings, and in laboratories, fields, orchards, gardens, barns, dairy, and poultry yards. Opportunity is given for specialization as the courses progress, that the student may become more proficient in his chosen work.

Young men who have completed one of the Agricultural Courses of instruction with good credit have exceptional opportunities for remunerative employment in many positions. In addition to the preparation given for the successful operation of their own farms, graduates in Agriculture may become farm managers, demonstration agents, teachers of agriculture and science in farm-life and other rural schools, orchardists, dairymen, or poultrymen, and

may fill many other responsible positions requiring technical training. Many State College graduates hold responsible positions in colleges, experiment stations and extension bureaus, and in various offices of the United States Department of Agriculture.

The four-year course in Agricultural Chemistry is described more fully under the head of Chemical Courses.

## FOUR-YEAR COURSES IN AGRICULTURE, LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

### Freshman Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Agricultural Engineering, 102.....	0	0	4	6
Animal Husbandry, 101.....	2	3	0	0
Botany, 101-102.....	5	7	5	7
Citizenship, B. A., 101.....	2	3	0	0
Chemistry, 101-102.....	2	2	2	2
Chemistry, Laboratory, 103-104.....	1	2	1	2
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Farm Crops, 102.....	0	0	3	4
Mathematics, 101 (a).....	3	3	0	0
Military Science and Tactics, 101-102.....	3	4	3	4
Totals.....	21	27	21	28

### Sophomore Year

Chemistry, Analytical, 201.....	3	5	0	0
Chemistry, Organic, 204.....	0	0	2	2
Chemistry, Organic, Laboratory, 206.....	0	0	1	3
Dairying, A. H., 202.....	0	0	3	3
English, 201-202.....	3	3	3	4
Geology, Soils, 202.....	0	0	3	4
Physics, 207-208.....	3	4	3	4
Plant Propagation, Horticulture, 201.....	3	4	0	0
Poultry, 201.....	3	4	0	0
Zoology, 201-202.....	3	5	3	5
Military Science and Tactics, 201-202.....	3	4	3	4
Totals.....	21	29	21	29

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Bacteriology, Botany, 302.....	0	0	3	4
Economics, B. A., 301.....	3	3	0	0
Entomology, Zoology, 306.....	0	0	3	5
Animal Nutrition, A. H., 301.....	3	4	0	0
Genetics, Zoology, 302.....	0	0	3	4
Plant Diseases, Botany, 301.....	3	4	0	0
Soils, 301-302.....	3	4	3	4
	12	15	12	17
Minimum electives.....	9		9	
Totals.....	21		21	

Senior Year

Farm Practices, 401.....	1	1	0	0
Agricultural Economics, R. L., 401.....	3	3	0	0
Farm Management, F. C., 402.....	0	0	3	4
Fertilizers, Soils, 402.....	0	0	3	4
Veterinary Hygiene and Sanitation, Vet., 401...	3	4	0	0
	7	12	6	8
Minimum electives.....	12		12	
Totals.....	19		18	



**ELECTIVES**  
**GENERAL AGRICULTURE**  
**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
<b>MAJORS:</b>				
Farm Machinery, Agr. Eng., 301.....	3	4	0	0
Vegetable Gardening, Hort., 304.....	0	0	3	4
Farm Cost Accounting, F. C., 303.....	3	4	0	0
Legumes and Grasses, F. C., 302.....	0	0	3	4
	6	8	6	8
Minors (see page 69).....	3		3	
Total electives.....	9		9	

**Senior Year**

<b>MAJORS:</b>				
Farm Surveying and Terr., Agr. Eng., 403....	3	4	0	0
Farm Marketing, R. L., 402.....	0	0	3	3
Cotton and Tobacco, F. C., 403.....	3	4	0	0
Landscape Gardening and Rural Improve- ment, Hort., 402.....	0	0	3	4
	6	8	6	8
Minors (see page 70).....	6		6	
Total electives.....	12		12	

**AGRICULTURAL ENGINEERING****Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
<b>MAJORS:</b>				
Farm Machinery, Agr. Eng., 301.....	3	4	0	0
Farm Buildings and Concrete, Agr. Eng., 303.....	3	4	0	0
Repairs of Farm Machinery, Agr. Eng., 304.....	0	0	2	4
Farm Motors, Agr. Eng., 306.....	0	0	3	5
Farm Mechanics, Agr. Eng., 308.....	0	0	1	3
	6	8	6	12
Minors (see page 69).....	3		3	
Total electives.....	9		9	

**Senior Year**

<b>MAJORS:</b>				
Farm Surv. and Terracing, Agr. Eng., 403-404.....	3	4	2	4
Tractors, Agr. Eng., 405.....	2	3	0	0
Pumps and Light Prob., Agr. Eng., 408.....	0	0	2	3
	5	7	4	7
Minors (see page 70).....	7		8	
Total electives.....	12		12	

ANIMAL HUSBANDRY  
Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Sheep Production, A. H., 303.....	3	4	0	0
Swine Production, A. H., 305.....	3	4	0	0
Advanced Stock Judging, A. H., 304.....	0	0	3	4
Legumes and Grasses, F. C., 302.....	0	0	3	4
	6	8	6	8
Minors (see page 69).....	3		3	
Total electives.....	9		9	

Senior Year

MAJORS:				
Farm Meats and Stock Farm Management, A. H., 402.....	0	0	3	4
Dairy Cattle and Milk Production, A. H., 401.....	3	4	0	0
Animal Breeding, A. H., 403.....	3	4	0	0
Pedigree Study, A. H., 404.....	0	0	3	4
	6	8	6	8
Minors (see page 70).....	6		6	
Total electives.....	12		12	

**BIOLOGY**  
**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Advanced Plant Morphology, Bot., 303-304---	3	4	3	4
Comparative Anatomy, Zool., 303-304-----	3	4	3	4
	6	8	6	8
Minors (see page 69)-----	3		3	
Total electives-----	9		9	

**Senior Year**

MAJORS:				
Systematic Botany, Bot., 406-----	0	0	3	4
Advanced Plant Physiology, Bot., 403-----	3	4	0	0
Embryology, Zool., 401-----	3	4	0	0
Apiculture, Zool., 404-----	0	0	3	4
	6	8	6	8
Minors (see page 70)-----	6		6	
Total electives-----	12		12	



FARM CROPS  
Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Cereals, F. C., 301.....	3	4	0	0
Farm Cost Accounting, F. C., 303.....	3	4	0	0
Legumes and Grasses, F. C., 302.....	0	0	3	4
Advanced Stock Judging, A. H., 304.....	0	0	3	4
	6	8	6	8
Minors (see page 69).....	3		3	
Total electives.....	9		9	

Senior Year

MAJORS:				
Cotton and Tobacco, F. C., 403.....	3	4	0	0
Advanced Farm Crops, 405.....	3	4	0	0
Crop Improvement, F. C., 406.....	0	0	3	4
Farm Marketing, R. L., 402.....	0	0	3	4
	6	8	6	8
Minors (see page 70).....	6		6	
Total electives.....	12		12	

**HORTICULTURE**  
**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Pomology, Hort., 301.....	3	4	0	0
Pruning and Spraying, Hort., 302.....	0	0	3	4
Farm Forestry, Hort., 303.....	3	4	0	0
Vegetable Gardening, Hort., 304.....	0	0	3	4
	6	8	6	8
Minors (see page 69).....	3		3	
Total electives.....	9		9	

**Senior Year**

MAJORS:				
Vegetable Forcing, Hort., 401.....	3	4	0	0
Systematic Pomology, Hort., 403.....	3	4	0	0
Landscape Gardening and Rural Improve- ment, Hort., 402.....	0	0	3	4
Horticultural Seminar, Hort., 404.....	0	0	3	4
	6	8	6	8
Minors (see page 70).....	6		6	
Total electives.....	12		12	

POULTRY SCIENCE  
Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Poultry Breeds and Judging, Poul., 301.....	3	4	0	0
Advanced General Poultry, Poul., 302.....	0	0	3	4
Poultry Anatomy, Poul., 305-306.....	3	4	3	4
	6	8	6	8
Minors (see page 69).....	3		3	
Total electives.....	9		9	

Senior Year

MAJORS:				
Poultry Diseases, Poul., 401.....	3	4	0	0
Specialized Poultry Markets, Poul., 402.....	0	0	3	4
Incubation and Brooding, Poul., 404.....	0	0	3	4
Poultry Accounting, Poul., 403.....	1	1	0	0
Poultry Seminar, Poul., 405.....	2	2	0	0
	6	7	6	8
Minors (see page 70).....	6		6	
Total electives.....	12		12	

**RURAL LIFE**  
**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Farm Cost Accounting, F. C., 303.....	3	4	0	0
Rural Social Problems, R. L., 403.....	3	3	0	0
General Sociology, B. A., 302.....	0	0	3	3
Farm Finance, R. L., 312.....	0	0	3	3
	6	7	6	6
Minors (see page 69).....	3		3	
Total electives.....	9		9	

**Senior Year**

MAJORS:				
Rural Organization, R. L., 409.....	3	3	0	0
Land Tenure and Utilization, R. L., 405.....	3	3	0	0
Farm Marketing, R. L., 402.....	0	0	3	3
Business Organization, B. A., 306.....	0	0	3	3
	6	6	6	6
Minors (see page 70).....	6		6	
Total electives.....	12		12	



SOILS  
Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Chemistry, 315-316.....	3	4	3	4
Advanced Plant Physiology, Bot., 403.....	3	4	0	0
Soil Survey, 304.....	0	0	3	4
	6	8	6	8
Minors (see page 69).....	3		3	
Total electives.....	9		9	

Senior Year

MAJORS:				
Physical Chemistry, 413.....	3	5	0	0
Soil Analysis, Chem., 414.....	0	0	3	5
Advanced Soils, 403-404.....	3	4	3	4
	6	9	6	9
Minors (see page 70).....	6		6	
Total electives.....	12		12	

VOCATIONAL EDUCATION  
Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
MAJORS:				
Introduction to Education, Voc. Ed., 301-302	3	4	3	4
Farm Cost Accounting, F. C., 303	3	4	0	0
Advanced Stock Judging, A. H., 304	0	0	3	4
	6	8	6	8
Minors (see page 69)	3		3	
Total electives	9		9	

Senior Year

MAJORS:				
Education, Voc. Ed., 401-402	3	4	3	4
Education, Voc. Ed., 403-404	3	4	3	4
	6	8	6	8
Minors (see page 70)	6		6	
Total electives	12		12	

**MINOR ELECTIVES****Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Military Science and Tactics, 301-302*-----	3	5	3	5
Farm Machinery, Agr. Eng., 301-----	3	4	0	0
Farm Buildings and Concrete, Agr. Eng., 303---	3	4	0	0
Farm Motors, Agr. Eng., 306-----	0	0	3	5
Swine Production, A. H., 305-----	3	4	0	0
Advanced Stock Judging, A. H., 304-----	0	0	3	4
Sociology, B. A., 302-----	0	0	3	3
Journalism and Correspondence, English, 303-304	3	3	3	3
Cereals, F. C., 301-----	3	4	0	0
Farm Cost Accounting, F. C., 303-----	3	4	0	0
Legumes and Grasses, F. C., 302-----	0	0	3	4
Fruit Growing, Hort., 305-----	3	4	0	0
Farm Forestry, Hort., 303-----	3	4	0	0
Vegetable Gardening, Hort., 304-----	0	0	3	4
French, Modern Language, 301-302-----	3	3	3	3
Spanish, Modern Language, 309-310-----	3	3	3	3
Adv. Poultry Breeds and Judging, 304-----	0	0	3	4
Adv. General Poultry, 302-----	0	0	3	4
Soil Survey, 304-----	0	0	3	4
Economic Zoology, 307-308-----	3	4	3	4
Introduction to Education, Voc. Ed., 301-302---	3	4	3	4

\*Students who enter R. O. T. C. are required to take one course in Modern Languages either in the Junior or in the Senior year.

## Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Military Science and Tactics, 401-402.....	3	5	3	5
Farm Equipment, Agr. Eng., 401.....	3	4	0	0
Farm Surveying and Terracing, Agr. Eng., 403-404.....	3	4	2	4
Tractors, Agr. Eng., 405.....	2	3	2	3
Dairy Cattle and Milk Production, A. H., 401..	3	4	0	0
Animal Breeding, A. H., 403.....	3	4	0	0
Systematic Botany, Bot., 406.....	0	0	3	4
Advanced Plant Physiology, Bot., 403-404.....	3	4	or 3	4
Advanced Bacteriology, Bot., 401.....	3	4	0	0
Plant Ecology, Bot., 410.....	0	0	3	4
Cotton and Tobacco, F. C., 403.....	3	4	0	0
Crop Improvement, F. C., 406.....	0	0	3	4
Advanced Farm Crops, 405 .....	3	4	0	0
Cotton Classing, F. C., 408.....	0	0	3	5
Types of Farming in N. C. and U. S., F. C., 404.	0	0	2	2
Small Fruits, Hort., 406.....	0	0	3	4
Plant Breeding, Hort., 405.....	3	4	0	0
Landscape Gardening and Rural Improvement, Hort., 402.....	0	0	3	4
French, Mod. Lang., 305-306.....	3	3	3	3
Spanish, Mod. Lang., 311-312.....	3	3	3	3
Incubation and Brooding, Poul., 404.....	3	4	or 3	4
Rural Social Problems, R. L., 403.....	3	3	0	0
Farm Marketing, B. A., 402.....	0	0	3	4
Advanced Soils, 403-404.....	3	4	3	4
Animal Diseases, Vet., 410.....	0	0	2	3
Rural Sanitation, Zool., 405-406.....	1	1	1	1
Scientific Illustrating, Zool., 407.....	3	4	0	0
Scientific Photography, Zool., 408.....	0	0	3	4
Embryology, Zool., 401-402.....	3	4	or 3	4
Apiculture, Zool., 403-404.....	3	4	or 3	4
Horse, Mule, and Beef Production, A. H., 405...	3	4	0	0
Seminar, Voc. Ed., 405-406.....	1	1	1	1
(Elective for Sen. in Voc. Ed. only.)				



FOUR-YEAR COURSE IN AGRICULTURAL CHEMISTRY  
Junior Year\*

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Bacteriology, Botany, 302.....	0	0	3	4
Economics, General, B. A., 301.....	3	3	0	0
Animal Nutrition, A. H., 301.....	3	4	0	0
Genetics, Zool., 302.....	0	0	3	4
Soils, 301-302.....	3	4	3	4
Chemistry, Organic, 301.....	3	3	0	0
Chemistry, Physiological, 312.....	0	0	2	2
Chemistry, Physiological, Laboratory, 314.....	0	0	1	2
Chemistry, Quantitative Agricultural Analysis, 305-306.....	2	6	2	6
	14	20	14	20
Minimum electives.....	6		6	
Totals.....	20		20	
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
German, Mod. Lang., 201-202.....	3	3	3	3
Plant Diseases, Botany, 301.....	3	4	0	0
Entomology, Zoology, 306.....	0	0	3	5
Journalism and Correspondence, Eng., 303-304..	3	3	3	3
Introduction to Education, 301-302.....	3	4	3	4
Chemistry, Organic, Laboratory, 303-304.....	1	3	1	3
Sociology, B. A., 302.....	0	0	3	3

\*Freshman and Sophomore years are the same as for the four-year courses in Agri culture.

## Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Agricultural Economics, R. L., 401.....	3	3	0	0
Fertilizers, Soils, 402.....	0	0	3	4
Agricultural Physical Chemistry, 413.....	3	5	0	0
Soil Analysis, Chem., 414.....	0	0	3	5
Chemistry, Historical, 401.....	2	2	0	0
Chemistry, Industrial and Engineering, 415-416..	3	5	3	5
Chemistry, Theoretical, 402.....	0	0	2	2
	11	15	11	16
Minimum electives.....	10		10	
Totals.....	21		21	
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Farm Marketing, R. L., 402.....	0	0	3	4
Advanced Soils, 403-404.....	3	4	3	4
Rural Sanitation, Zool., 405-406.....	1	1	1	1
Types of Farming in U. S. and N. C., F. C., 404..	0	0	2	2
Advanced Bacteriology, Bot., 402.....	0	0	3	4
Quantitative Chemical Analysis, 409-410.....	3	6	3	6
Organic Chemical Laboratory, 303-304*.....	1	3	1	3
Organic Chemistry, 411-412 (Prerequisite, Organic Chemistry, 303-304).....	3	5	3	5
Microchemical Analysis, 403.....	1	3	0	0
Chemistry, Organic, Qual. Anal., 404.....	0	0	1	3
German, Mod. Lang., 303-304.....	3	3	3	3
Rural Social Problems, R. L., 403.....	3	3	0	0

\*If not elected in the Junior year this work must be taken in the Senior year.

**FOUR-YEAR COURSE IN VETERINARY MEDICINE****Junior Year\***

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Anatomy, Vet. Med., 301-302.....	6	9	4	6
Bacteriology, Botany, 302.....	0	0	3	4
Chemistry (Quantitative Anal.), 305.....	3	4	0	0
Chemistry, Physiological, 312-314.....	0	0	3	4
Genetics, Zool., 302.....	0	0	3	4
Animal Nutrition, A. H., 301.....	3	4	0	0
Stock Judging, A. H., 304.....	0	0	3	4
Histology, Vet. Med., 303-304.....	3	4	2	4
Materia Medica, Vet. Med., 305.....	3	4	0	0
Required.....	18	25	18	26
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Advanced General Poultry, 302.....	0	0	3	4
Total.....	21	28 or 30	21	30 or 31

**Senior Year**

Animal Breeding, A. H., 403.....	3	4	0	0
Anatomy, Vet. Med., 405-406.....	5	7	5	7
Dairy Cattle and Milk Production, A. H., 401..	3	4	0	0
Embryology, Zool., 402.....	0	0	3	4
Pathology, Vet. Med., 407-408.....	3	4	3	4
Materia Medica and Pharmacy, Vet. Med., 402..	0	0	3	4
Physiology, Vet. Med., 403-404.....	3	3	3	3
Required.....	17	22	17	22
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Horse, Mule, and Beef Production, A. H., 405...	3	4	0	0
Medical Botany, Botany, 408.....	0	0	3	4
Total.....	20	26 or 27	20	26 or 27

\*Freshman and Sophomore years are the same as for the four-year courses in Agriculture.

### **TWO-YEAR COURSE IN PRACTICAL AGRICULTURE**

This course is designed to assist those who wish to become better farmers of different kinds, and who for one reason or another are unable to take any of the four-year courses in Agriculture offered by the College. It is planned in this course to provide a large amount of practical information and training in Agriculture. In teaching, emphasis will be given to better methods of general farming, stock raising, dairying, vegetable growing, and orcharding, and to the efficient use of farm implements and machinery. In this course considerable time will be devoted to a study of the best methods of fighting and controlling insect and disease enemies of crops and farm animals; to pruning and spraying; to farm carpentry, machinery, and conveniences; to soils and soil fertility; to the selection, growing, improvement, and marketing of the more important field crops; to poultry raising; to farm law; to farm organization and management; to the feeding, breeding, and management of farm animals; to the growing, handling, and selling of vegetable and orchard products; to the keeping of farm accounts; to rural-life questions; and to many other problems that are constantly coming up for solution on North Carolina farms. In connection with the studies, intensive practical work will be carried on in the field, at the barns, in the dairy, and in the orchard, so as to thoroughly familiarize those taking the course with the applications of the subjects taught by doing the things themselves. Although there will be no entrance examination, applicants must be seventeen years of age and must satisfy the Dean of Agriculture that they are sufficiently prepared in common school subjects to enable them to pursue the course with profit.

Each student must also present an honorable discharge from the school last attended or such certificates and letters as may be requested. At least one year's farm experience or its equivalent will be essential to get most out of the course. Each person who completes the course in a satisfactory manner will be awarded a certificate. Credits secured in the course will not lead to a college degree.



## TWO-YEAR COURSE IN PRACTICAL AGRICULTURE

### First Year

SUBJECTS	FIRST TERM	
	Credits	Hours
English (Composition), 11.....	3	3
Farm Mathematics, 31.....	3	3
Plant Life, Botany, 11.....	3	4
Breeds and Judging, Animal Husbandry, 11.....	3	4
Corn and Small Grains, Farm Crops, 11.....	3	4
Agricultural Drawing, Agricultural Engineer- ing, 11.....	1	3
Farm Chemistry, Chemistry, 11.....	3	4
Animal Life, Zoology, 11.....	3	4
Military Science and Tactics, 101.....	2	4
	—	—
	24	33

SUBJECTS	SECOND TERM	
	Credits	Hours
English, 12.....	3	3
Farm Mathematics, 32.....	3	3
Plant Life, Botany, 12.....	3	3
Legumes, Farm Crops, 12.....	3	4
Farm Shop Work, Agricultural Engineering, 12..	1	3
Vegetable Growing, Horticulture, 12.....	3	4
Animal Life, Zoology, 12.....	3	4
Farm Chemistry, Chemistry, 12.....	3	4
Military Science and Tactics, 102.....	2	4
	—	—
	24	32

### Second Year

SUBJECTS	FIRST TERM	
	Credits	Hours
Farm Motors and Tractors, Agricultural Engi- neering, 21.....	3	4
Fruit Growing, Horticulture, 21.....	3	4
Farm Insects, Zoology, 21.....	3	4
Plant Diseases, Botany, 21.....	3	4
Farm Poultry, Poultry, 21.....	3	4
Feeds and Feeding, Animal Husbandry, 21.....	3	4
Soils and Soil Fertility, Soils, 21.....	4	6
Military Science and Tactics, 201.....	2	4
	—	—
	24	34

SUBJECTS	SECOND TERM	
	Credits	Hours
Farm Equipment, Agricultural Engineering, 22....	3	4
Farm Dairying, Animal Husbandry, 22.....	3	4
Farm Management, Farm Crops, 22.....	3	4
Rural Economic Organization, R. L., 22.....	2	2
Rural School Organization, R. L., 32.....	2	2
Farm Accounting, R. L., 42.....	2	2
Marketing Farm Products, R. L., 52.....	2	2
Animal Diseases, Veterinary Medicine, 22.....	2	3
Pruning and Spraying, Horticulture, 22.....	3	4
Military Science and Tactics, 202.....	3	4
	—	—
	25	31

### WINTER COURSE IN AGRICULTURE

This short course will deal in an intensely practical way with field and garden crops, soils, fertilizers, orcharding, poultry, live-stock, diseases and insect enemies of crops and domestic animals, and farm management and equipment, including farm machinery and gas engines.

The instruction offered will be of the kind the energetic and ambitious farmer is seeking. The course will be given in January, 1923, and will continue for two weeks.

#### Two Weeks Farmers' Winter Course in Agriculture

SUBJECTS	HOURS A WEEK
Field Crops .....	6
Fruit and Vegetable Growing.....	4
Farm Dairying and Types.....	6
Farm Insects .....	3
Diseases of Crops and Their Control.....	3
Fertilizers and Lime.....	4
Diseases of Livestock.....	3
Poultry .....	3
Gas Engines .....	3
Farm Tractors and Machinery.....	9
	—
Total.....	44

**REHABILITATION COURSES****UNITED STATES VETERANS' BUREAU****Courses Open for Disabled Men**

Arrangements are made by the United States Government for the training of soldiers, sailors, and marines who have been disabled during the recent war by injury or disease.

For men who have sufficient entrance credits, all courses that are given in the regular college are open, and encouragement is given to beneficiaries of the United States Veterans' Bureau to take one of the regularly prescribed college courses.

For men who do not have the necessary entrance requirements, special training is offered in General Farming, Poultry, Horticulture, Live Stock, Farm Mechanics, and Beekeeping.

Agriculture affords splendid opportunities. Many disabled soldiers desire to study scientific farming.

For information write to

UNITED STATES VETERANS' BUREAU, *Atlanta, Ga.*

## **II. BUSINESS ADMINISTRATION AND SOCIAL SCIENCE COURSES**

- a. General Business Administration.**
- b. Shop Management and Manufactures.**
- c. Agricultural Administration.**

### **TRAINING FOR BUSINESS**

The modern efficiency of lawyers, physicians, and engineers depends almost altogether upon the specific and thorough training which institutions of higher learning have for a number of years offered to men expecting to enter these professions. In recent years business administration, commerce, and agricultural economics have also become legitimate and even necessary fields for scientific investigation and college training. More progress has been made in the last twenty years in working out the principles underlying the efficient conduct of business than in all previous time. Manufacture, trade, accounting, banking, insurance, and merchandising have been reduced to sciences. The same is true of the field of agricultural economics. Farm cost accounting, farm organization and administration, rural credits, and the marketing of farm products demand business knowledge and training on the part of the farmer if he is to cope with the present day farm problems.

Modern business has become so complex in its organization and conduct that it is no longer possible to learn it, as was formerly done, solely by the method of apprenticeship. Much that was once learned by apprenticeship can be more easily and quickly acquired by a system of instruction in which the student can readily secure an understanding of and training in the more fundamental principles and methods of business. College men, trained for leadership in business and social life, ought not to remain mere machine workers for any great length of time. The men and firms into whose employ they enter have a right to expect that college-trained men will serve short apprenticeships in the more menial stages of industry and then become capable managers, superintendents, and directors of business in its larger aspects. It is not to be expected that students who have completed the course in Business Administration will be prepared to assume control, at once, of large business concerns. It is hoped, however, that as in law, engineering, and medicine, the apprenticeship will be materially shortened by the previous discipline and training offered in their college courses. Furthermore, many



students, especially in Agriculture and Textile Manufacturing, at the conclusion of their college careers enter immediately into the conduct and control of businesses of their own. They, even more than those who expect to be engaged as paid experts, should be well trained in the business aspects of their professions.

The Department of Agricultural Economics and Business Administration has committed itself to the task not only of training men to understand and direct the business aspects of their own professions, but to the task also of training them to understand and successfully function in the great business and civic life of modern society. It is therefore its purpose to train the student for business on the basis of a broad outlook on life. The modern business man should be a person who has a thorough understanding of his physical and social environment. Accordingly, courses in the basic sciences, English, Mathematics, and the Social Sciences will be a part of the curricula throughout the four years of college training. During the last two years of training the students will be given the opportunity of hearing lectures by successful business men who will be invited to address them from time to time, on the practical application of business knowledge.

The courses of the department are planned with an appreciation of the fact that a majority of the men who attend a college of Agriculture and Engineering want careful and thorough training in the technologies of these professions. In some of the curricula it is made possible for the student to take, in addition to his business courses, practically a three years course in some one of the various technical departments of the College. A student who has, therefore, completed the first two years of his college course can enter the department and complete the requirements for graduation with a B.S. degree in Business Administration. It is possible for a student to complete the course and receive a degree in Business Administration by pursuing full-time work in the Department of Business Administration for one year after receiving his degree in any one of the Departments of Engineering, Textile Manufacturing, or Agriculture.

A student can specialize four years in Science by completing the Science in the curriculum in General Business Administration during the first two years and choosing Science electives during the last two years. Four curricula are offered in the Department, one leading to the B.S. degree in Agriculture, one to the B.S. degree in Agricultural Administration, and two to B.S. degrees in Business Administration. The curriculum in Rural Life is one of the numerous Junior and Senior elective groups in the Department of Agriculture. The curriculum in Agricultural Adminis-

tration is designed to train men who are preparing themselves for demonstration work or some business position which deals chiefly with agricultural products. It is possible for a student, by completing the required work in this four-year course, to get one of the following combinations by choosing all his electives in one given field: viz., 61 credits in General Science, 51 credits in Business Administration, 48 credits in Technical Agriculture, 42 credits in English and foreign languages, and 33 credits in Mathematics. That is, by taking all the required work in any one of these fields of training and selecting all electives in the same field of training he could accumulate the above named amounts of credit. The curriculum in General Business Administration is a four-year curriculum in itself, and is designed to train more specifically for Business Administration positions. The curriculum in Shop Management and Manufactures consists of the first two years in any one of the Engineering or Manufacturing courses and two years of special training in Business Administration curricula in its entirety for four years. Each student will be required to spend one summer in some business organization or in conducting some investigation allied to the field of its study.

**FOUR-YEAR COURSE IN GENERAL BUSINESS ADMINISTRATION,  
LEADING TO THE DEGREE OF BACHELOR  
OF SCIENCE**

**Freshman Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
English, 101-102.....	3	3	3	3
Mathematics, 101(b)-102-104.....	5	5	5	5
*Science (some combination of Botany, 101-102; Chemistry, 101-102; Physics, 207-208, and Zo- ology, 201-202).....	7-9	8-11	7-9	8-11
Citizenship, B. A., 101.....	2	2	0	0
History, Economic and Social, B. A., 102.....	0	0	3	3
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	19-21	22-25	20-22	22-25

**Sophomore Year**

English, 201-202.....	3	3	3	3
Mathematics or Science.....	3-5	5	3-5	5
Economics, B. A., 201.....	3	3	0	0
Sociology, B. A., 202.....	0	0	3	3
Psychology, V. E., 201.....	3	4	0	0
Political Science, B. A., 204.....	0	0	3	3
French, Mod. Lang., 205-206, or Spanish, Mod. Lang., 209-210.....	3	3	3	3
Military Science and Tactics, 202-203.....	2	4	2	4
Totals.....	17-19	21	17-19	17

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; Second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

\*If a science is chosen the first year of which was taken in the Freshman year, the second year of that science may be taken during the Sophomore year. If a science other than one which was taken during the Freshman year is chosen, then the first year of that science must be chosen.

**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
French, Mod. Lang., 305-306, or Spanish, Mod. Lang., 311-312.....	3	3	3	3
Money, Credit, and Banking, B. A., 303.....	3	3	0	0
Accounting, B. A., 304.....	0	0	3	4
Commercial and Business Law, B. A., 305.....	3	3	0	0
Business Organization, B. A., 306.....	0	0	3	3
Shop Management, B. A., 307.....	3	3	0	0
Commercial Geography, B. A., 310.....	0	0	3	3
English, 303-304.....	3	3	3	3
	15	15	15	16
Minimum electives*.....	5	5	5	5
Totals.....	20	20	20	21

**Senior Year**

Business Finance, B. A., 405.....	3	3	0	0
Public Finance and Taxation, B. A., 404.....	0	0	3	3
Commercial Marketing and Market Agencies, B. A., 407.....	3	3	0	0
Advanced Accounting, B. A., 412.....	0	0	3	4
Labor and Employment Problems, B. A., 408.....	0	0	3	3
Industrial Sociology and Personnel Administration, B. A., 410.....	0	0	3	3
Business Statistics, B. A., 411.....	3	3	0	0
	9	9	12	13
Minimum electives*.....	11	11	9	9
Totals.....	20	20	21	22

\*Electives may be chosen from any courses in any department in the College provided the courses are of college rank.



**FOUR-YEAR COURSE IN SHOP MANAGEMENT AND MANUFACTURES, LEADING TO THE DEGREE OF BACHELOR OF SCIENCE**

**Junior Year\***

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
General Economics, B. A., 301.....	3	3	0	0
General Sociology, B. A., 302.....	0	0	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Accounting, B. A., 304.....	0	0	3	4
English, 303-304.....	3	3	3	3
French, Mod. Lang., 305-306, or Spanish, Mod. Lang., 311-312.....	3	3	3	3
Commercial Geography, B. A., 310.....	0	0	3	3
Shop Management, B. A., 307.....	3	3	0	0
	15	15	15	16
Minimum electives†.....	3	3	3	3
Totals.....	18	18	18	19

**Senior Year**

Industrial Sociology and Personnel Administration, B. A., 410.....	0	0	3	3
Money, Credit, and Banking, B. A., 303.....	3	3	0	0
Business and Industrial Organization, B. A., 306.....	0	0	3	3
Commercial Marketing and Market Agencies, B. A., 407.....	3	3	0	0
Labor and Employment Problems, B. A., 408.....	0	0	3	3
English‡.....	3	3	3	3
Business Statistics, B. A., 411.....	3	3	0	0
	12	12	12	12
Minimum electives†.....	7	7	7	7
Totals.....	19	19	19	19

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

\*The Freshman and Sophomore years are the same as for the courses in Engineering and Textile Manufacturing.

†Courses of college rank given in any department or departments of the College may be elected.

‡Course to be arranged.

**THE FOUR-YEAR COURSE IN AGRICULTURAL ADMINISTRATION,  
LEADING TO THE DEGREE OF BACHELOR  
OF SCIENCE**

**Freshman Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Agricultural Engineering, 102.....	0	0	4	6
Animal Husbandry, 101.....	2	3	0	0
Botany, 101-102.....	5	7	5	7
Citizenship, B. A., 101.....	2	2	0	0
Chemistry, 101-102, 103-104.....	3	4	3	4
English, 101-102.....	3	3	3	3
Farm Crops, 102.....	0	0	3	3
Mathematics, 101 (a).....	3	4	0	0
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	20	27	20	26

**Sophomore Year**

Commercial Geography, B. A., 310.....	3	3	0	0
Dairying, A. H., 202.....	0	0	3	3
English, 201-202.....	3	3	3	3
History, B. A., 102.....	0	0	3	3
Physics, 207-208.....	3	4	3	4
Plant Propagation, Hort., 201.....	3	4	0	0
Poultry, 201.....	3	4	0	0
Political Science, B. A., 204.....	0	0	3	3
Zoology, 201-202.....	3	5	3	5
Military Science and Tactics, 201-202.....	2	3	2	3
Totals.....	20	26	20	24

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Commercial and Business Law, B. A., 305.....	3	3	0	0
Farm Cost Accounting, F. C., 303.....	3	4	0	0
General Economics, B. A., 301.....	3	3	0	0
General Sociology, B. A., 302.....	0	0	3	3
Genetics, Zool., 302.....	0	0	3	4
Land Tenure, R. L., 405.....	3	3	0	0
Money and Banking, B. A., 303.....	0	0	3	3
Farm Finance, R. L., 312 ..	0	0	3	3
	12	13	12	13
Electives*.....	9		9	
Totals.....	21		21	

**Senior Year**

Agricultural Economics, R. L., 401.....	3	3	0	0
Business Organization, B. A., 306.....	0	0	3	3
Business Statistics, B. A., 411.....	0	0	3	3
Commercial Accounting, B. A., 304.....	0	0	3	4
Commercial Marketing, B. A., 407.....	3	3	0	0
Farm Marketing, R. L., 402.....	0	0	3	3
Rural Organization, R. L., 409.....	3	3	0	0
Rural Social Problems, R. L., 403.....	3	3	0	0
	12	12	12	13
Electives*.....	6		6	
Totals.....	18		18	

\*Electives may be chosen from any courses in any department in the College, provided the courses are of college rank.

### III. CHEMICAL COURSES

- a. **Four-year Course in Agricultural Chemistry** (see Agricultural Courses).
- b. **Four-year Course in Chemistry.**
- c. **Four-year Course in Textile Chemistry and Dyeing** (see Textile Courses).

The knowledge and skill of the chemist have become a very important factor in nearly all modern industrial development upon a large scale. Formerly the chemist was expected to protect the interest of the enterprise by analyzing the raw material to assure the corporation against loss, and to maintain the quality of the finished product. More is expected of the chemist of today. He should be able to discover uses for by-products, recover and convert waste material, devise new, efficient methods and machinery, discover the sources of loss and provide a remedy, and produce an output superior to that of competitors and at less cost.

Some of the industries calling for chemical skill are cotton-oil production and refining, ceramics, industrial alcohol, paper, soap, glue, aluminum, steel, gas, leather, dyestuffs, sugar-beet culture and manufacture, porcelain, glass, cement, sulphuric acid and nitric acid, medicinal extracts, synthetic medicines, electrochemical applications of water power, etc.

The student in Textile Chemistry and Dyeing learns how to make dyestuffs, and to apply them to the various fabrics in the dyehouse, as well as the chemistry involved in these processes. He is also given instruction in some elementary textile subjects. This course is described more fully by the Textile Department.

The student in Agricultural Chemistry receives the same instruction as the other Agricultural students throughout the Freshman and Sophomore years. This course is outlined in detail, along with the other Agricultural courses.

During the first two years the chemical courses are more or less fixed. With an increasing range of election in the Junior and Senior years, opportunity is given for general cultural studies throughout the course.

All three of the Chemical courses afford opportunity for some range in the choice of studies.

Provision is made also for graduate students in courses of study leading to the degree of Master of Science. These courses are arranged along the special lines in which the student is most interested. Our graduate and advanced undergraduate courses will specially appeal to college graduates who have become inter-



ested in Chemistry, and wish to pursue the subject further. Some of the subjects offered this year for graduate study are inorganic chemistry, physical chemistry, quantitative analysis, microchemical analysis, organic chemistry, physiological chemistry, and nitric acid.

There are several chemical plants in the city which are open to our students through the courtesy of the owners. The chemical laboratories of the North Carolina Department of Agriculture and of the several divisions of the Agricultural Experiment Station afford students an opportunity to keep in touch with the interesting work of these institutions.

The State Museum contains a splendid collection of minerals, ores, and building stones, and affords students an opportunity for the study of the natural resources of the State.

The Chemical Department occupies the whole of the second floor of Winston Hall. There are four classrooms for about thirty students each. The classrooms are well lighted, and are provided with convenient lecture tables and settees with arm rests for taking notes.

The two laboratories for inorganic chemistry can accommodate three hundred and thirty-six students, the laboratory for qualitative analysis about ninety, for organic chemistry, electrochemistry, and for quantitative analysis about twenty each. A small laboratory has been set aside for special work. The laboratories are fitted up with conveniently arranged desks and hoods, each of which has the necessary water and gas connections. The balance room is located near the quantitative laboratory. The laboratory for physical and electrochemistry has been substantially enlarged during the past year.

The department has also a dark room for photographic work, fireproof rooms for combustion, ample stock rooms, and a preparation room.

The Chemical Library, containing an excellent collection of reference books and complete sets of some of the leading chemical journals, occupies a room convenient to the laboratories for the upper classmen.

The Berzelius Chemical Society meets on Tuesday evenings for the discussion of current chemical literature. The chemical students and members of the teaching staff take part in the work of the society.

The salary usually paid to chemical graduates immediately upon the completion of their courses is \$1,500 or more. Many with experience are receiving \$3,000, some \$5,000, and a few over \$7,000 a year as compensation. The Department has been unable to meet the demand made upon it for men.

Our chemical graduates have proven their ability and skill by the high salaries they are receiving in the industries, colleges, universities, and experiment stations of our country, by the leading part they are taking in the technical societies, and by their contributions to chemical literature.

### FOUR-YEAR COURSE IN CHEMISTRY, LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

#### Freshman Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Chemistry, 101-102.....	3	3	3	3
Chemistry, Laboratory, 103-104.....	1	3	1	3
Algebra, Math., 101 (b).....	5	5	0	0
Algebra, Math., 102.....	0	0	1	1
Geometry, Math., 104.....	0	0	4	4
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Drawing, M. E., 103-104.....	1	3	2	6
Engineering Lectures, M. E., 102.....	0	0	1	1
Physics, 101-102.....	3	5	3	5
Woodshop, M. E., 105-106.....	1	3	1	3
Military Science and Tactics, 101-102.....	2	4	2	4
Citizenship, B. A., 101.....	2	2	0	0
Totals.....	21	31	21	33

#### Sophomore Year

Chemistry, Analytical, 201-202.....	3	6	3	6
English, 201-202.....	3	3	3	3
Physics, 201-202.....	4	6	4	6
Trigonometry, Math., 201.....	5	5	0	0
Analytical Geometry, Math., 202.....	0	0	5	5
German, Modern Language, 201-202.....	3	3	3	3
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	20	27	20	27

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Chemistry, Organic, 301-302.....	3	3	3	3
Chemistry, Organic, Laboratory, 303-304.....	1	3	1	3
Chemistry, Quantitative Analysis, 305-306.....	2	6	2	6
English, 301-302.....	3	3	3	3
German, Modern Language, 303-304.....	3	3	3	3
Electrochemistry, 307-308.....	3	3	3	3
Electrochemistry, Laboratory, 309-310.....	1	3	1	3
	16	24	16	24
Minimum electives.....	3	4	3	4
Totals.....	19	28	19	28
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Sociology, B. A., 302.....	0	0	3	3
French, Mod. Lang., 205-206.....	3	3	3	3

**Senior Year**

Chemistry, Historical, 401.....	2	2	0	0
Chemistry, Industrial and Eng., 415-416-417-418.....	3	5	3	5
Chemistry, Theoretical, 402.....	0	0	2	2
Chemistry, Physical, 405-406.....	3	3	3	3
Chemistry, Physical, Laboratory, 407-408.....	1	3	1	3
Chemistry, Quantitative Analysis, 409-410.....	4	12	4	12
	13	25	13	25
Minimum electives.....	6	6	6	6
Totals.....	19	31	19	31
ELECTIVES				
Military Science and Tactics, 401-402.....	4	5	4	5
Chemistry, Organic, 411-412.....	3	5	3	5
Chemistry, Physiological, 312-314.....	0	0	3	4
Microchemical Analysis, 403.....	1	3	0	0
Shop Management, B. A., 307.....	3	3	0	0
Mechanical Engineering, Laboratory, 415-416.....	2	4	2	4
Power Plants, M. E., 401-402.....	3	3	3	3
French, Mod. Lang., 305-306.....	3	3	3	3
English, 401-402.....	3	3	3	3
German, Modern Language, 403-404.....	3	3	3	3



## **IV. ENGINEERING AND MECHANIC ARTS COURSES**

- a. Four-year Courses in Civil Engineering: Architectural Engineering, Civil Engineering, and Highway Engineering.**
- b. Four-year Course in Electrical Engineering.**
- c. Four-year Course in Mechanical Engineering.**
- d. Four-year Course in Textile Engineering (see Textile Courses).**
- e. Two-year Course in Mechanic Arts.**
- f. One-year Course in Auto Mechanics.**

The Engineering Courses give a thorough grounding in such fundamental sciences as Mathematics, Physics, and Chemistry, and thorough drill in the application of the principles thus learned to engineering problems. The student is given practice in the use of engineering instruments and methods, and is encouraged to rely upon his own resources in the solution of problems. Though the courses are primarily technical and practical, they include subjects of general culture throughout all four years.

The Freshman years of all the Engineering Courses are similar and include much practical instruction. The student in the different shops learns the use of tools and the handling and manipulation of materials of construction. Instruction is given in working wood and iron. In the Sophomore year this work is continued in the pattern-making shop and in the foundry also. In the Physical laboratory much attention is paid to the practical value of such instruction. Here the student is taught the science of measurement and is trained to observe and work accurately. During these two years he is also given a thorough training in Freehand Sketching and Mechanical Drafting, skill in which is essential in all lines of engineering work.

Differentiation of the different engineering courses begins in the Sophomore year. The practical work here, in the shop, in the field, or in the laboratory, directs the student's attention to the specific phases of that branch of the profession he is to follow. In the Junior year the study of engineering methods is begun and is continued more fully in the Senior year. In all courses much time is spent during the Junior and Senior years in the laboratory, shop, mill, or field.

Upon the satisfactory completion of these courses the degree of Bachelor of Engineering is conferred. The advanced degrees of Civil Engineer, Electrical Engineer, Mechanical Engineer, and Textile Engineer may also be conferred upon graduates of three years standing who have had responsible charge of important work, upon complying with the College requirements.

More detailed descriptions of the different courses follow.



**FOUR-YEAR COURSES IN CIVIL ENGINEERING**

- a. Civil Engineering.
- b. Highway Engineering.
- c. Architectural Engineering.

The aim of the course in Civil Engineering is to give such training as will enable our young men to take an active part in the work of advancing our State along material lines—developing its water power, building railroads and public highways, constructing water supply and sewerage systems for our towns, etc.

The student is given a large amount of practical work in the field and drafting room, and acquires a fair degree of efficiency in the use of the various surveying instruments, and in drafting. At the same time it is recognized that a successful engineer requires a well trained mind—one that reasons logically, accurately, and quickly. Therefore a thorough course is given in all those branches of applied mathematics which are involved in the solution of engineering problems.

The aim has been to make this preëminently a technical course; but subjects of general culture are included in order to give the student a broader mental training and better preparation for social and business life.

**FOUR-YEAR COURSE IN CIVIL AND HIGHWAY ENGINEERING, LEADING TO THE DEGREE OF BACHELOR OF ENGINEERING**

**Freshman Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Algebra, Mathematics, 101(b).....	5	5	0	0
Geometry, Mathematics, 104.....	0	0	4	4
Advanced Algebra, Mathematics, 102.....	0	0	1	1
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Elementary Physics, 101-102.....	3	5	3	5
Civil Engineering Lectures, 102.....	0	0	1	1
Wood Work, Mechanical Engineering, 105-106....	1	3	1	3
Citizenship, B. A., 101.....	2	2	0	0
Mechanical Drawing, Mech. Eng., 103-104.....	1	3	2	6
Chemistry, 101-102.....	3	3	3	3
Chemical Laboratory, 103-104.....	1	3	1	3
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	21	30	21	33

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

**Sophomore Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Elements of Design, C. E., 203-204.....	1	3	1	3
Descriptive Geometry, Civil Eng., 205.....	2	6	0	0
Materials of Construction, Civil Eng., 201-202....	1	1	1	1
Theoretical Surveying, Civil Eng., 206.....	0	0	2	2
Field Surveying, Civil Eng., 208.....	0	0	1	3
Spanish, Mod. Lang., 207-208.....	2	2	2	2
English, 201-202.....	3	3	3	3
Trigonometry, Mathematics, 201.....	5	5	0	0
Analytical Geometry, Mathematics, 202.....	0	0	5	5
Physics, 201-202.....	4	6	4	6
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	20	30	21	29

**Junior Year**

Theoretical Surveying, Civil Eng., 301.....	2	2	0	0
Railroad Engineering, Civil Engineering, 302....	0	0	2	2
Surveying (Field Work), Civil Eng., 303.....	1	3	0	0
Topographical Surveying (Field), Civil Eng., 304....	0	0	1	3
Topographical Drawing, Civil Eng., 306.....	0	0	1	3
Highway Engineering, Civil Eng., 307-308.....	2	2	2	2
Graphic Statics, Civil Eng., 309.....	1	3	0	0
Mechanics, Civil Eng., 311-312.....	3	3	3	3
Calculus, Mathematics, 301-302.....	4	4	4	4
English, 301-302.....	3	3	3	3
	16	20	16	20
Minimum electives.....	3	3	3	3
Totals.....	19	23	19	23
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Sociology, B. A., 302.....	0	0	3	3
Spanish, Mod. Lang., 311-312.....	3	3	3	3
Psychology, V. E., 201.....	3	3	0	0
History and Social Science, B. A., 102.....	0	0	3	3
Electrical Engineering, 301-302, 305-306.....	3	3	3	3

## Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Roofs and Bridges, Civil Eng., 401.....	3	3	0	0
Bridge Design, Civil Eng., 402.....	0	0	3	6
or Bridge Design, Civil Eng., 402H.....				
Municipal Engineering, Civil Eng., 404.....	0	0	2	2
Railroad Surveying, Civil Eng., 405.....	1	3	0	0
or Highway Surveying, Civil Eng., 405H.....				
Mechanics of Materials, Civil Eng., 407.....	3	3	0	0
Reinforced Concrete, Civil Eng., 408.....	0	0	3	3
Hydraulics, Civil Eng., 409.....	3	3	0	0
Railroad Engineering, Civil Eng., 411.....	2	2	0	0
or Highway Engineering, Civil Eng., 411H.....				
Railroad Economics, Civil Eng., 412.....	0	0	2	2
or Highway Economics, Civil Eng., 412H.....				
Water Supply, Civil Eng., 414.....	0	0	2	2
Mechanics, Civil Eng., 413.....	3	3	0	0
Astronomy, Civil Eng., 416.....	0	0	2	2
Laboratory, Civil Eng., 406.....	0	0	1	3
or Laboratory, Highway Engineering, 406H.....				
Heat Engines, Mechanical Eng., 419-420.....	2	2	2	2
	17	19	17	22
Minimum electives.....	3	3	3	3
Totals.....	20	22	20	25
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Classics and Journals, Eng., 401-402.....	3	3	3	3
Spanish, Mod. Lang., 409-410.....	3	3	3	3
Shop Management, B. A., 307.....	0	0	3	3
Commercial Law, B. A., 305.....	3	3	0	0
Commercial Geography, B. A., 310.....	3	3	0	0
Business Finance, B. A., 405.....	3	3	0	0
Industrial Sociology, B. A., 410.....	0	0	3	3
Electrical Engineering, 401-402 (Prerequisite, E. E., 301-302 and 305-306).....	3	3	3	3

## FOUR-YEAR COURSE IN ARCHITECTURAL ENGINEERING

The General Assembly of North Carolina passed in 1915 an act entitled "An act to regulate the practice of architecture, and creating a board of examination and registration of same." The purpose of this law is to protect the builder as well as the bona fide

architect from the practice of inexperienced or poorly trained men. It is necessary for any one who wishes to qualify for this requirement to have had sufficient training and experience to enable him to pass creditably an examination given by the State Board.

To meet the demand for better trained men in the profession of Architecture, a new course in Architectural Engineering has been added to the curriculum. This course is the same for the Freshman and Sophomore years as that of Civil Engineering. The Junior and Senior years take up studies more purely architectural than those of the first two years. The whole course is a combination of the practical and theoretical technical training with that of the esthetic and cultural phases so necessary in the practice of architecture. The degree of Bachelor of Architecture will be granted to those who satisfactorily complete this course.

**THE FOUR-YEAR COURSE IN ARCHITECTURAL ENGINEERING, LEADING TO THE DEGREE OF BACHELOR OF ARCHITECTURE**

**Junior Year\***

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
History of Architecture, Arch. Eng., 301-302.....	2	2	1	1
Design, Arch. Eng., 303-304.....	2	6	2	6
Water Color, Arch. Eng., 306.....	0	0	1	3
Shades and Shadows, Arch. Eng., 308.....	0	0	1	3
Graphic Statics, Civil Eng., 309.....	1	3	0	0
Mechanics, Civil Eng., 311-312.....	3	3	3	3
Calculus, Mathematics, 301-302.....	4	4	4	4
French, Mod. Lang., 305-306.....	3	3	3	3
English, 301-302.....	3	3	3	3
	18	24	18	26
Minimum electives.....	3	3	3	3
Totals.....	21	27	21	29
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Sociology, B. A., 302.....	0	0	3	3
Spanish, Mod. Lang., 309-310.....	3	3	3	3
Psychology, V. E., 201.....	3	3	0	0
History, B. A., 102.....	0	0	3	3

\*Freshman and Sophomore years are the same as for the course in Civil Engineering, except for Modern Language requirements.



## Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Tall Buildings, Arch Eng., 401.....	3	3	0	0
Composition, Arch. Eng., 402.....	0	0	1	1
Design, Arch. Eng., 403-404.....	2	6	4	12
Clay Modelling, Arch. Eng., 405.....	1	3	0	0
Professional Practice, Arch. Eng., 406.....	0	0	1	1
Advanced Water Color, Arch. Eng., 407.....	1	3	0	0
Fire Protection, Arch. Eng., 408.....	0	0	1	1
Pen and Pencil Drawing, Arch. Eng., 409.....	1	3	0	0
Specifications, Arch. Eng., 410.....	0	0	1	1
Photography, Arch. Eng., 412.....	0	0	1	3
Roofs and Bridges, Civil Eng., 401.....	3	3	0	0
Municipal Engineering, Civil Eng., 404.....	0	0	2	2
Laboratory, Civil Eng., 406.....	0	0	1	3
Mechanics of Materials, Civil Eng., 407.....	3	3	0	0
Reinforced Concrete, Civil Eng., 408.....	0	0	2	2
Electric Lighting, Elec. Eng., * .....	2	2	0	0
Heating, Ventilating, and Refrigeration, Mech. Eng. 408.....	0	0	2	2
	16	26	16	28
Minimum electives.....	3	3	3	3
Totals.....	19	29	19	31
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Classics and Journals, Eng., 401-402.....	3	3	3	3
Spanish, Mod. Lang., 311-312.....	3	3	3	3
Shop Management, B. A., 307.....	3	3	0	0
Commercial and Business Law, B. A., 305.....	3	3	0	0
Commercial Geography, B. A., 310.....	0	0	3	3
Business Finance, B. A., 406.....	0	0	3	3
Industrial Sociology, B. A., 410.....	0	0	3	3

\*Course to be arranged.

### FOUR-YEAR COURSE IN ELECTRICAL ENGINEERING

The utilization of electrical methods and appliances becomes yearly more essential in our industrial world, as there is hardly an industry in which they do not take an ever-growing part or render some important service. The ease of control, safety, efficiency, and flexibility of this form of power make it equally suitable for transmitting the human voice over the telephone, for hauling the heaviest freight train over a mountain grade, for driving the largest rolling mill, for running a sewing machine, or transmitting a message to a ship at sea. The field of electrical application is as wide as our industry and seems to offer limitless opportunities for development.

With this wide extension of electrical methods technical and scientific problems become more complex, and this in turn renders a thorough knowledge of electrical theory more essential. Many of the new problems necessitate the use of the labor saving methods of higher mathematics for successful solution. Moreover, a sound grounding in theoretical and applied mechanics and familiarity with the characteristic behavior of the various electrical machines become imperative. It is the object of the four-year course in Electrical Engineering to give this thorough training necessary.

In the Freshman year the fundamental sciences of Mathematics, Chemistry, and Physics are studied, drill in English and training in the drafting room and shop are given, and a course of lectures on electrical systems and apparatus gives the student a general idea of the field covered by his profession.

In the Sophomore year Mathematics, Physics, and English are continued, as well as training in the drafting room and shop. Practice is given in the installation, care, and repair of electrical machinery. This year includes a course in French.

In the Junior year a thorough study of electrical theory is begun. This is accompanied by well planned, coördinated work in the Electrical Engineering Laboratory. The study of higher Mathematics and of English is continued. The study of Theoretical Mechanics is begun, and a course in Heat Engines, accompanied by laboratory work, makes the student familiar with these forms of prime movers.

In the Senior year the theoretical study of electricity is continued, accompanied by problems in design and work in the Electrical Engineering Laboratory; the latter includes training in the more elaborate methods of electric and magnetic measurements, as well as in the operation and testing of machines. The transmission and distribution of electrical power is studied, with its

application in electric lighting, electric traction, shop and mill driving, industrial electrochemistry, and methods of electrical communication, including wire and radio telegraphy and telephony. During this year the study of mechanics and the strength of materials is continued, and courses in hydraulics and business administration are given. In all the above courses emphasis is placed on fundamental principles and methods in order that a broad, deep foundation for future development may be laid.

During the Junior and Senior years those students who do not take the military training elect subjects in the other departments, such as Economics, Industrial Engineering, Machine Shop, Modern Language, Physical Chemistry, etc.

### THE FOUR-YEAR COURSE IN ELECTRICAL ENGINEERING, LEADING TO THE DEGREE OF BACHELOR OF ENGINEERING

#### Freshman Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Algebra, Mathematics, 101 (b).....	5	5	0	0
Geometry, Mathematics, 104.....	0	0	4	4
Advanced Algebra, Mathematics, 102.....	0	0	1	1
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Elementary Physics, 101-102.....	3	5	3	5
Citizenship, B. A., 101.....	2	2	0	0
Electrical Engineering Lectures, 102.....	0	0	1	1
Wood Work, Mech. Eng., 105-106.....	1	3	1	3
Mechanical Drawing, Mech. Eng., 103-104.....	1	3	2	6
Chemistry, 101-102.....	3	3	3	3
Chemical Laboratory, 103-104.....	1	3	1	3
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	21	31	21	33

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent; the name or abbreviation of the department is given before the number of the course.

Sophomore Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Trigonometry, Mathematics, 201.....	5	5	0	0
Analytical Geometry, Mathematics, 202.....	0	0	5	5
English, 201-202.....	3	3	3	3
Physics, 201-202.....	4	6	4	6
Descriptive Geometry, Mech. Eng., 201-202.....	1	3	2	6
French, Mod. Lang., 203-204.....	2	2	2	2
Electrical Practice, 201-202.....	1	3	1	3
Surveying, C. E., 207.....	1	3	0	0
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	19	29	19	29

Junior Year

Electrical Engineering, 301-302.....	3	3	3	3
Electrical Engineering Laboratory, 305-306.....	3	6	3	6
Mechanics, Mech. Eng., 309-310.....	2	2	2	2
Calculus, Mathematics, 301-302.....	4	4	4	4
English, 301-302.....	3	3	3	3
Heat Engines, Mech. Eng., 301-302.....	3	3	3	3
	18	21	18	21
Minimum electives.....	3	3	3	3
Totals.....	21	24	21	24
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Sociology, B. A., 302.....	0	0	3	3
Psychology, V. E., 201.....	3	3	0	0
History, B. A., 102.....	0	0	3	3
French, Mod. Lang., 305-306.....	3	3	3	3
Machine Shop, M. E., 305-306.....	1	2	1	2
Mechanism, M. E., 303-304.....	2	3	2	3



Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Alternating Currents, E. E., 401-402.....	3	3	3	3
Electrical Transmission and Distribution for Lighting and Power, E. E., 405-406.....	2	2	2	2
Electrical Communications, 403.....	3	3	0	0
Electrochemistry, E. E., 404.....	0	0	3	3
Electrical Engineering Laboratory, 407-408.....	3	6	2	6
Electrical Design, 409-410.....	1	2	1	2
Mechanics, M. E., 405-406.....	3	3	2	2
Hydraulics, C. E., 410.....	0	0	2	2
Shop Management, B. A., 307.....	3	3	0	0
Industrial Sociology, B. A., 410.....	0	0	3	3
	18	22	18	23
Minimum electives.....	3	3	3	3
Totals.....	21	25	21	26
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Classics and Journals, English, 401-402.....	3	3	3	3
French, Mod. Lang., 401-402.....	3	3	3	3
Business Finance, B. A., 406.....	0	0	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Mechanism, M. E., 303-304.....	2	3	2	3
Machine Shop, M. E., 417-418.....	1	3	1	3

### FOUR-YEAR COURSE IN MECHANICAL ENGINEERING

The course in Mechanical Engineering offers instruction in the scientific principles forming the foundation of all engineering, but with particular regard to the generation and transmission of power, and to the principles of the design, construction, and operation of machinery. To this end the course of instruction is as broad as it is possible to give in a technical school.

The major studies in the Freshman and Sophomore years are Chemistry, Drawing, English, Mathematics, and Physics. These supply the necessary preparation for the more advanced scientific and professional studies of the Junior and Senior years, which are Applied Mechanics, Materials of Construction, Machine Design, Steam Engineering, Thermodynamics, Hydraulics, Electrical Engineering, and Shop Management. Throughout the course the student devotes much time to shop practice in the large and well equipped shops of the College. There he becomes familiar with the methods, tools, and machinery employed in the best practice in the working of wood and of metals. He learns the possibilities of machine construction in connection with pattern, foundry, forge, and machine work, and lays a solid foundation for the future mechanical engineer.

In the various laboratories—Chemical, Physical, Electrical, and Mechanical—the student carries out experiments which both reveal and apply the natural laws of matter and energy, and he thus, in the best manner, supplements the theoretical instruction received in the classroom. It is in these laboratories that he finds educational opportunities which only the well equipped technical college can offer, and for which no equivalent exists in the most extended experience in the workshop or factory.

In addition to the excellent facilities which the College in itself offers for the theoretical and practical study of mechanical engineering, its surroundings are favorable in offering a diversity of examples of practical application of mechanical science. Within easy reach of the College are machine shops, foundries, pumping stations, and power plants which are open to the inspection of students. Thus the educational facilities of these industrial plants may be utilized for the benefit of the student.

Graduates of the course in Mechanical Engineering are fitted in the best way to derive the utmost value from the experiences of the professional work of after years. While it is not expected that the graduate will at once be a finished designer or contractor, it is true that in the course of a few years he will, as a rule, far outstrip his competitor who lacks the thorough and systematic training given by the technical course.

**THE FOUR-YEAR COURSE IN MECHANICAL ENGINEERING,  
LEADING TO THE DEGREE OF BACHELOR  
OF ENGINEERING**

**Freshman Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Elementary Physics, 101-102.....	3	5	3	5
Mechanical Drawing, M. E., 103-104.....	1	3	2	6
Wood Work, M. E., 105-106.....	1	3	1	3
Mech. Eng. Lectures, M. E., 102.....	0	0	1	1
Citizenship, B. A., 101.....	2	2	0	0
Algebra, Mathematics, 101 (b).....	5	5	0	0
Advanced Algebra, Mathematics, 102.....	0	0	1	1
Geometry, Mathematics, 104.....	0	0	4	4
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Chemistry, 101-102.....	4	6	4	6
Chemical Laboratory, 103-104.....				
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	21	31	21	33

**Sophomore Year**

Physics, 201-202.....	4	6	4	6
Descriptive Geometry, M. E., 201-202.....	1	3	2	6
Trigonometry, Mathematics, 201.....	5	5	0	0
Analytical Geometry, Mathematics, 202.....	0	0	5	5
Foundry, Pattern Making, M. E., 203.....	1	3	0	0
Metallurgy, M. E., 205-206.....	2	2	2	2
Forge Shop, M. E., 204.....	0	0	1	3
English, 201-202.....	3	3	3	3
French, Mod. Lang., 203-204.....	2	2	2	2
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	20	28	21	31

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviations of the department is given before the number of the course.

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Heat Engines, M. E., 301-302.....	3	3	3	3
Mechanics, M. E., 309-310.....	2	2	2	2
Calculus, Mathematics, 301-302.....	4	4	4	4
Mechanism, M. E., 303-304.....	2	4	2	4
Machine Shop, M. E., 305-306.....	1	3	1	3
M. E. Laboratory, M. E., 307-308.....	1	3	1	3
English, 301-302.....	3	3	3	3
Electrical Engineering, 303-304.....	2	3	2	3
	18	25	18	25
Minimum electives.....	3	3	3	3
Totals.....	21	28	21	28
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Sociology, B. A., 302.....	0	0	3	3
French, Mod. Lang., 305-306.....	3	3	3	3



Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Power Plant, M. E., 401-402.....	3	3	3	3
Gas Engines, M. E., 403.....	3	3	0	0
Mechanics, M. E., 406.....	0	0	2	2
Mechanics of Materials, M. E., 405.....	3	3	0	0
Heating, Ventilation, and Refrigeration, M. E., 408.....	0	0	2	2
Machine Design, M. E., 409.....	2	6	0	0
Design, M. E., 410.....	0	0	2	6
Laboratory, M. E., 415-416.....	1	1	1	1
	1	3	1	3
Machine Shop Work, M. E., 417-418.....	1	3	1	3
Hydraulics, M. E., 412.....	0	0	2	2
Shop Management, B. A., 307.....	3	3	0	0
Industrial Sociology, B. A., 410.....	0	0	3	3
	17	25	17	25
Minimum electives.....	3	3	3	3
Totals.....	20	28	20	28
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
French, Mod. Lang., 401-402.....	3	3	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Commercial Geography, B. A., 310.....	0	0	3	3
English, 401-402.....	3	3	3	3

TWO-YEAR COURSE IN MECHANIC ARTS

In order to meet the necessities of young men who wish to prepare themselves for the industrial arts rather than for industrial science and art, the following two-year course in Mechanic Arts is offered.

This course does not lead to graduation, and it is not in any sense intended as a preparatory course for the regular four-year courses. It is designed simply to help young men better to fit themselves, by a year or two of practical work under competent and interested supervision, for their chosen sphere of industrial activity. No credit will be given toward graduation for work done in the first year of the two-year course.

First Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Mechanical Drawing, 11-12.....	2	6	2	6
Wood Work, M. E., 21-22.....	1	3	1	3
Forge Work, M. E., 31-32.....	1	3	1	3
Mechanical Technology, M. E., 41-42.....	2	2	2	2
Physics, 11-12.....	3	3	3	3
Algebra, 11.....	5	5	0	0
Plane Geometry, 12.....	0	0	5	5
English, 11-12.....	3	3	3	3
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	19	29	19	29

Second Year

Machine Drawing, Mechanical Eng., 51-52.....	2	6	2	6
Machine Shop Work, Mech. Eng., 61-62.....	2	6	2	6
Power Machinery, Mech. Eng., 71-72.....	3	3	3	3
Elementary Mechanics, Mech. Eng., 82.....	0	0	2	2
Gas Engine Laboratory, Mech. Eng., 92.....	0	0	1	3
Pattern Work, Mech. Eng., 81.....	1	3	0	0
Foundry, Mech. Eng., 91.....	1	3	0	0
Algebra, Mathematics, 101(b)-102.....	5	5	1	1
Geometry, Mathematics, 104.....	0	0	4	4
English, 101-102.....	3	3	3	3
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	19	33	20	32

- (1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.
- (2) First term courses are given the odd numbers; second term, the even numbers.
- (3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before numbers of the course.

**ONE-YEAR COURSE IN AUTO MECHANICS**

In order to meet the necessities of young men who wish to prepare themselves for the automobile industry rather than for industrial science and art, the following one-year course is offered.

This course does not lead to graduation, and it is not in any sense intended as a preparatory course for the regular four-year courses. It is designed simply to help young men better to fit themselves, by a year of practical work under competent and interested supervision, for their chosen sphere of industrial activity. No credit will be given toward graduation for work done in the one-year course.

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
English, 11-12.....	3	3	3	3
Algebra, 11.....	5	5	0	0
Plane Geometry, 12.....	0	0	5	5
Automobile Theory, M. E., 43-44.....	5	5	5	5
Automobile Practice, M. E., 43-44.....	4	12	4	12
Drawing, Mechanical, 11-12.....	1	3	1	3
Forge Work, 31-32.....	1	3	1	3
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	21	35	21	35

## **V. TEXTILE COURSES**

- a. Four-year Course in Textile Manufacturing.**
- b. Four-year Course in Textile Engineering.**
- c. Four-year Course in Textile Chemistry and Dyeing.**
- d. Two-year Course in Textile Manufacturing.**

The Textile Department, which is a fully equipped Textile school, is known as the North Carolina Textile School, and contains all the necessary machinery for instruction in manufacturing cotton yarns and fabrics from the bale to the finished product. The department also contains the necessary equipment in both the experimental and the practical laboratories for chemical analysis as applied to bleaching and dyeing and for bleaching and dyeing larger amounts of raw cotton yarn in skein and cloth.

### **Four-year Course in Textile Manufacturing**

This course offers complete facilities for full instruction in all branches of cotton manufacturing, including textile chemistry, bleaching, and dyeing. Practical training in Textile work begins in the Freshman year and forms a part of the work in each of the following years. The theoretical work is directly related to the practical work going on, and this combination offers the best means of studying cotton manufacturing in all its operations. The actual hours devoted to textile work are increased each year during the four years so that in the Senior year the student devotes most of his time to textile work. Each student produces for himself cotton yarns of different numbers, dyes and bleaches cotton and yarn, and makes shirtwaistings, dress goods, and other fabrics from his own designs and colorings.



**THE FOUR-YEAR COURSE IN TEXTILE MANUFACTURING,  
LEADING TO THE DEGREE OF BACHELOR  
OF ENGINEERING**

**Freshman Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Manufacturing, 101-102.....	2	3	2	3
Weaving, Textile Manufacturing, 103-104.....	2	3	2	3
Mechanical Drawing, Mech. Eng., 103-104.....	1	3	2	6
Engineering Lectures, Textile Eng., 106.....	0	0	1	1
Algebra, Mathematics, 101 (b).....	5	5	0	0
Geometry, Mathematics, 104.....	0	0	4	4
Advanced Algebra, Mathematics, 102.....	0	0	1	1
Chemistry, 101-102.....	3	3	3	3
Chemistry, Laboratory, 103-104.....	1	3	1	3
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Citizenship, B. A., 101.....	2	2	0	0
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	21	29	21	31

**Sophomore Year**

Carding and Spinning, Textile Manufacturing, 201-202.....	2	3	3	4
Weaving, Textile Manufacturing, 203-204.....	2	3	2	3
Designing, Textile Manufacturing, 205-206.....	2	4	2	2
Cloth Analysis, Textile Manufacturing, 208.....	0	0	1	2
Physics, 205-206.....	3	4	3	4
Dyeing, 209-210.....	2	4	2	4
Drawing, Mechanical Eng., 208.....	0	0	1	3
Trigonometry, Mathematics, 201.....	5	5	0	0
English, 201-202.....	3	3	3	3
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	21	30	19	29

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Manufacturing, 301-302.....	3	5	3	5
Weaving, Textile Manufacturing, 303-304.....	2	4	2	4
Designing, Textile Manufacturing, 305-306.....	3	4	2	2
Cloth Analysis, Textile Manufacturing, 308.....	0	0	1	2
Dyeing, Textile Manufacturing, 309-310.....	1	1	1	1
Dyeing, Laboratory, Textile Manufacturing, 311-312.....	1	3	1	3
Spanish, Mod. Lang., 307-308.....	2	2	2	2
English, 301-302.....	3	3	3	3
Motors, Electrical Eng., 309-310.....	2	2	2	2
	17	24	17	24
Minimum electives.....	3	3	3	3
Totals.....	20	27	20	27
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Accounting, B. A., 304.....	0	0	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Labor and Employment, B. A., 408.....	0	0	3	3
French, Mod. Lang., 205-206.....	3	3	3	3

Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Manufacturing, 401-402.....	4	6	4	6
Weaving, Textile Manufacturing, 403-404.....	4	6	4	6
Designing, Textile Manufacturing, 405-406.....	3	3	3	3
Cloth Analysis, Textile Manufacturing, 407-408.....	1	2	1	2
Dyeing, Textile Manufacturing, 409-410.....	2	2	2	2
Dyeing, Laboratory, Textile Manufacturing, 411-412.....	2	4	2	4
Heat Engines, Mechanical Engineering, 419-420.....	2	2	2	2
	18	25	18	25
Minimum electives.....	3	3	3	3
Totals.....	21	28	21	28
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Spanish, Mod. Lang., 311-312.....	3	3	3	3
Teacher Training, Textile Manufacturing*.....	3	3	3	3
French, Mod. Lang., 305-306.....	3	3	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Labor and Employment, B. A., 408.....	0	0	3	3

\*To be arranged.

FOUR-YEAR COURSE IN TEXTILE ENGINEERING

This course offers a complete training for young men who desire to take up the profession of Textile Engineering. The course differs from that of Textile Manufacturing in that more engineering subjects are added with a certain amount of Textile work so as to make the course thoroughly practical.

There is a growing demand for young men who wish to follow the textile industry along engineering lines.

THE FOUR-YEAR COURSE IN TEXTILE ENGINEERING,  
LEADING TO THE DEGREE OF BACHELOR  
OF ENGINEERING

Freshman Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Eng., 101.....	1	3	0	0
Weaving, Textile Eng., 104.....	0	0	2	3
Chemistry, 101-102.....	3	3	3	3
Chemistry, Laboratory, 103-104.....	1	3	1	3
Mechanical Drawing, Mech. Eng., 103-104.....	1	3	2	6
Algebra, Mathematics, 101 (b).....	5	5	0	0
Geometry, Mathematics, 104.....	0	0	4	4
Advanced Algebra, Mathematics, 102.....	0	0	1	1
Physics, 101-102.....	3	5	3	5
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Citizenship, B. A., 101.....	2	3	0	0
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	21	32	21	32

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.  
(2) First term courses are given the odd numbers; second term, the even numbers.  
(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.



**Sophomore Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Eng., 201-202.....	2	3	2	3
Weaving, Textile Eng., 203-204.....	2	3	2	3
Trigonometry, Mathematics, 201.....	5	5	0	0
Analytical Geometry, Mathematics, 202.....	0	0	5	5
Physics, 201-202.....	4	6	4	6
Elements of Design, Civil Eng., 203-204.....	1	3	1	3
English, 201-202.....	3	3	3	3
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	19	27	19	27

**Junior Year**

Carding and Spinning, Textile Eng., 301-302.....	3	5	3	5
Weaving, Textile Eng., 303-304.....	2	4	2	4
Calculus, Mathematics, 301-302.....	4	4	4	4
Heat Engines, Mechanical Eng., 301-302.....	3	3	3	3
Laboratory, Mechanical Eng., 307-308.....	1	2	1	2
Mechanics, Civil Eng., 311-312.....	3	3	3	3
Spanish, Mod. Lang., 307-308.....	2	2	2	2
	18	23	18	23
Minimum electives.....	3	3	3	3
Totals.....	21	26	21	26
ELECTIVES				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Accounting, B. A., 304.....	0	0	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Labor and Employment, B. A., 408.....	0	0	3	3
French, Mod. Lang., 205-206.....	3	3	3	3

Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Eng., 401-402.....	3	4	3	4
Weaving, Textile Eng., 403-404.....	2	4	2	4
Electrical Engineering, 301-302.....	3	3	3	3
Electrical Engineering, Laboratory, 305-306.....	2	4	2	4
Mechanics of Materials, Civil Eng., 407.....	3	3	0	0
Reinforced Concrete, Civil Eng., 408.....	0	0	3	3
Power Plants, Mechanical Eng., 401-402.....	3	3	3	3
Laboratory, Mechanical Eng., 415-416.....	2	4	2	4
	18	25	18	25
Minimum electives.....	3	3	3	3
Totals.....	21	28	21	28
ELECTIVES				
Military Science and Tactics, 401-402.....	3	5	3	5
Spanish, Mod. Lang., 311-312.....	3	3	3	3
French, Mod. Lang., 305-306.....	3	3	3	3
English, 401-402.....	3	3	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Labor and Employment, B. A., 408.....	0	0	3	3

### **FOUR-YEAR COURSE IN TEXTILE CHEMISTRY AND DYEING**

This course is especially for those who wish to engage in any branch of Textile Chemistry, Dyeing, Bleaching, Finishing, or in the manufacture or sale of dyestuffs and chemicals used in the textile industry, and is designed to give a scientific technical education to those who desire to follow these branches of industrial technology.

Dyeing as an art has long been practiced, but with the introduction of scientific methods has rapidly developed and has assumed a position in the front rank of applied sciences.

As the textile industries of the State increase, the need of young men who have been trained in the principles as well as the practice of the different factory operations becomes apparent. In the course in Textile Chemistry and Dyeing the student is taught the different practical methods of the dyehouse; the chemistry of dyestuffs, some of each class of which he actually makes; the chemical changes brought about by mordants, assistants, etc. He also learns color matching, dye testing, and the methods for the analysis of the different chemicals used in the dyehouse. He carries on the study of carding, spinning, weaving, designing, cloth analysis, etc., to the end of the Sophomore year, with the other textile students, and with them devotes attention to shop work, drawing, etc., together with such general studies as English, Mathematics, Physics, and Chemistry, which are required in all four-year courses.

**THE FOUR-YEAR COURSE IN TEXTILE CHEMISTRY AND  
DYEING, LEADING TO THE DEGREE OF BACHELOR  
OF SCIENCE**

**Freshman Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, Textile Manufacturing, 101-102.....	1	3	2	3
Weaving, Textile Manufacturing, 103-104.....	2	3	2	3
Mechanical Drawing, Mech. Eng., 103-104.....	1	3	2	6
Algebra, Mathematics, 101(b).....	5	5	0	0
Geometry, Mathematics, 104.....	0	0	4	4
Advanced Algebra, Mathematics, 102.....	0	0	1	1
Chemistry, 101-102.....	3	3	3	3
Chemistry, Laboratory, 103-104.....	1	3	1	3
Composition and Rhetoric, English, 101-102.....	3	3	3	3
Citizenship, B. A., 101.....	2	2	0	0
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	20	29	20	30

**Sophomore Year**

Carding and Spinning, Textile Manufacturing, 201-202.....	2	3	2	4
Weaving, Textile Manufacturing, 203-204.....	2	3	2	3
Designing, Textile Manufacturing, 205-206.....	2	4	2	2
Cloth Analysis, Textile Manufacturing, 208.....	0	0	1	2
Physics, 205-206.....	3	4	2	2
Dyeing, Tex., 209-210.....	2	4	2	4
Trigonometry, Mathematics, 201.....	5	5	0	0
Analytical Geometry, Mathematics, 202.....	0	0	5	5
English, 201-202.....	3	3	3	3
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	21	30	21	29

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers; second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.



**Junior Year**

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Chemistry, Organic, 301-302.....	3	3	3	3
Chemistry, Organic, Laboratory, 303-304.....	1	3	1	3
Chemistry (Quantitative Analysis), 305-306.....	2	4	2	4
Dyeing, Textile Manufacturing, 309-310.....	2	2	2	2
Dyeing, Laboratory, Textile Manufacturing, 311-312.....	4	8	4	8
English, 301-302.....	3	3	3	3
German, Mod. Lang., 201-202.....	3	3	3	3
	18	26	18	26
Minimum electives.....	3	3	3	3
Totals.....	21	29	21	29
<b>ELECTIVES</b>				
Military Science and Tactics, 301-302.....	3	5	3	5
Economics, B. A., 301.....	3	3	0	0
Textile subject.....	3	3	3	3
French, Mod. Lang., 301-302.....	3	3	3	3
Sociology, B. A., 302.....	3	3	3	3
Accounting, B. A., 304.....	0	0	3	3

**Senior Year**

Chemistry, Historical, 401.....	2	2	2	2
Chemistry, Industrial 415-416-417-418.....	3	5	3	5
Chemistry (Quantitative Analysis), 409-410.....	5	10	5	10
Dyeing, 409-410.....	3	3	3	3
Dyeing, Laboratory, 411-412.....	4	8	4	8
	17	28	17	28
Minimum electives.....	3	3	3	3
Totals.....	20	31	20	31
<b>ELECTIVES</b>				
Military Science and Tactics, 401-402.....	3	5	3	5
German, Mod. Lang., 303-304.....	3	3	3	3
English, 401-402.....	3	3	3	3
Textile subject.....	3	3	3	3
French, Mod. Lang., 305-306.....	3	3	3	3
Commercial and Business Law, B. A., 305.....	3	3	0	0
Labor and Employment, B. A., 408.....	0	0	3	3

## TWO-YEAR COURSE IN TEXTILE MANUFACTURING

This course is intended for young men who desire to learn some of the fundamental principles of Textile Manufacturing, and other subjects which will be of value in this work. The various textile subjects are taught by lecture and practical work on carding, spinning, and weaving machinery.

### First Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Credits	Hours	Credits	Hours
Carding and Spinning, 11-12.....	1	3	1	3
Weaving, 21-22.....	3	5	3	5
Designing, Tex. Mfg., 31-32.....	2	4	1	2
Cloth Analysis, 42.....	0	0	1	2
Drawing, M. E., 11-12.....	1	3	1	3
Forge Work, M. E., 31-32.....	1	3	1	3
Algebra, 11.....	5	5	0	0
Geometry, 12.....	0	0	5	5
English, 11-12.....	3	3	3	3
Military Science and Tactics, 101-102.....	2	4	2	4
Totals.....	18	30	18	31

### Second Year

Carding and Spinning, 11-12.....	3	6	3	6
Weaving, 21-22.....	3	6	3	6
Designing, Tex. Mfg., 31-32.....	3	4	2	2
Cloth Analysis, 42.....	0	0	1	2
Drawing, M. E., 51-52.....	1	3	1	3
Machine Shop, M. E., 61-62.....	1	3	1	3
English, 101-102.....	3	3	3	3
Military Science and Tactics, 201-202.....	2	4	2	4
Totals.....	16	29	16	29

(1) Short courses are numbered from 1 to 100; Freshman from 101 to 200; Sophomore from 201 to 300; Junior from 301 to 400; Senior from 401 to 500; Graduate from 501.

(2) First term courses are given the odd numbers, second term, the even numbers.

(3) In cases where the department teaching the course is not apparent, the name or abbreviation of the department is given before the number of the course.

## DESCRIPTION OF SUBJECTS

### AGRICULTURAL ENGINEERING

#### For Four-year Courses

**102. Agricultural Engineering.** Farm shop work will consist of teaching the agricultural student how to do the ordinary repair and construction work which arises on the farm, with such tools and equipment as the average farmer may reasonably be expected to have. Sufficient elementary drawing and blueprint reading will be given to enable the student to sketch the broken part of the machine and order a duplicate if necessary. Each article made in this course must be useful on the farm. Required of Freshmen in Agriculture. Four credits, second term.

**301. Farm Machinery.** This is a practical course designed for students who wish to perfect themselves in the operation and care of all types of farm machinery. Laboratory practice will consist of a detailed study of the construction, design, calibration, and operation of tilling, cultivating, and harvesting machinery. Such other machinery as ensilage cutters, terracing machines, hay balers, etc., will also be studied. Three credits, first term. Elective for Juniors. Required in Agricultural Engineering.

**303. Farm Buildings and Concrete.** The study of building materials, designs and construction of farm buildings, and building location. Ventilation, lighting, heating, water supply, plumbing, and sewage disposal will be studied briefly in their relation to rural conditions. Laboratory practice consists of the design and construction of molds and forms, and study of methods of reinforcing, and proportions of mixture to be used in various farm buildings and equipment. Complete working drawings, with tracings and blueprints of some of the farm buildings will be made. Three credits, first term. Elective for Juniors. Required in Agricultural Engineering.

**304. Repair of Farm Machinery.** The practical method of repair, upkeep, and care of all kinds of farm machinery. The design and equipment of the farm power plant and shop. Laboratory practice consists of overhauling, repairing, and painting of the College farm machinery, and the use of repair catalogs, babbitt solder, and simple wood and iron working tools. Two credits, second term. Required of Juniors in Agricultural Engineering.

**306. Farm Motors.** The practical study of the farm gas and steam engine, their use, care and repair. Laboratory practice will consist of the operation, care, and repair of different types of farm



gas and steam engines. Brake horsepower and fuel economy tests will be run by the students. Three credits, second term. Required of Juniors in Agricultural Engineering. Elective for other Juniors. Professor BOSQUE.

**308. Farm Mechanics.** This course is especially designed for those intending to teach Agriculture in vocational high schools. The work will include such subjects as are usually taught in vocational high schools, and will include soldering, tinning, erection of line shafting, belt lacing, power transmission, pipe fitting, farm wood work, and sufficient forging to enable the student to make ordinary farm repairs. One credit, second term. Required of Juniors in Agricultural Engineering. Elective for Juniors. Professor BOSQUE.

**401. Farm Equipment.** A study of farm and home equipment necessary for the up-to-date farm. Thorough study of tillage, seeding, haying, and harvesting machinery, water supply, sewage disposal, home light and power. Selection, cost, depreciation, and upkeep of farm equipment. Three credits, first term. Elective for all Seniors in Agriculture except those in Agricultural Chemistry and Veterinary Medicine. Professor BOSQUE.

**403-404. Terracing and Farm Surveying.** Theory to consist of chain surveying, adjustments and use of the instruments in leveling, compass and transit surveying, with special reference to application on farms. The necessary trigonometric formulas are taught in connection with this course. Practice in differential and profile leveling, use of precise and home-made levels in location of terraces, adjustment of levels, construction of the broad terrace and the soil saving dam. Trips will be made to terraced fields; one or more lectures illustrated with slides will be given. Three credits, first term. Required of Seniors in General Agriculture. Three credits, first term; two credits, second term. Elective for all other Seniors in Agriculture. Required of Juniors in Agricultural Engineering. Professor BOSQUE.

**405. Tractors.** The practical study of the care, operation, and handling of both steam and gas tractors. Laboratory practice to consist of the practical operation of tractors, making brake and drawbar tests when operating under field conditions; fuel economy tests will also be made. Two credits, first term; two credits, second term. Required of Seniors in Agricultural Engineering. Elective for other Agricultural Seniors. Prerequisite, Farm Motors 306.

**408. Pumps, Lights, and Power Problems.** A study of elementary hydraulics and its application to farm pumping and water supply; the use of electricity for light and power. Two credits, second term. Required of Seniors in Agricultural Engineering.



**For Two-year Course**

**11. Agricultural Drawing.** The use and care of common drafting tools, and the application of drawing to agricultural work. Plans of simple structures, and free-hand sketching of machinery parts. One credit, first term.

**12. Farm Shop Work.** Use and care of carpentry tools, and instruction in carpentry exercises. Construction of small buildings. Cement and concrete in farm work. Mixing, proportioning, and placing. One credit, second term.

**21. Farm Motors and Tractors.** The practical study of the farm gas engine and tractor; their use, care, and repair. The laboratory practice will consist of the operation, care, and repair of the different types of the gas engine and tractor. Where it is practical, the students will overhaul machines that have been damaged and sent to this department for repair. Three credits, first term (two-year course).

**22. Farm Equipment.** A study of farm machines; selection, strength, materials and qualities of tillage, planting, cultivating, and harvesting machinery. Farm fences; buildings and home-built equipment. Sewage disposal; water supply; farm light and power plants. Three credits, second term.

**For Winter Course**

**Gas Engines, Farm Tractors and Machinery.** Selection and operation of gas engines and tractors. Engine types and principles. Engine and tractor systems and accessories. When possible, specialists will be secured for intensive work on ignition, lubrication, governing, and colling systems. Fitting the tractor to the farm. Power farming.

**ANIMAL HUSBANDRY AND DAIRYING****For Four-year Courses**

**101. Types and Market Classes of Livestock.** A survey of the development of the livestock industry, with special reference to present conditions. Consideration is given to the fundamental principles of livestock judging; the relation of form to function, or production; the combination of characters indicating constitutional strength, temperament, capacity, and sexuality necessary in the development of animals for special purposes such as milk, meat, work, and speed production. Time is devoted to the market requirements of livestock and adaptation of the different types. First term, two credits. Required of Freshmen. Assistant Professor HAIG.

**202. Elements of Dairying.** This course consists of the discussion of the fundamental principles of dairying. Lectures are given on the secretion and composition of milk, the testing of milk and cream for butter fat; the care of milk and cream; the construction, operation and care of the cream separator. Butter making and cheese making are discussed briefly. In the laboratory practical work is given in the testing of milk and cream, in the operation of cream separators, and in farm butter making. Second term, three credits. Laboratory fee, \$4. Required of Sophomores. Assistant Professor HAIG.

**301. Animal Nutrition.** This course consists of lectures and recitations on the principles of animal nutrition, including the physiology of the digestion of feeds, the uses of nutrients in the body, feeding standards as adapted to different classes of farm animals, and a general survey of feeding stuffs. First term, three credits. Required of Juniors in all Agricultural Courses. Professor RUFFNER.

**303. Sheep Production.** Sheep husbandry is studied in its relation to mutton and wool production. Lectures and text-book readings emphasize practical methods of selection, handling the flock, feeding, housing, and marketing sheep and wool. Laboratory work is a study of types and breed characteristics, their relation to mutton and wool production, and the selection of sheep by judging. First term, three credits. Elective for Juniors in Animal Husbandry. Professor RUFFNER.

**304. Advanced Stock Judging.** In this course consideration is given to animal conformation, quality, and condition with reference to market and show-yard requirements; to the selection of horses, beef cattle, dairy cattle, sheep, and swine for the feed lot, the market, and exhibition, and to judging at livestock shows. Second term, three credits. Required of Juniors in Veterinary Medicine, Vocational Education, Farm Crops, and Animal Husbandry. Elective for all other Juniors except those in Agricultural Chemistry. Professor RUFFNER.

**305. Swine Production.** The discussion of types, breed characteristics, and adaptability of swine. Lectures emphasize the questions of breeding, feeding, housing, and marketing of swine. Practical work is given in the laboratory in selecting by judging. First term, three credits. Required of Juniors in Animal Husbandry. Elective for all other Juniors except those in Agricultural Chemistry. Assistant Professor HAIG.

**401. Dairy Cattle and Milk Production.** Dairy husbandry is studied largely in its relation to the producer of milk. The dairy breeds are considered as to their characteristics and adaptation.

Problems of the dairy farmer such as selection, management, feeding, calf raising, and dairy cattle barns are discussed. The laboratory work consists of studying dairy types and selection by judging. First term, three credits. Required of Seniors in Veterinary Medicine, and Animal Husbandry. Elective for all other Seniors except those in Agricultural Chemistry. Professor RUFFNER.

**402. Farm Meats and Stock Farm Management.** The first half of the term is devoted to questions relative to farm butchering, curing, and care of meats and the various products. A smokehouse is available, so that the studies can be made practical. The second half of the term is devoted to a study of successful methods of operating farms devoted chiefly to livestock production. A study of the best systems applied to North Carolina conditions. Second term, three credits. Required of Seniors in Animal Husbandry. Professor RUFFNER and Assistant Professor HAIG.

**403. Animal Breeding.** The improvement of domestic animals; variation and heredity of animal character; reproduction, development, selection, line breeding, inbreeding, cross-breeding, grading, and other factors dealing with the improvement of farm animals. First term, three credits. Required of Seniors in Animal Husbandry. Elective for all other Seniors except those in Agricultural Chemistry. Professor RUFFNER.

**404. Pedigree Study.** A study of the blood lines of the various breeds of livestock. Each student is expected to select one or two breeds of which he makes a special study, working out the pedigrees from the herd books of the most noted animals. Special study is made of the animals owned by breeders in North Carolina. Second term, three credits. Required of Seniors in Animal Husbandry. Professor RUFFNER.

**405. Horse, Mule, and Beef Production.** The first half of this course deals with methods of breeding, feeding, and handling horses and mules; the care and management of stallions, mares, foals, and work animals. The breeds are discussed as to their importance in the South. The horses and mules on the College farm are used in practice judging and selecting.

The second part of the term is devoted to a study of practical methods of selecting, feeding, management, finishing, and marketing beef cattle in North Carolina. Consideration is given to the breeder, feeder, butcher, and consumer. The course also emphasizes types, judging, breeds and market classes, and grades. A few animals are kept for this purpose. First term, three credits. Elective for all Seniors in Agriculture except students in Agricultural Chemistry. Assistant Professor HAIG.



### Courses for Graduates

Students entering graduate work in Animal Industry should have a thorough training in the fundamental principles of the subject. The following graduate courses are offered:

**501-502. Animal Nutrition.** In this course there will be a study of recent scientific publications on the chemistry and physiology of the nutrition of animals and the chemical and physiological changes and processes involved in the activities of animal life. The student will be expected to follow out courses in assigned reading, hold conferences with the instructor, and submit regular reports on the progress of his studies. First and second terms.

**503-504. Investigational Work.** Students who wish to continue their studies along any particular line in the Department of Animal Husbandry and Dairying may, with the aid of the head of the department, select a definite investigational project, and devote at least half time to carrying on the investigation.

### For Two-year Course

**11. Breeds and Judging.** The student begins with the breeds of livestock, making a thorough study of their development and characteristics and also of the pedigrees and performances of superior individuals among horses, cattle, sheep, and swine. The practical part of the course is devoted to the judging of horses, dairy cattle, beef cattle, sheep, and swine. Three credits. First year, first term. Assistant Professor HAIG.

**21. Feeds and Feeding.** This course embraces the principles and practice of animal feeding. After covering the principles of feeding it takes up the composition of feeding stuffs, their combinations into properly balanced rations, and the relation between the sustenance of animals and their products. Problems relating to balanced rations are solved. Three credits. First term, second year. Professor RUFFNER.

**22. Farm Dairying.** This course takes up a study of the care and handling of milk and cream on the farm, centrifugal separation, pasteurization, the testing of milk and milk products, and development of young dairy stock and the feeding of cows for the most economical production. Three credits. Second, term, second year. Professor RUFFNER.

### For Winter Course

**Farm Dairying.** This course is given to furnish the student instruction regarding the dairy industry. It should be of use and interest to any farmer, whether he is especially interested in making



dairy farming the largest part of the farm operations or not. The subject material includes the testing of milk and cream for butter-fat, need and value of testing individual cows, the composition and properties of milk, its food value and use as a food, the separation of cream and farm butter-making, and the proper methods of handling milk and cream. It is the aim of this course to enable the student to recognize a good cow from a poor one and to feed his animals for profitable production. All discussions and work will be taken up from the farm viewpoint.

**Types and Market Classes of Livestock.** This course will consist of a brief study of the most important breeds and market classes of horses, cattle, sheep and swine. Their history, development, distinctive characteristics, adaptation and value to the stockman, butcher, and consumer, will be studied. The differences in function and conformation between pure-bred animals and scrubs, or natives, will be pointed out and emphasized. By lectures, demonstrations, and personal score-card practice, the students will learn the good points and defects of animals before them. After the use of the score-card is learned, work will be given in competitive judging.

### ARCHITECTURAL ENGINEERING

**301-302. History of Architecture and Ornament.** Continuation of the technical and historical study of architecture and ornament of the renaissance and modern styles. Lectures with library research and sketching. Two credits, first term; one credit, second term. Required of Juniors in Architecture. Associate Professor SHUMAKER.

**303-304. Architectural Design.** Continuation of problems in design, composition, and planning. Research and drafting. Required of Juniors in Architecture. Both terms, two credits. Prerequisite, Architecture, 211-212. Associate Professor SHUMAKER.

**306. Water Color Painting.** Work from models and still life. Conventional and sketch rendering of architectural subjects. Required of Juniors in Architecture. Second term, one credit. Associate Professor SHUMAKER.

**308. Shades and Shadows.** Second term, one credit. A course in the determination of conventional shades and shadows as they occur on rendered drawings, and the theory of perspective in the practical construction and rendering of drawings. Associate Professor SHUMAKER.

**401. Tall Buildings.** Stresses in and design of steel-framed office buildings. Required of Seniors in Architecture. First term, three credits. Associate Professor SHUMAKER.

**402. Principles of Architectural Composition.** Discussion of the qualities of good architectural composition, as unity, character, scale, proportion, etc. Required of Juniors in Architecture. Second term, one credit. Associate Professor SHUMAKER.

**403-404. Advanced Design.** Advanced problems in design, composition and planning. In second term one major problem is studied and worked up in detail. Required of Seniors in Architecture. First term, two credits; second term, four credits. Prerequisite, Architecture, 311-312. Associate Professor SHUMAKER.

**405. Clay Modeling.** Work from architectural casts and sketches. Required of Seniors in Architecture. First term, one credit. Associate Professor SHUMAKER.

**406. Professional Practice.** Relation of architect to owner and contractor; professional ethics. Laws of business and contract, and other matters of practical value. Required of Seniors in Architecture. Second term, one credit. Associate Professor SHUMAKER.

**407. Advanced Water Color.** Rendering of architectural subjects. Out-of-doors sketching. Required of Seniors in Architecture. First term, one credit. Prerequisite, Architecture 322. Associate Professor SHUMAKER.

**408. Fire Protection.** A study of various methods of fire protection and fire prevention. Required of Seniors in Architecture. Second term, one credit. Associate Professor SHUMAKER.

**409. Pen and Pencil Drawing.** Work in pen and ink and pencil from casts of architectural subjects, antique sculpture, and ornament. First term, one credit. Required of Juniors in Architecture. Associate Professor SHUMAKER.

**410. Specifications.** The study and writing of specifications for different types of construction. Required of Seniors in Architecture. Second term, one credit. Associate Professor SHUMAKER.

**412. Photography.** Study and use of cameras. Making pictures from line and wash drawings. Exterior and interior detail. Landscape composition. Lantern slides. Required of Juniors in Architecture. Second term, one credit. Associate Professor SHUMAKER.

## **BOTANY**

### **For Four-year Courses**

**101-102. General Botany.** This course, which is basic for all plant work in the college, presents the fundamental structural and functional facts concerning plants. The first term is devoted to the

nature of crop plants, the student mastering the fundamental facts concerning their cells, tissues, and organs, together with the activities of these parts. In the second term a survey of the plant world is made, representative types being used to illustrate the principal groups. The comparative method is emphasized throughout; the student acquires some definite conceptions of evolution as it is exhibited in plants. Such highly important economic groups as bacteria, fungi (causing plant disease), and the crop producing plant families, receive special attention. Field studies of the plants on and near the campus are made. Fee, \$2 for the year. Five credits, both terms. Required of all Freshmen in Agriculture. Professor WELLS, Mr. SHUNK, Mr. MARTIN.

**301. Plant Diseases.** This course consists of a survey of the more important plant diseases with the emphasis upon those which affect the crop plants of the South. Attention is not only given to symptoms exhibited by the host plant, but detailed studies are made of the causal organism with particular reference to its reproduction, with which stage or stages the spread of most diseases is associated. Control measures are also given a prominent place in the course. Fee, \$4. Three credits, first term. Required of all Juniors in Agriculture except Veterinary and Agricultural Chemistry students. Elective for Agricultural Chemistry. Prerequisites, Botany 101-102. Professor WELLS.

**302. Agricultural Bacteriology.** The subject-matter of this course includes an introduction to the principles of bacteriology, and is designed to serve as a basis for students contemplating specialization in applied phases of the subject, such as bacteria in relation to plant diseases, to human diseases, and to the diseases of domestic animals; soil bacteriology; dairy bacteriology; sanitation with reference to sewage disposal and water supplies; and the consideration of bacterially produced processes in the industries. The student becomes familiar through laboratory practice with methods employed in the culture and study of bacteria. Prerequisites, Botany 101-102. Fee, \$3. Three credits, second term. Required of all Juniors in Agriculture. Mr. SHUNK.

**303-304. Advanced Plant Morphology.** The student in this makes a survey of the plant world, studying types other than those seen in course 101-102. The work is conducted throughout from the comparative anatomical standpoint so that probable phylogenies are determined in so far as the comparative method makes this possible. Emphasis is given to the fungi and the green land plants. In the latter series an original diagrammatic method is used to help the student master the intricacies involved in the study of the evolution



of these forms which are characterized by alternation-of-generations. Prerequisites, Botany 101-102. Fee, \$2. Three credits, both terms. Required of Juniors in Biology. Professor WELLS, Mr. SHUNK.

**402. Advanced Bacteriology.** Those who desire a more comprehensive knowledge in any of the special fields of bacteriology in order to fit themselves to enter into extension or investigational work may take this course. Elective for all Seniors except Veterinary students. Three credits, second term. Prerequisite, Botany, 302. Mr. SHUNK.

**403-404. Advanced Plant Physiology.** In this course opportunity is offered the student to acquaint himself with plant activities in a more intimate fashion than was possible in the general botany course (101-102). The student performs a series of advanced experiments, taking note throughout of quantitative as well as qualitative data. The aim striven for is to enable the student on the basis of first-hand information to properly and exactly visualize the plant from the functional standpoint. Prerequisite, Botany 101-102. Fee, \$3. Three credits, first term. Required of Juniors in Soils, and Seniors in Biology. Three credits, either term. Elective for all Seniors except those in Veterinary Medicine and Agricultural Chemistry. Professor WELLS, Mr. SHUNK.

**406. Systematic Botany.** A course designed primarily to acquaint the student with the plants of the State, both cultivated and wild, and secondarily to give him some definite notions in regard to plant groups and their relationships. A broad knowledge of plant types is a genuine desideratum as a basis of most plant production work, especially in such fields of activity as Agronomy, Horticulture, and Forestry. Three credits, second term. Required of Seniors in Biology. Elective for all Seniors except those in Veterinary Medicine and Agricultural Chemistry. Prerequisites, Botany 101-102. Professor WELLS.

**Genetics.** Course offered in collaboration with Department of Zoology. See Zoology 302. Professors METCALF and WELLS.

**408. Medical Botany.** This course deals with medical plants and the poisonous plants of the United States which are known to cause losses in livestock. Identification of the local poisonous forms in the field will constitute a definite part of the course. The nature of the poisonous principles and their effects on animals are given attention. Three credits, second term. Elective for Senior Veterinary Students. Prerequisite, Botany 101-102. Professor WELLS.

**410. Plant Ecology.** A lecture and field course presenting the basic facts concerning the influence of environment in controlling the



distribution of plants. Some attention is also given to those structural adaptations in plants which are found associated with particular environments. The course closes with an investigation into the contribution that Ecology makes to the solution of certain crop problems, especially those that arise out of soil and climate situations. Prerequisites, Botany 101-102. Three credits, second term. Elective for all Seniors except those in Veterinary Medicine and Agricultural Chemistry. Professor WELLS.

#### **For Two-year Course**

**11-12. Plant Life.** A simplified course especially prepared for the two-year student. The fundamental facts concerning the crop plants are presented, together with the structure and activities of the roots, stems, leaves, flowers, and fruits, and their relation to food production. In the laboratory and field the student enjoys the opportunity to acquire his knowledge first-hand, or in a way in which it will be of the most value to him later. The practical applications of botanical knowledge are pointed out as the course progresses. Three credits, first year, both terms. Mr. MARTIN.

**21. Plant Diseases.** A study of the principal diseases affecting North Carolina crop plants with the emphasis on the following: (1) the annual loss to farm crops caused by diseases, (2) the increasing destructiveness of diseases in intensified farming, (3) the appearance and means of identifying the more important diseases, (4) the agencies concerned in the spread of plant diseases, (5) control measures. Three credits, first term, second year. Prerequisite, Plant Life 11-12. Mr. SHUNK.

#### **For Winter Course**

**Diseases of Crops.** This course will consist of lectures and practical exercises dealing with the destructive diseases of the important crops of the State. The following points will be especially emphasized: (1) The annual loss to farm crops caused by diseases; (2) the increasing destructiveness of diseases in intensified farming; (3) the appearance and means of identifying the more important diseases; (4) agencies concerned in the spread of plant disease; (5) selection of uninfected seed. Professor WELLS.

### **BUSINESS ADMINISTRATION AND SOCIAL SCIENCE**

#### **For Four-year Courses**

**101. Citizenship.** The object of this course is to assist in developing, in all students of the College, an intelligent and sympathetic attitude toward the problems of citizenship. It deals with the practical, social, economic, civic, moral, and ethical problems of the

day. It is the purpose of the course to give such an understanding and appreciation of the social structure and social problems of our time as to develop on the part of the students judgment and convictions on the great civic and moral questions of individual and social conduct. Required of all Freshmen. Two credits, first term. Professor TAYLOR.

**102. History.** This is a course in modern history, beginning with that period in history which in general conforms to the beginning of the American Government and the Industrial Revolution. The purpose of the course is to give an understanding and appreciation of not only the historical and population facts of the modern era, but also of the economic and social facts. Required of Freshmen in Business Administration and Sophomores in Agricultural Administration. Elective for Juniors in Civil Engineering. Three credits, second term. Mr. ....

**201 and 301. General Economics.** This course is designed to be of equal value to students in all divisions of the College. It treats of the business aspects and economic organization of society. It includes a study of the great fundamental economic laws which apply to all professions and occupations; a study of the production, distribution, and value of economic goods; and a study of the institutions, agencies, and ideas which dominate, operate, and control the manner, means, and methods of making a living. This is an introduction to all other courses in Agricultural Economics and Farm Marketing and to all Economics and Sociology courses in Business Administration. Required of Sophomores in Business Administration, of Juniors in Shop Management, and in Agriculture, except Veterinary Science; elective for all other Juniors not taking R. O. T. C. Three credits, first term. Professor TAYLOR and Professor JOURNEY.

**202 and 302. General Sociology.** This course is an introduction to the scientific study of social life. It deals with the origin, development, structure, and function of all types of social organization. A number of practical social problems, such as poverty, crime, race problems, immigration, divorce, etc., are studied. The last half of the course is devoted to a study of social psychology, social institutions, and other forms of human association; social ideas, social processes, social controls, and social progress. Required of Sophomores in Business Administration; of Juniors in Shop Management, Agricultural Administration and Rural Life; elective for Juniors in all Agricultural courses except Veterinary Medicine, and for all Junior Engineering students not taking R. O. T. C. Three credits, second term. Professor TAYLOR.

**204. Political Science.** This is a course in American Government. It is a study of the organization and activities of local, State, and national government in the United States. A study will be made in this course of the Government of the United States in comparison with other modern governments. The purpose of the course is fundamentally to give the student not only an historical knowledge of the development, organization, and activities of his own Government, but to give him a thorough understanding and appreciation of the present working of the political organization of his society and his part in it. Required of Sophomores in Business Administration and Agricultural Administration, and elective for any other departments that select it. Three credits, second term. Associate Professor JOURNEY.

**303. Money, Credit, and Banking.** This course is a study of the principles, functions, and types of money, credit, and banking. It is a special study of credit instruments and banking institutions. A comparative study is made of the money, credit, and banking agencies of the world. Special emphasis is given to the present United States banking organizations and institutions. Required of Juniors in Business Administration and Agricultural Administration and of Seniors in Shop Management, and elective for all other departments that may select it. Three credits, second term. Associate Professor JOURNEY.

**304. Elementary Accounting.** An introduction to the study of accounting, intended for the general student of business as well as for the beginning student in accounting. The course is built around the principles of double entry bookkeeping as leading to the preparation of financial and income and higher accounting statements. The student will receive a thorough training in the theory of debit and credit, a distinction between capital and revenue expenditures, and a difference between assets and liability accounts. Practice is given in the keeping of a system of double entry books, the making of trial balances, profit and loss statements and assets and liabilities sheets, and the closing of books. Single entry bookkeeping will be treated, and methods of changing a set of single entry books to double entry considered. Throughout the course the theory of debit and credit accounts will be stressed. Required of Juniors in Shop Management and Manufacturing and General Business Administration, and of Seniors in Agricultural Administration. Elective for others. Three credits, second term. Mr. LANCASTER.

**305. Commercial and Business Law.** (a) The division of law; legal terminology; composition of American law; English common law; constitutional and statutory law. (b) Law of contracts, including the formation, necessary elements, different kinds of contracts,



legality of particular agreements, form and evidence of contract, operation and discharge, breach and damages for breach, transfer and assignment. (c) Agency: law of agency as applied to principal and agent, and to master and servant, formation of these relationships, and rights and duties arising in connection with various classes of agency, factors, brokers, and auctioneers. Required of Juniors in Shop Management and Manufactures, General Business Administration, and Agricultural Administration. Elective for others. Three credits, first term. Mr. LANCASTER.

**306. Business Organization.** A systematic descriptive survey of the different forms of business enterprise. The individual firm, partnerships, joint-stock companies, corporations, trusts, holding companies, and their various purposes and problems. This is a course in the evolution, form, and operation of different forms of business organization. Required of Juniors in General Business Administration and Seniors in Agricultural Administration, Shop Management and Rural Life. Elective for others. Three credits, second term. Associate Professor JOURNEY.

**307. Shop Management.** Much attention is being given today to the study and analysis of types of shop organization and management for the purpose of arriving at fundamental operating principles. This course stresses management technique work, and considers such problems as the following: the efficiency movement, functionalization of organization, types of management, physical plant layout, typical organizations and organization charts, production management, standardization, fatigue and time and motion studies, routing, scheduling, dispatching, application of management problems and principles to small shop organizations. Required of Juniors in Shop Management and Manufactures and in Business Administration, and of Seniors in Chemistry and in Mechanical and Electrical Engineering. Elective for other Juniors and Seniors. Three credits, first term. Mr. LANCASTER.

**310. Commercial Geography.** World geography as influencing the commercial life of man, viewing the factors of production, distribution, and consumption from their worldwide aspects. This study includes a survey of such problems as the following: our changing environment, the production of raw materials, basic manufacturing industries, expansion of industry and resources, the law of trade, the world highway, the ocean and its carriers, recent world changes and the Panama Canal, trade and trade routes of the continents, the trade center—its work and development; balance of trade and its relation to industrial development, commercial policy of nations. Required of Sophomores in Agricultural Administration, and of Juniors in



Shop Management and Manufactures and General Business Administration. Elective for others. Three credits, second term. Mr. LANCASTER.

**404. Public Finance and Taxation.** This course is a study of the characteristics of public expenditures, classification of public expenditures, development of public revenue and taxation, growing need of public revenues, the various kinds of taxes, public indebtedness, and the administration of public funds. Required of Seniors in General Business Administration. Elective for others. Three credits, second term. Associate Professor JOURNEY.

**405. Business Finance.** This is a study of the principles and practices involved in the levying, collection, and administration of taxes and in the handling of the revenues and expenses of nations, states, counties, and municipalities. It is a study of the relation of the state to its industries and its citizens in terms of its system of taxation and expenditures of public funds. Required of Seniors in Business Administration. Elective for others. Three credits, first term. Associate Professor JOURNEY.

**407. Commercial Marketing.** This is a study of commercial markets; of the differentiation and integration of market functions; of all types of marketing, such as wholesale, retail, commission, and mail order; and of all market agencies. The course includes a study of advertising and salesmanship and all other facts incident to the merchandising of goods. Required of Seniors in Business Administration, Shop Management, and Agricultural Administration. Three credits, first term. Professor TAYLOR.

**408. Labor Problems.** This course studies labor problems as a result of the development of the factory system and the wage system. Special problems studied are trade unions, collective bargaining, strikes and lockouts, industrial remuneration, protective labor legislation, methods of promoting industrial peace, child labor, woman labor, unemployment, industrial and trade education, and industrial insurance. Required of Seniors in Shop Management and General Business Administration. Elective for others. Three credits, second term. Professor TAYLOR.

**410. Industrial Sociology and Personnel Administration.** This is a study of the human factor in industry. It is the purpose of the course to study the principles and best prevailing practices in the field of the administration of human relations in business and industry. It deals with such problems as employment, health and safety, training, personal research, welfare services, and all other

human problems incident to industrial occupations and prevalent in industrial communities. Required of Seniors in Business Administration, Shop Management, Mechanical and Electrical Engineering, and elective for all other Seniors not taking R. O. T. C. Three credits, second term. Professor TAYLOR.

**411. Business Statistics.** This is a course in business mathematics and statistics. It deals with business problems as they reveal themselves in the great and necessary accumulation of statistical facts. Business forecasting, curve-plotting, and a study of those principles and laws of mathematics, a knowledge of which is necessary to handle big business situations, constitute the major portion of the work of the course. Training and practice will be given in graphing, charting, and other methods of quantitative presentation of business facts. Required of Seniors in General Business Administration, Shop Management and Manufactures, and Agricultural Administration. Three credits, first term. Professor HARRELSON.

**412. Accounting II—Advanced Accounting.** Prerequisite, Accounting I. Accounts and their relation to accounting statements; apportionment of expenses; depreciation and repairs; closing and opening entries involved in the transfer of a business; apportionment of income and expense; interpretation and managerial use of the revenue statement, controlling accounts, columnar books, partnerships, corporate organization and accounting; cost accounts and types of cost accounting. Required of Seniors in General Business Administration. Three credits, second term. Mr. LANCASTER.

## CHEMISTRY

### For Four-year Courses

**101-102. Inorganic Chemistry.** McPherson and Henderson's *Course in General Chemistry*. The common elements and their principal compounds, together with the fundamental principles of the science, are studied by means of lectures and recitations. (a) Two credits, both terms. Required of Agricultural Freshmen. (b) Three credits, both terms. Required of other Freshmen. Professor WITHERS, Associate Professor RANDOLPH, Assistant Professor JORDAN, Mr. SMITH, Mr. PARKS, and Mr. TRICE.

**103-104. Inorganic Chemistry.** Laboratory work. McPherson and Henderson's *Exercises in Chemistry*. Here, under the eye of the instructor, experiments illustrating and emphasizing the work of the classroom are performed by the student. One credit, both terms. Required of Agricultural Freshmen. Fee, \$2. One credit, both

terms. Required of other Freshmen. Fee, \$3. Associate Professor RANDOLPH, Assistant Professor JORDAN, Mr. SMITH, Mr. PARKS, and Mr. TRICE.

**201. Qualitative Analysis.** Tower's *Qualitative Chemical Analysis*. A discussion of the principles involved in chemical analysis, together with laboratory work. The student is given thorough practice in the identification of the more common ions, and in the complete analysis of mixtures of pure salts, commercial products, alloys, and minerals. Three credits, first term. Required of Sophomores in Agriculture and Chemistry. Fee, \$2. Mr. SMITH.

**202. Quantitative Analysis.** In this course the student is introduced to the principles involved in titrometric determinations in volumetric quantitative analysis.

The student is taught to make up and standardize solutions to be used in acidimetry and alkalimetry, and also is taught the use of such solutions as potassium permanganate and potassium dichromate in various determinations. Three credits, second term. Required of Sophomores in Chemistry. Fee, \$2. Mr. SMITH.

**204. Organic Chemistry.** Chamberlain's *Agricultural Organic Chemistry*. A study of the organic compounds most closely related to Agriculture, followed by a study of the composition of plants and animals; animal food and nutrition; digestion and absorption; metabolism; milk, blood and urine; plant physiology; occurrence and use of important constituents in agricultural plants; animal foods and feeding. Two credits, second term. Required of Agricultural Sophomores. Mr. SMITH.

**206. Organic Chemistry.** Laboratory work to accompany 204. One credit, second term. Required of Agricultural Sophomores. Mr. SMITH.

**301-302. Organic Chemistry.** Stoddard's *Introduction to Organic Chemistry*. A study of the fundamental principles of Organic Chemistry and of the most important organic compounds. Three credits. Required of Juniors in Chemistry and in Textile Chemistry, both terms; Agricultural Chemistry, first term. Professor WITHERS.

**303-304. Organic Chemistry.** Laboratory work to accompany course 301-302. Fisher's *Laboratory Manual of Organic Chemistry*. One credit, both terms. Required of Juniors in all Chemical courses. Students in Agricultural Chemistry may take in either Junior or Senior years. Fee, \$1. Professor WILLIAMS.



**305-306. Quantitative Analysis.** Smith's *Quantitative Analysis*. Gravimetric and volumetric analysis of pure salts at first, and later of substances of agricultural and industrial importance. Two credits, both terms. Required of Juniors in all Chemical courses. Three credits, first term. Required of Juniors in Veterinary Medicine. Fee, \$3. Professor WILLIAMS.

**307-308. Electrochemistry.** The necessary elements of electricity are reviewed with a consideration of the sources and application of power, primary and storage batteries, dynamos, motors, transformers, types of electric furnace, etc. A careful study of the application and control of electrical energy to chemical processes in the electrothermal and electrochemical aspects. The electrolytic dissociation theory and other fundamental theories and facts of electrolysis. The principles of physical, analytical, and synthetic chemistry involved in electrolysis. The practical application of electrochemistry in the various industries. Three credits, both terms. Required of Juniors in Chemistry. Associate Professor RANDOLPH.

**309-310. Electrochemistry.** Laboratory work. Practice in the general principles of the subject, including such features as the general manipulation of the electric current to chemical operations, specific resistance of electrolytes, polarization, temperature coefficient of resistance, transference number, conductivity, degree of dissociation, primary cells, storage batteries, electromotive force, single potentials, potentiometric determinations, H-ion determination, electrolytic titration, deposition of metals, electroplating, electrotyping, operations of the electric furnace, synthesis of commercial products, electrometallurgy and refining of metals, etc. One credit, both terms. Required of Juniors in Chemistry. Fee, \$2. Associate Professor RANDOLPH.

**312. Physiological Chemistry.** Matthew's *Physiological Chemistry*. Two credits, second term. Required of Juniors in Veterinary Medicine and Agricultural Chemistry. Elective for Chemical Seniors. Assistant Professor JORDAN.

**314. Physiological Chemistry.** Laboratory work to accompany course 312. One credit, second term. Fee, \$2. Required of Juniors in Veterinary Medicine and Agricultural Chemistry. Elective for Chemical Seniors. Assistant Professor JORDAN.

**315-316. Agricultural Analysis.** Association of Official Agricultural Chemists, *Methods of Analysis*. Gravimetric and volumetric analysis. Special attention is given to the determination of elements in fertilizers, feed stuffs, and other substances of special interest to



students in Soils. Three credits, both terms. Required of Juniors in Soils. Fee, \$2. Professor WILLIAMS.

**401. Historical Chemistry.** Moore's *History of Chemistry*. Two credits, first term. Required of Seniors in all Chemical courses. Professor WITHERS.

**402. Theoretical Chemistry.** Two credits, second term. Required of Seniors in all Chemical courses. Professor WITHERS.

**403. Microchemical Analysis.** Chamot's *Elementary Chemical Microscopy*. A laboratory course in which the common elements are detected by means of the microscope. The student is also taught to identify such fabrics as silk, wool, linen, cotton, etc., and to analyze alloys, soils, fertilizers, and other commercial products for their constituents. One credit, first term. Fee, \$1. Elective for Seniors in Chemistry and Agricultural Chemistry. Professor WILLIAMS.

**404. Organic Qualitative Analysis.** Laboratory course. In this course the students study the methods for detecting the elements in the compounds and the methods for recognizing the radicals and groups characteristic of the various classes of organic compounds. One credit, second term. Fee, \$1. Elective for Seniors in Agricultural Chemistry. Professor WILLIAMS.

**405-406. Physical Chemistry.** The fundamental principles of Physical Chemistry, with a careful consideration of the theories with reference to various branches of chemistry and the application of these theories to practical and industrial processes. Three credits, both terms. Required of Seniors in Chemistry. Associate Professor RANDOLPH.

**407-408. Physical Chemistry.** Laboratory work. Precision measurements are made of phenomena on which the leading theories of chemistry are based. Extensive experiments are devised and carried out in an effort to determine or to understand some of the important underlying principles upon which physical and chemical relations depend. One credit, both terms. Required of Seniors in Chemistry. Fee, \$2. Associate Professor RANDOLPH.

**409-410. Quantitative Analysis.** Olsen's *Quantitative Analysis*. A continuation of course 305-306. In this course the students analyze minerals, ores, alloys, feed, fertilizer, and other industrial products. Four credits, both terms. Fee, \$6. Required of Seniors in Chemistry and Textile Chemistry; elective for Seniors in Agricultural Chemistry. Professor WILLIAMS.

**411-412. Organic Chemistry, Advanced.** Lecture and laboratory work. In this course the student is required to make special preparations which require reference to the literature, with lectures on the experiments. Prerequisite, Organic Chemistry 303-304. Three credits, both terms. Elective for Seniors in Chemistry and Agricultural Chemistry. Fee, \$3. Professor WILLIAMS.

**413. Agricultural Physical Chemistry.** Getman's *Physical Chemistry*. The general principles of Physical Chemistry are studied with special reference to the phenomena which pertain to agricultural interests, such as the gas laws, photochemistry, osmosis, dialysis, colloids, theory of solutions, chemical equilibrium, available energy, properties of gases, liquids, and solids, and polarization. The laboratory work to accompany this course carries out experiments illustrating the subjects studied in the classroom. Three credits, first term. Required of Seniors in Agricultural Chemistry and Soils. Associate Professor RANDOLPH.

**414. Soil Analysis.** Association of Official Agricultural Chemists, *Methods of Analysis*. Determination of the chief constituents of soils, with special reference to elements essential to plant food. Analysis of materials used as sources of plant food. Three credits, second term. Required of Seniors in Soils and Agricultural Chemistry. Fee, \$2. Professor WILLIAMS.

**415-416. Industrial and Engineering Chemistry.** Outlines of Industrial Chemistry, with especial attention to growing chemical industries of North Carolina and the South. A careful study of the chemical principles and processes involved in the manufacture of chemical products. Engineering problems of chemical industries. Comparison of efficiency of different types of machinery; sources of power; water supplies; sewage disposal; sanitary problems; causes and prevention of hazards; by-products; recovery of waste products; sources of loss; control analyses in manufacturing operations; reduction of cost; raising standard of quality; reduction of seconds; structural materials; blueprints; specifications for designs of chemical plants; availability and utilization of raw materials; perfecting methods; synthetic production; catalysis; plant management; construction of furnaces; drying; evaporation; distilling; filtering; and other engineering features of industries involving chemical processes. Two credits, both terms. Required of Seniors in all Chemical courses. Associate Professor RANDOLPH.

**417-418. Industrial and Engineering Chemistry.** Laboratory work. Preparation and purification of typical products on a sufficiently large scale to learn the practical conditions, difficulties, and

economic questions of commercial practice; study of the manipulation and control of industrial processes and apparatus; mechanical drawings of commercial and scientific chemical apparatus, with outline of use and operation; special apparatus designed and built; calorimetry; pyrometry; polarimetry; refractometry; viscosimetry; technical study of structural materials; and various exercises illustrating industrial methods. One credit, both terms. Required of Seniors in all Chemical courses. Fee, \$2. Associate Professor RANDOLPH.

### For Two-year Course in Agriculture

**11-12. Farm Chemistry.** Tottingham and Ince's *Chemistry of the Farm and Home*. The following topics will be discussed:

*Water and Its Constituent Elements.* Distribution, kinds, circulation, purification, physical properties, solution, chemical properties, usefulness, climatic effects; relation to water in soil and to plant and animal life; use in the arts; oxygen, ozone, hydrogen, hydrogen peroxide, symbols, formulas, equations.

*The Atmosphere and Its Chief Constituent, Nitrogen.* Composition, nitrogen, acids, bases, salts, ammonia, nitric acid.

*Some Other Nonmetals.* Chlorine, sulphur, phosphorus, carbon, simple organic compounds, silicon.

*A Few Important Metals.* Occurrence, extraction, sodium, potassium, calcium, copper, magnesium, zinc, iron, aluminum.

*The Plant and Its Products.* Importance, composition, ash, growth, structure, chemical changes, enzymes, roots, stem, leaf, flower and fruit, nutrition, crops, harvesting, environment, rotation.

*The Soil.* Origin, formation, soil minerals, humus, pulverizing agents, texture, physical properties, heat-absorbing power, chemical properties, nitrification, retention of fertilizers, alkali soils, analysis.

*Fertilizers.* Classes, inspection, terms, values, home mixing, soil amendment, application, choice for specific crop systems.

*Farm Manure.* Importance, source, amount, value, manurial value of feeding stuffs, manure of different animals, urine, losses, spreading, absorbents, preservatives, increasing value, use, effects, green manuring, sewage.

*The Animal and Its Products.* Parts, composition, nutrition, digestion, respiration, assimilation, excretion, skin, kidneys, products, efficiency.

*The Feeding of Animals.* Scientific foundation, nature and composition of feeding stuffs, building and fuel value, value of indigestible roughage, productive value of feeding stuffs, nutritive ratio, differ-



ences in food requirement, ash constituents, fuel needs, need of proteins, feeding standards, influence of food, condimental feeding stuffs, feeding-stuff laws.

*Dairy Products.* Importance, the udder, specific gravity of milk, chemical composition of milk, milk of different animals, milk of different breeds, lactation period, feeding stuffs, gases of milk, decomposition of milk, condensed milk, cream, centrifugal method, butter, rancidity, oleomargarine, overrun, buttermilk, cheese, composition of dairy products, butter and cheese flavors.

*Human Food and Dietetics.* Dietetic needs, fuel needs, protein needs, foodstuffs, meats, milk, eggs, vegetables, cereals, fruits, ciders, wines, vinegar, cooking, baking, toasting, cooking of vegetables, spices, flavors, beverages, balancing diet, cost of diet, preservation of food, labels, food laws.

*Miscellaneous Materials of Importance in Daily Life.* Cotton, flax, hemp, wool, silk, dyeing, dyes, cleaning, bleaching, paints and varnishes, cements and mortars, concrete, plaster, insecticides, fungicides, disinfectants.

The laboratory work by each student accompanies the classroom work. Three credits. Required the first year of the two-year Agricultural course. Fee, \$2. Assistant Professor JORDAN.

## CIVIL ENGINEERING

### For Four-year Courses

**102. Engineering Lectures.** Second term, one credit. Required of Freshmen in Civil Engineering. What is expected of an engineer is pointed out in a broad way by lectures and reading for the purpose of impressing upon the student the importance of thoroughness and systematic preparation for his more specific work which follows the first year. Elementary use of the compass and chain, the level, and the manner of keeping notes are illustrated by a few periods of field work. Professor MANN.

**201-202. Materials of Construction.** Both terms, one credit. Required of Sophomores in Civil and Architectural Engineering. Study of the properties of building materials, their strength and durability. Methods of preservation, weights, unit stress values; methods of manufacture; cost data. Text-book, Baker, *A Treatise of Masonry Construction*. Associate Professor SHUMAKER.

**203-204. Elements of Design.** Both terms, one credit. Required of Sophomores in Architectural, Civil, and Textile Engineering. Architectural lettering and conventions. The classic orders of



architecture. Problems in design, composition and planning. Associate Professor SHUMAKER.

**205. Descriptive Geometry.** First term, two credits. Required of Sophomores in Civil and Architectural Engineering. The point, line, and plane. Generation and classification of lines and surfaces. Surfaces of revolution. Intersections of surfaces by lines and other surfaces. Perspective drawing. Associate Professor SHUMAKER.

**206. Surveying, Theoretical.** Second term, two credits. Required of Sophomores in Civil Engineering and Architectural Engineering. Study of uses and adjustments of ordinary surveying instruments. Land surveying, traverse lines, leveling, city surveying, topographical surveying. Calculation of areas by latitude and departure stadia methods. Text-book, Breed and Hosmer, *Elementary Surveying*. Assistant Professor WOOTEN.

**207-208. Surveying, Field Work.** Second term, one credit. Required of Sophomores in Civil Engineering and Architectural Engineering. First term, one credit. Required of Sophomores in Electrical Engineering. Compass and transit surveys of small circuits showing use of surveying instruments and the importance of accuracy in the execution of the work. Land surveys, level lines for establishing permanent bench marks. Assistant Professor WOOTEN.

**301. Surveying, Theoretical.** First term, two credits. Required of Juniors in Civil Engineering. Triangulations, astronomical observations for azimuth, precise leveling, filling in topographical details, plane table, hydrographic surveying, use of sextant and three-arm protractor. Text-book, Breed and Hosmer, *Higher Surveying*. Assistant Professor WOOTEN.

**302. Railroad Engineering.** Second term, two credits. Required of Juniors in Civil Engineering. Study of reconnaissance, preliminary, and location surveys for railroads. Mathematics of simple, compound, and reverse curves. Forms of railroad survey notes. Text-book, Searles and Ives's *Field Engineering*.

**303. Surveying, Field Work.** First term, one credit. Required of Juniors in Civil Engineering. Surveys by azimuth of previously established circuits, checking all distances and calculated bearings and comparing measured distances and azimuths of cross lines on the circuit with calculated azimuths and distances. Assistant Professor WOOTEN.

**304. Topographical Surveying.** Second term, one credit. Required of Juniors in Civil Engineering. Completed survey of a topo-

graphical circuit, including all notes for platting to be used in Topographical Drawing Course 306, contours and filling in for this circuit being made by stadia and plane table. Use of sextant on a small area purposing to represent soundings, and from these notes a hydrographic map is made in the Topographical Drawing Course 306. Staking out of simple, compound, and reverse railroad curves with transits from calculations made in Railroad Engineering Course 302. Assistant Professor WOOTEN.

**306. Topographical Drawing.** Second term, one credit. Required of Juniors in Civil Engineering. Conventional signs and lettering. Completion of maps platted by latitude and departures from given survey data. Completed topographical map and completed hydrographic map from students' field notes taken in Surveying Course 304.

**307. Highway Engineering.** Masonry construction. First term, two credits. Required of all Juniors in Civil Engineering. Methods and costs of constructing foundations, dams, retaining walls, arches, piers, and other masonry structures. Text-book, Baker, *A Treatise on Masonry Construction*. Professor TUCKER.

**308. Highway Engineering.** Second term, two credits. Required of all Juniors in Civil Engineering. An elementary course in Highway Engineering. A study of the methods and materials used in the construction of county roads and city pavements. Study of road-building materials found in North Carolina. Professor TUCKER.

**309. Graphic Statics.** First term, one credit. Required of Juniors in Civil and Architectural Engineering. A solution of mechanics' problems by graphical methods, the results being checked by analytical methods to impress the importance of accuracy in the performance of this manner of solutions. Problems using the funicular polygon. Bending moments and shears. Centroids of sections. Resultant pressure on retaining walls. Determination of the stresses caused by dead load, snow load, wind on fixed and free sides in framed structures, maximum and minimum stresses. Lectures and notes.

**311. Mechanics.** First term, three credits. Required of Juniors in Civil, Architectural, and Textile Engineering. Statics, including concurrent forces, parallel forces, nonconcurrent forces, nonparallel forces and friction. Both graphical and analytical methods are used, with numerous applications to various engineering problems. Text-book, Poorman's *Applied Mechanics*. Professor MANN.

**312. Mechanics.** Second term, three credits. Required of Juniors in Civil, Architectural, and Textile Engineering. Centroids and center of gravity. Moment of inertia. Elementary mechanics of materials with numerous applications to various engineering problems. Text-book, Poorman's *Applied Mechanics*, and problems. Professor MANN.

**401. Roofs and Bridges.** First term, three credits. Required of Seniors in Civil and Architectural Engineering. Study of the effects of dead and live loads uniformly distributed and concentrated on framed structures. Calculation by analytical method of stresses due to these loads. Wind and snow load stresses and reactions. Stresses from moving loads on highway bridges. Stresses due to train loads in railway bridges. Complete solution of roof truss and bridge problems. Text-book, Merriman and Jacoby's *Roofs and Bridges*. Professor MANN.

**402. Bridge Design.** Second term, three credits. Required of Seniors in Civil Engineering. The completed design and drawing of a combination wood and steel roof truss and a Pratt type pin-connected railroad bridge. The loading and specifications are given and the calculations for maximum and minimum stresses are first completed by the student, the parts then designed from which the completed drawings are made. Lectures and notes. Professor MANN.

**404. Municipal Engineering.** Second term, two credits. Required of Seniors in Civil and Architectural Engineering. Study of sewerage systems. Amount of sewage. Flow in sewers. Manhole and flush tank construction. Disposal systems. Surveys and forms of field notes and manner of calculating data for the design and construction of a sewerage system. Original problems. Inspection of the system of Raleigh and suburbs. Text-book, Folwell's *Sewerage*. Professor MANN.

**405. Railroad Surveying.** First term, one credit. Required of Seniors in Civil Engineering. Reconnaissance, preliminary, and location surveys for a section of railroad. The located line is cross-sectioned, the earthwork computed, and complete plans and estimates prepared, including a mass diagram. Location of railways and special problems in railroad engineering. Field and drafting room work. Professor TUCKER.

**406. Civil Engineering Laboratory.** Second term, one credit. Required of Seniors in Civil and Architectural Engineering. Tests of materials of construction, including standard tests of Portland cement, standard tests of bitumens, standard tests of sand and stone,



and the use of sieve analysis; curves; tension and compression tests of steel and concrete; rating and use of the planimeter; rating and use of the current meter; hydraulic measurements.

**407. Mechanics of Materials.** First term, three credits. Required of Seniors in Civil, Architectural, and Textile Engineering. Study of the working stresses of material, stresses of beams, columns, and shafts; shear and flexure formulas, elastic deflections; rupture of beams; impact. Text-book, Merriman's *Mechanics of Materials*. Professor MANN.

**408. Reinforced Concrete.** Second term, three credits, required of Seniors in Civil and Textile Engineering; two periods, required of Seniors in Architectural Engineering. Study of the materials, general stress distribution, the derivation of formulas for working loads and for ultimate loads, bonds and shear stresses; design of beams and columns. Numerous original problems are given and required to be solved by the theoretical formulas, and results checked by diagrams and curves. Text-book, Turneaure & Maurer's *Reinforced Concrete*. Professor MANN.

**409. Hydraulics.** First term, three credits. Required of Seniors in Civil Engineering. A course covering the principles of hydrostatics, pressure, laws governing flow in pipes and conduits, flow through orifices and nozzles and over weirs, and the losses from friction and other sources; methods of measuring the flow of streams; determination of waterpower in streams, and a study of the testing of hydraulic motors. Text-book, Merriman's *Treatise on Hydraulics*. Professor MANN.

**410. Hydraulics.** Second term, two credits. Required of Seniors in Electrical Engineering. Hydrostatics, hydrokinetics, including the flow of water through orifices, pipes, and open channels. Hydrodynamics, including theory of hydraulic motion and pumps. Hydraulic instruments and measurements. Text-book, Slocum's *Elements of Hydraulics*. Professor MANN.

**411. Railroad Engineering.** First term, two credits. Required of Seniors in Civil Engineering. Turnouts, spirals, track laying, cross-sections, calculations of earthwork, vertical curves, and general principles of railroad surveying. Text-book, Searles & Ives's *Field Engineering*. Professor TUCKER.

**412. Railroad Economics.** Second term, two credits. Required of Seniors in Civil Engineering. Economics of railroad location; maintenance of way; recitations and reports on outside reading. Text-book, Crandall & Barnes's *Railroad Construction*. Professor TUCKER.



**414. Water Supply.** Second term, two credits. Required of Seniors in Civil Engineering. Investigation of water supplies; methods of treatment; a study of the design and construction of filtration and pumping plants; distribution systems; pumping systems; a review of dam constructions; inspection and study of water supply system of the city of Raleigh. Text-book, Folwell's *Water Supply Engineering*. Professor MANN.

**413. Mechanics.** First term, three credits. Required of Seniors in Civil Engineering. Kinetics, including rectilinear motion, curvilinear motion, rotation, combined oscillation and rotation, work and energy, impulse, momentum and impact, with numerous applications to engineering problems. Text-book, Poorman's *Applied Mechanics*. Professor TUCKER.

**416. Astronomy.** Second term, two credits. Required of Seniors in Civil Engineering. Study of the celestial sphere and system of coördinates. Special attention is given to those astronomical observations which may be needed in the practice of the surveyor. Observation with engineer's transit for latitude and longitude, time, and azimuths are a required part of the work. Text-book, Hosmer's *Practical Astronomy*. Professor TUCKER.

### Highway Engineering

To meet the demand in the State for competent highway engineers, there has been created in the Department of Civil Engineering a new Department of Highway Engineering. The work for the first three years is identical for all students of Civil Engineering, but in the Senior year the student who desires to specialize in Highway Engineering omits certain subjects from the regular Civil Engineering course, and the time thus made available is taken up with special courses in Highway Engineering. The Junior Highway Engineering Courses, 307 and 308, are taken by all regular Civil Engineering students. Senior Highway Surveying (course 405 H), Senior Highway Bridge Design (course 402 H), and the Highway Engineering Laboratory (course 406 H), are taken by those students specializing in Highway Engineering in place of Railroad Engineering (course 411), Railroad Economics (course 412), Railroad Surveying (course 405), Bridge Design (course 402), and Civil Engineering Laboratory (course 406), respectively. These courses are so arranged that the student who specializes in Highway Engineering will, at the same time, receive a well-balanced training along the lines of general Civil Engineering.

Special students who desire to take the Junior and Senior courses in Highway Engineering in one year will be permitted to do so,

provided they have had the proper foundation for the work, and provided they have not the time in which to pursue the regular course in Civil Engineering to graduation. Such students must supplement their work in Highway Engineering by taking other suitable Civil Engineering courses.

**402H. Highway Bridge Design.** Second term, three credits. Required of all Seniors in Highway Engineering. The complete design of wood, steel, and concrete highway bridges. The loading and specifications are given and the calculations for maximum and minimum stresses made by the student, after which the different members are designed and the drawings completed. Lectures and notes. Professor TUCKER.

**405H. Highway Surveying, Field Work.** First term, one credit. Required of Seniors specializing in Highway Engineering. Reconnaissance, preliminary, and location survey for a section of road. The located line is cross-sectioned, the earthwork computed, and complete plans and estimates are prepared. Professor TUCKER.

**406H. Highway Engineering, Laboratory.** Second term, one credit. Required of Seniors specializing in Highway Engineering. The testing of materials used in road building, including sand, clay, cement, and bituminous materials. Professor TUCKER.

**411H. Highway Engineering.** First term, two credits. Required of Seniors specializing in Highway Engineering. Advanced Highway Engineering. Grades, sections, foundations, drainage, surveys, plans, and estimates. A more extended course than Junior Highway Engineering. Text-book: Harger and Bonney's *Highway Engineer's Handbook*. Professor TUCKER.

**412H. Highway Economics.** Second term, two credits. Required of Seniors specializing in Highway Engineering. The economics of highway location and construction, with particular reference to methods and costs. Road legislation and the method of financing road building. Highway transportation. Text-book, Blanchard and Drowne, *Highway Engineering*. Professor TUCKER.

## ELECTRICAL ENGINEERING

### For Four-year Courses

**102. Electrical Engineering Lectures.** A course introducing the student to general engineering methods, with more stress laid on electrical problems. The student is made familiar with general engineering terms and principles and the materials used in engineering

work, and is given a general review of the field of Electrical Engineering. One credit, second term. Required of Freshmen in Electrical Engineering. Professor BROWNE, Mr. PEARSALL.

**201-202. Electrical Practice.** The repair of electrical machinery, machine winding, practical methods of locating faults, installation of electrical machinery. This course is planned to make the student familiar with the care and maintenance of electrical apparatus. One credit, both terms. Required of Sophomores in Electrical Engineering. Mr. PEARSALL.

**301-302. Elements of Electrical Engineering.** A thorough study is made of the production of electric currents, beginning with the theory of the magnetic circuit, the electric circuit, electromagnetic induction, construction of dynamos and motors, elementary alternating currents. Three credits, both terms. Required of Juniors in Electrical Engineering and Seniors in Textile Engineering. Elective for Juniors in Civil Engineering. Prerequisites, Physics 201-202. Professor BROWNE, Professor McINTYRE.

**303-304. Electrical Engineering.** An introductory course for students in other engineering departments, consisting of the study of the principles involved in the production, distribution, and utilization of electrical power. Required of Juniors in Mechanical Engineering. Two credits, both terms. Prerequisites, Physics 201-202. Assistant Professor Cox.

**305-306. Electrical Engineering Laboratory.** This study accompanies Subjects 301-302. It includes use of standard apparatus, elementary alternating current experiments, electric and magnetic measurements, the operation and testing of generators and motors. Two credits, both terms. Fee, \$2. Required of Juniors in Electrical Engineering and Seniors in Textile Engineering. Elective for Juniors in Civil Engineering. Prerequisites, Physics 201-202 and Physics 203-204. Professor McINTYRE, Assistant Professor Cox, Mr. PEARSALL.

**307-308. Electrical Engineering Laboratory.** A course to accompany Subjects 303-304. Instruction is given in the care and operation of direct and alternating current machinery. One credit, both terms. Fee, \$1. Prerequisites, Physics 201-202 and Physics 203-204. Professor McINTYRE, Assistant Professor Cox, Mr. PEARSALL.

**309-310. Electric Motors.** The elementary laws of electric currents, principles, construction, operation, and care of electrical machinery, electric lamps and illumination. A study of the use of electrical machinery in factories, with special reference to textile mills. Two credits, both terms. Required of Juniors in Textile Manufacturing. Mr. PEARSALL.



**401-402. Alternating Currents and Machinery.** A study of the flow of periodic currents in circuits containing resistance, inductance, and capacity; the construction, operation, and performance of alternating current machinery. Three credits, both terms. Required of Seniors in Electrical Engineering; elective for Seniors in Civil Engineering. Prerequisites, Subjects 301-302. Professor BROWNE.

**403. Electrical Communication.** A study of the systems employed in the transmission of intelligence by means of electrical methods. Morse telegraph circuits. Theory and practice of telephony. Manual and automatic telephone systems. Telephone transmission over lines and cables. Simultaneous telegraphy and telephony. Radio telegraphy and telephony. Railway signaling systems. Miscellaneous systems of communication. Three credits, second term. Required of Seniors in Electrical Engineering. Professor McINTYRE.

**404. Electrochemistry.** A study of the ion theory, and of electrochemical applications. Some of the applications studied are electroplating; electrochemical refining of metals; manufacture of a few typical products; design, control, and typical products of electric furnaces; fixation of atmospheric nitrogen. Three credits, second term. Required of Seniors in Electrical Engineering. Prerequisites, Electrical Engineering 301-302. Professor McINTYRE.

**405-406. Electrical Transmission and Distribution for Lighting and Power.** A study of low-potential systems of distribution, lighting systems, electric lines, interior illumination, street lighting, electric drive in mill and factory, electric traction, hydroelectric development, high-tension transmission, calculation of high-tension lines. Two credits, both terms. Required of Seniors in Electrical Engineering. Prerequisites 301, 302, 305, 306. Professor BROWNE.

**407-408. General Electrical Engineering Laboratory.** This study is taken up simultaneously with the study of alternating currents. It includes practice and calculations on alternating currents, circuits, electrical measurements, and calibration of instruments, experimental study of transformers, alternating current generators and motors, advanced methods of testing electrical apparatus, and shop testing. Three credits, first term; two credits, second term. Fee, \$3. Required of Seniors in Electrical Engineering. Prerequisites, Subjects 301-302 and 305-306. Professor McINTYRE, Assistant Professor COX, Mr. PEARSALL.

**409-410. Design and Calculation.** A course in which electrical problems of all kinds are studied. This includes the calculation of circuits, the performance of machines, the design of simple electrical



apparatus, transmission lines, problems of control of electrical apparatus, and in lighting and illumination. One credit, both terms. Required of Seniors in Electrical Engineering. Prerequisites, 301-302. Professor BROWNE.

## ENGLISH

### For Four-year Courses

For use in English throughout the College course every student needs a fountain pen, a loose-leaf notebook for sheets eight by eleven inches, with rings six inches apart, and a dictionary as large at least as the Desk Standard or Webster's Collegiate Dictionary. Those who have or can afford typewriters are advised to use them.

**101-102. Composition and Rhetoric.** Special attention is given the mechanics of writing, the construction of paragraphs, and the planning of oral and written reports of moderate length on scientific or current topics. Frequent themes and short oral reports are required, many of them involving the use of reference books in the College library. Required of Freshmen and of Second Year Short Course Students in Mechanic Arts, and Textile Manufacturing. Three credits, both terms. Assistant Professor WILSON, Mr. KEEBLE, Mr. BAKER, Mr. CHAPPELL.

**201-202. American Literature and Public Speaking.** The work in Literature consists of the reading and analysis of the works of American writers in prose and verse, with frequent oral and written reports on the required reading. During the first term about a third of the time is given to public speaking, which is taught by text-book and lectures, with analysis of published speeches and with exercises in the composition and delivery of arguments, expository speeches, and orations. During the last three months of the second term about two-thirds of the student's time is given to public speaking and parliamentary procedure. Three credits, both terms. Prerequisite, English 101-102. Required of Sophomores. Professor SUMMEY, Assistant Professor WILSON, Mr. KEEBLE, Mr. BAKER.

**301. Technical Essays.** The main purpose in this work is to study the principles of technical writing as applied by standard scientific writers. Parallel reading and the writing of technical papers are continued. Three credits, first term. Required of all Juniors, except those in Agriculture, in Business Administration, in Shop Management, and in Textile Engineering. Professor HARRISON, Professor SUMMEY.

**302. Technical Writing.** The principles of composition, as applied in engineering reports, formal theses, and monographs are

presented in a text-book and practiced in several papers and exercises. One thesis is written by each student. Three credits, second term. Required of all Juniors except those in Agriculture and in Textile Engineering. Professor HARRISON, Professor SUMMEY.

**303-304. Journalism and Correspondence, I and II.** The work begins with a rapid review of the essentials of writing, with special attention to grouping in sentence and paragraph, emphasis and subordination, clear and informal transition, straightforward progress of composition, and the clarifying and lightening of style. Attention is then directed to the planning, the composition, and the mechanics of business letters, sales letters and circulars, and advertisements. Assignments also include news stories, publicity matter, feature stories, editorials, and a thesis or bulletin. Instruction is incidentally given in punctuation and capitalization, the use of italic and boldface, captions, tabulation, the use of cuts and figures, and other matters of typography and make-up. Three credits, both terms. Required of Juniors in Business Administration and Shop Management; elective (one term or both terms) for Agricultural Juniors. Professor SUMMEY.

**401. Classics.** The lives and works of scientists and of other writers, particularly of the nineteenth century, are studied in this course. Essays will form an important part of the work. Prerequisite, 301-302. Three credits, first term. Open to Seniors. Professor HARRISON.

**402. Journals.** To give practical knowledge of technical and of other standard journals is the purpose of this course. The essays required are mainly of scientific and technical character. Prerequisite, 301-302 and 401. Three credits, second term. Open to Seniors. Professor HARRISON.

### **English for Short Courses**

This is a thoroughly practical course in the elements of grammar and in composition, especially spelling, sentence and paragraph structure, and letter writing. Some reading is done in class, and supplementary reading is assigned for private study. Three credits, both terms. Required of all First Year Short Course students. Mr. BAKER, Mr. CHAPPELL.

## **FARM CROPS AND FARM MANAGEMENT**

### **For Four-year Courses**

**102. General Farm Crops.** A course covering the essentials of the leading cereals, legumes, and grasses in North Carolina, with special reference to their adaptation, culture, improvement, harvest-

ing, and use. Practice in the study of growing and dried crops in the field and laboratory, including the selection and germination of seed corn and small grains, the identification of important legumes and grasses, including their seeds. Prerequisite, Botany 101. Three credits, second term. Required of Freshmen. Professor DARST.

**301. Cereal Crops.** Lectures and recitations on the history, production, cultivation, improvement, harvesting, storage, and marketing of corn, wheat, oats, rye, barley, etc. Practice in selecting, judging, and testing of corn and small grains. A study of the growing and dried crops and their products in the field and laboratory. Prerequisite, Botany 101 and 102. Three credits, first term. Required of Juniors in Farm Crops and Veterinary Medicine. Elective for other Juniors in Agriculture. Professor DARST.

**302. Legumes and Grasses.** Lectures and recitations on the history, adaptation, use, production, cultivation, and marketing of legumes and grasses. Practice in the study and identification of forage plants and their seeds, using growing and dried specimens in the field and laboratory. Prerequisite, Botany 101 and 102. Three credits, second term. Required of Juniors in Farm Crops, General Agriculture, and Animal Husbandry. Elective for other Juniors. Professor DARST.

**303. Farm Cost Accounting.** The use of farm inventories, single enterprise accounts, complete farm accounts, and other farm records. Special emphasis is given to interpretation of results and their application in the organization and management of the farm. Three credits, first term. Required of Juniors in Farm Crops, General Agriculture, Rural Life, Agricultural Administration, and Vocational Education. Elective for other Juniors. Mr. D. B. WILSON.

**402. Farm Management.** Lectures and recitations on farming as a business; types of farming, balance of business, size of business, rates of production, farm layout, building arrangement, labor management, machinery, marketing, ways of starting farming, forms of tenure and leases, choosing and buying a farm, use of capital and credit, planning, organization and management of specific farms. Prerequisites, Economics 301-302 and Farm Management 303. Three credits, second term. Required of all Seniors in Agriculture except those in Veterinary Medicine and Agricultural Chemistry. Mr. D. B. WILSON.

**403. Cotton and Tobacco.** History, distribution, and uses of cotton. A study of the types and varieties of cotton, the soil and climatic requirements, soil preparation, fertilization, cultivation, har-



vesting, classing, and marketing. The study of tobacco includes the history, distribution, types and varieties, seed selection, plant beds, soil preparation and fertilization, cultivation, topping, suckering, harvesting, curing, and marketing. Practice consists of the study of varieties, lint and market grades of cotton. Considerable practice will be given in the sampling and classing of cotton. A study of varieties, quality, and market requirements of tobacco. Three credits, first term. Required of Seniors in General Agriculture and Farm Crops; elective for other Seniors except those in Veterinary Medicine and Agricultural Chemistry. Professor DARST.

**404. Types of Farming in North Carolina and United States.** A study of the types and methods of farming best adapted to different sections of North Carolina and the United States, and of the natural and economic conditions that make these types best. Accompanied or preceded by Farm Management 402. Two credits, second term. Elective for all Seniors in Agriculture except Veterinary students. Mr. D. B. WILSON.

**405. Advanced Farm Crops.** Lectures and assignments on agricultural experimental methods; variety, description, and identification; advanced grain judging, and the study of the Federal Grain Standards Act. Practice consists of the study and laying out of experimental plats, the identification of crop varieties; grain judging, and practice in determining market grades of grain. Prerequisite, Farm Crops 302 and 301. Three credits, first term. Required of Seniors in Farm Crops. Elective for all other Seniors in Agriculture except those in Agricultural Chemistry and Veterinary Medicine. Professor DARST.

**406. Crop Improvement.** A study of the varieties of farm crops; their variation and improvement. The principles and practice of breeding as applied to the improvement of farm crops. Practice in methods of selection and hybridization, including field tests of corn, cotton, wheat, oats, tobacco, soybeans, cowpeas, velvet beans, etc. A portion of the College farm is utilized for the exclusive use of men taking this course. Prerequisite, Farm Crops 302 and 301. Three credits, second term. Required of Seniors in Farm Crops. Elective for all other Seniors in Agriculture except those in Agricultural Chemistry and Veterinary Medicine. Professor DARST.

**408. Cotton Classing.** A practical course in the grading and stapling of cotton. The United States official standards for grade and staple are used in the study and in the classing of a large number of samples. The object of the course is to train men to class cotton. An expert cotton classer will be in charge of this course. Prerequi-



site, Farm Crops 403. Three credits, second term. Elective for all Seniors in Agriculture except those in Agricultural Chemistry and Veterinary Medicine.

**501-502. Graduate Courses.** The following courses are offered: (a) Corn, small grain; (b) cotton, tobacco; (c) pastures, meadows, hay and forage; (d) legumes, green manuring and cover crops; (e) rotations, weeds; (f) crop breeding, seed production; (g) field crop experiments. Four credits. Professor DARST.

#### For Two-year Course

**11. Corn and the Small Grains.** The classification, adaptation, culture, harvesting, marketing, and uses of corn and the small grains. Some of the phases of the culture of these crops included in the course are soil regional adaptation, preparation of the soil, fertilization, seeding, harvesting; varieties, seed selection and improvement; and rotations. Three credits, first term, first year. Professor DARST.

**12. Legumes: Clovers, Soybeans, Cowpeas, Velvet Beans, and Peanuts; Cotton.** Cultural practices from soil preparation to harvest; inoculation; varieties, their adaptation and improvement; uses for seed and forage. Special prominence is given to the place of these crops in the rotation, and their relation to permanent soil fertility. Three credits, second term, first year. Professor DARST.

**22. Farm Management.** Discussions on the qualifications of farmers; choosing a farm; the advantages and disadvantages of different types of farms and some of the factors determining types; farm organization, the amount and kinds of equipment, the arrangements of fields, buildings, fences, roadways, etc.; farm labor, tenantry, cropping and feeding systems. Practice will be given in planning cropping systems, laying out farms, and solving farm problems. Three credits, second term, second year. Mr. D. B. WILSON.

#### For Winter Course

**Crops Accessory to Staple Crops for Use on the Farm.** (a) For the improvement of the soil; (b) for distribution of labor.

There are a large number of crops adapted to the soil and climate of North Carolina that deserve more attention than has been given them. These minor crops may be grown profitably in association with the crops now employed as staple crops, and with a minimum increase in equipment and labor. The appropriate selection and adjustment of these crops to established systems of farming is one of the surest means by which farming in 1921 may be made more profitable. This

course covers the selection of crops for the different sections of the State, their culture and uses, and their adjustment to present farm plans.

**How to Grow, Cure, and Preserve Hay and Forage.** Cheaply produced, home-grown animal food is one of the very serious farm problems of the day. While North Carolina is exceptionally well adapted to the production of such crops, the farmers of the State have not, as a rule, given this phase of their business the attention it deserves. This course will be devoted exclusively to the many crops that may be profitably grown for hay and forage and to the comparative advantage of these different crops not only as feeds, but as crops that will fit in and strengthen the different farming systems of the State. The prime object of the course will be to show how an abundance of high quality hay and forage may be cheaply produced. Professor DARST and Mr. D. B. WILSON.

## FARM PRACTICES

### For Four-year Courses

**401. Farm Practices.** This course has been designed for agricultural students with the idea of familiarizing and discussing with them briefly some of the opportunities in different types of farming in the State, and to give them some idea of the best farm practices to be followed by North Carolina farmers. The course will be based upon carefully conducted investigations and observations made under North Carolina conditions. Such matters as methods to use for most economic production and for the proper use of farming lands will be taken up. The course will consist of lectures, reference work, assigned topics, and discussions. One credit, first term. Required of all Seniors in Agriculture except students in Veterinary Medicine and Agricultural Chemistry. Dean WILLIAMS.

## HORTICULTURE

### For Four-year Courses

**201. Plant Propagation.** Principles and methods of propagating plants, and nursery practice. Three credits, first term. Fee, \$1. Required of Sophomores. Mr. MILLER.

**301. Pomology.** The commercial production of the tree and vine fruits. Subjects treated are those in connection with the establishment and management of orchard areas, and the picking, grading, packing, and storing of fruit. Three credits, first term. Required of Juniors in Horticulture. Mr. MILLER.

**302. Pruning and Spraying.** A continuation of Horticulture 301, in which special attention is paid to principles and methods of training fruit trees and vines, and approved practices employed in protecting them from insect pests and diseases. Methods of protection from frost are also considered. Prerequisite, Horticulture 301. Fee, \$1. Three credits, second term. Required of Juniors in Horticulture. Mr. MILLER.

**303. Farm Forestry.** Principles and practices of forestry as applied to the farm woodlot. Practice work includes observations of woodland areas, and actual work of mensuration of a sample acre, together with formation of plans for its maintenance and improvement. Three credits, first term. Required of Juniors in Horticulture. Elective for other Juniors in Agriculture. Professor PILLSBURY.

**304. Vegetable Gardening.** The principles of vegetable crop production. The home garden and the trucking industry receive special consideration. Practice work is almost wholly carried on in the greenhouse, the hotbed, and coldframe yard, and among the student gardens which the students are required to plan, plant, and maintain throughout the duration of the course. Three credits, second term. Required of Juniors in Horticulture and General Agriculture. Elective for other Juniors. Fee, \$1. Mr. MILLER.

**305. Fruit Growing.** Fruit production for the general farm. Emphasis will be placed upon the problems of establishing the farm orchard, vineyard, and small fruit plot, of management with respect to tillage, cover crops, fertilization, pruning and spraying. Grading and packing fruit will also be included. Three credits, first term. Elective for all Juniors in Agriculture. Fee, \$1. Mr. MILLER.

**401. Vegetable Forcing.** Consists principally in the growing of vegetable crops under glass, but also includes study of glass-house construction and general management. Prerequisite, Horticulture 304. Three credits, first term. Required of Seniors in Horticulture. Mr. MILLER.

**402. Landscape Gardening.** A study of the principles of the arts of design and their application in the improvement of the farmstead, the rural school grounds, and other similar problems. Civic art as adapted to rural improvement is also treated. Practice in surveying, mapping, designing, and as much of execution of important parts of plans as is practicable is required. Three credits, second term. Required of Seniors in Horticulture and General Agriculture. Elective for all other Seniors in Agriculture. Professor PILLSBURY.



**403. Systematic Pomology.** A course which combines both study and practice in the description, identification, classification, and judging of fruits. Prerequisite, Horticulture 301-2. Three credits, first term. Required of Seniors in Horticulture. Professor PILLSBURY.

**404. Horticultural Seminar.** Here the student is allowed to elect and to pursue the study of some special problem in Horticulture. Three credits, second term. Required of Seniors in Horticulture. Professor PILLSBURY.

**405. Plant Breeding.** A course of study of the principles of genetics as applied to plants. Practice work includes collection of variations, measurement, and study of variability of farm and horticultural crops, technique of cross-pollination, planning of a breeding plat. Biometrical problems constitute an important part of the course. Three credits, first term. Elective for Seniors in Agriculture. Professor PILLSBURY.

**406. Small Fruits.** A study of commercial-scale production of the strawberry, the dewberry, and other small fruits. Prerequisite, Horticulture 301-2. Three credits, second term. Elective for Seniors in Agriculture. Mr. MILLER.

#### For Two-year Course

**12. Vegetable Growing.** Vegetable gardening for the farm, including frame and hotbed making and management, growing early vegetable plants, transplanting, potting, setting out, and cultivation. Each student is required to plan, plant, and care for a garden plat. Three credits, first year, second term. Mr. YOUNG.

**21. Fruit Growing.** Treats of the growing of fruit on the farm. Practice in selection of sites and soils, choice of varieties, planning and laying out orchards, handling and planting trees, intercropping and fertilization of orchards, and in the grading and packing of fruit is required. Three credits, second year, first term. Mr. YOUNG.

**22. Pruning and Spraying.** A course which consists largely in practice in spraying and training fruit plants of all kinds. Fee of \$1 charged in order to defray partial cost of pruning shears given each student. Three credits, second year, second term. Mr. YOUNG.

#### For Winter Course

**Fruit Growing.** A course in which the problems involved in the establishment and management of orchards in North Carolina will be dealt with from the practical standpoint. Practice will consist of work in the propagation, pruning, and spraying of fruit plants.



**Vegetable Gardening.** In this course particular emphasis will be laid upon the "all-the-year-round" garden. Seeding, cultural, and harvesting problems in connection with the most important crops will be discussed as fully as possible. Practice will consist of work in garden planning and in the raising of seedlings in the greenhouse and frame, transplanting, and the management of growing crops.

### MATHEMATICS

While the subject of mathematics is presented in such a manner that the student obtains a thorough working knowledge of those principles which he needs in his Engineering Course, yet it is not the purpose to subordinate the general theory of mathematics to the practical side. The work consists of recitations, written exercises, and lectures, with frequent oral and written quizzes.

#### For Four-year Courses

**101 (a) Agricultural Mathematics.** This course consists of elementary Geometry, Trigonometry, and Conic Sections, with their practical applications to Agricultural Science. Three periods, first term. Required of Agricultural Freshmen. Professors YATES and HARRELSON, Assistant Professor MOCK.

**101 (b). Algebra.** This course begins with quadratic equations and completes summation of series, embracing ratio and proportion, variation, the progressions, the binomial theorem, undetermined coefficients, logarithms, compound interest and annuities, permutations, combinations, and continued fractions. Five credits, first term. Required of Engineering, Chemical, and Textile Freshmen, and second-year Mechanic Arts students. Prerequisite, entrance requirements. Assistant Professor MOCK, Mr. WILLIAMS, Mr. LEROY, Mr. BUCKNER, Mr. EVANS.

**102. Advanced Algebra.** *Well's New Higher Algebra.* The general theory of equations, the solution of higher equations, determinants, etc. Required of Engineering, Chemical, and Textile Freshmen and second-year Mechanic Arts students. One credit, second term. Assistant Professor MOCK, Mr. WILLIAMS, Mr. LEROY, Mr. BUCKNER, Mr. EVANS.

**104. Solid Geometry.** *Wentworth and Smith's Plane and Solid Geometry.* This course begins with and completes Solid Geometry, including numerous original exercises. Four credits, second term. Required of Engineering, Chemical, and Textile Freshmen and second-year Mechanic Arts students. Assistant Professor MOCK, Mr. WILLIAMS, Mr. LEROY, Mr. BUCKNER, Mr. EVANS.

**201. Trigonometry.** Plane Trigonometry. Definitions of the trigonometric functions ; derivation of formulæ, with their application. Solution of plane triangles, etc. Spherical Trigonometry. Solution of spherical triangles. This course includes the solution of many practical problems. Required of Sophomores in Engineering, Chemical, and Textile Courses. Five credits, first term. Professor YATES, Professor HARRELSON, Assistant Professor MOCK, Mr. WILLIAMS, Mr. BUCKNER.

**202. Analytical Geometry.** Nichols's *Analytic Geometry*. Loci of equations, straight line, circle, parabola, ellipse, hyperbola, a discussion of the general equation of the second degree, higher plane curves, and geometry of three dimensions. Required of Sophomores in Engineering and Chemical Courses. Five credits, second term. Professor YATES, Professor HARRELSON, Assistant Professor MOCK, Mr. WILLIAMS, Mr. BUCKNER.

**301-302. Differential and Integral Calculus.** Osborne's *Differential and Integral Calculus*. A thorough treatment of the fundamental principles and derivations of formulæ ; applications to various problems, such as expansion into series, evaluation of indeterminate forms, maxima and minima, radius and curvature, lengths of curves, areas, volumes, etc. Four credits, first and second terms. Required of Juniors in Engineering. Elective for Seniors in Chemistry. Professor YATES, Professor HARRELSON.

#### For Short Courses

**11. Algebra.** A thorough treatment of elementary Algebra, beginning with fractions and embracing simple equations, simultaneous equations in two or more unknowns, problem solving, involution, evolution, theory of exponents, and radicals. Required of first-year students in Auto-Mechanics, Mechanic Arts, and Textile Manufacturing. First term, five credits. Mr. WILLIAMS, Mr. EVANS.

**12. Plane Geometry.** A complete course in plane geometry, including numerous original exercises. Required of first-year students in Auto-Mechanics, Mechanic Arts, and Textile Manufacturing. Five credits, second term. Mr. WILLIAMS, Mr. EVANS.

**31-32. Farm Mathematics.** In teaching this course, problems for solution will be of the nature of those coming up daily on the average farm, such as calculating the plant food contained in and removed by different crops when fed and when sold directly from the farm ; fertilizer formulas for different crops using different classes of materials ; rations with different kinds of feed and for different kinds of animals, engaged in different kinds of work ; capacity of different size of bins for different kinds of grain ; bills of material

for different classes of farm buildings; speed of pulleys; draft of farm implements of different kinds; size of drainage tile for different conditions; capacity of cisterns and silos; quantity of different materials needed for preserving different kinds and amounts of meats; measure of hay in the barn or stack; amounts of concrete, sand, and gravel needed to construct walls or floors of different kinds; number of feet of lumber woodlands of different kinds will yield; and thousands of other practical farm problems the thoughtful farmer has to work out. Three credits, first and second terms. Required of first-year students in the two-year Practical Agricultural course. Mr. LEROY.

## MECHANICAL ENGINEERING

### For Four-year Course

**102. Engineering Lectures.** A series of lectures intended to acquaint students with general engineering terms and principles; also with materials used in engineering work, such as lumber, iron, steel, copper, brass, cement, coal, and other materials. Lantern slides are used wherever possible. One credit, second term. Required of Freshmen in Chemistry and in Mechanical Engineering. Professor VAUGHAN and assistants.

**103. Mechanical Drawing.** Instruction is given in the drawing of objects, such as models and simple machine parts. The mechanical sketches are made on cross-section paper to scale, without the use of instruments, the work being done with pencil and scale. The method of and reason for representing an object by the three views is taught, as well as the practice in training the hand and the eye to represent form and proportion. All drawings are made in orthographic projection, dimensioned and lettered. Emphasis is placed on free-hand lettering. One credit, first term. Required of Freshmen in Chemistry and in all Engineering and Textile courses. Mr. T. J. MARTIN and Mr. H. A. MARTIN.

**104. Mechanical Drawing.** The work in this course includes instruction in the care of instruments as well as how to properly use them in the making of drawings of models and simple machine parts. Instruction in this course also covers tracing and blueprinting. Two credits, second term. Required of Freshmen in Chemistry and in all Engineering and Textile courses. Mr. T. J. MARTIN and Mr. H. A. MARTIN.

NOTE.—Each student will be required to furnish at his own expense the following outfit: Text-book, drawing board 23 by 31 inches, 30-inch T-square, 9-inch 30°-60° triangle, 7-inch 45° triangle, 12-inch



triangular scale, 4H pencil, H or F pencil, erasers for pencil and ink, penholder with points, pencil sharpener; instrument set, consisting of 6-inch compass with pen, pencil, and lengthening bar, 5½-inch dividers with hair spring adjustment, 3-inch bow dividers, 3-inch bow pencil, 3-inch bow pen, 5½-inch ruling pen. This outfit, of proper quality, will cost about \$25. To insure uniform grade of instruments and supplies, the department keeps for sale all of the above at practically cost. This does not mean that they may not be purchased elsewhere, but in case they are they must be approved by the Department.

**105. Wood Shop Work.** Instruction is given in elementary bench work involving the use of the common hand tools, such as saws, planes, squares, chisels, etc., in the making of formal exercises suited to the tool processes and demonstrating the various types of construction. All exercises are made from blue-prints or sketches, and accuracy is given a prominent place in the requirements. Lectures, demonstrations, and individual instruction are all employed in teaching this subject. Due regard is given to the initiative of the student. Lectures are given upon the history and traditions of tools and wood-working industries, tying the course up with the specific needs of the engineer. One credit, first term. Required of Freshmen in Chemistry and in Mechanical, Electrical, and Civil Engineering. Mr. BUSBY.

**106. Wood Shop Work.** The second term continues the principles outlined in the first term as applied to lathes and wood-working machinery, and includes pattern making and foundry practice. In wood turning, problems are assigned involving the use of all of the turner's tools. Work between centers, face plate and chuck work, polishing, and finishing are all done on the lathes. Opportunity is given for working out designs or inventions related to the work. In the instruction on woodworking machinery all of the common woodworking machines, such as band, jig, and circular saws, surfacers, jointers, shapers, mortisers, molders, and sanders are used. The care as well as the use of the machines is taught. Quantity production and cost-finding systems are used when possible. Simple patterns are made on the machines and used in foundry practice. The foundry practice includes the use of the general foundry equipment and tools. Elementary practice in bench molding and core making, melting and casting. Prerequisite, Mechanical Engineering 105. One credit, second term. Required of Freshmen in Chemistry and in Mechanical, Electrical, and Civil Engineering. Mr. BUSBY and Mr. WORTH.

**201-202. Descriptive Geometry.** The first term is taken up with instruction in representing on a flat surface geometrical magnitudes,



points, lines, surfaces and solids, and the solution of problems relating to them. A practice period follows each hour of instruction. In the second term the work will be the application of the principles of Descriptive Geometry to the actual design of pieces of machinery. Prerequisites, Mechanical Engineering 103-104. One credit, first term; two credits, second term. Required of Sophomores in Mechanical and Electrical Engineering. Assistant Professor CLOYD.

**203. Foundry Work and Pattern Making.** Recitations and exercises in foundry work, including selection and working condition of sand; use and care of tools and machines; floor, bench, machine molding, and core making; mixing cast iron and alloys; management of cupola and brass furnace in iron and brass melting; making castings for special machines, general repairs and machine shop work; relation and merits of a variety of tools and materials used in foundry practice. A study of pattern making in its relation to molding; the practical construction of patterns to prevent warping and twisting; the making of special patterns; also patterns for different machines, such as drill presses, lathes, jointers, etc.; cores and core boxes; introducing draft, shrinkage, finish, and the appliances and usage of modern pattern work. The relation between pattern making and foundry practice is emphasized, and all problems are solved with this in view. Required of Sophomores in Mechanical Engineering. One credit, first term. Prerequisite, Woodwork 105-106. Mr. WORTH.

**204. Forge Shop Work.** This course includes instruction on the treatment of iron and steel, the use of punches, swages, fullers and set-hammers, and hand tools. Exercises in drawing, upsetting, forming; scarf, jump, butt, and cleft welding; making of forge and machine shop tools from blue-prints; hardening and tempering, annealing, carbonizing, and case hardening; selection of tool steels. Special work on equipment and repairs about the College shops and laboratories. One credit, second term. Required of Sophomores in Mechanical Engineering. Mr. G. W. PRICE.

**205-206. Metallurgy.** A general study of the ferrous and non-ferrous metals and their alloys. Classification of the metals as adapted for special purposes. The application of chemistry and physics to the extraction and refining of the common metals. Stress is laid upon the general characteristics of the metals as to their melting temperatures, physical properties, the effects of chill and annealing, etc. Study and classification of furnaces, as to fuel, melting, refining, etc. Two credits, both terms. Required of Sophomores in Mechanical Engineering. Prerequisites, Physics, 101-102. Chemistry, 101-102. Mr. WORTH.

**208. Mechanical Drawing.** This course is a continuation of the work done in Mechanical Engineering 104. Freehand sketches are made of models and actual parts of machines. From these sketches complete working drawings are made without further reference to the original model. Toward the end of the term the design of elementary cams and other elementary mechanism is given. One credit, second term. Required of Sophomores in Textile Manufacturing. Prerequisite, Mechanical Engineering 103-104. Assistant Professor CLOYD.

**301-302. Heat Engines.** Nature and measurement of the units of heat, work, and power as used in steam engineering. A study of the properties of steam; use of the "Steam Tables" for solving problems; the theory of steam calorimeters, mechanical mixtures, and combustion of fuels; the application of the above to boilers for the purpose of determining rating, capacity, and efficiency; the functions of the various boiler auxiliaries; elementary thermodynamics as applied to the steam and gas engine cycles; valves, valve gears, and governors of steam engines; determination of indicated and brake horse-power and efficiency of engines for given conditions. Steam turbines and gas engines are studied briefly. Three credits, both terms. Required of Juniors in Mechanical, Electrical, and Textile Engineering. Prerequisites, Physics 201 and 202. Professor VAUGHAN and Associate Professor DANA.

**303-304. Mechanism.** An analysis of motions and forms of machines. Among the subjects discussed are instantaneous centers, kinematic chains, velocity diagrams, parallel and straight line motions, cams, gearing, worms and worm wheels, belting and intermittent motions. The solution of a large number of practical problems by both graphical and mathematical methods is required. A study of materials used in machine construction; analysis of stresses in machine parts; design of machine parts, considering them as compression, tension, or torsion members; modification of the above to suit practice and for the sake of general appearance. Design of simple machines, such as shears, punches, power pumps, etc., all calculations to be made in standard form and handed in with the assigned problems. Two credits, both terms. Required of Juniors in Mechanical Engineering. Elective for Juniors or Seniors in Electrical Engineering. Prerequisite, Mechanical Engineering 202. Assistant Professor FOSTER.

**305-306. Machine Shop Work.** Instruction in this course covers bench work, exercises in chipping and filing, as well as exercises in lathe work, boring, reaming, drilling, planing, milling, and shaping. One credit, both terms. Prerequisite, Mechanical Engi-



neering 203 and Mechanical Engineering 204. Required of Juniors in Mechanical Engineering. Elective for Juniors in Electrical Engineering. Mr. PARK.

**307-308. Mechanical Engineering Laboratory.** The work consists largely of calibrating and becoming familiar with the various instruments used in engineering testing. Practice in the use of calorimeters, both steam and fuel, and the operation of apparatus used in determining the products of combustion in a furnace. Determining the relation between pressure and temperature of steam; the flow of steam through orifices, etc. Practice in the use of indicators and planimeters for the purpose of determining the indicated horsepower of steam and gas engines. The operation of injectors and pumps for the purpose of determining their duty. Testing of lubricants for flash, burning, chill point, and viscosity. Study and operation of lubricators and lubricating systems. One credit, both terms. Required of Juniors in Mechanical and Textile Engineering. Prerequisites, Physics 201-202, and Mechanical Engineering 203-204. Associate Professor DANA and Mr. WORTH.

**309. Applied Mechanics.** Prerequisites, Analytical Geometry and Trigonometry. Text, Poorman's *Applied Mechanics*. The application of the principles of statics to the solution of engineering problems. Both graphical and algebraic methods are used in dealing with concurrent forces, parallel forces, nonconcurrent and nonparallel forces. Two credits, first term. Required of Juniors in Electrical and Mechanical Engineering. Assistant Professor FOSTER.

**310. Applied Mechanics.** Text, Poorman's *Applied Mechanics*. This is a continuation of the first term work, centroids and center of gravity, friction, and moment of inertia being the subjects studied. Two credits, second term. Required of Juniors in Electrical and Mechanical Engineering. Assistant Professor FOSTER.

**401-402. Power Plants.** A study of fuels and combustion; steam boilers; smoke prevention; superheaters and superheated steam; coal and ash handling apparatus; mechanical draft. A comparative study of steam engines; efficiencies; heat losses; influence of condensing and superheating; costs. A study of the elementary theory; efficiency and economy of the steam turbine; types, functions, and operation of condensers, feed-water heaters and purifiers, pumps, separators, traps, and drains. A study of piping and pipe fittings. Attention is also given to cost of power and to specifications for power plant equipment. Three credits, both terms. Required of Mechanical and Textile Engineering Seniors. Elective for Seniors in Chemistry. Prerequisite, Mechanical Engineering 301 and 302. Professor VAUGHAN.

**403. Gas Engines.** Thermodynamics of the gas engine, theoretical comparisons of various types of internal combustion engines. Combustion, including combining weights and volumes, heating value, air required, etc. Gas engine fuels; solid, liquid, and gas. Gas producers, carburetors, and vaporizers. The fuel mixture, pressure, and temperature resulting from combustion. Modern types of internal combustion engines; auxiliaries, including ignition, starting, and lighting systems; regulation, efficiency, and economy. Three credits, first term. Required of Seniors in Mechanical Engineering. Prerequisites, Mechanical Engineering 301 and 302, and Mechanical Engineering 309 and 310. Professor VAUGHAN.

**405. Mechanics of Materials.** A study of the effects of loads and forces in engineering structures by use of the stress-strain diagram. Determination of ultimate stress and elastic limit of materials, with investigation for maximum and minimum bending moment and shear. Torsion and its application to shafting, with theories as to elastic limit and failure. Three credits, first term. Required of Seniors in Mechanical and Electrical Engineering. Prerequisites, Mechanical Engineering 309 and 310. Assistant Professor FOSTER.

**406. Mechanics.** A study of the kinetics of a particle with equations of motion for translation in a straight line, for curvilinear motion, and for rotation. The statements of the principles of Mechanics are applied to practical problems dealing with Mechanical Engineering. The principle of D'Alembert is followed in preference to any others. Text-books, Poorman's *Applied Mechanics*. Two credits, second term. Required of Seniors in Mechanical and Electrical Engineering. Assistant Professor FOSTER.

**408. Heating, Ventilation, and Refrigeration.** This subject treats of the various methods of heating, such as by open fires, hot air, steam, and hot water; of the proper ventilation of all types of buildings; of the various types of ice-making and refrigerating machinery, and their installation, care, and management; and of the cost of heating and cooling. Two credits, second term. Required of Seniors in Mechanical and Architectural Engineering. Prerequisites, Mechanical Engineering 301 and 302. Professor VAUGHAN.

**409. Machine Design.** Advanced work in machine design, which is a summation and practical application of the fundamentals of design heretofore taken. Exact subject to be selected by the student and professor in charge. After a preliminary sketch, calculations are made for the strength of the different parts. Both detail and assembly drawings are made, traced and blue-printed. Calculations are made which are a part of the design. Two credits, first



term. Required of Seniors in Mechanical Engineering. Prerequisites, Mechanical Engineering 303 and 304. Assistant Professor FOSTER.

**410. Power Plant Design.** A continuation of 401, consisting of a study of the selection, location, purpose, and proportioning of the essential details of steam power plants, such as number and size of units, engines, boilers, pumps, condensers, feed-water heaters, chimneys, auxiliaries, etc. The course consists of the study of references, lectures, and the drawing of power plant plans for the layout of the piping. Detail drawings are made and a bill of material is gotten out. Two credits, second term. Required of Seniors in Mechanical Engineering. Prerequisite, Mechanical Engineering, 401, 403, and 409. Assistant Professor FOSTER.

**412. Hydraulics.** Hydrostatics, hydrokinetics, including the flow of water through orifices, pipes, and open channels. Hydrodynamics, including theory of hydraulic motion and pumps. Hydraulic instruments and measurements. Text-book, Daugherty's *Hydraulics*. Second term, two credits. Required of Seniors in Mechanical Engineering. Associate Professor DANA.

**415-416. Mechanical Engineering Laboratory.** The testing of simple machines for efficiency under various conditions of loading. Efficiency and economy tests on injectors, pumps, steam engines, and steam turbines. Boiler tests for determining horsepower and efficiency. In addition to the testing work, advanced heat problems will be given, dealing with the various heat cycles studied in the laboratory.

The determination of efficiency and economy of gas, gasoline, and oil engines. Tests for refrigerating effect in a cold storage plant. The testing of materials of construction for strength in compression and tension; determination of elastic limit, modulus of elasticity, etc. Two credits, both terms. Required of Seniors in Mechanical and Textile Engineering. Elective for Seniors in Chemistry. Prerequisite, Mechanical Engineering 307 and 308. Associate Professor DANA and Mr. WORTH.

**417-418. Machine Shop Work.** Making the parts of some machine or of an engine. Making tools, such as taps and reamers. Laying out work. Duplicate and interchangeable parts. Working to standard gages. One credit, both terms. Required of Seniors in Mechanical Engineering. Elective for Seniors in Electrical Engineering. Prerequisites, Mechanical Engineering 305 and 306. Mr. PARK.

**419-420. Heat Engines.** Nature and measurement of the units of heat, work, and power as used in steam engineering. A study of the properties of steam; use of the "Steam Tables" for solving problems. The theory of steam calorimeters, mechanical mixtures, and combustion of fuels. The application of the above to boilers for the purpose of determining rating, capacity, and efficiency. The function of the various boiler auxiliaries is critically examined. Two credits, both terms. Required of Seniors in Civil Engineering and Textile Manufacturing. Prerequisites, Physics 201-202, Algebra 102. Associate Professor DANA.

### For Short Courses

#### First Year

**11-12. Mechanical Drawing.** Instruction in care and use of instruments; lettering, geometrical drawing, projection drawing; isometric and cabinet projections; drawing from working sketches of machine details; tracing; blue-printing; miscellaneous problems. Two credits, both terms. Required of students in Mechanic Arts. One credit, both terms. Required of students in Auto-Mechanics and Textile Manufacturing. Mr. J. T. MARTIN and Mr. H. A. MARTIN.

NOTE.—Each student will be required to furnish, at his own expense, the following outfit: To insure uniformity in grade of instruments and other supplies, the Department keeps for sale, at practically cost, the articles named below. These may be purchased elsewhere, but must be approved by the Department. Estimated cost of outfit, \$20 to \$25. Text-book. Drawing board, 23 by 31 inches. T-square, 30 inches. 60° triangle, 9 inches, transparent. 45° triangle, 7 inches, transparent. 12-inch triangular architect's scale. Irregular curve. 4H pencil. H or F pencil. Erasers for ink and pencil. Penholder with five points. Pencil sharpener. Instrument set consisting of 6-inch compass with pen, pencil, and lengthening bar; 5½-inch dividers with hair-spring adjustment; 3-inch bow dividers; 3-inch bow pencil; 3-inch bow pen; 5½-inch ruling pen; 4½-inch ruling pen.

**21. Wood Shop Work.** Elementary instruction in bench work, involving the use of ordinary hand tools, such as planes, saws, squares, chisels, etc. All exercises are made from blue-prints and sketches. This work leads up largely to cabinet lines, such as bookcases, tables, drawing boards, and similar things. Experience is given in hand finishing, scraping, gluing, sand-papering, staining, and varnishing. One credit, first term. Required of students in Mechanic Arts. Mr. BUSBY.

**22. Wood Shop Work.** Work similar to that outlined above. During the latter half of the spring term the time is devoted principally to wood turning, which includes turning between centers, face plate, chuck work, polishing and finishing. One credit, second term. Prerequisite, Wood Shop 21. Mr. BUSBY.

**31-32. Forge Shop Work.** Treatment of iron and steel, the uses of punches, swages, fullers, and set-hammers, both hand and machine tools. Exercise in drawing, upsetting, forming; scarf, jump, butt, and cleft welding; making of forge and machine-shop tools from blue-prints; hardening and tempering, annealing, carbonizing, and case hardening; selection of tool steels. Special work on equipment and repairs about the College shops and laboratories. One credit, both terms. Required of students in Auto-Mechanics, Mechanic Arts, and Textile Manufacturing. Mr. G. W. PRICE.

**41-42. Mechanical Technology.** Lectures and recitations intended to acquaint students with general engineering terms and principles; also with materials used in engineering work, such as lumber, iron, steel, copper, brass, cement, coal, and other materials. Lantern slides are used wherever possible. Two credits, both terms. Required of students in Mechanic Arts. Professor VAUGHAN and Assistants.

### Second Year

**51-52. Machine Drawing.** Sketching and drawing of machine parts and machines. Detail working drawings. Tracing and blue-printing. Two credits, both terms. Required of students in Mechanic Arts and Textile Manufacturing. Mr. H. A. MARTIN.

**61-62. Machine Shop Work.** Bench and machine work. Exercises in chipping and filing. Exercises in lathe work, boring, reaming, drilling, planing, milling, and shaper work. Two credits, both terms. Required of students in Mechanic Arts. One credit, both terms. Required of students in Textile Manufacturing. Prerequisite, Forge Work 31. Mr. PARK.

**71-72. Power Machinery.** Descriptive study of the machinery of steam power plants, engines, boilers, condensers, pumps, steam turbines, piping, care and management, study of gas and oil engines. Combustion of fuels. Indicators; indicated, brake, and boiler horsepower problems. Three credits, both terms. Required of students in Mechanic Arts. Mr. PARK.

**81. Pattern-making.** A study of pattern-making in its relation to molding; the practical construction of patterns to prevent warping and twisting; the making of special patterns, also patterns for



different machines, such as drill presses, lathes, jointers, etc.; cores and core-boxes; introducing draft, shrinkage, finish, and the appliances and usage of modern pattern work. One credit, first term. Required of students in Mechanic Arts. Prerequisite, 105 and 106. Mr. WORTH.

**82. Elementary Mechanics.** This subject is intended to treat the elementary mechanics problems which arise in connection with machine shops and drafting room practice. Two credits, second term. Required of students in Mechanic Arts. Assistant Professor FOSTER.

**91. Foundry Work.** Recitations and exercises in foundry work, including selection and working condition of sand; use and care of tools and machines; floor, bench, machine molding, and core making; mixing cast iron and alloys. Management of cupola and brass furnace in iron and brass melting; making castings for special machines, general repairs, and machine-shop work; relation and merits of a variety of tools and materials used in foundry practice. One credit, first term; taken along with 81. Required of students in Mechanic Arts. Mr. WORTH.

**92. Gas Engine Laboratory.** In connection with a study of the principles of the internal combustion engine in power machinery, this laboratory course is offered for the purpose of acquainting the student with the actual handling of such engines. Practice is given on the various types of gasoline, kerosene, and oil engines. One credit, second term. Required of students in Mechanic Arts. Professor VAUGHAN.

### ONE-YEAR COURSE IN AUTO MECHANICS

**43-44. Auto Theory and Practice.** The Automobile Course is an outgrowth of the Emergency War Training Course for gas engine and motor car repairmen given at the College during the summer of 1918, under the supervision of the Committee on Education and Special Training of the War Department. The purpose of the Emergency War Training Course was to make specialists; that is, each man was to be thoroughly familiar with some one phase of the many phases of automobile mechanics. It is the purpose of the course now being given to acquaint the student with the fundamentals of Automotive Engineering from the standpoint of operation; and by operation is meant care, adjustment, and repair of all the units comprising the automobile.

The course will consist of both text-book and shop work, and will be so given that the shop work will parallel the text work. The various units of the automobile are to be studied individually and



will be taken up in the following order: chassis, comprising frame, axles, steering gear and transmission; engine; fuel system and carburetor; ignition system; lighting and starting equipment.

That the student may not become too much of a specialist in automobile work alone, courses in Mathematics, English, Forge, and Mechanical Drawing will be scheduled in addition to the automobile text and shop work.

At present the Automobile Course is designed to cover a period of only one year; however, students taking this course will have the same privileges accorded students taking regular courses, and can enter into and enjoy all the College activities.

### MILITARY SCIENCE AND TACTICS

**General Purpose.** To give college students that degree of training practicable at civilian educational institutions, which will enable them to intelligently perform the ordinary duties of a Lieutenant of Infantry in the Officers' Reserve Corps when called into active military service, and to give them a foundation for further qualification in the Infantry specialties.

**Primary Object.** To train the prospective graduates to become reserve officers; the secondary object is to impart instruction so that those students who do not complete the four years of college work will at the end of any college year have received a kind and scope of training that will make them more useful in the National Guard, the Organized Reserves, or in the military establishment in the event of public emergency.

**101-102. First Year Basic Course.** Infantry drill regulations; rifle marksmanship; scouting and patrolling; physical training; military courtesy; individual infantry equipment; interior guard duty; signalling; command and leadership. Four hours per week, two credits for each term; required of all physically fit male students who have not completed the course or the equivalent at an institution under the supervision of a Regular Army officer detailed thereat.

**201-202. Second Year Basic Course.** Military map reading and sketching; infantry weapons; the bayonet, automatic rifle, hand and rifle grenades; musketry; military hygiene, sanitation and first aid; command and leadership. Four hours per week, two credits for each term; required of all physically fit male students who have not completed the course or the equivalent at an institution under the supervision of a Regular Army officer detailed thereat.

**301-302. First Year Advanced Course.** Military field engineering; infantry weapons; the machine gun; 37-mm. gun; light

mortar; military law and rules of land warfare; command and leadership. Five hours per week, three credits for each term; elective for students who have completed 101-102 and 201-202 or its equivalent and who have been selected by the President and the Professor of Military Science and Tactics.

**401-402. Second Year Advanced Course.** Minor tactics; military history; administration, infantry company; command and leadership; pistol marksmanship. Five hours per week, three credits for each term; required of all students who have completed 301-302 or its equivalent, and have received commutation of rations therefor.

NOTE.—All students pursuing the above courses will participate in such military ceremonies as the faculty may direct.

**Credit.** Full credit will be given for work at other institutions maintaining a **Senior** unit of the Reserve Officers' Training Corps as shown by the student's record, Form No. 713 AGO, kept by the Professor of Military Science and Tactics.

Graduates of **Junior** units of the Reserve Officers' Training Corps, either in essentially military schools or in preparatory schools, who have satisfactorily completed two or more years of the course, will be given partial credit (not exceeding one year) for the subject-matter covered by such students upon their entrance into the R. O. T. C. unit at this institution. In order to obtain credit, students must submit a detailed certificate as to the subjects covered, signed by the proper school official and the Professor of Military Science and Tactics.

## MODERN LANGUAGES

### For Four-year Courses

The primary purpose of the work in this Department is to enable the student to read and translate intelligently the literature of French, German, and Spanish. Work in translation is begun as early as possible and continued with increasing importance throughout the entire course. Graduate students electing to do work in the Department, and others wishing to do special work in this field, will arrange their courses with the head of the Department. So far as possible, the work will be adjusted to suit their special needs. One year's work in either French, German, or Spanish is required of all members of the Reserve Officers' Training Corps.

**201-202. Beginner's German.** Texts: Bacon's *German Grammar*; readings to be selected. German grammar with elementary reading and oral practice. This course is intended for students who have never studied German. Three credits, both terms. Required of

Sophomores in Chemistry and Juniors in Dyeing. Elective for Juniors in Agricultural Chemistry. Professor HINKLE and Mr. WILSON.

**203-204. Beginner's French.** Text: Fraser and Squair's *French Grammar*, Halévy's *L'Abbé Constantin*. Reading and oral practice with elements of grammar. This course is intended for students who have had no previous knowledge of French. Practice in the pronunciation and hearing of French will be afforded by means of reading and dictation; and, as early as practicable, the recitations will be conducted at least partially in French. Two credits, both terms. Required of Sophomores in Architectural Engineering, Electrical Engineering, and Mechanical Engineering. Professor HINKLE and Mr. WILSON.

**205-206. Beginner's French.** Same as course 203-204. Alternate elective with Beginner's Spanish 209-210 for students in Business Administration and Shop Management. Elective for Juniors in Chemistry and all Textile courses. Three credits, both terms. Professor HINKLE and Mr. WILSON.

**207-208. Beginner's Spanish.** Texts: Wagner's *Spanish Grammar*, Turrell's *Cuentos Hispanoamericanos*. Reading, translation, composition, and conversation. Designed for those who have had no previous training in the language. This course will be given in such manner as to give a basis for a spoken knowledge. Practice in the pronunciation and hearing of Spanish will be afforded by means of reading and diction; and, as early as practicable, the recitations will be conducted at least partly in Spanish. Two credits, both terms. Required of Sophomores in Civil Engineering. Professor HINKLE and Mr. WILSON.

**209-210. Beginner's Spanish.** Same as course 207-208. Alternate elective with Beginner's French 205-206 for Sophomores in Business Administration. Three credits, both terms. Professor HINKLE and Mr. WILSON.

**301-302. Beginner's French.** Same as course 203-204. Elective for Juniors in Agriculture who do not enter the Reserve Officers' Training Corps and Juniors in Textile Chemistry and Dyeing. Three credits, both terms. Professor HINKLE and Mr. WILSON.

NOTE.—Beginner's Spanish 307-308 may be substituted for this course.

**303-304. Intermediate German.** Texts: Storm's *Immensee*, Gersäcker's *Germelshausen*, Seidel's *Der Lindenbaum*, Hillern's *Höher als die Kirche*, and Wallentin's *Grundzüge der Naturlehre*. Reading,



translation, and discussion. A review of the fundamental principles of grammar. Rapid reading and sight translation stressed. Elementary scientific German is begun in the second term. Three credits, both terms. Required of Juniors in Chemistry. Elective for Seniors in Dyeing and Seniors in Agricultural Chemistry. Professor HINKLE and Mr. WILSON.

**305-306. Intermediate French.** Text: Fraser and Squair's *French Grammar*; readers to be selected. Grammar, composition, and translation continued. Rapid reading and sight translation stressed. A general survey of French literature is made. Initial practice in commercial correspondence is begun in this course. Parallel readings and reports. Prerequisite, Beginner's French, both terms, or equivalent credit. Required of Juniors in Architectural Engineering and Juniors in Business Administration and Shop Management who completed course 205-206 in Sophomore year. Elective for Juniors in Electrical and Mechanical Engineering, and Seniors in Agriculture, Chemistry, and all Textile courses. Three credits, both terms. Professor HINKLE.

**307-308. Beginner's Spanish.** Same as course 207-208. Required of Juniors in Textile Manufacturing, and Engineering. Two credits, both terms. Professor HINKLE and Mr. WILSON.

**309-310. Beginner's Spanish.** Same as course 207-208. Elective for Juniors in Agriculture and Architectural Engineering who do not enter the Reserve Officers' Training Corps. Three credits, both terms. Professor HINKLE and Mr. WILSON.

**311-312. Intermediate Spanish:** Texts: To be selected. Grammar, composition, and translation continued. Designed primarily to develop rapid reading and conversational ability. A number of Spanish stories are read. Composition is stressed and initial practice in letter writing is begun. Open to students who have had one year in the language. Required of Juniors in Business Administration and Shop Management who completed course 209-210. Elective for Juniors in Civil Engineering and Seniors in Architectural Engineering, in Textile Manufacturing, and Engineering and Agriculture, except those in Agricultural Chemistry and Veterinary Medicine. Three credits, both terms. Professor HINKLE.

**401-402. Introductory Scientific French.** Texts: Daniel's *French Scientific Reader*. Others to be selected. Reading, translation, and discussions. Review of the fundamental facts of grammar. Work based upon Daniel's *French Scientific Reader*. Other selections are read according to the needs of the class. Three credits, both terms. Elective for Seniors in Architectural Engineering, Chemistry, Electrical Engineering, and Mechanical Engineering. Professor HINKLE.



**403-404. Scientific German.** Texts: Phillips's *Chemical German*. Other texts to be selected. An extensive course in scientific literature, with special reference to chemical German. Designed to meet the needs of Seniors in Chemistry. Authors will be read according to the needs of the students. Three credits, both terms. Elective for Seniors in Chemistry. Prerequisites, 201-202 and 303-304. Open to graduates. Professor HINKLE.

NOTE.—Graduate students electing this course will arrange for additional outside work.

**405-406. Commercial French.** Text: Graham and Oliver's *French Commercial Practice Connected With the Export and Import Trade*, Gregg's *La Correspondance Elémentaire*. In this course practice is given in the translation and production of commercial correspondence. A large amount of commercial literature will be read and analyzed in order to accustom the student to the peculiar terminology of French business correspondence. Such things as orders, forwarding, discounts, credits, payments, complaints, soliciting offers, etc., will be studied and practice given in this type of composition. Three credits, both terms. Elective for Seniors in Business Administration who have completed courses 205-206 and 305-306. Mr. WILSON.

**407-408. Commercial Spanish.** Text: Graham and Oliver's *Spanish Commercial Practice Connected With the Export and Import Trade*. This course is designed to give practice in the handling of commercial correspondence in Spanish. A large amount of commercial literature will be read in order to accustom the student to the peculiar and courteous character of Spanish when used for business purposes. Orders, forwarding, discounts, credits, payments, complaints, soliciting offers, and other similar subjects will be studied and practice given in this type of composition. Three credits, both terms. Elective for Seniors in Business Administration who have completed courses 209-210 and 311-312. Mr. WILSON.

**409-410. Industrial Spanish.** Texts: Sparkman's *Industrial Spanish*; others to be selected. This is an extensive reading course on industrial and vocational subjects. It is designed and conducted in such a way as to give the student a practical and every-day vocabulary on such topics as food, raiment, amusements, material comforts, and the products of modern industry. The work in conversation and theme-writing is based upon such subjects as those above mentioned, and at least one theme per week is required. Three credits, both terms. Elective for Seniors in Civil Engineering. Professor HINKLE.

## PHYSICS

### For Four-year Courses

**101-102. General Physics.** A general course in Physics for Engineering students. Mechanics, heat, light, and sound are taken up in the order named, the course running through both terms. While the course is an introduction to the subject of Physics, it is strictly of college grade, and no high school Physics credit can be substituted therefor. Demonstrated lectures, recitations, and laboratory work are coördinated to make the work thorough, instructive, and interesting. Two hours of class work and three hours of laboratory work. Three credits, both terms. Laboratory fee, \$1. Required of Freshmen in Engineering and Chemistry. Professor HECK, Mr. FOSTER, Mr. COOKE.

**201-202. Second Year Engineering Physics.** A continuation of the study of Physics adapted to the needs of engineers. More advanced mechanics and elementary thermodynamics are studied in the first term. Electricity, optics, and acoustics occupy the second term. Demonstrated lectures and recitations three hours a week and three hours of laboratory. Four credits, both terms. Required of Sophomores in Engineering and Chemistry. Laboratory fee, \$1. Associate Professor DERIEUX, Assistant Professor DIXON.

**205-206. General Physics for Textile Students.** A general course in Physics more especially adapted to the needs of men in Textile courses. It covers mechanics, heat, and electricity, with a few class periods only devoted to light and sound. The mechanics is largely that of working machines and the heat emphasizes engines and humidity relations. The study of electricity is adapted to practical relations met in the mill and every-day life. Two hours of class work and two hours of laboratory each week. Three credits, both terms. Laboratory fee, \$1. Required of Sophomores in Textile Manufacturing and Textile Chemistry. Students in Textile Chemistry have no laboratory work in the second term. Associate Professor DERIEUX, Assistant Professor DIXON, Mr. COOKE, Mr. FOSTER.

**207-208. General Physics for Agricultural Students.** A general course in Physics, less mathematical and more descriptive. The subjects are especially emphasized which concern force interactions met in Agriculture, such as mechanics of machines and liquids, heat and humidity relations, practical optics and the spectrum, practical electricity and wiring. A month is given to the study of weather and forecasting. Two hours class work and one laboratory period each week. Three credits, both terms. Required of Sophomores in Agriculture. Laboratory fee, \$1. Professor HECK, Mr. FOSTER, Mr. COOKE.

**301-302. Descriptive Astronomy and Meteorology.** The first term embraces a survey of the stars, the solar system, and modern astronomical theories and research. Class hours are alternated with night work, using the equatorially mounted 5-inch telescope of the college. The second term is given to a general course in Meteorology, including practice in forecasting. A student in any scientific course in college will find the work of either term a profitable elective. Two credits, both terms. Professor HECK.

**303-304. Advanced Electricity.** This is a third year course in Physics given to students who intend to better prepare for research positions in science or engineering. Lectures parallel Hadley's *Electricity and Magnetism* as text. Two or three hours credit a week throughout the year, as the majority of those electing the course find suitable to their schedules. Assistant Professor DIXON.

**305-306. Advanced Optics.** A course similar to 303-304 on the subject of light and optical instruments. Two three-hour laboratory periods alternating with lecture periods. Two or three hours credit as best suited to the class schedule. Both terms. Associate Professor DERIEUX.

**501-502. Electromagnetic Theory.** Open to graduate students only. Lectures and reference work, using Starling's *Electricity and Magnetism* for parallel study. Three credits a week throughout the year. (Given alternate years, not given in 1922-23.)

**503-504. Molecular Theory and Electron Theory.** Three periods a week throughout the year. Alternates with 501-502. Associate Professor DERIEUX, Assistant Professor DIXON.

**505-506. Research Laboratory.** Eight to sixteen hours a week devoted to research in an original problem in heat, acoustics, or electricity. Open only to graduate students. Professor HECK.

**507-508. Physics Seminar.** The Department meets Thursday nights to review current research and recent theories in the field of Physical Science. Attendance and participation in these meetings may be offered as one hour of credit by those prepared to do so. Professor HECK.

#### For Short Courses

**11-12. Physics.** A physical science course is given under the head of Physics. The course embraces the historical development of the scientific ideas of today, with special emphasis on the development of practical machines and engines. Practical determinations of densities, strength of materials, measurements of heat and electricity,



and other everyday determinations are made before the class. Machines are analyzed and the relations of force and energy are worked out. Practical heating and the wiring of electric circuits are also studied. The purpose of the course to be both educative and practical is carefully followed. Required of first-year students in Mechanic Arts. Three credits, both terms. Professor HECK.

## POULTRY SCIENCE

### For Four-year Courses

**201. General Poultry.** The first four weeks will be devoted to a discussion of the various phases of the poultry industry; four weeks to an elementary study of breeds and breeding; four weeks to a study of the principles of ventilation and sanitation; four weeks to poultry-house construction. Work in the poultry laboratory and at the poultry plant will be a part of the course, and will be an application of the principles taught. This course is for all regular four-year Sophomore Agricultural students who are taking Poultry for the first time. *Poultry Culture, Sanitation, and Hygiene* will be used as a text. Three credits, first term. Required of Sophomores in Agriculture. Mr. HALL.

**301. Breeds and Judging.** This is a detailed study of the origin of each breed, of the types and varieties, and of mating birds for the best results. Students taking the Poultry Course will have the opportunity to mate a pen of birds of any of the twenty breeds on the College and Station poultry plant and care for them for a year and note the results of the progeny. To aid in this study there are colored plates; also cards mounted with typical feathers from all breeds. The American Standard of Perfection will be used as a text. Three periods, first term. Required of Juniors in Poultry. Mr. HALL.

**302. Advanced General Poultry.** This is a continuation of course 201, and will be assigned as follows: four weeks will be devoted to the elementary study of parasites and diseases of fowls and their control; four weeks to the anatomy of the digestive tract and the physiology of digestion and a study of the principles of poultry feeding; four weeks to the balancing of feed mixtures and feeding of birds for the various purposes for which they are kept; three weeks to commercial plant construction and management; three weeks to the study of market grades of eggs and practical market methods, and a study of proper methods of dressing, handling, grading, refrigerating, packing, and shipping; a study of the method of saving feathers, grading, storing, packing, curing, and shipping same;



and the methods of collecting, preserving, and handling poultry manure. Three credits, second term. Required of Juniors in Poultry. Elective for all other Juniors in Agriculture. *Poultry Culture, Sanitation, and Hygiene* is used as text. Mr. HALL.

**304. Advanced Poultry Breeds and Judging.** This is an advanced course which is to be preceded by course 301. Breeds and Judging. A continuation will be made of the study of the type and feather pattern of the various solid and parti-colored birds and plant demonstrations as to proper way of mating each breed and variety to get the desired results. Also there will be a continuation of practice lessons in judging the various breeds. The College and Experiment Station poultry plant keeps twenty-five breeds of poultry and pet stock, many of which have won medals, trophy cups, diplomas, and ribbons at various poultry shows, thus insuring the highest type of birds for judging experience. Junior elective for all Agricultural students. Three credits, second term. Mr. HALL.

**305-306. Poultry Anatomy and Physiology.** A complete course in the anatomy and physiology of the domestic fowl. This includes a study of the bony structure, muscles, ligaments, and tendons, digestive structure, genito-urinary apparatus, the circulatory system, the nerves, and the special senses. Complete dissections will be made. This course prepares the student for the detailed study of diseases. *Anatomy of the Domestic Fowl* will be used as a text. Three credits, both terms. Required of Juniors in Poultry. Professor KAUPP.

**401. Diseases and Poultry Pathology.** In this course the time will be divided as follows: four weeks to a detailed study of medical parasitology, giving the habits of the parasites affecting the domestic fowls, effects upon their host and methods of their control and eradication; six weeks to noncontagious diseases and their treatment; eight weeks to contagious diseases, prevention or control, and treatment. Laboratory work will be given to accompany each division. Museum specimens, as well as autopsies and clinical cases from the research laboratory will be used. *Diseases of Poultry* will be used as a text. Three credits, first term. Required of Seniors in Poultry. Professor KAUPP.

**402. Specialized Poultry Marketing.** First, a six weeks detailed study of grading, handling, preserving, refrigerating, storing, packing, and shipping eggs. This will be followed by a detailed study of at least three large markets and of ten North Carolina markets, noting fluctuations in market prices and the changes in the feed markets for the same periods. Six weeks will be devoted to finishing, sticking, picking, trussing, scoring, grading, refrigerating,

shaping, packing, and shipping dressed poultry. A study of market grades in detail and the fluctuations of the market prices, together with a study of the fluctuations of the prices of feeds, will be given for the same length of time. This will include the cost of production. Six weeks are devoted to live fowls, finishing, grading, handling, shipping, and a similar study of the live poultry markets as above. Actual shipping experience will be given. Three credits, second term. Required of Seniors in Poultry. Professor KAUPP.

**403. Poultry Accountant Course.** This course will cover detailed methods of keeping flock, brooder, incubator, and general poultry accountant work. Methods of making poultry surveys, and other work pertaining to poultry data. One credit, first term. Required of Seniors in Poultry. Professor KAUPP.

**404. Incubation, Brooding, and Flock Management.** This course will be divided as follows: four weeks to the running of an incubator, each student operating his own incubator; eight weeks to lectures and practice work in operating a brooder, each student operating his own brooder, taking the chicks he hatches in the incubator; six weeks to broiler feeding and caponizing and capon production. During the entire course the student has charge of a plant flock, caring for the birds and summing up at the end of the month the various details of the accounting. The student also has the opportunity of setting a hen and caring for her brood. Fee, \$2. Three periods, second term. Required of Seniors in Poultry. Three credits, either term. Elective for all Seniors in Agriculture. Mr. HALL.

**405. Poultry Seminar.** In this course there will be taken up and discussed the printed and available bulletins and reprints from the various research laboratories and plants of the various problems and results covering all phases of advanced poultry work. Two credits, first term. Required of Seniors in Poultry. Professor KAUPP.

#### Courses for Graduates

Students entering graduate work in Poultry Science should have a thorough training in the fundamental principles of the subject. The following graduate courses are offered for the year 1922-23.

**501-502. Animal Nutrition.** This course, given by the Animal Husbandry Division, is open to advanced students in Poultry Science work. In this course there will be a study of the recent scientific publications on the chemistry and physiology of nutrition of animals, and the chemical and physiological changes and processes involved in the activities of animal life. The student will be expected to follow out courses in assigned reading, hold conferences with the instructor, and submit regular reports on the progress of his studies.

**503-504. Investigational Work.** The Poultry Science Department has many investigational projects under way. The graduate student will be expected to select one of the subjects below and devote half of his time to assisting in carrying the investigation forward: (*a*) the effects of various rations on egg production; (*b*) the effects of various rations upon body development of poultry; (*c*) the methods of feeding, handling, and control of chick mortality; (*d*) the effects of feeds upon the quality of eggs; (*e*) the effects of feeds upon the quality of flesh of the table fowls; (*f*) the effects of cotton-seed meal upon poultry breeding stock, egg production, development of young, and constitutional vigor; (*g*) the relative value of various animal proteins for feeding fowls; (*h*) Mendelian studies; (*i*) laboratory work in Poultry Pathology, Anatomy, or Physiology. One selection may be made from the Animal Industry Division subjects. Professor KAUPP.

#### For Short Course

**21. Farm Poultry.** This course will include the fundamentals of selection and mating for egg production, for meat production, and for dual purpose fowls. Practical culling work to learn how to eliminate nonproducers will be given. Methods of ventilation and of poultry-house construction, poultry feeds, feeding for egg production, artificial and natural incubation and brooding, feeding of chicks during the brooding period and as chicks on range. Grading, candling, packing, storage, and marketing of eggs. Fattening, dressing, refrigerating, packing, and marketing of poultry. Selection of hatching eggs and methods of packing for shipping. *Poultry Culture, Sanitation, and Hygiene* will be used as a text. Three credits, first term, second year. Two-year course in Agriculture. Mr. HALL.

#### For Winter Course

##### Poultry

There will be taught newer methods of culling birds to eliminate from the farm flock the unprofitable ones. Selection and breeding for egg-production, broilers, and general utility will also be thoroughly discussed. The proper methods of constructing houses for layers and breeding fowls, also range houses for youngsters. How to house the sitting hen and her brood will receive attention. There will be discussed the various feeds and how properly to feed for egg-production; the young and growing chicks; and the sitting hen and her brood. Candling, grading, packing, shipping eggs by parcel post and express. Fattening, sticking, picking, refrigerating, and marketing poultry will be given attention. Mr. HALL.



**RURAL LIFE\*****For Four-year Courses**

**312. Farm Finance.** This course takes up the development of farmers' credit problems, the sources of farm credit, the various factors determining interest rates, and means of improving the present financial institutions for meeting the farmer's financial needs. Required of Juniors in Rural Life and Agricultural Administration. Three credits, second term. Mr. ....

**401. Agricultural Economics.** This course is fundamentally the application of the principles of economics to the occupation of farming. It deals with such specific problems as the economic choice of crops and livestock; the economic organization of crops, livestock, equipment, and labor and wages, farm credits and finances; farm rents and profits; types of land tenure; and the economic motives and ideals of agriculture. Required of all Seniors in Agriculture and Agricultural Administration except those in Veterinary Medicine. Three credits, first term. Professor TAYLOR.

**402. Farm Marketing.** This course treats of that phase of farm business which relates itself to local, central, and world markets. It studies the areas of the world which produce the different types of farm products; the degree of competition which exists between other areas of farm production and the United States; our present systems of marketing and their results, and all forms of co-operative marketing. A number of farm products are taken up and traced from the farm to the consumer's table to the end that a thorough understanding may be had of the specific marketing problems which confront the producers of the various farm products. Required of Seniors in General Agriculture, Farm Crops, Rural Life, and Agricultural Administration. Elective for all other Seniors in Agriculture except those in Veterinary Medicine. Three credits, second term. Professor TAYLOR.

**403. Rural Social Problems.** This is an elementary course in Rural Sociology. It deals with the rise and nature of the so-called Rural Social Problem and the general social conditions which maintain and result from the occupation of farming. Such specific problems as rural isolation and communication, rural health, rural recreation, the rural school, the rural church, and the rural home are taken up and analyzed. In as far as possible, a first-hand study is made of different rural communities and their problems by the instructor and students. Required of Juniors in Rural Life and of Seniors in

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\*General Economics, B. A. 301, and General Sociology, B. A. 302, are listed under the head of Business Administration and Social Science.

Agricultural Administration; elective for all other Agricultural Seniors except those in Veterinary Medicine. Three credits, first term. Professor TAYLOR.

**405. American Land Tenure and Utilization.** This course takes up the history and development of American land tenure. More specifically it deals with land tenure in the early colonies, the distribution of public domain, the growth of farm tenancy, the social and economic results of farm tenancy, and recent proposals for the colonization and more effective utilization of agricultural lands in the United States. Required of Juniors in Agricultural Administration and of Seniors in Rural Life. Three credits, first term. Mr. ....

**409. Rural Organization.** This is a study of all phases and types of rural economics and social organization. It is a study of farmers' movements and their bearing upon agricultural and national life; a study of such organizations as the Grange, the Equity Society, the Farmers' Union, and the Farm Bureau organization. Special emphasis is given to all the agencies and institutions of local communities. Required of Seniors in Agricultural Administration and in Rural Life. Three credits, first term. Professor TAYLOR.

#### Courses for Graduates

**501-502. Seminar.** Special economic and social problems. This course is primarily for graduate students who are working on specific thesis problems. Special chosen Seniors may take this course upon the approval of the head of the Department of Business Administration. Three credits, both terms. Professor TAYLOR.

#### For Two-year Course in Agriculture

**22. Rural Economic Organization.** A study of the principles and practices of economics as applied to farming. The following problems are studied: economic choice of crops, livestock, farm equipment; the economic organization of a farm; causes for present prices of land and agricultural products; farm labor and wages, rural credit and finance, rents and leases, tenantry and ownership of land. Types of rural economic organizations are given special attention. Two credits, second term, second year. Professor TAYLOR.

**32. Rural Social Organization.** A study of all rural social institutions and rural social problems. Such problems as rural government and law, rural education and schools, rural church and religion, rural homes and recreation, etc., are specifically studied. Two credits, second term, second year. Mr. ....

**42. Farm Cost Accounting.** A complete analysis of farm business by accounting in which simplicity, accuracy, and profits will be

emphasized. A study of farm accounting to enable the farmer to find cost of production. Labor and equipment accounts; depreciation of farm enterprises; business correspondence and forms. Each student will be taught and required to keep a farm business record and a farm diary. Two credits, second term, second year. Mr. WILSON.

**52. Marketing Farm Products.** A study of the present systems of marketing; new types of coöperative marketing; the function of grading, standardizing, processing, storing, and financing in the market problem. Special attention will be given to the marketing of cotton, tobacco, and peanuts. Two credits, second term, second year. Mr. ....

## SOILS

### For Four-year Courses

**202. Geology.** The work of the atmosphere, water, and ice in bringing about present earth and soil conditions. The principal soil-forming minerals and rocks will be considered in relation to their effects in determining soil characteristics. Three credits, second term. Required of Agricultural Sophomores. Mr. ETHERIDGE.

**301-302. Soils.** The physical characters, such as water-holding capacity, capillarity, effect of mulches, temperature and weight, and modification of these characters by tillage, cropping, and all operations of practical soil management, are discussed and exemplified in the classroom, laboratory, and field. Some attention is given to the classification of soils in the United States, and especially in North Carolina. The physical, chemical, and bacterial soil conditions are discussed in relation to each other and to their effects on soil fertility. Three credits, both terms. Required of Agricultural Juniors. Deposit, \$2. Prerequisites, Chemistry 101-102, 201-202, and 212, and Physics 231-232. Professor SHERWIN and Mr. ETHERIDGE.

**304. Soil Survey.** A study of the principal soil types of the United States and all the important types of North Carolina; their formation, physical and chemical characteristics, crop adaptations, and identification. Field examination of all local types will be made. Three credits, second term. Required of Juniors in Soils; elective for other Juniors. No deposit. Professor SHERWIN and Mr. ETHERIDGE.

**402. Fertilizers.** Fertilizing as a factor in soil management and economical crop production. Sources, composition, availability, and value of various commercial and farm fertilizers. Comparative value of the elements of plant food in different carriers as shown by their productive capacity. Three credits, second term. Required of all Agricultural Seniors, except those in Veterinary Medicine. Prerequisite, Soils 301-302. Professor SHERWIN and Mr. ETHERIDGE.



**403-404. Advanced Soils.** In this course the student will be guided in the study of any line of Soils work he may choose, along either practical or scientific lines. Laboratory and field work will be given. Considerable reference will be made to Experiment Station literature with the aim of acquainting the students with the literature on the subject, and with the methods of investigation used. This course will be of special help to men who are to engage in either farming or demonstration work, as well as to those primarily interested in Soils. Three credits, both terms. Required of Seniors in Soils; elective for all other Seniors in Agriculture, except those in Veterinary Medicine. No deposit. Prerequisite, Soils, 301-302. Professor SHERWIN and Mr. ETHERIDGE.

#### Course for Graduates

**501-502. Soil Research.** The Department of Soils is prepared to accommodate graduate students in research involving either physical or chemical problems of the soil. Two to four credits each term. Professor SHERWIN.

#### For Two-year Course

**21. Soils and Soil Fertility.** A study of the soil as affected and determined by its source and method of formation. Texture and humus as they affect the physical and other properties. Conservation and control of soil moisture. Composition, sources, and efficiency of various fertilizing materials; original and residual effects on the soil and on each other. Home mixing and duplication of formulas. Various forms of lime; their composition, agricultural value, and best method of using. Farm manure: its composition and value in soil building; methods of handling to conserve its plant food and to aid most economical crop production. Four credits, first term, second year. Professor SHERWIN and Mr. ROYSTON.

#### For Winter Course

**Fertilizers and Lime.** Their action on soils and crops. Plant food of the soil in relation to its fertilizer needs. Effect of other soil factors on the efficiency of fertilizers. Best fertilizers to use under various soil conditions. Cost and efficiency of plant food in different fertilizer materials. Fertilizer arithmetic. Three hours a week. Professor SHERWIN and Mr. ETHERIDGE.

### TEXTILE MANUFACTURING, TEXTILE ENGINEERING, AND TEXTILE CHEMISTRY AND DYEING

#### For Four-Year Courses

**101-102. Carding and Spinning.** Lectures and recitations; practice in operating card and spinning room machinery. Cotton: classifying the plant, its growth, varieties, ginning, baling, and mar-

keting the raw staple. Cotton at the mill; selecting and mixing. Openers and lappers; cards, sliver lap machines; ribbon lap machines; combers, railway heads; drawing frames, slubbers; intermediate; speeders; jacks. Ring spinning frames and mules. Spoolers. Twisters; reels; cone-winders. Construction and functions of each machine; making the various calculations. Drafts, speed of parts, production. Producing yarns of different counts, single and ply. Testing yarns for breaking strength and elasticity. Required of Freshmen (for number of credits see tabulation) Sophomores, Juniors, and Seniors. Assistant Professor PRICE.

**103-104. Weaving.** Lectures and practice in warp preparation, operating and fixing looms, cloth finishing machinery. Warp preparation; pin frame warper; section warper; beam warper; construction of beam warper, stop motion, measuring motion, creel; pattern warp making; long and short chain beamers. Slashing: Steam cylinder slasher; hot-air slasher; construction of slasher, creel, cylinder, immersion roll, squeeze rolls, drying fan, separator rolls, winding yarn on beam, cone drive, slow motion, measuring and cut marking motion. Sizing: Construction of size 5 kettle; size mixing and boiling; division of sizing ingredients; value of ingredients; sizing recipes for light, medium, and heavy sizing. Loom mounting: Reeds and harnesses; drawing in and putting warps in loom. Looms: Hand looms and power looms; construction of plain loom; principal movements in weaving; let-off and take-up motions; filling stop motion; warp stop motion. Cams and their construction. Automatic looms, construction and advantages. Drop box looms: Chain building for box looms; changing boxes to have easy running looms; construction and value of multipliers; timing and fixing box motions. Pick and pick-looms. Box-chain and multiplier-chain building; arrangement of colors in boxes to give easy-running loom. Ball and shoe-pick motion. Construction and fixing of head motion. Dobby, single and double index; construction and fixing of dobbie; extra appliances necessary for weaving leno, towel, and other pile fabrics. Value of easers; half motion and jumper attachment for leno. Springs and spring-boxes. Pattern chain building. Jacquard: Single and double lift; construction and tie-up. Weave-room calculations, speed and production calculations, relative speed of looms, counts of cotton harness. Finishing: Inspection of cloth; singeing and brushing; calendering, tentering; folding and packing for the market. Equipment necessary for warp preparation, weaving, finishing; approximate cost of production of fabrics in the different processes. Text-book, Nelson's *Practical Loom Fixing*. Required of Freshmen (for number of credits see tabulation), Sophomores, Juniors, and Seniors. Professor NELSON, Mr. PRENTIS, Mr. HART.



**106. Textile Engineering Lectures.** A series of lectures intended to acquaint students with names and terms used in textile work, and a general survey of the textile industry. Various elementary textile subjects are given as an introduction for the work which follows in the higher classes. One credit, second term. Required of Freshmen in Textile Manufacturing. Mr. HART.

**201-202. Carding and Spinning.** Continuation from Freshman year. See course 101-102. Required of Sophomores. Two credits, both terms.

**203-204. Weaving.** Continuation from Freshman year. See course 103-104. Required of Sophomores. Two credits, both terms.

**205-206. Textile Designing.** Lectures and practice in designing. Method of representing weaves on design paper. Foundation weaves: Plain, twill, satin. Ornamentation of plain weaves. Wave designs, pointed twills, diamond effects. Plain and fancy basket weaves, warp and filling rib weaves. Broken twills, curved twills, corkscrew twills, entwining twills. Granite weaves, satin shading. Combination of weaves; figured weaving on plain ground. Satin and figured stripes on plain ground. Spots arranged in different orders on plain, twill, satin ground. Imitation leno, honeycomb weaves. Bedford cords and combination with other weaves. Wave designs, pointed twills, diamond effects. Plain and fancy piques. Double plain, figured double plain. Double cloths. Cloths backed with warp; cloths backed with filling. Cloths ornamented with extra warp; cloths ornamented with extra filling. Cotton velvet. Corduroy. Matelasse: leno weaves with one, two, and more sets of doups. Principles of working both top and bottom doups. Combination of plain and fancy weaves with leno. Methods of obtaining leno patterns. Jacquards. Distribution and setting out of figures for geometrical and floral effects. Distributing figures to prevent lines. Areas of patterns. Preparation of sketches. Transfer of sketches to design paper. Painting in the design with different weaves according to sketch. Shading the patterns. Card cutting and lacing. Required of Sophomores (for number of credits, see tabulation), Juniors, and Seniors. Professor NELSON, Mr. PRENTIS.

**208. Cloth Analysis and Fabric Structure.** Calculating particulars of cloth from data ascertained from samples. Shrinkages. Dents in patterns; patterns in warp. Drafting and pattern chain building. Reed and harness calculations. Calculations to obtain quantities of warp and filling in stripes and check fabrics. To find number of threads per inch, using a given weight of warp; also number of picks per inch, using a given weight of filling. Yarn calculations. System of numbering woollen, worsted, silk, linen, and cotton



yarns. Determination of one system of yarn to that of another. Textile calculations. Determining the number of threads and picks per inch to make a perfect cloth. Calculations to determine the texture in an unequally reeded fabric. Diameter of threads. Balance of cloth. Texture for double cloth. Required of Sophomores (for number of credits see tabulation), Juniors, and Seniors. Professor NELSON, Mr. PRENTIS.

**209-210. Dyeing.** The student learns the principles and procedures upon which the art of bleaching and dyeing is based. He learns how to identify the various fibers, and the chemical methods for estimating their relative proportions in mixed goods. He next learns the action of the mineral acids under various conditions upon the fibers, and the action of volatile and nonvolatile organic acids. The action of acid salts and salts which liberate a mineral acid when heated is studied, together with the commercial application of this principle to the recovery of wool from rags by "carbonization." The student is then acquainted with the action of alkalies upon the fibers, and with mercerization. He next studies the use and misuse of "bleach" or "chemic." Procedures for mordanting and weighting the fibers are carried out, along with the fixation of compounds. An experimental outline of a practical cloth bleach for printers and dyers by the lime-and-ash process, and the bleaching of market whites is carried out with careful comparisons and thorough study. The sodium peroxide process is also studied, carried out, and compared. The student then bleaches wool by the bisulphite, permanganate, and sodium peroxide processes, and finishes by studying the injurious effects of improper water and the means of remedying these effects. In this course the student conducts experiments to illustrate methods and principles as a supplement to the lectures, and mounts samples for a comparison of results. Two credits, both terms. Required of Sophomores. Mr. LEDDY.

**301-302. Carding and Spinning.** Continuation from Sophomore year. See course 101-102. Three credits, both terms. Required of Juniors in Textile Manufacturing and Engineering.

**303-304. Weaving.** Continuation from Sophomore year. See course 103-104. Required of Juniors. Three credits, both terms, Textile Manufacturing; two credits, both terms, Textile Engineering.

**305-306. Textile Designing.** Continuation from Sophomore year. See course 205-206. Three credits, first term; two credits, second term. Required of Juniors in Textile Manufacturing.

**308. Cloth Analysis.** Continuation from Sophomore Year. See course 208. One credit, second term. Required of Juniors in Textile Manufacturing.

**309-310. Dyeing.** The Junior year is devoted exclusively to the study of dyes and the various methods of applying them. The student starts with the direct cotton colors and compares the action of the various assistants, the effect of temperature, "long" and "short" baths, etc. The dyeings are tested for fastness to washing, soaping, light, perspiration, cross-dyeing, etc. He then takes up the methods of improving the fastness, among which are included after-treatment with potassium bichromate and copper sulphate, topping with basic dyes, and daizotizing and developing. These dyeings are again tested, and in addition are tested for fastness to street dirt, ironing, chlorine, etc. The methods of applying these colors to wool and silk, together with after-treatments, are next taken up. A thorough study of the sulphur colors is the next step. The methods of applying the basic colors to cotton are next studied, after which the student takes up their application to wool and silk. The subjects next in order are the acid dyes, eosines, and alkaline blues, the after-chromed acid colors, acid colors on chrome mordants, mordant dyes on alum mordant, tin mordant, etc. The vat colors, including the Cibas, Helindones, Algoles, Indanthrenes, etc., are very thoroughly taken up. The laboratory work which supplements the lectures comprises a large number of experiments, samples from which are mounted for comparison.

The second term is devoted to the study of special processes and printing. Aniline black is applied by the single bath method (hot and cold), by the "aged" or copper black method, and by the steam or prussiate method. The application of paranitraniline red to cotton yarn is next taken up, followed by a thorough study of dyeing with indigo employing the copperas, zinc-lime, and hydrosulphite vats. Mixed goods are dyed uniform or different colors by the single bath, double bath, and several bath methods. The art of printing, including the preparation of the cloth, mixing the colors, choice of thickeners, mordants, assistants, etc., and the various styles of printing are taken up. The lectures are supplemented by laboratory work. One credit, both terms (Juniors). Required of Juniors and Seniors. Two credits, both terms. Juniors in Textile Chemistry and Dyeing. Mr. LEDDY.

**311-312. Dyeing.** Analyses of Textile Fabrics, including "sizing," oil and grease, mineral oil, rosin, "condition," ash, mordants, etc., are carried out, followed by analyses of dyestuffs to determine their classification, testing of dyes for tinctorial power and money value, and determinations of suitability, mixtures, etc. Color mixing and shade matching are very carefully carried out with thorough study. Laboratory experiments supplement this work, and the student mounts samples of his work. Procedures for waterproofing by



the "dry method," rendering fabrics "noninflammable," for testing cotton, and injured cotton, analyzing Turkey Red Oil, etc., are carried out. This is followed by a study of starches. The student devotes considerable time to the synthesis and study of intermediate products and dyes. This is designed to aid those of our students who wish to specialize in dyestuff manufacturing and sales industry. The laboratory work is devoted mainly to the study of commercial preparations which are related to dyes and intermediates. The student prepares nitro-benzene, aniline, acetanilide, p-nitracetanilide, and p-nitraniline, p-amidoacetanilide, and p-sulphanilic acid, dimethylaniline, and nitro-sodimethylaniline hydrochloride.

M-toluylene diamine, benzidene, benzal chloride, m-dinitro phenol, beta-naphthol, Schaffer's salt, R salt, alphi-naphthylamine, anthraquinone, and anthraquinone sulphonic acid.

Fast Green O, Naphthol Yellow S, Chrysoidine R, Orange 11, Fast Red B, and A. Chrysamine G, Benzo purpurine 4B, Naphthol Black B, Auramine O, Malachite Green, Methyl Violet, Fluorescein, Methylene Blue, Induline spirit soluble, and sulphur Black T. One credit, both terms (Juniors). Required of Juniors and Seniors. Four credits, both terms. Juniors in Textile Chemistry and Dyeing. Mr. LEDDY.

**401-402. Carding and Spinning.** Continuation from Junior year. See course 101-102. Required of Seniors. Four credits, both terms, Textile Manufacturing; three credits, both terms, Textile Engineering.

**403-404. Weaving.** Continuation from Junior year. See course 303-304. Required of Seniors. Four credits, both terms, Textile Manufacturing, two credits, both terms, Textile Engineering.

**405-406. Textile Designing.** Continuation from Junior year. See course 205-206. Three credits, both terms. Required of Seniors in Textile Manufacturing.

**407-408. Cloth Analysis.** Continuation from Junior year. See course 208. One credit, both terms. Required of Seniors in Textile Manufacturing.

**409-410. Dyeing.** Continuation from Junior year. See course 309-310. Required of Seniors. Two credits, both terms, for Textile Manufacturing; three credits, both terms, for Textile Chemistry and Dyeing.

**411-412. Dyeing Laboratory.** Continuation from Junior year. See course 311-312. Required of Seniors. Two credits, both terms, Textile Manufacturing; four credits, both terms, Textile Chemistry and Dyeing.



**For Short Course**

**11-12. Carding and Spinning.** Lectures and recitations; practice in operating card and spinning room machinery. The lectures will cover as many machines as possible during the year, and the practical work will consist of operating the various machines. One credit, both terms, both years. Mr. PRICE.

**21-22. Weaving.** Lectures on construction of plain, twill, satin, and other looms will be given. Lectures begin with the construction of plain loom, first taking up the principal movements in weaving, then the various secondary or auxiliary movements, and the relation and timing of one movement to another. Practical work will consist of operating plain, twill, satin, gingham, and other looms. Three credits, both terms, both years. Professor NELSON, Mr. PRENTIS, Mr. HART.

**31-32. Textile Designing.** Lectures and practice in designing. Methods of representing weaves on paper. The foundation weaves, plain, twill, and satin are the first subjects studied, advancing to derivate and other weaves. Color and other ornamentation of weaves and fabrics. Combination of different weaves and their effect in the cloth. Two credits, first term; one credit, second term, first year; three credits, first term; two credits, second term, second year. Mr. PRENTIS.

**42. Cloth Analysis and Fabric Structure.** Calculating particulars of cloth from data ascertained from samples. Reed and harness calculations. Drafting and pattern chain building. Calculations to obtain quantities of warp and filling in different fabrics. Yarn calculations. System of numbering cotton, woollen, worsted, silk, and linen yarns. One credit, second term, both years. Mr. PRENTIS.

**VETERINARY MEDICINE****For Four-Year Courses**

The Department of Veterinary Medicine offers the first two years of a four-year course in Veterinary Medicine; the subject of Animal Diseases to Seniors in Agriculture, also Veterinary Hygiene and Sanitation; the subject of Animal Diseases to the second year short course and Rehabilitation students; and the subject of Diseases of Livestock in the two-weeks course in Agriculture. A one-week graduate course in Veterinary Medicine is offered annually, open to the graduate veterinarians in the State.

**301-302. Veterinary Anatomy.** This subject will deal with the study of the skeleton, including bones and joints, and of the muscles.

A complete dissection of the muscles of the horse will be made. Six credits, first term; four credits, second term. Required of Juniors in Veterinary Medicine. Fee, \$2. Professor REEDER.

**303-304. Histology.** A microscopical study of the tissues of the body; treating of the cell as the unit of structure, and of its functions; also of tissues, their classification, and their relation to the structure of organs. From dissections and proximity to slaughter-house, abundance of histological material of various animals is obtainable. Three credits, first term; two credits, second term. Required of Juniors in Veterinary Medicine. Fee, \$1. Professor REEDER.

**305. Materia Medica.** This study of the inorganic drugs used in comparative medicine will treat of their classification, composition, physiological actions, and doses. Three credits, first term. Required of Juniors in Veterinary Medicine. Professor REEDER.

**401. Veterinary Hygiene and Sanitation.** The subject-matter will deal specifically with some phases of the physiology of the following systems: digestion, reproduction, locomotion, respiration, and circulation in domestic animals. The diseases which affect the organs of the different systems will be enumerated and suitable hygienic measures to avoid such troubles will be discussed. Three credits, first term. Required of Seniors in Agriculture. Professor REEDER.

**402. Materia Medica and Pharmacy.** Course 305 as described above will be continued by a study of organic drugs. The Pharmacy course will include prescription writing and laboratory work in the preparation, compounding, and preserving of medicines. Three credits, second term. Fee, \$1. Required of Seniors in Veterinary Medicine. Professor REEDER.

**403-404. Veterinary Physiology.** A comparative study of the bodily functions of the various domestic animals is made, with special reference to digestion, respiration, circulation, reproduction, and secretion. Three credits, both terms. Required of Seniors in Veterinary Medicine. Professor REEDER.

**405-406. Veterinary Anatomy.** A continuation of course 301-302. A study of the digestive, respiratory, circulatory, urinary, reproductive, and nervous systems will be made, with dissections of each in the horse. Five credits, both terms. Required of Seniors in Veterinary Medicine. Fee, \$2.

**407-408. General Pathology.** As contrasted with special or systematic pathology, this course will treat of general causes of disease, congenital, postnatal, infectious, and noninfectious; of morbid and reactive tissue processes, congestion, inflammation, fever, im-

munity, etc.; of progressive tissue changes, regeneration, tumors, etc.; of regressive tissue changes, degeneration, necrosis, death, etc. A large number of specimens of diseased organs and tissues already present in the museum, and opportunity for collecting others from clinics and abattoir, insure plenty of material to demonstrate various macroscopical and microscopical tissue changes. Three credits, both terms. Required of Seniors in Veterinary Medicine. Fee, \$1.

**410. Animal Diseases (Prevention and Control).** Many diseases of both man and animal are preventable, and never before was the old adage "An ounce of prevention is worth a pound of cure" more applicable. To effectively prevent and control most of our diseases, it is essential to know something of their causes, habits, mode of entering the body, and bodily resistance (immunity). The above phases will be largely considered in this course. Two credits, second term. Elective for Seniors in Agriculture. Professor REEDER.

#### For Two-year Course

**22. Animal Diseases.** This course must not be confused with course 410. In this the principles of the make-up and working of the body must be studied in a general way in order to understand the several abnormal conditions to be discussed. The more common preventable abnormal conditions will be considered first; then will follow a short discussion of the several contagious and infectious diseases, their prevention and control. Two credits, second term. For second year Short Course and Rehabilitation students. Professor REEDER.

#### For Winter Course

**Diseases of Livestock.** Lectures will briefly cover elementary anatomy, physiology, hygiene, sanitation, and common diseases of animals. Special emphasis will be laid upon the general causes of diseases, the means or measures of preventing and controlling them, and things not to do. Professor REEDER.

#### For One-week Graduate Course

Open to graduate veterinarians only. Alterations in the following outline of subjects may be made to suit the wishes of those attending. The subject-matter in each case will be condensed so as to cover the entire field during the week.

**Animal Husbandry.** Judging, feeding, and breeding. This course is given by the Animal Husbandry Division. The Livestock Judging will embrace the points to be considered in determining the fitness of animals for specific purposes. The Stock Feeding instruction will cover the various feeds available, their composition, and the



methods of compounding balanced rations. The Animal Breeding lectures will discuss the selection, the laws of breeding, and the management of breeding animals.

**Dairying.** This course is offered by the Dairy Division. The equipment necessary for a dairy, the methods of conducting a dairy business, and the composition of milk will be the subjects of study. Laboratory demonstrations will be given to illustrate methods of testing and standardizing milk and cream, also the scoring of butter.

**Parasites and Parasitic Diseases.** Three or more lectures will be given on this subject, taking up the more important internal and external parasites, using for the purpose of demonstration one of the largest private collections of parasites in this country. Symptoms of parasitism, methods of recognition of the parasites, lesions produced, and means of eradication will be thoroughly discussed. Professor KAUPP.

**Common Diseases of Poultry.** Three or more lectures will be given on this subject, taking up the more troublesome diseases, both parasitic and bacterial, making actual demonstrations from the poultry and pathology research laboratory run jointly by the College and the Station. Professor KAUPP.

**Meat and Milk Inspection.** The subject will be covered in the discussion of an outline indicating what inspection for Southern towns should consist of. The work will be demonstrated by visits to the municipal abattoir, the city market, and some of the better dairies about Raleigh.

**Anatomy and Dissection.** Condensed outlines of the different anatomical systems will be given, such as of skeleton, including joints, and muscular, nervous, digestive, circulatory, respiratory, urinary, and genital systems. Abundance of well-injected equine subjects will be available for dissection of all parts, but particular attention will be given those areas involved in special surgery.

**Veterinary Physiology.** The physiology of digestion, nutrition, and reproduction has made much advancement in the past five years. It is, therefore, essential that we understand the latest and the most authentic scientific findings. Lectures will be given summarizing the essentials of these subjects. Laboratory methods, also, will be used to demonstrate the actions of the digestive fluids, and prepared specimens shown to illustrate, as far as possible, the phenomena of reproduction. The remaining time will then be given to a practical discussion of the respiratory and circulatory systems. Professor REEDER.

**Clinical Diagnosis and Clinics.** The subject-matter will be given in the form of a synopsis of the essential factors concerned in determining the alterations in each of the anatomical systems and regions of the animal body. Demonstrations will be made in the conduct of clinics at the veterinary hospital and by various laboratory and field methods of diagnosis. It is expected that there will be opportunity to show typical reactions from use of intradermal and ophthalmic tuberculin. Drs. KOONCE, REEDER, KAUPP.

**Open Discussions** on Surgery, Practice, Meat and Milk Inspection, etc. Leaders of each chosen by those attending. Stated periods will be appointed for each of the above subjects on which round-table discussions of the veterinarian's everyday problems will be held.

## VOCATIONAL EDUCATION

### For Four-year Courses

**201. Psychology.** An introductory course to general psychology. It is the purpose of this course to give the student a basis for the interpretation of human conduct in terms of the psychological principles substantiated through modern experimental psychology. The course will treat such determining factors of human behavior as the following: structure and function of the nervous system; instinctive tendencies; emotional behavior; habit and habit formation; and reflective thinking. A number of laboratory experiments upon native reactions, habit formation, and learning will be performed. Three credits, first term. Required of Sophomores in Business Administration; elective for Juniors in Engineering. Associate Professor WILEY.

**301-302. Introduction to Education.** The purpose of this course is to bring the student to a realization of the educational needs of society and the individual, and give him some conception of the fundamental principles of scientific educational procedure. The course begins with a study of the aims and values of education and their application to the organization of courses of study and curricula in rural secondary schools. A study is made of the bases for the present tendencies in education—economic, social, and psychological. The practical application of psychological principles and facts in high school agricultural teaching consumes about one-half of the time given to the course. Some of the topics considered in this connection are original nature and its modification, attention, interest, habit, memory, imagination, individual differences, transfer of training, adolescence, and practical methods of study. One laboratory exercise a week provides concrete illustration of the principles studied, and gives the students ability to understand and interpret educational

measurements and statistics. Three periods throughout the year. Required of Juniors in Vocational Education. Elective for all other Juniors in Agriculture except Veterinary Students. Associate Professor WILEY.

**401. Principles of Teaching.** This course deals with the nature of the learning process and its relation to teaching methods; nature of interest, how aroused and sustained; formal and socialized recitation; how to study and methods of supervising study; project teaching; discipline; lesson planning; use of the double period; illustrative material; marking pupils' work; use of the survey in teaching; questions and questioning; assignment of the lesson; organization and procedure of laboratory and field exercises; value of reviews; purposes and kinds of examinations. Three periods, first term. Required of Seniors in Vocational Education. Professor Cook.

**402. Rural School Organization and Administration.** The purpose of this course is to give the students an insight into the administrative problems confronting principals of rural high schools which offer vocational work. The appropriate administrative principles will be presented in connection with such determining factors as the following: special characteristics of high school pupils; needs of the rural community; criterion for determining the value of school subjects; financial and legal status of education in North Carolina; equipment; development of secondary education; and articulation with elementary schools and colleges. Three credits, second term. Required of Seniors in Vocational Education. Associate Professor WILEY.

**403-404. Methods of Teaching Agriculture, Observation and Practice Teaching.** This course aims to give the specific helps needed by a teacher of agriculture. The selection and use of the materials and devices, such as classroom and laboratory fixtures and apparatus, illustrative materials, and methods of cataloguing bulletins and other material are considered. Emphasis is put on the selection and organization of subject-matter, and the various methods employed in teaching agriculture, laboratory methods, the use of the field and farm in instruction, supervised study, planning and supervising home projects, and community activities. Some systematic work is done in schoolroom observation. Provision is made for the students to do practice teaching in near-by agricultural schools. As far as possible, the work of this course will correlate with the work in Principles of Teaching. Three credits throughout the year. Required of Seniors in Vocational Education. Professor Cook, Mr. COGGIN, and Mr. ARMSTRONG.



**405-406. Seminar.** This course will consist of reports and discussions of current educational affairs, including experimental work in education, new movements, and some of the important educational problems. One credit, both terms. Elective for Seniors in Agriculture. Professor Cook and members of the staff.

**408. Methods of Science Teaching.** It is the purpose of this course to prepare students for teaching science courses in high schools. The course will treat such matters as the following: organization and presentation of science materials, with special attention to the content and organization of general science; planning and directing laboratory exercises; sources of laboratory and illustrative materials; and proper handling of notebook work. Three credits, second term. Elective for Seniors.

#### Course for Graduates

**501-502. Problems in Teaching.** A teacher in service may pursue a graduate course in special problems in teaching in absentia. This course will deal specifically with his problems as a teacher, the nature and content of the course to be determined by the needs of each individual. Considerable of this work will be carried on by correspondence, but frequent visits will be made by members of the department for consultation and checking up on the work. Reports will be required periodically. Credit, 1 to 3 credits a term. For Graduates. Professor Cook and members of the staff.

### ZOOLOGY AND ENTOMOLOGY

#### For Four-year Courses

**201-202. Elementary Zoology.** An elementary study of all forms of animals, with special reference to the more important economic groups, is given by text-book, library, laboratory, and field work, with supplementary lectures. This course is designed to give the student a general knowledge of the animal kingdom, and to lay the foundation for the special work in Agriculture which follows. Three credits, both terms. Required of Sophomores in Agriculture. Prerequisite for all other courses in the department. Fee, \$2. Professor METCALF, Assistant Professor ECKERT, Mr. EDDY.

**302. Genetics.** A course devoted to a study of the basic principles of cell morphology, cell division, maturation, and fertilization as a basis for the study of heredity. In addition to the study of the cell the student will study the various laws of heredity with special reference to Mendel's law. The students will be required to carry on and analyze their own breeding experiments with fruit flies, and to observe and analyze the breeding experiments with other animals.

Given jointly by the Departments of Zoology and Botany. Prerequisites, Botany 101-102 and Zoology 201-202. Three credits, second term. Required of Juniors in Agriculture. Professor METCALF, Professor WELLS, Mr. EDDY.

**303-304. Comparative Anatomy.** This course will be devoted to a study of the comparative anatomy of typical vertebrates. System of organs will be studied in the various classes and the development and interrelation pointed out. Three credits, both terms. Required of Juniors in Biology. Professor METCALF, Mr. EDDY.

**306. Economic Entomology.** The elements of insect anatomy, classification, and development as a foundation for economic entomology is covered by text-book, lectures, and laboratory work, together with systematic study of the injurious insects of farm crops, farm animals, orchard, shade, and ornamental plants, and a study of the insect enemies of the principal truck and garden crops from the standpoint of their life histories and control. Three credits, second term. Elective for Juniors in Agricultural Chemistry. Required of all other Juniors in Agriculture except students in Veterinary Medicine. Professor METCALF, Assistant Professor ECKERT.

**307-308. Economic Zoology.** A study of the principal groups of animals in their relation to man, both from the standpoint of crops destroyed and diseases carried. Three credits, both terms. Elective for all Juniors in Agriculture, except those in Agricultural Chemistry and Veterinary Medicine. Professor METCALF, Assistant Professor ECKERT.

**309-310. Evolution.** This course will be devoted to class and laboratory study of the processes of evolution, together with an historical review of the theories of evolution as applied to man and the other animals. Three credits, both terms. Elective for Juniors in Agriculture. Professor METCALF, Mr. EDDY.

**401-402. Vertebrate Embryology.** This course will cover the comparative embryology of the principal groups of vertebrates, together with a discussion of the comparative anatomy of the vertebrates. Three credits, first term. Required of Seniors in Biology. Three credits, second term. Required of Seniors in Veterinary Medicine. Elective for all other Seniors in Agriculture. Fee, \$2. Professor METCALF, Mr. EDDY.

**403-404. Apiculture.** The first term will be devoted to a study of the life history and anatomy of the honey bee and preparation of colonies for wintering. The second term will be devoted to spring management, comb and extracted honey production. Three

credits, second term. Required of Seniors in Biology. Three credits, either term. Elective for all other Seniors in Agriculture. Professor METCALF, Assistant Professor ECKERT.

**405-406. Rural Sanitation.** A course in which the relation between animals, especially insects, and sanitation of the farm and farm home are discussed. These discussions embrace the methods of disease transmission and spread by insects, and through foods and water; air and ventilation; sewage and refuse disposal; the transfer of disease through careless insanitary methods; disinfection and quarantine; sanitation of summer camps, schools, and other community units; industrial and occupational hygiene; rural and urban conditions; vital statistics and health education. One credit, both terms. Elective for all Seniors in Agriculture, except Veterinary students. First term, Professor METCALF; second term, Dr. KAUPP.

**407. Scientific Illustrating.** A course in the various methods of illustrating, with special reference to their use by the biologist. The student is drilled in the fundamental importance of the outline, of color, of composition, and of perspective. The student may then elect to study any of the following methods of finishing drawings: pen and ink, pencil, charcoal, wash, water color, and oil color. Chart making, casting, modeling, and wax plate reconstruction are also considered. Three credits, first term. Elective for Seniors in Agriculture. Professor METCALF.

**408. Scientific Photography.** This is a course that emphasizes the importance of photography in science. Exposure, composition, the preparation of the negative for printing, printing, enlarging, making lantern slides, and color photography are all considered. Three credits, second term. Elective for Seniors in Agriculture. Professor METCALF.

#### Course for Graduates

**501-502. Zoology.** This course is designed to fit the student for research or teaching in either Zoology or Entomology. The student may elect from the following groups: (1) Invertebrate Morphology; (2) Comparative Anatomy; (3) Vertebrate Embryology; (4) Invertebrate Embryology; (5) Ecology; (6) Animal Micrology; (7) Cytology; (8) Systematic Entomology; (9) Medical and Veterinary Entomology; (10) Parasitology; (11) Economic Entomology of fruit trees, shade trees, greenhouse, corn, cotton, or tobacco. Four or eight credits. Professor METCALF.

#### For Two-year Course

**11-12. Animal Life.** A course designed for the two-year student in which the fundamental facts of animal structures and animal



activities are presented, as a basis for further work in the specialized courses in animal feeding, animal husbandry, and poultry. Special emphasis will be laid on such important activities of the body as circulation, digestion, excretion, and reproduction, which will be considered from the standpoint of animal breeding. The economic importance of birds, rats and mice, and other animals, especially those which carry or cause human or animal diseases, will be examined and studied in the laboratory. Three credits, both terms, first year. Professor METCALF, Mr. EDDY.

**21. Farm Insects.** This is a short course in which the beneficial and injurious insects are discussed in their relations to the farm. The various insecticides and methods of spraying are also included. Three credits, first term, second year. Professor METCALF, Assistant Professor ECKERT.

#### For Winter Course

**Insects.** The aim of this course will be to teach a farmer to recognize his insect friends and enemies. We pay a much greater tax to insects each year than we do to the State and local governments in taxes for several years, and yet there are many farmers who know practically nothing about insects. The farmer should know something about the lives of these interesting animals and how to control the injurious forms.

The course will be illustrated by specimens, charts, and photographs, in order to familiarize the farmer with the principal insects attacking farm crops and fruit trees.

## **VI. GRADUATE COURSES**

### **RULES FOR ADVANCED DEGREES**

Two degrees are conferred: The Engineering Degree to nonresident graduates of the engineering courses, and Master of Science to resident students pursuing graduate work.

#### **ENGINEERING DEGREES**

1. The degree of Civil Engineer, Mechanical Engineer, or Electrical Engineer may be conferred upon graduates of the several engineering departments of the College not sooner than three years after graduation.

2. Each candidate for an engineering degree must file his application for enrollment not later than October 5.

3. He must file with his application a statement of the work he has done since graduation and the title of the thesis which he will present.

4. The record of the work and the subject of the thesis must be approved by the Faculty's standing committee on graduate studies before the applicant will be enrolled as a candidate for a degree.

5. No work done as a teacher shall be credited toward this degree.

6. The completed thesis must be submitted in approved form not later than May 1. Reports, designs, or drawings made in the regular course of his employment will not be accepted.

7. A candidate must submit with his thesis tangible records of the work he has done and upon which his application for the degree is based, such records to consist of complete drawings, detailed drawings, photographs, records of tests, or other such matter as will show the character of the work done and indicate the degree of responsibility that has been placed upon him.

8. If the record of the work done be approved and the thesis accepted by the Faculty, the candidate, upon notification, must present himself for examination not later than the Saturday preceding the annual commencement. The examination shall consist of oral questions on the subject-matter of the thesis and on the work done by the candidate since graduation.

#### **MASTER OF SCIENCE**

The degree of Master of Science will be conferred on graduate students who fulfill the following requirements:

1. The candidate must have received the Bachelor's degree from this College or another institution having an equivalent course of study.

2. Not less than two years must intervene between the conferring of the Bachelor's degree and the Master's degree, unless the candidate has devoted his time exclusively to graduate study.

3. A course of study consisting of one major and two minors, aggregating sixteen periods, must be pursued during residence at the College, each period representing not less than 90 hours of actual work.

4. The major subject, covering eight periods, shall be strictly graduate work and selected in that department in which the Bachelor's degree was taken.

5. The two minor subjects, covering four periods each, shall be chosen from departments allied to the department in which the major subject is chosen. The work of a minor subject shall be of a grade not lower than that of the Junior year in those departments.

6. Work which has been done previous to receiving the Bachelor's degree or which has been accepted as credit towards any degree received shall not be accepted for credit towards the Master's degree at this College.

7. The major and minor subjects must be completed satisfactorily by May 1st preceding the conferring of the degree, at which time also must be presented in its complete form a satisfactory thesis, the theme of which must have been approved by the 5th day of October previous thereto.

8. The candidate must pass a satisfactory oral examination upon his thesis, major and minor subjects, before an examining committee composed of the professors in charge of the major and minor subjects, one or more members of the Graduate Studies Committee, and one or more other members of the Faculty, said examining committee to be appointed by the Faculty upon the nomination of the Graduate Studies Committee.

9. In case the applicant be employed by the College, Experiment Station, or State Department of Agriculture, he shall not be allowed to receive during any term credit for more than four periods, to be distributed as follows: one minor, or half a major, or half a minor and one-fourth of a major.

10. No work done as a teacher shall be credited as work towards the degree.

11. At least eight periods must be devoted to work in the laboratory, field, greenhouse, dairy, or barn.

12. The thesis must involve some original work. References to literature should as far as possible be to original sources, and all citations should follow the rules prescribed for the *Journal of Agricultural Research*.

13. Candidates for advanced degrees shall comply with the regular registration rules for undergraduates, and must register for each term for which they wish to receive credit.



14. In no case will credit be allowed for the fall term unless the candidate shall have filed with the Registrar an approved course of study by October 5. In no case will credit be allowed for the spring term unless the candidate shall have filed with the Registrar an approved course of study by February 5.

15. Graduate credit will be allowed for work of graduate grade done during the summer session, the amount of such credit not to exceed three units during any one session, the total credit obtained in this way not to exceed six units, provided the candidate register and file an approved course of study not later than the first Monday of the summer session.

### **CORRESPONDENCE COURSE IN VOCATIONAL EDUCATION**

16. Graduate credit will be given for a course of special problems and methods, conducted by correspondence with the Department of Vocational Education, to graduates of this College and colleges of equal standing who are actually engaged in teaching, under the following conditions:

(a) The candidate must comply with the rules governing registration and the filing of an approved course of study.

(b) Periodic reports of the progress of the work must be made to the Department of Vocational Education, either in writing or by visitation.

(c) A written examination must be passed at the end of each term before credit is allowed. A candidate will not be allowed to register for a second term of correspondence work, who has not satisfactorily completed the previous one.

(d) Not more than three credits may be obtained by correspondence during any one college term, and a total of not more than six credits towards the Master's Degree may be obtained in this manner.

### **FORM OF THESIS**

The thesis must be presented on unruled white paper, 8 $\frac{1}{8}$  by 11 inches in size, twenty-pound Persian bond or the equivalent. A suitable title-page, printed or typewritten, must be prepared. The thesis must be neatly typewritten, properly paged, leaving a margin of 1 $\frac{1}{2}$  inches on the left for binding, the writing to be on one side of the page only. All drawings or diagrams must be neatly and carefully prepared, and where the size of paper necessary is larger than that of the page it must be of such size as conveniently to fold in with the thesis.

The thesis shall become the property of the College and will be placed on file.

**PUBLICATION OF THESIS**

Theses for advanced degrees or extracts therefrom may be published only under the supervision of the Graduate Studies Committee, which committee will decide upon the place of publication and matter to be published. In connection with the publication there is to appear the following statement, or words to that effect: "Extracts from a thesis submitted to the Faculty of the North Carolina State College of Agriculture and Engineering in partial fulfillment of the requirements for the degree of .....". Acknowledgment may be made in the body of the thesis for assistance rendered, or the article may appear as a joint publication with some member of the Faculty should facts justify the same.

## VII. SUMMER SESSION

The ninth summer session will begin with registration on June 13 and close with the final examinations on July 26, 1922.

During the summer session courses will be arranged for teachers, for college entrance, and for college credit. These courses will be open alike to women and to men who fulfill the requirements for admission. We shall also have courses in Vocational Agriculture and in Cotton Classing, and a Demonstration School for some of the elementary grades.

The courses for college entrance are open to those who have completed the three years work of a standard high school, and have been enrolled for the fourth year's work. Those who failed to complete one or two subjects required for graduation from a high school may make up these subjects during the summer session and be enabled to enter college in the fall. Not more than one unit of high school credit may be added in this way.

The courses for college credit are open to students who have attended an "A" grade college during one or more previous sessions. These courses will be very helpful to students in removing conditions and thereby enabling them to enter their classes regularly with the opening of the fall session. It is a well recognized fact that students who are not in regular standing in their classes usually have difficulty in arranging schedules, and, on the whole, their work falls short of being satisfactory to themselves and to their teachers.

During the 1921 summer session courses in Cotton Classing were offered. These courses were arranged with the view of helping the producer to judge good staple, and to turn his attention, in consequence, to the growing of a better staple. They are also to give him training which will aid him in selling his product. Incidentally, these courses have proven very helpful to the buyer, also, and producers and buyers are both welcome to these courses. While we have no requirements for admission to the Cotton Classing courses, yet we think that it is proper to say that these courses are arranged for young and middle-aged men, from 23 to 50 years of age, who have a good English education. They are not intended for boys nor for men who lack earnestness of purpose.

The Demonstration School is intended primarily to be of assistance to the members of the Faculty in showing teachers the best methods of presenting a subject, interesting pupils, and inspiring them to greater effort. Incidentally, it enables the children who are members of the school to come into contact with unusually skilled teachers. Instruction is limited to the first, second, fourth, and fifth



grades. There is no charge for tuition for children in the Demonstration School, but the pupils are expected to furnish their own books and other school supplies.

Teachers make up by far the greater number of those attending summer schools, and it is for the benefit of these, to a large extent, that the college has established a summer session. The teachers' courses are open to graduates of standard high schools and to holders of Provisional Elementary, Elementary B, and higher State certificates. Graduates of a standard high school who have not received professional credit may, by attendance and the completion of a satisfactory course in one summer school, receive the professional credit necessary for the Elementary Certificate, Class B. Teachers holding Elementary B and higher State certificates may receive the credits necessary for the renewal of those certificates or for raising them to a higher class. Courses are arranged by which attendance at four summer sessions may be accepted as the equivalent of one year of college work, or 24 semester credits.

There will be special courses for Vocational Agricultural students, following the general plan of those given heretofore. There will be courses in School Administration planned for superintendents, supervisors, and principals. There will be general professional courses relating to high school work, to grammar grade work, and to primary work, and special professional courses relating to secondary and elementary subjects.

A few graduate courses will be offered leading to advanced degrees.

This school is an approved State summer school, and the courses offered have the approval of the State Department of Education.

### CATALOG OF THE SUMMER SESSION

The courses to be given during the coming session will, in the main, be those given during the 1921 session. There will be additional courses, however, in practically every group. These will be shown in detail in the catalogue, a copy of which may be had upon application to the Director.

The Nineteen-Eleven, South, Watauga, Fourth, Fifth, and Sixth dormitories will be reserved for ladies exclusively, and will be in charge of chaperons who will at all times be glad to advise and assist those who are under their care. Watauga Hall will be reserved for men.

The Y. M. C. A. building will be the social and recreational center of the school. This building contains a reading room, an auditorium, several reception rooms, bowling alleys, a gymnasium with modern equipment, and a swimming pool, besides a limited number of sleeping rooms.

Colonel Fred A. Olds will personally conduct excursions each Saturday to the many points of interest in Raleigh and its environs.

The recreational features of the school life will be emphasized. All will have an opportunity to participate in games, community singing, and entertainments, and to take part in story-telling circles which will be held upon the campus in front of Holladay Hall several evenings a week immediately after supper. Motion pictures will be shown at the Y. M. C. A. Entertainments of interesting and instructive nature will be given on July 4 and at the end of the session. Lectures will be given comprising a wide range of educational and cultural subjects.

Members of the Summer Session will have access to the College Library and to the Raney Library and State Library for reference work.

The College infirmary, in charge of the hospital matron, will be conducted for the school. The College physician will make daily visits to those who may be sick in the infirmary.

The Teachers' Bureau will, without charge, assist school officials to secure teachers and members of the school to find positions. In other words, the function of the Teachers' Bureau will be to bring the position and the applicant together.

### ATTENDANCE

During the 1921 session there was an enrollment of 576 in teachers' courses, 19 in college entrance courses, 42 in college credit courses, 47 in the demonstration school, 158 in courses for rehabilitation soldiers, 25 in cotton classing, and 15 others, making a total of 882, a gain of 211 (31 per cent) over the previous session. Of the 576 teachers, 379 were enrolled in the approved State Summer School, 150 in the County Summer School for Wake, Franklin, and Johnston counties, and 47 in the School of Vocational Agriculture. There were 296 men, 539 women, 24 boys, and 23 girls. There were students from 85 North Carolina counties. Seven states and three foreign countries were represented. Attendance during previous sessions was as follows: 1903, 338; 1904, 834; 1906, 753; 1917, 517; 1918, 558; 1919, 474; 1920, 671.

The summer work was organized by President Winston, in 1903, during whose administration the sessions of 1904 and 1906 were held. Dr. J. Y. Joyner was Director for the 1906 session.

In 1917 summer work was resumed under the present administration.

### Fees and Expenses

The expenses of the school will be moderate, and a statement of them will be found below. Every cent paid in by student will go

toward defraying the expenses of the school, and, in addition thereto, the State will contribute an amount equivalent to from two to three dollars for every dollar paid by the student.

The expenses for the entire six weeks session will be as follows:

Tuition .....	\$12.00
Room rent, each (two in a room).....	6.00
Board .....	28.00
	<hr/>
	\$46.00

There will be a key deposit of 25 cents, which amount will be refunded when the key is returned. In some of the classes there will be a small fee to cover the cost of materials, which will be designated in the description of the course.

A fee of \$2 is payable in making a room reservation; the remainder of the fees is payable in advance upon entering. There will be no refund of fees or charges after the first ten days.

In a limited number of cases one may be able to room alone on payment of \$9 room rent.

The Summer School will be able to give dining-room positions to several young women who will be members of the school. About three hours daily will be required of each one selected for this work. The compensation for the six weeks session will be \$28 each. Applications for these positions, accompanied by testimonials, should be filed with the director at once.

Many of the homes in Raleigh will supply board and lodging. A list of these will be furnished upon application.

**APPLY IN TIME**

For lack of space, during the 1921 session we were unable to assign dormitory accommodations to 124 applicants. An additional dormitory, with space for 70, has been completed and is available for the coming session, but even with this addition we do not expect to have dormitory accommodation for all who apply. As we expect to assign rooms in the order of application, we advise those who wish to room on the campus to apply early. We shall endeavor to do our best to accommodate those who apply later.

Address all communications relating to the school to  
W. A. WITHERS, *Director,*  
State College Station, Raleigh, N. C.



# CATALOG OF STUDENTS

1921-1922

## GRADUATE STUDENTS

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
CHARLES SIDNEY ANDREWS, B.E.	M. E.	Raleigh
W. D. BARBEE	Agr.	Seaboard
HARWOOD BEEBE, B.E.	C. E.	Spartanburg, S. C.
CHARLES EDWARD BELL, B.S.	Chem.	Gainesville, Fla.
GEORGE CLEVELAND BUCK, B.S.	Agr.	Castalia
HARLEY WILSON BULLARD, B.S.	Agr.	Chadbourn
GEORGE EDWARD BUSH, B.E.	Tex.	Akron, Ohie
SAMUEL LEE CARPENTER, B.S.	Agr.	China Grovo
TUNG WU CHANG	Agr.	China
HARPER NICHOLSON CHERRY, B.S.	Agr.	Vanceboro
FRANCIS WEST COOKE, A.B.	Phys.	Gloucester, Va.
GEORGE CHANDLER COX, B.E.	E. E. and Phys.	Raleigh
SHERMAN GRADY CRATER, B.S.	Agr.	Raleigh
PAUL DEXTER DAVIS, B.E.	Agr.	Durham
ROY STYRING DEARSTYNE, B.S.	Agr.	Raleigh
F. M. DWIGHT	Agr.	Vass
ALVAH DUNHAM, B.S.	Agr.	Raleigh
CHARLES PATTERSON ELDRIDGE, B.E.	C. E.	Raleigh
RANDAL BENNETT ETHERIDGE, B.S.	Agr.	Raleigh
NORMAN BAIRD FOSTER, A.B.	Phys.	Raleigh
WINSTON PAYNE GWATHMEY, B.E.	C. E.	Richmond, Va.
FREDERICK MORGAN HAIG, B.S.	Agr.	Raleigh
RUSSELL PEYTON HARRIS, B.S.	Agr.	Raleigh
THOMAS DEVIN HARRIS, B.E.	C. E.	Albemarle
FRANK HAWKS, B.E.	M. E.	Newport News, Va.
WILLIAM STEPHEN HAYWOOD, B.E.	M. E.	Newport News, Va.
JESSE MEACHAM HENLEY, B.S.	Agr.	Jamestown
LOWRENS JACOBUS HENNING	Agr.	Sweetwater, S. A.
SOLOMON LINN HOMEWOOD, B.S.	Agr.	Raleigh
SAMUEL BENJAMIN HOWARD, B.E.	C. E.	Morganton
WILLIAM POO HWAN HWANG	Agr.	Canton, China
W. J. ISBELL	Agr.	Newton
JOHN ELI IVEY, B.S.	Poul.	Raleigh
SHANG WU JEN	Tex.	Shanghai, China
EUGENE CARL JERNIGAN, B.S.	Agr.	Benson
EDWARD LEE LANCASTER, B.S.	B. Ad.	Philadelphia, Pa.
ANDREW JOHN LEDDY, B.S.	Tex.	Raleigh
PAUL THOMAS LONG, B.S.	Agr.	Burlington
ALEXANDER CAMPBELL MARTIN, A.B.	Agr.	Raleigh

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
T. B. MITCHELL.....	Agr.....	-----
J. H. MOORE.....	Agr.....	Middleburg
PETRUS JOHANNES NAUDE.....	Agr.....	Bethal, S. Africa
CHARLES WASHINGTON OWENS, B.E.....	C. E.....	Raleigh
THOMAS BRANSON PARKS, A.B.....	Chem.....	Raleigh
AUGUSTUS FLEETWOOD ROLLER, B.A.....	Agr.....	Raleigh
CHARLES ANTHONY SHEFFIELD, B.S.....	Agr.....	Linwood, R. 1
HARRY GILLESPIE SMITH, B.S.....	Chem.....	Raleigh
TALMAGE HOLT STAFFORD, B.S.....	Journ.....	Raleigh
DENNIS HOWARD SUTTON, B.S.....	Agr.....	Bladenboro
JEW IRVIN WAGONER, B.S.....	Agr.....	Durham
PETRUS FERREIRA VAN DER WATT.....	Agr.....	Orange Free State
CHARLES WESTBROOK WARRICK, B.S.....	Agr.....	Woodsdale
NATHANIEL WARREN WELDON, B.S.....	Agr.....	Stovall
CARLOS FROST WILLIAMS.....	Agr.....	Raleigh
DONALD BOWER WILSON, B.S.....	Agr.....	Raleigh
LOUIS ERNEST WOOTEN, B.E.....	C. E.....	Raleigh
DANIEL BARNES WORTH, B.E.....	M. E.....	Raleigh
CARLE CLARK ZIMMERMAN, A.B., M.S. ....	Agr.....	Raleigh

#### SENIOR CLASS

WILTON LEROY ADAMS.....	Agr.....	Raynham, R. 1
JOHN THOMAS ALDERMAN, JR.....	E. E.....	Henderson
THOMAS WATKINS ALEXANDER.....	Tex.....	Derita, R. 14
WILLIAM FRANKLIN ARMSTRONG.....	Agr.....	Columbia
GILBERT SETH ARTHUR.....	Chem.....	Raleigh
VERNON LEITH ASHWORTH.....	Agr.....	Fairview
CLARENCE EDWARD BAILES.....	Tex.....	Charlotte, R. 11
HAROLD HOYT BANGS.....	E. E.....	Hendersonville
CHARLIE RAINE BARBER.....	Tex.....	Greensboro
GERALD THOMAS BARNES.....	C. E.....	Kenly, R. 4
TERRY FULTON BEAMER.....	Agr.....	Mount Airy, R. 3
GUY HIBERT BENNETT.....	E. E.....	Morehead City
EARL RAY BETTS.....	Tex.....	Raleigh
WILLIAM WADE BLAKENEY.....	Tex.....	Monroe, R. 4
JULIAN H. BLUE.....	C. E.....	Raeford
GARNET LEE BOOKER.....	Agr.....	Greensboro, R. 7
BENJAMIN AVERY BRACKETT.....	M. E.....	Landrum, S. C.
ROBERT EDWARD BRACKETT.....	Agr.....	Nealsville
OLIN LINK BRADSHAW.....	E. E.....	Lenoir
CLYDE DAVIS BUCHANAN.....	E. E.....	Dillsboro
CHARLES ORMONDE BUTLER.....	M. E.....	Wilmington
DOYLE LEROY CANNON.....	E. E.....	Rosemary
JULIAN WALKER CANTRELL.....	Tex.....	Winston-Salem

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
ADDIS PITTARD CATES	Agr.	Mebane, R. 3
GEORGE BRYAN CHERRY	C. E.	Windsor
POW KING CHU	Tex.	Shanghai, China
COLIN FRANK CHURCHILL	E. E.	Kinston
CLINTON ALBERT CILLEY	M. E.	Hickory
EDWIN OSBORNE CLARKSON	Tex.	Charlotte
QUINCY ETHAN COLVARD	Agr.	Wilbar
FLAVE HART CORPENING	M. E.	Brevard
WILLIAM OLIVER CRARY	M. E.	Brevard
ROBERT LEWIS DAVIS	Tex.	Henderson, R. 4
HAROLD ALBERT DEAL	Tex.	Randleman
ROBERT ESTON DUNNING	Agr.	Aulander
FRED GRAHAM ELLIOTT	Agr.	West Durham, R. 1
JOHN FRANKLIN ERVIN	E. E.	Catawba
PAUL KOONCE EWELL	M. E.	Elizabethtown
DWIGHT MOODY FARMER	Agr.	Bailey, R. 2
RALPH POWELL FARRELL	Tex.	Leaksville
AVERETTE GASTON FLOYD	Agr.	Fairmont, R. 1
ALVA JUSTIN FLOYD	C. E.	Fair Bluff
GILES PITTMAN FLOYD	M. E.	Fairmont, R. 3
TAO SHEN FOO	Tex.	Shanghai, China
JOHN ELLIOTT FORTESCUE	M. E.	Scranton, R. 1
JOSEPHUS COSTON FOSCUE	Agr.	Maysville
WILLIAM FRANKLIN FREEMAN	C. E.	Norfolk, Va.
JOHN DAVID GILL	C. E.	Henderson, R. 4
JULIAN AUSTIN GLAZENER	Agr.	Raleigh
WILLIAM FRANKLIN GRAHAM	M. E.	Rennert, R. 1
LUTHER WILSON GREENE	Chem.	Norfolk, Va.
JOHN DWIGHT GROOME	Agr.	Greensboro, R. 3
WALTER DURHAM HAMPTON	E. E.	Brevard
ALEXANDER CASWELL HAMRICK	M. E.	Asheville
WILLIAM THOMAS HARDING, JR.	M. E.	Raleigh
LERA RHINEHART HARRILL	Agr.	Lattimore
ERNEST BATON HARRIS	C. E.	Spencer
JAMES CALHOUN HARRIS, JR.	Tex.	Anderson, S. C.
WILLIAM NORWOOD HICKS	M. E.	Durham, R. 4
HENRY SELBY HILL	E. E.	New Bern
JAMES OSCAR HOLT	Tex.	Greensboro, R. 2
EDWARD EVERETT INSCOE	E. E.	Castalia, R. 1
HENRY TAYLOR IVEY	C. E.	Proctorville
CLYDE ALFRED JACKSON	Agr.	High Point, R. 2
DONALD BURTON JENKINS	C. E.	Greenville
JOHN FRANK JOHNSON	Agr.	Mount Airy, R. 3
GEORGE SHUFORD JOHNSTON	Tex.	Hickory
LUTHER JACKSON JORDAN	C. E.	Elm City, R. 1



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
HEATH OWEN KENNETTE.....	Tex.....	Mooreville
ROBERT MORRIS KIMZEY.....	Agr.....	Horse Shoe, R. 4
HENRY JEFFERSON KINARD.....	M. E.....	Epworth, S. C.
PAUL FREDERICK LANCASTER.....	C. E.....	Winston-Salem
LEWIS BURLEYSON LAUGHLIN.....	Tex.....	Concord
LEONIDAS ROSSER LEGWIN.....	C. E.....	Wilmington
HIRAM SAMUEL LEMMOND.....	C. E.....	Indian Trail
WILLIAM BENNETT LILES.....	Agr.....	Lilesville
HARVEY ELLIS McCOMB, JR.....	Agr.....	Hickory
JOHN ALEXANDER McINTYRE.....	Agr.....	Laurinburg, R. 3
OWEN CLINTON McKINNIE, JR.....	M. E.....	Winston-Salem
WILLIAM GORDON McKOY.....	C. E.....	Old Fort
JOHN BROWN McLAUGHLIN, JR.....	Tex.....	Charlotte
JOHN FRANK McLEOD.....	Agr.....	McBee, S. C.
HERBERT RAYMOND MADRY.....	Agr.....	Scotland Neck
RALPH FAISON MATTHEWS.....	E. E.....	Raleigh
SIDNEY FRANKLIN MAUNEY, JR.....	Chem.....	Old Fort
FRANK BARNARD MEACHAM.....	Agr.....	Statesville, R. 6
WILLIAM THOMAS MIDYETTE.....	Agr.....	Lake Landing, R. 1
ROBERT LATHAN MILLS.....	Chem.....	Mooreville
GEORGE WALKER MONG.....	C. E.....	Goldsboro
WILLIAM MARTIN MONROE.....	Agr.....	Laurinburg, R. 2
THOMAS GILBERT MOODY.....	C. E.....	Waynesville, R. 2
JAMES WRIGHT MOORE.....	E. E.....	Trenton, S. C.
ELI JOHN MORGAN.....	Agr.....	Benson
PAUL LYMAN MOSES.....	Agr.....	Higdonville
JAMES LLOYD NICHOLSON.....	C. E.....	Richlands
KOYT SAMUEL NISSEN.....	M. E.....	Winston-Salem
JOHN HUGH NORWOOD, JR.....	C. E.....	Norwood
JAMES GORDON OLIVE.....	Agr.....	Apex, R. 3
RYLAND WRENN OLIVE.....	M. E.....	Greensboro
DOLPHIN DUNNAHA OVERTON, JR.....	M. E.....	Greenville
THOMAS NEEDHAM PARK.....	C. E.....	Raleigh
GEORGE THOMAS PARKER, JR.....	E. E.....	Kelford
EARL DEATON PASOUR.....	Agr.....	Dallas, R. 1
CHARLES FISHER PAXTON, JR.....	Chem.....	Charlotte
CALVIN WINCHESTER PEGRAM.....	Agr.....	Lincolnton
NATHANIEL DUNN PEIRSON.....	C. E.....	Enfield
WESLEY IRWIN PICKENS.....	Tex.....	Charlotte
WATSON ODEAN POWELL.....	E. E.....	Portsmouth, Va.
CHARLES FRANKLIN REISNER, JR.....	Tex.....	Salisbury
THOMAS KESLER ROBERTS.....	C. E.....	Red Springs
HENRY BURTON ROBINSON.....	E. E.....	Columbia, S. C.
EDWARD WOLFE RUGGLES.....	E. E.....	Southern Pines

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
ALFRED LEAVY SEARS.....	Tex.....	Raleigh
HENRY MARCHAND SHAW, JR.....	M. E.....	Oxford
EMORY GORDON SINGLETARY.....	C. E.....	Proctorville
R. D. VAN SISK.....	M. E.....	Franklin
WALTER THOMAS SLEDGE.....	Tex.....	Fairview
WILLIAM WEAVER STARR.....	E. E.....	Wilkesboro
WILLIAM LITTLE STEELE, JR.....	Tex.....	Rockingham
ROBERT MCINTOSH STIKELEATHER.....	M. E.....	Taylorsville
WILLIAM ALEXANDER STILLWELL.....	M. E.....	Webster
THOMAS FRANCIS STRADLEY.....	E. E.....	Asheville
SAMUEL HECTOR STRICKLAND.....	C. E.....	High Point
EZRA CARL TATUM.....	Agr.....	Mocksville, R. 4
CARL TAYLOR.....	C. E.....	Wilson
JAMES WILLIAM TOLAR.....	Tex.....	Cedar Grove, R. 2
FRANCIS ASBURY TOWNSEND.....	Tex.....	Ninety-Six, S. C.
RICHARD DENT TURNER.....	C. E.....	North Wilkesboro
FRIEL TATE VANCE.....	E. E.....	Plumtree
ALEXANDER HOLLOWAY VEAZEY.....	Agr.....	Creedmoor, R. 3
WILLIAM RICHARD WEARN, JR.....	C. E.....	Charlotte
HENRY HARWARD WEAVER.....	C. E.....	Durham
WILLIAM BURGESS WHITE.....	Agr.....	Olin
HERBERT LAFAYETTE WHITESELL.....	Agr.....	Gibsonville
BENTON WRAY WILLIAMS.....	M. E.....	Angier
THOMAS SMITH WILLIAMS.....	C. E.....	Buie
CHARLES REA WILSON.....	C. E.....	Jackson Springs
RALPH HARPER WILSON.....	Tex.....	Wilsons Mills
GEORGE LUTHER WINCHESTER.....	Agr.....	Summerfield, R. 2
ALBERT MACON WORTH.....	C. E.....	Raleigh, R. 2
DAVID RALPH WRIGHT.....	E. E.....	Hunting Creek

**JUNIOR CLASS**

WILLIAM ROY ALEXANDER.....	E. E.....	Montreat
SAMUEL ADOLPH ALLRED.....	Agr.....	Staley
WILLARD ROY ANDERSON.....	Agr.....	Mars Hill
EDWARD MICHAEL ARENDELL.....	E. E.....	Morehead City
FRANK KUGLER BAKER.....	M. E.....	Norfolk, Va.
WILLIAM JACKSON BARBER.....	M. E.....	Reidsville
WILLIAM HORACE BARNHARDT.....	Tex.....	Concord
EDWARD DOYLE BARR.....	E. E.....	Creston
JULIAN FROST BAUM.....	Chem.....	Poplar Branch
ROBAH FETUS BAYNES.....	Tex.....	Hurdles Mill, R. 2
WILLIAM FOY BEAL.....	C. E.....	Rocky Mount, R. 3
GEORGE HARRISON BECTON.....	Agr.....	Goldsboro, R. 1
LAWRENCE DUFFY BELL.....	C. E.....	Pilot Mountain

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
JOSEPH KELLEY BLUM.....	Chem.....	Reidsville, R. 2
THOMAS FRANKLIN BOSTIAN.....	Agr.....	China Grove
GEORGE THORNTON BOSTIC.....	Tex.....	Shelby
EDGAR THOMAS BRAME.....	C. E.....	Kenly, R. 3
MAX HIRAM BRASWELL.....	E. E.....	Enfield
JOHN RHODES BROCK.....	M. E.....	Richlands, R. 2
WILLIAM HAND BROWNE, III.....	E. E.....	Raleigh
DANIEL BUDISAVLJEVITCH.....	Agr.....	Korenica, Serbia
WILLIAM TAYLOR BURGIN.....	Tex.....	Old Fort
ROBERT LEE CARPENTER.....	C. E.....	Charlotte, R. 11
MARVIN DOUGLAS CLARK.....	C. E.....	Charlotte, R. 4
FRANK SILER CLARKE.....	C. E.....	Ansonville, R. 1
IRVING ALLEN CLAY, JR.....	M. E.....	Clinton
ELMER RANDOLPH COMMANDER.....	E. E.....	Elizabeth City
BRUCE HARRISON CONNER.....	C. E.....	Rich Square
WILLIAM MCCOY CORKILL.....	C. E.....	Chester, S. C.
JOHN BENNETT CORNWELL.....	Tex.....	Chester, S. C.
ANDREW JACKSON CORPENING.....	Tex.....	Worry
LOUIS SAMUEL CRISP.....	Tex.....	Falkland
RICHARD HALLAS CROCKFORD.....	M. E.....	Charlotte, R. 5
CHARLES HOWARD CULPEPPER.....	M. E.....	Portsmouth, Va.
WILLIAM MICHAEL CUMMINGS.....	E. E.....	Reidsville, R. 2
HARRY BERNARD CURTIS.....	Tex.....	Greensboro
STANLEY LEON DAUGHTRIDGE.....	Agr.....	Rocky Mount, R. 6
CLARENCE EVANS DEDMON.....	M. E.....	Shelby, R. 6
RICHARD SAMUEL DILL.....	M. E.....	New Bern
HENRY BRYAN DIXON.....	Tex.....	Mebane
SILAS COLIN DOUGHERTY.....	C. E.....	Asheville
DEAN FRANKLIN DUNCAN.....	M. E.....	Edwards Crossroads
MAURICE SHAW EMMART.....	Agr.....	Winston-Salem
GEORGE GROSE FARRINGTON.....	Agr.....	Charlotte
THOMAS CONNOR FELTON.....	M. E.....	Wilson
JOHN FRANKLIN FERGUSON.....	E. E.....	Littleton
JAMES BARR FINK.....	Agr.....	Glass, R. 1
HOY LEE FISHER.....	C. E.....	Rockwell, R. 2
ALVIN MARCUS FOUNTAIN.....	E. E.....	Catharine Lake, R. 1
EDWARD MELTON FURLOUGH.....	S. M.....	Columbia, R. 1
ALBERT SIDNEY GAY.....	C. E.....	Jackson
CLAUDE GETTYS.....	Agr.....	Hollis, R. 1
JOHN HENRY GILL.....	C. E.....	Henderson, R. 4
KARL BROWNING GLENN.....	E. E.....	Hendersonville
EDGAR FORD GRAHAM.....	M. E.....	Rennert, R. 1
HENRY DES'CHAMPS GREEN.....	Agr.....	Hendersonville



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
JOSEPH LOGAN GREENLEE.....	C. E.....	Old Fort, R. 1
CHARLIE WITT GUNTER.....	Tex.....	Apex, R. 5
ELLIOTT WOODARD HARRIS.....	S. M.....	Seaboard
JOSEPH MANN HARRIS.....	Agr.....	Louisburg
ZEB. MARION HARRY.....	E. E.....	Gastonia
JAMES CZAR HARWELL.....	E. E.....	Troutman, R. 1
WILLIAM BOOKER HAYNES.....	C. E.....	Mount Airy
JOHN DAWKINS HENRY.....	E. E.....	North Wilkesboro
JOHN WILLIAM HODGES.....	Agr.....	Jackson, Ga.
JACK MUNDY HOWARD.....	Agr.....	Denver, R. 2
BLAIR JENKINS, JR.....	E. E.....	Lincolnton
WILLIAM HARNEY JENNINGS, JR.....	Chem.....	Elizabeth City
WILBURN CARR JOHN.....	M. E.....	Lumber Bridge
JAMES WASHINGTON JOHNSON.....	Tex.....	Weldon
DAVID LOY JONES.....	Agr.....	Alexis, R. 1
EVETT ASBURY JONES.....	E. E.....	Earl
EVERETT THOMAS KEARNS.....	Agr.....	Thomasville
LEROY MONROE KEEVER.....	E. E.....	Lincolnton
HARVEY NATHAN KELLY.....	Agr.....	Abbottsburg, R. 1
ROBERT BLISS KEYS.....	Agr.....	Damascus, Va.
JAMES RICHARD KING.....	Tex.....	Statesville
MARION ELMER KING.....	E. E.....	Fredericksburg, Va.
MOSES KISER.....	Agr.....	Reepsville
FRANCIS WILSON KITTRELL.....	Chem.....	Flat Rock
RAYMOND WARNER KRAFT.....	E. E.....	Portsmouth, Va.
BRUCE EDWARD LANCASTER.....	C. E.....	Henderson, R. 4
ROY BATTERHAM LEE.....	S. M.....	Asheville
THOMAS ALEXANDER LEEPER.....	C. E.....	Belmont, R. 1
CHARLES SHANDY LEIGH.....	Tex.....	Winston-Salem
GRAYDON HOLMES LINEBERRY.....	E. E.....	North Wilkesboro
FRANK BENNETT LOOPER.....	E. E.....	Granite Falls
THOMAS TAYLOR LUCAS.....	Tex.....	Charlotte
JENNINGS BROOKS MABRY.....	E. E.....	Shankle
WILLIAM JOSEPH MARTIN, JR.....	M. E.....	Davidson
DUNCAN THOMAS MEMORY.....	M. E.....	Whiteville
SAMUEL WILLARD MENDENHALL.....	Agr.....	High Point, R. 2
WILTON CLEMENTS MOCK.....	Agr.....	Damascus, Va.
ANDREW LEE MONROE.....	E. E.....	Monroe
FRED BETHUNE MONROE.....	Agr.....	Biscoe
ERNEST WALDO MOORE.....	E. E.....	Rural Hall, R. 2
MIODRAG MRSHEVITCH.....	Agr.....	Usitze, Serbia
ROBERT ALEXANDER MUSGROVE.....	Tex.....	Weldon
SAMUEL GRAY NEWLIN, JR.....	Tex.....	Randleman

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
CYRIL WARREN NORMAN.....	E. E.....	Plymouth
BONNIE FRANK NORRIS, JR.....	M. E.....	Gastonia
HAROLD ERNEST NORWOOD.....	E. E.....	Brevard
LEWIS BEAR PAKULA.....	E. E.....	Raleigh
CYRUS COLON PARKER.....	E. E.....	Aulander
SHELTON REED POOLE.....	Agr.....	Jackson Springs, R. 1
RAY MAXWELL PROFFITT.....	Agr.....	Bald Creek
ERNEST ANDREW RANDOLPH.....	B. Ad.....	Woodstock, Va.
LUTHER EUGENE RAPER.....	Agr.....	Welcome, R. 1
HAZEL EMMET REA.....	Tex.....	Matthews, R. 27
GEORGE HOWARD REDFEARN.....	S. M.....	Biltmore, R. 1
MARCUS LAFAYETTE REED, JR.....	S. M.....	Asheville, R. 2
CONLEY JEREMIAH RICH.....	Agr.....	Asheville, R. 4
THOMAS PURDIE RICHARDSON, JR.....	E. E.....	Lilesville
JOSEPH ASHER RICKARDS.....	M. E.....	Fayetteville
WADE HAMPTON RITCHIE.....	Agr.....	Concord, R. 4
RUFUS FREDERICK ROUTH.....	Agr.....	Randleman, R. 2
HERBERT LONDON SEAGROVE.....	Agr.....	Sanford, R. 4
WILLIAM FRANKLIN SHIPMAN.....	Tex.....	Raleigh
JOE LUTHER SHUPING.....	E. E.....	Morganton, R. 4
JOSEPH STANTON SKEEN.....	Tex.....	Asheboro
ROY EDWIN SMITH.....	M. E.....	Benson
TOLBERT LACY STALLINGS.....	C. E.....	Louisburg, R. 4
JULIAN BYRD STEPP.....	E. E.....	Black Mountain
DANIEL AUGUSTUS STEVENS.....	M. E.....	Martins Point, S. C.
DANIEL ELMOND STEWART.....	E. E.....	Coats
WILLIAM DENNY STOCKTON.....	Tex.....	Mocksville, R. 2
HERNAY ELTON STOUT.....	S. M.....	Siler City
JOSEPH ARNOLD STRADLEY.....	E. E.....	Asheville
WILLIAM HUNTER STRONG.....	Agr.....	Raleigh
EUGENE FRANK STRUPE.....	Agr.....	Tobaccoville, R. 1
LEOLEON DOUGLASS STYRON.....	E. E.....	Morehead City
PATRICK MCCLELLAN SULLIVAN.....	E. E.....	Savannah, Ga.
TIMOTHY WYATT SUTTENFIELD.....	Tex.....	Leaksville, R. 1
MATTHEW LEE TATUM.....	Agr.....	Fayetteville
JESSE POWELL TAYLOE.....	Agr.....	Aulander
VESTAL COLUMBUS TAYLOR.....	Agr.....	Ararat, R. 1
MASON PAGE THOMAS.....	Tex.....	Charlottesville, Va.
RICHARD LEE TOWNSEND.....	E. E.....	Manquin, Va.
WILEY LUDWIG UMBERGER.....	Agr.....	Concord, R. 3
DAVID BRAINERD VANSANT.....	M. E.....	Chestertown, Md., R. 3
ROBERT EDWARD VICK.....	Agr.....	Seaboard
JAMES LESTER WALL.....	Agr.....	Edgar

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
ROBERT WALTER WALLACE, JR.	E. E.	Morehead City
JAMES SLOAN WARE	Agr.	Kings Mountain, R. 4
WILLIAM GRAHAM WARE	Tex.	Kings Mountain, R. 4
CHARLES HENRY WARREN	Agr.	Lenoir
HARRY SWAIN WEBSTER	S. M.	Weaverville
JOHN KENDLE WELLS, JR.	M. E.	Middleburg
CHARLES MAYFIELD WHITE, JR.	C. E.	Manson, R. 1
THOMAS ARLINGTON WHITE	Agr.	Aulander, R. 1
JOHN SUMMIE WHITENER	C. E.	Hickory
CLAUDE BAXTER WILLIAMS	Tex.	Lincolnton
PHILIP AUGUSTUS WILLIS	M. E.	New Bern
SAMUEL EUGENE WILSON	Agr.	Louisburg, R. 5
THOMAS ELMORE WRAY	Tex.	Reidsville
WINFRED DENNING YARBORO	Agr.	Hope Mills, R. 2

**SOPHOMORE CLASS**

HENRY STEVENS ADAMS	M. E.	Monroe
ROBEY WASHINGTON ADAMS	C. E.	Four Oaks
DURHAM EDWARD ALLEN	E. E.	Clarkton, R. 1
JAMES ROBERT ALLEN	Tex.	Louisburg
DONALD GLEN ALLISON	Agr.	Hayesville
JOHN LESLIE ANDREWS	E. E.	High Point
JESSE OSCAR ANTHONY	Agr.	Belew Creek, R. 1
WM. HENRY HAWES BAGWELL, JR.	E. E.	Hamlet
LLOYD UNDERWOOD BAILEY	E. E.	Manteo
ALBERT CLARENDON BANGS	E. E.	Hendersonville
CAREY HUNTER BANKS	Agr.	Wilson
BRUCE PALMER BARBER	C. E.	Reidsville
KENNETH LESTER BARKLEY	M. E.	Charlotte, R. 7
MILTON HERMAN BARMETTLER	M. E.	Raleigh, R. 4
CRAIGHEAD LENTZ BARNHARDT	C. E.	Salisbury
PERCY CLEVELAND BEATTY	Tex.	Mount Holly, R. 1
WILLIAM MURPHY BETHUNE	Tex.	Clinton
GERALD RAEDEN BLOUNT	Agr.	Mackeys
EMMANUEL OSCAR BREEN	Agr.	Rocky Mount
CARL BRIDGES	Agr.	Shelby
THOMAS WAYNE BRIDGES	Agr.	Mooreboro
DAVID JULIAN BRINKLEY	M. E.	Plymouth
JAMES EDWARD BRITT	M. E.	Clinton, R. 3
JAMES MILTON BROWN, JR.	E. E.	Albemarle
MCGREIGOR ERNUL BROWN	E. E.	Greenville
ROBERT PERRY BROWN	E. E.	Lewiston
GODFREY HAND BROWNE	Chem.	Raleigh
LORENZO NEWMAN BROWNE	E. E.	Ramseur, R. 1



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
WILBERT JAMES CARTER.....	Tex.....	Wallace
THEODORE ROOSEVELT CAUSEY.....	E. E.....	Greensboro
JULIUS JOSLIN CHAMBERLAIN.....	Tex.....	Raleigh
WALTER RUSSELL CLINE.....	Agr.....	Newton, R. 5
JOHN EDWARD CLOSE.....	M. E.....	Dunmore, Pa.
WILLIAM STURGES COLLINS.....	E. E.....	Middleburg
JAMES BRUCE CRATER.....	Agr.....	Cycle
HERMAN FREDERICK CURTIS.....	C. E.....	Greensboro
LUCIEN JACKSON DALE.....	C. E.....	Kinston
JOSEPH JONATHAN DAVIS.....	C. E.....	Stovall
JOHN SAMUEL DAVIS.....	Agr.....	Seven Springs, R. 1
DUNCAN JENNINGS DEVANE.....	Agr.....	Wilmington
PAXTON THEODORE DIXON.....	Agr.....	New Bern, R. 2
SAMUEL DAVIS DYSART.....	Tex.....	Lenoir
THOMAS OWEN EVANS, JR.....	Agr.....	Maxton
CHARLES DOUGLAS FAUCETTE.....	M. E.....	Durham
WILLIAM CLAUDE FERGUSON.....	C. E.....	Vass, R. 1
WILLIAM ARTHUR FRANKLIN.....	Agr.....	Linville Falls
CECIL McCALLY FRY.....	Agr.....	Sunburst
ARCHIE WILSON GREEN, JR.....	C. E.....	Linwood, R. 1
LUKE POLYCARP HAHN.....	Agr.....	Hickory
CHARLIE LOWELL HALL.....	Agr.....	Round Peak, R. 1
DONALD WALTON HAMILTON.....	M. E.....	Raleigh
HOWARD DERWARD HAMRICK.....	E. E.....	Ruth
CLAUDE EDWARD HARRIS.....	E. E.....	Macon, R. 2
JOHN LELAND HIGGINS.....	C. E.....	Jacksonville
JOHN ROBERT HINES.....	Tex.....	Black Mountain
WALTER NICHOLSON HIPPIE.....	E. E.....	Charlotte, R. 6
GEORGE STERLING HOBSON.....	E. E.....	Greensboro
ROBERT THOMAS HODGES.....	Tex.....	Washington
ROBERT CLYDE HOLLAND.....	E. E.....	Middlesex
IVAN LACY HOLLOMAN.....	E. E.....	New Hill, R. 1
ADOLPH JENKINS HONEYCUTT.....	Agr.....	Durham
WALTER HARMON JENKINS.....	E. E.....	Goldsboro
THOMAS RUFFIN JOHNSON.....	Tex.....	Goldsboro
BENJAMIN MOSELEY JONES, JR.....	E. E.....	Asheville
DANIEL SILAS JONES.....	M. E.....	Raeford
JAMES CARL JONES.....	M. E.....	Raleigh, R. 1
PETER HINES JONES.....	M. E.....	Raleigh, R. 1
ANDREW MAITLAND JOYNER.....	Tex.....	Woodville
EDWARD DICKSON KENDRICK.....	Agr.....	Fallston
HERMAN CONNOR KENNETT.....	Agr.....	Pleasant Garden, R. 1
CARL DAN KILLIAN.....	Agr.....	Hayesville
CHARLES ALDEN KNIGHT.....	E. E.....	Williamston

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
THOMAS ELLIOTT LATTIMORE	Tex.	Shelby, R. 5
WILLIAM MONTGOMERY LENTZ	E. E.	Concord
CLARENCE WINDFIELD LEWIS	Agr.	Greensboro, R. 6
PAUL BENNETT LITTLE	M. E.	Wadesboro
WILLIAM RECTOR LOFTIN	M. E.	Mount Olive
HARRY ARTHUR LYTLE	Tex.	Asheville
JAMES MANLEY MCGOUGAN	Agr.	Lumber Bridge, R. 3
JAMES LAWRENCE MCNAMARA	E. E.	Dunmore, Pa.
HUGH L. MEDFORD	C. E.	Waynesville, R. 2
FRANCIS BRUCE MEWBORN	Tex.	Grifton
THOMAS FRANKLIN MOORE	Agr.	Matthews, R. 26
WILLIAM LEE MEEK MORRIS, JR.	Agr.	Concord
WINFIELD SCOTT MORRIS	E. E.	Wilmington
JOHN REA MORRISON	Tex.	Charlotte
EUGENE HAROLD MOSS	E. E.	Lillington, R. 3
CHARLES HERBERT NEAL	Tex.	Reidsville
ROBERT SHELLEY ORMAND	M. E.	Bessemer City
WILLIAM HORACE OVERALL	E. E.	Asheville
LENNIE LESTER PARKER	M. E.	Maysville, R. 1
JAMES MARION PICKELL	Tex.	Raleigh
WILLIAM TALLIE PRICE	E. E.	Holly Springs
HUBERT CHERRY PRITCHARD	E. E.	Windsor
WILLIAM HOUSTON RANKIN	Agr.	Greensboro
WATSON WHARTON RANKIN	Tex.	Moorestville
SAMUEL ALEXANDER REDFEARN	Agr.	Biltmore, R. 1
HENRY WILBAR RHODES	M. E.	Comfort
JOSEPH CHARLES RICHERT, JR.	E. E.	Highlands
CORTELYOU JOHN ROBERTS	E. E.	West Asheville
WILLIAM JENNINGS RUSSELL	E. E.	Albemarle
JOHN PERRY RYALS	Agr.	Benson, R. 2
JOSEPH JUDSON SANDERS	Agr.	Smithfield, R. 1
PITTS HILLIARD SATTERWHITE	Agr.	Bridgewater
RALPH HENDERSON SCOTT	Agr.	Haw River, R. 1
WILLIAM EDWARD SHINN	Tex.	Georgeville
ROBERT DICKSON SLOAN	Tex.	Wilmington
JOSEPH ERLE SMITH	Chem.	Portsmouth, Va.
WALTER RAY SMITH	C. E.	Farmville
JOEL ALEXANDRIA SMITHWICK	Agr.	Manson
WALTER ARMSTEAD SPICER	M. E.	Stovall
ROYAL CLEMENTINE STEPHENSON	C. E.	Raleigh
HOWARD BARBER SUMMERELL	Tex.	China Grove, R. 2
JOHN DOUGLAS SYKES	Agr.	Harrellsville, R. 1
HUGH HAYNES TATE	Tex.	Old Fort
HENRY FRANCIS TAYLOR	Tex.	Monroe

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
JOSEPH EARL TEAGUE.....	Chem.....	High Point
DEWEY WATTERS THOMPSON.....	Agr.....	Richlands, R. 1
LOY FRANK THOMPSON.....	C. E.....	Shelby
CLIFFORD WILLARD TILSON.....	Agr.....	Mars Hill
SAMUEL STEVENS TOLER.....	C. E.....	Rocky Mount
LOUIS BAYNES TOMLINSON.....	Agr.....	Wilson
FRANKLIN SIMMONS TRANTHAM.....	M. E.....	Durham
ROBERT WARD UNDERWOOD.....	C. E.....	Durham
EUGENE LITTLE WALL.....	Agr.....	Pee Dee, S. C., R. 1
JUNIUS NOBLE WALL.....	C. E.....	Wendell
CYRUS LESLIE WALTON.....	Agr.....	Jacksonville, R. 3
WILLIAM GUY WEAVER.....	Tex.....	Rocky Mount, R. 1
WILLIAM STARLING WELLS.....	E. E.....	Morehead City
WILLIAM LOVE WEST, JR.....	C. E.....	Whiteville
RAYMOND SPENCER WICKER.....	C. E.....	Raleigh
FRANCIS MARION WILLIAMS.....	Tex.....	Wilson
CLYDE GORDON WILLIS.....	E. E.....	Morehead City
MILLARD THOMAS WILSON.....	Tex.....	Marion
JAMES FREDERICK WOOTEN.....	E. E.....	Chadbourn
SIDNEY RUSSELL WORKMAN.....	Tex.....	Burlington

#### FRESHMAN CLASS

TED CLINE ALBRIGHT.....	Tex.....	Charlotte
THOMAS FRANCIS ALCORN.....	C. E.....	Ruffin, R. 3
CLARENCE BAILEY ALLEN.....	Agr.....	Wake Forest, R. 4
ETHAN ALLEN.....	E. E.....	Biltmore
EDGAR WILLIAM ARMSTRONG.....	C. E.....	Raleigh
ROY COLMAN BADGETT.....	M. E.....	Pilot Mountain, R. 3
RUSSELL CONWELL BAGGETT.....	E. E.....	Lewiston
CARLYLE COLUMBUS BAILEY.....	C. E.....	Stantonsburg
DONALD MILTON BAILEY.....	E. E.....	Neuse, R. 3
RICHARD WAINWRIGHT BARBER.....	Agr.....	Mount Ulla
PATRICK HERNDON BARNES, JR.....	E. E.....	Kenly, R. 3
LAURENCE WILLIAM BARRETTE.....	Tex.....	Fayetteville
CRANFORD MIMS BEASLEY.....	E. E.....	Louisburg
BELTON JOHN BEASON.....	Agr.....	Climax
CALVIN BROOKS BENNETT.....	Tex.....	Albemarle
ROBERT FRANKLIN BERRY, JR.....	M. E.....	Newport News, Va.
GOLDEN LEE BEST.....	E. E.....	Stantonsburg
LUCIUS EUGENE BIDDIX.....	E. E.....	Marion
PETER WILSON BLUM, JR.....	E. E.....	Winston-Salem
ERNEST NEVILLE BRACKETT.....	E. E.....	Landrum, S. C.
HENRY MATTHIAS BREMER, JR.....	C. E.....	Wilmington
CHARLES HART BREWER.....	C. E.....	Henderson



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
EARLEY WINFRED BRIDGES.....	B. Ad.....	Raleigh
JAMES ETHELBERT BRIGGS.....	B. Ad.....	Raleigh
FURNEY IGNACIOUS BROCK.....	B. Ad.....	Trenton
ROBERT HOUSTON BROOM, JR.....	Tex.....	Hookerton
LEROY ARGUS BROTHERS.....	C. E.....	Wilmington
DODD ALLISON BROWN.....	M. E.....	Salisbury
JAMES ROBERT BROWN.....	Agr.....	Democrat
TALMAGE THURMAN BROWN.....	Agr.....	Rich Square
JAMES ARCHIE BROWNE.....	B. Ad.....	Kelford
JOSEPH BRYAN BURDEN.....	C. E.....	Aulander
HARRY MITCHELL BURGIN.....	M. E.....	Old Fort
ROBERT ELI BURROUGHS.....	E. E.....	Bethel
MILTON STANLEY BURT.....	Tex.....	Holly Springs
JULIAN BUTLER.....	Tex.....	St. Pauls
ALBERT GASKINS BYRUM.....	Agr.....	Edenton
JULIAN WALKER CARPENTER.....	Tex.....	Monroe
FRANCIS JOHN CARR.....	E. E.....	Asheville
GEORGE EDWIN CARSON.....	C. E.....	Sparta
WILLARD BURDEN CHEEK.....	M. E.....	Durham
FRANK FERGUSON CLARKE.....	C. E.....	Greensboro
JOHN CHARLES CLIFFORD, JR.....	E. E.....	Dunn
CHARLIE GILBERT COBLE.....	Tex.....	Mount Ulla, R. 1
ROY OLINDER COBLE.....	E. E.....	Rockingham, R. 1
ELBERT DANIEL CODY.....	Agr.....	Misenheimer
EVAN LOUIS COLVARD.....	C. E.....	Wilbar
LLOYD HENDERSON COOK.....	C. E.....	Red Springs
FRANK GARRETT COPELAND.....	E. E.....	Rockingham
LOUIS AVERY CORNING, JR.....	Chem.....	Hamlet
CHARLES CARSON CORRELL.....	E. E.....	Mebane
ROBERT EDWARD LEE CORRELL, JR.....	B. Ad.....	Laurinburg
BRUCE LLEWELLYN COTTEN.....	Tex.....	Washington
ALBERT BARBIE COUNCIL.....	E. E.....	Mount Airy
CLYDE GIBSON COUNCIL.....	E. E.....	Parkton
ALAN BALLARD COUNCILL.....	Tex.....	Hickory
WILLIAM THOMAS COX.....	C. E.....	Goldsboro, R. 4
ANDREW GARRALD CRAWLEY.....	TEX.....	Raeford
ERNEST FRANK CULBREATH.....	Tex.....	Ninety-Six, S. C.
EDGAR HAROLD CURLEE.....	Tex.....	Charlotte
WILLIAM COOKE CURTIS.....	Tex.....	Toledo, Ohio
WILLIAM RAYMOND DEAL.....	M. E.....	Lenoir
OSCAR ELMORE FRANKLIN DELLINGER.....	E. E.....	Conover
DEAN STEARNS DERBY.....	Agr.....	Norfolk, Va.
CLIFTON RANDOLPH DILLARD.....	Agr.....	Otto
LUTHER CRENSHAW DILLARD.....	Agr.....	Spring Hope

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
WILLIAM RICHARDSON DOAR.....	E. E. ....	Summerville, S. C.
ELISON HAYWARD DOBBINS.....	Tex. ....	Rutherford
HENRY THEODORE DULS, JR.....	C. E. ....	Wilmington
WILLIAM LEGETTE DUNLAP.....	M. E. ....	Rock Hill, S. C.
RUFUS EUGENE DUNN.....	C. E. ....	Vineland
ALBERT LANG EAGLES.....	Agr. ....	Macclesfield, R. 1
CHELCEIE BAIRD ELLER.....	M. E. ....	Reedy Branch
WILLIAM WALL ELLERBE.....	B. Ad. ....	Rockingham, R. 4
BASIL RIGGAN ELLIS.....	Agr. ....	Raleigh, R. 2
LAURIE H. ELLIS.....	E. E. ....	Winterville
WOODIE EUBANKS.....	Agr. ....	Lumberton, R. 1
JOHN SIDNEY EVANS.....	C. E. ....	Elizabeth City
JOSEPH PEARCE EVES, JR.....	C. E. ....	Weeksville, R. 1
JOSEPH CLARENCE FARMER.....	Tex. ....	Bailey
JOHN THOMAS FAUCETT.....	Tex. ....	Raleigh
FRED AUGUSTUS FETTER, JR.....	Chem. ....	Raleigh
WALTER CURTIS FITZGERALD.....	C. E. ....	Thomasville, R. 2
JOHN WOODS FLINTON.....	Chem. ....	Cullowhee
ROBERT GREER FORTUNE, JR.....	E. E. ....	Asheville
FRANK EMMETT FRY.....	M. E. ....	Bryson City
ROBERT EUGENE GAMBILL.....	Agr. ....	Independence, Va.
JACOB SHUFORD GEITNER.....	C. E. ....	Hickory, R. 4
PRENTISS LEGARRE GEORGE.....	Tex. ....	Cherryville
WILLIAM EWART GLADSTONE.....	Agr. ....	Greensboro, R. 6
CHARLES ERVIN GLENN.....	Agr. ....	Black Mountain
LEXMAN VINAYAK GOGATE.....	Tex. ....	Berkeley
THOMAS MARTIN GOODWIN.....	Chem. ....	Raleigh
CHARLES BRIGHTWELL GOODYEAR.....	Tex. ....	Greenville, S. C.
JOHN BENNETT GORDON.....	C. E. ....	Raleigh
MARION SHELOR GRAVELY.....	Agr. ....	Monroe
RALPH THOMPSON GREEN.....	C. E. ....	Oswego
DEWEY PEARSON GREER.....	C. E. ....	Hendersonville, R. 6
CLYDE STIMPSON GRIMES.....	M. E. ....	Thomasville
STACEY HOWARD HACKETT.....	Agr. ....	Pleasant Garden, R. 1
CALVERT ROYAL HALL.....	Tex. ....	Wilmington
ROYAL ALBERT HAND.....	B. Ad. ....	Belmont
MILTON RAY HARDEN.....	Tex. ....	Burlington, R. 9
FRANK LESLIE HARGROVE.....	E. E. ....	Enfield
LUCIAN HAYWOOD HARRIS, JR.....	Tex. ....	Salisbury
THOMAS MORTIMER HARRIS.....	Tex. ....	Mapleville, R. 1
W. FLETCHER HARRIS.....	E. E. ....	Elkin
HENRY GRADY HAWFIELD.....	Agr. ....	Matthews
FRANK CHEATHAM HAYES.....	E. E. ....	Norlina
WILLIAM CAMPBELL HAYES, JR.....	Agr. ....	Kinston

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
ALFRED MILTON HAYNES.....	B. Ad.....	Raleigh
LEVI LARMON HEDGEPEETH.....	E. E.....	Richmond, Va.
FRANK FALLS HICKS.....	Tex.....	Lawndale
JOHN JARREL HILL.....	M. E.....	Norwood
ISAAC MIDDLETON HOBBS.....	Tex.....	Clinton
SAMUEL CARTER HODGES.....	E. E.....	Sutherlin, Va., R. 2
CLYDE ROARK HOEY, JR.....	M. E.....	Shelby
ROBERT CLYDE HOLLAND.....	E. E.....	Middlesex
GEORGE VERNON HOLLOMAN.....	E. E.....	Rich Square
ROBERT CARL HORD.....	Tex.....	Shelby
HERBERT OSGOOD HOUK, JR.....	Chem.....	Morganton
OSWALD McCAMIE HOUSE.....	Tex.....	Charlotte
WILLIAM ORR HUNEYCUTT.....	Tex.....	Charlotte
ROBERT AYDEN HUNNICUTT.....	Tex.....	Raleigh, R. 2
ALTON BLAINE HUNTER.....	Agr.....	Tobaccoville, R. 1
ARNOLD SPENCER HUNTER.....	Agr.....	Tobaccoville, R. 1
GEORGE BURNAP HURST.....	E. E.....	Jacksonville
JOHN MANNING HUTCHINS.....	Tex.....	Winston-Salem
JOHN BENJAMIN JENNETTE, JR.....	C. E.....	New Bern
JOHN RAY JIMESON.....	Agr.....	Garden City
GEORGE WAVERLY JOHNSON.....	E. E.....	South Mills
JOHN HICKS JOHNSON.....	C. E.....	Raleigh
LOIS LINDWOOD JOHNSON.....	Tex.....	Hookerton
LACY THOMAS JOHNSON.....	M. E.....	Thomasville
ROCHELLE JOHNSON.....	Tex.....	Chalybeate Springs
DONALD BAKER JOHNSTON.....	B. Ad.....	Hickory
THOMAS CURRIE JOHNSTON.....	C. E.....	Burlington
CARL RAYMOND JONES.....	E. E.....	New Bern
GEORGE EDWARD JONES.....	Agr.....	Castle Hayne
RICHARD SLOAN JONES.....	M. E.....	Franklin
HENRY BRASTON KEEN.....	E. E.....	Goldsboro
LEROY KENNETTE.....	Tex. and Dye.....	Moorestville
EDWIN LOWDER KEY.....	C. E.....	Ellerbe
LEROY MONROE KEEVER.....	Agr.....	Lincolnton
JAMES PAUL KISER.....	Agr.....	Bessemer City
JAMES HEATH KLUTTZ.....	Agr.....	Albemarle
GEORGE WILLIAM KNOX, JR.....	Agr.....	Clover, S. C.
DAVID THOMAS LAMBETH, JR.....	C. E.....	Thomasville
GUY FOUST LANE.....	Agr.....	Ramseur
BEN LEWIS LANG.....	Agr.....	Farmville, R. 1
ISAAC LEWIS LANGLEY.....	Tex.....	Barnwell, S. C.
GEORGE MILLER LASATER, JR.....	Tex.....	Richmond, Va.
GAITHER CALVIN LASSITER.....	B. Ad.....	Hillsboro
LARRY CARLTON LAWRENCE, JR.....	E. E.....	New Bern



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
JAMES WESLEY LEWIS.....	E. E.....	Morehead City
WILLIAM ANDREW LITTLE.....	B. Ad.....	Charlotte, R. 1
ROBERT POLK LONG.....	Tex.....	Charlotte
WILLIAM MARVIN LONG.....	Tex.....	Concord
THADDEUS DELARO LOVE.....	M. E.....	Wilmington
JAMES ROBERT LUTHER.....	Agr.....	Raleigh
FLOYD EUGENE LUTZ.....	Agr.....	Newton, R. 4
JULIUS PAUL McADAMS, JR.....	Tex.....	Salisbury
EUGENE PATTERSON McASKILL.....	Agr.....	Jackson Springs
DAVID HAULCOMB McCALL.....	E. E.....	Swannanoa, R. 1
MALCOM DAVID McCALLUM.....	E. E.....	Carthage, R. 3
DEWEY LEE McCULLOCH.....	Agr.....	Pleasant Garden
WILLIAM WATSON McCULLOCH.....	Agr.....	Pleasant Garden
JOEL CLYDE McCURRY.....	C. E.....	Shelby
CHARLES RUFUS McDADE.....	M. E.....	Lenoir
WILLIAM DEWEY McGEE.....	M. E.....	Leicester
ROBERT BRUCE McGOOGAN.....	C. E.....	Rennert, R. 1
JOHN EARLE McGOWAN.....	C. E.....	New Bern
CHARLES NIXON McILWEAN.....	Agr.....	New Bern, R. 2
JOHN FRANKLIN McNAIR, JR.....	Tex.....	Laurinburg
GERALD HOOVER MAHAFFEE.....	TEX.....	Henrietta
CHARLES EDWARD MANN.....	E. E.....	Washington
SHANKAR KRISHNA MARATHE.....	Tex.....	India
OSCAR FERDINAND MASON, JR.....	Tex.....	Gastonia
LEONIDAS METTELLUS MATTHEWS.....	E. E.....	Black Mountain
ALLEN JAY MAXWELL, JR.....	C. E.....	Raleigh
ROMIE LEE MELTON.....	E. E.....	Cherryville
JAROLD BAPTISTE MELVIN.....	Chem.....	Rocky Mount
ALLEN MAYNE MILLER.....	Tex.....	Raleigh
JOSEPH ROGER MILLER.....	Agr.....	Rocky Point, R. 1
VINAYAK NARAYAN MOGHE.....	Tex.....	India
ELMER ODELL MOODY.....	E. E.....	Biltmore
ERNEST GEORGE MOORE.....	Agr.....	New Bern, R. 5
HALYS GUY MOORE.....	Agr.....	Shelby, R. 3
JOHN ELLISON MOORE, JR.....	Agr.....	Morven
NEEDHAM BRANCH MOORE, JR.....	E. E.....	Kinston
BENJAMIN GARLAND MORGAN.....	C. E.....	Spring Hope
LOURY McKEE MORGAN.....	Agr.....	Candler, R. 1
WILLIAM RAY MOSS.....	M. E.....	Henderson
HOWARD DEWITT MOYE.....	E. E.....	Farmville, R. 1
WILLIAM CARLETON MULL.....	E. E.....	Morganton
JOHN STARR NEELY.....	Tex.....	Pinesville, R. 15
ROBERT LANDRUM NICHOLS.....	E. E.....	Earl
RICHARD CORBETT NOBLE.....	Agr.....	Deep Run, R. 1

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
WILLIAM LEE O'BRIEN, JR.	Tex.	Winston-Salem
WILFRED THOMAS OUTLAND	Agr.	Woodland
DAVID RUSSELL PALMER	Agr.	Waynesville, R. 3
CLIFTON FLOYD PARRISH	Agr.	Climax
PRESLEY GUY PARRISH	C. E.	Castalia, R. 1
HENRY BLAINE PARSONS	Agr.	Demopolis, Ala.
ARTEMUS BLUE PATE	Agr.	Raynham
WILLIAM HAYNE PATTERSON	Tex.	Patterson Springs
SAMUEL CORUM PHARR	Tex.	Harrisburg, R. 2
JULIUS W. PHOENIX	E. E.	Greensboro
RUPERT TARPLAY PICKENS, JR.	C. E.	High Point
HOWARD LAFAYETTE PIERCE	C. E.	Raleigh
AUBREY EUGENE POSTON	C. E.	High Point
DEWEY POTTS	Chem.	Warsaw, R. 1
JACK POTTS	C. E.	Davidson
HORATIO HUGH POWELL	Tex.	Martinsville, Va.
JOE JOHN POWELL	C. E.	Vanceboro
THOMAS COX POWELL	M. E.	Raleigh
WILLIAM CALVIN POWELL	Tex.	Whiteville
WILLIAM HOOD PUCKETT	Agr.	Smithfield
AARON BORDERS QUINN	Tex.	Shelby
CLAIBORNE QUINN	B. Ad.	Elizabeth City
RALPH HARRISON RAPER	M. E.	Welcome, R. 1
KEMP WILSON REECE	C. E.	Mount Airy, R. 3
CHARLES HOWARD REVELLE	C. E.	Conway, R. 1
GEORGE NICHOLSON RHODES	Tex.	Charlotte
ROBERT BURWELL RIDDICK	C. E.	Belhaven
JOE MARVIN RIPPLE	Tex.	Lexington
DANIEL FELIX RITCHIE	M. E.	China Grove
LAWRENCE HUNTER ROANE	Tex.	Greensboro
EDWIN EARLY ROBBINS	Tex.	Raleigh
FORREST CLYDE ROBERTS	Tex.	Kings Mountain
MARVIN YATES ROBERTS	Tex.	Cherryville, R. 1
JUDSON LYNNE ROBERTSON, JR.	Chem.	Portsmouth, Va.
HENRY GRADY ROLLINS	Tex.	Lawndale
HENRY EDWARD RUFTY	Tex.	Salisbury
LUTHER CARLTON SALTER	Agr.	Morehead City
JESSE DETLAW SANDERSON	Tex.	Whiteville
BOYDSTON SATTERFIELD	M. E.	Raleigh
WALTER LAWRENCE SCOTT	C. E.	Raleigh
HENRY SEAMAN	E. E.	Ridgeway, R. 1
EVERETT MILTON SENTER	Tex.	Kipling
JAMES CLARENCE SENTER	Tex.	Kipling
GUSTAVIUS FRANK SEYMOUR	Agr.	Apex, R. 4

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
WILLIAM HENRY SHEARIN.....	Agr.....	Castle Hayne
HENRY HARBY SHELOR.....	E. E.....	Sumter, S. C.
CHARLES FLOYD SIDES.....	M. E.....	Salisbury, R. 8
ARTHUR ALLEN SILER.....	Agr.....	Franklin
AUSTIN TAYLOR SLATE.....	E. E.....	Mizpah
EARLY CARAWAY SMITH.....	C. E.....	Farmington
GARRETT AMOS SMITH.....	B. Ad.....	Morganton, R. 4
JOHN BARRY SMITH.....	Tex.....	Charlotte
JETER LEE SMITH.....	M. E.....	Morganton, R. 4
NEILL McKEITHAN SMITH.....	Agr.....	Vass
ROBERT HURDLE SMITH.....	Tex.....	Charlotte
MARVIN LEE SNIPES.....	Agr.....	Bynum
WADE RANKIN SPRATT.....	Chem.....	Mount Holly
WILLIAM CRAIK SPEED.....	Chem.....	Hendersonville
CARL EPPY STANLEY, JR.....	C. E.....	Goldsboro
LEMUEL THEODORE STATON.....	C. E.....	New London
HENRY WALTER STEELE.....	Tex.....	Rockingham
DANIEL KERMIT STEWART.....	M. E.....	Atkinson
GRADY COLUMBUS STONE.....	C. E.....	Winston-Salem
THOMAS DAMON SUTTON.....	E. E.....	Seven Springs
JOSEPH IRA THOMASON, JR.....	C. E.....	Greensboro
LUCILLE THOMSON (MISS).....	E. E.....	Wilmington
THORALPH JOHN TOBIASSEN.....	M. E.....	Southport
FREDRIC WYNON TOLAR.....	M. E.....	Rennert
IRA J. TUCKER.....	C. E.....	Monroe
DENNIS PASCHAL UPCHURCH.....	Agr.....	New Hill, R. 2
THOMAS BENTON UPCHURCH, JR.....	Agr.....	Raeford
ROBERT WADE UTLEY.....	E. E.....	Moncure
KENNETH MACKENZIE URQUHART.....	Chem.....	Norfolk, Va.
JOSEPH JEREMIAH VEREEN.....	C. E.....	Little River, S. C.
JAMES PRESTON VEST.....	C. E.....	Charlotte
COLUMBUS EDWIN VICK.....	C. E.....	Nashville, R. 4
HAROLD WALDROOP.....	C. E.....	Franklin, R. 1
NATHAN GAN WALKER.....	M. E.....	Washington
SAMUEL ROSSITER WALLIS.....	Agr.....	Arden, R. 1
JAMES ABNER WARD.....	E. E.....	Rose Hill, R. 1
THOMAS MARVIN WARD.....	C. E.....	Whitakers, R. 5
CHARLES AYCOCK WARWICK.....	E. E.....	Wilmington
WILLIAM SIDNEY WEATHERSPOON, JR.....	E. E.....	Sanford
PETER ANCELL WEBB.....	Tex.....	Winston-Salem
JAMES EDWARD WEBER.....	Tex.....	Morganton
WALTER JAMES WHICKER.....	Agr.....	Walkertown, R. 1
EUGENE JAMES WHITAKER.....	Agr.....	Barnardsville
WILLIAM TOXEY WHITAKER.....	B. Ad.....	Raleigh



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
GEITNER CHAMBLEE WHITE.....	C. E.....	Mebane
THOMAS JACKSON WHITE, JR.....	B. Ad.....	Concord
WILLIAM WALLACE WHITE.....	Agr.....	Manson, R. 1
JAMES CLARENCE WHITEHURST.....	M. E.....	Bethel
LARRY ALSTON WHITFORD.....	Agr.....	Silverdale
EUGENE DESMOND WILDER.....	E. E.....	Asheville
JOHN BRIGHT WILLIAMS.....	M. E.....	Barnesville, R. 1
JOHN HAVARD WILLIAMS.....	Tex.....	Wilson
MACON GREY WILLIAMS.....	C. E.....	Wilson
NORWOOD WADE WILLIAMS.....	Agr.....	McCullers, R. 1
ROBERT NEELY WINGATE.....	E. E.....	Charlotte, R. 4
ALONZO RIDDICK WINSLOW, JR.....	M. E.....	Winfall
MARVIN EASON WOODALL.....	C. E.....	Smithfield
ARCHIBALD MCFARLAND WOODSIDE.....	Agr.....	Statesville, R. 6
LIMAN J. WORTHINGTON.....	B. Ad.....	Winterville, R. 1
GEORGE WILLIAMSON WRAY.....	E. E.....	Sumter, S. C.
CLYDE ROBERT WRIGHT.....	Agr.....	Hunting Creek
JOHN GRAYSON YANCEY.....	Tex.....	Marion, R. 3
JOHN BROWN YARBOROUGH, JR.....	C. E.....	Louisburg
CHANG AH YOUNG.....	Tex.....	Hawaii
JAMES CARPENTER YOUNG.....	M. E.....	Mooresville

### SPECIAL STUDENTS

ALONZO OHIO ALFORD.....	Journalism.....	Raleigh
SCOTT GLENNARD HARRIS.....	B. Ad.....	Hendersonville
J. B. HOLLAND.....	Tex.....	—————
WILLIAM DAVIS JONES, JR.....	Agronomy.....	Texas
HARLIE ABEL MILLER.....	Agr.....	Lenoir, R. 2
ELI JOHN MORGAN.....	Agr.....	Benson
GEORGE KING MURRAY.....	Shop Mgt.....	Charlotte
MARSHALL LEAK PARSONS.....	Arch. Dr.....	Norwood
HERBERT CARLYLE WEATHERS.....	Shop Mgt.....	Raleigh

### FIRST-YEAR AGRICULTURE

JOSEPH REID ABERNATHY.....	Charlotte, R. 9
HENRY ARTHUR BIZZELLE.....	Elizabethtown
ALVA FURMAN CARR.....	Meggett, S. C.
CLAUDE CECIL CHEATHAM.....	Youngsville
RALPH BOYD CHERRY.....	Davidson, R. 2
JOSEPH PARKS CRAIG.....	Charlotte, R. 1
ARMISTEAD DOWTIN.....	Warrenton
SETH MORGAN FLEETWOOD.....	Hertford
GURNEY JEROME FRANKLIN.....	Linville Falls

<i>Name</i>	<i>Postoffice</i>
JOHN GILMER GRAHAM.....	Mount Ulla, R. 1
ALFRED WILSON GRIFFIN.....	Williamston, R. 1
CLAUDE HARRIS.....	State Road, R. 2
HENRY HAYWOOD.....	Mount Gilead
JAMES IRA McNEILL.....	Pembroke, R. 1
AUGUSTUS GUSS MILLER.....	Fingerville, S. C.
WILLIAM LUDWELL MOORE.....	Raleigh
JOHN BENTLEY PAGE.....	Yanceyville, R. 1
RALPH EDISON POWERS.....	Northwest, Va., R. 1
BENJAMIN WYCHE READE.....	Timberlake, R. 1
FINLEY KIRKPATRICK ROGERS.....	Clarkton, R. 1
W. FRANK SHERRILL.....	Cheraw, S. C., R. 1
KELTON NORMAN SNIPES.....	Marion
ALBERT EDWARD STEWART.....	Henderson, R. 2
HESTER MYATT STOTT.....	Wendell
SCEPTRE EVARD STUCKIE.....	Amelia, Va.
JAMES GADDY WARD.....	Rowland
CHARLIE COX WILKINSON, JR.....	Hillsboro, R. 2
JOHN DANIEL WINSTEAD, JR.....	Roxboro, R. 3
EDWARD BOOKER WOLFE.....	Greensboro, R. 7

#### FIRST-YEAR MECHANIC ARTS

PARKS INDEPENDENCE BERRYHILL.....	Charlotte, R. 4
WILLIAM EDWIN BIVENS.....	Elkin
ALLEN TURNER BLACK.....	Charlotte
MORTIMER ALBERTO BLAND, JR.....	Charlotte
ROBERT FURGERSON COFFEY.....	Whitnel
FRANK ALLEN DEWEY.....	Goldsboro
CLARENCE VERNON FAULKNER.....	Red Oak, R. 3
CLIFFORD DORMAN FENTRESS.....	Lynnhaven, Va., R. 1
SOL BUCK FISHEL.....	Vaughan
EDWARD WATSON GOODWIN.....	Raleigh
ALVIN CURTIS GRAY.....	Chapel Hill, R. 1
CHARLES AYCOCK HOEY.....	Shelby
LOUIS OWENS HORTON.....	Plymouth
WAYLAND GIDDENS JONES.....	Wilson
WILLIAM THOMAS KIRKMAN.....	Pleasant Garden, R. 1
MALCOM CARMICHAEL McQUEEN.....	Red Springs
GILBERT MORGAN MAXWELL.....	Seven
JOHN WHEELER MOORE.....	Williamston, R. 2
CLAUDE FERMAN PATTERSON.....	Jackson Springs, R. 2
RALPH ROSCO.....	(Lumberton) Italy
PAUL LEROY SCOTT.....	Wilmington
STUART XANTHUS STEPHENSON, JR.....	Edenton
PARKS OSCAR WILLIAMS.....	Charlotte

**SECOND-YEAR MECHANIC ARTS**

<i>Name</i>	<i>Postoffice</i>
OSCAR ALEXANDER FALLS.....	Gastonia
JESSE VANN HOLLOMAN.....	Aulander, R. 3
SIDNEY OTIS LYON.....	Creedmoor
FRANK ALLEN POUNDS.....	Concord
WILLIAM HERBERT WHISNANT.....	Shelby

**FIRST-YEAR TEXTILE**

WILLIAM LAFAYETTE BEERY, JR.....	Wilmington
ROBERT BRUCE COOKE.....	Graham
ROBERT HARVEY EDWARDS.....	Red Oak
HENRY KIRKWOOD ELLSWORTH.....	Washington
ZALMON ADOLPHUS ENNIS.....	Duke
CASPAR WISTAR GREGORY, JR.....	Weldon
CLYDE WILLIAMS HALL.....	Stem
FORNEY MOORE HOKE.....	Hickory
WILLIAM CHARLES LEWIS.....	Greensboro
EDISON McCASKILL.....	Vass
RAYMOND VIA MASON.....	Gibson
GEORGE FLETCHER SILER.....	Siler City
BEN LEE UMSTEAD.....	Stem
CLYDE GOODWIN WHITE.....	Louisburg
WILLIAM KEARNEY ALSTON WILLIAMS.....	Louisburg
ARCHIE D. WOODWORTH.....	Duke
AARON JONES YORKE.....	Concord

**SECOND-YEAR TEXTILE**

JOHN ARCHIE BLACK.....	Shelby
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**SECOND-YEAR AGRICULTURE**

WILLIAM LUBIN BAKER.....	Charlotte, R. 2
WILLIS WICKER BRITTAIN.....	Horse Shoe, R. 2
JOHN CLYDE BROWN.....	Waverly
THOMAS NEWTON BRYSON.....	Cullasaja
JOHN DUNCAN BULLARD.....	Parkton
EXUM MONROE CAUSEY.....	Greensboro, R. 6
ALONZO JAMES DAVIS.....	Mount Olive
DOAK FINCH.....	Trinity
WILLIAM OLIVER GIBBS.....	Marion
WHITFIELD DUNHAM GRAHAM.....	Mount Ulla
JAMES FRANKLIN HARKEY.....	Charlotte, R. 1
ROBERT JOSEPH HARRIS.....	Rougemont, R. 3
ERVIN MONROE JOHNSON.....	Lillington, R. 1



<i>Name</i>	<i>Postoffice</i>
JOHN FRANK MCBANE.....	Saxapahaw, R. 1
REUBEN ERNEST MCGOOGAN.....	Rennert, R. 1
LAWRENCE DANIEL RHODES.....	Castle Hayne, R. 1
CHARLES PHILIP ROBINSON, JR.....	Morven, R. 2
JOHN LEROY TOWNSEND.....	Lumberton
WILLIAM HERBERT WHISNANT.....	Shelby
JOHN OWEN WILSON, JR.....	Mapleville

### ONE YEAR AUTO-MECHANICS

REGGIE ABBOTT.....	Bryson City
CLAUDE ALLEN.....	Roxobel
CHARLES DOUGLAS CULPEPPER.....	Wilson
MARK HAYDEN DAVIS.....	Spring Creek
HUBERT SOLOMON FLYNT.....	Rural Hall
CLYDE HARRISON GENTRY.....	Asheville
ENOCH ALEXANDER HARRIS.....	Elkin
GIICHI NAKAMURA.....	Japan
PAUL ANDERSON SUMMERS.....	Summerfield, R. 2

### COURSE IN COTTON CLASSING

ZEBULON VANCE BLOUNT.....	Faison
GEORGE COLUMBUS DEES.....	Grantsboro
ALBERT MAGRUGOR DICKINSON.....	Fremont
ADASON MORRIS MCKEITHAN.....	Shallotte
JOHNNIE ALEXANDER MURPHY, JR.....	Atkinson, R. 1
ABNER NASH.....	Rosemary
RUBY LYALL PATTERSON (MISS).....	Fayetteville
HERMAN DUPUY SEARS.....	High Point
PETRUS FERREIRA VAN DER WATT.....	Orange Free State, S. Africa
AVERY BIRTON WILDER.....	Raleigh, R. 2
JAMIE ESTIN WILDER.....	Raleigh, R. 2
FREDERICK WILLIAMS.....	Inez, R. 1

### WINTER COURSE IN AGRICULTURE

JESSE HINNANT AUSTIN.....	Garner, R. 1
FOY CLYDE BEALE.....	Woodland
ROBERT LINDO CHILTON.....	Bennett
JESSE DAUGHTRIDGE.....	Rocky Mount, R. 6
JOHN WILLIAM DAVIS.....	Raleigh, R. 3
KIMBROUGH JONES DAVIS.....	Saluda
EUGENE TALMAGE DRAPER.....	Dunn
LEON JACK HARRELL.....	Goldsboro, R. 3
WOODIE DANIEL HEWITT.....	Shallotte

<i>Name</i>	<i>Postoffice</i>
CICERO ULYSSES HINSHAW.....	Raleigh
WILLIAM BRADSHAW JONES.....	Moriah, R. 1
WILLIAM NATHANIEL HENRY JONES.....	Raleigh, R. 1
LESTER LANIER KEEL.....	Bethel, R. 1
NEILL MALLOY McDONALD.....	Duke
ALFRED SCARBOROUGH.....	Eastover, S. C.
ARTHUR KIVETT SHARPE.....	Burlington, R. 4
CLARENCE RENDER SHERMAN.....	Timberlake, R. 1
WILLIAM PHILO SMART.....	Union Mills, R. 2
JULIUS CHESTER SPICER.....	North Wilkesboro, R. 1

## SPECIAL REHABILITATION STUDENTS

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
BENJAMIN BLAINE ABSHER.....	Auto.....	Austin, R. 1
FRANK MORTON ADAMS.....	Mech. Dr.....	Raleigh
ROSCOE ADDISON.....	Mech. Dr.....	Durham, R. 6
GEORGE RUFUS ADKINS.....	Machinist.....	Roanoke Rapids
EULA HUDSON AIKEN.....	Agr.....	Rich Mountain
WILLIAM DANIEL ALFORD.....	Prac. Elec.....	Raleigh
BARNA TITUS ALLEN.....	Agr.....	Troy
IRVING LEWIS ALLEN.....	Agr.....	Eleazer
ARTHUR JACKSON ANDREWS.....	Agr.....	Dulah
SOL ANGLE.....	Agr.....	Milton
GEORGE ELAM ARNEY.....	Agr.....	Lenoir
HENRY LEE AUSTIN.....	Agr.....	Unionville
LEWIS SLOCUMB AUTRY.....	Agr.....	Autryville
WALTER CARL AVERITT.....	Agr.....	Stedman
FRED GIFFORD BABER.....	Prac. Elec.....	Forest City
MAHLON STANLEY BAGGETT.....	Agr.....	Buckhorn, Va.
COY EATON BAILEY.....	Agr.....	Raleigh
HENRY WISE BAKER.....	Tex.....	Durham
CHARLES RHOADES BARCKLAEE.....	Agr.....	Rosemary
ELIJAH V. BAREFOOT.....	Agr.....	Duke
JOHN HARVEY BARFIELD.....	Prac. Elec.....	Fremont
WILLIAM HUBART BARKER.....	Agr.....	Davidson, R. 2
CARL CLAYTON BARNES.....	Agr.....	Roxboro
JOSEPH BLACKMAN BASS.....	Carpentry.....	Goldsboro
PATRICK H. BASS.....	Agr.....	Castalia, R. 2
CHARLES HENRY BAUGH, JR.....	Hort. (Agr.).....	Raleigh
EDGAR BEAM.....	Agr.....	Ellenboro, R. 2
LAWRENCE OTHO BEASLEY.....	Agr.....	Wilson, R. 6
BRACKNEL ARTHUR BENFIELD.....	Agr.....	Crossnore
JOHN WESLEY BENTLEY.....	Agr.....	Mooreville
ROBY C. BEST.....	Agr.....	Goldsboro, R. 2

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
BAXTER BIRCHFIELD.....	Agr.....	Tapoco
ARTHUR JOSEPH BONNETTE.....	Mech. Dr.....	Philadelphia, Pa.
JOHN ELISHA BOONE.....	Agr.....	Pittsboro
LEE ANDREW BOWEN.....	Auto Mech.....	Henderson, R. 1
THOMAS ROY BOYETT.....	Prac. Elec.....	Lucama, R. 13
WILLIAM EVERETT BRACEY.....	Agr.....	Roxobel
THOMAS BRANCH.....	Agr.....	Kernersville, R. 4
LORENZO BRUNER BRASWELL.....	Agr.....	Monroe, R. 2
WILLIAM GARRETT BRAY.....	Agr.....	Riddle
WALTER MOODY BRAY.....	Auto.....	Rockingham
ABNER TILTON BRICKELL.....	Agr.....	Bath
CHARLES SAMUEL BROOKS.....	Auto.....	Bina
HERBERT MITCHELL BROWN.....	Agr.....	Greensboro
JAMIE EDWARD BROWN.....	Drafting.....	Rosemary
LORNE BROWN.....	Agr.....	Old Fort
REUBEN SANDERS BROWN.....	Agr.....	Brinkleyville
JAMES ARTHUR BRUCE.....	Agr.....	Randleman, R. 1
GEORGE WESLEY BUCHANAN.....	Agr.....	Hayesville, R. 4
THOMAS C. BUTLER.....	Tex.....	Burlington, R. 7
HARVEY PERRY CAMPBELL.....	Prac. Elec.....	High Point, R. 4
RENCHER LARDON CAMPBELL.....	Agr.....	Pittsboro, R. 2
HOYLE BENJAMIN CARPENTER.....	Agr.....	Forest City, R. 3
CLINTON BRACKETT CARTER.....	Agr.....	Reidsville, R. 2
HENRY LOU CARTER.....	Prac. Elec.....	Ingold
JAMES LEE CATHEY.....	Prac. Elec.....	Mooreville
JESSE BIRT CHAMPION.....	Mech. Dr.....	Hendersonville, R. 6
JOHN RUFFIN CHANDLER.....	Agr.....	Vanceboro, R. 1
BENJAMIN OLIVER CHATHAM.....	Agr.....	Fairview, R. 1
MICHAEL BURRISS CHINNIS.....	Agr.....	Phoenix, R. 1
CLAUD DONALD CHURCH.....	Agr.....	Brownwood
HORACE CLARK.....	Agr.....	Rocky Mount
JAMES LUTHER CLARK.....	Farm Mech.....	Evans
RALPH LEONARD CLARK.....	Agr.....	Swannanoa, R. 1
URIE THOMAS CLARK.....	Machinist.....	Pittsboro
JOHN HOYTE CLINE.....	Agr.....	Lawndale
JAMES RANDALL COGGIN.....	Agr.....	Eldorado
JAMES GRADY COLLUM.....	Agr.....	Councils, R. 2
JOHN CONNER.....	P. Plt. Opr.....	Fairview
LACEY MARTIN CROWELL.....	Agr.....	Mount Gilead, R. 3
PRESTON ALEXANDER DANIELS.....	Agr.....	Columbia, S. C.
THOMAS DANIELS.....	Agr.....	Culberson, R. 1
NATHAN JULIAN DARDEN.....	Agr.....	Stantonsburg
PERCY THOMAS DARK.....	Agr.....	Siler City, R. 5
BURWELL McCLELLAN DAVIS.....	Mech. Draft.....	Mount Ulla



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
HENRY ALFORD DAVIS.....	Agr.....	Almond
WILLIAM LEE DAVIS.....	Agr.....	Raleigh
EMANUEL DAVID DICKERSON.....	Auto.....	Durham
COX DOUGLASS.....	Agr.....	Pine Creek
HORACE DOWD.....	Agr.....	Carbonton
ANDREW OSBON EAKER.....	Tex.....	Shelby
MARION GASTON EAKER.....	Agr.....	High Point
LEMMIE EASTER.....	Tex.....	Amelia C. H., Va.
RILEY JEROME EASTER.....	Tex.....	Lexington
ALEX. WILL EDWARDS.....	Machinist.....	Raleigh
CHARLIE ELLIOTT.....	Agr.....	Rocky Mount, R. 5
JERRY PARKER ELMORE.....	Auto Mech.....	Goldsboro, R. 5
CLAUDE MYERS ERWIN.....	Agr.....	Henrietta
BENJAMIN FRANKLIN ETHERIDGE.....	Agr.....	Vanceboro
CHRIS HENRY EVELAND.....	Mech.....	Rocky Mount
WILLIAM MARSLENDER EVETT.....	Agr.....	Blounts Creek, R. 1
EMMETT FAIRCLOTH.....	Agr.....	Stedman, R. 1
FRED GUY FLEMING.....	Agr.....	Creedmoor
BEN LEWIS FLOWERS.....	Prac. Elec.....	Fremont
FRANK JAMES FLYNN.....	Agr.....	Uree
RANSOM DAVID FOWLER.....	Agr.....	Mount Tabor
FOY GUY FOX.....	Agr.....	Gastonia, R. 4
ARTHUR EDWARD FULLAM.....	Dairy.....	Biltmore, R. 2
OTIS LEE FULMER.....	Agr.....	Rome, Ga.
RAYMOND L. GARNER.....	Agr.....	Newport
ALEXANDER GATES.....	Agr.....	Timberlake, R. 2
CHARLIE IRVIN GIBSON.....	Tex.....	Henderson
CHARLES DUNCAN GILCHRIST.....	Agr.....	Cameron, R. 2
TURNER MARTIN GOFF.....	Farm Mech.....	Rocky Mount, R. 5
EDWARD MONROE GOODMAN.....	Armature Winding.....	Salisbury
PATRICK WINSLOW GOODSON.....	Agr.....	Denver
JULIUS DECATUR GREEN.....	Agr.....	Burnsville
MARK GUPTON.....	Agr. Poul.....	Raleigh
BURETTE CLEVELAND GWALTNEY.....	Prac. Elec.....	Morganton
WILLIAM FRANKLIN HACKNEY.....	Agr.....	Scotland Neck, R. 2
RAY HAMILTIN.....	Auto.....	Sea Level
LAWRENCE BOONE HARDING.....	Arm. Winding.....	Winston-Salem
ADDIE WALTER HARRIS.....	Tex.....	Henderson
CLAUDE HARRIS.....	Agr.....	State Road, R. 2
DANIEL BUNN HARRIS.....	Agr.....	Cedar Creek
LOLA A. HARRIS.....	Agr.....	Stony Point, R. 2
ROE LINDSAY HARRIS.....	Agr.....	Fairfield
CLYDE EVERETT HAWKINS.....	Agr.....	West Asheville
ROBERT GRADY HAYES.....	Tex.....	Marietta

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
ARTHUR WASHINGTON HEATHERLY	Agr.	Canton, R. 1
THOMAS BARNETT HEDDON	Agr.	Highlands
EDWARD HELMS	Agr.	Monroe
HOUSTON HENDERSON	Agr.	Jennings
JAMES EDGAR HICKS	Agr.	Marion
CHARLES WESLEY HILL	Agr.	Indian Trail
JOSEPH FRANKLIN HILL	Agr.	Beaufort, R. 1
RODDEN WRIGHT HILL	Poul.	Garner
WILLIAM RUSSELL HILL	Agr.	Swannanoa
HENRY CLAY HOBBS	Tex.	West Durham
HAYWOOD WITT HOLT	Agr.	Raleigh, R. 3
WILLIAM MCPHAIL HOLT	Farm M.	Sanford, R. 1
ALVICE JAY HOLLAND	Agr.	Canton, R. 1
TROY BASCOM HONEYCUTT	Tex.	Oakboro, R. 1
EDWARD PAUL HUDSON	Machinist	Columbus, Ga.
FRED MCKINLEY HYATT	Agr.	Weaverville
CHARLES AUSTIN HYLTON	Agr.	Spero
FRANK IVEY	Auto	Clinton
WILLIE JOINES	Agr.	Amelia
CHARLEY CORBITT JOLLY	Agr.	Henrietta
ANDREW JONES, JR.	Agr.	Catharine Lake, R. 1
ELVIN JONES	Machinist	Grifton, R. 4
RALPH JAMES JONES	Agr.	Warsaw
TILLMAN WASHINGTON JONES	Auto	Franklin
HERMAN EDGAR KENNEDY	Pr. Elec.	Sanford
FONNIE KEEL	Machinist	Greenville
EDWARD CLARENCE KING	Agr.	Topsail
KEITH DARGAN KING	P. Plt. Opr.	Cheraw, S. C.
WADE MONROE KING	Agr.	Greensboro
ARTHUR EAGLES KNOWLES	Agr.	State College Station
JAMES HENRY LAMBERT	Auto	Henderson
RUPERT BERNARD LEE	Agr.	Four Oaks, R. 1
BENNIE EDGAR LEWIS	Agr.	Zebulon
CHARLES LEMUEL LEWIS	Agr.	Bostic
GARLAND LLOYD	Auto	Maysville
THOMAS MURRAY LLOYD	Pr. Elec.	Durham
ERNEST WILSON LOVE	Pr. Elec.	Concord
DONOVAN BERNARD LUMSDEN	Heat. and Vent.	Raleigh
BEN. HARRISON LYON	Agr.	Abner
REED MCCLINTOCK LYONS	Pr. Elec.	Raleigh
ODIE McCULLEN	Poul.	Newton Grove, R. 1
LESTER FARROW MCGEE	Agr.	Angier, R. 1
HARVEY ERNEST McLAURIN	Agr.	Fayetteville
NEIL THOMAS McLEOD	Poul.	Dunn

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
RALPH LANSING MALLORY.....	Mech. Dr.....	Raleigh
FRANK DONALD MARCOM.....	Pr. Elec.....	Morrisville, R. 2
JESSE BALLARD MARTIN.....	Agr.....	Graham
FLETCHER ANDREW MASON.....	Agr.....	Black Mountain, R. 1
LORENZO DOWELL MASSEY.....	Agr.....	Mount Olive, R. 7
MURPHY NEILL MATTHEWS.....	Tex.....	Lillington
SILAS TILMAN MAYNARD.....	Pr. Elec.....	Lumber Bridge, R. 2
ERNEST ALFRED MELIN.....	Agr.....	Stamford, Conn.
DAVID BRACKER MELTON.....	Agr.....	Monroe, R. 4
CHARLES STEPHEN MILLER.....	Agr.....	Rougemont, R. 5
ELIS FLEET MILLSAPS.....	Agr.....	Hiddenite, R. 1
THOMAS OTTO MINTON.....	Agr.....	Minton
HORACE MONTGOMERY.....	Agr.....	Mineral Springs, R. 1
JOHN WHEELER MOORE.....	Agr.....	Williamston, R. 2
ROBERT ANDREW MOORE.....	Pr. Elec.....	Wilson
WILLIAM ALLEN MORTON.....	Agr.....	Maysville, R. 2
JESSE MONROE MOSS.....	Arch. Dr.....	West Asheville
RANSOM DAVID MULL.....	Agr.....	Morganton
EARNIE MURPHY.....	Poul. & Hogs.....	Newton Grove, R. 2
JOHN JAMES NANCE.....	Dairy.....	Richardson, R. 1
ERNEST NELSON.....	Mach. Shop Pr.....	Atlanta, Ga.
NOAH OAKES.....	Machinist.....	Charlotte
CLARENCE PAGE.....	Agr.....	Barnesville, R. 1
NORMAN PARK.....	Agr.....	Candor
IRVING PARSONS.....	Agr.....	Candor, R. 1
JENNINGS BRYAN PAYNE.....	Pr. Elec.....	Canton
WALTER HERBERT PEAKE.....	Agr.....	Green Mountain
GEORGE WILLIS PEELE.....	P. Plt. Opr.....	Goldsboro, R. 5
HERBERT PENDER.....	P. Plt. Opr.....	Selma
CECIL PERRY.....	Mech.....	Raleigh
SIDNEY WELDON PERRY.....	Mech. Dr.....	Raleigh
WILLIAM TINES PITCHFORD.....	Auto.....	Littleton, R. 5
WALTER RODERIC PORTER.....	Mech. Dr.....	Rocky Mount
JAMES WILLIAM POTTER.....	Agr.....	LaGrange, R. 1
DENNIE F. PRESSLEY.....	Agr.....	Gastonia
JAMES HOUSTON PRESSLEY.....	Pr. Elec.....	Monroe, R. 1
THAMAR ESPRON PROPST.....	Agr.....	Morganton, R. 4
JOSHUA PULLIAM.....	Agr.....	Roxboro
FLOYD MCAFEE PUTNAM.....	Agr.....	Shelby
GILBERT HOLTON QUICK.....	Tex.....	Laurinburg
FRANK RYLE QUINN.....	Agr.....	West Asheville
EMORY LEE RAY.....	Agr.....	State Road, R. 1
ED. CLEVELAND RAYLE.....	Agr.....	Greensboro
GURNA ANTHONY RICHARDSON.....	Agr.....	Randleman, R. 2



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
JAMES ARTHUR RIDDLE.....	Agr.....	Cary
HOWARD ROBERTSON.....	Agr.....	Wendell, R. 2
THOMAS ELSON ROBERTSON.....	Mech.....	Zebulon, R. 3
JAMES SAMUEL ROGERS.....	Agr.....	Monroe
JAMES WALTER ROLLINS.....	Agr.....	Randleman, R. 2
EDGAR MANTON SATTERTHWAITE.....	Agr.....	Ransomville, R. 1
BURTON THOMAS SAULS.....	Agr.....	McCullers
GRAHAM LANE SAVAGE.....	Agr.....	Clarkton, R. 3
MOSES LEONARD SHEPPARD.....	Agr.....	Washington, R. 4
REID BANKS SIMPSON.....	Agr.....	Jonesboro, R. 3
THOMAS BAXTER SIMPSON.....	Agr.....	Waxhaw, R. 2
JOSEPH BEECHER SMART.....	Agr.....	Union Mills, R. 3
WILLIAM MULLINGTON SMITH.....	Agr.....	Whiteville, R. 1
SAM SMITHWICK.....	Mach. Shop Pr.....	Kinston
KELTON NORMAN SNIPES (MRS.).....	Agr.....	Marion
EDWARD FRANKLIN SNODY.....	Agr.....	Mt. Airy
GARLAND SPAIN.....	Agr.....	Rocky Mount
WALTER BASSOM SPRINKLE.....	P. Plt. Opr.....	Murphy, R. 1
JESTIE W. STALLINGS.....	Agr.....	Gilkey
HOWARD S. STEELMAN.....	Pr. Elec.....	Brownwood
JOHN WILLIAM STEPHENSON.....	Agr.....	Willow Springs
ISAAC HENRY STIWINTER.....	Agr.....	Scroll
JACOB DAWSON STOKES.....	Agr.....	Wallace
RODOLPHUS STRIDER.....	Agr.....	Pisgah
CARLOS CARLYLE STROUP.....	Tex.....	Lowell, R. 1
DANIEL KING SUGGS.....	Agr.....	Dothan
SAMUEL ELMORE SYKES.....	Auto.....	Spring Hope, R. 2
ROBERT HAILE TAYLOR.....	Agr.....	Idlewild
GILBERT C. THOMAS.....	Pr. Elec.....	Asheville
CECIL GREY THORNTON.....	Agr.....	Elizabeth City
TROY TREADWAY.....	Agr.....	Beaver Creek
SIR WALTER RALEIGH TRIPLETT.....	Auto.....	Purlear, R. 1
AUGUSTUS TURNER.....	Agr.....	Marion
MOSES HARRISON USSERY.....	Machinist.....	Norman
JOHN CRAFT WADKINS.....	Agr.....	Entwistle
HARVEY WALKER.....	Agr.....	Olin
ULYSSES GRANT WALKER.....	Pr. Elec.....	Auburn
OSWALD HERBERT WARD.....	Pr. Elec.....	Wallace
SEYMORE WARD.....	Agr.....	Vineland
LEE COLUMBUS WARREN.....	Agr.....	Conetoe
ERNEST TILLMAN WATERS.....	Agr.....	Wilmington
ERNEST EDWARD WATKINS.....	Agr.....	Macon
HARVEY MARTIN WATSON.....	Agr.....	Yuma
BALLON MABRY WATTS.....	Agr.....	Nakina

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
BANKS WHITE.....	Arch. Dr.....	Gastonia
CHESTER BEAUREGARDE WHITE.....	Agr.....	Gliden
THOMAS LEE WHITLEY.....	Poul.....	Oakboro
GILBERT C. WHITMIRE.....	Tex.....	Quebec
WILEY WILLIAMS.....	Agr.....	Raleigh
WILEY HINTON WILLIAMS.....	Agr.....	Washington
BIRD WILSON.....	Agr.....	Mathews, R. 19
FRED WILSON.....	Pr. Elec.....	Statesville, R. 5
FINLEY COFFEY WOODS.....	Pr. Elec.....	Kings Mountain
MILTON AUGUSTUS WORTHINGTON.....	Pr. Elec.....	Grifton
VANN D. WRIGHT.....	Pr. Elec.....	Troy

SUMMARY

By Classes

Graduates.....	58
Seniors.....	141
Juniors.....	156
Sophomores.....	136
Freshmen.....	307
Short Courses:	
First Year Agriculture.....	29
Second Year Agriculture.....	20
One Year Auto.....	9
First Year Mechanic Arts.....	23
Second Year Mechanic Arts.....	5
First Year Textile.....	17
Second Year Textile.....	1
Specials.....	8
Special Rehabilitation.....	262
Winter Course in Agriculture.....	19
Winter Course in Cotton Grading.....	12
Total.....	1203

By Courses

Agriculture, including short courses.....	301
Business Administration.....	18
Chemistry.....	26
Civil Engineering.....	130
Electrical Engineering.....	144
Journalism (Grad.).....	2
Mechanical Engineering, including short courses.....	133
Physics (Grad.).....	2
Shop Management.....	9
Special Rehabilitation.....	262
Textile, including short courses.....	176
Total.....	1203
Summer School.....	879



# STATE COLLEGE SUMMER SESSION, 1921

## COLLEGE CREDIT

<i>Name</i>	<i>Postoffice</i>
MARY ELIZABETH ALFORD.....	Raleigh
HOWARD GOULD BAKER.....	Raleigh
CLARA WOOTEN BARRETT.....	Raleigh
DIXON BARRETT.....	Raleigh
BRACKNEL ARTHUR BENFIELD (Rehab.).....	Crossnore
EARLY WINFRED BRIDGES (Rehab.).....	Raleigh
MARTHA BROOKS.....	Raleigh
JOHN DUNCAN BULLARD (Rehab.).....	Parkton
EVERETT BURGESS.....	Norfolk, Va.
MARGARET DALE CALVERT.....	Raleigh
JULIAN WALKER CARPENTER.....	Monroe
EDWARD LAMAR CLOYD.....	Raleigh
SUSAN DEWAR.....	Raleigh
WILMA DURHAM.....	Lumberton
WOODIE EUBANKS (Rehab.).....	Lumberton
WILLIAM CLAUDE FERGUSON (Rehab.).....	Vass, R. 1
HOY LEE FISHER (Rehab.).....	Rockwell
CHARLES WITT GUNTER (Rehab.).....	Raleigh
IRENE GUPTON.....	Wood
JOHN LELAND HIGGINS.....	Jacksonville
RANDOLPH ISABEL HILL.....	Raleigh
CHARLES NEWTON HULVEY.....	Raleigh
LUCILE INSCOE.....	Castalia
ERWIN MONROE JOHNSON (Rehab.).....	Lillington
ISAAC LEWIS LANGLEY (Rehab.).....	Barnwell, S. C.
THOMAS SMITH LEE.....	Charlotte
JOHN HENRY LEROY, JR.....	Elizabeth City
DONOVAN BERNARD LUMSDEN (Rehab.).....	Raleigh
GERTRUDE MATTISON.....	Raleigh
HELEN MURCHISON.....	Raleigh
MISS WILLIE PLEASANTS.....	Virgilina, Va.
EVA LLEWELLYN POOLE.....	Quincy, Fla.
ALMA SCULL.....	Arcola
ROYAL CLEMENTINE STEPHENSON.....	Raleigh
CLAUDILENE SYKES.....	Castalia
IRENE CHRISTINE TAYLOR.....	Louisburg
LOUISE RUTH TAYLOR.....	Louisburg
EVERARDE ADELE WILSON.....	Louisburg
ANNIE LEE YATES.....	Cary
JAMES YOUNG.....	Mooreville

**TEACHERS VOCATIONAL AGRICULTURE**

<i>Name</i>	<i>Postoffice</i>
NORMAN ALEXANDER.....	Liberty
WALTER DORSEY BARBEE.....	Seaboard
JERE WILSON BASON.....	Swepsonville
THOMAS WAYNE BRIDGES (Rehab.).....	Moorestown
GEORGE CLEVELAND BUCK.....	Castalia
HARLEY WILSON BULLARD.....	Orrum
SAMUEL LEE CARPENTER.....	China Grove
HARPER NICHOLSON CHERRY.....	Vanceboro
WILLIAMSON LEE COOPER, JR.....	Graham
ARTHUR FOSTER CORBIN.....	Tryon
THOMAS PHILMORE DELLINGER.....	Crossnore
ALVAH DUNHAM.....	Raleigh
FRANCIS MARION DWIGHT.....	Vass
FRED GRAHAM ELLIOTT.....	West Durham, R. 1
THOMAS BENJAMIN ELLIOTT.....	Shelby
RANDAL BENNETT ETHERIDGE.....	Manteo
PERRY HAMILTON GASTON.....	Candler
JULIAN AUSTIN GLAZENER (REHAB.).....	Raleigh
RUSSELL PEYTON HARRIS.....	Chapel Hill
FRED BRYAN HARTON.....	Flat Rock
JESSE MEACHAM HENLEY.....	Jamestown
LEROY COPELAND HERRING.....	Marion, S. C.
JOHN STEWART HOWARD.....	Salemburg
ROBERT HENRY HUTCHISON.....	Snow Camp
EUGENE CARL JERNIGAN.....	Benson
ROBERT MORRIS KIMSEY.....	New Orleans, La.
DANIEL EMMET KOONTZ.....	Cooleemee
ROBERT HAMILTON LANKFORD.....	Harmony
JOEL BREVARD LAWRENCE.....	Statesville
GEORGE OLIVER MCBROOM.....	Lillington
WILSON COPES MCCOY.....	Portsmouth, Va.
HOWARD HOFFMAN MCKEOWN.....	Roxboro
PEYTON HOWARD MASSEY.....	Zebulon
EDWARD NEWTON MEEKINS.....	Cary
JOSEPH EDGAR MICHAEL.....	Harmony
JOHN DANIEL MILLER.....	Fairview
ELI JOHN MORGAN.....	Benson
PAUL HARRIS NANCE.....	Bonlee
FRANCIS ALEXANDER PENLAND.....	Barnardsville
CHARLES ANTHONY SHEFFIELD.....	Linwood
DENNIS HOWARD SUTTON.....	Bladenboro
JEW IRVIN WAGONER.....	Durham, R. 3
CLARENCE WESTBROOK WARRICK.....	Goldsboro

<i>Name</i>	<i>Postoffice</i>
EARL PARKS WELCH.....	Charlotte, R. 7
NATHANIEL WARREN WELDON.....	Stovall
ROBERT CLEVELAND YOUNG.....	Swannanoa
ALPHEUS FOLGER ZACHARY.....	Bahama

**TEACHERS, ACCREDITED, STATE SCHOOL**

REBECCA ABERNETHY.....	Charlotte, R. 6
JORDAN ROYAL ADAMS.....	Rutherfordton
MRS. INEZ ALEXANDER.....	Southport
ORA ALFORD.....	Zebulon
BERTHA DORA ALLEN.....	Cary
CLAUD MAY ALTMAN.....	Dunn
MAMIE ARNOLD.....	Cameron
MRS. MINNIE ATKINS.....	Thomasville
ZULA MAE AUSTIN.....	Clayton
NELLIE BAIN.....	Dunn
MARGARET BALLANCE.....	Lake Landing
KATE AVERITTE BALLARD.....	Franklinton
THOMAS HILLIARD BARBEE.....	Morrisville
CARRIE INEZ BARNES.....	Gumberry
MRS. AGNES BARNHARDT.....	Cerro Gordo
VIDA BASS.....	Clinton
PATTIE VIOLA BATTLE.....	Pee Dee
SWANNANOA MARY BAUCOM.....	Raleigh, R. 2
EVELYN BAZEMORE.....	Wilmington
BERTHA BEASLEY.....	Edenton
LILLIAN CAROLINE BEASLEY.....	Louisburg
MATTIE BEASLEY.....	Edenton
ALICE BELL.....	Troy
REBA MAE BELL.....	Pikeville
SADIE BENETTE.....	Warsaw
SALLIE HOWARD BENSON.....	Nashville
FANNIE BISHOP.....	Bath
FLORENCE BLANCHARD.....	Trotville
DAISY BLAND.....	Sanford
ROSE BLAND.....	Sanford
MRS. SAMUEL PERRY BODDIE.....	Louisburg
NELL BOLINGER.....	Lincolnton
FLORINE BOONE.....	Mapleville
ADDIE ELIZABETH BORDEAUX.....	East Durham
WILLIAM COLON BOWDEN.....	Rex
MRS. WILLIAM COLON BOWDEN.....	Rex
AMELIA BOYETTE.....	Raleigh
VELMA BRADY.....	Benson



<i>Name</i>	<i>Postoffice</i>
GLADYS BRANTLEY.....	Spring Hope
LULA B. BRANTLEY.....	Spring Hope
MRS. PEARLE STALLINGS BREWER.....	Alert, R. 1
MARY SUE BRIDGES.....	Wakefield
URMA WILLIS BRITT.....	Enfield
MARY LUCILE BRITTON.....	Seaboard
HARRIET BROOKFIELD BROWN.....	Vanceboro
MAGGIE BROWN.....	Rich Square
MINNIE BROWN.....	Raleigh
THELMA BROWN.....	Kinston
PRETTO BROWNE.....	Elon College
MRS. WILLIAM HAND BROWNE.....	Raleigh
MARY KATHRYN BRYAN.....	Carthage
NORA ALMA BRYANT.....	Pilot Mountain
ETHEL MAE BUFFALOE.....	Raleigh, R. 3
WINNIE DAVIS BURT.....	Enfield
REBA GERTRUDE BUTTS.....	Morrisville
ELVA BYRD.....	Bunlevel
VIRGINIA ELISE CADDELL.....	Elon College
BESSIE JANE CAMERON.....	Sanford
IDA ORLEAN CAMPBELL.....	Raleigh, R. 4
LOUISE CAMPBELL.....	Carthage
MATTIE COTHERN CAMPBELL.....	Raleigh, R. 4
HELEN MARIE CANFIELD.....	Morehead City
ELOISE BUTLER CANNADY.....	Oxford
LAURA HOLLEMAN CARROLL.....	Henderson
LEYTA ROBERTA CARTER.....	Nashville
WIRTA LOUISE CASH.....	Oxford
WILLIAM BRANSON CAVINESS.....	Cary
H. R. CHAMBLEE.....	Wakefield
MRS. LETHA B. CHAPPELL.....	Raleigh
CLARA CLAPP.....	Siler City
MISS JIMMIE CLARK.....	Inez
MARY GLADYS COATS.....	Clayton
SETH ALLEN COATS.....	Dunn, R. 5
MINNIE ELIZABETH COBLE.....	Burlington, R. 1
BERNICE ALMA COLEMAN.....	Barley
MERIE COLSON.....	Wadesboro
EMMA DOWELL CONN.....	Raleigh
SALLIE CONNER.....	Rich Square
VIVIAN CONNER.....	Rich Square
MARY CONNOR.....	Dover
ERNEST WILLIAM CONSTABLE.....	Lake Landing
MRS. KIVA CHEVES COOK (MRS. M. L.).....	Wakefield

<i>Name</i>	<i>Postoffice</i>
CARRIE COCKRELL CORNWELL.....	Raleigh
BETTY COUNCIL.....	Apex
ENID COUNCIL.....	Apex
NINA HOLLAND COVINGTON (MRS. L. E.).....	Raleigh
MYRTLE LEE CREWS.....	Oxford
LILLIE FLORENCE CRITCHER.....	Zebulon, R. 3
MARY LONG DANIEL.....	Airlie
MRS. DELLA POOLE DAUGHTRY.....	Clayton
CHRISTINE TROTTER DAVIS.....	Henderson
LILLIE DAVIS.....	Mamers
LOSSIE DAVIS.....	Lucama
ONIE VIRGINIA DAVIS.....	Lucama
LOUISE BURT DEAN.....	Louisburg
RETHA DEANS.....	Pikeville
MRS. BENJAMIN FRANKLIN DELOATCH.....	Gibsonville
BENJAMIN FRANKLIN DELOATCH.....	Gibsonville
LUTHER ALLEN DENNING.....	Bentonville
MATTIE DESHAZO.....	Spencer, Va.
BESSIE GRAY DIXON.....	Elm City
MYRTLE LOU DIXON.....	Rose Hill
MARY JULIA DOZIER.....	Fountain
JOSEPH LON DUNCAN.....	Clayton
EMMA DUNN.....	Wise
JOHN EDMOND DUPREE.....	Angier
THEODOLINDA EUZELIA EARLY.....	Nazareth
ETHRAL EBORN.....	Pinetown, R. 2
ALLIE EDWARDS.....	Lemon Springs
MARY ELIZABETH ELMORE.....	Goldsboro
MRS. JESSIE EUTORIA ESTES.....	Wake Forest
RUTH FAULKNER.....	Kinston
KATE FERGUSON.....	Neuse
GERTRUDE FERRELL.....	Bailey
LENNA FLEETWOOD.....	Edenton
WILLIAM EZRA FLEMING.....	Fuquay Springs
ALICE HENRY FLOWERS.....	Goldsboro
ALMA FLOYD.....	Fairmont
ROBERTA FLOYD.....	Fairmont
SARAH FLOYD.....	Fairmont
LUCILE FORDHAM.....	Kinston
MAY BELLE FRANKLIN.....	Raleigh, R. 4
ZORA LEE FRYE.....	Carthage
LUCILE FUTRELL.....	Conway
KATE MAE GAINES.....	Clinton
MATTIE LEE GAINES.....	Clinton, R. 6

<i>Name</i>	<i>Postoffice</i>
JANIE GARRETT.....	Warsaw
BERTA GAY.....	Spring Hope
MRS. JULIAN AUSTIN GLAZENER.....	Raleigh
HOWARD GIBSON GODWIN.....	Dunn
EMMA GOODMAN.....	Mount Ulla
BERNICE GOODWIN.....	Apex
MRS. OVID T. GOODWIN.....	Raleigh
BELLE GRAHAM.....	Raeford
MRS. EFFIE ISELEY GREEN (MRS. ALBERT CARL).....	Raleigh, R. 5
BETTY GREENE.....	Wadeville
MINNIE GREENE.....	Oxford, R. 5
LILLIE GRESHAM.....	Beulaville
BESS GRIER.....	Charlotte, R. 11
ETHEL IDELL GRIFFIN.....	Williamston
EZRA DANIEL GRIFFIN.....	Dunn
HUGH CLEVELAND GRIFFIN.....	Woodland
LOVIE GRIFFIN.....	Selma
NETTIE HILDA GSCHWIND.....	Vass
CLARA HALL.....	Charlotte, R. 3
MAGGIE HARDEE.....	Benson
BESSIE MAE HARRELL.....	Aulander
EVA HARRIS.....	Roxboro
ANNIE LORENA HARRISON.....	Pantego
Ursula Harrison.....	Littleton
SARAH HENDERSON.....	Rowland
FANNIE EVANS HILL.....	Cofield
JOSEPHINE ELIZABETH HILL.....	Rocky Mount
MRS. HERBERT HAMILTON HOBGOOD.....	Mapleville
GENEVIEVE HOLLEMAN.....	Currituck
ELIZABETH FENNELLY HOLMAN.....	Raleigh
BONNIE BELLE HORTON.....	Buie's Creek
ILA ETHEL HOUSE.....	Cary
BLANCHE SADIE HUFF.....	Henderson, R. 4
WILLIAM WADE HUSSEY.....	Asheboro
ESTELLE ISLES.....	Thelma
BERTHA ELLEN ISLEY.....	Burlington, R. 7
ERNEST BOSTON ISLEY.....	Gibsonville, R. 1
ANNIE BELL JACKSON.....	Wake Forest, R. 5
JANIE JACKSON.....	Red Springs
LOULIA ELIZABETH JARMAN.....	Louisburg
FREDERIKA PEARL JENKINS.....	Raleigh
WINNIE JENNINGS.....	Olin
ALBERT RANSOM JOHNSON.....	Hendersonville, R. 5
ETHEL JOHNSON.....	Clayton, R. 3



<i>Name</i>	<i>Postoffice</i>
LILLIAN JOHNSON.....	Rich Square
LILLIE MAY JOHNSON.....	Farmer
MAMIE ESTELLE JOHNSON.....	Goldsboro
EVA HARDING JONES.....	McCullers, R. F. D.
GUSSIE JONES.....	Laurinburg
JULIA JONES.....	Wilmington
LENA RIVERS JONES.....	Zebulon
ALLA MAY JORDAN.....	McCullers
LILLIAN JOURDAN.....	Merry Oaks
MRS. ANNIE WEDDIE KILLIAN.....	Raleigh
ARLINE KIMBALL.....	Townsville
ELIZABETH ANNIE KING.....	Mount Olive, R. 3
NANNIE SHIELDS LAMB.....	Scotland Neck
VIVIAN LAMPLEY.....	Rockingham
MRS. NILLA LANCASTER.....	Goldsboro
MRS. FRANK WOODARD LAWRENCE.....	Raleigh
MRS. JANIE RUSSELL LEACH.....	Star
EDITH MAY LEE.....	Greenville
ESTHER ELLEN LEE.....	Dunn, R. 1
FLORENCE LILLIE LEFLER.....	Albemarle
FRANK JOSEPHINE LEIGHTON (MRS. A. F.).....	Scotland Neck
ODESSA LEMMOND.....	Indian Trail
BETTIE LEWIS.....	Faison
OLA SUDIE LONG.....	Morehead City
ELIZABETH WHITMELL LUCAS.....	Enfield
VERA LUNSFORD.....	Roxboro
AILEEN LUTHER.....	New Hill
LEON LUTHER.....	New Hill
BRANDON McCORKLE.....	Alexis
LOUISE McCORKLE.....	Alexis
ELIZABETH McDONALD.....	St. Pauls
MARGARET ELLEN McGEACHY.....	St. Pauls
ANNIE McGEE.....	Charlotte
MRS. HOWARD HOFFMAN McKEOWN.....	Roxboro
CHARLOTTE LILLIAN McKoy.....	Old Fort
ELIZABETH McLAUCHLIN.....	Carthage
MARTHA McLEOD.....	Buie
VERA McLEOD.....	Broadway, R. 1
MARIE MacMILLAN.....	Parkton
ONETAH JOHNSON McMILLAN.....	Wagram
ANNIE JANE McNEILL.....	Broadway
LILLIE MAE MABRY.....	Norwood
SALLIE LOU MACON.....	Louisburg
ELIZABETH PEARL MANESS.....	Biscoe

<i>Name</i>	<i>Postoffice</i>
LULA MANESS.....	Biscoe
MINERVA LOIS MANGUM.....	Cardenas
GAITHER CLAYTON MANN.....	Fuquay Springs
RUBY ADELE MANN.....	Manns Harbor
MRS. GRACE HALE MARKHAM.....	Raleigh
REUBEN DWIGHT MARSH.....	Marshville
HALLIE MARSTON.....	Henderson
JOSEPH WARREN MASSENGILL.....	Four Oaks
EFFIE ROUSE MEEKINS (MRS. E. N.).....	Cary
MARTHA ELIZABETH MERCER.....	Fountain
GERTRUDE MICHAEL.....	Kernersville
PEARLE MICHAEL.....	Kernersville
ANNIE IVEY MILLER.....	Raleigh
LUTHER SIGSBEE MILLER.....	Avon
ETTA MITCHELL.....	Goldsboro, R. 4
MARY EFFIE MITCHELL.....	Raleigh
IVY MODLIN.....	Aulander
KATE MONROE.....	Tar Heel
DORA MOORE.....	Liberty
ESTELLE O'BERRY MOORE.....	Atkinson
BESSIE AGNES MORGAN.....	Caraway
EFFIE MAY MORGAN.....	Raleigh, R. 3
NAOMI MORGAN.....	Dunn, R. 2
MINNIE MORRISON.....	Lillington
ESTELLE MOSS.....	Oxford, R. 2
BEULAH MURRAY.....	Rock Creek
LAURA AILEEN MURRAY.....	Denniston
SALLIE DELITHA NAYLOR.....	Dunn
BERTHA NEAL.....	Alert
HELEN HUGHES NEAL.....	Beaufort
MATTIE BELLE NEWTON.....	Dunn
CAROLINA LOCKHART NICHOLLS.....	Windsor
VERDIE NOBLE.....	Deep Run, R. F. D.
VERNA NOBLE.....	Deep Run
LUCILE MEREDITH NORRIS.....	Wakefield
AVA ELEANOR OLIVE.....	Mount Airy
BEULAH AMELIA O'QUINN.....	Mamers
RUTH OWEN.....	Clarkville
MARY ANDERSON PAGE.....	Raleigh
CARRIE ELIZABETH PAPPENDICK.....	Elizabeth City
EULA BELL PAPPENDICK.....	Elizabeth City
ANNIE PEARLE PARKER.....	Youngsville
MARGARET PARKER.....	Mount Olive
VERNON PARKER.....	Macclesfield

<i>Name</i>	<i>Postoffice</i>
LINNIE PARKS.....	Barium Springs
WILLIE PAUL.....	Elkin
ZELMA MAYE PAXTON.....	Charlotte
ALICE FOUNTAIN PEACOCK (MRS. A. L.).....	Raleigh, R. 1
CADDIE PEELE.....	Williamston
MYRTLE PEELE.....	Williamston
NORA PEGUES.....	McFarlan, R. 1
MRS. EUNICE WELLONS PENNY.....	Garner
ESTELLE PERRY.....	Macon
MARIANA MANN PHILLIPS (MRS. W. C.).....	Raleigh
EMMA VIRGINIA PITTMAN.....	Whitakers
MAMIE ELLA PITTMAN.....	Whitakers
WILLIAM CLARENCE POE.....	Ramseur
EULA POLLOCK.....	Mount Olive, R. 5
ANNIE LEE POWELL.....	Whiteville
LUCILE POWELL.....	Whiteville
BERT PRICE.....	Ellenboro
MARY ETHEL PRICE.....	Charlotte
CHRISTINE MOCK PRIDGEN.....	Warsaw
ALMA HICKS RAGLAND.....	Oxford, R. 1
GEORGIANA RAY.....	Wakefield
ETHEL REECE.....	Boonville
MARY STUART RIDDICK.....	Spring Hill
CORA LEE RITCHIE.....	Kannapolis
FELICITE RIVET.....	Staunton, Va.
LOVIE GLADYS ROBERTSON.....	Wendell
LOU JANE KINLAW ROSSER (MRS. J. R.).....	Jonesboro
MAYO ROSSER.....	Jonesboro
GLADYS CECELIA ROUNTRYE.....	Aulander, R. 3
PAULINE ROUSE.....	Nashville
DANDRIDGE KELLAM RUSSELL (MRS. W. H.).....	Biscoe
MRS. ISABEL TOBIAS ST. AMAND.....	Wilmington
MARY SAUNDERS.....	Wakefield
ALMA OPHELIA SAVAGE.....	Raleigh
JOHN EPHRAIM SAWYER.....	Ayden
MRS. ELLA FORD SENTER.....	Raleigh
ELLA NEAL SHERROD.....	Louisburg
MRS. MARY BATES SHERWOOD.....	Raleigh
SADIE LEINSTER SIMPKINS.....	New Bern
MRS. LIZZIE SINGLETARY.....	Clarkton
FLORENCE SKILLMAN.....	Warrenton
ANNIE BELL SMITH.....	Oxford, R. 2
BESSIE MITCHELL SMITH.....	Clarkton
CODY HOOD SMITH.....	Dunn



<i>Name</i>	<i>Postoffice</i>
ETHEL SMITH.....	Clarkton
FLORENCE SUTPHIN SMITH (MRS. G. A.).....	Raleigh
KATHLEEN SMITH.....	Harmony
LELA SMITH.....	Pink Hill
ORA SMITH.....	Princeton
THELMA SMITH.....	Vanceboro
GERTRUDE MARTIN SMITHERMAN.....	East Bend
MRS. MARY WHITE SMITHWICK.....	Wendell
HATTIE IRVIN STANFIELD.....	Mebane
MARJORIE STEELE.....	Lumberton
MRS. DAVID STEPHENSON.....	McCullers
LENA P. STEPHENSON.....	Raleigh, R. 4
LILLIAN STEPHENSON.....	Dunn
LOTTIE STEPHENSON.....	Dunn
VIRGINIA STEPHENSON.....	McCullers
MARY GRAHAM STEVENS.....	Councils
ELIZABETH MABEL STEWART.....	Whitakers
MYRTLE ILA STEWART.....	Coats
AMY GERTRUDE STONE.....	Thomasville
LELA STRICKLAND.....	Dunn
LETTIE STRICKLAND.....	Dunn
HATTIE JENKINS TAYLOE.....	Powellsville
NORVELLE TEMPLETON.....	Mooreville
LIZZIE ZELMA TERRELL.....	Raleigh
BEULAH THOMAS.....	Cameron
PATTIE DAVIS THORNE.....	Airlie
GEORGIA THOROUGHGOOD.....	Vaughan
GLADYS BURTON THOROUGHGOOD.....	Vaughan
PAULINE FAISON THORP (MRS. LOUIS).....	Berea
MABEL CLAIRE TILLMAN.....	Roxboro, R. 3
JOHN BATTLE TOMLINSON.....	Wilsons Mills
MRS. BENJAMIN TONGUE.....	Raleigh
ARRAH TREVATHAN.....	Rocky Mount
WILLIAM LAWRENCE TREVATHAN.....	Rocky Mount
HARRY ZEBULON TUCKER.....	Madison
ONNIE LUOLA TUCKER.....	Louisburg
GRADABELLE TURNER.....	Ellerbe
LINA BLEDSOE TURNER.....	North Wilkesboro
MARY BURT TURNER.....	Louisburg
MARGARET UMBERGER.....	Rural Retreat, Wythe Co., Va.
MRS. MOLLIE ANTOINETTE VICK.....	Margarettsville
SADIE WALTON VINSON.....	Littleton
JANNIE ELIZABETH WARD.....	Rose Hill
HATTIE BELLE WARREN.....	Littleton

<i>Name</i>	<i>Postoffice</i>
FANNIE WARTERS.....	LaGrange
MAMIE FRANCES WATERFIELD.....	Munden, Princess Anne Co., Va.
ELIZABETH HAWKES WEAVER (MRS. C. J.).....	Warren Plains
FANNIE MAY WEBB.....	Oxford
BARBARA WEIR.....	Elkin
MALISSA WELLONS.....	Princeton
FONNIE SIMMONS WESTBROOK.....	Kinston
MAUDE WESTBROOK.....	Bentonville
LILLY WHITE.....	Raleigh
BESSIE WHITTED.....	LaGrange
MRS. H. A. WILLIAMS.....	Youngsville
MRS. MATTIE EDGERTON WILLIAMS.....	Louisburg
RUBY WILLIAMS.....	Barnesville
VERNIE SUE WILLIAMS.....	High Point
ETHEL BLANCHE WILLIFORD.....	Dunn, R. 1
PEARL WILLIS.....	Harkers Island
MILDRED WILSON.....	Wilsons Mills
MRS. GENADUS EUSTICE WINSTON.....	Youngsville
MAMIE WITHERS.....	Davidson
ANNIE CHEEK WOMBLE (MRS. E. L.).....	Raleigh
MARY EVELYN WOMBLE.....	Cary
KITTIE WOOD.....	Garner, R. 1
MYRTA BELLE WOODARD.....	Cary
GENEVIEVE WOODSON.....	Cary, R. 1
AZZIE ESTELLE WOODWARD.....	Raleigh, R. 4
FANNIE WOODWARD.....	Warsaw
SALLIE WOODWARD.....	Warsaw
EUGENIA BELLE WOODY.....	Woodsdale
MAGGIE WOOTEN.....	Macclesfield
CHARLES LANGDON WROTON.....	Rock Hill, S. C.
ADA YARBOROUGH.....	Cary
ESTELLE YARBOROUGH.....	Cary
LUCY HELEN YOUNG.....	Louisburg

#### TEACHERS, COUNTY SCHOOL

LUCILLE COZART ALLEN.....	Neuse
ENA MANIS BAGGETT.....	Dunn
MARY BALL.....	Wood
CELESTIA LANE BANKS.....	Raleigh, R. 3
VERDIE BARTTRESS BAREFOOT.....	Dunn
CALLIE BARNES.....	Creswell
KATHLEEN BARNHARDT.....	Huntersville
MARY TYSON BARROW.....	Farmville
WILLIAM HOCUTT BELL.....	Old Trap

<i>Name</i>	<i>Postoffice</i>
ELEANOR BLACKLEY.....	Franklinton
AILEEN MARIE BLALOCK.....	Angier
MARY DAWSON BRANCH.....	Wilson, R. 2
SALLIE BRASWELL.....	Smithfield
KATY BURROUGHS.....	Warrenton
REBA CANFIELD.....	Morehead City
KATE CHAFFIN.....	Lillington
CORA CHAPLIN.....	Castalia
ZOLA COATS.....	Willow Springs
MARY AMANDA COLLIE.....	Wendell
SUDIE CATHERINE COLLIER.....	Buie's Creek
LILLIE CREECH.....	Durham
MINNIE MAY CREECH.....	Durham
MARY ANNA DANIEL.....	Walstonburg
EDNA DAVIS.....	Marshallburg
MARY DICKSON.....	Calypso
BERTHA DIXON.....	Rose Hill
GRACE DIXON.....	Benson
EMMA WINIFRED DUKE.....	Arcola
SARAH ELLA DUNLAP.....	Carthage
OLGA DUNNAGAN.....	West Durham, R. 1
ORA RIGSBEE EAKES (Mrs. E. O.).....	Morrisville
MABELLE ALETHEA EDGERTON.....	Kenly
OSSIE EDWARDS.....	Vass
EVA MAE ENNIS.....	Benson
ILA GREENE ENNIS.....	Buie's Creek
PEARL FARRELL.....	Apex, R. 4
ALGIER MARTHA FINCH.....	Bailey
DELIA BELLE FORBES.....	Shawboro
MRS. LOLA MAE FORT.....	Slocomb
MABEL FULLER.....	Franklinton
CLAIRE HERBERT FUTRELLE.....	Conway
MINNIE GAY.....	Spring Hope
PAULINE GEORGE.....	Four Oaks
VIOLA ELIZABETH GOSS.....	Wendell
EDNA GREENE.....	Zebulon
EULA GREENE.....	Zebulon
MYRTLE GUPTON.....	Gupton
BALLARD HARPER.....	Nashville
ELIZABETH HARRIS.....	Carthage
SALLIE HARRIS.....	Carthage
LEMMA EVA HARVEY.....	Littleton
STELLA HASSELL.....	Creswell
BETTYE HIGH.....	Middlesex



<i>Name</i>	<i>Postoffice</i>
GRACE HIGH.....	Middlesex
EVA LINA HOCKADAY.....	Creedmoor
CLYDE HOCUTT.....	Garner
NONIE HOLLINGSWORTH.....	Bunn
ANNIE LEE HOLOWAY.....	West Durham
BESSIE HOOVER.....	Old Fort
CHRISTINE HORTON.....	Knightdale
NANNIE BELLE HOUSE.....	Louisburg
JOSEPHINE LINK HOWARD (MRS. J. R.).....	Coats
KATE HUDSON.....	Bentonville
KATE HILL IHRIE.....	Wendell
OKLE JACKSON.....	Dunn
MARY ROSE JOHNSON.....	Saxapahaw, R. 1
MYRTLE JOHNSON.....	Dunn
EVA JONES.....	McCullers, R. 1
NANNIE LEATHEA JONES.....	Advance
NANNIE LEE JONES.....	Beulaville
ORA E. JONES.....	Altamahaw, R. 2
LECTOR BELLE KEITH.....	Cardenas
PATTIE DAWSON LAMBERT.....	Ridgeway
RUTH IDA LAMBERT.....	Ridgeway
LOLA MAIE LANGDON.....	Benson, R. 3
CHATTE LEBETTE.....	Fairmont
MRS. JOHNNY LEE.....	Four Oaks
MARY LEE.....	Newton Grove
VESTAL LEE.....	Benson
SALLIE LYON.....	Neuse
TERA MCLAURIN.....	Fayetteville
BLANCHE MONROE.....	Biscoe
LESSIE MOORE.....	Franklinton
GLENNIE MORTON.....	North Harlowe
THELMA MOSS.....	Oxford, R. 2
GLADYS MURRAY.....	Denniston, R. 1
ANNIE LAURA MYRICK.....	Littleton
LOTTIE MYRICK.....	Littleton
ZELA ALTHEA NEWMAN.....	Norlina
VANNIE MAY NORRIS.....	Holly Springs
ANNIE REECE ODUM.....	Conway
ANN CLELLIE O'NEAL.....	Wake Forest
MINDA O'NEAL.....	Neuse, R. 2
ALDA O'QUINN.....	Lillington
LELLA BRYAN OVERTON.....	Kittrell, R. 2
MRS. ANNIE PARKER.....	Pine Level
LILLIAN PARKER.....	Seaboard

<i>Name</i>	<i>Postoffice</i>
MARY PARKER.....	Dunn, R. 5
BEULAH JOHNSON PARRISH (Mrs. P. A.).....	Benson
SADIE ARLENE PARRISH.....	Durham
MARY PATTERSON.....	Jackson Springs
SUSAN PAYNE.....	Sanford
BUNN PEARCE.....	Castalia
LISSIE MAE PEARCE.....	Princeton
DORA ERNESTINE PHELPS.....	Creswell
LUCY MAE PITTMAN.....	Kenly
BEAUFORT A. POWELL.....	Wake Forest, R. 1
DAISY BELLE PREVATT.....	Buie
ALLIE MARIE PRUITT.....	Franklinton
EDITH RAY.....	Neuse, R. 3
MRS. ESTHER STEPHENS RAY.....	Raleigh, R. 1
GERTRUDE REAMS.....	Morrisville
FLETA MAY RITTER.....	Hemp
GRACE ROGERS.....	Delway
KATHLEEN ROGERS.....	Rose Hill
RUBY GULLEY ROYCROFT.....	Fuquay Springs
RUTH SANDERFORD.....	Creedmoor
ALDA SANDLIN.....	Beulaville
ESTELLE SIMPKINS.....	Raleigh
MRS. JUNIUS H. SMITH.....	McCullers
MAMIE WHITFIELD SMITH.....	Seven Springs
ARLINE STALLINGS.....	Macon
EFFIE STANCIL.....	Kenly
ALMA JONES STEPHENS.....	Lillington
CHINNIE STEPHENSON.....	Angier
MRS CLAUDE STEPHENSON.....	Willow Springs
ELGIE STEPHENSON.....	Benson
OCTAVIA DORLAS STEPHENSON.....	Angier
GURTHA STRICKLAND.....	Bailey
BURLAH STURDIVANT.....	Castalia, R. 1
LILLIAN TAYLOR.....	Gumberry
MARY LINDIA THARRINGTON.....	Rocky Mount, R. 3
SUSIE LEE THARRINGTON.....	Louisburg
LOLA THOMAS.....	Jackson Springs
ESTHER TUCK.....	Timberlake, R. 1
EMILY TURNAGE.....	Bath
MINNIE MAE TURNER.....	Olivia
LENA TYNER.....	Four Oaks
CLYDIA WALLACE.....	Four Oaks
BERTHA ANN WATSON.....	Knightdale
VENA WATSON.....	Kenly
THELMA WHEELOUS.....	Creedmoor, R. 1

<i>Name</i>	<i>Postoffice</i>
KATIE BET WHITE .....	Zebulon
ELEANOR WILDER .....	Franklinton
LIZZIE GREY WILDER .....	Knightdale
LACY HARRIELL WILLIAMS .....	Wake Forest
LYLLIAN VIOLA WILLIAMS .....	Bentonville
ELLIE WILLIFORD .....	Moriah, R. 1
LUCILE WINDERS .....	Faison
BEULAH YOUNG .....	Angier

**DEMONSTRATION SCHOOL****Fourth and Fifth Grades**

HARRIET BOWDEN .....	Raleigh
LAWRENCE COVINGTON, JR. ....	Raleigh
MILDRED CULLENS .....	Raleigh
MARTIN K. GREEN .....	Raleigh
THOMAS E. GREEN .....	Raleigh
WILLIAM GRIMES HAYWOOD, JR. ....	Raleigh
NAT HEYWARD .....	Raleigh
REX HUDSON .....	Raleigh
ROBERT SCOTT HUDSON .....	Raleigh
NANCY KENDRICK .....	Raleigh
MARGARET MOSS .....	Raleigh
VINCENT MOSS .....	Raleigh
ELIZABETH PARKER .....	Raleigh
EDITH RANDOLPH .....	Raleigh
JAMES RIGGAN .....	Raleigh
VIRGINIA RIGGAN .....	Raleigh
CAREY ROGERS .....	Raleigh
ELSIE UNDERWOOD .....	Raleigh
JAMES VINSON .....	Raleigh
EVANGELINE C. WHITE .....	Raleigh
WILLIAM WHITE .....	Raleigh
MARY LAURENS WITHERS .....	Raleigh
WILLIAM WITHERS .....	Raleigh

**First and Second Grades**

WILLIAM ANDERSON .....	Raleigh
L. W. BOWDEN, JR. ....	Raleigh
MICOU BROWNE .....	Raleigh
BEE COTNER .....	Raleigh
CLYDE COTNER .....	Raleigh
AULICK CULLINS .....	Raleigh
WILLIAM E. DELOATCH .....	Gibsonville
BERENICE GOODWIN .....	Raleigh



<i>Name</i>	<i>Postoffice</i>
HENRY DOCKERY HAYWOOD.....	Raleigh
SEAMAN N. HUDSON.....	Raleigh
J. B. HUNT, JR.....	Raleigh
MARY HELEN KELLER.....	Raleigh
CAROLINE MANN.....	Raleigh
ALEXANDER PARKER.....	Raleigh
MARGARET PAYNE.....	Raleigh
LOUISE RIGGAN.....	Raleigh
SADIE ROOT.....	Raleigh
BETSIE JANE SENTER.....	Raleigh
DOROTHY MAE SHIPMAN.....	Raleigh
WILLIAM SUMNER, JR.....	Raleigh
PAULINE THORP.....	Berea
CLAUDE UNDERWOOD.....	Youngsville
JOHN PESCU D WITHERS.....	Raleigh
ISABEL WOLF.....	Raleigh

### COTTON GRADING

LOWRY HENRY ALLISON.....	Franklinton
GEORGE LAMBERT BAILLEUX.....	Gozee, Hainaut Province, Belgium
EDWIN BORDEN.....	Goldsboro
JOHN SUMMERELL CHAMBERLAIN.....	Raleigh
JOHN BEE COTNER.....	St. Louis, Mo.
EDWARD FRANK CRUMP.....	Smithfield
TAO-SHEN FOO.....	Shanghai, China
ALLEN HARPER.....	Whitakers
FRANK MARION HARPER, JR.....	Raleigh
STEPHEN ALSTON HART.....	Mooreville
JOHN BENBURY HAYWOOD.....	Raleigh
LAURENS JACOBUS HENNING.....	Sweetwaters, Louis, Trichardt, S. Africa
DUDLEY BROWN HILL.....	Warsaw
CHARLES COLUMBUS JORDAN.....	Royston, Ga.
JOHN SMEDES KNOX.....	Raleigh
CHARLES DENNIS LEE.....	Mount Olive
JOHN HENRY LEWIS.....	Faison
HUEY MICHIE.....	Raleigh
ZACHARIAH ENNISS MURRELL.....	Jacksonville
PETRUS JOHANNES NAUDE.....	Sofdell, Bethal, Transvaal, S. Africa
PETER PHILIP WASHINGTON PLYLER.....	Monroe
PATRICK PERCIVAL PURNELL.....	Franklinton
HENRY THOMAS STEELE.....	Statesville
WALTER FORD TAYLOR.....	Raleigh, R. 5
PETRUS FERREIRA VAN DER WATT.....	Mexico, Maynard, O. F. S., S. Africa

**NON-TEACHERS**

<i>Name</i>	<i>Postoffice</i>
JEANNETTE BALL.....	Raleigh
ETHEL IRENE BAUGH.....	Raleigh
LEONA RUTH BAUGH.....	Raleigh
LIZZIE PULLEN BELVIN.....	Raleigh
MRS. S. J. BUSBEE.....	Raleigh
ANNA HOLLY DEARSTYNE (MRS. R. S.).....	Raleigh
DOROTHY LEWIS DELAMATER.....	Raleigh
MRS. THOMAS PHILMORE DELLINGER.....	Crossnore
ANNIE LOUISE EVANS.....	Raleigh
SADIE JARMAN.....	Louisburg
VIRGINIA HAWKINS ROBARDS.....	Henderson
HARRIET MAY SHAY (MRS. W. W.).....	Raleigh
JOSEPHINE SHIPMAN.....	Raleigh
MRS. JEW IRVIN WAGONER.....	Durham, R. 3
KATY VAN DER WATT (MRS. P. F.).....	Raleigh

**COLLEGE ENTRANCE**

JESSE OSCAR ANTHONY (Rehab.).....	Belew Creek
WILLIAM ASHBY.....	Mount Airy
BLANCHE LOUISE BANKS.....	Raleigh, R. 3
GERALD RAEDEN BLOUNT (Rehab.).....	Mackeys
MELISSA CHAMBERLAIN.....	Raleigh
ELBERT DANIEL CODY (Rehab.).....	Misenheimer
ISAAC CARL COGGINS.....	Bear Creek
LLOYD HENDERSON COOK (Rehab.).....	Red Springs
BESSIE ALLINE DAVIS.....	Raleigh, R. 4
DUNCAN JENNINGS DEVANE (Rehab.).....	Wilmington
JOHN ERVIN DUCKWORTH (Rehab.).....	Morganton
WALTER CURTIS FITZGERALD (Rehab.).....	Thomasville
KATHERINE HARDEN.....	Raleigh
LEVI LARMON HEDGPETH (Rehab.).....	Greensboro
MARGARET LUCILLE JOHNSON.....	Clayton, R. 3
JAMES WESLEY LEWIS.....	Morehead City
ALMA LOUISE SPENCER.....	Fairfield
JOSEPH JEREMIAH VEREEN (Rehab.).....	Raleigh
MARY YARBROUGH.....	Raleigh

## REHABILITATION STUDENTS

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
BENJAMIN BLAINE ABSHER.....	Auto.....	Austin, R. 1
ROSCOE ADDISON.....	Mech. Draft.....	Durham, R. 6
DEMETRIO J. ARANETA.....	Elec.....	Atlanta, Ga.
GEORGE ELAM ARNEY.....	Agr.....	Lenoir, R. 5
LEWIS SLOCUMB AUTRY.....	Agr.....	Autryville, R. 1
MAHLON STANLEY BAGGETT.....	Agr.....	Buckhorn, Va.
COY EATON BAILEY.....	Agr.....	Raleigh
ALEX. FRANK BARBREY.....	M. E.....	Goldsboro
WALTER LEE LEON BARDEN.....	Agr.....	Micro
JOHN HARVEY BARFIELD.....	Prac. Elec.....	Fremont
WILLIAM HUBART BARKER.....	Poul.....	Davidson, R. 2
NEEDHAM BODDY BARNES.....	Agr.....	Goldsboro
THOMAS BRANCH.....	Agr.....	Kernersville, R. 4
LORENZO BRUNER BRASWELL.....	Agr.....	Monroe, R. 2
WALTER MOODY BRAY.....	Auto.....	Rockingham, R. 1
CHARLES SAMUEL BROOKS.....	Auto.....	Bina
HERBERT MITCHELL BROWN.....	Agr.....	Denim Branch, Greensboro
JAMES ARTHUR BRUCE.....	Agr.....	Randleman, R. 1
THOMAS NEWTON BRYSON.....	Agr.....	Cullasaja
THOMAS C. BUTLER.....	Tex.....	Burlington, R. 7
ERNEST FIDDILLIE CAPPS.....	Agr.....	Hendersonville, R. 4
HOYLE BENJAMIN CARPENTER.....	Agr.....	Forest City, R. 3
CLINTON BRACKITT CARTER.....	Agr.....	Reidsville, R. 2
HENRY LOU CARTER.....	Agr.....	Ingold, R. 1
JAMES LEE CATHEY.....	Prac. Elec.....	Mooresville
BENJAMIN OLIVER CHATHAM.....	Agr.....	Fairview, R. 1
MICHAEL BURRISS CHINNIS.....	Agr.....	Phoenix, R. 1
CLAUD DONALD CHURCH.....	Agr.....	Brownwood
JOHN HOYTE CLINE.....	Agr.....	Lawndale
JAMES RANDALL COGGIN.....	Agr.....	Eldorado
JOHN CONNER.....	Agr.....	Fairview
ANDREW GARRALD CRAWLEY.....	Try-out.....	Raeford
LACEY MARTIN CROWELL.....	Agr.....	Mount Gilead, R. 3
PRESTON ALEXANDER DANIELS.....	Agr.....	Columbia, S. C.
THOMAS DANIELS.....	Agr.....	Culberson, R. 1
WILLIAM LEE DAVIS.....	Agr.....	Raleigh
MILLARD CHARLES DAWSON.....	P. Plt. Opr.....	Ulah
MANUEL DAVID DICKERSON.....	Auto.....	Durham
ANDREW OSBON EAKER.....	Tex.....	Shelby
MARION GASTON EAKER.....	Agr.....	High Point
RILEY JEROME EASTER.....	Tex.....	Lexington
CHARLES ELLIOTT.....	Agr.....	Rocky Mount, R. 5
BASIL RIGGAN ELLIS.....	Agr.....	Railegh



<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
JERRY PARKER ELMORE.....	Auto.....	Goldsboro, R. 5
WILLIAM HENRY ENNIS.....	Prac. Elec.....	Charlotte
WILLIAM MARSLENDER EVETT.....	Agr.....	Blounts Creek, R. 1
FRED GUY FLEMING.....	Agr.....	Creedmoor
BEN LEWIS FLOWERS.....	Try-out.....	Fremont
FRANK JAMES FLYNN.....	Agr.....	Uree, R. 2
FOY GUY FOX.....	Auto.....	Gastonia, R. 4
RAYMOND L. GARNER.....	Agr.....	Newport
CHARLES DUNCAN GILCHRIST.....	Agr.....	Cameron, R. 2
CHARLES ERVIN GLENN.....	Agr.....	Black Mountain
TURNER MARTIN GOFF.....	Farm Mech.....	Rocky Mount, R. 5
PATRICK WINSLOW GOODSON.....	Agr.....	Denver
JAMES MCKINLEY GRAY.....	Agr.....	Broadway
WILLIAM FRANKLIN HACKNEY.....	Agr.....	Scotland Neck, R. 2
RAY HAMILTON.....	Auto.....	Sea Level
CLAUDE HARRIS.....	Agr.....	State Road, R. 2
ROE LINDSAY HARRIS.....	Agr.....	Fairfield
ARTHUR WASHINGTON HEATHERLY.....	Agr.....	Canton, R. 1
THOMAS BARNETT HEDDIN.....	Agr.....	Highland
EDWARD HELMS.....	Agr.....	Monroe
HUSTON HENDERSON.....	Agr.....	Jennings, R. 2
JAMES EDGAR HICKS.....	Agr.....	Marion, R. 1
HENRY CLAY HOBBS.....	Tex.....	West Durham
ALVICE JAY HOLLAND.....	Agr.....	Canton, R. 1
HAYWOOD WITT HOLT.....	Agr.....	Raleigh, R. 3
WILLIAM MCPHAIL HOLT.....	Farm Mech.....	Sanford, R. 1
TROY BASCOM HONEYCUTT.....	Tex.....	Oakboro, R. 1
FRED MCKINLEY HYATT.....	Agr.....	Weaverville
FRANK IVEY.....	Auto.....	Clinton
CHARLEY CORBITT JOLLEY.....	Farm Mech.....	Henrietta
ANDREW JONES, JR.....	Agr.....	Catherine Lake, R. 1
TILLMAN WASHINGTON JONES.....	Auto.....	Franklin
WILLIE LOVE JONES.....	Agr.....	Kerr, R. 1
HENRY MASTON KEEN.....	Engr.....	Goldsboro
HERMAN EDGAR KENNEDY.....	Prac. Elec.....	Sanford
KEITH DARGAN KING.....	P. Plt. Opr.....	Cheraw, S. C.
JAMES HENRY LAMBERT.....	Auto Mech.....	Henderson
BENNIE EDGAR LEWIS.....	Agr.....	Zebulon
CHARLES LEMUEL LEWIS.....	Agr.....	Bostic, R. 4
GARLAND LLOYD.....	Auto.....	Maysville
THOMAS MURRY LLOYD.....	E. E.....	Durham
GERALD HOOVER MAHAFFEE.....	M. A.....	Henrietta
FRANK DONALD MARCOM.....	Prac. Elec.....	Morrisville, R. 2
JESSE BALLARD MARTIN.....	A. H.....	Graham

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
FLETCHER ANDREW MASON.....	Agr.....	Black Mountain, R. 1
LORENZO DONALD MASSEY.....	Agr.....	Mount Olive, R. 7
MURPHY NEILL MATTHEWS.....	Tex.....	Lillington
ERNEST ALFRED MELIN.....	Agr.....	Stamford, Conn.
DAVID BRASKER MELTON.....	Agr.....	Monroe, R. 4
CHARLES STEPHEN MILLER.....	Agr.....	Rougemont
ELLIS FLEET MILLSAPS.....	Agr.....	Hiddenite
HORACE MONTGOMERY.....	Agr.....	Mineral Springs, R. 1
JOHN WHEELER MOORE.....	Agr.....	Williamston, R. 2
WILLIAM ALLEN MORTON.....	Agr.....	Maysville
RANSOM DAVID MULL.....	Auto.....	Morganton
CLARENCE PAGE.....	Agr.....	Barnesville, R. 1
DAVID RUSSELL PALMER.....	Agr.....	Waynesville, R. 3
IRVING PARSONS.....	Try-out.....	Candor, R. 1
CLAUDE FERMAN PATTERSON.....	Arch. Draw.....	Jackson Springs, R. 2
WALTER HERBERT PEAKE.....	Agr.....	Green Mountain
GEORGE WILLIS PEELE.....	P. Plt. Opr.....	Goldsboro
HERBERT PENDER.....	P. Plt. Opr.....	Selma, R. 3
JACOB PHIFER.....	Agr.....	Kings Mountain
HOWARD LAFAYETTE PIERCE.....	M. A.....	Rocky Mount
WILLIAM TINES PITCHFORD.....	Auto.....	Littleton, R. 5
WALTER RODERIC PORTER.....	Mech. Draft.....	Rocky Mount
JAMES WILLIAM POTTER.....	Agr.....	LaGrange, R. 1
THAMAR ESPRON PROPST.....	Poul.....	Morganton, R. 4
JOSHUA PULLIAM.....	Agr.....	Roxboro
FRANKLIN KYLE QUINN.....	Agr.....	Asheville, R. 3
EMORY LEE RAY.....	Agr.....	State Road, R. 1
ED. CLEVELAND RAYLE.....	Agr.....	Greensboro
GURNA ANTHONY RICHARDSON.....	Agr.....	Randleman, R. 2
JAMES SAMUEL ROGERS.....	Try-out.....	Monroe, R. 7
JAMES WALTER ROLLINS.....	Agr.....	Randleman, R. 2
CARL E. ROSS.....	Prac. Elec.....	Greenville, R. 1
JAMES KELLY ROSSER.....	Prac. Elec.....	Broadway, R. 1
JOHN PERRY RYALS.....	Agr.....	Benson
EDGAR MANTON SATTERTHWAITE.....	Agr.....	Ransomville, R. 1
GRAHAM LANE SAVAGE.....	Agr.....	Clarkton, R. 3
EVERETT MILTON SENTER.....	Mach.....	Kipling
MOSES LEONARD SHEPPARD.....	Agr.....	Washington
GARFIELD ZACHARY SHOAF.....	Elec.....	Lexington
REID BANKS SIMPSON.....	Agr.....	Jonesboro, R. 3
THOMAS BAXTER SIMPSON.....	Agr.....	Waxhaw, R. 2
JOSEPH BEECHER SMART.....	Agr.....	Union Mills, R. 3
WILLIAM MULLINGTON SMITH.....	Agr.....	Whiteville, R. 1
KELTON NORMAN SNIPES.....	Agr.....	Marion

<i>Name</i>	<i>Course</i>	<i>Postoffice</i>
WALTER BASCOM SPRINKLE.....	Agr.....	Murphy, R. 1
JESTIE WILLIAM STALLINGS.....	Agr.....	Gilkey
ISAAC HENRY STIWINTER.....	Agr.....	Scroll
GRADY COLUMBUS STONE.....	High Sch. Subj.....	Winston-Salem
SAMUEL EDMOND SYKES.....	Auto.....	Spring Hope, R. 2
ROBERT HALE TAYLOR.....	Agr.....	Idlewild
VESTAL COLUMBUS TAYLOR.....	Agr.....	Ararat
SIR WALTER RALEIGH TRIPLETT.....	Poul.....	Purlear, R. 1
AUGUSTUS TURNER.....	Agr.....	Marion
FRANCIS LEON VENABLE.....	Agr.....	Greensboro
JOHN CRAFT WADKINS.....	Agr.....	Entwistle
ULYSSES GRANT WALKER.....	Agr.....	Auburn
ALPHONSO DEKALB WALLACE.....	Agr.....	Batesburg, S. C., R. 2
OSWALD HERBERT WARD.....	Prac. Elec.....	Wallace
SEYMORE WARD.....	Agr.....	Vineland, Star Route
CHARLES AYCOCK WARWICK.....	Auto.....	Wilmington
ERNEST TILLMAN WATERS.....	Agr.....	Wilmington
ERNEST EDWARD WATKINS.....	Agr.....	Macon
HARVEY MARTIN WATSON.....	P. Plt. Opr.....	Yuma
BALLON MABRY WATTS.....	Agr.....	Nakina
PETER ANCELL WEBB.....	Tex.....	Winston-Salem
CHESTER BEAUREGARDE WHITE.....	Agr.....	Gliden
NORWOOD WADE WILLIAMS.....	Agr.....	McCullers, R. 1
WILEY HINTON WILLIAMS.....	Auto.....	Washington, R. 3
MELTON AUGUSTUS WORTHINGTON.....	Prac. Elec.....	Grifton



**THIRTY-SECOND ANNUAL COMMENCEMENT****MAY 31, 1921****DEGREES CONFERRED****BACHELOR OF SCIENCE****IN AGRICULTURE**

Norman Alexander	William Hugh Jones
Lindsey Otis Armstrong	Charles Dickerson Kirkpatrick
Harvey Preston Brower	John Haywood Lane
Samuel Lee Carpenter	Joel Brevard Lawrence
Obed Castelloe	Wilson Copes McCoy
Joseph Stickney Chamberlain	John Daniel Miller
Wilburn Bryan Collins	Augustus Ray Morrow
William Howard Corpening	Emmett Brown Morrow
Benjamin Franklin Daughety	Victor Frederick Orlando Olivier
Walter Connor Eagles	Dolphin Henry Overton
Perry Hamilton Gaston	Edwin Pate
Laurens Adams Hamilton	Edward Ancel Peterkin
John William Harden, Jr.	James Robert Powell
Roy Arthur Hollowell	Charles Louis Rackley
Oliver Knight Holmes	Wade Hampton Rice
William Morton Johnston	Guy Rudisill Sipe
Asbury Crouse Jones	Atticus Morris Williams
David Carlyle Windley	

**IN CHEMICAL ENGINEERING**

Judson Davis Albright, Jr.	Ernest William Constable
Charles Davis Arthur, Jr.	Robert Craig Ernst
James Percy Beal	Kirby Jernigan Quinn
Owens Hand Browne	Thomas Davis Roper, Jr.
Charles Edward Watson	

**IN TEXTILE CHEMISTRY AND DYEING**

Andrew John Leddy

**BACHELOR OF ENGINEERING****IN CIVIL ENGINEERING**

Claude Winifred Absher	Pleasant Leroy Kluttz Deaton
Richard Von Biberstein	Arthur Spruill Jennette
Robert Antine McColough Deal	Leslie LaFayette Jordan

Homer DeWitt Long	Geddie Blair Strickland
Manley Parker Moss	Junius Albert Temple
Lewis Bernard Peck	Duncan Alexander Wicker
Jesse Harris Proctor	Elmer Bernard Young
Thomas Grady Young	

## IN ELECTRICAL ENGINEERING

Hilton Worth Allsbrook	John Keith Jones
Robert Stuart Collins	William Andrew Franklin Lawing
Dewey Augustus Floyd	Samuel Marsh Long
Bartholomew Moore Gatling, Jr.	Warren Staten Mann
John Gatling	Theodore Ruggles Timby
Lev. Charles Guirkin	John Dickson Wallace
Frank Porter Huskin	Robert Edgar Williams, Jr.

## IN MECHANICAL ENGINEERING

Basil Duke Barr	Judson Peele Johnson
Henry Ottis Clodfelter	John Clifton Terry
Robert Andrew Coughenour	Sidney Jones Walters
Joseph Graham Evans	Herbert Carlyle Weathers

## IN TEXTILE MANUFACTURING

Samuel Creighead Alexander	James Furman Lewis
Charles Snead Allen	Edward Branham Manning
Grady Washington Bowers	Bartholomew Figures Moore
Fred Sherwood Childs	George King Murray
Louis Broaddus Daniel	Josephus Daniels Pell
Robert Cliff Hinkle	Martin Luther Rhodes
Richard Greene Kendrick	John Hollis Ripple
Edwin Clinard LeGrand	Otis Allen Zachary

## ADVANCED DEGREES

## MASTER OF SCIENCE

## COURSE IN AGRICULTURE

John Clarence Corl  
John Bee Cotner

Dennis Henry Hall, Jr.  
Carle Clark Zimmerman

## CIVIL ENGINEER

John William Cox

John Bailey Pridgen

## ELECTRICAL ENGINEER

Bascum Otto Austin  
Robert Kenneth Babington

Richard Frederick Giersch, Jr.  
Edgar Allen Hester  
Walter Herbert Smith

## MECHANICAL ENGINEER

Graham Hudson Anthony

Andrew Thomas Smith  
Richard Vernon Terry

## HONORS IN SCHOLARSHIP

*For 1920-1921*

## SENIOR CLASS

C. W. Absher  
J. D. Albright, Jr.  
O. H. Browne  
W. C. Eagles

R. C. Ernst  
A. J. Leddy  
M. P. Moss  
J. H. Proctor

## JUNIOR CLASS

S. F. Mauney, Jr.  
W. I. Pickens

E. G. Singletary  
E. C. Tatum

A. H. Veazey

## SOPHOMORE CLASS

A. M. Fountain

W. H. Jennings, Jr.

## FRESHMAN CLASS

G. A. Chandler

F. S. Trantham

## REHABILITATION STUDENTS

M. B. Chinnis

A. J. Honeycutt

## MEDALS AWARDED

## NATIONAL ASSOCIATION OF COTTON MANUFACTURERS

R. C. Hinkle

## GRADUATING ORATION

M. P. Moss



## REGISTER OF GRADUATES

<i>Name</i>	<i>Degree</i>	<i>Address</i>
CLAUD SHUFORD ABERNETHY..... Member of firm, Abernethy Hardware Co.	B.E. 1916.....	Hickory, N. C.
DURANT STEWART ABERNETHY..... Vice President, Southern Railway Short Lines	B.E. 1906.....	Washington, D. C.
LEROY FRANKLIN ABERNETHY..... Cashier, Consolidated Trust Co.	B.Agr. 1905.....	Hickory, N. C.
CLAUDE WINIFRED ABSHER..... Assistant Engineer, with I. W. Barber, Engineer	B.E. 1921.....	Mount Airy, N. C.
EDWARD ANDREWS ADAMS, JR..... Bridge Repair Department, N. C. State Highway Com.	B.E. 1919.....	Raleigh, N. C.
NELSON ADAMS..... Farmer	B.E. 1904.....	McColl, S. C.
JUDSON DAVIS ALBRIGHT, JR.....	B.S. 1921.....	Charlotte, N. C.
HAYWOOD LEWIS ALDERMAN..... President, The Service Press, Inc.	B.E. 1904.....	Greensboro, N. C.
HENRY MILTON ALEXANDER..... First Lieutenant, Ninth Cavalry, U. S. A	B.E. 1915.....	Manila, P. I.
KEMP ALEXANDER..... Superintendent, Acme Hosiery Mills	B.E. 1900.....	Ashboro, N. C.
NORMAN ALEXANDER..... Agricultural Teacher, Apex Graded School	B.S. 1921.....	Apex, N. C.
NEILY ORMOND ALEXANDER..... Farmer	B.S. 1912.....	R. 17, Matthews, N. C.
SAMUEL CRAIGHEAD ALEXANDER..... With Aberfoyle Manufacturing Co.	B.E. 1921.....	Chester, Pa
WILLIAM DAVIDSON ALEXANDER, JR..... Consulting Drainage Engineer	B.S. 1899.....	Charlotte, N. C.
BONVA CLOSSON ALLEN..... Engineering Department, Westinghouse Electric and Manufacturing Co.	B.E. 1918.....	Moore, Pa.
CHARLES SNEAD ALLEN..... Assistant Teller, Bank of Weldon	B.E. 1921.....	Weldon, N. C.
DANIEL ALLEN..... Farmer and Real Estate Dealer	B.S. 1896.....	Raleigh, N. C.
GEORGE GILDEROY ALLEN..... Assistant Superintendent, Cannon Mills	B.E. 1906.....	Kannapolis, N. C.
LESLIE LYLE ALLEN..... Cotton Merchant	B.E. 1900.....	Spartanburg, S. C.
ROBERT WILSON ALLEN..... County Superintendent of Schools	B.E. 1893.....	Wadesboro, N. C.
WILLIAM GASTON ALLEN..... With State Highway Commission	B.E. 1920.....	Raleigh, N. C.
HILTON WORTH ALLSBROOK..... With Cheatwood-Driscoll Co., Paving Contractors of Richmond, Va.	B.E. 1921.....	Greenville, N. C.
LEWIS ALLEN AMMON..... Dairyman	B.S. 1913.....	Box 51, Mecosta, Mich.
CHARLES SIDNEY ANDREWS..... Salesman, Southern School Supply Co.	B.E. 1914.....	Raleigh, N. C.
GRAHAM HUDSON ANTHONY..... M.E. 1921. Vice President and Secretary, Allen Manufacturing Co.	B.E. 1914.....	Hartford, Conn.
OLIVER STANHOPE ANTHONY..... Anthony & Anthony, Real Estate	B.E. 1916.....	Shelby, N. C.
JOHN CAMILLUS APP..... Chemist, U. S. Public Service Reserve	B.S. 1908.....	Charleston, W. Va.
JOHN ALLEN AREY..... With N. C. Extension Service	B.S. 1909.....	Raleigh, N. C.
LINDSEY OTIS ARMSTRONG..... Instructor Vocational Education, N. C. State College. Half-time Agriculture Teacher, Cary High School	B.S. 1921.....	Raleigh, N. C.
CHARLES DAVIS ARTHUR, JR..... With Department of Public Works	B.S. 1921.....	Raleigh, N. C.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
GILBERT LUTHER ARTHUR, JR. Chemist, State Department of Agriculture	B.S. 1913	Raleigh, N. C.
JOHN W. ARTZ Union Tanning Co.	B.S. 1917	Old Fort, N. C.
DORSEY FROST ASBURY Office, National Savings and Trust Building	B.S. 1898	Washington, D. C.
GEORGE PAGE ASBURY Office Engineer, Southern Railway System (Lines East)	B.E. 1906	Charlotte, N. C.
SAMUEL ERSON ASBURY M.S. 1896. Assistant State Chemist	B.S. 1893	College Station, Texas
SYDNEY WOODWARD ASBURY Farmer	B.E. 1904	Wallville, Md.
LEWIS CARROLL ATKISSON With H. F. Livermore Co., Boston, Mass.	B.E. 1915	Greensboro, N. C.
BASCUM OTTO AUSTIN E.E. 1921. Design Engineer, Westinghouse Electric and Manufacturing Co.	B.E. 1914	Wilkinsburg, Pa.
WILBURN CLEGG AUSTIN Heating Engineer and Draftsman, The Grinnell Co., Inc.	B.E. 1920	North Charlotte, N. C.
GEORGE GANZER AVANT Efficiency and Combustion Engineer, Tidewater Power Co.	B.E. 1918	Wilmington, N. C.
JOHN WILLIAM AVERA With B. F. Huntley Furniture Co.	B.S. 1917	Winston-Salem, N. C.
ROBERT JAMES AVERY Contractor	B.Agr. 1905	Morganton, N. C.
ROBERT KENNETH BABINGTON E.E. 1921. With Southern Bell Telephone and Telegraph Co.	B.E. 1910	Atlanta, Ga.
CHARLES ALBION BACHE Orange Grower and Real Estate Operator	B.E. 1913	Merritt, Fla.
OSCAR LUTHER BAGLEY Salesman, Wholesale Groceries	B.S. 1905	Goldsboro, N. C.
EUGENE CLEVELAND BAGWELL Superintendent, Seaboard Air Line Railway	B.E. 1904	Savannah, Ga.
CLARE RUSSELL BAILEY Farmer	B.S. 1914	Chadbourn, N. C.
HUGH MARCELLUS BAILEY Farmer	B.S. 1914	Woodleaf, N. C.
ROGER MOORE BAILEY Member of Firm, John L. Bailey & Sons	B.S. 1913	Elm City, N. C.
WILLIAM BAILEY With Carolina Power and Light Co.	B.E. 1911	Raleigh, N. C.
WADE VANCE BAISE Assistant Engineer, N. C. State Highway Commission	B.E. 1920	Raleigh, N. C.
BRUCE CRAYTON BAKER Lancaster Cotton Mills	B.E. 1920	Lancaster, S. C.
CHARLES VERNON BAKER State Highway Commission	B.E. 1916	Raleigh, N. C.
FRED ALLEN BAKER Engineer, Cumberland Telephone and Telegraph Co.	B.E. 1916	Nashville, Tenn.
FRANK OSCAR BALDWIN Supervisor of Settling Basins and Laboratory, Richmond City Waterworks	B.S. 1908	Richmond, Va.
WILLIAM HERBERT DOUGHTY BANCK Civil Engineer	B.E. 1908	Wilmington, N. C.
IRA WILSON BARBER Engineer	B.S. 1899	Mount Airy, N. C.
JAMES CLAUDIUS BARBER Farmer	B.E. 1904	R. 1, Barber, N. C.
TOLLIE CHESTER BARBER Secretary-Treasurer, Renfro Hosiery Mills Co.	B.E. 1911	Mount Airy, N. C.
WILLIAM WALTON BARBER Farmer	B.E. 1904	Ammon, Va.
FLETCHER HESS BARNHARDT C.E. 1919. The Phoenix Bridge Co.	B.E. 1901	Phoenixville, Pa.
JAMES MONROE BARNHARDT Farmer	B.S. 1918	Urbanna, Va.

## REGISTER OF GRADUATES

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
BASIL DUKE BARR.....	B.E. 1921.....	West Jefferson, N. C.
Operator, Builders Supply Co.		
WILLIAM ALEXANDER BARRETT.....	B.E. 1904.....	Bremerton, Wash.
In United States Navy Yard		
GEORGE FRANCIS BASON.....	B.E. 1908.....	Ithaca, N. Y.
M.E. 1916. Cornell, Instructor, Cornell University		
JERE WILSON BASON.....	B.S. 1916.....	R. 1, Burlington, N. C.
Agricultural Teacher, Friendship High School		
HERBERT SCANDLIN BATTIE.....	B.E. 1907.....	Greensboro, N. C.
District Sales Manager, Marchant Calculating Machine Co.		
JOHN ROBIN BAUCOM.....	B.S. 1917.....	R. 2, Raleigh, N. C.
Farmer		
SAMUEL OTTO BAUERSFELD, JR.....	B.S. 1919.....	Hamlet, N. C.
Orchardist		
THOMAS LEVINGSTON BAYNE, JR.....	B.S. 1914.....	Ithaca, N. Y.
Assistant in Rural Education, Cornell University		
WALTER ROBERT BAYNES.....	B.S. 1920.....	Columbus, Ohio
Senior in Veterinary Course, Ohio State College		
JAMES PERCY BEALE.....	B.S. 1921.....	Marthaville, La.
Teacher, Natchitoches Parish, La.		
JOHN MANN BEAL.....	B.S. 1911.....	Agricultural College, Miss.
M.S. 1913. Miss. A. and M. Professor of Botany and Forestry, Miss. A. and M. College; Botanist for Miss. Agricultural Experiment Station		
MARVIN EDDLEMAN BEATTY.....	B.E. 1916.....	Monroe, N. C.
State Highway Commission		
JAMES CLAUDIUS BEAVERS.....	B.Agr. 1906.....	Guilford, College, N. C.
Farmer, Poultryman and Agricultural Writer		
SIDNEY HAMILTON BECK.....	B.S. 1898.....	Not located
JOHN LELAND BECTON.....	B.E. 1908.....	Wilmington, N. C.
C. E. 1813, Civil Engineer		
HARWOOD BEEBE.....	B.E. 1908.....	Spartanburg, S. C.
Consulting Engineer		
THOMAS AMBROSE BELK.....	B.S. 1918.....	Mount Holly, N. C.
Farmer		
CHARLES EDWARD BELL.....	B.S. 1911.....	Gainesville, Fla .
Chemist, Florida Experiment Station, University of Florida		
FREDERICK NEIL BELL.....	B.E. 1918.....	East Pittsburgh, Pa.
Engineer, Westinghouse Electric and Manufacturing Co.		
NEEDHAM ERIC BELL.....	B.S. 1906.....	Montgomery, Ala.
Jemison & Co., Inc., of Birmingham, Farm Loans Division		
JAY LANG BENBOW.....	B.S. 1918.....	Oak Ridge, N. C.
Teacher, Commercial Honey Producer and Farm Manager		
JOHN SAMUEL BENNETT.....	B.E. 1916.....	Chapel Hill, N. C.
Superintendent of Operations, University of North Carolina		
WILLIAM OSBORNE BENNETT.....	B.E. 1901.....	Maxton, N. C.
Manager, Elba Manufacturing Co.		
ROBERT LINN BERNHARDT.....	B.S. 1900.....	Salisbury, N. C.
Secretary-Manager, Salisbury Hardware and Furniture Co., and Breeder of Shorthorn Cattle		
LESLIE GRAHAM BERRY.....	B.E. 1900.....	Charlotte, N. C.
President Southern Engineering Co.		
WILMER ZADOCK BETTS.....	B.E. 1918.....	Raleigh, N. C.
With Bridge Department, State Highway Commission		
HERMAN VON BIBERSTEIN.....	B.E. 1914.....	Charlotte, N. C.
Draftsman, R. C. Biberstein, Mill Architect and Engineer		
RICHARD VON BIBERSTEIN.....	B.E. 1921.....	Fayetteville, N. C.
Instrumentman, N. C. State Highway Commission		
JOHN HENDERSON BIRDSONG.....	B.S. 1899.....	Chicago, Ill.
Chief Chemist and Metallurgist, The National Malleable Castings Co.		
JOE PITTMAN BIVENS.....	B.E. 1907.....	Gastonia, N. C.
Secretary and Treasurer, Michael & Bivens, Inc.		
JAMES ADRIAN BIZZELL.....	B.S. 1895.....	Ithaca, N. Y .
M.S. 1900. Ph.D. 1903, Cornell University, Professor of Soil Technology		



<i>Name</i>	<i>Degree</i>	<i>Address</i>
FRED McCULLOUGH BLACK..... Salesman, Westinghouse Electric and Manufacturing Co.	B.E. 1910.....	Milwaukee, Wis.
JAMES CYRUS BLACK..... With Research Department of Aluminum Company of America	B.S. 1920.....	Badin, N. C.
KENNETH LEON BLACK..... President and Treasurer of K. L. Black & Co., Inc., Engineers and General Contractors	B.E. 1906.....	Richmond, Va.
WILLIAM LAMAR BLACK..... With South Florida Contracting Co.	B.E. 1908.....	Key West, Fla.
ENOS CLARKSON BLAIR..... Agronomist, N. C. Extension Service	B.S. 1914.....	Raleigh, N. C.
TYSON YATES BLANTON..... County Agricultural Agent	B.S. 1917.....	Kelso, Wash.
BEVERLEY MOSS BLOUNT..... Department of Science, Cary High School	B.E. 1915.....	Cary, N. C.
GEORGE BENJAMIN BLUM..... County Agent, Davidson County	B.S. 1918.....	Lexington, N. C.
WILLIAM MORTON BOGART.....	B.E. 1903.....	Not located
ALLISON HODGES BOND..... General Superintendent, The Kilbourne & Jacobs Manufacturing Co.	B.E. 1912.....	Columbus, Ohio
THOMAS SAWYER BOND..... Assistant Chief Engineer, International and Great Northern Railway	B.E. 1910.....	Palestine, Texas
LESLIE NORWOOD BONEY..... Architect	B.E. 1903.....	Wilmington, N. C.
FRED WILHELM BONITZ..... Maintenance Engineer, Standard Oil Co.	B.E. 1901.....	Baltimore, Md.
JOHN HENRY WILLIAM BONITZ..... Architectural Inspector, A. C. L. R. R. Co., President and General Manager, Beach Water Co.	B.E. 1920.....	Wilmington, N. C.
JAMES SHEPHERD BONNER..... Exchange Engineer, Cumberland Telephone and Telegraph Co.	B.E. 1916.....	Nashville, Tenn.
WILLIAM DAVID BOSEMAN..... Farmer	B.E. 1902.....	Rocky Mount, N. C.
BARRETT WOODWARD BOULWARE..... Electrical Construction Work	B.E. 1917.....	Carbonton, N. C.
ZOLLY MOSBY BOWDEN..... Electrician, Coronet Phosphate Co.	B.E. 1901.....	Plant City, Fla.
EDWIN DENNIS BOWDITCH..... State Specialist in Gardening, State Horticultural Division	B.S. 1913.....	Raleigh, N. C.
ROY BOWDITCH..... Electrical Engineer, West Virginia Engineering Co.	B.E. 1910.....	Norton, Va.
GRADY WASHINGTON BOWERS..... With Inman Cotton Mills	B.E. 1921.....	Inman, S. C.
ALAN THURMAN BOWLER..... Secretary North Carolina Bonders Association	B.E. 1912.....	Raleigh, N. C.
RODNEY LAW BOYLIN.....	B.S. 1916.....	Not located
ASA GRAY BOYNTON..... Landscape Architect	B.E. 1908.....	Blowing Rock, N. C.
ZEB BOYCE BRADFORD..... With Cannon Manufacturing Co.	B.E. 1917.....	Kannapolis, N. C.
CARL RAY BRADLEY..... Electrical Engineer (Large Motor Division), Wagner Electric Manufacturing Co.	B.E. 1910.....	St. Louis, Mo.
CLARENCE ANDERSON BRAME..... Farmer. With Banner Warehouse of Wilson, N. C.	B.S. 1919.....	R. 3, Lucama, N. C.
JAMES WASHINGTON BRAWLEY..... Vice President and Treasurer, Real Estate and Trust Co.	B.S. 1895.....	Greensboro, N. C.
JOHN BENJAMIN BRAY..... Commissioner of Public Works, City of Raleigh	B.E. 1911.....	Raleigh, N. C.
VICTOR WINFRED BREEZE..... With Southern Engineering Co.	B.E. 1914.....	Charlotte, N. C.
THOMAS JOHNSON BREVARD..... 2025 Winans Avenue	B.S. 1910.....	Flint, Mich.

## REGISTER OF GRADUATES

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
CHARLES MEEKINS BRICKHOUSE..... Farm Demonstration Agent	B.S. 1914.....	Kinston, N. C.
WILLIAM STALEY BRIDGES..... Instructor in Auto Mechanics, N. C. State College	B.E. 1919.....	Raleigh, N. C.
HERMON BURKE BRIGGS..... M.E. 1916. Kaiser Paving Co.	B.E. 1913.....	Red Bluff, Cal.
CLAY DWIGHT BRITTAIN..... Signal Inspector, S. A. L. Railway	B.E. 1916.....	Savannah, Ga.
RALPH BROOKS..... Farmer	B.S. 1916.....	Alliance, N. C.
THOMAS WESTMERO BROOKS..... Engineering Department, Newport News Shipbuilding and Dry Dock Co.	B.E. 1916.....	Hilton Village, Va.
BENJAMIN ALEXANDER BROOM..... Consulting Mechanical and Electrical Engineer	B.E. 1905.....	Sioux City, Iowa
CECIL DEWITT BROTHERS..... 160 Front Street	B.E. 1909.....	New York, N. Y.
HARVEY PRESTON BROWER..... Teacher, Creedmoor High School	B.S. 1921.....	Creedmoor, N. C.
BEDFORD JETHRO BROWN..... Superintendent of Meter Department, Southern Power Company	B.E. 1901.....	Charlotte, N. C.
BRYCE BENJAMIN BROWN..... Testing Department of General Electric Co.	B.E. 1918.....	Schenectady, N. Y.
CLAYTON EDWARD BROWN..... Assistant Engineer, Southern Railway	B.E. 1912.....	Washington, D. C.
FRANK HAMILTON BROWN..... Teacher of Science and Agriculture, Cullowhee Normal and Industrial School	B.Agr. 1908.....	Cullowhee, N. C.
JOEL EDWARD BROWN..... With Standard Oil Co.	B.S. 1911.....	Grimes, Cal.
JAMES HOWARD BROWN..... M.S. 1912. D.V.M. 1914, Kansas City Veterinary College. Veterinarian	B.S. 1911.....	Rich Square, N. C.
WILLIAM BACHMAN BROWN..... Maintenance of Way Department, Southern Railway Co.	B.E. 1911.....	Charlotte, N. C.
OWENS HAND BROWNE..... Graduate Student, Johns Hopkins University	B.S. 1921.....	Baltimore, Md.
JOSEPH BRANDON BRUNER..... With Blyth, Witter & Co., Bonds	B.S. 1915.....	Los Angeles, Cal.
STEPHEN COLE BRUNER..... Chief, Department of Plant Pathology, Estacion Agronomica de Cuba	B.S. 1912.....	Santiago de las Vegas, Cuba
THOMAS KINCAID BRUNER..... Water Department, Bohlen-Huse Coal and Ice Co.	B.E. 1910.....	Memphis, Tenn.
CARNEY JOHN BRYAN..... C. J. Bryan & Co., Wholesale Fish Dealers	B.E. 1907.....	Panama City, Fla.
JOHN HARVEY BRYAN..... M.E. 1913. Steel Sales Agent, 50 Church St.	B.E. 1908.....	New York, N. Y.
KIT BRYAN..... State Highway Commission	B.E. 1911.....	Charlotte, N. C.
DALLAS MARION BUCHANAN..... Tobacco Buyer, Liggett & Myers Tobacco Co.	B.S. 1920.....	Durham, N. C.
JAMES RAMSEY BUCHANAN..... Chief Engineer, Sylva Tanning Co.	B.E. 1914.....	Sylva, N. C.
ELTON ELROY BUCK..... 101 Sanford Place	B.E. 1910.....	Bridgeport, Conn.
GEORGE CLEVELAND BUCK..... Superintendent, Vocational Training School	B.S. 1916.....	Castalia, N. C.
JOSEPH SAMUEL BUFFALOE..... Physician	B.S. 1897.....	Garner, N. C.
HARLEY WILSON BULLARD..... Teacher of Agriculture, Orrum Vocational High School	B.S. 1914.....	Orrum, N. C.
WALTER AUSTIN BULLOCK..... Farmer	B.S. 1895.....	Red Springs, N. C.
WILLIAM CAREY BUNCH..... U. S. Bureau of Fisheries, Edenton Station	B.S. 1920.....	Edenton, N. C.
JAMES HARRY BUNN..... Superintendent, Henderson Cotton Mills and Croatan Spinning Mills	B.E. 1900.....	Henderson, N. C.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
NOAH BURFOOT, JR.....	B.E. 1917.....	Elizabeth City, N. C.
Superintendent, Pasquotank Hosiery Mills		
WILLIAM BRYANT BURGESS.....	B.E. 1908.....	Norfolk, Va.
Supervising Draftsman, Government Navy Yard, Norfolk		
GEORGE EDWARD BUSH.....	B.E. 1919.....	Akron, Ohio
Fabric Department, Firestone Tire and Rubber Co.		
WILLIAM ANDERS BUYS.....	B.E. 1906.....	Belhaven, N. C.
Manager, The Interstate Cooperage Co.		
VON PORTER BYRUM.....	B.E. 1911.....	R. 1, Catawba, N. C.
Station Superintendent, Southern Power Co., Lookout Shoals Station		
BRICE LEGRIER CALDWELL.....	B.S. 1913.....	Vicksburg, Miss.
District Chemist, The Refuge Cotton Oil Co.		
ROBERT OLIN CALDWELL.....	B.S. 1914.....	R. 1, Concord, N. C.
Farmer		
WALTER GRAHAM CALDWELL.....	B.S. 1914.....	Scott, Miss.
Plantation Manager, Delta and Pine Land Co. of Mississippi		
LINDSAY FERGUSON CARLETON.....	B.E. 1907.....	St. Louis, Mo.
Manager, Electric Department, Johns-Manville, Inc.		
CLAUDIUS LEROY CARLTON.....	B.E. 1916.....	Tulsa, Okla.
Sales Engineer, Foamite Firefoam Co.		
JOHN CLINE CARPENTER.....	B.E. 1915.....	Charlotte, N. C.
District Maintenance Engineer, N. C. State Highway Commission		
JOHN SAMUEL PINKNEY CARPENTER.....	B.E. 1903.....	Philadelphia, Pa.
Treasurer of the Mauney-Steel Co., Cotton Yarns		
SAMUEL LEE CARPENTER.....	B.S. 1921.....	China Grove, N. C.
Teacher of Agriculture, Rowan County Farm-Life School		
JOHN WILLIAM CARROLL.....	B.S. 1897.....	Wallace, N. C.
Physician		
ALMON HILL CARTER.....	B.S. 1916.....	Wallace, N. C.
Farmer		
JOHN MANN CARTER.....	B.E. 1915.....	Lynchburg, Va.
President, National Paint and Manganese Co.		
HENRY BROZIER CARTWRIGHT.....	B.E. 1905.....	Jacksonville, Fla.
Assistant Engineer, Valuation Department, Seaboard Air Line Railway Co.		
OBED CASTELLOE.....	B.S. 1921.....	Aulander, N. C.
Farmer		
HENRY ROY CATES.....	B.S. 1911.....	Atlanta, Ga.
Crop Investment Department, Hartford Fire Insurance Co.		
JUNIUS SIDNEY CATES.....	B.S. 1902.....	R. 1, Rosslyn, Va.
M.Agr. 1904. Ph.D., American University, 1915. Agricultural Journalist		
JOHN SUMMERELL CHAMBERLAIN.....	B.S. 1920.....	Raleigh, N. C.
With Caraleigh Fertilizer Co.		
JOSEPH STICKNEY CHAMBERLAIN.....	B.S. 1921.....	Kanona, N. Y.
Farmer		
WILLIAM MILLER CHAMBERS.....	B.E. 1905.....	Maben, W. Va.
Pay Roll Man, W. M. Ritter Lumber Co.		
JAY VICTOR CHAMPION.....	B.E. 1916.....	Baltimore, Md.
District Manager, Nitrate Agencies Co.		
WILLIAM CLAYBORNE CHEEK.....	B.E. 1920.....	Buffalo, N. Y.
Sales Engineer, Worthington Pump and Machinery Corporation		
HARPER NICHOLSON CHERRY.....	B.S. 1918.....	Vanceboro, N. C.
Teacher Vocational Agriculture, Craven County Farm-Life School		
LOUIS GORHAM CHERRY.....	B.E. 1916.....	Raleigh, N. C.
612 Harp St.		
MARK HOPKINS CHESBRO.....	B.Agr. 1906.....	Kelowna, B. C.
Pruning School Instructor, Provincial Department of Agriculture		
FRED SHERWOOD CHILDS.....	B.E. 1921.....	Not located
CONNER CALHOUN CLARDY.....	B.E. 1906.....	San Diego, Cal.
Electrical Engineer, C. C. Clardy Co.		
CHARLES EDWARD CLARK.....	B.S. 1897.....	R. 5, Rocky Mt., N. C.
Market Gardener		
CLETE WALTON CLARK.....	B.S. 1916.....	Castleberry, Ala.
Truck Farmer		



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<i>Name</i>	<i>Degree</i>	<i>Address</i>
DAVID CLARK.....	B.E. 1895.....	Charlotte, N. C.
M.E. 1896; C.E. 1897. Owner and Editor, Southern Textile Bulletin		
JAMES DUNCAN CLARK.....	B.S. 1906.....	Tampa, Fla.
President, Peninsular Paper Co.		
JOHN WASHINGTON CLARK.....	B.E. 1906.....	West Durham, N. C.
B.E. (Tex.) 1907. Superintendent, Erwin Bleaching and Finishing Plant		
THORNE MCKENZIE CLARK.....	B.E. 1909.....	Lincolnton, N. C.
Treasurer and General Manager, Anderson Cotton Mills		
WALTER CLARK, JR. ....	B.E. 1903.....	Charlotte, N. C.
LL.B. 1905; LL.M. 1906. Lawyer		
WILLIAM ALEXANDER GRAHAM CLARK.....	B.S. 1897.....	Washington, D. C.
M.E. 1899; M.E. Cornell University, 1900. Textile Expert to Tariff Commission		
SAMUEL HERBERT CLARKE.....	B.E. 1906.....	Baltimore, Md.
2345 Eutaw Place		
HENRY CALEB CLAY.....	B.E. 1911.....	Moore, Mont.
Ranchman		
WILEY THEODORE CLAY.....	B.E. 1906.....	Sao Paula, Brazil
M.E. 1910. Construction work with M. E. Church, South, Board of Missions		
AMOS BAXTER CLEMENT.....	B.E. 1913.....	Oxford, N. C.
Oxford Hardware Co.		
GEORGE LATTA CLEMENT.....	B.S. 1919.....	Asheville, N. C.
Manager, Elk Mountain Orchard Co.		
WILLIAM RANDOLPH CLEMENTS.....	B.E. 1913.....	Dayton, Ohio
Sales Engineer, The Master Electric Co.		
AMBROSE SCHENCK CLINE.....	B.S. 1917.....	R. 2, Lincolnton, N. C.
Farmer		
FRANKLIN DEWEY CLINE.....	B.E. 1920.....	Washington, N. C.
Asphalt Plant Foreman, R. G. Lassiter and Co.		
HENRY OTTIS CLODFELTER.....	B.E. 1921.....	Asheville, N. C.
Instructor Mechanical Drawing, Asheville High School		
EDWARD LAMAR CLOYD.....	B.E. 1915.....	Raleigh, N. C.
Dean of Students, N. C. State College		
EDWIN LACY COBLE.....	B.S. 1914.....	Raleigh, N. C.
ROBERT BAXTER COCHRAN.....	B.E. 1902.....	East Norwood, Ohio
With Allis-Chalmers Manufacturing Co., Bullock Works		
JAMES KIRK COGGIN.....	B.S. 1920.....	Cary, N. C.
Teacher Vocational Agriculture, Cary High School		
ANSON ELIKEM COHOON.....	B.S. 1898.....	Elizabeth City, N. C.
Farmer		
JOHN ELIOT COIT.....	B.Agr. 1903.....	Los Angeles, Cal.
Consulting Horticulturist, 1225 S. Normandie Ave.		
THOMAS ALEXANDER COLE.....	B.S. 1913.....	Carthage, N. C.
Farmer and Mill Man		
JOHN CALHOUN COLLIER.....	B.E. 1916.....	West Allis, Wis.
With Allis-Chalmers Manufacturing Co.		
PAUL COLLINS.....	B.S. 1901.....	Philadelphia, Pa.
Chemist, I. P. Thomas & Son Co.		
ROBERT STUART COLLINS.....	B.E. 1921.....	Wilmington, N. C.
Rodman, State Highway Commission		
WILBURN BRYAN COLLINS.....	B.S. 1921.....	Raleigh, N. C.
Contractor		
WILLIAM THOMAS COMBS.....	B.E. 1918.....	Washington, D. C.
Junior Hydrographic and Geodetic Engineer, U. S. Coast and Geodetic Survey		
GUY WINSTON COMMANDER.....	B.S. 1915.....	R. 4, Berkley, Va.
Truck Farmer		
ERNEST WILLIAM CONSTABLE.....	B.S. 1921.....	Chapel Hill, N. C.
Graduate Student, University of North Carolina		
HENRY BACON CONSTABLE.....	B.S. 1915.....	Charlotte, N. C.
E. I. Du Pont de Nemours & Co.		
CECIL EDWARDS COOKE.....	B.S. 1920.....	Graham, N. C.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
CHARLES KEARNEY COOKE, JR.	B.E. 1918 Highway Engineer	Louisburg, N. C.
EVERETT HANSON COOPER	M.S. 1916 With Export Leaf Tobacco Co.	Greenville, N. C.
JAMES WESLEY COOPER	B.E. 1919 Assistant Superintendent, Harriet Cotton Mills	Henderson, N. C.
JOHN DOWNEY COOPER	B.E. 1911 Superintendent, Harriet Cotton Mills, Nos. 2 and 3. President, Farmers and Merchants Bank	Henderson, N. C.
SAMUEL ALLEN COOPER	B.S. 1920	Not located
GEORGE WASHINGTON CORBETT, JR.	B.E. 1895 Lumberman and Merchant	R. 2, Currie, N. C.
WILLIAM S. CORBITT	B.E. 1916 With Corbitt Motor Truck Company	Henderson, N. C.
JOHN CLARENCE CORL	M.S. 1921 Instructor, University of California	Berkeley, Cal.
CHARLES EDWARD CORPENING	B.E. 1894 Farmer and Lumber Dealer	R. 2, Lenoir, N. C.
WILLIAM HOWARD CORPENING	B.S. 1921 Instructor in Agronomy, Texas A. & M. College	College Station, Texas
MILTON LEE CORRELL	B.S. 1916 Teacher, Gibson High School	Gibson, N. C.
JOHN BEE COTNER	M.S. 1921 Instructor in Farm Crops, N. C. State College	Raleigh, N. C.
EDWARD LIVINGSTON COTTON	B.E. 1911 Proprietor, Meat Market and Grocery Store	Badin, N. C.
LLEWELLYN HILL COUCH	B.E. 1908 Vice President and General Manager, North State Power Company; Utility Light and Power Company, and Cape Fear Railways, Inc.	Raleigh, N. C.
ROBERT ANDREW COUGHENOUR	B.E. 1921 With Westinghouse Electric and Manufacturing Company	Norwood, Pa.
WALTER MILLER COWLES	B.E. 1909 Service Manager, Norton Motor Company	Pittsburgh, Pa.
DAVID COX	B.E. 1894 746 Graydon Park. Public Surveyor and Civil Engineer	Norfolk, Va.
DAVID DAVIES COX	B.E. 1914 Tennessee Coal, Iron and Railroad Company	Ensley, Ala.
DUNCAN ARCHIBALD COX	B.S. 1906 Manager, Hub Hardware Company	Rowland, N. C.
GEORGE CHANDLER COX	B.E. 1917 Assistant Professor, Electrical Department, N. C. State College	Raleigh, N. C.
JOHN WILLIAM COX	B.E. 1915 C.E. 1921. Junior Hydrographic Engineer, U. S. Coast and Geodetic Survey	Bagley, N. C.
SAINT JOHN COX	B.E. 1914 Instrument Engineer, Sloss-Sheff. Steel & Iron Co.	Ensley, Ala.
FRANCIS EDWIN COXE	B.E. 1917	R. 2, Bennettsville, S. C.
LELAND MIOT CRAIG	B.E. 1914 Vice President, Southern Engineering Co.	Charlotte, N. C.
SHERMAN GRADY CRATER	B.S. 1916 Educational Representative, J. B. Lippincott Co.	Raleigh, N. C.
JOHN BENNETT CRAVEN	B.S. 1913 Superintendent, Peoples Gas, Light and Coke Co.	Chicago, Ill.
WILLIAM LOIS CRAVEN	B.E. 1901 Bridge Engineer, State Highway Commission	Raleigh, N. C.
SIDNEY MOTT CREDLE	B.E. 1916 Civil Engineer	Tarboro, N. C.
WOODFIN GRADY CREDLE	B.S. 1914	R. 2, Swan Quarter, N. C.
CHARLES LESTER CREECH	B.S. 1903 Associate Manager, J. C. Spach Wagon Works	Winston-Salem, N. C.
HORACE DOWNS CROCKFORD	B.S. 1920 Teaching Fellow, Department of Chemistry, University of North Carolina	Chapel Hill, N. C.
ALEXANDER DOANE CROMARTIE	B.Agr. 1906 Farmer	R. 2, Garland, N. C.

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
RICHARD OLIVER CROMWELL.....	M.S. 1916.....	Not located
WILLIAM HENRY CROW.....	B.E. 1910..... Merchant	Monroe, N. C.
RAYMOND CROWDER.....	B.E. 1915..... President, Garage Equipment Company and Crowder Manufacturing Co.	Raleigh, N. C.
RUSSELL ALEXANDER CROWELL.....	B.S. 1918..... Farmer	Candler, N. C.
CHARLES LEE CRUSE.....	B.S. 1912..... Veterinarian	Statesville, N. C.
FELIX GRAY CRUTCHFIELD.....	B.E. 1901..... 607 Spruce St.	Winston-Salem, N. C.
EUGENE ENGLISH CULBRETH.....	B.E. 1903..... With Commercial National Bank	Raleigh, N. C.
HUGH MCCOLLUM CURRAN.....	B.S. 1898..... Forester, Care United States Consul	Bahia, Brazil
LISTON LLOYD DAIL.....	B.S. 1913..... Chemist, Tennessee Coal, Iron, and Railroad Co.	Ensley, Ala.
DALLAS THORNTON DAILY.....	B.E. 1915..... Assistant Engineer, Valuation Department, S. A. L. Railway	Portsmouth, Va.
LOUIS BROADDUS DANIEL.....	B.E. 1921..... With Patterson Mill Co.	Rosemary, N. C.
WALTER LEE DARDEN.....	B.E. 1903..... Engineer of Buildings, Seaboard Air Line Railway	Norfolk, Va.
BENJAMIN FRANKLIN DAUGHETY.....	B.S. 1921..... Farmer	Kinston, N. C.
JOSEPH FRANK DAVIDSON.....	B.E. 1909..... Pacific Locks, Panama Canal	Pedro Miguel, C. Z.
SAMUEL FREDERICK DAVIDSON.....	B.S. 1914..... North Carolina Department of Agriculture	Fayetteville, N. C.
CHARLES WEBB DAVIS.....	B.E. 1917..... Office Engineer, State Highway Commission	Kinston, N. C.
PAUL DEXTER DAVIS.....	B.E. 1913..... Assistant Engineer, Wm. M. Piatt, Engineer	Durham, N. C.
ROBERT VERNON DAVIS.....	B.E. 1916..... District Engineer, Southern Bell Telephone and Telegraph Co.	Montgomery, Ala.
WILLIAM ANDERSON DAVIS.....	B.S. 1918..... Soil Survey, N. C. Department of Agriculture	Lucama, N. C.
WILLIAM EARLE DAVIS.....	B.E. 1910..... Electrician, Connelly Springs Light and Power Co.	Connelly Springs, N. C.
WILLIAM HURD DAVIS.....	B.E. 1911..... Maintenance Engineer, Electrical Department, Tallassee Power Co.	Badin, N. C.
WILLIAM PRESSLEY DAVIS.....	B.E. 1917..... Highway Engineer, Halifax County	Weldon, N. C.
CLAUD COUNCIL DAWSON.....	B.E. 1908..... Superintendent, Mays Mills, Inc.	Cramerton, N. C.
THOMAS THEODORE DAWSON.....	B.E. 1910..... Assistant Engineer, City Engineering Department	Durham, N. C.
ALBERT GEORGE DAY.....	B.E. 1917..... Southern Bell Telephone and Telegraph Co.	Atlanta, Ga.
RALPH CAMPBELL DEAL.....	B.E. 1912..... With Virginia Western Power Co.	Clifton Forge, Va.
ROBERT ANTINE MCCOLOUGH DEAL.....	B.E. 1921..... Draftsman, N. C. State Highway Commission	Raleigh, N. C.
WILLIAM SAMUEL DEAN.....	B.E. 1909..... Cotton Buyer, Roanoke Mills Company and Rosemary Manufacturing Co.	Roanoke Rapids, N. C.
PLEASANT LEROY KLUTTZ DEATON.....	B.E. 1921..... Good Roads Engineer, with Gilbert C. White	Kinston, N. C.
LEONIDAS POLK DENMARK.....	B.E. 1915..... Grant Clerk, Office of Secretary of State	Raleigh, N. C.
THOMAS MARVIN DENSON.....	B.E. 1919..... With State Highway Commission	High Point, N. C.
ERNEST COFIELD DERBY.....	B.E. 1912..... Engineer-Builder	Fayetteville, N. C.



<i>Name</i>	<i>Degree</i>	<i>Address</i>
LOUIS REINHOLD DETJEN.....	M.S. 1911.....	Newark, Del.
Associate Professor of Horticulture. Acting Horticulturist University of Delaware		
MOSES MOORE DEW.....	B.S. 1920.....	Columbus, Ohio
Senior in the Veterinary College, Ohio State University		
EDWIN SEXTON DEWAR.....	B.S. 1911.....	Raleigh, N. C.
Assistant Chemist, North Carolina Department of Agriculture		
JOSEPH CHARLES DEY.....	B.E. 1906.....	Not located
JUNIUS FRANKLIN DIGGS.....	B.S. 1903.....	Rockingham, N. C.
Planter and Merchant		
HUGH WOODY DIXON.....	B.S. 1919.....	Brooklyn, N. Y.
Art Student, Pratt Institute		
WILLIAM SERGEANT DIXON, JR.....	B.E. 1918.....	Mebane, N. C.
With Elkins Motor Car Co.		
LEROY DOCK.....	B.S. 1920.....	Biloxi, Miss.
1412 West Beach		
WILLIAM CARTER DODSON.....	B.E. 1917.....	Charlotte, N. C.
Sales Engineer, H. G. Mayer Textile Machinery		
MINOR CECIL DONNELL.....	B.S. 1917.....	R. 4, Greensboro, N. C.
Farmer		
ARCHIE JAY DOOLITTLE.....	B.E. 1914.....	Passaic, N. J.
Engineer, Portable Machinery Co., Inc.		
CARLTON O'NEAL DOUGHERTY.....	B.E. 1909.....	North, S. C.
Farmer, and Appraiser for the Federal Land Bank of Cola, S. C.		
MCNEELY DUBOSE.....	B.E. 1912.....	Badin, N. C.
E.E. 1920. Assistant Electrical Superintendent, Tallassee Power Co.		
FREDERICK EMMETT DUCEY.....	B.S. 1918.....	Not located
FRED ATHA DUKE.....	B.E. 1909.....	Portsmouth, Va.
With Duke & Smith, Contractors and Engineers		
ROBERT HOBSON DUKE.....	B.E. 1920.....	Johnsonburg, Pa.
With Rolfe Tannery of Kistler Leather Co.		
ALVAH DUNHAM.....	B.S. 1919.....	Raleigh, N. C.
Graduate Student, N. C. State College		
JAMES LEONIDAS DUNN.....	B.E. 1910.....	Scotland Neck, N. C.
Salesman, E. I. Du Pont de Nemours & Co.		
ALVIN DEANS DUPREE.....	B.E. 1908.....	Miami, Fla.
Vice President, Jno. W. Claussen, Inc.		
RAYMOND ROWE EAGLE.....	B.E. 1908.....	New Bern, N. C.
Civil Engineer and Contractor		
WALTER CONNOR EAGLES.....	B.S. 1921.....	Not located
MINNIC LUTHER EARGLE.....	B.Agr. 1908.....	R. 7, Charlotte, N. C.
Farmer		
JOHN IVEY EASON.....	B.S. 1911.....	R. 1, Snow Hill, N. C.
Farmer		
WILLIAM HUNT EATON.....	B.S. 1909.....	Auburn, Ala.
Associate Professor of Dairying, Alabama Polytechnic Institute		
LATTA VANDERION EDWARDS.....	B.E. 1906.....	Winston-Salem, N. C.
C.E. 1911, Cornell University. Consulting Engineer		
CHARLES PATTERSON ELDRIDGE.....	B.E. 1915.....	Raleigh, N. C.
Vice President, North State Construction Co.		
SEBA ELDRIDGE.....	B.E. 1907.....	Lawrence, Kansas
Associate Professor of Sociology, University of Kansas		
TIMOTHY ELDRIDGE.....	B.E. 1904.....	Mount Olive, N. C.
Superintendent, Electric Light Plant		
WILLIAM KING ELDRIDGE.....	B.E. 1915.....	Roanoke, Va.
Motive Power Department, Norfolk and Western Railway Co.		
THOMAS BENJAMIN ELLIOTT.....	B.S. 1918.....	Shelby, N. C.
Teacher Vocational Agriculture, Shelby High School		
WILLIAM HENRY ELLIOTT.....	B.S. 1917.....	R. 3, Fayetteville, N. C.
Farmer		
THEOPHILUS THOMAS ELLIS.....	B.E. 1903.....	R. 4, Henderson, N. C.
Farmer		

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
WELDON THOMPSON ELLIS.....	B.E. 1906.....	Blacksburg, Va.
M.E. 1908. Professor of Power Engineering and Machine Design. Super- intendent Power Plant, Virginia Polytechnic Institute		
LEE BORDEN ENNETT.....	B.S. 1895.....	Silverdale, N. C.
	Stock Farmer	
ROBERT CRAIG ERNST.....	B.S. 1921.....	Minneapolis, Minn.
Graduate Student, School of Chemistry, University of Minnesota		
ALBERT EDWARD ESCOTT.....	B.E. 1906.....	Charlotte, N. C.
Editor and Manager of Cotton Mill News		
RANDAL BENNET ETHERIDGE.....	B.S. 1920.....	Raleigh, N. C.
Instructor, Soils Department, N. C. State College		
WILLIAM CARLYLE ETHERIDGE.....	B.Agr. 1906.....	Columbia, Mo.
M.S. 1908. Ph.D. Cornell, 1915. Professor of Field Crops, University of Missouri		
EARL MONTIER EVANS.....	B.E. 1913.....	Alcoa, Tenn.
Assistant Master Mechanic, Aluminum Company of America		
JOSEPH GRAHAM EVANS.....	B.E. 1921.....	Raleigh, N. C.
Instructor, Mathematics Department, N. C. State College		
BENJAMIN BRYAN EVERETT.....	B.Agr. 1907.....	Palmyra, N. C.
M.S. 1912, University of Wisconsin. Farmer		
JAMES BECKETT EWART.....	B.S. 1909.....	Not located
RALPH RINGGOLD FAISON.....	B.S. 1909.....	Greensboro, N. C.
	908 Magnolia St.	
WILLIAM ALEXANDER FAISON.....	B.E. 1909.....	Chester, Pa.
President, Atlantic Steel Castings Co.		
ARCHIE ARRINGTON FARMER.....	B.E. 1914.....	Schofield Barracks, Hawaii
Captain Signal Corps, U. S. Army, Commanding 11th Hawaiian Division		
ISAAC HERBERT FARMER.....	B.E. 1908.....	Virginia Beach, Va.
JAMES WILLIAM FARRIOR.....	B.E. 1904.....	Warsaw, N. C.
	Physician	
JOHN ALEXANDER FARRIOR.....	B.S. 1916.....	R. 4, Raleigh, N. C.
	Farmer	
WILLIAM DOLLISON FAUCETTE.....	B.E. 1901.....	Norfolk, Va.
C.E. 1910. Chief Engineer, Seaboard Air Line Railroad Co.		
ISAAC HENRY FAUST.....	B.E. 1895.....	Burlington, N. C.
With Hedrick Construction Co.		
JOHN BARTLETT FEARING, JR.....	B.S. 1914.....	Elizabeth City, N. C.
ALEXANDER LITTLEJOHN FEILD.....	M.S. 1914.....	New York, N. Y.
Research Physical Chemist, Union Carbide and Carbon Corporation		
BENJAMIN CAREY FENNELL.....	B.S. 1898.....	Milwaukee, Wis.
M.E. 1900. With Nordberg Manufacturing Co.		
JAMES LUMSDEN FEREBEE.....	B.S. 1902.....	Milwaukee, Wis.
Principal Assistant Engineer, Milwaukee Sewerage Commission		
PERCY BELL FEREBEE.....	B.E. 1913.....	Andrews, N. C.
President, Tri-County Publishing Company, Ferebee & Co., Ferebee & Young Co.		
BENJAMIN TROY FERGUSON.....	B.Agr. 1908.....	Wilson, N. C.
County Farm Demonstration Agent		
JOHN LINDSAY FERGUSON.....	B.E. 1907.....	Pedro Miguel, C. Z.
Electrician, Panama Canal, U. S.		
KARL MCATEE FETZER.....	B.E. 1914.....	New York, N. Y.
Western Electric Company, Department 210K		
WALTER GOSS FINCH.....	B.E. 1905.....	Baltimore, Md.
Civil Engineer, U. S. Engineer Office, 309 Custom House		
WILLIAM WALTER FINLEY.....	B.Agr. 1904.....	R. 1, Charlottesville, Va.
Proprietor, Win Wilkes Farm		
PAUL BRANDON FLEMING.....	B.E. 1918.....	Cleveland, Ohio
With Phegley & Szekely, Consulting Engineers		
LANDON CABELL FLOURNOY.....	B.E. 1918.....	Birmingham, Ala.
Distribution Engineer, Alabama Power Co.		
DEWEY AUGUSTUS FLOYD.....	B.E. 1921.....	Schenectady, N. Y.
Student Engineer, General Electric Co.		
DANIEL BURNIE FLOYD.....	B.E. 1913.....	Camp Knox, Ky.
Field Lieutenant, Field Artillery, United States Army		

<i>Name</i>	<i>Degree</i>	<i>Address</i>
EDWARD YORK FLOYD.....	B.S. 1920..... Farmer	R. 1, Hester, N. C.
FRANK FULLER FLOYD.....	B.E. 1893..... Vice President and Sales Manager, Jellico Coal Mining Co.	Knoxville, Tenn.
AARON CONARD FLUCK.....	B.E. 1915..... Office Engineer, With The Braden Copper Co.	Rancagua, Chile, S. A.
FRANK LINDSAY FOARD.....	B.S. 1909..... Farmer	R. 7, Salisbury, N. C.
JAMES FONTAINE.....	B.E. 1914.....	R. 2, Woodsdale, N. C.
MATTHEW MAURY FONTAINE.....	B.E. 1916..... Lumber Dealer	R. 2, Woodsdale, N. C.
RUFUS EUGENE FORBIS.....	B.E. 1910..... M.E. 1913. Mechanical Engineer, Chemical Construction Co.	Charlotte, N. C.
ARTHUR CRAWFORD FOSTER.....	B.S. 1917..... With Cotton and Truck Experiment Station	Sanford, Fla.
SHIRLEY WATSON FOSTER.....	B.Agr. 1906..... Entomologist and Manager Insecticide Department, General Chemical Co.	San Francisco, Cal.
WILLIAM BENJAMIN FOSTER.....	B.E. 1915.....	Raleigh, N. C.
GEORGE WASHINGTON FOUSHEE.....	B.E. 1904..... Secretary and Treasurer, Dicks Laundry Co.	Greensboro, N. C.
ELIAS VAN BUREN FOWLER.....	B.E. 1907..... Farmer	R. 1, Horseshoe, N. C.
ROSCOE LOOMIS FOX.....	B.E. 1909..... In Charge of Office, Pound & Moore	Charlotte, N. C.
JAMES ROSCOE FRANCK.....	B.S. 1914..... Farmer	Richlands, N. C.
GEORGE STRONACH FRAPS.....	B.S. 1896..... Ph.D., Johns Hopkins University. State Chemist of Texas. Chemist, Texas Experiment Station. Chemist, Texas Feed Control	College Station, Texas
DANIEL ROBERT STEELE FRAZIER.....	B.E. 1918..... Road Contracting	Monroe, N. C.
JOHN ALEXANDER FRAZIER.....	B.E. 1916.....	R. 1, King's Creek, N. C.
ELMO VERNON FREEMAN.....	B.E. 1911..... Salesman, Westinghouse Electric and Manufacturing Co.	Middlesboro, Ky.
EDWIN WOOD FULLER.....	B.E. 1919.....	Raeford, N. C.
PERCY LEIGH GAINNEY.....	B.Agr. 1908..... M.S. 1910. Associate Professor Bacteriology, Kansas State Agricultural College	Manhattan, Kansas
EDGAR WILLIAM GAITHER.....	B.S. 1904..... District Farm Demonstration Agent, Eastern District	Goldsboro, N. C.
JAMES JERVEY GANTT.....	B.E. 1910..... Assistant Engineer, Florida East Coast Railway Co.	St. Augustine, Fla.
FREDERICK CARLTON GARDNER.....	B.E. 1917..... Assistant Resident Engineer, Phoenix Utility Company, Care Old Company Club	Lansford, Pa.
JUNIUS TALMAGE GARDNER.....	B.E. 1908..... With U. S. Postoffice, Shelby, N. C.	Shelby, N. C.
OLIVER MAX GARDNER.....	B.S. 1903..... Lawyer	Shelby, N. C.
ZEBULON CLIFTON GARDNER.....	B.S. 1916..... Government Employee	Washington, D. C.
CLEMENT LEINSTER GARNER.....	B.E. 1907..... Hydrographic and Geodetic Engineer, U. S. Coast and Geodetic Survey	Washington, D. C.
EARLY BAXTER GARRETT.....	B.S. 1918..... County Agricultural Demonstration Agent	Greensboro, N. C.
PERRY HAMILTON GASTON.....	B.S. 1921..... Teacher of Agriculture	Hiddenite, N. C.
BARTHOLOMEW MOORE GATLING, JR.....	B.E. 1921..... With Southern Bell Telephone and Telegraph Co.	Columbia, S. C.
JOHN GATLING.....	B.E. 1921..... Inspector, State Highway Commission	Lenoir, N. C.
LEWIS PRICE GATTIS.....	B.E. 1909..... Manager, Carolina Portland Cement Co.	Greenville, S. C.



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<i>Name</i>	<i>Degree</i>	<i>Address</i>
JOHN GEORGE HARVEY GEITNER, JR. With A. A. Shuford Cotton Mills	B.E. 1914	Hickory, N. C.
EDWARD MOORE GIBBON City Engineer	B.E. 1893	South Jacksonville, Fla.
NICHOLAS LOUIS GIBBON Special Agent, Division of Manufactures, Department of Commerce	B.S. 1897	Washington, D. C.
SETH MANN GIBBS Resident Engineer, N. C. State Highway Commission	B.E. 1908	Wilmington, N. C.
THOMAS FENNER GIBSON Consulting Engineer, 908 Franklin Trust Building	B.E. 1912	Philadelphia, Pa.
LAMAR CARSON GIDNEY Engineering Department, Southeastern Underwriters Association	B.E. 1903	Shelby, N. C.
RICHARD F. GIERSCH, JR. E.E. 1921. Electrical Engineer	B.E. 1912	Lawndale, N. C.
LOVIC RODGERS GILBERT T.E. 1915. Superintendent, Caraleigh Mills Co.	B.E. 1907	Raleigh, N. C.
PETER MELVIN GILCHRIST Farmer	B.S. 1915	Laurinburg, N. C.
RALPH ALLISON GILL Assistant to Superintendent of Railways, El Paso Electric Railway Co.	B.E. 1914	El Paso, Texas
GEORGE WILLIAM GILLETTE Captain, Corps of Engineers, U. S. Army	B.E. 1911	Camp A. A., Humphreys, Va.
MAURICE MORDECAI GLASSER Standard Electric Co.	B.E. 1908	Charleston, S. C.
BENJAMIN DUKE GLENN Representative, Erwin Yarn Agency, Inc.	B.E. 1918	Philadelphia, Pa.
CHARLES WILLIS GOLD Treasurer, Jefferson Standard Life Insurance Co.	B.S. 1895	Greensboro, N. C.
M. HENRY GOLD Trainmaster, Seaboard Air Line Railway	B.E. 1908	Waldo, Fla.
ROY DURANT GOODMAN County Farm Demonstration Agent	B.S. 1913	R. 2, Concord, N. C.
AMZI NEALY GOODSON Signal and Electrical Department, Southern Railway	B.E. 1916	Salisbury, N. C.
HOWARD HENLEY GORDON Manager, Glenmore Stock Farm	B.S. 1919	Chula, Va.
CICERO FRED GORE Superintendent and Engineer of Highways, Halifax County	B.E. 1913	Weldon, N. C.
ALBERT SIDNEY GOSS Chief Engineer, Georgia-Alabama Power Co.	B.E. 1909	Albany, Ga.
JOHN DAVID GRADY Farmer and Trader	B.Agr. 1908	Great Falls, S. C.
ROBERT WALTER GRAEBER County Agricultural Demonstration Agent	B.S. 1911	Statesville, N. C.
WILLIAM HAYWOOD GRAHAM, JR. Assistant Traffic Engineer, Southern Bell Telephone and Telegraph Co.	B.E. 1912	Atlanta, Ga.
ROBERT STRICKLER GRAVES President and General Manager, Chagrin Valley Electric Co.	B.E. 1907	Chagrin Falls, Ohio
CHARLES POOL GRAY Merchant	B.E. 1909	Buxton, N. C.
FRANK TEMPLE GRAY Toll Engineer, Southern Bell Telephone and Telegraph Co.	B.E. 1915	Charlotte, N. C.
GEORGE PENDER GRAY	B.S. 1893	Not located
JAMES MILLER GRAY Assistant Director, Agricultural Extension Service	B.S. 1910	Raleigh, N. C.
STERLING GRAYDON Treasurer, Aileen Mills, Inc.	B.E. 1905	Charlotte, N. C.
ANDREW HARTSFIELD GREEN Fire Insurance Adjuster, Southern Adjustment Bureau	B.S. 1909	Raleigh, N. C.
MARION JACKSON GREENE 308 Central Avenue	B.S. 1896	Charlotte, N. C.
GEORGE MAXWELL GREENFIELD With Standard Oil Company, of New Jersey	B.S. 1920	Charleston, S. C.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
KENNETH LEE GREENFIELD..... Agricultural Instructor, Whitmell Farm Life School	B.S. 1916.....	Whitmell, Va.
ARTHUR WYNNS GREGORY..... Farmer and Merchant	B.S. 1906.....	Halifax, N. C.
JOHN LEROY GREGSON, JR..... Engineer, State Highway Commission	B.E. 1917.....	Charlotte, N. C.
PAUL STIREWALT GRIERSON..... Chief Engineer, Charles Cory & Son, Inc.	B.E. 1904.....	New York, N. Y.
WILLIAM HENRY GRIFFIN..... Member of firm, W. H. Griffin & Son, Coal and Wood Dealers	B.E. 1914.....	Goldsboro, N. C.
LEV CHARLES GUIRKIN..... With Southern Bell Telephone and Telegraph Co.	B.E. 1921.....	Columbia, S. C.
JOSEPH PERRIN GULLEY..... Traveling Salesman, Woodhouse Electric Co.	B.E. 1904.....	Norfolk, Va.
RICHARD NESTUS GURLEY.....	B.E. 1920.....	Shelby, N. C.
WINSTON PAYNE GWATHMEY..... Assistant Engineer, C. and O. Railway	B.E. 1913.....	Richmond, Va.
JAMES HOLMES HADDOK..... Efficiency Department, Erwin Cotton Mills Co.	B.E. 1915.....	Durham, N. C.
DORSEY YATES HAGAN..... Real Estate	B.E. 1908.....	Greensboro, N. C.
FRANK JOSHUA HAIGHT..... With U. S. Coast and Geodetic Survey	B.E. 1917.....	Washington, D. C.
FELIX STANTON HALES..... C. E., Cornell University, 1916. Assistant Engineer, N. Y. C. and St. L. Ry.	B.E. 1913.....	Cleveland, Ohio
CHARLES GANZER HALL..... General Superintendent, Tauton Manufacturing Co.	B.E. 1913.....	Providence, R. I.
DENNIS HENRY HALL, JR..... M.S. 1921. Instructor in Poultry Science, N. C. State College	B.S. 1919.....	Raleigh, N. C.
JOHN GREENE HALL, JR..... With State Highway Commission	B.E. 1920.....	Auburn, N. C.
JOHN HUBBARD HALL, JR..... Lawyer	B.S. 1915.....	Gatesville, N. C.
HORACE LESTER HAMILTON..... With N. W. Ayer & Son, Advertising Agents	B.E. 1906.....	Philadelphia, Pa.
LAURENS ADAMS HAMILTON..... Dairy Manager, Erlanger Cotton Mills Co.	B.S. 1921.....	Erlanger, N. C.
ROBERT WILLIAMS HAMILTON, JR..... Farmer	B.S. 1916.....	R. 1, Pacolet, S. C.
WILLIAM ROY HAMPTON..... Owner, Firm of W. H. Hampton & Son, Inc., Merchants and Bankers	B.S. 1909.....	Plymouth, N. C.
THOMAS WHEELER HANCOCK, JR..... Farmer	B.S. 1920.....	Jacksonville, N. C.
LEROY CORBETT HAND..... Merchant	B.E. 1913.....	Chadbourn, N. C.
JOHN ISAAC HANDLEY..... M.S. 1916. President and General Manager, Southeastern Laboratories, Inc.	B.S. 1904.....	Atlanta, Ga.
JOHN FREDERICK HANSELMAN.....	B.E. 1906.....	Emporia, Va.
JOHN WILLIAM HARDEN, JR.....	B.S. 1921.....	Raleigh, N. C.
PHILIP WILLIAM HARDIE..... Captain, Coast Artillery Corps, U. S. Army	B.E. 1907.....	Fort Sherman, C. Z.
JARVIS BENJAMIN HARDING..... C.E. 1909. Engineer, Pitt County Highway Commission	B.E. 1904.....	Greenville, N. C.
ROBERT MCKENZIE HARDISON..... B. Arch., Columbia University, 1915. District Engineer, Corrugated Bar Co.	B.E. 1912.....	Boston, Mass.
NATHAN DAVID HARGROVE..... With The Imperial Tobacco Co., Ltd.	B.S. 1912.....	Richmond, Va.
RICHARD HUGH HARPER..... With Ford Motor Co.	B.S. 1905.....	Charlotte, N. C.
GEORGE ROLAND HARRELL..... With Grasselli Chemical Company as Division Head in Manufacturing Department	B.S. 1900.....	Grasselli, N. J.
JOHN WILLIAM HARRELSON..... M.E. 1915. Professor of Mathematics, N. C. State College	B.E. 1909.....	Raleigh, N. C.

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
ADAM HUGH HARRIS.....	B.S. 1920.....	Smithfield, N. C.
Salesman, Sanders Motor Co.		
CARL RUSH HARRIS.....	B.F. 1917.....	Lancaster, S. C.
With Lancaster Cotton Mills		
CEBERN DODD HARRIS.....	B.S. 1897.....	Louisville, Ky.
Partner, Garrett and Harris, Insurance Agency		
GORDON HARRIS.....	B.E. 1909.....	New York City
E.E. 1914. Electrical Engineer, Murrie & Co., 74 Broadway, Engineers		
JOHN FLEMING HARRIS.....	B.E. 1917.....	High Point, N. C.
Box 221		
RUSSELL PEYTON HARRIS.....	B.S. 1915.....	Chapel Hill, N. C.
Teacher Vocational Agriculture, Chapel Hill Public School		
THOMAS DEVIN HARRIS.....	B.E. 1911.....	Albemarle, N. C.
Highway Engineer		
WILLIAM HENRY HARRISS.....	B.E. 1895.....	New York, N. Y.
M.E. 1896. Vice President, Liberty Textile Corporation		
ABRAM EDGAR HARSHAW.....	B.E. 1918.....	Newport News, Va.
Instructor in Mechanical Drawing, Apprentice School, Newport News Shipbuilding and Dry Dock Co.		
HENRY MERCER HARSHAW.....	B.E. 1915.....	Atlanta, Ga.
President, South Atlantic Auto Sales Co.		
THOMAS ROY HART.....	B.E. 1913.....	Raleigh, N. C.
T.E. 1920. Instructor in Textile Engineering, N. C. State College		
ADOLPH THEODORE HARTMANN.....	B.E. 1917.....	Charlotte, N. C.
Contractor		
FRED BRYAN HARTON.....	B.S. 1920.....	Hendersonville, N. C.
Teacher of Vocational Agriculture		
HARRY HARTSELL.....	B.E. 1912.....	Raleigh, N. C.
Professor of Physical Education, N. C. State College		
JOHN HARVEY, JR.....	B.E. 1914.....	West Philadelphia, Pa.
M.D. University Hospital, Philadelphia, Pa.		
JAMES SHOFFNER HATHCOCK.....	B.S. 1919.....	R. 2, Wilson, N. C.
Teacher of Science, Rock Ridge High School		
JOHN RUBY HAUSER.....	B.E. 1918.....	Cincinnati, Ohio
Industrial Sales Department, Westinghouse Electric and Manufacturing Co.		
FRANK HAWKS.....	B.E. 1910.....	Newport News, Va.
Box 713		
CLAUDE JACQUES HAYDEN.....	M.S. 1916.....	Clemson College, S. C.
Associate Professor Horticulture, Clemson Agricultural College		
HENRY WADSWORTH HAYWARD.....	B.E. 1917.....	Toledo, Ohio
Industrial Fuel Engineer, Combustion Utilities Corporation of New York		
EDMUND BURKE HAYWOOD.....	B.E. 1910.....	Raleigh, N. C.
WILLIAM STEPHEN HAYWOOD.....	B.E. 1916.....	Newport News, Va.
With Engine Estimating Division, Newport News Shipbuilding and Dry Dock Co.		
JOKTAN LAFAYETTE HEMPHILL.....	B.E. 1907.....	Hoboken, N. J.
President, J. L. Hemphill & Co., Inc.		
HARRY BENJAMIN HENDERLITE.....	B.E. 1915.....	Raleigh, N. C.
Assistant to State Highway Engineer, N. C. State Highway Commission		
LEONARD HENDERSON.....	B.E. 1909.....	Greensboro, N. C.
With State Highway Commission		
MAURICE HENDRICK.....	B.E. 1908.....	Cliffside, N. C.
General Superintendent, Cliffside and Haynes Mills		
JOHN WADE HENDRICKS.....	B.S. 1917.....	Newton, N. C.
County Agricultural Demonstration Agent		
JESSE MEACHEM HENLEY.....	B.S. 1920.....	Jamestown, N. C.
Agricultural Teacher, Jamestown High School		
LEONARD ORR HENRY.....	B.E. 1916.....	Charlotte, N. C.
Junior Engineer, Southern Bell Telephone and Telegraph Co.		
HARRY LEE HERMAN.....	B.S. 1920.....	Conover, N. C.
Farmer		
VERNON RAY HERMAN.....	B.S. 1915.....	Tarboro, N. C.
M.S. 1920. Plant Breeder and General Manager, Edgecombe Seed Breeders' Assn.		
LAWRENCE JAMES HERRING.....	B.Agr. 1907.....	Wilson, N. C.
D.V.S., Kansas City Veterinary College. Veterinarian		



<i>Name</i>	<i>Degree</i>	<i>Address</i>
JERE ISAAC HERRITAGE..... Civil Engineer, Land and Industrial Department, Norfolk-Southern Railway Co.	B.E. 1905.....	Norfolk, Va.
EDGAR ALLEN HESTER..... E.E. 1921. Assistant Electrical Engineer, Brooklyn Edison Co., Inc.	B.E. 1916.....	Brooklyn, N. Y.
THOMAS JASPER HEWITT..... Junior Engineer, U. S. Engineer Office	B.E. 1913.....	Wilmington, N. C.
CLARENCE WILSON HEWLETT..... Assistant Professor Physics, State University of Iowa	B.E. 1906.....	Iowa City, Iowa
JOHN GRAY HICKS..... Life Insurance Business	B.S. 1919.....	Wilmington, N. C.
RUFUS WILLIAM HICKS, JR..... M.E. 1915. Managing Director, Sanitary Equipment Construction Co.	B.E. 1910.....	Wilmington, N. C.
BASCOMBE BRITT HIGGINS..... M.S. 1910; Ph.D. 1913. Botanist, Georgia Agricultural Experiment Station	B.S. 1909.....	Experiment, Ga.
LYDA ALEXANDER HIGGINS..... Dairy Husbandman, Extension Department, Mississippi Agricultural College	B.S. 1910.....	Starkville, Miss.
RILEY WEAVER HIGGINS..... Farm and Dairy Manager, for J. M. Shook	B.S. 1913.....	R. 4, Asheville, N. C.
JAMES ALLAN HIGGS, JR..... C.E. 1910. Resident Manager, Southeastern District, Massey Concrete Products Corporation, 1007 Candler Building	B.E. 1906.....	Atlanta, Ga.
JERE EUSTIS HIGHSMITH..... Farmer	B.S. 1897.....	Parkersburg, N. C.
DANIEL HARVEY HILL, JR..... Treasurer, Hill, Clark & Co. Associate Editor, Southern Textile Bulletin	B.S. 1909.....	Charlotte, N. C.
DAVID RAYMOND HINKLE..... Superintendent, Kinston Cotton Mill	B.E. 1911.....	Kinston, N. C.
ROBERT CLIFF HINKLE..... Section Hand, Spinning Room, Cliffside Cotton Mills	B.E. 1921.....	Cliffside, N. C.
GUY FRANCIS HINSHAW..... C.E. 1915. Hinshaw & Ziglar, Civil Engineers	B.E. 1907.....	Winston-Salem, N. C.
EDWARD GIBBON HOBBS..... Cotton Business	B.S. 1920.....	Greensboro, N. C.
BRUCE DUNSTON HODGES..... Partner, Gents Furnishing Store, Moseley-Hodges Co.	B.E. 1917.....	Kinston, N. C.
GEORGE HERBERT HODGES..... Superintendent of Continental No. 2 Mine, H. C. Frick Coke Co.	B.E. 1904.....	Uniontown, Pa.
RALPH HINTON HODGES..... With Thompson & Hodges, Seed and Feed, Wholesale and Retail	B.S. 1916.....	Washington, N. C.
WILBUR BREEDEN HODGES.....	B.S. 1920.....	Bennettsville, S. C.
EDGAR ALLAN HODSON..... B.S. Alabama Polytechnic Institute, 1911. Agent in Cotton Marketing Demonstrations, Agr. Extension Division, University of Arkansas	M.S. 1914.....	Little Rock, Ark.
LABAN MILES HOFFMAN, JR..... Cashier, Bank of Dallas	B.E. 1905.....	Dallas, N. C.
WILLIS ASKEW HOLDING..... Member of firm, King & Holding, Men's Clothing	B.S. 1912.....	Raleigh, N. C.
CHARLES BOLLING HOLLADAY..... Retired	B.E. 1893.....	Wilmington, Del.
ROY ARTHUR HOLLOWELL..... Farmer	B.S. 1921.....	Aulander, N. C.
EDISON PARKER HOLMES..... Agent, Philadelphia Storage Battery Co.	B.E. 1917.....	Greensboro, N. C.
OLIVER KNIGHT HOLMES..... Farmer	B.S. 1921.....	R. 2, Fayetteville, N. C.
THOMAS HALL HOLMES, JR..... Manager, Wayne Red Brick Co.	B.E. 1916.....	Goldsboro, N. C.
RAY AUGUSTUS HOLSHOUSER.....	B.E. 1920.....	Not located
DEAN RONEY HOLT..... Hydraulic Department, Allis-Chalmers Manufacturing Co.	B.E. 1916.....	Milwaukee, Wis.
PETER ARMSTRONG HOLT..... L. Banks Holt Manufacturing Co.	B.S. 1913.....	Graham, N. C.

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
WILLIAM NORMAN HOLT.....	B.E. 1907.....	Smithfield, N. C.
Member of firm of Holt Oil Co.		
EDWARD HOLLAND HOLTON.....	B.S. 1917.....	Winston-Salem, N. C.
With R. J. Reynolds Tobacco Co.		
SOLOMON LINN HOMEWOOD.....	B.S. 1920.....	Raleigh, N. C.
Instructor and Freshman Athletic Coach, N. C. State College		
BENJAMIN OLIVER HOOD.....	B.E. 1901.....	Port Newark, N. J.
C.E. 1919. Designer, Submarine Boat Corporation		
HARRY ELEY HOOD.....	B.E. 1920.....	Schoolfield, Va.
Industrial Chemist, Riverside and Dan River Cotton Mills		
LOUIE LEE HOOD.....	B.E. 1910.....	Asheville, N. C.
Hood Music Co.		
DAVID LEE HOOPER.....	B.E. 1915.....	Edgewood, Md.
Captain, Chemical Warfare Service, Edgewood Arsenal		
ROBERT MULLEN HOOPER.....	B.E. 1917.....	Atlanta, Ga.
With Engineering Department, Southern Bell Telephone and Telegraph Co.		
WILLIAM RANSOM HOOTS.....	B.S. 1917.....	East Flat Rock, N. C.
Carolina Nursery Co.		
HERNDON HOPKINS.....	B.S. 1915.....	Staley, N. C.
Farmer		
WALTER CLEARY HOPKINS.....	B.E. 1913.....	Baltimore, Md.
Engineer of Bridges, Maryland State Roads Commission		
WAYNE ARRINGTON HORNADAY.....	B.S. 1909.....	Greensboro, N. C.
M.S. 1910. D.V.M., Kansas City Veterinary College. Veterinarian, City		
Milk and Meat Inspector		
FRANK WILLIAM HOWARD.....	B.E. 1917.....	Bridgeport, Conn.
With Connecticut State Highway Department, New Milford Division		
JESSE McRAE HOWARD.....	B.E. 1904.....	Charlotte, N. C.
Technical Demonstrator, Dyestuffs Sales Department, Charlotte Office, E. I.		
DuPont de Nemours Co.		
JOHN HOWARD.....	B.S. 1896.....	Middlesboro, Ky.
Attorney at Law		
JOHN STEWART HOWARD.....	B.S. 1915.....	Salemburg, N. C.
Teacher of Agriculture, Salemburg High School		
PAUL NOBLE HOWARD.....	B.E. 1916.....	Charlotte, N. C.
Vice President, Blythe Bros. Co., Engineers and Contractors		
SAMUEL BENJAMIN HOWARD.....	B.E. 1913.....	Newton, N. C.
Engineer, Catawba County		
RALPH WILKINSON HOWELL.....	B.S. 1912.....	Terra Ceia, N. C.
Manager, The Nissen Farms		
JESSE FRANCIS HUETTE.....	B.E. 1914.....	Newport News, Va.
Newport News Shipbuilding and Dry Dock Co.		
BRANTON FAISON HUGGINS.....	B.E. 1904.....	Griffin, Ga.
Contractor and Engineer		
HENRY ALLEN HUGGINS.....	B.S. 1900.....	Wilmington, N. C.
Member of firm of Geo. W. Huggins Co., Jewelers		
CHRISTOPHER MILLER HUGHES.....	B.E. 1895.....	Richmond, Va.
B.S. 1899. Wholesale Lumber Dealer		
WILLIAM FRANK HUMBERT, JR.....	B.E. 1920.....	Spray, N. C.
Assistant to Resident Engineer, The Carolina Cotton and Woolen Mills Co.		
ARTHUR LEE HUMPHREY.....	B.E. 1919.....	Wilmington, N. C.
With Engineering Department, Tidewater Power Co.		
LLOYD RAINEY HUNT.....	B.E. 1905.....	Lexington, N. C.
With Electrical Engineering Department, Dacotah Cotton Mills and Nokomis		
Cotton Mills		
HILL McIVER HUNTER.....	B.E. 1904.....	Greensboro, N. C.
General Purchasing Agent, Revolution Mills, Asheville Mills, Minneola Mills,		
Cliffside Mills, White Oak Mills, Proximity Print Works, Proximity Mills,		
Haynes Mills, Salisbury Cotton Mills, Eno Cotton Mills,		
Dacotah Cotton Mills		
JOHN BLAKE HUNTER.....	B.E. 1920.....	Greensboro, N. C.
With U-Save-It Stores		
MALCOLM BEALL HUNTER.....	B.E. 1895.....	Charlotte, N. C.
President, Acme Plumbing and Heating Co.		

<i>Name</i>	<i>Degree</i>	<i>Address</i>
WILLIAM TISDALE HURTT..... Sales Engineer Ackernite Corporation of Pittsburgh, Pa.	B.E. 1914.....	Wilkinsburg, Pa.
FRANK PORTER HUSKIN..... Student Engineer, American Telephone and Telegraph Co.	B.E. 1921.....	Atlanta, Ga.
CHRISTOPHER THOMAS HUTCHINS..... Student at the Southern Baptist Theological Seminary	B.E. 1920.....	Louisville, Ky.
JOHN ELI IVEY..... Assistant Poultry Investigator and Pathologist, N. C. Experiment Station	B.S. 1917.....	Raleigh, N. C.
JOHN WILLIAM IVEY..... Farmer	B.E. 1909.....	Seven Springs, N. C.
JOHN JACOB JACKSON..... Farmer	B.E. 1918.....	R. 4, Kinston, N. C.
SHOBER KORNER JACKSON..... With N. C. Agricultural Experiment Station	B.S. 1918.....	Raleigh, N. C.
WILLIAM COLBERT JACKSON..... Farmer	B.S. 1896.....	Wake Forest, N. C.
MURRAY GIBSON JAMES..... 301 West Nash St.	B.S. 1918.....	Wilson, N. C.
GEORGE LINWOOD JEFFERS..... Commercial Agent, Fulton County Gas and Electric Co.	B.E. 1915.....	Gloversville, N. Y.
ERNEST JUDSON JEFFRESS..... Manager and Secretary, Goldsboro Ice Co.	B.E. 1913.....	Goldsboro, N. C.
DOUGLAS CREELMAN JEFFREY..... Mine Superintendent, American Gypsum Co.	B.E. 1913.....	Akron, N. Y.
JOHN LEBON JENKINS.....	B.E. 1916.....	Not located
ARTHUR SPRUILL JENNETTE..... Draftsman, State Highway Commission	B.E. 1921.....	Raleigh, N. C.
SIDNEY EARL JENNETTE..... With State Highway Commission	B.E. 1916.....	Oxford, N. C.
EUGENE CARL JERNIGAN..... Teacher of Vocational Education	B.S. 1920.....	Benson, N. C.
FRED DUNCAN JEROME..... Resident Engineer, N. C. State Highway Commission	B.E. 1919.....	Goldsboro, N. C.
WILLIAM LEON JEWELL..... Civil Engineer, Joel W. Stout Co.	B.E. 1914.....	Sanford, N. C.
LACY JOHN..... Farmer	B.S. 1914.....	Lumber Bridge, N. C.
EUGENE COLISTUS JOHNSON..... Farmer	B.E. 1903.....	Ingold, N. C.
JAMES WRIGHT JOHNSON.....	B.E. 1913.....	Garland, N. C.
JUDSON PEELE JOHNSON..... With Raleigh Baseball Club	B.E. 1921.....	Raleigh, N. C.
LEANDER BROWNLOW JOHNSON..... Farmer	B.S. 1916.....	R. 5, Hendersonville, N. C.
PAUL WORTHY JOHNSON..... General Manager, P. W. Johnson & Co.	B.S. 1917.....	Raeford, N. C.
WILLIAM FLADGER R. JOHNSON..... Retail Furniture and Real Estate	B.E. 1909.....	Marion, S. C.
WALTER MYATT JOHNSON.....	B.E. 1917.....	Chalybeate Springs, N. C.
VICTOR ALLISON JOHNSTON..... M.S. 1917. With Cooperative Creamery Co.	B.S. 1916.....	Mooresville, N. C.
WILLIAM DANIEL JOHNSTON..... Engineering Department, The Procter & Gamble Co.	B.E. 1919.....	Cincinnati, Ohio
WILLIAM MORTON JOHNSTON..... Seedman, Job P. Wyatt & Sons Co.	B.S. 1921.....	Raleigh, N. C.
WILLIS NEAL JOHNSTON..... Hardware and Automobile Dealer	B.E. 1914.....	Mooresville, N. C.
ALBERT CARL JONES..... D.V.S., Kansas City Veterinary College. Veterinarian, Meat and Milk Inspector	B.Agr. 1907.....	High Point, N. C.
ASBURY CROUSE JONES..... Student in Animal Husbandry, Iowa State College	B.S. 1921.....	Ames, Iowa
FREDERICK JOHN JONES..... Assistant Engineer, Valuation Committee, Chesapeake and Ohio Railway	B.E. 1909.....	Richmond, Va.



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<i>Name</i>	<i>Degree</i>	<i>Address</i>
GARLAND JONES.....	B.S. 1900.....	Not located
JOHN KEITH JONES.....	B.E. 1921.....	Columbia, S. C.
Southern Bell Telephone and Telegraph Co.		
OMRA BURR JONES.....	B.S. 1920.....	China Grove, N. C.
Superintendent, Rowan County Farm Life School		
ROBERT FRANK JONES.....	B.E. 1910.....	Summerville, S. C.
WILLIAM COOKE JONES.....	B.E. 1918.....	Newport News, Va.
Instructor in Mathematics, Newport News Shipbuilding and Dry Dock Company Apprentice School		
WILLIAM HUGH JONES.....	B.S. 1921.....	Cofield, N. C.
Farmer		
WILLIAM MANLEY JONES.....	B.E. 1914.....	Charlotte, N. C.
Salesman, Aluminum Cooking Utensil Co.		
WILLIAM WHITMORE JONES.....	B.E. 1907.....	Oak Park, Ill.
Telephone Engineer, Western Electric Co.		
CLYDE RAYMOND JORDAN.....	B.E. 1910.....	Elizabethtown, N. C.
Vice President, Bladen Auto Co.		
LESLIE LAFAYETTE JORDAN.....	B.E. 1921.....	Washington, D. C.
Lieutenant Commander, United States Navy		
HARVEY LANGILL JOSLYN.....	B.S. 1913.....	Vanceboro, N. C.
M.S. 1916. Superintendent, Craven County Farm Life School		
SIR KEITH KELLER.....	B.E. 1914.....	St. Louis, Mo.
Engineer of Construction, Missouri, Kansas and Texas Lines		
JOHN GORDON KELLOGG.....	B.S. 1912.....	Not located
MARTIN KELLOG.....	B.Agr. 1901.....	Sunbury, N. C.
Farmer		
REX LIVINGSTON KELLY.....	B.E. 1916.....	Sanford, N. C.
Bookkeeper, Page Co.		
CLYDE BENNETT KENDALL.....	B.S. 1897.....	Santo Domingo City, R. D.
Topographic Engineer, U. S. Geological Survey, Assistant Jefe de Agrimensores, Dominican Republic		
RICHARD GREENE KENDRICK.....	B.E. 1921.....	Schoolfield, Va.
With Dan River Cotton Mills		
ALPHEUS ROUNTREE KENNEDY.....	B.S. 1898.....	Braintree, Miss.
Supervising Draftsman, Hull Engineering Division, Fore River Plant, Bethel- hem Shipbuilding Corp., Ltd.		
JAMES MATTHEW KENNEDY.....	B.E. 1903.....	Raleigh, N. C.
Architect		
SYDNEY GUSTAVUS KENNEDY.....	B.S. 1897.....	Lakeland, Fla.
Master Mechanic, Atlantic Coast Line Railroad		
WOODFORD ARMSTRONG KENNEDY.....	B.E. 1916.....	Charlotte, N. C.
Southern Representative, Electro Bleaching Gas Co.		
WILLIAM PENDLETON KENNEDY.....	B.E. 1916.....	Warsaw, N. C.
Superintendent of Warsaw Water and Power Plant		
WILLIAM KERR.....	B.S. 1904.....	Boise, Idaho
M.S. 1912, V. P. I. State Supervisor of Vocational Agriculture		
GEORGE EDISON KIDD.....	B.E. 1913.....	Hampton, Va.
With N. N. and H. Railway, G. & E. Co.		
WAVERLY FLETCHER KILPATRICK.....	B.S. 1915.....	Asheville, N. C.
Cashier, Southeastern Express Co.		
PAUL HANNER KIME.....	B.S. 1916.....	Raleigh, N. C.
Plant Breeder, N. C. Experiment Station		
PAUL KING.....	B.E. 1914.....	Charlotte, N. C.
C.E. 1916, Cornell University. With Southern Engineering Co.		
CARL JAMES KIRBY.....	B.S. 1917.....	Richmond, Va.
2904 Park Avenue		
LUTHER HILL KIRBY.....	B.E. 1910.....	Not located
SAM JONES KIRBY.....	B.S. 1912.....	Smithfield, N. C.
County Farm Demonstration Agent		
CHARLES DICKERSON KIRKPATRICK.....	B.S. 1921.....	Waynesboro, Va.
Athletic Director, Fishburne Military School		
WILLIAM FRANKLIN KIRKPATRICK.....	B.E. 1904.....	Storrs, Conn.
B.Agr. 1905. Professor of Poultry Husbandry, Connecticut Agricultural College		

<i>Name</i>	<i>Degree</i>	<i>Address</i>
LYMAN KISER.....	B.S. 1918.....	Raleigh, N. C.
Manager, Pine State Creamery		
JOSEPH LAWRENCE KNIGHT.....	B.S. 1897.....	Stocktonia, Fla.
LOUIS BRASWELL KNIGHT.....	B.S. 1913.....	Manila, P. I.
First Lieutenant, Forty-Third Infantry, U. S. A., Fort William McKinley		
ROBERT VERNON KNIGHT.....	B.S. 1915.....	Tarboro, N. C.
Farmer		
STARR NEELY KNOX.....	B.E. 1905.....	Charlotte, N. C.
Assistant Engineer, Southern Railway Co.		
WILLIAM GRAHAM KNOX.....	B.S. 1906.....	New York, N. Y.
Electro-Chemist, Research and Development Laboratory, Chemical Branch, Western Electric Co.		
LAFAYETTE FRANCK KOONCE.....	B.Agr. 1907.....	Raleigh, N. C.
D.V.M. 1909, Kansas City Veterinary College. Veterinary Surgeon		
FRANK KIPP KRAMER.....	B.E. 1915.....	Elizabeth City, N. C.
With Kramer Bros. Co., Lumber Manufacturers and Dealers		
HERBERT WILLIAM KUEFFNER.....	B.E. 1908.....	Durham, N. C.
Director Public Works		
FREDERICK CREECY LAMB.....	B.S. 1898.....	El Paso, Texas
Chemist, City Health Office		
CLAUDE MILTON LAMBE.....	B.E. 1908.....	Raleigh, N. C.
Civil Engineer		
CARL JOSHUA LAMBETH.....	B.E. 1912.....	Tsinan, China
Salesman, Anderson-Meyers Co. Ltd.		
BENNETT LAND, JR.....	B.E. 1903.....	Apopka, Fla.
Secretary and Treasurer, Consumers Lumber and Veneer Co.		
JOHN THOMAS LAND.....	B.E. 1903.....	Orlando, Fla.
321 East Jackson St.		
JOHN HAYWOOD LANE.....	B.S. 1921.....	Wilson, N. C.
Farmer		
JAMES THOMAS LARKINS.....	B.E. 1919.....	State College, Pa.
Instructor, Pennsylvania State College		
MARK CLINTON LASITTER.....	B.E. 1910.....	Snow Hill, N. C.
Civil Engineer		
FRANK LEE LASSITER.....	B.E. 1920.....	Spartanburg, S. C.
With J. B. Caldwell & Co.		
HARRY VANN LATHAM.....	B.S. 1919.....	R. 1, Belhaven, N. C.
Farmer		
JAMES EDWARD LATHAM.....	B.S. 1909.....	Parmelee, N. C.
Merchant		
CHARLES EDWARD LATTA.....	B.E. 1908.....	Not located
WILLIAM ANDREW FRANKLIN LAWING.....	B.E. 1921.....	Huntersville, N. C.
JOEL BREVARD LAWRENCE.....	B.S. 1921.....	Rockingham, N. C.
Teacher of Vocational Agriculture		
DOUGLAS ALLEN LEARD.....	B.E. 1914.....	Norfolk, Va.
Right of Way Engineer, Seaboard Air Line Railway		
ANDREW JOHN LEDDY.....	B.S. 1921.....	Raleigh, N. C.
Instructor in Dyeing, N. C. State College		
CURTIS WILLIAMS LEE.....	B.E. 1912.....	Monroe, N. C.
Superintendent, Water and Light Plant		
EUGENE TALMAGE LEE.....	B.E. 1910.....	Dunn, N. C.
Insurance and Real Estate		
JOSEPH LEE, JR.....	B.S. 1917.....	Pekin, China
Student, Foreign Mission Board of Southern Baptist Convention		
WILLIAM DANIEL LEE.....	B.S. 1918.....	Asheville, N. C.
With N. C. Department of Agriculture, Soil Survey		
WILLIAM EDWARD LEEPER.....	B.E. 1918.....	Gastonia, N. C.
Civil Engineer		
EDWIN CLINARD LEGRAND.....	B.E. 1921.....	Shelby, N. C.
Shelby Cotton Mill		
JOSEPH RAOUL LEGUENEC.....	B.E. 1915.....	Tyler, Texas
Assistant Division Engineer, St. Louis Southwestern Railway Co.		

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
SAMUEL GEORGE LEHMAN Assistant Pathologist, N. C. Agricultural Experiment Station	M.S. 1917	Raleigh, N. C.
CHARLES RILEY LEONARD Poultryman, Raynolda Farm, Inc.	B.S. 1918	Reynolda, N. C.
JAMES GILMORE LEONARD With Georgia Railway and Power Co.	B.E. 1919	Atlanta, Ga.
ELBERT FRANCIS LEWIS Junior Hydrographic and Geodetic Engineer, U. S. Coast and Geodetic Survey	B.E. 1918	Seattle, Wash.
IRVIN TRACEY LEWIS Veterinarian	B.S. 1915	Charlotte, N. C.
JAMES FURMAN LEWIS With Aberfoyle Manufacturing Co.	B.E. 1921	Chester, Pa.
ROBERT LINGLE LEWIS	B.E. 1918	Monroe, N. C.
WILLIAM DIXON LEWIS	B.S. 1914	Not located
MORRIS LIFEROCK C.E. 1917. Assistant, American Ephemeris, U. S. Naval Observatory. Member, Washington Society of Engineers. Member, Philosophical Society of Washington	B.E. 1913	Washington, D. C.
JESSE JULIAN LILES With Power and Mining Department, General Electric Co.	B.E. 1901	Baltimore, Md.
HENRY ALBERT LILLY Bacteriologist, Tallassee Power Co.	B.S. 1917	Badin, N. C.
HENRY MARVIN LILLY Resident Engineer, N. C. State Highway Commission	B.E. 1905	New Bern, N. C.
ERNEST ERWIN LINCOLN With Submarine Boat Corporation	B.E. 1914	Newark, N. J.
JESSE WEBB LINDLEY County Agricultural Demonstration Agent	B.S. 1915	Brevard, N. C.
DAVID LINDSAY Superintendent, Fieldale Mills	B.E. 1908	Fieldale, Va.
ROBERT OPIE LINDSAY Secretary-Treasurer, Peaks of Otter Lumber Co., Inc.	B.E. 1916	Bedford, Va.
JOHN HENRY LITTLE Sales Engineer, General Electric Co.	B.E. 1908	Charlotte, N. C.
WILLIAM BENNETT LITTLE Farmer	B.S. 1914	Wadesboro, N. C.
MARION LAMAR LIVERMON Chief Draftsman, Southern Engineering Co.	B.E. 1914	Charlotte, N. C.
ULPHIAN CARR LOFTIN With Compania del Tlahualilo	B.S. 1910	Tlahualilo, Dgo., Mex.
FORREST BAINIE LONG	B.E. 1919	R. 3, Charlotte, N. C.
HOMER DEWITT LONG With N. C. State Highway Commission	B.E. 1921	Raleigh, N. C.
PAUL THOMAS LONG Principal, Glencoe School	B.S. 1919	Burlington, N. C.
RALPH LONG Chero-Cola Co.	B.S. 1909	Winston-Salem, N. C.
SAMUEL MARSH LONG With Century Electric Co.	B.E. 1921	Cincinnati, Ohio
LOUIS EDGAR LOUGEE	B.S. 1907	Not located
LOUIS OMER LOUGEE Chief Engineer Island Creek Coal Company and Pond Creek Coal Co.	B.E. 1901	Huntington, W. Va.
THOMAS PINKNEY LOVELACE	B.E. 1912	Lincolnton, Ga.
GEORGE LAFAYETTE LYERLY Hardware Dealer	B.E. 1908	Hickory, N. C.
LIPSCOMBE GOODWIN LYKES Vice President, Lykes Brothers, Inc.	B.E. 1905	Havana, Cuba
THOMPSON MAYO LYKES Vice President, Lykes Brothers, Inc.	B.E. 1906	Tampa, Fla.
GEORGE GREEN LYNCH Chief Draftsman, Atlantic Coast Line Railway Co.	B.E. 1905	Wilmington, N. C.
ALBERT SYDNEY LYON Superintendent, Rocky Mount Public Works	B.S. 1899	Rocky Mount, N. C.



<i>Name</i>	<i>Degree</i>	<i>Address</i>
EDMOND SHAW LYTCH	B.E. 1903	Laurinburg, N. C.
Partner, Laurinburg Machine Co.		
WILLIAM McNEIL LYTCH	B.E. 1893	Laurinburg, N. C.
Partner, Laurinburg Machine Co.		
JAMES EDGAR MACDOUGALL	B.E. 1917	Raleigh, N. C.
Salesman, Atlantic Dyestuff Co.		
WALTER HOGE MACINTIRE	B.S. 1905	Knoxville, Tenn.
M. S. Pennsylvania State College, 1909; Ph.D. Cornell, 1916. Head of Department of Soil Chemistry, University of Tennessee Agricultural Experiment Station		
DONALD GRATTAN McARN	B.E. 1915	Northside, Pittsburgh, Pa.
In charge Tests and Inspection, Pittsburgh Transformer Co.		
JAMES ROBERT McARTHUR	B.S. 1917	R. 6, Greenville, N. C.
Farmer		
ZEBULON ARCHIBALD McCALL	B.S. 1919	Chapel Hill, N. C.
Student at Chapel Hill		
FRANK WHITESIDE McCOMB	B.E. 1913	Bluemont, Va.
Farmer and Dairyman		
HENRY KREIGER McCONNELL	B.S. 1907	Richmond, Va.
Manager, Richmond Branch, Tobacco By-Products and Chemical Corporation		
ALEXANDER BRYAN McCORMICK	B.E. 1920	Fieldale, Va.
With Carolina Cotton and Woolen Mills		
WILSON COPEES McCoy	B.S. 1921	Red Springs, N. C.
Agricultural Instructor, State Department Vocational Education		
EUGENE RICHARD McCracken	B.E. 1911	Winston-Salem, N. C.
Cotton Classer, Arista Mills Co.		
THOMAS ROBERT McDEARMAN	B.E. 1914	Rocky Mount, N. C.
With J. J. Wells, Civil Engineer		
RALPH McDONALD	B.E. 1918	Raleigh, N. C.
With McDonald Tire and Accessory Store		
FRANK NEELY McDOWELL	B.S. 1910	Waco, Texas
Automobile Dealer		
ROBERT WISSNER McGEACHY	B.E. 1917	Charlotte, N. C.
Manager, N. C. Branch Ingalls Iron Works Co.		
JAMES EDWARD McGEE	B.E. 1912	Rosemary, N. C.
With Rosemary Manufacturing Co.		
HARRY GALLANT McGINN	B.E. 1919	Spray, N. C.
With Carolina Cotton and Woolen Mills Co.		
MALCOLM ROLAND McGIRT	B.Agr. 1905	R. 2, Sanford, N. C.
Farmer		
JOHN FAIRLY McINTYRE	B.E. 1904	Laurinburg, N. C.
Farmer		
SAMUEL CHRISTOPHER McKEOWN	B.E. 1895	Jersey City, N. J.
Chief Designing Engineer, Federated Engineering Development Corporation		
CHARLES McKIMMON, JR.	B.S. 1911	Fairfield, Ala.
Chemist, T. C. I & R. R. Company of Ensley, Ala.		
JAMES McKIMMON	B.E. 1904	Raleigh, N. C.
With McKimmon & McKee, Real Estate and Insurance		
JOHN LUTHER McKINNON	B.Agr. 1902	Laurinburg, N. C.
Farmer		
HORACE SMITH McLENDON	B.Agr. 1906	St. Augustine, Fla.
Manager, Agricultural Development Service, Florida East Coast Railroad		
LENNOX POLK McLENDON	B.S. 1910	Durham, N. C.
Lawyer		
WALTER JONES McLENDON, JR.	B.S. 1897	Knoxville, Tenn.
President and Manager, Prendergast Cotton Mills of Prendergast, Tenn.		
JAMES WALTER McLEOD	B.S. 1916	Rowland, N. C.
Farmer		
JACOB WYATT McNAIRY	B.E. 1917	Schenectady, N. Y.
Railway Equipment Engineering Department, General Electric Co.		
OSCAR FRANKLIN McNAIRY	B.E. 1907	Jacksonville, Fla.
Division Engineer, Seaboard Air Line Railway Co.		
JAMES EDGAR McNEELY	B.E. 1914	Mooresville, N. C.
Mooresville Cotton Mill Co.		

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
SAMUEL HUXLEY McNEELY..... Commercial Engineer, Allis-Chalmers Co.	B.E. 1909.....	Buffalo, N. Y.
FRANK COBLE McNEIL.....	B.E. 1917.....	Not located
HARVEY CAMPBELL McPHAIL..... Dairyman and Farmer	B.S. 1914.....	Mount Olive, N. C.
ELBERT McPHAUL.....	B.S. 1917..... Farmer	Red Springs, N. C.
CHARLES HARDEN McQUEEN..... With Warren Brothers Company, Bitulithic Pavements	B.E. 1901.....	Boston, Mass.
NEILL McQUEEN.....	B.E. 1912.....	Fayetteville, N. C.
SAMUEL MACON MALLISON..... Hardware Business	B.E. 1909.....	Washington, N. C.
CARROLL LAMB MANN..... C.E. 1906. Professor of Civil Engineering, N. C. State College	B.S. 1899.....	Raleigh, N. C.
HARVEY BLOUNT MANN..... With North Carolina Agricultural Experiment Station	B.S. 1920.....	Raleigh, N. C.
LOUIS HENRY MANN.....	B.E. 1900..... Dentist	Washington, N. C.
WALTER RAY MANN..... Captain, Twenty-Eighth Infantry, U. S. A.	B.S. 1912.....	Camp Dix, N. J.
WARREN STATEN MANN..... Draftsman, Road Department, N. C. State Highway Commission	B.E. 1921.....	Raleigh, N. C.
EDWARD BRANHAM MANNING..... Apprentice, With Rosemary Manufacturing Co.	B.E. 1921.....	Rosemary, N. C.
WILLIAM LEAKE MANNING..... Rosemary Manufacturing Co.	B.E. 1910.....	Rosemary, N. C.
CLARENCE TALMAGE MARSH..... Major, Coast Artillery Corps, U. S. A.	B.E. 1908.....	Wilmington, N. C.
WILLIAM ROYDAN MARSHALL..... Manager Industrial Department, Westinghouse Electric and Manufacturing Co.	B.E. 1909.....	New York, N. Y.
MARK STRUVE MARTENET..... In charge of Acidulating Department, Alexandria Fertilizer and Chemical Co.	B.S. 1917.....	Alexandria, Va.
JACOB LEE MARTIN..... County Engineer, McDowell County	B.E. 1911.....	Marion, N. C.
THOMAS JACKSON MARTIN, JR..... Instructor, Mechanical Engineering Department, N. C. State College	B.E. 1917.....	Raleigh, N. C.
WILLIAM DANIEL MARTIN..... Superintendent, Baker-Thompson Lumber Co.	B.E. 1915.....	Raleigh, N. C.
JOSEPH HENRY MASON..... With Glenn Commission Co., Cotton Yarns	B.E. 1916.....	Richmond, Va.
RALPH CECIL MASON..... Farmer	B.S. 1909.....	Harrellsville, N. C.
ARTHUR BALLARD MASSEY..... Associate Professor of Plant Pathology and Bacteriology, Virginia Poly- technic Institute and Virginia Agricultural Experiment Station	B.S. 1909.....	Blacksburg, Va.
PEYTON HOWARD MASSEY..... Teacher Vocational Agriculture, Wakelon High School	B.S. 1920.....	Zebulon, N. C.
WALTER JEROME MATHEWS..... Contractor	B.E. 1893.....	Goldsboro, N. C.
MELVILLE LEE MATTHEWS..... Commercial Department, Yadkin River Power Co.	B.E. 1920.....	Hamlet, N. C.
WILLIAM EMERY MATTHEWS..... Highway Construction, Marlboro County, S. C., Highway Commission	B.E. 1917.....	Maxton, N. C.
ROBERT SYLVANUS MAUNEY..... Industrial Engineer, Kansas City Power and Light Co.	B.E. 1913.....	Kansas City, Mo.
RAYMOND MAXWELL..... Member of Firm, Maxwell Co.	B.E. 1906.....	New Bern, N. C.
MELVIN SOLOMON MAYES..... With Delco Light Co.	B.E. 1910.....	Oxford, N. C.
MORELL BATTLE MAYNARD..... With Howard E. Satterfield, Engineer-Builder	B.E. 1917.....	Raleigh, N. C.
FRANK THEOPHILUS MEACHAM..... M.S. 1894. Superintendent Experiment Station, U. S. Department of Agriculture	B.S. 1893.....	Statesville, N. C.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
EUGENE FRANKLIN MEADOR.....	B.E. 1907.....	Danville, Va.
Vice President, Reynolds-Meador Service Co., Inc.		
EDWARD NEWTON MEEKINS.....	B.S. 1920.....	Cary, N. C.
Assistant Teacher of Agriculture, Cary High School		
TODD BOWMAN MEISENHEIMER.....	B.E. 1917.....	Charlotte, N. C.
Technical Representative, Southern Branch, A. Klipstein & Co.		
ROBERT TOLAR MELVIN.....	B.S. 1913.....	Clinton, N. C.
County Farm Demonstration Agent		
SHERROD ERVIN MENZIES.....	B.E. 1916.....	Not located
HENRY BASCOM MERCER.....	B.E. 1912.....	Portsmouth, Va.
Assistant Engineer, Valuation Department, Seaboard Air Line Railway Co.		
LEWIS LARKINS MERRITT.....	B.E. 1913.....	Wilmington, N. C.
Civil Engineer, Newport Shipbuilding Co.		
REPTON HALL MERRITT.....	B.S. 1897.....	Raleigh, N. C.
Secretary-Treasurer, Powell & Powell, Inc., Coal and Ice		
ROBERT GRAHAM MEWBORNE.....	B.S. 1896.....	Clarksville, Tenn.
Vice President and General Manager, Nicotine Production Corporation		
BENNETT TAYLOR MIAL.....	B.E. 1907.....	Philadelphia, Pa.
Manager of Erection, Belmont Iron Works		
THOMAS KENNETH MIAL.....	B.E. 1913.....	Pittsburgh, Pa.
Manager, Electrical and Automotive Equipment Departments, Pittsburgh Branch, H. W. Johns-Manville Co.		
FRANK CURTIS MICHAEL.....	B.E. 1907.....	Gastonia, N. C.
E.E. 1915. President, Michael & Bivens, Inc.		
JOSEPH EDGAR MICHAEL.....	B.S. 1914.....	Harmony, N. C.
Teacher of Agriculture, Iredell County Farm Life School		
DAVID JOHN MIDDLETON.....	B.Agr. 1908.....	R. 2, Warsaw, N. C.
Farmer		
GORDON KENNEDY MIDDLETON.....	B.S. 1917.....	Kaifeng, China
Teacher of Agriculture		
JOHN DANIEL MILLER.....	B.E. 1916.....	Indian Head, Md.
With Bureau of Yards and Docks, U. S. Navy		
JOHN DANIEL MILLER.....	B.S. 1921.....	Fairview, N. C.
Teacher of Agriculture, N. C. Department of Vocational Agriculture		
JOSEPH ALFRED MILLER.....	B.E. 1904.....	Brevard, N. C.
Manager, Miller Supply Co.		
WALKER MOREHEAD MILLNER.....	B.E. 1909.....	Not located
JOHN MAPLE MILLS.....	B.E. 1907.....	Raleigh, N. C.
Partner, Mills Battery Co.		
EWING STEPHENSON MILLSAPS.....	B.S. 1917.....	Statesville, N. C.
Automobile Dealer		
GRATZ BROWN MILLSAPS.....	B.E. 1920.....	Atlanta, Ga.
With Southern Bell Telephone Co.		
THOMAS LEE MILLWEE.....	B.E. 1916.....	Charlotte, N. C.
With Southern Bell Telephone and Telegraph Co.		
BURTON FORREST MITCHELL.....	B.E. 1919.....	Mount Holly, N. C.
Overseer Spinning, Adrian Plant, American Yarn and Processing Co.		
SIMON TURNER MITCHENER.....	B.E. 1912.....	Garner, N. C.
Farmer		
GRAHAM CLEMENTS MONROE.....	B.S. 1920.....	Columbus, Ohio
Student in Veterinary College of Ohio State University		
JOHN THADDEUS MONROE.....	B.S. 1920.....	R. 2, Council, N. C.
Farmer		
THOMAS GUY MONROE.....	B.S. 1914.....	Hamlet, N. C.
Superintendent of Manufacturing, Buttercup Ice-cream Co.		
BENJAMIN FRANKLIN MONTAGUE.....	B.E. 1909.....	Charleston, W. Va.
With Virginian Power Co.		
HENRY STARBUCK MONTAGUE.....	B.S. 1907.....	Starkville, Miss.
Assistant State Chemist, Miss. State Laboratory Mississippi A. & M. College		
LEON DAVIS MOODY.....	B.E. 1910.....	East La Porte, N. C.
Farmer		
WARREN LAFAYETTE MOODY.....	B.S. 1914.....	Alexandria, Va.
Chemist, Southern Railway System		



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<i>Name</i>	<i>Degree</i>	<i>Address</i>
BARTHOLOMEW FIGURES MOORE.....	B.E. 1921..... Manager of Farm	Raleigh, N. C.
CHARLES ALFRED MOORE.....	B.E. 1916..... Southeastern Representative, Line Material Co.	South Milwaukee, Wis.
EUGENE BOISE MOORE.....	B.E. 1910..... Member Firm, J. E. Moore & Co.	Morven, N. C.
EUGENE JAMES MOORE.....	B.S. 1918..... D.V.M. 1921, Ohio State University. Veterinarian	North Wilkesboro, N. C.
LACY MOORE.....	B.E. 1906..... Engineer of Surveys, Southern Railway System	Washington, D. C.
JAMES OSCAR MORGAN.....	B.Agr. 1905..... M.S.A. 1907; Ph.D. 1909, Cornell University. Professor of Agronomy, Texas A. and M. College	College Station, Texas
JESSE JOHN MORRIS.....	B.E. 1903..... Farmer, County Surveyor, and Road Commissioner	Weeksville, N. C.
WILLIAM FLAUG MORRIS.....	B.E. 1909..... Secretary and Treasurer, Horne & Morris Motor Co.	Clayton, N. C.
JOSEPH GRAHAM MORRISON.....	B.Agr. 1906..... Farmer	Stanley, N. C.
ROBERT HALL MORRISON.....	B.E. 1900..... Mechanical Engineer, With Parks-Cramer Co.	Charlotte, N. C.
ROBERT LEE MORRISON.....	B.E. 1911..... Member of Engineering Firm of Gladding & Morrison, Municipal Engineers, Bristol, Va.-Tenn., and Wilson, N. C.	Bristol, Va.-Tenn.
AUGUSTUS RAY MORROW.....	B.S. 1921..... County Farm Agent, Montgomery County	Troy, N. C.
EMMETT BROWN MORROW.....	B.S. 1921.....	Not located
JOHN LIGHTFOOT MORSON.....	B.E. 1907..... Assistant Division Engineer, Seaboard Air Line Railway Co.	Raleigh, N. C.
WILLIAM FIELD MORSON.....	B. E. 1904..... District Engineer, N. C. State Highway Commission	Wilmington, N. C.
LAURIE MOSELY.....	B.E. 1902..... Thompson & Mosely, Inc., Contractors	Atlanta, Ga.
MANLEY PARKER MOSS.....	B.E. 1921..... Draftsman, With State Highway Commission	Raleigh, N. C.
VASSAR YOUNG MOSS.....	B.E. 1902..... With Fort Pitt Bridge Co.	Canonsburg, Pa.
HARRY YEOMANS MOTT.....	B.S. 1910..... Farmer	R. 4, Mooresville, N. C.
JAMES RICHARD MULLEN.....	B.S. 1912..... Chief Probation Officer, Norfolk Juvenile and Domestic Relations Court	Norfolk, Va.
LINDSLEY ALEXANDER MURR.....	B.E. 1905..... Secretary-Treasurer, C. V. York Co., Incorporated	Raleigh, N. C.
EDWARD MOSBY MURRAY.....	B.E. 1917..... With Murray-Crowell Motor Co.	Charlotte, N. C.
GEORGE KING MURRAY.....	B.E. 1921..... Member New York Americans, New York American League Baseball Club	New York, N. Y.
WILLIAM CAREY MURRELL.....	B.E. 1919..... Distribution Department, Public Service Electric Co.	Newark, N. J.
ZACHARIAH ENNISS MURRELL, JR.....	B.S. 1917..... Farmer	Jacksonville, N. C.
GARLAND PERRY MYATT.....	B.S. 1905.....	Not located
O'KELLY W. MYERS.....	B.S. 1899..... Division Engineer, New York Water Power Investigation	Brooklyn, N. Y.
JESSE CLARENCE MYRICK.....	B.E. 1906..... Assistant Superintendent, Pacific Locks, Panama Canal	Pedro Miguel, C. Z.
LEON ANDREWS NEAL.....	B.E. 1904..... President and Treasurer, Marion Ice and Fuel Co.	Marion, N. C.
WILLIAM McCORMICK NEALE.....	B.E. 1910..... M.E. 1920. Consulting Mechanical Engineer	Greensboro, N. C.
JOHN FRANKLIN NEELY, JR.....	B.S. 1916..... Traveling Salesman, R. T. French Co., Rochester, N. Y.	Pineville, N. C.
CHARLES MCKEE NEWCOMB.....	B.E. 1912..... C.E. 1920. With United Fruit Co.	Banes, Oriente, Cuba

<i>Name</i>	<i>Degree</i>	<i>Address</i>
ROBERT TIMBERLAKE NEWCOMB.....	B.S. 1915..... With A. H. Byrum, Lumber	Raleigh, N. C.
CHARLES ARTHUR NICHOLS.....	B.E. 1902..... General Contractor, 416 Equity Building	Muskogee, Okla.
EDGAR BYRON NICHOLS.....	B.E. 1914..... M.E. 1918. Chief Engineer, The Pfaudler Co.	Rochester, N. Y.
TYCHO NORRIS NISSEN.....	B.E. 1920..... Salesman, S. J. Nissen Co.	Winston-Salem, N. C.
CHARLES FRANKLIN NIVEN.....	B.Agr. 1906..... Farmer	R. 1, Ravenel, S. C.
LOLA ALEXANDER NIVEN.....	B.Agr. 1906..... Advertising Manager, Progressive Farmer	Birmingham, Ala.
WILLIAM TIMOTHY NIXON.....	B.S. 1913..... Southern Baking Co.	Sumter, S. C.
DAVID BENJAMIN NOOE.....	B.S. 1916..... Farmer-Lumberman	Pittsboro, N. C.
JOHN ANDREW NORTHCOTT, JR.....	B.E. 1918.....	Not located
LEWIS MILTON ODEN.....	B.Agr. 1906..... Norfolk Navy Yard	Portsmouth, Va.
THOMAS JEFFERSON OGBURN, JR.....	B.E. 1906..... With Everett Waddey Co.	Richmond, Va.
ALBERT HICKS OLIVER.....	B.S. 1897..... Farmer	Mount Olive, N. C.
PAUL SHEPHARD OLIVER.....	B.S. 1920..... Farmer	R. 1, Marietta, N. C.
SAMUEL LOFTIN OLIVER.....	B.E. 1909..... Manager, Ice Plant	Clinton, N. C.
VICTOR FREDERICK ORLANDO OLIVIER.....	B.S. 1921.....	Kalkspruit, Transvaal, South Africa
CARL FRANKLIN OSBORNE.....	B.E. 1915..... Superintendent of Construction with J. B. McCrary Company, Atlanta, Ga.	Winter Garden, Fla
DWIGHT HENDRICKS OSBORNE.....	B.S. 1920..... County Agent, Cooperative Extension Work	Yadkinville, N. C.
HENRY BLOUNT OSBORNE.....	B.S. 1918..... Practising Veterinary Medicine	Clyde, N. C.
DOLPHIN HENRY OVERTON.....	B.S. 1921..... Demonstration Agent, Chilean Nitrate Committee	Nashville, N. C.
JAMES ELWOOD OVERTON.....	B.Agr. 1907..... Traveling Grader, Inspector, and Peanut Buyer for American Peanut Corporation	Ahoskie, N. C.
DAVID STARR OWEN.....	B.E. 1903..... General Superintendent, Atlantic Turpentine and Pine Tar Co.	Savannah, Ga.
EDWIN BENTLEY OWEN.....	B.S. 1898..... Registrar, N. C. State College	Raleigh, N. C.
CHARLES WASHINGTON OWENS.....	B.E. 1912..... Engineer of Construction, State School for the Blind and Deaf	Raleigh, N. C.
REID ALLISON PAGE.....	B.S. 1916..... Farmer and Fruit Grower	Aberdeen, N. C.
JOHN ALSEY PARK.....	B.E. 1905..... Publisher, Raleigh Times	Raleigh, N. C.
CLYDE ESTER PARKER.....	B.S. 1906..... Member of Firm, C. E. Parker & Co., Cotton Brokers and Merchants	Raleigh, N. C.
EUGENE LEROY PARKER.....	B.S. 1899..... Chemist and Manager, E. L. Parker & Co.	Mount Pleasant, Tenn.
GEORGE MASON PARKER.....	B.E. 1919..... U. S. War Department, Room 15, Engineer's Office	Norfolk, Va.
JAMES LAFAYETTE PARKER.....	B.E. 1902..... Bridge Engineer, South Carolina State Highway Department	Columbia, S. C.
JOHN HARVEY PARKER.....	B.E. 1903..... President, Service Motor Corps and Tidewater Automotive Co.	New Bern, N. C.
JULIUS MONROE PARKER.....	B.E. 1909.....	Not located
THOMAS FRANKLIN PARKER.....	B.Agr. 1907..... M.S. 1908. Agricultural Statistician (U. S. and N. C. Departments of Agriculture) Crop Reporting Service	Raleigh, N. C.

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
WALTER HERBERT PARKER.....	B.E. 1913.....	Raleigh, N. C.
310 Vance Apartments		
FRED MAYNARD PARKS.....	B.E. 1907.....	East Pittsburgh, Pa.
Industrial Control Engineer, Westinghouse Electric and Manufacturing Co.		
THADDEUS ROWLAND PARRISH.....	B.E. 1913.....	Chicago, Ill.
Assistant Purchasing Agent, United States Gypsum Co.		
WALTER LEAK PARSONS, JR.....	B.E. 1918.....	Rockingham, N. C.
Secretary and Treasurer, Leak-Parsons Co.		
ARTHUR LEE PASCHALL.....	B.Agr. 1907.....	Riverside, Cal.
Agent for "The Golden Age," "The Finished Mystery," and "Millions Now Living Will Never Die"		
JOHN GILBERT PASCHAL.....	B.E. 1909.....	Goldston, N. C.
Lumber Manufacturer		
EDWIN PATE.....	B.S. 1921.....	Laurel Hill, N. C.
Manager for Z. V. Pate		
WILLIAM FRANKLIN PATE.....	B.S. 1901.....	Raleigh, N. C.
M.S. 1913. With Soil Fertility Section, Division of Agronomy, N. C. Department of Agriculture		
MANN CABE PATTERSON.....	B.E. 1895.....	Durham, N. C.
ROBERT DONELL PATTERSON.....	B.S. 1894.....	Chase City, Va.
M.S. 1898. President, The First State Bank		
FITZGERALD ELIZUR PATTON.....	B.S. 1914.....	Bud, Ky.
Farmer		
WILLIAM JOEL PATTON.....	B.E. 1904.....	Dallas, Texas
Manager, New Business Department, Dallas Power and Light Co.		
WILLIAM ROBERT PATTON.....	B.E. 1914.....	Morganton, N. C.
Superintendent of Roads, Burke County		
ROBERT JAMES PEARSALL.....	B.E. 1920.....	Raleigh, N. C.
Instructor, Electrical Engineering Department, N. C. State College		
WILLIAM VICTOR PEARSALL.....	B.S. 1915.....	Wilmington, N. C.
Pearsall & Co.		
CHARLES PEARSON.....	B.E. 1894.....	Atlanta, Ga.
Superintendent, Atlantic Bridge Company, of Roanoke, Va.		
LEWIS BERNARD PECK.....	B.E. 1921.....	Raleigh, N. C.
Road Department, State Highway Commission		
FRED TAYLOR PEDEN.....	B.S. 1911.....	Springdale, N. C.
Agent in Animal Husbandry, North Carolina Department of Agriculture		
JAMES MURCHISON PEDEN.....	B.E. 1920.....	Pittsburgh, Pa.
Student in Industrial Sales, Westinghouse Electric and Manufacturing Co.		
JOHN TAYLOR PEDEN.....	B.E. 1911.....	Pittsburgh, Pa.
Salesman, Westinghouse Electric and Manufacturing Co.		
THOMAS CLAYTON PEGRAM.....	B.E. 1916.....	McColl, S. C.
Superintendent, Marlboro Cotton Mill No. 3		
JOSEPHUS DANIELS PELL.....	B.E. 1921.....	Kannapolis, N. C.
With Cannon Manufacturing Co.		
WILLIAM CASPER PENNINGTON.....	B.E. 1910.....	New London, N. C.
Secretary-Treasurer, The New London Hosiery Co.		
SAMUEL OSCAR PERKINS.....	B.S. 1906.....	Washington, D. C.
Soil Scientist, U. S. Department, of Agriculture		
MILTON VANCE PERRY.....	B.E. 1914.....	Elizabeth City, N. C.
Retail Grocer		
EUGENE GRAY PERSON.....	B.S. 1899.....	Macon, Ga.
Train Dispatcher, Central of Georgia Railway		
WILLIAM MONTGOMERY PERSON.....	B.E. 1900.....	Detroit, Mich.
With Semet-Solvay By-Product Coke Plant		
EDWARD ANCEL PETERKIN.....	B.S. 1921.....	Fort Motte, S. C.
Farmer		
ASA GRAY PHELPS.....	B.E. 1915.....	Newport News, Va.
Technician, Newport News Shipbuilding and Dry Dock Co.		
FREDERICK COLWELL PHELPS.....	B.E. 1904.....	Washington, D. C.
Major Infantry, Care Adjutant General of Army		
HENRY MARRIOTT PHILIPS.....	B.S. 1914.....	Battleboro, N. C.
Farmer		



<i>Name</i>	<i>Degree</i>	<i>Address</i>
ARTHUR JEFFERSON PHILLIPS, JR.	B.S. 1911 Real Estate	Portsmouth, Va.
CHARLES FULLER PHILLIPS	B.S. 1920	Thomasville, N. C.
Manager, Thomasville Realty and Trust Company, Secretary-Treasurer, Home Building and Loan Association		
WILLIAM RANSOM PHILLIPS	B.E. 1910	Richmond, Va.
E.E. 1913. Specialist, Western Electric Co.		
PETER PENICK PIERCE	B.E. 1909	St. Augustine, Fla.
Care Florida East Coast Railway		
ROSS DUNFORD PILLSBURY	B.E. 1920	Raleigh, N. C.
Draftsman, Nelson and Cooper, Architects		
GUY PINNER	B.E. 1907	New York City
Civil Engineer, James A. Stewart and Co.		
JOHN GAY PINNER	B.S. 1915	Elizabeth City, N. C.
Pinner Brothers		
WINSLOW GERALD PITMAN	B.E. 1907	Lumberton, N. C.
Farmer		
PAUL NATHANIEL PITTENGER	B.E. 1911	Raleigh, N. C.
1905 Park Drive		
BENJAMIN FRANKLIN PITTMAN	B.E. 1908	Philadelphia, Pa.
With Wm. Cramp & Sons, Ship and Engine Building Co.		
LAWRENCE LYON PITTMAN	B.E. 1908	Whitakers, N. C.
Farmer		
PAUL MILLER PITTS	B.E. 1909	Birmingham, Ala.
Machinist, Tennessee Coal, Iron and Railroad Co.		
ANGELO BETTLENA PIVER	B.E. 1906	Newark, N. J.
Assistant Engineer, Submarine Boat Corporation, Newark Bay Shipyard		
WILLIAM CRAWFORD PIVER	B.S. 1906	New York, N. Y.
Riches, Piver & Co., Chemical and Color Manufacturers		
JAMES KEMP PLUMMER	B.S. 1907	East Point, Ga.
M.S. 1909; Ph.D. 1915, Cornell University. Chief Chemist and Superintendent Factory Operations, Southern Agricultural Chemical Corporation		
ROBERT AVERY PLYLER	B.E. 1914	Not located
PLEASANT H. POINDEXTER, JR.	B.Agr. 1905	Vici, Okla.
Manager, The Long-Bell Lumber Co.		
FREDERICK DAVIS POISSON	B.S. 1914	Durham, N. C.
With Liggett & Myers Tobacco Co.		
JULIAN HAWLEY POOLE	B.S. 1917	Jackson Springs, N. C.
Orchardist		
RUBLE ISAAC POOLE	B.E. 1908	Raleigh, N. C.
Civil Engineer		
EDWARD GRIFFITH PORTER	B.E. 1905	Goldsboro, N. C.
Civil Engineer and Surveyor		
EDWIN THEODORE PORTER	B.E. 1920	Georgetown, S. C.
Teller, Planters and Mechanics Bank		
JUNIUS EDWARD PORTER	B.E. 1900	Aurora, N. C.
President, J. E. Porter Co., Inc.		
TRACY WINCHESTER PORTER	B.S. 1914	Stovall, Miss.
Manager, Carson Bros.		
BRYANT MONROE POTTER	B.F. 1912	New Bern, N. C.
Civil Engineer		
WILLIAM OWEN POTTER	B.E. 1919	Baltimore, Md.
Standard Oil Company		
ZEB. VANCE POTTER	B.E. 1919	Spray, N. C.
Assistant Manager, Nantucket and Lily Mills		
HARRY ALEXANDER POWELL	B.E. 1908	Jacksonville, Fla.
20 West Monroe St., Naval Stores Operator		
JAMES ALEXANDER POWELL	B.E. 1908	Reading, Pa.
Mechanical Engineer, W. S. Barstow Management Association		
JAMES ROBERT POWELL	B.S. 1921	Burgaw, N. C.
County Demonstrator, Agricultural Extension Service		
JOEL POWERS	B.E. 1903	Goldsboro, N. C.
Draftsman, Dewey Bros., Inc.		

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
THOMAS MILTON POYNER..... Superintendent of Construction, Gadsden Contracting Co.	B.E. 1908.....	Savannah, Ga.
PALMER WILLIAM PRESSLY..... Superintendent, Municipal Water, Light & Water Plant	B.E. 1919.....	Mooresville, N. C.
JAMES BRUCE PRICE..... Electrical Engineer, U. S. Naval Ordnance Plant	B.E. 1910.....	South Charleston, W. Va.
JOHN MOIR PRICE.....	B.E. 1909.....	Not located
JOHN BAILEY PRIDGEN..... C.E. 1921. District Engineer, Sixth District, N. C. State Highway Commission	B.E. 1916.....	Charlotte, N. C.
ABRAM HINMAN PRINCE..... Superintendent, Substation N. 4, State Experiment Station	B.S. 1895.....	R. 1, Beaumont, Texas
CHARLES MARCELLUS PRITCHETT..... C.E. 1896. State Highway Commission	M.E. 1895.....	Raleigh, N. C.
VICTOR VASHTI PRIVOTT..... Mechanic and Electrician	B.E. 1895.....	Suffolk, Va.
FRANK WILSON PROCTER..... General Engineer, Black & Decker Manufacturing Co.	B.E. 1915.....	Baltimore, Md.
JESSE HARRIS PROCTOR..... Instrumentman, N. C. State Highway Commission	B.E. 1921.....	East Durham, N. C.
CARL CLAWSON PROFFITT..... County Agent, Buncombe County	B.S. 1915.....	Asheville, N. C.
CHARLES LANDON PROFFITT..... Orchardist	B.S. 1915.....	Black Mountain, N. C.
THOMAS HECTOR PURCELL.....	B.S. 1913.....	Maxton, N. C.
JACK ADDISON PUREFOY..... 27 Charlotte St.	B.S. 1916.....	Asheville, N. C.
HENRY AUBREY QUICKEL..... With American Telephone and Telegraph Co.	B.S. 1913.....	Charlotte, N. C.
JOSEPHUS PLUMMER QUINERLY..... Lee County Agricultural Agent	B.S. 1911.....	Bishopville, S. C.
MILLARD REED QUINERLY..... Care Hotel Francis	B.S. 1914.....	Miami, Fla.
KIRBY JERNIGAN QUINN..... Bookkeeper, Maxwell Brothers	B.S. 1921.....	Augusta, Ga.
CHARLES LOUIS RACKLEY..... With Carolina Creamery Co.	B.S. 1921.....	Asheville, N. C.
WALTER ROSCOE RADFORD..... With N. C. and U. S. Departments of Agriculture	B.S. 1917.....	Spruce Pine, N. C.
DILLARD CHARLES RAGAN..... National Aniline and Chemical Co.	B.E. 1920.....	High Point, N. C.
OLIVER RAMSAUR..... Engineering Department, Carolina Power and Light Co.	B.E. 1920.....	Raleigh, N. C.
PARKER ROYALL RAND..... Farmer	B. S. 1916.....	R. 2, Garner, N. C.
HENRY RANKIN..... President and Treasurer, Rankin Mills, Inc., V. P. Pinkney Mills, V. P. Ridge Mills, Inc.	B.E. 1916.....	Gastonia, N. C.
JOHN OLAN RANKIN, JR.....	B.S. 1913.....	Gastonia, N. C.
WILLIAM WALTER RANKIN..... Professor Mathematics, Agnes Scott College	B.E. 1904.....	Decatur, Ga.
JOHN DUNCAN RAY..... D.V.M. 1917. With Kinsley Laboratories	B.S. 1915.....	Kansas City, Mo.
LEWIS BANKS RAY..... Steam Turbine Designer, Allis-Chalmers Manufacturing Co.	B.E. 1916.....	Milwaukee, Wis.
DAVID MILLER REA..... With State Highway Commission	B.E. 1917.....	Durham, N. C.
HUGH CALVIN REA..... D.V.M. Kansas City Veterinary College, 1918. Veterinarian	B.S. 1916.....	Charlotte, N. C.
JAMES LATHAN REA..... Farmer	B.S. 1919.....	R. 27, Matthews, N. C.
RISDEN PATTERSON REECE..... Mechanical Engineer, Engineering Department, R. J. Reynolds Tobacco Co.	B.E. 1904.....	Winston-Salem, N. C.
JOHN BARTOW REES..... Machine Switching Equipment Engineer, Southern Bell Telephone and Tele- graph Co., and Cumberland Telephone and Telegraph Co., Inc.	B.E. 1914.....	Atlanta, Ga.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
ROBERT RICHARD REINHARDT	B.S. 1909 Veterinarian	Lincolnton, N. C.
WILLIAM BENEDICT REINHARDT	B.E. 1902 Electrician, Dawson City Electric Light and Power Co.	Dawson City, Yukon Territory
CALEB EDWARD RHODES	B.E. 1920 Electrical Engineer, Michael and Bivens, Inc.	Gastonia, N. C.
MARTIN LUTHER RHODES	B.E. 1921 Assistant Supervisor Trades and Industries, Division of Vocational Education of North Carolina	Raleigh, N. C.
VICTOR ARTHUR RICE	B.S. 1917 Assistant Professor of Animal Husbandry, Massachusetts Agricultural College	Amherst, Mass.
WADE HAMPTON RICE	B.S. 1921 Adjunct Professor, Poultry Husbandry Division, Georgia State College of Agriculture	Athens, Ga.
ROGER FRANCIS RICHARDSON	B.E. 1900 Construction Engineer, Semet-Solvay Co.	Birmingham, Ala.
WILLIAM RICHARDSON, JR.	B.E. 1904 Assistant Superintendent, Coal Washeries, Coal Mining Department, Tennessee Coal, Iron and Railroad Co.	Ensley, Ala.
EDWARD HAYES RICKS	B.E. 1903 Real Estate Dealer	Roanoke Rapids, N. C.
WALLACE WHITFIELD RIDDICK	B.E. 1916 Secretary-Treasurer, Demopolis Mills	Demopolis, Ala.
LOUIS NAPOLEON RIGGAN	B.E. 1912 Chief Clerk to Chief Engineer, Seaboard Air Line Railway	Norfolk, Va.
ALFRED PRATTE RIGGS	B.E. 1909 With South Florida Contracting and Engineering Co.	Key West, Fla.
JOHN HOLLIS RIPPLE	B.E. 1921 Marshall Fields Co.	Fieldale, Va.
RAY MÜLLER RITCHIE	B.S. 1916 Teacher of Vocational Agriculture	Charlotte Courthouse, Va.
WILLIAM LEWIS ROACH	B.E. 1920 Assistant Engineer, City of Raleigh	Raleigh, N. C.
THURMAN LESTER ROBERSON	B.E. 1914 With Order Department, Newport News Shipbuilding and Dry Dock Co.	Newport News, Va.
DANIEL ERNEST ROBERTS	B.S. 1914 Farmer	Red Springs, N. C.
JOHN MORGAN ROBERTS	B.S. 1914 Farmer	Louisville, Ga.
PHILIP AUSTIN ROBERTS	B.E. 1916 With W. M. Piatt, Municipal Engineer	Durham, N. C.
ARCHIE KNIGHT ROBERTSON	B.S. 1912 Wayne County Farm Demonstration Agent	Goldsboro, N. C.
DURANT WAITE ROBERTSON	B.E. 1906 President, Armorshield Paint Corporation	Washington, D. C.
HORACE BASCOMB ROBERTSON	B.E. 1917 With Cannon Manufacturing Co.	Kannapolis, N. C.
JOHN PAUL ROBERTSON	B.S. 1916 Farmer	R. 1, Rowland, N. C.
JOSEPH HENRY ROBERTSON	B.E. 1909 With North Carolina Public Service Co.	Salisbury, N. C.
RALPH REED ROBERTSON	B.E. 1920 With Southeastern Construction Co.	Rock Hill, S. C.
GEORGE RANDOLPH ROBINSON	B.E. 1919 Student Engineer, General Electric Co.	Lynn, Mass.
JAY FREDERICK ROBINSON	B.E. 1910 Teaching at Hampton Institute	Hampton, Va.
ZEB BLAINE ROBINSON	B.E. 1916 Building and Contracting	Asheville, N. C.
GASTON WILDER ROGERS	B.E. (Elec.) 1903 B.E. (Civil) 1905. Captain, Medical Corps, U. S. Army	Atlanta, Ga.
JAMES HENRY ROGERS	B.S. 1917 Part Owner and Manager, Ioka Stock Farm	R. 1, Roxboro, N. C.
WILLIAM HAYWOOD ROGERS, JR.	B.E. 1916 Engineer, Pitt County Highway Commission	Greenville, N. C.



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<i>Name</i>	<i>Degree</i>	<i>Address</i>
JOHN WESLEY ROLLINSON.....	B.E. 1911.....	Savannah, Ga.
President, Delta Electric Co.		
THOMAS DAVIS ROPER, JR.....	B.S. 1921.....	Hurricane, W. Va.
Instructor, High School		
WILLIAM EDWIN ROSE.....	B.E. 1900.....	Washington, D. C.
Ordnance Department, United States Government		
CHARLES BURDETTE ROSS.....	B.E. 1903.....	Charlotte, N. C.
Secretary and Treasurer, Model Steam Laundry Co.		
FLOYD DE ROSS.....	B.E. 1900.....	Lawton, Okla.
Owner, Lawton Coca-Cola Bottling Co., Altus Coca-Cola Bottling Co., Altus, Okla.; Duncan Coca-Cola Bottling Co., Duncan, Okla.; Frederick Coca-Cola Bottling Co., Frederick, Okla.		
GEORGE ROMULUS ROSS.....	B.S. 1911.....	Jackson Springs, N. C.
GRAEME ROSS.....	B.E. 1911.....	Kansas City, Mo.
Salesman, Kansas City Office, Westinghouse Electric and Manufacturing Co.		
JOE WILLIAM ROSS.....	B.S. 1914.....	R. 2, Fort Mill, S. C.
LANDON COATS ROSSER.....	B.E. 1915.....	Sanford, N. C.
Sheriff Lee County		
EMERY PELL ROUSE.....	B.E. 1914.....	LaGrange, N. C.
With the Rouse Banking Co.		
LINDLEY MURRAY ROWE.....	B.E. 1916.....	Davenport, Iowa
Palmer School of Chiropractic		
GARLAND THOMAS ROWLAND.....	B.E. 1913.....	Camp Benning, Ga.
First Lieutenant, Infantry. The Infantry School		
HORACE RALPH ROYSTER.....	B.E. 1918.....	Shelby, N. C.
Assistant Superintendent, Belmont Cotton Mills		
JAMES MALCOLMSON RUMPLE.....	B.E. 1917.....	Davidson, N. C.
Engineer, Chemical Construction Company, Charlotte, N. C.		
HENRY FRED RUSH.....	B.S. 1916.....	Bennettsville, S. C.
Cotton Buyer and Salesman, Everett and Co.		
AUGUSTINE JOSEPH RUSSO.....	B.E. 1916.....	Norfolk, Va.
Engineering Accountant, Norfolk-Southern Railroad Co.		
CARL COLLINS SADLER.....	B.E. 1910.....	Not located
JAMES OLIN SADLER.....	B.E. 1909.....	Norfolk, Va.
Vice President, W. D. Murray-Sadler Corporation		
DAVID MORTON SAINTSING.....	B.E. 1917.....	Newport News, Va.
Inspector for Newport News Shipbuilding and Dry Dock Co.		
WILLIS HUNTER SANDERS.....	B.S. 1897.....	Wichita Falls, Tex.
Oil Well Contractor		
MARION POLK SANFORD.....	B.S. 1919.....	R. 1, Stem, N. C.
Farmer		
CECIL VANN SAUNDERS.....	B.E. 1920.....	Connellsville, Pa.
Electrical Engineer, West Penn. System		
JOHN HYER SAUNDERS.....	B.E. 1894.....	Kinston, N. C.
Locomotive Engineer, Atlantic Coast Line Railroad		
DANIEL RUSSELL SAWYER.....	B.S. 1918.....	Harrison, N. J.
With Swift and Co.		
IRA OBED SCHAUB.....	B.S. 1900.....	Washington, D. C.
Agriculturist and Field Agent, U. S. Department of Agriculture		
JOHN FRANKLIN SCHENCK, JR.....	B.E. 1914.....	Shelby, N. C.
Treasurer, Lily Mill and Power Co.		
LEON JACOB SCHWAB.....	B.E. 1907.....	Savannah, Ga.
Junior Engineer, U. S. Engineer Office		
ROBERT WALTER SCOTT, JR.....	B. Agr. 1905.....	Bolton, N. C.
Farmer		
WILLIAM KERR SCOTT.....	B.S. 1917.....	R. 1, Haw River, N. C.
Farmer		
EARLE ALOYSIUS SEIDENSPINNER.....	B.S. 1910.....	Opon Cebu, P. I.
Chemist, Visayan Refining Co.		
CLEMENT OSCAR SEIFERT.....	B.E. 1916.....	Salem Depot, N. H.
With Coca-Cola Bottling Co.		
DAVID WALTER SEIFERT.....	B.E. 1913.....	Weldon, N. C.
General Manager, Coca-Cola Bottling Companies of Weldon, N. C., and Woonsocket, R. I.		

<i>Name</i>	<i>Degree</i>	<i>Address</i>
JOHN WILLIAM SEXTON..... Division Engineer, Seaboard Air Line Railway	B.E. 1910.....	Hamlet, N. C.
NATHAN STOWE SHARP..... Schanke & Company, Investment Bankers	B.E. 1916.....	Mason City, Iowa
CHARLES ANTHONY SHEFFIELD..... Agricultural Teacher, State Board of Vocational Education	B.S. 1920.....	R. 1, Linwood, N. C.
JAMES MORGAN SHERMAN..... M.S. 1912; Ph.D. 1915, University of Wisconsin. Bacteriologist, U. S. Department of Agriculture	B.S. 1911.....	Washington, D. C.
FLEMING BATES SHERWOOD..... M.S. 1915. With Cosden & Co.	B.S. 1912.....	Tulsa, Okla.
FRANCIS WEBBER SHERWOOD..... M.S. 1911. Ph.D. 1921, Cornell University. Assistant Chemist in Nutrition, N. C. Department of Agriculture	B.S. 1909.....	Raleigh, N. C.
WALTER DUPRE SHIELDS..... Foreman of Erwin Bleachery, Erwin Cotton Mills Co.	B.E. 1919.....	West Durham, N. C.
ROBERT ARNOLD SHOPE..... 224 N. Morehead Avenue, Traveling Salesman	B.E. 1909.....	Atlanta, Ga.
FRANK PIERCE SHORE..... With Eagle Engineering Co.	B.E. 1920.....	New Bern, N. C.
JOHN WADE SHORE..... Cashier, Commercial and Savings Bank	B.S. 1900.....	Boonville, N. C.
IRA SHORT..... Assistant Engineer, Marine Engineering Department, Westinghouse Electric and Manufacturing Company, South Philadelphia Works	B.E. 1911.....	Essington, Pa.
JOHN HOUSTON SHUFORD..... With National Aniline and Chemical Co.	B.S. 1903.....	Charlotte, N. C.
JOHN OSCAR SHUFORD..... Secretary and Treasurer, John Rudisill Manufacturing Co.	B.E. 1907.....	Lincolnton, N. C.
WILLIAM TALMAGE SHULL..... Civil Engineer, Shull Construction Co.	B.E. 1912.....	Newport, N. C.
WALTER LEITH SHUPING..... Sales Engineer, Westinghouse Electric and Manufacturing Co.	B.E. 1919.....	Charlotte, N. C.
THOMAS PARK SIMMONS..... With Truxillo Railroad Co.	B.E. 1917.....	Truxillo, Honduras, C. A.
JOHN ASA SIMMS..... Extension Animal Husbandman, Storrs, Conn.	M.S. 1917.....	Storrs, Conn.
GEORGE GRAY SIMPSON..... With T. S. Southgate & Co., Wholesale Brokers	B.E. 1909.....	Norfolk, Va.
WILLIAM DUDLEY SIMPSON..... Division Engineer, Seaboard Air Railway Co.	B.E. 1913.....	Tampa, Fla.
GUY RUDISILL SIPE..... Extension Poultryman for State of Mississippi	B.S. 1921.....	Agricultural College, Miss.
FREDERICK ERASTUS SLOAN..... General Agent, Felt and Tarrant Manufacturing Co.	B.S. 1899.....	Dallas, Texas
KARL SLOAN..... District Office Engineer, State Highway Commission	B.E. 1916.....	Charlotte, N. C.
ROBERT LEE SLOAN..... County Farm Demonstration Agent	B.S. 1913.....	Colfax, La.
WILLIAM NEVILLE SLOAN..... Examiner of Surveys, United States Forest Service	B.E. 1909.....	Franklin, N. C.
ALLEN ERNEST SMITH..... Farmer	B.S. 1918.....	R. 2, Hope Mills, N. C.
ANDREW THOMAS SMITH..... M.E. 1921. With Newport News Shipbuilding and Dry Dock Co.	B.S. 1899.....	Newport News, Va.
BASCOM PIERCE SMITH..... Estimator, Steam Turbine Department, Allis-Chalmers Co.	B.E. 1916.....	West Allis, Wis.
EDGAR ENGLISH SMITH..... With U. S. Coast and Geodetic Survey	B.E. 1908.....	Seattle, Wash.
EDWIN HARRISON SMITH..... With Bank of Weldon	B.E. 1910.....	Weldon, N. C.
EDWARD OSCAR SMITH..... With Newport News Shipbuilding and Dry Dock Co.	B.E. 1901.....	Newport News, Va.

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
FRANCIS CLARK SMITH.....	B.E. 1913.....	Clinton, N. C.
Resident Engineer, State Highway Commission		
FRANK STEED SMITH.....	B.E. 1913.....	Cleveland, Ohio
Engineer, Ohio Bell Telephone Co.		
JAMES LAWRENCE SMITH, JR.....	B.E. 1908.....	Portsmouth, Va.
Duke and Smith, Contractors and Engineers		
JAMES MCCREE SMITH.....	B.S. 1912.....	Not located
JONATHAN RHODES SMITH.....	B.E. 1905.....	Not located
ORUS WILDER SMITH.....	B.E. 1912.....	Newark, N. J.
Service Manager, Splitdorf Electrical Co.		
WALTER HERBERT SMITH.....	B.E. 1914.....	Pittsburgh, Pa.
E.E. 1921. Railway Equipment Division, Engineering Department, Westinghouse Electric and Manufacturing Co.		
WALTER JOHNSTON SMITH, JR.....	B.S. 1915.....	R. 3, Scotland Neck, N. C.
Farmer		
WHITEFORD INGERSOLL SMITH.....	B.E. 1915.....	Biltmore, N. C.
Assistant Superintendent, Asheville Mica Co.		
WILLIAM NATHAN HARRELL SMITH, JR.....	B.E. 1920.....	Raleigh, N. C.
434 Halifax St.		
WILLIAM TURNER SMITH.....	B.E. 1900.....	Dunn, N. C.
Concrete Bridge Inspector, State Highway Commission		
THOMAS JEHU SMITHWICK.....	B.S. 1897.....	Mount Airy, N. C.
Consulting and Erecting Engineer		
PAUL ELWOOD SNEAD.....	B.E. 1916.....	Reidsville, N. C.
With Signal Department, Southern Railway		
RUSSELL ELSTNER SNOWDEN.....	B.E. 1902.....	Kinston, N. C.
District Highway Engineer, North Carolina State Highway Commission		
JOSEPH MCKAY SPEARS.....	B.E. 1915.....	Raleigh, N. C.
With State Highway Commission		
JOHN HENRY SPEAS.....	B.S. 1916.....	East Bend, N. C.
Farmer, Teacher, Operator Roller Mill		
EDWARD PINKNEY SPEER.....	B.E. 1912.....	Waco, Texas
Superintendent of Shops, Texas Light and Power Co.		
COLIN GEORGE SPENCER.....	B.S. 1913.....	Carthage, N. C.
Lumber and Timber Dealer		
HERBERT SPENCER.....	B.S. 1915.....	Columbus, Ohio
M.S. 1917. Graduate Student, Ohio State University		
JOHN DAVIDSON SPINKS.....	B.E. 1905.....	Winston-Salem, N. C.
C.E. 1913. Civil Engineer		
JESSE PAGE SPOON.....	B.Agr. 1908.....	Burlington, N. C.
M.S. 1909; D.V.S. 1911, Kansas City Veterinary College. Veterinarian		
ST. JULIEN LACHICOTTE SPRINGS.....	B.S. 1910.....	Smithfield, N. C.
Whitehead & Springs, Wholesale and Retail Builders' Supplies		
ROBERT PINKNEY STACEY.....	B.E. 1920.....	Wilkinsburg, Pa.
Assistant Engineer, Duquesne Light Co.		
ERVIN BLACKENEY STACK.....	B.E. 1905.....	Monroe, N. C.
Electrical Engineer and Chemist		
TALMAGE HOLT STAFFORD.....	B.S. 1912.....	Raleigh, N. C.
Alumni Secretary, N. C. State College		
CHARLES BURT STAINBACK.....	B.E. 1910.....	East Pittsburgh, Pa.
Manager, Industrial Contract Department, Westinghouse Electric Co.		
JOHN ALPHEUS STALLINGS.....	B.E. 1917.....	Raleigh, N. C.
Draftsman, N. C. State Highway Commission		
EDWARD ROE STAMPS.....	B.E. 1903.....	Macon, Ga.
Division Superintendent, Southern Division, F. S. Royster Guano Co.		
HARRIS INGRAM STANBACK.....	B. E. 1910.....	Harrison, N. J.
Superintendent, Edison Lamp Works of General Electric Co.		
JEFFREY FRANKLIN STANBACK, JR.....	B.S. 1916.....	New York, N. Y.
Narcotic and Prohibition Chemist, Bureau of Internal Revenue		
CHARLES WHITSON STANFORD, JR.....	B.S. 1917.....	R. 1, Teer, N. C.
Farmer		
ERNEST ELWOOD STANFORD.....	M.S. 1917.....	Cleveland, Ohio
Professor of Pharmacognosy, Western Reserve University		



<i>Name</i>	<i>Degree</i>	<i>Address</i>
NUMA REID STANSEL..... E.E. 1901. Local Manager, Southwest General Electric Co.	B.S. 1898.....	El Paso, Texas
THOMAS BARNES STANSEL..... With American Zinc Company of Tennessee	B.S. 1910.....	Mascot, Tenn.
CLARENCE ALEXANDER STEDMAN..... Supervisor of Inspection, E. I. Du Pont de Nemours & Co.	B.S. 1912.....	Arlington, N. J.
ALEXIS PRESTON STEELE..... Mechanical Engineer, Firm of J. C. Steele & Sons	B.S. 1899.....	Statesville, N. C.
JOHN BROWN STEELE..... Farmer	B.S. 1913.....	Yadkin Valley, N. C.
LUCIUS ESEK STEERE, JR..... Assistant Electrical Engineer, Potomac Electric Power Co.	B.E. 1911.....	Washington, D. C.
SAMUEL FATIO STEPHENS..... Vice President, Physicians and Surgeons Supply Co.	B.E. 1909.....	Norfolk, Va.
NEEDHAM BRYAN STEVENS..... Fertilizer Salesman, Robertson Chemical Corporation of Norfolk, Va.	B.S. 1912.....	Raleigh, N. C.
JAMES GRAY STOKES..... District Manager, Mutual Life Insurance Company of New York	B.S. 1919.....	Elizabeth City, N. C.
REUBEN BENNETT STOTESBURY..... Farmer	B.S. 1917.....	New Holland, N. C.
MICHAEL ALFRED STOUGH..... With the Du Pont Company. Headquarters Charlotte, N. C.	B.E. 1917.....	Chattanooga, Tenn.
WILLIAM BEEVER STOVER..... With Sales Department, Westinghouse Electric and Manufacturing Co.	B.E. 1913.....	Newark, N. J.
CHARLIE BERRYHILL STOWE..... Dairyman	B.S. 1913.....	Charlotte, N. C., R. F. D.
GEORGE YATES STRADLEY..... With State Highway Commission	B.E. 1903.....	Raleigh, N. C.
GEDDIE BLAIR STRICKLAND..... Instrumentman, State Highway Commission	B.E. 1921.....	Yanceyville, N. C.
JOHN SNIPES STROUD..... Superintendent, Erwin Cotton Mills	B.E. 1908.....	Cooleemee, N. C.
JOHN GUY STUART..... Farmer	B.S. 1920.....	Jackson Springs, N. C.
WALTER STEPHEN STURGILL..... Major of Field Artillery	B.E. 1901.....	Fort Leavenworth, Kansas
WILLIAM CLARK STYRON..... Engineering Department, Newport News Shipbuilding and Dry Dock Co.	B.E. 1910.....	Newport News, Va.
TEISAKU SUGISHITA.....	B.S. 1898.....	Not located
BEVERLY NATHANIEL SULLIVAN.....	B.S. 1901.....	Winston-Salem, N. C.
JACOB NEELEY SUMMERELL..... With Mays Mills	B.E. 1919.....	Cramerton, N. C.
THOMAS BRYAN SUMMERLIN..... Summerlin Implement Co.	B.E. 1910.....	Mount Olive, N. C.
HENRY NEWBOLD SUMNER..... Major, Coast Artillery Corps. Professor of Military Science and Tactics, Porter Military Academy	B.E. 1909.....	Charleston, S. C.
WILBUR BURNETTE SUMNER..... Captain, Field Artillery, American Forces. A. D. C. to General Allen	B.E. 1916.....	Germany
DENNIS HOWARD SUTTON..... Principal, Bladenboro High School	B.S. 1920.....	Bladenboro, N. C.
LLOYD HURST SWINDELL..... Farmer	B.E. 1911.....	Raleigh, N. C.
LOUIS JOSEPH SWINK..... Overhauling Machinery, Sterling Spinning Co.	B.E. 1917.....	Belmont, N. C.
STANTON BANKS SYKES..... Industrial Control Specialist, General Electric Co.	B.E. 1913.....	Chicago, Ill.
VANCE SYKES..... Division Engineer, Seaboard Air Line Railway	B.E. 1907.....	Hamlet, N. C.
GEORGE FREDERICK SYME..... C.E. 1907. Senior Highway Engineer, State Highway Commission	B.S. 1898.....	Raleigh, N. C.
RICHARD FRAZIER TABOR..... Resident Engineer, State Highway Department	B.E. 1920.....	Escanaba, Mich.

## REGISTER OF GRADUATES

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
FREDDIE JACKSON TALTON.....	B. Agr. 1906..... Farmer	R. 2, Pikeville, N. C.
GURDON LUCIUS TARBOX.....	B.E. 1917..... Investigating and Research Engineer, Spicer Manufacturing Corporation	Plainfield, N. J.
CLAUDE STRATON TATE.....	B.E. 1909..... Proprietor of Garage and Machine Shop	Littleton, N. C.
DANIEL MCGILVARY TATE.....	B.S. 1915..... Farmer	Parkerton, Wyo.
REUBEN L. TATUM.....	B.E. 1916..... With State Highway Commission	Hamlet, N. C.
ALFRED TENNYSON TAYLOR.....	B.S. 1916.....	McCullers, N. C.
ARTHUR WILLIS TAYLOR.....	B.E. 1912.....	Not located
CULVER MURAT TAYLOR.....	B.E. 1912..... With Niagara Lockport and Ontario Power Co.	Buffalo, N. Y.
HERBERT LEE TAYLOR.....	B.E. 1912..... M.E. 1920. Foreman, Baltimore and Ohio Railroad, Mt. Clare Shops	Baltimore, Md.
WALTER CLYBURN TAYLOR.....	B.E. 1913..... T.E. 1916. The Taylor Knitting Mills	Hickory, N. C.
ARTHUR LEE TEACHEY.....	B.S. 1915..... Agriculturist, Pleasant Garden Farm Life School	Pleasant Garden, N. C.
BEN TEMPLE.....	B.S. 1917..... Farmer	Mitchells, Va.
JAMES CLARENCE TEMPLE.....	B.S. 1904..... M.S. 1908. Farmer	Ocala, Fla.
JUNIUS ALBERT TEMPLE.....	B.E. 1921..... Road Department, State Highway Commission	Raleigh, N. C.
MALVERN HILL TERRELL.....	B.E. 1909..... Chief Engineer, Greenbrier Power Plant of Virginia Western Power Co.	Ronceverte, W. Va.
JOHN CLIFTON TERRY.....	B.E. 1921..... Teacher	Rockingham, N. C.
ROGER VERNON TERRY.....	B.E. 1918..... M.E. 1921. Engineering Department, Estimating Division, Newport News Shipbuilding and Dry Dock Co.	Newport News, Va.
JOHN SAM THOMPSON.....	B.S. 1912..... Farmer	Woodville, N. C.
GEORGE LOGAN THOMPSON.....	B.E. 1912..... P. O. Box 127	Goldsboro, N. C.
THOMAS HAMPTON THOMPSON.....	B.E. 1910..... Chief Clerk to C. A. Pamplin, Southern Railway	Greensboro, N. C.
THOMAS WHITMELL THORNE.....	B.E. 1911..... Salesman, National Tube Company, Pittsburgh, Pa.	Atlanta, Ga.
DANIEL WOOD THORP, JR.....	B.E. 1914..... Engineer, Commissioners Public Works	Charleston, S. C.
LOUIS DALE THRASH.....	B.S. 1917..... County Agricultural Demonstration Agent	Rutherfordton, N. C.
GEORGE WILLIAM TIENCKEN.....	B.E. 1920..... With General Electric Co.	Schenectady, N. Y.
LUTHER RUSSELL TILLET.....	B.E. 1907..... With Fletcha Point Lumber Co.	Zamboango, P. I.
RICHARD HENRY TILLMAN.....	B.E. 1906..... Manager, New Business Department, Consolidated Gas, Electric Light and Power Co.	Baltimore, Md.
THEODORE RUGGLES TIMBY.....	B.E. 1921..... Manager, Wake Credit Service	Raleigh, N. C.
WILLIAM SIDNEY TOMLINSON.....	B.E. 1906..... President, Tomlinson Engineering Co.	Columbia, S. C.
JAMES EDWIN TOOMER.....	B.S. 1909..... Department of Metallurgy, University of Toronto	Toronto, Canada
JAMES RICHARD TOWNSEND.....	B.E. 1914..... Captain, Coast Artillery Corps, United States Army	Ft. Amador, C. Z.
JESSE ERNEST TREVATHAN.....	B.S. 1915..... Agricultural Extension Agent, Gloucester County	Gloucester, Va.
MARION FRANCIS TRICE.....	B.S. 1920..... Instructor, Department of Chemistry, N. C. State College	Raleigh, N. C.



<i>Name</i>	<i>Degree</i>	<i>Address</i>
GEORGE REID TROTTER.....	B.E. 1912.....	Charlotte, N. C.
Vice President and Treasurer, Electrical Constructors Co.		
GEORGE BOSTON TROXLER.....	B.S. 1918.....	Browns Summit, N. C.
Merchant		
WILLIAM BROOKS TRUITT.....	B.E. 1907.....	Greensboro, N. C.
General Manager of Production, Carolina Steel and Iron Co.		
FRED GOODE TUCKER.....	B.E. 1911.....	Charlotte, N. C.
Insurance Adjuster		
ISAAC NORRIS TULL.....	B.E. 1910.....	Cleveland, Ohio
Electrical Engineer, The McKinney Steel Co.		
JOHN EDWIN TURLINGTON.....	B.Agr. 1907.....	Gainesville, Fla.
M.S., Ph.D., Cornell University. Professor of Agronomy, University of Florida, College of Agriculture		
ERNEST CRAIG TURNER.....	B.S. 1917.....	Mountain City, Tenn.
County Demonstration Agent		
JOSEPH PLATT TURNER.....	B.E. 1902.....	Leaksville, N. C.
Grocer		
WILLIAM HARRISON TURNER.....	B.E. 1893.....	Winston-Salem, N. C.
Wholesale Dealer and Manufacturer of Feedstuffs		
JACKSON CORPENING TUTTLE.....	B.E. 1906.....	Baltimore, Md.
Industrial Power Department, Consolidated Gas, Electric Light and Power Co.		
NAPOLEON BONAPARTE TYLER.....	B.S. 1917.....	Roxobel, N. C.
D.V.M. 1921, Alabama Polytechnic Institute. Veterinarian		
GROVER WILLIAM UNDERHILL.....	B.S. 1916.....	Field Station, Chester, Va.
M.S. 1918. Assistant Entomologist, Virginia Crop Pest Commission		
ROBERT PEELE UZZELL.....	B.Agr. 1906.....	Goldsboro, N. C.
Farmer and Real Estate Dealer		
PETER VALAER, JR.....	B.S. 1906.....	Washington, D. C.
M. S. 1913, George Washington University. Assistant Chemist, Bureau of Internal Revenue		
LILLIAN LEE VAUGHAN.....	B.E. 1906.....	Raleigh, N. C.
Professor of Mechanical Engineering, N. C. State College		
WARNER MINNIEWEATHER VERNON.....	B.S. 1919.....	Ames, Iowa
Instructor in Animal Husbandry, Iowa State College		
SOLOMON ALEXANDER VEST.....	B.S. 1900 (Chem.).....	Mount Pleasant, Tenn.
B.Agr. 1901. Manager, The S. A. Vest Laboratory		
SYLVESTER MURRAY VIELE.....	B.E. 1905.....	Altoona, Pa.
Assistant Electrical Engineer, Pennsylvania Railroad		
JOHN LAWRENCE VON GLAHN.....	B.E. 1908.....	Spartanburg, S. C.
Von Glahn & Talbott, Engineers-Contractors		
EDWIN THOMAS WADSWORTH.....	B.E. 1911.....	Charlotte, N. C.
Member of Firm, Huntley, Bros., Vulcanizers		
JEW IRVIN WAGONER.....	B.S. 1919.....	R. 3, Durham, N. C.
Agricultural Supervisor, Lowe's Grove Farm Life School		
ROSCOE MARVIN WAGSTAFF.....	B.E. 1900.....	Port Richmond, N. Y.
Chief Draftsman, Engineering Department, Staten Island Shipbuilding Co.		
JOSEPH KENDALL WAITT.....	B.E. 1904.....	Portsmouth, Va.
Assistant Valuation Engineer, Seaboard Air Line Railway		
SAMUEL STANHOPE WALKER.....	B.E. 1919.....	Martinsville, Va.
Overseer of Spinning, Martinsville Cotton Mill Co.		
SUADE GOWER WALKER.....	B.S. 1918.....	R. 4, Rutherfordton, N. C.
Farmer		
WALTER JENNINGS WALKER.....	B.E. 1905.....	Schenectady, N. Y.
Electrical Engineer, General Electric Co.		
JOHN DICKSON WALLACE.....	B.E. 1921.....	Schenectady, N. Y.
Student Engineer, General Electric Co.		
SIDNEY JONES WALTERS.....	B.E. 1921.....	Oxford, N. C.
Foreman, Robt. G. Lassiter & Co.		
BENJAMIN FRANKLIN WALTON.....	B.S. 1894.....	R. 1, Raleigh, N. C.
Farmer		
CHARLES EMMETTE WALTON.....	B.E. 1910.....	Havana, Cuba
Vice President, Dodwells (Cuba) Ltd., Calle Cuba 23		
SETH THOMAS WALTON.....	B.S. 1920.....	Columbus, Ohio
Student, Veterinary College of Ohio State University		



## REGISTER OF GRADUATES

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
EDMUND FARRIS WARD.....	B. Agr. 1907..... Lawyer	Smithfield, N. C.
JAMES HUGH WARD, JR.....	B. E. 1915..... Member of Firm, J. H. Ward Lumber Co.	Rocky Mount, N. C.
HUGH WARE.....	B. S. 1899..... Farmer	Kings Mountain, N. C.
JACOB OSBORNE WARE.....	B. S. 1916..... M. S. 1918. In Charge of Cotton Investigations, Agricultural Experiment Station, University of Arkansas	Fayetteville, Ark.
SYLVESTER HASSELL WARREN.....	B. S. 1920.....	Not located
CLARENCE WESTBROOK WARRICK.....	B. S. 1920..... Teacher of Agriculture, Bethel Hill High School	Woodsdale, N. C.
HENRY CAPERTON WARWICK.....	B. E. 1918..... With U. S. Coast and Geodetic Survey	Washington, D. C.
CHARLES EDWARD WATSON.....	B. S. 1921..... Principal, Maple Hurst School	Jacksonville, N. C.
JAMES HUNTER WATSON.....	B. S. 1911..... With R. E. Prince, Real Estate and Insurance	Raleigh, N. C.
ROBERT PHIFER WATSON.....	B. E. 1919..... Overseer (Night) Carding and Spinning, Rowan Cotton Mills Co.	Salisbury, N. C.
WALTER WELLINGTON WATT, JR.....	B. E. 1905..... Machinery Salesman and Engineer, With Fred H. White	Charlotte, N. C.
JAMES WIGGINS WATTS, JR.....	B. E. 1914..... Exhibitor	Williamston, N. C.
HERBERT CARLYLE WEATHERS.....	B. E. 1921.....	Raleigh, N. C.
EDWARD HOWERTON WEATHERSPOON.....	B. E. 1914..... Sales Engineer, Chas. Cory & Son, Inc.	New York, N. Y.
CHARLES WRIGHT WEAVER.....	B. E. 1914..... Weaver Motor Co.	Asheville, N. C.
LINDSAY MARADE WEAVER.....	B. E. 1907..... With Wennonah Mills	Lexington, N. C.
GEORGE HENDERSON WEBB.....	B. E. 1916..... Civil Engineer, West Virginia Pulp and Paper Co.	Covington, Va.
MARION EMERSON WEEKS.....	B. E. 1904..... 321 Highland Drive	Seattle, Wash.
CLEVELAND DOUGLAS WELCH.....	B. E. 1902..... Vice President and Agent, Mays Mills, Inc.	Cramerton, N. C.
EARL PARKS WELCH.....	B. S. 1920..... Instructor, Vocational Agriculture, Troy High School	Troy, N. C.
NATHANIEL WARREN WELDON.....	B. S. 1917..... Principal, Stovall High School	Stovall, N. C.
HOWARD WALDO WELLES.....	B. E. 1910..... Assistant Engineer, Commercial Truck Co.	Philadelphia, Pa.
JOHN JACKSON WELLS.....	B. E. 1907..... C. E. 1916. Civil and Consulting Engineer	Rocky Mount, N. C.
ALBERT CLINTON WHARTON.....	B. S. 1904..... President and Manager, Reynolda, Inc.	Reynolda, N. C.
HARRY GRAVES WHARTON.....	B. S. 1916..... Clerk in Postoffice	Greensboro, N. C.
DRUID EMMETT WHEELER.....	B. E. 1917..... Captain, 54th Infantry, U. S. Regulars	Camp Grant, Ill.
FRED BARNETT WHEELER.....	B. E. 1912..... Manager of National Machine Shop	High Point, N. C.
ALBERT LINWOOD WHITE, JR.....	B. E. 1920..... Draftsman, Newport News Shipbuilding and Dry Dock Co.	Hampton, Va.
BUXTON WHITE.....	B. S. 1915..... Buxton White Seed Co.	Elizabeth City, N. C.
DAVID LYNDON WHITE.....	B. Agr. 1907..... Farmer	Trinity, N. C.
JONATHAN WINBORNE WHITE.....	B. S. 1903..... M. S. 1912, University of Illinois. Professor of Soil Technology, Pennsylvania State College	State College, Pa.

<i>Name</i>	<i>Degree</i>	<i>Address</i>
PERCY STANLEY WHITE.....	B.S. 1918.....	Wooster, Ohio
Ohio Agricultural Experiment Station		
ROYALL EDWARD WHITE.....	B.E. 1908.....	Aulander, N. C.
Practising Engineer		
JOSEPH SLAUGHTER WHITEHURST.....	B.E. 1909.....	Lake Wales, Fla.
Assistant Cashier, Lake Wales State Bank		
GEORGE WHITSON.....	B.E. 1917.....	Columbia, S. C.
Switchman, Southern Bell Telephone and Telegraph Co.		
LEVI ROMULUS WHITTED.....	B.S. 1896.....	Santa Fe, New Mexico
C.E. 1897. Superintendent of Construction, U. S. Public Buildings		
Treasury Department		
DUNCAN ALEXANDER WICKER.....	B.E. 1921.....	Durham, N. C.
State Highway Commission		
FREDERICK CARL WIGGINS.....	B.S. 1915.....	Kansas City, Mo.
Representative, B. P. S., Patterson-Sargent Co.		
ARCHIE CARRAWAY WILKINSON.....	B.E. 1905.....	Chattanooga, Tenn.
Senior Engineer, I. C. C. Valuation Bureau		
ATTICUS MORRIS WILLIAMS.....	B.S. 1921.....	R. 1, Franklinton, N. C.
Farmer		
BELTON CUNDIFF WILLIAMS.....	B.S. 1919.....	Raleigh, N. C.
Assistant Chemist, State Department of Agriculture		
CHARLES BURGESS WILLIAMS.....	B.S. 1893.....	Raleigh, N. C.
M.S. 1896. Vice Director and Chief of Division of Agronomy, N. C.		
Agricultural Experiment Station. Dean of Agriculture, State College		
CLAUDE B. WILLIAMS.....	B.S. 1899.....	Elizabeth City, N. C.
Physician		
HENRY LLOYD WILLIAMS.....	B.S. 1896.....	Cofield, N. C.
General Manager of Mills, Cofield Manufacturing Co.		
JAMES HARLEY WILLIAMS.....	B.E. 1906.....	Bozeman, Montana
B.A.S. 1910, Y. M. C. A. College, Chicago, Ill. General Secretary Y. M. C. A.		
JOHN C. WILLIAMS.....	B.E. 1908.....	Norfolk, Va.
Chief Draftsman, Seaboard Air Line Railway		
JOHN FRANCIS WILLIAMS.....	B.S. 1917.....	Buffalo, N. Y.
Ind. Alcohol and Chem. Division, Bureau of Internal Revenue		
JOHN FRANKLIN WILLIAMS.....	B.E. 1916.....	Charlotte, N. C.
With Southern Power Co.		
JOHN HENRY WILLIAMS.....	M.S. 1920.....	Raleigh, N. C.
Teacher in Raleigh High School		
JOHN RODMAN WILLIAMS.....	B.E. 1915.....	Burkeville, Va.
Pastor of Burkeville Presbyterian Church		
PETER MCK. WILLIAMS, JR.....	B.S. 1916.....	R. 7, Fayetteville, N. C.
M.S. 1917. Farmer		
ROBERT EDGAR WILLIAMS, JR.....	B.E. 1921.....	Wilmington, N. C.
Assistant Engineer, N. C. State Highway Commission		
ROY LEE WILLIAMSON.....	B.E. 1917.....	Weldon, N. C.
Resident Engineer, N. C. State Highway Commission		
ALVIN CHESLEY WILSON.....	B.E. 1913.....	Baltimore, Md.
Electrical Engineer, Davison Chemical Co.		
ARTHUR JOHN WILSON.....	B.S. 1907.....	Crawfordsville, Ind.
M.S. 1908; Ph.D. 1911, Cornell University. Professor of Chemistry,		
Wabash College		
JOHN McCAMY WILSON.....	B.E. 1894.....	Not located
JOHN SPICER WILSON.....	B.E. 1909.....	Winston-Salem, N. C.
Consulting Electrical Engineer		
DAVID CARLYLE WINDLEY.....	B.S. 1921.....	Raleigh, N. C.
Milk Tester, Extension Worker, Animal Industry Division		
WALTER BOOKER WINFREE.....	B.S. 1911.....	R. 2, Wadesboro, N. C.
Farmer		
EDWARD LEIGH WINSLOW.....	B.E. 1910.....	Truxillo, Honduras, C. A.
Contractor and Engineer		
HERMAN ELTON WINSTON.....	B.E. 1916.....	Enfield, N. C.
With R. L. Swain Tobacco Co., Inc.		
LEWIS TAYLOR WINSTON.....	B.Agr. 1906.....	Big Stone Gap, Va.
Chief Clerk, Auditing Department, Stonega Coke and Coal Co., Inc.		

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<i>Name</i>	<i>Degree</i>	<i>Address</i>
THOMAS HUTCHINSON WINSTON.....	B.E. 1914.....	Philadelphia, Pa.
Manufacturers Direct Agent, 1107 Real Estate Building		
HOWARD WISWALL.....	B.E. 1895.....	Asheville, N. C.
Civil Engineer and Timber Man		
JAMES HARVEY WITHERS, JR.....	B.S. 1916.....	R. 1, Broadway, N. C.
Farmer		
HENRY KOLLOCK WITHERSPOON.....	B.E. 1915.....	Raleigh, N. C.
Engineer in Charge, Publications and Statistics, State Highway Commission		
PAUL ADAMS WITHERSPOON.....	B.E. 1909.....	Pittsburgh, Pa.
C.E. 1911, Lehigh University. Assistant Engineer, Carnegie Coal Co.		
LOUIS ERNEST WOOTEN.....	B.E. 1917.....	Raleigh, N. C.
Assistant Professor in Civil Engineering, N. C. State College		
DANIEL BARNES WORTH.....	B.E. 1920.....	Raleigh, N. C.
Instructor in Mechanical Engineering Department, N. C. State College		
OWEN ZELOTES WRENN.....	B.E. 1914.....	Charlotte, N. C.
Southern Engineering Co.		
BENJAMIN VAIDEN WRIGHT.....	B.E. 1901.....	Laurel, Miss.
With Gilchrist-Fordney Lumber Co.		
SAMUEL KING WRIGHT.....	B.E. 1920.....	Raleigh, N. C.
Real Estate		
MARION FULLER WYATT.....	B.E. 1911.....	Raleigh, N. C.
With Job P. Wyatt & Sons Co.		
ROBERT JOB WYATT.....	B.E. 1909.....	Raleigh, N. C.
Treasurer, Job P. Wyatt & Sons Co.		
FORREST EGAN WYSONG.....	B.E. 1915.....	New York, N. Y.
President, Cable Cord Corporation		
CHARLES GARRETT YARBOROUGH.....	B.E. 1895.....	Los Angeles, Calif.
District Service Manager, Westinghouse Electric and Manufacturing Co.		
LOUIS THOMAS YARBOROUGH.....	B.E. 1893.....	Raleigh, N. C.
Postoffice Inspector, Headquarters, Washington, D. C.		
WOODFIN BRADSHER YARBOROUGH.....	B.E. 1908.....	Morenci, Arizona
Chief Electrician, Phelps-Dodge Corporation		
JAMES FULLER YATES.....	B.E. 1918.....	Massillon, Ohio
Engineer, Ohio Public Service Co.		
ELMER BERNARD YOUNG.....	B.E. 1921.....	Raleigh, N. C.
Designer, Bridge Department, N. C. State Highway Commission		
HARRY CURTIS YOUNG.....	M.S. 1915.....	East Lansing, Mich.
Research Associate in Botany, Michigan Agricultural College		
ROBERT CLEVELAND YOUNG.....	B.S. 1920.....	Red Oak, N. C.
Principal, Red Oak High School		
SAMUEL MARVIN YOUNG.....	B.E. 1893.....	Raleigh, N. C.
Traveling Salesman, Watkins-Cottrell Company of Richmond, Va.		
THOMAS GRADY YOUNG.....	B.E. (Elec.) 1920.....	Logan, W. Va.
B.E. (C.E.) 1921. With Kentucky and West Virginia Power Co.		
OTIS ALLEN ZACHARY.....	B.E. 1921.....	Duke, N. C.
With The Erwin Cotton Mills Co.		
YARO ZENISHEK.....	B.E. 1917.....	New York, N. Y.
238 West 28th St.		
JOHN FRANKLIN ZIGLAR.....	B.E. 1908.....	Charlotte, N. C.
C.E. 1915. Maintenance of Way Department, Southern Railway		
CARLE CLARK ZIMMERMAN.....	M.S. 1921.....	Raleigh, N. C.
A.B. 1920, Missouri University. Instructor Rural Life, N. C. State College		



## DECEASED GRADUATES

THOMAS MARTIN ASHE.....	B.E. 1895	ROBERT LEE MORGAN.....	B.E. 1910
EDWARD PAR BAILEY.....	B.E. 1904	FRANK BULLOCK MORTON.....	B.E. 1914
JOHN ISHAM BLOUNT.....	B.E. 1895	HENRY KOLLOCK NASH, JR.....	B.S. 1914
HENRY EMIL BONITZ.....	B.E. 1893	B. MOORE PARKER.....	B.S. 1898
GUY KEDAR BRYAN.....	B.E. 1911	ALEXANDER HOLLADAY PICKELL.....	B.E. 1912
JOEL W. BULLOCK.....	B.Agr. 1905	JAMES HICKS PEIRCE.....	B.S. 1905
ROBERT HILL CARTER.....	B.E. 1907	HUGH WILLIAMS PRIMROSE.....	B.S. 1897
SUMMEY CROUSE CORNWELL.....	B.E. 1903	ZEBBIE GEORGE ROGERS.....	B.E. 1894
WILLIAM PESCU D CRAIG.....	B.S. 1901	CARL DeWITT SELLERS.....	B.E. 1893
EDWIN SPEIGHT DARDEN.....	B.S. 1895	CHARLES EDGAR SEYMORE.....	B.S. 1893
GEORGE MASLIN DAVIS.....	B.E. 1901	WILLIAM THOMAS SHAW, JR.....	B.E. 1914
WILLIAM KEARNEY DAVIS.....	B.E. 1895	ORIN MORROW SIGMON.....	B.E. 1911
JACOB TATUM EATON.....	B.Agr. 1907	CHARLIE AUGUSTINE SPEAS.....	B.E. 1911
RUTLEDGE HUGHES FEILD.....	B.S. 1915	JOHN FRANCIS SPEIGHT.....	B.E. 1910
JOHN DANIEL FERGUSON.....	B.E. 1903	HUGH STUART STEELE.....	B.E. 1909
NEVIN GOULD FETZER.....	B.S. 1912	WILLIAM ANDERSON SYME.....	B.S. 1899
HUGH PIERCE FOSTER.....	B.E. 1903	ZEBULON WHITEHURST TAYLOR.....	B.E. 1914
FRANCIS MARION FOY.....	B.S. 1899	FRANK MARTIN THOMPSON.....	B.E. 1910
CHARLES DUFFY FRANCKS.....	B.E. 1893	BUXTON WILLIAMS THORNE.....	B.E. 1893
RANSOM EATON GILL.....	B.E. 1910	CHARLES EDWARD TROTTER.....	B.S. 1903
ROY JOSEPH GILL.....	B.E. 1907	REID TULL.....	B.E. 1906
JOHN HOWARD GLENN.....	B.E. 1903	CLYDE LOREINE VANN.....	B.E. 1914
EMIL GUNTER.....	B.E. 1903	STEVEN DOCKERY WALL.....	B.E. 1905
SAMUEL MERRILL HANFF.....	B.S. 1900	CHARLES AUGUSTUS WATSON.....	B.S. 1901
GEORGE ROM HARDESTY.....	B.E. 1907	JORDAN LEA WATSON.....	B.S. 1897
THOMAS FREDERICK HAYWOOD.....	B.E. 1909	WILL MILLER WATSON.....	B.E. 1915
ROBERT IRVING HOWARD.....	B.E. 1902	JAMES THADDEUS WEATHERLY.....	B.S. 1918
ARTHUR TEMPLETON KENYON.....	B.E. 1905	CECIL BERNARD WHITEHURST.....	B.E. 1907
JAMES HERITAGE KOONCE.....	B.E. 1905	EDWIN SEYMOUR WHITING.....	B.E. 1903
JOE POINDEXTER LOVILL.....	B.E. 1906	GAITHER HALL WHITING.....	B.S. 1900
JAMES WILLIAM MCKOY.....	B.E. 1893	BRADLEY JEWETT WOOTEN.....	B.S. 1897

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