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B F Brown

CATALOG

STATE COLLEGE RECORD

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MAY, 1920

WEST RALEIGH, N. C.

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B F Brown

NORTH CAROLINA STATE COLLEGE
OF
AGRICULTURE AND ENGINEERING

1919-1920

WEST RALEIGH

COLLEGE CALENDAR

1920

Tuesday,	June	15.	Summer School begins.
Wednesday,	July	28.	Summer School ends.
Tuesday,	September	7.	Fall Term begins. Registration days, Tuesday and Wednesday, September 7 and 8.
Thursday,	November	25.	Thanksgiving Day.
Tuesday,	December	21.	First Term ends.

1921

Tuesday,	January	4.	Second Term begins. Registration days, Tuesday and Wednesday, January 4 and 5.
Tuesday,	May	31.	Commencement Day.

CALENDAR

1920

JANUARY

S	M	T	W	T	F	S
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18	19	20	21	22	23	24
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FEBRUARY

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MARCH

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MAY

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JUNE

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1921

JANUARY

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AUGUST

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SEPTEMBER

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OCTOBER

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25	26	27	28	29	30	31

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M. B. STICKLEY	Concord	March 20, 1923
T. T. BALLENGER	Tryon	March 20, 1923
W. H. WILLIAMSON	Raleigh	March 20, 1923
O. L. CLARK	Clarkton	March 20, 1923
W. R. BONSAL	Hamlet	March 20, 1925
D. R. NOLAND	Crabtree	March 20, 1925
EVERETT THOMPSON	Elizabeth City	March 20, 1925
R. H. RICKS*	Rocky Mount	March 20, 1925
T. T. THORNE	Rocky Mount	March 20, 1927
C. W. GOLD	Greensboro	March 20, 1927
T. E. VANN	Como	March 20, 1927
P. S. BOYD	Mooresville	March 20, 1927

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C W. GOLD, *Secretary*

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T. E. VANN
T. T. BALLENGER
D. R. NOLAND

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W. H. RAGAN
C. W. GOLD

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Professor of English, and Dean of the College

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, Johns Hopkins University, 1896-7

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Professor of Mathematics

A.M. 1889, Wake Forest College

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Professor of Textile Engineering

Preston (England) Technical School

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Professor of Electrical Engineering

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

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Professor of Mechanical Engineering

B.S. 1904, M.E. 1909, Purdue University

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Professor of Horticulture

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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B.S. 1899, C.E. 1906, N. C. State College of Agriculture and Engineering

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Professor of Zoology and Entomology

B.A. 1907, Ohio State University

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M.S. 1909, Colorado Agricultural College; D.V.M., Kansas City Veterinary College

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Professor of Modern Languages
B.A. 1911, University of Colorado; M.A. 1918, Columbia University

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Professor of Physics
A.B. 1900, Wake Forest College; M.A. 1901, Columbia University; Research Student, Berlin, 1903-04

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Major of Infantry, U. S. A.

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A.B. 1913, B.S. in Agr. 1914, M.S. in Agr. 1917, Cornell University

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B.S.A. 1908, M.S. 1913, Maryland State College; V.M.D. 1912, University of Pennsylvania

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B.S., Ohio State University

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E.E. 1899, Columbia University

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B.A. and B.S. 1910, Washington and Lee University

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Captain of Cavalry, U. S. A.

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B.S. in A.E. 1915, Iowa State College

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B.M.E. 1911, University of Kentucky

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V.M.D. 1919, University of Pennsylvania

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A.B. 1912, A.M. 1913, Roanoke College; Ph.D. 1917, Johns Hopkins University

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A.B. 1907, Roanoke College; Graduate Student 1914, Johns Hopkins University

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B.S.D. 1902, A.B. 1906, McPherson College

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Graduate of Missouri Botanical Garden, 1917

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Graduate 1915, Bradford Durfee Textile School

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Associate of Arts, 1892, Cambridge University (England)

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A.B. 1919, Wake Forest College

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B.S. 1917, N. C. State College of Agriculture and Engineering; M.S. 1920, Cornell University

SOLOMON LINN HOMEWOOD
Instructor in Soils

JAY LANG BENBOW
Instructor in Farm Crops
B.S. 1918, N. C. State College of Agriculture and Engineering

MRS. CHARLES MCKIMMON
State Demonstration Agent; Assistant in Agricultural Extension

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Secretary to President

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H. H. B. MASK, Assistant in charge of Boys' and Girls' Clubs, West Raleigh, N. C.

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E. S. MILLSAPS, Piedmont District, Statesville, N. C.
T. D. MCLEAN, Central District, Aberdeen, N. C.
E. W. GAITHER, Eastern District, Wilson, N. C.
O. F. MCCRARY, Northeastern District, Washington, N. C.

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CHOWAN	N. K. Rowell	Edenton
CLEVELAND	R. M. Gidney	Shelby
COLUMBUS	J. T. Lazar	Whiteville
CURRITUCK	J. E. Chandler	Currituck
DAVIE	W. F. Reece	Mocksville
DURHAM	O. H. Stanard	Durham
EDGECOMBE	Zeno Moore	Whitakers
FORSYTH	R. W. Pou	Winston-Salem
GASTON	C. L. Gowan	Gastonia
GRAHAM	R. W. Gray	Robbinsville
GRANVILLE	J. L. Dove	Oxford
GREENE	J. C. Phelps	Snow Hill
GUILFORD	S. R. Bivens	Greensboro
HALIFAX	F. G. Tarbox	Enfield
HERTFORD	H. L. Miller	Winton
IREDELL	R. W. Graeber	Statesville

County	*Name*	*Postoffice*
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JONES	E. F. Fletcher	Trenton
LENOIR	C. M. Brickhouse	Kinston
LINCOLN	W. L. Smarr	Lincolnton
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NEW HANOVER	J. P. Herring	Wilmington
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ONSLOW	D. L. Latham	Jacksonville
ORANGE	E. S. Vanatta	Hillsboro
PASQUOTANK	G. W. Falls	Elizabeth City
PERQUIMANS	L. W. Anderson	Hertford
PERSON	L. C. Herring	Roxboro
PITT	J. E. Dodson	Greenville
POLK	J. R. Sams	Columbus
RANDOLPH	D. S. Coltrane	Asheboro
RICHMOND	J. G. Lawton	Rockingham
ROBESON	O. O. Dukes	Lumberton
ROCKINGHAM	F. S. Walker	Reidsville
RUTHERFORD	L. D. Thrash	Rutherfordton
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All the white women's and girls' work is under the general supervision of Mrs. Jane S. McKimmon, State Home Demonstration Agent, Raleigh, N. C.

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S. K. JACKSON.....Assistant Agronomist in Soils
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G. M. GARREN.....Assistant in Plant Breeding
M. W. HENSEL[3].....Specialist in Sugar Plant Production
W. E. HEARN[7].....Soil Survey
S. O. PERKINS[7].....Assistant in Soil Survey
S. F. DAVIDSON.....Assistant in Soil Survey
R. C. JURNEY[7].....Assistant in Soil Survey
W. A. DAVIS.....Assistant in Soil Survey
A. R. RUSSELL.....Assistant in Field Experiments
E. H. MATHEWSON[3].....Tobacco Expert
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F. W. SHERWOOD.....Assistant Chemist
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W. G. HAYWOOD.....Fertilizer Chemist
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G. L. ARTHUR.....Assistant Chemist
J. K. DALE.....Assistant Chemist
T. C. KEISEL.....Assistant Chemist
L. H. AMISS.....Assistant Chemist
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Z. P. METCALF.....Entomologist
R. W. LEIBY.....Assistant Entomologist
J. E. ECKERT.....Assistant Entomologist
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J. P. PILLSBURY.....Horticulturist

L. R. DETJEN.....Assistant Horticulturist
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J. M. DYER.....Assistant Horticulturist
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R. S. CURTIS[2].....Associate in Animal Industry
STANLEY COMBS.....Dairy Experimenter
B. F. KAUPP.....Poultry Investigator and Pathologist
J. A. AREY[2].....Dairy Farming
A. G. OLIVER[2].....Poultry Extension
JOHN E. IVEY.....Assistant Poultry Investigator and Pathologist
E. G. WARDIN.....Assistant Poultry Investigator and Pathologist
F. R. FARNHAM[2].....Assistant in Dairy Farming
A. C. KIMREY.....Assistant in Dairy Farming
D. R. NOLAND[2].....Assistant in Dairy Farming
E. C. BRINTALL.....Assistant in Dairy Farming
F. T. PEDEN.....Assistant in Beef Cattle
J. W. SLOSS.....Assistant in Beef Cattle
EARL HOSTETLER.....Assistant in Beef and Swine
W. W. SHAY[2].....Swine Extension
LEE COE[2].....Assistant in Dairy Farming
GEORGE EVANS.....Sheep Extension
F. A. WOLF.....Plant Pathologist
R. A. JEHLE.....Extension Pathologist
S. G. LEHMAN.....Assistant in Bacteriology
H. M. LYNDE[4].....Drainage Engineer
F. O. BARTEL.....Junior Drainage Engineer
W. C. REEDER.....Veterinarian
P. H. HART[6].....Assistant in Cotton Grading and Marketing
GORRELL SHUMAKER.....Assistant in Marketing Fruits and Vegetables
CHARLES S. JONES.....Livestock Marketing
BOLLING HALL.....Assistant in Marketing Fruits and Vegetables
J. M. JOHNSON[5].....Farm Management
R. W. COLLETT.....Assistant Director, in Charge Branch Stations
F. T. MEACHAM, Assistant Director, in Charge Piedmont Station, Iredell County, Statesville, N. C.
C. E. CLARK, Assistant Director, in Charge Coastal Plain Station, Edgecombe County, Rocky Mount, N. C.
E. G. MOSS, Assistant Director, in Charge Tobacco Station, Granville County, Oxford, N. C.
R. W. COLLETT, Acting Assistant Director, in Charge Trucking Station, Pender County, Willard, N. C.
A. S. CLINE, Assistant Director, in Charge Black Land Station, Wenona, N. C.
C. R. HUDSON[1].....State Agent

H. H. B. MASK[1]..... Assistant State Agent
E. S. MILLSAPS..... District Agent, Western District
T. D. MCLEAN..... District Agent, Central District
J. M. GRAY..... District Agent, Mountain District
O. F. MCCRARY..... District Agent, Northeastern District
E. W. GAITHER..... District Agent, Southeastern District
MRS. JANE S. MCKIMMON[1]..... State Home Demonstration Agent
MISS LAURA M. WINGFIELD,
Assistant State Home Demonstration Agent
MRS. J. H. HENLEY..... District Agent, Western District
MRS. ESTELLE T. SMITH..... District Agent, East Central District
MRS. CORNELIA C. MORRIS..... District Agent, Central District
H. B. KRAUSZ..... Farm Forestry
J. WULFF..... Assistant, Farm Forestry
E. R. RANEY..... Farm Engineering

The Experiment Station and the Extension Service are supported and conducted jointly by the College and the 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.

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[1] In cooperation with the United States Department of Agriculture, States Relations Service.
[2] In cooperation with the United States Department of Agriculture, Bureau of Animal Industry.
[3] In cooperation with the United States Department of Agriculture, Bureau of Plant Industry.
[4] In cooperation with the United States Department of Agriculture, Office of Roads and Rural Engineering.
[5] In cooperation with the United States Department of Agriculture, Office of Farm Management.
[6] In cooperation with the United States Department of Agriculture, Bureau of Markets and Rural Organizations.
[7] In cooperation with the United States Department of Agriculture, Bureau of Soils.
[8] In cooperation with the United States Department of Agriculture, Bureau of Entomology.

MILITARY ORGANIZATION

COMMANDANT OF CADETS

MAJOR CHARLES N. HULVEY, United States Army
CAPTAIN GEORGE B. RODNEY, United States Army, Assistant

ASSISTANT INSTRUCTORS

FIRST SERGEANT DON E. COZAD, United States Army
FIRST SERGEANT CHARLES J. SMITH, United States Army
SUPPLY SERGEANT CHARLES F. ELLIOTT, United States Army
SERGEANT ALLEN BOND, United States Army
SERGEANT JACOB E. BAKER, United States Army

REGIMENTAL FIELD AND STAFF OFFICERS

DANIEL B. WORTH, Lieutenant Colonel
JOHN B. HUNTER, Captain and Adjutant
A. B. MCCORMICK, Captain and Commissary
R. F. TABOR, First Lieutenant and Ordnance Officer

NONCOMMISSIONED STAFF

HERBERT C. WEATHERS, Sergeant Major
A. H. TOMPKINS, Color Sergeant

BATTALION FIELD AND STAFF OFFICERS

ALBERT L. WHITE, JR., Major, 1st Battalion
F. D. CLINE, Major, 2d Battalion
R. D. PILLSBURY, Major, 3d Battalion
R. P. STACEY, 1st Lieutenant and Battalion Adjutant, 1st Battalion
D. H. SUTTON, 1st Lieutenant and Battalion Adjutant, 2d Battalion
W. C. BUNCH, 1st Lieutenant and Battalion Adjutant, 3d Battalion

BAND

P. W. PRICE (Faculty), Captain
C. TAYLOR, Principal Musician
W. H. RICE, First Sergeant
O. A. ZACHARY, Drum Major
B. D. BARR, Sergeant
H. M. RAY, Sergeant Signal Detachment
W. W. STARR, Corporal
F. K. BAKER, Corporal
R. G. KENDRICK, Corporal
J. D. PELL, Corporal

COMPANY "A"

G. M. GREENFIELD, Captain
F. P. MONTGOMERY, First Lieutenant
R. R. ROBERTSON, Second Lieutenant
T. D. ROPER, First Sergeant
O. CASTELLOE, Sergeant
R. A. DEAL, Sergeant
E. E. INSCOE, Sergeant
R. L. MILLS, Sergeant
S. M. LONG, Corporal
R. A. HOLLOWELL, Corporal
J. D. WALLACE, Corporal
R. M. STIKELEATHER, Corporal
J. F. ERWIN, Corporal
J. C. TERRY, Corporal
E. C. LEGRAND, Corporal

COMPANY "B"

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R. N. GURLEY, First Lieutenant
T. N. NISSEN, Second Lieutenant
WILLIAM W. WEARN, First Sergeant
C. D. ARTHUR, JR., Sergeant
H. W. ALLSBROOK, Sergeant
E. B. YOUNG, Sergeant
W. H. SHIPMAN, Sergeant
J. T. BOSTIC, Corporal
W. H. BROWNE III, Corporal
W. J. EVERETT, Corporal
A. F. EVERHART, Corporal
W. F. FREEMAN, Corporal
W. T. HARDING, JR., Corporal
G. M. WOMBLE, Corporal

COMPANY "C"

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J. G. HALL, JR., First Lieutenant
P. S. OLIVER, Second Lieutenant
W. H. CORPENING, First Sergeant
D. E. KOONTS, Sergeant
H. D. LONG, Sergeant
G. T. PEOPLES, Sergeant

R. D. TURNER, Sergeant
J. H. BENNETT, Corporal
D. L. CANNON, Corporal
R. S. FLIPPIN, Corporal
G. S. JOHNSTON, Corporal
W. J. LUCAS, Corporal
T. M. PARK, Corporal
W. I. PICKENS, Corporal
S. H. STRICKLAND, Corporal

COMPANY "D"

M. L. MATTHEWS, Captain
W. B. HODGES, First Lieutenant
S. T. WALTON, Second Lieutenant
J. D. ALBRIGHT, First Sergeant
R. V. BIBERSTEIN, Sergeant
J. G. DEBERRY, Sergeant
O. H. BROWNE, Sergeant
W. B. COLLINS, Sergeant
J. T. ALDERMAN, JR., Corporal
W. N. HICKS, Corporal
F. B. MEACHAM, Corporal
JAMES W. MOORE, Corporal
W. F. GRAHAM, Corporal
C. D. LEMMOND, Corporal
B. A. BRACKETT, Corporal

COMPANY "E"

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D. C. RAGAN, First Lieutenant
W. V. BAISE, Second Lieutenant
C. D. KIRKPATRICK, First Sergeant
F. P. HUSKINS, Sergeant
J. P. BEAL, Sergeant
J. W. HARDEN, JR., Sergeant
G. B. CHERRY, Corporal
S. L. CARPENTER, Corporal
E. B. JENKINS, Corporal
J. E. COURTNEY, Corporal
G. T. PARKER, Corporal
L. J. JORDAN, Corporal
A. J. FOX, Corporal

COMPANY "F"

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J. M. HENLEY, First Lieutenant
E. M. MEEKINS, Second Lieutenant
A. R. MORROW, First Sergeant
G. R. SIPE, Sergeant
H. O. CLODFELTER, Sergeant
E. B. MANNING, Sergeant
P. H. GASTON, Corporal
G. W. BOWERS, Corporal
H. P. BROWER, Corporal
R. E. DUNNING, Corporal
L. C. GUIRKIN, Corporal
A. C. JONES, Corporal
W. C. EAGLES, Corporal

COMPANY "G"

J. M. PEDEN, Captain
S. A. COOPER, First Lieutenant
F. P. SHORE, Second Lieutenant
M. L. RHODES, First Sergeant
J. P. JOHNSON, Sergeant
B. W. WILLIAMS, Sergeant
M. L. HARDY, Sergeant
F. S. CHILDS, Sergeant
G. W. BELL, Corporal
E. G. SINGLETARY, Corporal
C. E. WATSON, Corporal
W. O. POWELL, Corporal
R. W. KRAFT, Corporal
Y. T. CHEATHAM, Corporal

COMPANY "H"

W. C. CHEEK, Captain
R. A. COUGHENOUR, First Lieutenant
E. T. PORTER, Second Lieutenant
M. E. BELAND, First Sergeant
W. A. SYDNOR, Sergeant
J. R. POWELL, Sergeant
A. S. JENNETTE, Sergeant
L. O. ARMSTRONG, Sergeant
H. H. WEAVER, Corporal
C. W. BERRUM, Corporal

D. C. WINDLEY, Corporal
A. M. WORTH, Corporal
D. A. FLOYD, Corporal
L. W. GREENE, Corporal
E. R. BETTS, Corporal

COMPANY "I"

J. H. BONITZ, Captain
C. A. SHEFFIELD, First Lieutenant
E. G. HOBBS, Second Lieutenant
L. A. HAMILTON, First Sergeant
C. L. RACKLEY, Sergeant
W. M. JOHNSTON, Sergeant
W. C. MCCOY, Sergeant
O. K. HOLMES, Sergeant
W. S. MANN, Corporal
W. R. ROGERS, Corporal
C. L. BOOKER, Corporal
A. E. GUY, Corporal
M. P. MOSS, Corporal

ADDITIONAL SECOND LIEUTENANTS

C. T. HUTCHINS
H. E. HOOD
O. RAMSAUR
H. B. MANN
L. M. LATTIMORE
R. E. MACKENZIE
C. V. SAUNDERS
R. B. ETHERIDGE

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 Leazer 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 suburbs 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 floor contains the offices of the Executives and classrooms of the Departments of English and Mathematics.

Patterson Hall, the main Agricultural building, is a buff pressbrick 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 for classrooms and laboratories of the departments of Agronomy, Horticulture, Soils, and Agricultural Extension. The second floor accommodates the departments of Botany and Plant Pathology, and of Physiology and Veterinary Medicine.

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 Zoology 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 Mechanical Engineering Building is a plain, substantial two-story brick building furnishing room for the drawing and recitation rooms of the Mechanical Engineering Department.

The Textile Building is a two-story brick building, 125 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 classrooms of the departments of Economics and Modern Languages.

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 toolrooms.

Pullen Building 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 the entire student body. 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.

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.

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

Farm Crops. The department has the necessary accessories for modern instruction in Agronomy. For practice work in the field the College farm is available.

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.

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

Botany. The several rooms occupied by this department are excellently equipped with apparatus and conveniences.

Animal Husbandry. The livestock equipment represents the leading breeds. The Division owns a dairy herd of over eighty head, a flock of sheep, a number of hogs, and Percherons. The dairy laboratory is fitted for up-to-date instruction in farm dairying.

Agricultural Engineering. The equipment for work in Agricultural Engineering consists of tools and testing apparatus necessary for practice work and instruction in the various phases of the work. Exhibit material from manufacturers of farm equipment is being secured for the benefit of the students. A file of trade magazines and Agricultural Engineering bulletins is available to students taking courses in the department. Loaned equipment to the value of several thousand dollars is secured each year for study and testing.

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.

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. The second floor of the Animal Husbandry Building is devoted to this department. An excellent laboratory is provided with the usual equipment of a Zoological laboratory. The department has a museum and its own library.

ENGINEERING EQUIPMENT

Civil Engineering. The equipment consists of all instruments necessary for 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.

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; with 50,000-pound and 15,000-pound testing machines. The power plant is also available for tests.

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, and a complete equipment of measuring instruments. There is an excellent storage battery, photometric room, and a well equipped shop. Machinery of the college power plant is available for testing and inspection.

Physics. The William Kearny 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 QUARTERS AND 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 carding machinery is located on the second floor of the building. The opening room contains the machinery for ginning, thread-extracting, and lappage. The carding machinery consists of flat cards, drawing frames, lap machines, combing machines, roving frames, a railway head, and a slubber.

Spinning. This department is also located on the second floor. The equipment consists of four 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, twenty-six in number, manufacture sheeting, gingham, toweling, bagging, and all kinds of fancy goods. 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, West 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 Engineering 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 cooperation 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 facts 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, cooperation 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, miners, metallurgists, chem-

ists, 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, civil engineering, mechanical engineering, electrical engineering, chemistry, dyeing, and textile engineering. It also offers practical training in carpentry, woodturning, blacksmithing, machinist's 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, zoology, 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, inspections, 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 regularly specified periods. These periods are as follows: for Juniors, Friday, Saturday, and Sunday nights; for Sophomores, Saturday and Sunday nights; for Freshmen, Sunday nights. Saturday and Sunday afternoons are liberty afternoons.

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 excluded 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 service 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 two 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.

Only members of evangelical churches may become active members. A handbook giving general information about the College is published each spring and sent to prospective students, with a personal letter of welcome from the officers of the Association.

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, 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, West 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 is situated in the center of the College campus. It is provided with a grandstand and uncovered seats, and admirably fits the needs of the various athletic teams.

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 promoted 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 of 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.

3. No student shall take part in any contest who has taken part in intercollegiate contests for four academic years, either at this College or at any other college or university.

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 (30) days of the opening date of the current session.

6. No student shall participate who has played baseball on any league team belonging to the National Association, or to any league recognized by the National Baseball Commission as an "outlaw league," or who has missed any time from College work in order to play on any organized so-called "summer baseball team."

7. No student who is recognized by the Athletic Council as a member of any team shall be eligible the following session, unless he has remained as a resident student two-thirds of the preceding session, and can give satisfactory reason for not remaining the whole session.

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

9. No person whose name appears in the Catalog list of officers of instruction or administration of the College and who receives remuneration therefor shall be a member of any athletic team representing the College.

10. 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 be unsatisfactory.

11. 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.

12. No student shall participate in any intercollegiate football or baseball game during his first college year; and in no case shall a student be eligible for these teams unless he shall have registered in this College not later than within thirty days after the opening of the spring term, and shall have been a student here during the said term.

13. 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 and 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 contest.

Note 1. The term session is interpreted to mean a college year of two terms.

LIBRARY AND READING ROOM

The College Library occupies the first story of Pullen Hall. The reading room is supplied regularly with about one hundred and fifty magazines and journals of various kinds, and yearly additions are being made to this number. The library contains about eight thousand volumes. There are also reference libraries in the different departments. The library is kept open from 9 a.m. to 6 p.m., and from 7 to 8:50 p.m. The Librarian is always present to assist students in finding desired information.

The Olivia Raney Library in Raleigh is free to students, and they have the privilege of borrowing books from it.

Students are also allowed to consult books in the **State Library.**

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 fortnightly, and great interest is taken in them by the textile students.

The Mechanical Engineering Society meets every week for the discussion of engineering subjects. The society is composed of Seniors and Juniors taking the Mechanical Engineering Course. Its 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.

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

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

The Alumni Association meets each year during commencement week. This association purposes raising funds to erect on the College campus a memorial to the former students who have lost their lives in the great war.

The Poultry Science Club. The Poultry Science Club is a society for the promotion of the interests of poultry study. Semi-monthly meetings are held in the Animal Husbandry and Poultry Building classrooms. At these meetings programs on poultry topics are carried out. Membership is open to all students of the College interested in the study of poultry subjects.

The Society of Civil Engineers. The Society of Civil Engineers is composed of members of the Senior, Junior, and Sophomore classes, students of the Civil Engineering Department. The officers of this Society are elected from the members of the Senior class. The Society is active, and has its regular semi-monthly meetings, at which meetings the various members of the Society discuss current engineering subjects which have been assigned them at the previous meeting. The question is then open for discussion by any other members.

The members of this Society are members of the North Carolina Society of Engineers, which is itself a State chapter of the American Association of Engineers with headquarters at Chicago. This makes the members of this College Society student members of this organization.

REQUIREMENTS 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.

To the Four-year Courses

Beginning with September, 1920, 14 units of credit will be required for unconditioned admission to the four-year courses. Of these units 8½ are in specified subjects, 5½ 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 in length.

Specified Subjects

	Units of Credit
English (standard requirements for college entrance)	3
History (American and one other branch)	2
Mathematics (Algebra through Progressions; Plane Geometry)	2½
Science (any one from Group A below)	1

Elective Subjects

SCIENCE AND VOCATIONAL SUBJECTS

	Units of Credit
Group A:	
Biology	½ or 1
Botany	½ or 1
Chemistry	½ or 1
General Science	½ or 1
Physics	½ or 1
Physiology and Hygiene	½ or 1
Zoology	½ or 1
Group B:	
Agriculture and Farm Practice	1 to 5½
Civics	½
Commercial Subjects	½ to 2
Drawing (freehand or mechanical)	½
Economics	1
Mechanic Arts	½ or 1
Mill Practice	½
Physical Geography	1
Group C:	
Foreign Languages:	
French	1 to 2
German	1 to 2
Latin	1 to 3
Spanish	1 to 2
Group D:	
History:	
English History	1
General History	1
Medieval and Modern History	1
Ancient History	1
North Carolina History	½

EXPLANATION

1. Only a half unit of credit is allowed for a science text alone; one unit is allowed when this is supplemented with laboratory. If full credit is asked, the applicant for admission must present a satisfactory notebook indicating the amount and character of the laboratory work done, certified by the teacher of the subject, the principal, or the superintendent of his school.

2. In Modern Languages, one unit of credit is allowed for a year's work, the first of which should cover the grammar and about 200 pages in translation.

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

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

TWO-YEAR COURSES

The requirements for admission to the Two-year Courses in Mechanic Arts and the Textile Industry are arithmetic complete, algebra through fractions, English grammar, and American history,

TWO-YEAR COURSE IN AGRICULTURE

The requirements for admission to the Two-year Course in Agriculture are arithmetic through decimal fractions, English grammar, and American history.

FARMERS' COURSE IN AGRICULTURE

No entrance examinations or certificates of scholarship are required of applicants for admission to the Three Weeks Course in Agriculture. No one under eighteen years of age will be admitted to this course.

CERTIFICATES

Applicants for admission to the Freshman Class who present on the official College admission blanks from proper officials of high schools or other preparatory schools of approved standing certified statements that the applicant has satisfactorily completed the 14 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.

N. B.—No applicant will be registered until his certificate is presented.

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 except after examination at the College.

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 selections 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 Aeneid. The Odyssey and the Aeneid 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 the 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, Hervé 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.

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, 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 $122.50. The $150 includes payment to the College of $124.50, of which $55 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 $19 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 $4.75 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 Bursar 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 the parents or guardians of 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.

Refunds to students under age on account of withdrawal are made upon the written request of their parents or guardians.

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, $1; physical culture fee, $3; Y. M. C. A. fee, $1; military equipment and uniform deposit, $50; waste and breakage deposit, $5; board for September, $15; a total of $102 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 $124.50 to be paid to the College. Thirty-five dollars is required to buy books and drawing instruments and for incidentals.

OCTOBER: Board, $19.

NOVEMBER: Board, $19; tuition, if it was not paid in September, $22.50.

DECEMBER: Board, $13.50, through the 21st.

JANUARY: Tuition, $22.50; lodging and fuel and lights, $20; medical and hospital fee, $3; furniture fee, $1; physical culture fee, $3; Y. M. C. A. fee, $1; board, $17.50. A total of $68.

FEBRUARY: Board, $19.

MARCH: Board, $19.

APRIL: Board, $19.

MAY: Board, $19.

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. The amount of these fees and deposits is given in the following tables for all class and courses. Changes and variations will be made at any time where the need is indicated.

FEES AND DEPOSITS FOR AGRICULTURAL STUDENTS

	Senior	Junior	Sophomore	Freshman
General Agriculture	Farm Crops....$1 Poultry..... 1 2	Soils.....$2 Poultry..... 1 Bacteriology... 3 Farm Crops.... 1 Entomology... 1 Plant Disease.. 1 Veg. Gard..... 1 Fruit Growing. 1 11	Plant Propagation.....$1 Dairying..... 3 Chemical Lab.. 3 Plant Physiology..... 1 Physics..... 1 9	Botany.....$1 Chemical Lab.. 2 Woodwork..... 1 Drawing..... 1 Zoology..... 2 6
Agronomy.....	Farm Crops....$1 1	Soils.....$2 Chemistry..... 3 Horticulture... 1 Entomology... 1 Poultry..... 1 Bacteriology... 3 Botany..... 1 Farm Crops.... 1 13	Same as General Agriculture	Same as General Agriculture
Animal Husbandry and Dairying.....	Zoology.....$2 2	Vegetable Gardening.....$1 Plant Disease.. 1 Soils..... 2 Poultry..... 1 Farm Crops.... 1 Entomology... 1 Fruit Growing. 1 Bacteriology... 3 11	Same as General Agriculture	Same as General Agriculture
Horticulture..	.....	Poultry.....$1 Soils..... 2 Pruning..... 1 Vegetable Gardening..... 1 Entomology... 1 Farm Crops.... 1 Plant Disease.. 1 Bacteriology... 3 11	Same as General Agriculture	Same as General Agriculture

FEES AND DEPOSITS FOR AGRICULTURAL STUDENTS—Continued

	Senior	Junior	Sophomore	Freshman
Vocational Education		Soils $2 Poultry 1 Pruning 1 Plant Disease 1 Bacteriology 3 Entomology 1 Farm Crops 1 Vegetable Gardening 1 11	Same as General Agriculture	Same as General Agriculture
Veterinary	Anatomy $2 Materia Medica 1 Pathology 1 Chemistry 2 Zoology 2 8	Farm Crops $1 Poultry 1 Histology 1 Anatomy 2 Chemistry 3 Bacteriology 3 11	Same as General Agriculture	Same as General Agriculture
Poultry	Poultry $4 Zoology 2 6	Bacteriology $3 Pruning 1 Entomology 1 Vegetable Gardening 1 Soils 2 Poultry 2 Farm Crops 1 Plant Disease 1 12	Same as General Agriculture	Same as General Agriculture
Biology	Bacteriology $3 Zoology 4 7	Soils $2 Farm Crops 1 Bacteriology 3 Entomology 1 Poultry 1 Zoology 2 Botany 2 Anatomy 2 Plant Disease 1 15	Same as General Agriculture	Same as General Agriculture

FEES AND DEPOSITS FOR ENGINEERING STUDENTS

	Senior	Junior	Sophomore	Freshman
Civil Engineering.	Drawing.....$1	Drawing.....$1	Drawing.....$1 Physical Lab... 1 Chemical Lab.. 3	Physical Lab...$1 Shop and Drawing..... 2 Chemical Lab.. 2
	1	1	5	5
Mechanical Engineering.	Shop and Drawing.....$2 M. E. Lab..... 1	Shop and Drawing..$2.50	Physical Lab...$1 Chemical Lab.. 3 Shop and Drawing..... 2	Same as C. E.
	3	2.50	6	
Electrical Engineering.	E. E. Lab.....$2	Direct Current Lab.....$2 Shop and Drawing..... 2	Same as M. E.	Same as C. E.
	2	4		
Chemical Engineering.	Chemistry....$10	Chemistry.....$6	Physical Lab...$1 Chemical Lab.. 4	Physical Lab...$1 Chemical Lab.. 2 Botany..... 1
	10	6	5	4
Textile Industry.....	Design.....$3 Dyeing..... 3	Design.....$3 Dyeing..... 3	Design.....$4 Chemical Lab.. 2 Drawing..... 1	Chemical Lab. $2 Shop and Drawing..... 2
	6	6	7	4
Textile Dyeing.....	Chemistry.....$8 Dyeing..... 3	Chemistry.....$6 Dyeing..... 3	Chemical Lab..$2 Drawing..... 1	Chemical Lab..$2 Shop and Drawing..... 2
	11	9	3	4

FEES AND DEPOSITS FOR SHORT COURSES

Two-year Course in Agriculture

Shop	$1.00
Physics	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
	$5.00
SECOND YEAR:	
Designing	$3.00
Dyeing	3.00
Shop	1.00
	$7.00

NOTE.—The College Bursar 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 tuition 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 name 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 Bursar 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 $6,500. 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 Bursar, 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 of $5 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. 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, nourishing food, with as large a variety as possible, is furnished absolutely at cost. The charge at present is $19 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 five hundred and sixty students, and new dormitories are under construction to provide for about two hundred more. Building conditions make it uncertain when these new dormitories will be ready for occupancy. The assignment of available rooms will be made on August 25th 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. It will be understood that these assignments are to be regarded as temporary until the military companies are formed during the first week of school. Many of these assignments will doubtless stand, but the permanent assigning of rooms will be made by the military Commandant, who will take charge of room assignments when registration of students begins on the 7th of September.

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 becoming members of this corps will receive an allowance for uniforms from the Government.

The Corps was established in 1917 and is used 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 United States Government and suitable uniforms furnished therefor. This camp is required of Juniors taking R. O. T. C., and is optional with other classes.

Not less than three 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, undertake the five hours a week course. These men will be given, in addition to the allowance on their uniforms, a cash bonus of about $150 per year by the United States Government.

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

Military Drill and Science, 4 hours weekly, are required of all Freshmen, Sophomores, and Juniors. Advanced R. O. T. C. work is optional in the upper classes.

In peace time the President of the United States may appoint members of the Reserve Officers' Corps as probational second lieutenants of the Army and authorize them to take a six months training in the Army at a salary of $100 per month and allowances.

In war time reserve officers may be appointed to a grade not below that of second lieutenant in any forces raised for national emergencies.

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.

MEDICAL EXAMINATION

Every student will be given a physical examination before his registration is completed, this examination being conducted by the College Physician or by a medical officer detailed by the War Department. 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 Farm Crops, Animal Husbandry, Horticulture, Vocational Education, Poultry Science, Biology, Veterinary Science, and Agricultural Chemistry.**
- **c. Two-year Course in Practical Agriculture.**
- **d. Winter Course in Agriculture.**

II. Engineering, Mechanic Arts, and Chemistry.

- **a. Four-year Course in Chemical Engineering.**
- **b. Four-year Course in Civil Engineering.**
- **c. Four-year Course in Electrical Engineering.**
- **d. Four-year Course in Mechanical Engineering.**
- **e. Two-year Course in Mechanic Arts.**

III. Textile Courses.

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

IV. Summer School.

A six-weeks Summer School 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.

V. 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.

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.

FOUR-YEAR COURSES

I. Agricultural Courses.

- **a. Four-year Course in General Agriculture.**
- **b. Four-year Specialized Courses in Agronomy, Animal Husbandry, Horticulture, Vocational Education, Poultry Science, Biology, Veterinary Medicine, and Agricultural Chemistry.**

AGRICULTURAL COURSES

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: Agronomy, Animal Husbandry, Horticulture, Vocational Education, Agricultural Engineering, Poultry Science, Biology, or Agricultural Chemistry—to prepare himself for some professional line of Agriculture. It is felt by the College that increasingly larger 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, 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 additions 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*

Freshman Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Botany, 101-102	3	4	3	4
Chemistry, 101-102 and 111-112	3	4	3	4
Agricultural Drawing, 111	1	3	0	0
Shop Work, Mechanical Engineering, 142	0	0	1	3
English, 101-102	3	3	3	3
Military Art, 101-102	3	4	3	4
Mathematics, 121-122	3	3	3	3
Zoology, 101-102	3	4	3	4
Animal Husbandry, 101 or 102	2 or 0	3	0 or 2	3
Farm Crops, 101 or 102	0 or 2	0	2 or 0	0
Total required	21	28	21	28

Sophomore Year

Dairying, 202	0	0	3	4
Botany, 201	3	4	0	0
Chemistry, 221	3	5	0	0
Chemistry, Organic, 222	0	0	4	6
Military Art, 201-202	3	4	3	4
English, 201-202	3	3	3	3
Geology, Soils, 202	0	0	2	3
Comparative Physiology, Veterinary Medicine, 201	3	4	0	0
Plant Propagation, Horticulture, 201	3	4	0	0
Agricultural Physics, 231-232	3	4	3	4
Farm Crops, 202	0	0	3	4
Total required	21	28	21	28

*Work of Freshmen and Sophomore years is the same in all Agricultural courses.

GENERAL AGRICULTURE

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Farm Crops, Legumes, 301	3	4	0	0
Principles of Feeding, 312	0	0	3	4
Soils, 301-302	3	4	2	3
Plant Diseases, 301	2	3	0	0
Bacteriology, 302	0	0	3	4
Economic Entomology, 301-302	2	3	2	3
Military Drill, 301-302	2	3	2	3
Poultry, 301	3	4	0	0
Vegetable Gardening, 302	0	0	3	4
Total required	15	21	15	21
Electives	8		8	
	23		23	
Elective:				
Military Art, 301-302*	2	2	2	2
and				
Modern Language, 341-342	2	2	2	2

*Students who elect Military Art and Modern Language in the Junior year will be required to elect Military Art in the Senior year. Other electives are to be selected from the following groups.

Senior Year

Farm Management, 442	0	0	3	4
Farm Equipment, 431	3	4	0	0
Economics, 401	3	4	0	0
Fertilizers, 402	0	0	3	4
Animal Diseases, 402	0	0	3	4
Plant Breeding, 412	0	0	3	4
Animal Breeding, 401	3	4	0	0
Drainage, 401	3	5	0	0
Total required	12	17	12	16
Electives	10		10	
	22		22	
Elective:				
Military Art, 401-402*	4	5	4	5

*Students who elect Military Art in the Junior year will have to elect Military Art in the Senior year. Other electives are to be selected from the following groups.

Electives for Four-year Course in General Agriculture.

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Fruit Growing, Horticulture, 301	3	4	0	0
Swine Production, Animal Husbandry, 311	2	3	0	0
English, 301	3	3	0	0
Grasses and Small Grain, Farm Crops, 312	0	0	2	3
Economics, 312	0	0	3	3
Veterinary Hygiene and Sanitation, 302	0	0	2	3
Farm Buildings, Agricultural Engineering, 342	0	0	3	4
Systematic Botany, 321	2	3	0	0

Senior Year

Dairy Cattle and Milk Production, Animal Husbandry, 401	3	4	0	0
Rural Sanitation, Zoology, 431-432	1	1	1	1
Farm Motors, Agricultural Engineering, 452	0	0	3	4
Incubation and Brooding, Poultry, 422	3	4	0	0
Apiculture, Zoology, 421-422	3	4	3	4
Soils, 411-412 or 422	3	4	3	4
Cotton and Tobacco, Farm Crops, 401	3	4	0	0
Hay, Pasture and Silage, Farm Crops, 412	0	0	3	4
Horse and Mule Production, Animal Husbandry, 421	3	4	0	0
Farm Meats and Stock Farm Management, Animal Husbandry, 412	0	0	3	4
Farm Forestry, Horticulture, 421	3	4	0	0

Group Electives for Four-year Course in Agriculture.

AGRONOMY

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Grasses and Small Grain, Farm Crops, 312	0	0	2	3
Crop Improvement, Seed Production and Experiments, Farm Crops, 321-322	3	4	3	4
Chemistry, 321-322	3	4	3	4
Fruit Growing, Horticulture, 301	3	4	0	0
Systematic Botany, 321	2	3	0	0

Senior Year

Rural Sanitation, Zoology, 431-432	1	1	1	1
Cotton and Tobacco, Farm Crops, 401	3	4	0	0
Hay, Pasture and Silage, Farm Crops, 412, or Soil Survey, 422	0	0	3	4
Crop Improvement and Experimentation, Farm Crops, 421-422	3	4	3	4
Advanced Soils, 411-412	3	4	3	4
Farm Motors, Agricultural Engineering, 452	0	0	3	4

ANIMAL HUSBANDRY

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Advanced Stock Judging, Animal Husbandry, 332	0	0	3	4
Swine Production, Animal Husbandry, 321	2	3	0	0
Sheep Production, Animal Husbandry, 311	3	4	0	0
Fruit Growing, Horticulture, 301	3	4	0	0
Grasses and Small Grains, Farm Crops, 312	0	0	2	3
Veterinary Hygiene and Sanitation, 302	0	0	2	3
Farm Building, Agricultural Engineering, 342	0	0	3	4

Senior Year

Horse and Mule Production, Animal Husbandry, 421	3	4	0	0
Beef Cattle Production, Animal Husbandry, 411	3	4	0	0
Farm Meats and Stock Farm Management, Animal Husbandry, 412	0	0	3	4
Hay, Pasture and Silage, Farm Crops, 412	0	0	3	4
Dairy Cattle and Milk Production, Animal Husbandry, 401	3	4	0	0
Embryology, Zoology, 402	0	0	3	4
Rural Sanitation, Zoology, 431-432	1	1	1	1

HORTICULTURE

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Practical Pomology, Horticulture, 311	3	4	0	0
Pruning and Spraying, Horticulture, 312	0	0	3	4
Small Fruits, Horticulture, 322	0	0	3	4
English, 301	3	3	0	0
Trees and Shrubs, Horticulture, 332	0	0	2	3
Systematic Botany, 321	2	3	0	0

Senior Year

Greenhouse Management, Horticulture, 401	3	4	0	0
Systematic Pomology, Horticulture, 411	3	4	0	0
Landscape Gardening, Horticulture, 422	0	0	3	4
Farm Forestry, Horticulture, 421	3	4	0	0
Farm Motors, Agricultural Engineering, 452	0	0	3	4
Horticultural Electives, 432	0	0	3	4
Rural Sanitation, Zoology, 431-432	1	1	1	1

POULTRY

Junior Year

Poultry Breeds and Judging, 311	3	4	0	0
Grasses and Small Grains, Farm Crops, 312	0	0	2	3
Advanced General Poultry, 312	0	0	4	5
Fruit Growing, Horticulture, 301	3	4	0	0
Veterinary Hygiene and Sanitation, 302	0	0	2	3
Poultry Anatomy, 331	2	3	0	0

Senior Year

Poultry Diseases, 401	3	4	0	0
Specialized Poultry Marketing, 402	0	0	3	4
Incubation and Brooding, 422	0	0	3	4
Embryology, 401-402	3	4	3	4
Rural Sanitation, Zoology, 431-432	1	1	1	1
Poultry Accountant Course, 411	1	1	0	0
Poultry Seminar, 421	2	2	0	0

BIOLOGY

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Comparative Anatomy, Zoology, 321-322	3	4	3	4
Economic Zoology, 331-332	2	3	2	3
Advanced Plant Physiology, 311	3	4	0	0
Systematic Botany, 321	2	3	0	0
Advanced Systematic Botany, 322	0	0	3	4

Senior Year

Apiculture, Zoology, 421-422	3	4	3	4
Advanced Bacteriology, 411-412	3	4	3	4
Embryology, 401-402	3	4	3	4
Rural Sanitation, Zoology, 431-432	1	1	1	1

VOCATIONAL EDUCATION

Junior Year

Education, 301-302	3	4	3	4
Grasses and Small Grain, Farm Crops, 312	0	0	2	3
Stock Judging, Animal Husbandry, 332	0	0	3	4
Swine Production, Animal Husbandry, 321	2	3	0	0
Farm Buildings, Agricultural Engineering, 342	0	0	3	4
Fruit Growing, Horticulture, 301	3	4	0	0

Note.—If students take Military Art they should elect Education, 301 and 302.

Senior Year

Education, 401-402	3	4	3	4
Education, 411-412	3	4	3	4
Rural Sociology, 421-422	1	1	1	1
Incubation and Brooding, 422	0	0	3	4
Rural Sanitation, Zoology, 431-432	1	1	1	1
Dairy Cattle, Animal Husbandry, 401	3	4	0	0
Horses and Mules, Animal Husbandry, 421 or Farm Crops, 401	3	4	0	0

Note.—If students take Military Art they should elect Education, 401-402 and 411-412.

Note.—Students taking Vocational Education and Veterinary Science will not be able to take Military Art and qualify for their respective positions as teachers in Agricultural Schools and Veterinarians in the Government Service.

AGRICULTURAL CHEMISTRY

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Chemistry, Organic, 301	3	3	0	0
Chemistry, Organic Laboratory, 311-312	1	3	1	3
Chemistry, Physiological, 342	0	0	2	2
Chemistry, Physiological Laboratory, 352	0	0	1	2
Chemistry, Quantitative Analysis, 321-322	4	8	4	8

Senior Year

Chemistry, Historical, 401	2	2	0	0
Chemistry, Industrial, 402	0	0	2	2
Chemistry, Inorganic, 412	0	0	2	2
Chemistry, Microanalysis, 411	2	4	0	0
Chemistry, Quantitative Analysis, 441-442	6	12	6	12

VETERINARY COURSE

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Farm Crops, Legumes, 301	3	4	0	0
Anatomy, Veterinary Medicine, 321-322	5	7	4	6
Bacteriology, Botany, 302	0	0	3	4
Chemistry (Quantitative), 321	3	4	0	0
Chemistry (Physiological), 462	0	0	3	4
English, 301	3	3	0	0
Principles of Feeding, Animal Husbandry, 312	0	0	3	4
Swine Production, Animal Husbandry, 311	2	3	0	0
Stock Judging, Animal Husbandry, 332	0	0	3	4
Histology, Veterinary Medicine, 311-312	3	4	3	4
Materia Medica, Veterinary Medicine, 332	0	0	3	4
Poultry, 301	3	4	0	0
Totals	22	29	22	30

Senior Year

Animal Breeding, Animal Husbandry, 401	3	4	0	0
Anatomy, Veterinary Medicine, 411-412	4	6	5	7
Poisonous Plants, Botany, 412	0	0	2	3
Dairy Cattle and Milk Production, Animal Husbandry, 401	3	4	0	0
Embryology, Zoology, 302	0	0	3	4
Pathology, Veterinary Medicine, 441-442	3	4	3	4
Pharmacy, Veterinary Medicine, 432	0	0	3	4
Physiology, Veterinary Medicine, 421-422	3	3	3	3
Farm Management, 442	0	0	3	4
Farm Equipment, 431	3	4	0	0
Economics, 401	3	3	0	0
Totals	22	28	22	29

SHORT COURSES

I. TWO-YEAR PRACTICAL COURSE IN 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. Considerable time will be devoted to 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 fields, 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[1]

First Year

Subjects	First Term Periods	First Term 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
Field Crops, Farm Crops, 11	3	4
Agricultural Drawing, Agricultural Engineering, 11	1	3
Farm Chemistry, Chemistry, 11	3	4
Animal Life, Zoology, 11	3	4
Military Drill	2	3
	24	32

Subjects	Second Term Periods	Second Term Hours
English (Farm Literature and Public Speaking), 12	3	3
Farm Mathematics, 32	3	3
Plant Life, Botany, 12	3	4
Field Crops, 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 Drill	2	3
	24	32

Second Year

Subjects	First Term Periods	First Term Hours
Farm Mechanics, Agricultural Engineering, 21	3	4
Fruit Growing, Horticulture, 21	3	4
Farm Insects, Entomology, 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 Drill	2	3
	24	33

[1]Eight weeks of supervised Farm Practice will be required of each student in this course, during the summer at the end of the first year.

Subjects	Second Term Periods	Second Term Hours
Farm Equipment, Agricultural Engineering, 22	3	4
Farm Dairying, Animal Husbandry, 22	3	4
Farm Management, Field Crops, 22	3	4
Rural Law, Economics, 22	2	2
Rural Organization, Economics, 32	2	2
Farm Accounting, Economics, 42	2	2
Marketing Farm Products, Economics, 52	2	2
Animal Diseases, Veterinary, 22	2	3
Pruning and Spraying, Horticulture, 22	3	4
Military Drill	2	3
	24	30

II. THREE WEEKS FARMERS' WINTER COURSE IN AGRICULTURE

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

The instruction offered will be of the kind the energetic and ambitious farmer is seeking. The course will begin on January 6, 1921, and will continue for three weeks.

Three Weeks Farmers' 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
Soils and Fertilizers	4
Diseases of Livestock	3
Poultry	3
Gas Engines	3
Farm Tractors	9
Total	44

III. COURSE IN AGRICULTURE FOR REHABILITATION STUDENTS

The course in Agriculture for rehabilitation students is similar to the other short courses in Agriculture. It is a study of the application of scientific principles to farming. This study consists of class discussion based on the experience of the men from farms, supplemented by information secured from successful farmers, the State Experiment Station, the Department of Agriculture, and the specialists of the College. Emphasis is put upon the field study and use of illustrative material. Practice in stock judging, the care and feeding of animals, and work with poultry and dairy cattle is given in the animal husbandry courses. Selection of seed, practice in pruning and spraying, and the planting of a vegetable garden make up other practice periods.

For the men who will continue their studies it is a preparatory course. For those who will return to the farm it gives some understanding of the principles underlying their work, and brings them into contact with the agencies which serve the farmer—the State College, the Department of Agriculture, and the State Experiment Station. For men who have had no farm experience the course will be supplemented by additional field practice. Opportunity will be given these men to grow some of the common field crops and to care for some farm animals.

Specialization

Opportunity to specialize is limited by the general nature of the course. In the second term special unit courses of six weeks duration are offered in cotton, tobacco, and peanuts, and also in poultry, swine, and beef cattle. These courses are in addition to the required work and are elective.

In the Summer School there will be greater opportunity for specialization.

Employment Upon Completing the Course

Those students who own farms will probably wish to return to them.

Those who do not own farms will be given further training and experience to fit them to become farm managers or farm superintendents in their chosen lines. Positions will be found for these men by the Federal Board for Vocational Education.

The men who plan to take up farm demonstration work or to enter the service of the Department of Agriculture and who are promised four years of study will enter the regular agricultural courses as soon as they have the necessary preparation.

Course in Agriculture for Rehabilitation Students

Subjects	Hours a Week 1st Term	2d Term
Farm Crops	4	4
Soils and Fertilizers	2	....
Farm Business	....	2
Fruit Growing	3	....
Vegetable Gardening	....	3
Types and Breeds of Farm Animals	4	....
Feeding and Management of Livestock	....	4
Poultry	2	....
Dairying	....	2
Farm Equipment	2	....
Farm Machinery or Farm Power	....	2
General Science	2	2
English and Arithmetic 1	5	5
or		
English 2 or 3	3	3
Mathematics	3	3
Total	27 or 25	27 or 25

II. ENGINEERING COURSES

a. Four-year Course in Chemical Engineering.
b. Four-year Course in Civil Engineering.
c. Four-year Course in Electrical Engineering.
d. Four-year Course in Mechanical Engineering.

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 identical and include a great deal of practice. 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 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.

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.

CHEMICAL COURSES

a. Four-year Course in Agricultural Chemistry.
b. Four-year Course in Chemistry.
c. Four-year Course in Textile Chemistry and Dyeing.

The great war has been designated by some as a chemical war because of the important part which chemistry has played in it. Those who consider this statement extravagant cannot deny that the war has served to impress upon the world the importance of chemistry as a factor in the affairs of men. Explosives, noxious gases, and gas masks could not have been possible without the skill of the chemist. The success with which the American chemist has met the emergency along these lines has served to stimulate and encourage our Nation. Chemical skill will be called into use to a greater extent than ever before in connection with our agricultural and industrial development. Plants for making nitrates and other nitrogen compounds from the air are springing up from place to place. There is a rapid growth in the manufacture of dyestuffs, medicines, and the heavy chemicals. Glass and porcelain for the laboratory and for use elsewhere are made here in rapidly increasing quantities. Steel, gas, cement, and industrial alcohol are demanded by our industries, and their production requires chemical supervision. We shall not be satisfied any longer with the production of crude materials only, but must develop a higher skill in chemical manufacturing.

The State College of Agriculture and Engineering has planned to meet the needs of such young men by offering three separate courses in Chemistry, each of which leads to a degree. So far as the work of the lower classes is concerned, the chemical instruction is practically the same. But with the higher classes, there is more and more differentiation in instruction in Chemistry and other subjects.

All chemical students have Inorganic, Organic, Analytical, Physical, Historical, and Industrial Chemistry. They also have the same studies in English and Foreign Languages.

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.

In the Chemical Engineering Course the student receives the same instruction as Engineering students during the Freshman year. There is an increasing amount of time given to Chemistry with the higher classes.

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 interested 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 nitrification.

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 three classrooms, two for about thirty students each, and one for ninety students. The classrooms are well lighted, have very convenient lecture tables, and settees with arm rests for taking notes.

The laboratory for inorganic chemistry can accommodate three hundred and thirty-six students, the laboratory for qualitative analysis about ninety-six, and for organic chemistry and 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. Special equipment has been provided for microchemical analysis and physical chemistry.

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 members of the instructing staff have offices adjacent to the laboratories.

The salary usually paid to chemical graduates immediately upon the completion of their courses is $1,200 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	
	Periods	Hours	Periods	Hours
Chemistry, 101-102	3	3	3	3
Chemistry, Laboratory, 111-112	1	3	1	3
Algebra, 101	5	5	0	0
Algebra, 112	0	0	1	1
Geometry, 102	0	0	4	4
English, 101-102	3	3	3	3
Drawing, 111-112	2	4	2	4
Engineering Lectures, 101-102	1	1	1	1
Physics, 101-102	2	2	2	2
Physics, Laboratory, 111-112	1	2	1	2
Woodshop, 121-122	1	3	1	3
Military Art, 101-102	3	4	3	4
Totals	22	30	22	30

Sophomore Year

Chemistry, Analytical, 211-212	3	6	3	6
English, 201-202	3	3	3	3
Physics, 201-202	4	4	4	4
Physics, Laboratory, 211-212	1	3	1	3
Trigonometry, 201	5	5	0	0
Geometry, 202	0	0	5	5
Modern Language, 201-202	2	2	2	2
Military Art, 201-202	3	4	3	4
Totals	21	27	21	27

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Chemistry, Organic, 301-302	3	3	3	3
Chemistry, Organic, Laboratory, 311-312	1	3	1	3
Chemistry, Quantitative Analysis, 321-322	3	6	3	6
English, 301-302	3	3	3	3
Modern Language, 311-312	3	3	3	3
Electrochemistry, 331-332	4	6	4	6
Military Art, 301-302	2	3	2	3
Elective	2	3	2	2
Totals	21	30	21	29

Elective Subjects for Juniors

Military Science, 301-302	2	2	2	2
Modern Language, 331-332	2	2	2	2
Dyeing, 351-352	2	4	2	4

Senior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Chemistry, Historical, 401	2	2	0	0
Chemistry, Industrial, 402	0	0	2	2
Chemistry, Inorganic, 412	0	0	2	2
Chemistry, Microanalysis, 411	2	4	0	0
Chemistry, Physical, 421-422	3	3	3	3
Chemistry, Physical, Laboratory, 431-432	1	3	1	3
Chemistry, Quantitative Analysis, 441-442	6	12	6	12
Elective	7	0	7	0
Totals	21	--	21	--

Elective Subjects for Seniors

Chemistry, Organic, 451-452	2	4	2	4
Chemistry, Physiological, 352	0	0	3	4
Economics, 401-402	3	3	3	3
English, 401-402	3	3	3	3
Military Art, 401-402	2	3	2	3
Military Science, 401-402	2	2	2	2
Modern Languages, 431-432	3	3	3	3
Other Agricultural or Engineering subjects, if approved by Professor of Chemistry.				

Four-year Course in Civil Engineering, leading to the degree of Bachelor of Engineering.

Freshman Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Algebra, Mathematics, 101	5	5	0	0
Geometry, Mathematics, 102	0	0	4	4
Advanced Algebra, Mathematics, 112	0	0	1	1
Composition and Rhetoric, English, 101-102	3	3	3	3
Elementary Physics, 101-102	2	2	2	2
Physical Laboratory, 111-112	1	2	1	2
Civil Engineering Lectures, 101-102	1	1	1	1
Wood Work, Mechanical Engineering, 121-122	1	3	1	3
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
General Chemistry, 101-102	3	3	3	3
Chemical Laboratory, 121-122	1	3	1	3
Military Art, 101-102	3	4	3	4
Totals	22	30	22	30

Sophomore Year

Architectural Engineering, Civil Engineering, 201	1	1	--	--
Architectural History, Civil Engineering, 211	1	1	--	--
Architectural Drawing, Civil Engineering, 221	1	3	--	--
Architectural Design, Civil Engineering, 222	--	--	1	3
Descriptive Geometry, Civil Engineering, 231-232	1	3	1	3
Trigonometry, Mathematics, 201	5	5	--	--
Analytical Geometry, Mathematics, 202	--	--	5	5
Physics, 201-202	4	4	4	4
Physical Laboratory, 211-212	1	3	1	3
Surveying (Field Work), Civil Engineering, 242	--	--	1	3
English, 201-202	3	3	--	--
Public Speaking, English, 212	--	--	3	3
Military Art, 201-202	3	4	3	4
Totals	20	27	19	28

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Surveying, Civil Engineering, 301	2	2	--	--
Railroad Engineering (Theo.), Civil Engineering, 312	--	--	2	2
Surveying (Field Work), Civil Engineering, 321	1	3	--	--
Topographical Surveying (Field), Civil Engineering, 322	--	--	1	3
Topographical Drawing, Civil Engineering, 332	--	--	1	3
Highway Engineering, Civil Engineering, 341-342	2	2	2	2
Graphic Statics, Civil Engineering, 361	1	3	--	--
Mechanics, Civil Engineering, 371-372	3	3	3	3
Modern Language, 301-302	2	2	2	2
Calculus, Mathematics, 301-302	4	4	4	4
English, 301-302	3	3	3	3
Drill	2	3	2	3
Elective:				
Military Art, 301-302	2	2	2	2
or two subjects from the following list:				
Industrial Engineering, Mechanical Engineering, 351-352	3	3	3	3
Economics, 301-302	3	3	3	3
or subjects in other departments which can be scheduled and approved by the heads of departments.				
Totals	22 or 24	27 or 28	22 or 24	27 or 28

Senior Year

Subjects	Catalog Number	First Term		Second Term	
		Periods	Hours	Periods	Hours
Roofs and Bridges, Civil Engineering	401	3	3	--	--
Bridge Design, Civil Engineering	402	--	--	3	6
Municipal Engineering, Civil Engineering	412	--	--	2	2
Railroad Surveying, Civil Engineering	421				
or		1	3	--	--
Highway Surveying, Civil Engineering	421H				
Mechanics of Materials, Civil Engineering	431	3	3	--	--
Reinforced Concrete, Civil Engineering	432	--	--	3	3
Hydraulics, Civil Engineering	441	3	3	--	--
Railroad Engineering, Civil Engineering	451				
or		2	2	--	--
Highway Engineering, Civil Engineering	451H				
Railroad Economics, Civil Engineering	452				
or		--	--	2	2
Highway Economics, Civil Engineering	452H				
Water Supply, Civil Engineering	462	--	--	2	2
Mechanics, Civil Engineering	471	3	3	--	--
Astronomy, Civil Engineering	482	--	--	2	2
Laboratory, Civil Engineering	422				
or		--	--	1	3
Laboratory, Highway Engineering	422H				
Heat Engines, Mechanical Engineering	351-352	2	2	2	2
Elective:					
Students who elect Military Art in the Junior year shall elect Military Art in the Senior year.					
Military Art	401-402	4	5	4	5
Students who do not elect Military Art in the Senior year shall elect two subjects from the following list					
Classics, English	401	3	3	--	--
Journals, English	402	--	--	3	3
Economics	421-422	3	3	3	3
Industrial Engineering, Mechanical Engineering	413-414	3	3	3	3
Modern Language	411-412	3	3	3	3
Totals		22	24	21	27
		or	or	or	or
		23	25	23	28

FOUR-YEAR COURSE IN ELECTRICAL ENGINEERING

The four-year course in Electrical Engineering is planned for those who wish that thorough practical preparation in the fundamental laws and principles of electricity and magnetism necessary as a preparation for this branch of engineering in which the art is advancing so rapidly. This training is given by a careful study of text-books and coordinated work in the various laboratories. The department is well supplied with generators, motors, transformers, and other electrical machines, and with testing instruments and apparatus of all descriptions.

The Four-year Course in Electrical Engineering, leading to the degree of Bachelor of Engineering.

Freshman Year

Subjects	Catalog Number	First Term		Second Term	
		Periods	Hours	Periods	Hours
Algebra, Mathematics	101	5	5	--	--
Geometry, Mathematics	102	--	--	4	4
Advanced Algebra, Mathematics	112	--	--	1	1
Composition and Rhetoric, English	101-102	3	3	3	3
Elementary Physics	101-102	2	2	2	2
Physical Laboratory, Physics	111-112	1	2	1	2
Electrical Engineering Lectures, Electrical Engineering	101-102	1	1	1	1
Wood Work, Mechanical Engineering	121-122	1	3	1	3
Mechanical Drawing, Mechanical Engineering	111-112	2	4	2	4
General Chemistry, Chemistry	101-102	3	3	3	3
Chemical Laboratory, Chemistry	121-122	1	3	1	3
Military Art:					
Tactics	101-102	1	1	1	1
Drill		2	3	2	3
Totals	----------	22	30	22	30

Sophomore Year

Trigonometry, Mathematics	201	5	5	--	--
Analytical Geometry, Mathematics	202	--	--	5	5
English	201-202	3	3	--	--
Public Speaking, English	212	--	--	3	3
Physics	201-202	4	4	4	4
Physical Laboratory, Physics	211-212	1	3	1	3
Descriptive Geometry, Mechanical Engineering	202	1	3	1	3
French	201-202	2	2	2	2
Electrical Practice, Electrical Engineering	201-202	2	4	--	--
Mechanical Drawing, Mechanical Engineering	212	--	--	2	4
Tool-making, Mechanical Engineering		--	--	1	3
Military Art:					
Tactics	201-201	1	1	1	1
Drill		2	3	2	3
Totals	----------	21	28	22	31

Junior Year

Subjects	Catalog Number	First Term		Second Term	
		Periods	Hours	Periods	Hours
Direct Currents, Electrical Engineering	301-302	3	3	3	3
Direct Current Laboratory, Electrical Engineering	321-322	2	4	2	4
Mechanics, Mechanical Engineering	311-312	2	2	2	2
Calculus, Mathematics	301-302	4	4	4	4
English	301-302	3	3	3	3
Heat Engines, Mechanical Engineering	301-302	3	3	3	3
Mechanical Engineering, Laboratory	341-342	1	2	1	2
Military Art: Drill	301-302	2	3	2	3
Elect one of the following:					
Military Art, 301-302		2	2	2	2
Economics	301-302	2	2	2	2
Modern Language	331-332	2	2	2	2
Surveying, Civil Engineering	321	1	3	--	--
Machine Shop, Mechanical Engineering	331-332	1 or 2	2 or 4	1 or 2	2 or 4
Machine Design, Mechanical Engineering	321-322	2	3	2	3
Totals		22	26	22	26

Senior Year

Subjects	Catalog Number	First Term		Second Term	
		Periods	Hours	Periods	Hours
Alternating Currents, Electrical Engineering	401-402	3	3	3	3
Electrical Distribution for Lighting and Power, Electrical Engineering	421	2	2	--	--
Electrical Transmission, Electrical Engineering	422	--	--	2	2
Industrial Applications of Electrochemistry, Electrical Engineering	411	3	3	--	--
Electrical Communication, Electrical Engineering	412	--	--	3	4
Electrical Design, Electrical Engineering	441-442	2	4	1	2
Electrical Traction, Electrical Engineering	452	--	--	2	2
Alternating Current Laboratory, Electrical Engineering	431-432	3	6	3	6
Advanced Electrical Measurements, Electrical Engineering	451	2	3	--	--
Mechanics, Mechanical Engineering	421-422	3	3	2	2
Hydraulics, Civil Engineering	442	--	--	2	2
Elective:					
Military Art—					
Drill	401-402	2	3	2	3
Tactics		2	2	2	2
Totals		22	29	22	28
Students who do not take Drill or Tactics in the Senior year will elect from the following list the equivalent number of periods which can be scheduled.					
Classics, English	401	3	3	--	--
Journals, English	402	--	--	3	3
Economics	401-402	2	2	2	2
Industrial Engineering, Mechanical Engineering	481-482	2	2	2	2
Surveying, Civil Engineering	321	1	3	--	--
Physical Chemistry, Chemistry	421-422	3	3	3	3
Physical Chemistry Laboratory, Chemistry	431-432	1	3	1	3
Machine Shop, Mechanical Engineering	331-332	1 or 2	2 or 4	1 or 2	2 or 4
Machine Design, Mechanical Engineering	321-322	2	3	2	3

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 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 applications 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	
	Periods	Hours	Periods	Hours
Elementary Physics, 101-102	2	2	2	2
Physical Laboratory, 111-112	1	2	1	2
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
Wood Work, Mechanical Engineering, 121-122	1	3	1	3
Mechanical Engineering Lectures, 101-102	1	1	1	1
Algebra, Mathematics, 101	5	5	--	--
Advanced Algebra, Mathematics, 112	--	--	1	1
Geometry, Mathematics, 102	--	--	4	4
Composition and Rhetoric, English, 101-102	3	3	3	3
General Chemistry, 101-102	3	3	3	3
General Chemistry, Laboratory, 111-112	1	3	1	3
Military Art, 101-102	1	1	1	1
Military Drill	2	3	2	3
Totals	22	30	22	30

Sophomore Year

Physics, 201-202	4	4	4	4
Physical Laboratory, 211-212	1	3	1	3
Descriptive Geometry, Mechanical Engineering, 201-202	2	4	1	3
Mechanical Drawing, Mechanical Engineering, 212	--	--	2	4
Trigonometry, Mathematics, 201	5	5	--	--
Analytical Geometry, Mathematics, 202	--	--	5	5
Foundry, Mechanical Engineering, 203	1	3	--	--
Pattern Making, Mechanical Engineering, 211	1	3	--	--
Forge Shop, Mechanical Engineering, 232	--	--	1	3
English, 201-202	3	3	--	--
Public Speaking, English, 212	--	--	3	3
Engineering Lectures, 231	1	1	1	1
Military Art, 201-202	1	1	1	1
Military Drill	2	3	2	3
Totals	21	30	21	30

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Heat Engines, Mechanical Engineering, 301-302	3	3	3	3
Mechanics, Civil Engineering, 371-372	2	2	2	2
Calculus, Mathematics, 301-302	4	4	4	4
Mechanism, Mechanical Engineering, 321-322	2	4	2	4
Machine Shop, Mechanical Engineering, 331-332	1	3	1	3
Laboratory, Mechanical Engineering, 341-342	1	3	1	3
English, 301-302	3	3	3	3
Modern Languages, 331-332	2	2	2	2
Drill	2	3	2	3
Elect one of the following:				
Military Art, 301-302, or	2	2	2	2
Industrial Engineering, Mechanical Engineering, 361-362, and	2	2	2	2
Economics, 301-302, or	2	2	2	2
Subjects in other departments which can be scheduled	2	2	2	2
Totals	22	28	22	28

Senior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Power Plants, 401-402	3	3	3	3
Gas Engines, 411	3	3	--	--
Mechanics, Mechanical Engineering, 421	3	3	--	--
Mechanics of Materials, 422	--	--	2	2
Heating, Ventilation and Refrigeration, 432	--	--	2	2
Design, Mechanical Engineering, 441, 442, or 452, 404, or 492	3	6	3	6
Laboratory, Mechanical Engineering, 471-472	1	1	1	1
	1	3	1	3
Machine Shop Work, 461-462	2	4	2	4
Electrical Engineering, 311-312	2	2	2	2
Hydraulics, Civil Engineering, 442	--	--	2	2
Those students who elected Military Art in the Junior year will elect Military Art, 401-402, in the Senior year.				
Military Art, 401-402	2	2	2	2
Drill	2	3	2	3
Those who do not elect Military Art in the Junior year will elect two subjects from the following list:				
Modern Languages, 411-412	2	2	2	2
Industrial Engineering, Mechanical Engineering, 481-482	2	2	2	2
Economics	2	2	2	2
Subjects in other departments which can be scheduled	2	2	2	2
Totals	22	29	22	29

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.

First Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Mechanical Drawing, 11-12	2	4	2	4
Wood Work, 21-22	1	3	1	3
Forge Work, 31	1	3	--	--
Mechanical Technology	1	1	2	2
Physics, 11-12	3	3	3	3
Algebra, 11	5	5	--	--
Plane Geometry, 12	--	--	5	5
English, 11-12	5	5	5	5
Military Drill, 11-12	3	4	3	4
Totals	21	28	21	26

Second Year

Machine Drawing, Mechanical Engineering, 51-52	3	6	3	6
Machine Shop Work, Mechanical Engineering, 61-62	3	6	3	6
Power Machinery, Mechanical Engineering, 71-72	3	3	3	3
Elementary Mechanics, Mechanical Engineering, 82	--	--	2	2
Gas Engine Laboratory, Mechanical Engineering, 92	--	--	1	3
Pattern Work, Mechanical Engineering, 81	1	3	--	--
Foundry, Mechanical Engineering, 91	1	3	--	--
Algebra, Mathematics, 101	5	5	--	--
Geometry, Mathematics, 102	--	--	5	5
English, 21-22	3	3	3	3
Drill, 21-22	3	4	3	4
Totals	22	33	23	32

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

This 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 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	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Manufacturing, 101-102	2	3	2	3
Weaving, Textile Manufacturing, 111-112	2	3	2	3
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
Engineering Lectures, Textile Engineering, 101-102	1	1	1	1
Algebra, Mathematics, 101	5	5	--	--
Geometry, Mathematics, 102	--	--	4	4
Advanced Algebra, Mathematics, 112	--	--	1	1
Inorganic Chemistry, 101-102	3	3	3	3
Inorganic Chemistry, Laboratory, 121-122	1	3	1	3
Composition and Rhetoric, English, 101-102	3	3	3	3
Military Art, 101-102	1	1	1	1
Drill	2	3	2	3
Totals	22	29	22	29

Sophomore Year

Carding and Spinning, Textile Manufacturing, 201-202	2	3	3	4
Weaving, Textile Manufacturing, 211-212	2	3	2	3
Designing, Textile Manufacturing, 221-222	2	4	2	2
Cloth Analysis, Textile Manufacturing, 232	--	--	1	2
Physics, 221-222	2	2	--	--
Physics, Laboratory, 211-212	1	2	--	--
Analytical Chemistry and Dyeing, 241-242	2	4	2	4
Drawing, Mechanical Engineering, 212	--	--	1	3
Trigonometry, Mathematics, 201	5	5	--	--
Analytical Geometry, Mathematics, 202	--	--	5	5
English, 201-202	3	3	--	--
Public Speaking, English, 212	--	--	3	3
Military Art, 201-202	1	1	1	1
Drill	2	3	2	3
Totals	22	30	22	30

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Manufacturing, 301-302	3	5	3	5
Weaving, Textile Manufacturing, 311-312	3	5	3	5
Designing, Textile Manufacturing, 321-322	3	4	2	2
Cloth Analysis, Textile Manufacturing, 332	--	--	1	2
Dyeing, Textile Manufacturing, 351-352	1	1	1	1
Dyeing, Laboratory, Textile Manufacturing, 351-352	1	3	1	3
Spanish, Modern Language, 301-302	2	2	2	2
English, 301-302	3	3	3	3
Motors, Electrical Engineering, 341-342	2	2	2	2
Drill	2	3	2	3
Totals	20	28	20	28
Elect one of the following:				
Military Art, 301-302	2	2	2	2
Economics, 301-302	2	2	2	2
Modern Language, 332-333	2	2	2	2
Or subjects in other departments which can be scheduled.				

Senior Year

Carding and Spinning, Textile Manufacturing, 401-402	4	6	4	6
Weaving, Textile Manufacturing, 411-412	4	6	4	6
Designing, Textile Manufacturing, 421-422	3	3	3	3
Cloth Analysis, Textile Manufacturing, 431-432	1	2	1	2
Dyeing, Textile Manufacturing, 451-452	2	2	2	2
Dyeing, Laboratory, Textile Manufacturing, 451-452	2	4	2	4
Heat Engines, Mechanical Engineering, 301-302	2	2	2	2
Totals	18	25	18	25
Those students who do not elect Military Art in the Junior year will elect two subjects from the following list:				
Modern Languages, 411-412	2	2	2	2
Economics, 301-302	2	2	2	2
English, 401-402	3	3	3	3
Industrial Engineering, Mechanical Engineering, 481-482	2	2	2	2

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	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Engineering, 101-102	2	3	--	--
Weaving, Textile Engineering, 111-112	--	--	2	3
Inorganic Chemistry, 101-102	3	3	3	3
Inorganic Chemistry, Laboratory, 121-122	1	3	1	3
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
Algebra, Mathematics, 101	5	5	--	--
Geometry, Mathematics, 102	--	--	4	4
Advanced Algebra, Mathematics, 112	--	--	1	1
Elementary Physics, 101-102	2	2	2	2
Physical Laboratory, 111-112	1	2	1	2
Composition and Rhetoric, English, 101-102	3	3	3	3
Military Art, 101-102	1	1	1	1
Drill	2	3	2	3
Totals	22	29	22	29

Sophomore Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Engineering, 201-202	2	3	2	3
Weaving, Textile Engineering, 211-212	2	3	2	3
Trigonometry, Mathematics, 201	5	5	--	--
Analytical Geometry, Mathematics, 202	--	--	5	5
Physics, 201-202	4	4	4	4
Physical Laboratory, 211-212	1	3	1	3
Architectural Drawing, Civil Engineering, 222	1	3	1	3
English, 201-202	3	3	--	--
Public Speaking, English, 212	--	--	3	3
Military Art, 201-202	1	1	1	1
Drill	2	3	2	3
Totals	21	28	21	28

Junior Year

Carding and Spinning, Textile Engineering, 301-302	3	5	3	5
Weaving, Textile Engineering, 311-312	2	4	2	4
Calculus, Mathematics, 301-302	4	4	4	4
Heat Engines, Mechanical Engineering, 301-302	3	3	3	3
Laboratory, Mechanical Engineering, 341-342	1	2	1	2
Mechanics, Civil Engineering, 371-372	3	3	3	3
Modern Language, 331-332	2	2	2	2
Drill	2	3	2	3
Elect one of the following:				
Military Art	2	2	2	2
Industrial Engineering, Mechanical Engineering, 351-352	2	2	2	2
Economics, 301-302	2	2	2	2
Modern Language, 332-333	2	2	2	2
Subjects in other departments which can be scheduled.				
Totals	22	28	22	28

Senior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Engineering, 401-402	3	4	3	4
Weaving, Textile Engineering, 411-412	2	4	2	4
Electrical Engineering, 301-302	3	3	3	3
Electrical Engineering, Laboratory, 321-322	2	4	2	4
Mechanics of Materials, Civil Engineering, 431	3	3	--	--
Reinforced Concrete, Civil Engineering, 432	--	--	3	3
Power Plants, Mechanical Engineering, 401-402	3	3	3	3
Laboratory, Mechanical Engineering, 471-472	2	4	2	4
Totals	18	25	18	25
Electives:				
Students who elect Military Art in the Junior year shall elect Military Art in the Senior year.				
Military Art	2	2	2	2
Drill	2	3	2	3
Students who do not elect Military Art in the Senior year shall elect two subjects from the following list:				
Modern Language, 431-432	2	2	2	2
Economics, 401-402	2	2	2	2
Industrial Engineering, Mechanical Engineering, 413-414	2	2	2	2
Or subjects in other departments which can be scheduled.				

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 it is rapidly developing and assuming 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 differ-

ent 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	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Manufacturing, 103-104	2	3	2	3
Weaving, Textile Manufacturing, 111-112	2	3	2	3
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
Engineering Lectures, Textile Manufacturing, 101-102	1	1	1	1
Algebra, Mathematics, 101	5	5	--	--
Geometry, Mathematics, 102	--	--	4	4
Advanced Algebra, Mathematics, 112	--	--	1	1
Inorganic Chemistry, 101-102	3	3	3	3
Inorganic Chemistry, Laboratory, 121-122	1	3	1	3
Composition and Rhetoric, English, 101-102	3	3	3	3
Military Art, 101-102	1	1	1	1
Drill	2	3	2	3
Totals	22	29	22	29

Sophomore Year

Carding and Spinning, Textile Manufacturing, 201-202	2	3	2	4
Weaving, Textile Manufacturing, 211-212	2	3	2	3
Designing, Textile Manufacturing, 221-222	2	4	2	2
Cloth Analysis, Textile Manufacturing, 232	--	--	1	2
Physics, 221-222	2	2	2	2
Physics, Laboratory, 211-212	1	2	--	--
Analytical Chemistry and Dyeing, 241-242	2	4	2	4
Trigonometry, Mathematics, 201	5	5	--	--
Analytical Geometry, Mathematics, 202	--	--	5	5
English, 201-202	3	3	--	--
Public Speaking, English, 202	--	--	3	3
Military Art, 201-202	1	1	1	1
Drill	2	3	2	3
Totals	22	30	22	29

Junior Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Chemistry, Organic, 361-362	3	3	3	3
Chemistry, Organic, Laboratory, 371-372	1	2	1	2
Chemistry (Quantitative Analysis), 381-382	2	4	2	4
Dyeing, Textile Manufacturing, 351-352	2	2	2	2
Dyeing, Laboratory, Textile Manufacturing, 351-352	4	8	4	8
English, 301-302	3	3	3	3
Modern Language, 301-302	2	2	2	2
Drill	2	3	2	3
Totals	19	27	19	27
Elect two subjects from the following:				
Military Art, 301-302	2	2	2	2
Economics, 301-302	2	2	2	2
Textile subject	2	2	2	2
Modern Language	2	2	2	2

Senior Year

Chemistry, Historical, 401	2	2	--	--
Chemistry, Industrial, 402	2	2	4	4
Chemistry (Quantitative Analysis), 441-442	6	12	6	12
Dyeing, 451-452	3	3	3	3
Dyeing, Laboratory, 461-462	4	8	4	8
Totals	17	27	17	27
Electives:				
Students electing Military Art during the Junior year must take Military Art during the Senior year, and students who do not elect Military Art during the Junior year will not be permitted to take Military Art during the Senior year.				
Elect two subjects from the following:				
Modern Language, 411-412	2	2	2	2
English, 401-402	2	2	2	2
Economics, 401-402	2	2	2	2
Textile subject	2	2	2	2

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.

TWO-YEAR COURSE IN TEXTILE MANUFACTURING

First Year

Subjects	First Term		Second Term	
	Periods	Hours	Periods	Hours
Carding and Spinning, 11-12	1	3	1	3
Weaving, 21-22	2	5	2	5
Designing, 31-32	2	4	1	2
Cloth Analysis, 42	--	--	1	2
Drawing, 11-12	2	4	2	4
Shop Lectures, 41	1	1	1	1
Algebra, 11	5	5	--	--
Geometry, 12	--	--	5	5
English, 11-12	3	3	3	3
Military Art, 101-102	1	1	1	1
Drill	2	3	2	3
Totals	19	29	19	29

Second Year

Carding and Spinning, 11-12	3	6	3	6
Weaving, 21-22	3	6	3	6
Designing, 31-32	3	4	2	2
Cloth Analysis, 42	--	--	1	2
Dyeing Laboratory, 351-352	3	5	3	5
Machine Shop, 61-62	1	3	1	3
English, 21-22	3	3	3	3
Military Art, 201-202	1	1	1	1
Drill	2	3	2	3

DESCRIPTION OF COURSES

AGRICULTURAL ENGINEERING

Four-year Courses

111. Agricultural Drawing. Instruction in the use and care of drawing instruments; lettering, geometrical drawing, and projection; the application of drawing to agricultural work. One period of three hours, first term. Required of Agricultural Freshmen. Associate Professor CARTER.

342. Farm Buildings. A study of farm building plans and construction; floor plans, framing, elevations, and details; appearance and cost; the design of complete building plans for North Carolina farms. Two lecture periods, one laboratory period. Second term. Elective for Junior Agriculture. Associate Professor CARTER.

431. 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 periods, first term. Senior Agricultural students. Associate Professor CARTER.

452. Farm Motors. The use of gas engines and tractors for farm work. The horse as a motor. Principles of farm mechanics. Engine principles, cycles, engine and tractor parts, engine systems, operation, testing, trouble hunting. Three periods, second term. Elective for Senior Agricultural students. Associate Professor CARTER.

Short Courses

Farm Shop Work. The use of concrete on the farm. Use and care of tools for repair work. Sketch plans, construction work. Farm mechanics. Harness repair, soldering, thread cutting, rope work. Planning and equipping the farm shop. Designed especially for teachers of farm-life schools. (Summer School.)

32. Farm Machinery. The construction, selection, adjustment, repair, and operation of horse-drawn implements. Gas engines for belt work. Emphasis is given to the selection of equipment to conserve man and horse labor. (Rehabilitation.)

52. Gas Engines and Tractors. 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. (Three weeks 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 period, three hours, first term. (Two-year course.) Associate Professor CARTER.

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 period, three hours, second term. (Two-year course.) Associate Professor CARTER.

21. Farm Mechanics. The six simple machines; their application to machinery on the farm; force, work, power; strength of materials; the application of physical principles to agriculture. Three periods, four hours, first term. (Two-year course.) Associate Professor CARTER.

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 periods, four hours, second term. (Two-year course.) Associate Professor CARTER.

AGRICULTURE FOR REHABILITATION MEN

Crops. A study of the crops for the improvement of the soil, and production of hay and other feeds. The adaptability of crops to North Carolina conditions, selection of varieties, selection of seed, soil and fertilizer requirements, and insect and disease enemies are some of the topics emphasized. The cash crops—cotton, tobacco, and peanuts—are offered in the unit courses. Four hours a week, both terms. Mr. BAYNE.

Unit Courses in Crops. These unit courses are very simple and practical in their nature and afford the students an opportunity to study the money crop or crops in which they are most interested. Two hours a week, seven weeks, second term. Cotton, Mr. HORTON and Mr. SUTTON; tobacco, Mr. HOBBS; peanuts, Mr. SHEFFIELD.

Soils and Fertilizers. A study of the simple and best established principles of soil fertility. The use of cover crops and green manures is emphasized. Practice is given in the home mixing of fertilizers. Two hours, first term. Mr. BAYNE.

Fruit Growing. The location of the home orchard, the selection of varieties of fruit for different sections of the State, planting the trees, and the care of the orchard are the topics first studied.

Specimens showing the characteristic injury of common insects and diseases are examined in class; the common spray materials studied, and spray solutions mixed. Practice is given in spraying and pruning and in the grafting of nursery stock. Three hours, first term. Mr. BAYNE.

Vegetable Gardening. The class has a garden and grows the common vegetables. Practice is given in the use of the hotbed and coldframe. The control of insects and diseases is considered. Visits will be made to near-by truck growing centers. Three hours a week, second term, required; also any additional work needed to care for the garden through the summer. Mr. BAYNE.

Farm Business. The class will make a simple study of the workings of the Federal Farm Loan Associations in North Carolina, and of the North Carolina Credit Unions and the new Warehouse Law. The elements of farm management will be considered in relation to the information furnished from the farms of the members of the class. Two hours a week, second term. Mr. BAYNE.

Farm Equipment. A series of informal and practical discussions of the selection of farm equipment. The proper types of farm buildings, water supply, etc., are suggested. One or two periods are devoted to the practical study of tractor principles and a demonstration is given of one of the improved systems of lighting. One period a week, first term. Associate Professor CARTER.

Farm Machinery. A first-hand study of the usual machinery equipment of a farm; plows, harrows, planters, grain drills, mowing machines, etc. The selection of equipment to save man and horse labor is emphasized. Two hours a week, second term. Associate Professor CARTER.

Farm Power. Selection and operation of gas engines and tractors. The proper place of the tractor in farming. The students will be given practice in the operation of engines and at least one type of tractor. Two hours a week, second term. Associate Professor CARTER.

Swine Production. A study of types, breed characteristics, breeding, feeding, housing, and marketing of swine. Practical work in selecting by judging. First term, three periods. Mr. LONG.

Poultry. A study of poultry breeds, judging, feeding, and management. A discussion of the problems in poultry raising such as the construction of poultry houses, ventilation, sanitation and hygiene, and diseases common to poultry. Two periods, first and second terms. Mr. LONG.

Dairy Cattle and Milk Production. A study of dairy type, breed characteristics, and adaptation. The problem of feeding and management is studied in connection with the production of milk. Three periods, second term. Mr. LONG.

Feeds and Feeding. A study of home-grown feeds and their relation to the feeding of farm animals. A study will also be made of the feeding standards as adapted to different classes of farm animals. Actual practice in feeding will be given on the College farm. Three periods, second term. Mr. LONG.

English and Arithmetic, R. 1. The elements of English and simple arithmetic. Five hours a week, both terms. Mr. KINARD.

English, R. 2. A more advanced course in the elements of composition and grammar. Three hours a week, both terms. Dr. HARRISON and Mr. WILSON.

English, R. 3. English composition and grammar in relation to the needs of everyday life. Three hours a week, both terms. Associate Professor SUMMEY.

Mathematics, R. 2. Arithmetic for the problems met in everyday life. Three hours a week, both terms. Mr. SLIFER.

Mathematics, R. 3. Arithmetic and the elements of algebra. Three hours a week, both terms. Mr. SLIFER.

General Science. The application to daily living of some of the simple principles of science. Two hours a week, both terms. Mr. WILLIAMS.

AGRONOMY

Four-year Courses

101 or 102. Introduction to Agriculture. As a science, an art, and a vocation, with a brief historical review of its antiquity, development, magnitude, and importance; sciences and agencies affecting production; classification and distribution of farm crops; demonstration, practice exercises, and lectures. Two periods either term. Mr. CRATER.

202. Corn. Origin, history, botanic relations, distribution, climatic and soil requirements; the study of corn and corn production under North Carolina conditions; soil preparation, fertilization, planting, cultivation, harvesting, storing; rotation; breeding; seed selection, testing, and preservation; corn judging; uses. (A competitive corn exhibit under the auspices of the Agricultural Club will be held jointly by the Freshman and Sophomore classes in January of each year.) Three periods, second term. Mr. CRATER.

301. Legumes. A comprehensive study of this unique order of plants is made; historical, botanical; inoculation; adaptation of groups, species and varieties; culture, harvest; their place in rotations for grain, hay, and soil improvement; identification of types and varieties; uses. Three periods, first term. Mr. MIDDLETON and Mr. CRATER.

312. Grasses and Small Grains. History, production, uses; classes and varieties and their adaptation; rotations, seeding, culture, harvest, storing, marketing, and uses. Class, laboratory, and field. Two periods, second term. Mr. MIDDLETON and Mr. CRATER.

321-322. Crop Improvement and Experiments. A study of varieties of farm crops: their variations and improvement; seed selection; culture for seed; seed saving; grading; hybridization. Experiments in cultural practices and production of farm crops assigned as individual projects. A portion of the College farm is utilized for the exclusive use of the men taking this course. The work continues through the Senior year. Three periods. Mr. WARE and Mr. CRATER.

401. Tobacco and Cotton. History, distribution, and uses of cotton; varieties; culture, including soil and climatic requirements; soil preparation; fertilization; cultivation; harvesting; lint characters and grading; marketing. The study of tobacco includes history, distribution, seed selection, plant beds, preparation, fertilization, cultivation, topping, suckering, harvesting, curing and marketing. Three periods, first term. Mr. MIDDLETON.

412. Hay, Pastures, Forage, and Silage. A study of crops furnishing roughage and cheap animal feeds. The economic production and maintenance of livestock and the production of animal products rests primarily upon the available supply of cheap feeds. The adaptation and relative value of the many crops that may be successfully produced; culture; fertilization; harvest; storing hay, forage, and silage; permanent and temporary pastures and meadows; selection of crops for each; preparation; seeding; care; harvesting; storing. Three periods, second term. Mr. MIDDLETON.

421-422. Crop Improvement and Experiments. A continuation of courses 321 and 322. A study of crops and their production with special reference to improvement by seed selections made by the students in the fields; experiments with varieties, cultural methods; rotations; fertilizers; farm weeds. Three periods. Mr. MIDDLETON and Mr. CRATER.

442. Farm Management. Types of farming and their relations to soil, climate, labor, transportation, population, capital, and land values; operating expenses; systems of land tenure; farm organization; size of farm; location and arrangement of buildings, roadways,

fences, water supply, orchard, garden, etc.; factors governing amount and kind of equipment: financial accounts; farm records; relation of animal and plant production to maintenance of fertility; standard of living: schools and churches. Three periods, second term. Mr. MIDDLETON.

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 periods.

Short Courses

11. Corn and 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 and regional adaptation, preparation of the soil, fertilization, seeding, harvesting; varieties, seed selection and improvement; rotations. Three periods, first term, first year.

12. Legumes and Cotton. Clovers, soybeans, cowpeas, velvet beans, and peanuts; 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. The details of economic cotton production, and especially such problems as soil preparation, fertilization, varieties, and improvement by seed selection; the boll weevil situation, and the cultural practices used in combating it. Three periods, second term, first year.

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 arrangement 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 periods, second term, second year.

ANIMAL HUSBANDRY AND DAIRYING

101 or 102. 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. Both terms, two periods. Required of Freshmen. Mr. 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 periods. Required of Sophomores. Laboratory fee, $4. Mr. 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 periods. Elective for Seniors. Professor RUFFNER.

311. 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 periods. Elective for Juniors. Professor RUFFNER.

302. 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. Second term, three periods. Required of Juniors. Professor RUFFNER.

321. 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, two periods. Elective for Juniors. Mr. HAIG.

401. Animal Breeding. The improvement of domestic animals; variation and heredity of animal characters; reproduction, development, selection, line breeding, inbreeding, cross-breeding, grading, and other factors dealing with the improvement of farm animals. First term, three periods. Required of Seniors. Professor RUFFNER.

411. Beef Cattle Production. 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. First term, three periods. Elective for Seniors. Mr. HAIG.

421. Horse and Mule Production. 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. First term, three periods. Elective for Seniors. Mr. HAIG.

332. 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 periods. Elective for all Juniors except Veterinary students, of whom it is required. Professor RUFFNER.

412. 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. 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 is made of the best systems applied to North Carolina conditions. Second term, three periods. Elective for Seniors. Professor RUFFNER and Mr. 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.

511-512. 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.

Short Courses

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. Lectures, two hours; practice, two hours. First year, first term. Mr. 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. Lectures, two hours; practice, two hours. 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. Lectures, two hours; practice, two hours. Second term, second year. Professor RUFFNER.

BOTANY

Four-year Courses

101-102. General Botany. This course is planned to give a general knowledge of the elementary facts and fundamental principles of botany. It aims to supply the foundation upon which subsequent courses in this division are built, as well as the basic facts upon which rest certain phases of applied botany, such as horticulture and agronomy. The first term will be devoted to the general morphology of the seed plants. Attention will be given to the anatomical features of seeds, flowers, leaves, fruits, stems, roots, cells, tissues, and tissue systems, and to the correlation of these structures with their functions. The second term will be devoted to the general morphology of algae, fungi, mosses, fern, and seed plants, using selected representatives as types in both the lecture and laboratory work. Special emphasis will be laid upon nutrition, reproduction, life history, and evolution of those forms which are of both scientific and economic importance. Fee, $1. Three periods throughout the year. Required of Freshmen. Professor WELLS, Mr. SHUNK.

201. Plant Physiology. This course deals with the physical and chemical phenomena in plant activities. Among the subjects covered will be osmosis, with reference to permeability and the protoplasmic membrane, absorption of water, the water content of soil in relation to plant growth, removal of water from soil by plants, mineral nutrients of the soil in relation to growth processes, mineral requirements of plants, acid and alkali soils, causes and methods of dealing with these conditions, soil infertility, with a discussion of the theories of depletion, accumulation of toxins, and occurrence of microflora, transpiration, movement of water in plants, photosynthesis, including the elaboration, translocation, and storage of carbohydrates, fats, and proteins, enzymic activity, respiration, fermentation, and a biological explanation of variation and heredity. Fee, $1. Three periods, first term. Required of Sophomores. Professor WELLS, Mr. SHUNK.

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, $1. Two periods, first term. 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 and 201. Fee, $3. Three periods, second term. Mr. SHUNK.

311. 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 beginning physiology course (201). 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. Three periods, first term. Professor WELLS, Mr. SHUNK.

321. 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. Two periods, first term. Prerequisite, Botany 101-102. Professor WELLS.

322. Advanced Systematic Botany. Continuation of course 321 for Biology students.

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. Prerequite, Botany 302. Mr. SHUNK.

412. Poisonous Plants. This course deals with 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. Two periods, second term. Required of Senior Veterinary students. Professor WELLS.

Short Courses

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 periods throughout the year. Professor WELLS, Mr. SHUNK.

21. Crop 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 periods, first term. Prerequisite, Plant Life 11-12. Professor WELLS, Mr. SHUNK.

CHEMISTRY

101-102. Inorganic Chemistry. McPherson and Henderson's *Elementary Study of 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. Required of Agricultural Freshmen. (*b*) Three credits. Required of other Freshmen. Professor WITHERS, Dr. WILLIAMS, Mr. MARION, Mr. JORDAN, and Mr. QUEEN.

111-112. 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 (two hours). Required of Agricultural Freshmen. Fee, $2. One period (three hours). Required of other Freshmen. Fee, $3. Dr. WILLIAMS, Mr. MARION, Dr. JOHNSON, and Mr. QUEEN.

211. 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. The first term. Required of Agricultural and Chemical Engineering Sophomores. Fee, $2. Dr. JOHNSON.

212. 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. Dr. WILLIAMS.

222. 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. Three credits, second term. Required of Agricultural Sophomores. Dr. JOHNSON.

232. Organic Chemistry. Laboratory work to accompany 222. One credit (three hours), second term. Required of Agricultural Sophomores. Dr. JOHNSON and Mr. JORDAN.

301-302. Organic Chemistry. Moore's *Outlines of 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. Professor WITHERS.

311-312. Organic Chemistry. Laboratory work to accompany course 301-302. One credit (three hours). Required of Chemical Juniors. Fee, $1. Dr. WILLIAMS.

321-322. Quantitative Analysis. Lincoln and Walton's *Quantitative Analysis.* Gravimetric and volumetric analysis of pure salts at first, and later of substances of agricultural and industrial importance. Three credits (six hours). Required of Juniors in Chemistry. Fee, $3. Dr. WILLIAMS.

331-332. Electrochemistry. Some of the topics treated in lecture and laboratory work are electrolytic conduction; the principles involved in corrosion, electrodeposition, and refining of metals, including electroanalysis; electrometric titrations; furnace control and uses; production of some important substances used in industries. Two class periods (two hours), and two laboratory periods (four hours). Required of Juniors in Chemistry. Fee, $2. Dr. JOHNSON.

342. Physiological Chemistry. Matthew's *Physiological Chemistry.* Two credits. Second term. Required of Veterinary Juniors, elective for Chemical Seniors. Mr. JORDAN.

352. Physiological Chemistry. Laboratory work to accompany course 342. One credit (two hours). Second term. Fee, $2. Required of Veterinary Juniors, elective for Chemical Seniors. Mr. JORDAN.

401. Historical Chemistry. Two credits. First term. Required of Seniors in Chemistry. Professor WITHERS.

402. Industrial Chemistry. A study of the outlines of industrial chemistry, with especial attention to the rapidly growing chemical industries of North Carolina and of the South. This course, which will be made thoroughly practical, will emphasize the intimate relation of chemical industry to agriculture and to all branches of engineering. Two credits, second term. Required of Seniors in Chemistry. Professor WITHERS.

412. Inorganic Chemistry, Advanced. A lecture course in which is discussed the development of the science of chemistry, special attention being given to the periodic law, radioactivity, the coordination theory, and the modern trend of chemical thought. Two credits, second term. Required of Seniors in Chemistry. Dr. JOHNSON.

411. Microchemical Analysis. 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. Two periods, first term. Fee, $1. Required of Seniors in Chemistry. Dr. WILLIAMS.

421-422. Physical Chemistry. Jones's *Introduction to Physical Chemistry.* The fundamental principles of Physical Chemistry are taken up, including the constitution of matter, the gas laws, thermochemistry, photochemistry, electrochemistry, chemical dynamics, and equilibrium, emphasis being laid on the phenomena of solutions. Three credits. Required of Seniors in Chemistry. Dr. JOHNSON.

431-432. Physical Chemistry. Laboratory work. Here the student carries out experiments involving molecular weight determinations, lowering of freezing point, elevation of boiling point, conductivity measurements, and other determinations as they are deemed expedient. One credit (3 hours). Required of Seniors in Chemistry. Fee, $2. Dr. JOHNSON.

441-442. Quantitative Analysis. A continuation of course 321-322. Six periods. Required of Seniors in Chemistry. Fee, $6. Dr. WILLIAMS.

451-452. Organic Chemistry, Advanced. Laboratory work. In this course the student is required to make special preparations which require reference to the literature. Two credits (four hours). Elective for Seniors in Chemistry. Fee, $2.

Chemistry for Agricultural Short Course

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 crops, 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, differences 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.

CIVIL ENGINEERING

101-102. Engineering Lectures. First term, one period; second term, one period. 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. Architectural Engineering. First term, one period. Sophomores in Civil Engineering. Building materials. Methods of constructing buildings. Plans; specifications; bills of materials, estimates of cost; designs of buildings. Lectures.

211. Architectural History. First term, one period. Sophomores in Civil Engineering. A study of the various periods and styles of architecture, from the primitive and prehistoric architecture to that of the present time. Text-book, Hamlin's *History of Architecture.*

221. Architectural Drawing. First term, one period. Sophomores in Civil Engineering. Drawing of sections or parts of buildings. Architectural lettering and conventions. Drawing of a small building from given data. One period during the term is spent inspecting the general framing and foundation of a residence under construction.

222. Architectural Design. Second term, one period. Sophomores in Civil Engineering. Completed drawings of the design of a dwelling, showing all plans and elevations with details and dimensions necessary for construction. Perspective and estimated cost.

231-232. Descriptive Geometry. First term, one period; second term, one period. Sophomores in Civil Engineering. The point, line, and plane. Generation and classification of lines and surfaces. Representation of warped surfaces. Surfaces of revolution. Intersections of surfaces by lines and other surfaces. Problems and completed drawings.

242. Surveying Field Work. Second term, one period. Sophomores in Civil 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.

301. Surveying. First term, two periods. Juniors in Civil Engineering. Study of uses and adjustments of the ordinary surveying instruments. Land surveying; traverse lines; leveling; city surveying; topographical surveying. Calculation of areas by latitude and departures. Stadia methods. Methods of platting. Text-book, Breed and Hosmer's *Elementary Surveying.*

312. Railroad Engineering. Second term, two periods. 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.*

321. Surveying Field Work. First term, one period. Juniors in Civil Engineering. Surveys by azimuth of previously established circuits, checking all distances and calculated bearings and compar-

ing measured distances and azimuths of cross lines on the circuit with calculated azimuths and distances.

322. Topographical Surveying. Second term, one period. Juniors in Civil Engineering. Completed survey of a topographical circuit, including all notes for platting to be used in Topographical Drawing Course 332, 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 332. Staking out of simple, compound, and reverse railroad curves with transits from calculations made in Railroad Engineering Course 312.

332. Topographical Drawing. Second term, one period. 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 322.

341. Highway Engineering. Masonry construction. First term, two periods. Required of all Juniors in Civil Engineering. Elements of engineering geology, with particular reference to materials used in masonry and highway construction. Manufacture, use, and properties of lime, brick, and Portland cement. Methods and costs of constructing foundations, dams, retaining walls, arches, piers, and other masonry structures. Study of road building materials found in North Carolina. Text-book: Baker, *A Treatise of Masonry Construction*. Associate Professor TUCKER.

342. Highway Engineering. Second term, two periods. 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. Maintenance of roads and pavements. Associate Professor TUCKER.

361. Graphic Statics. First term, one period. Juniors in Civil 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.

371. Mechanics. First term, three periods. Juniors in Civil 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.

372. Mechanics. Second term, three periods. Juniors in Civil 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 periods. Seniors in Civil 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 periods. 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.

412. Municipal Engineering. Second term, two periods. Seniors in Civil 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.

421. Railroad Surveying. First term, one period. 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. Associate Professor TUCKER.

422. Civil Engineering Laboratory. Second term, one period. Seniors in Civil 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.

431. Mechanics of Materials. First term, three periods. Seniors in Civil 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.

432. Reinforced Concrete. Second term, three periods. Seniors in Civil Engineering. Study of the materials, general stress distribution, the derivation of formulas for working loads and for ultimate loads, bond 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.

441. Hydraulics. First term, three periods. 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.

442. Hydraulics. Second term, two periods. Seniors in Mechanical and 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.

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

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

462. Water Supply. Second term, two periods. 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.

471. Mechanics. First term, three periods. 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 MANN.

482. Astronomy. Second term, two periods. Seniors in Civil Engineering. Study of the celestial sphere and system of coordinates. 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 MANN.

Architecture

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 the same." The purpose of this law is to protect the builder and also the bona fide architect from the practice of inexperienced or poorly trained men. It is necessary for a young man 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. All students in the Department of Civil Engineering completing the four-year course are required to take certain subjects pertaining to architectural design and architectural engineering. This work and Descriptive Geometry 232, given in the Sophomore year, are followed up in the Junior and Senior years with Masonry Construction 341, Graphic Statics 361, Roof Design 401-402, Reinforced Concrete 432. While the work given in architecture is not sufficient to fit a young man for the independent practice of architecture, it lays a foundation for further work in the field of architectural engineering.

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, 341 and 342, are taken by all regular Civil Engineering students. Senior Highway Engineering (Courses 451 H-452 H), Senior Highway Surveying (course 421 H), and the Highway Engi-

neering Laboratory (Course 422 H) are taken by those students specializing in Highway Engineering in place of Railroad Engineering (Course 451), Railroad Economics (Course 452), Railroad Surveying (Course 421), and Civil Engineering Laboratory (Course 422), 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.

451 H. Highway Engineering. First term, two periods. 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*. Associate Professor TUCKER.

452 H. Highway Economics. Second term, two periods. 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*. Associate Professor TUCKER.

421 H. Highway Surveying, Field Work. First term, one period. 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. Associate Professor TUCKER.

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

ECONOMICS

The courses in this Department are intended for Agricultural, Engineering, and Textile students who desire a knowledge of the business side of their special lines of work.

301-302. Economics of Business Organization and Management. Alternative elective with Drill and Military Tactics for Junior Engineering and Textile students. Two hours, both terms.

312. Market Distribution. This course is designed to give the students an understanding of the present system of grading, packing, storing, selling, transporting, financing the sale of, and collecting payments for farm products. The cost of the existing agencies will be considered from the point of view of the farmer, middleman, and consumer. A brief survey will be given of the methods of large-scale business organizations as efficient instruments for the distribution of products. Three periods, second term. Elective for all Juniors in Agriculture.

401. Organization for Marketing and Credit. A survey will be made of the methods of operation of successful marketing and credit organizations in Europe and the United States. The kind of organizations needed for marketing North Carolina products will be considered. The necessity for credit on the farm and the method of meeting the need by commercial banks, by cooperative banks in Europe and the United States, and by loan agencies generally will be considered in relation to the production, storage, and sale of farm products. Three periods, first term. Required of all Senior students in Agriculture.

411-412. Cotton Grading. A course in cotton grading will be arranged if a sufficient number wish to take it.

Short Courses

42. Farm Accounting. A complete analysis of farm accounts by different methods, in which simplicity, accuracy, and labor saving will be emphasized; household and personal accounts; cost accounting and special records; cost of production; special cost records; labor, crop, milk, and poultry records; office methods; business organizations; business correspondence and forms. Second term, second year.

32. Rural Organization. Two hours a week, second term, second year in the Two Year Course in Practical Agriculture. This course is intended to put the student into sympathetic relation with rural organizations—teaching the part they play in maintaining and developing a satisfactory civilization in the country. The work and importance of farmers' organizations, such as the Farmers' Bureaus, Grange, Farmers' Union, Cooperative Associations, etc., are emphasized and studied. The farmers' need and duties as related to schools, churches, Y. M. C. A., social centers, and various forms of social activities are clearly brought out.

52. Marketing of Farm Products. The course will be devoted mainly to a study of local, state, and national markets and the requirements and needs of each of these. Methods of grading, packing, storing, and shipping of different farm products will be given particular attention. The organization and value of cooperative marketing associations will be gone into carefully.

22. Rural Laws. The general principles of common and statutory law will be discussed and explained, special phases of law affecting the farm, such as titles to real estate, deeds, mortgages, county records, etc.; landlord and tenant, eminent domain and right of way; water rights and boundaries; laws governing shipping; insurance, banking, etc.; court procedure. Second term, second year.

EDUCATION

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 two thirds 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 for Juniors in Vocational Education. Assistant Professor MYERS.

401. Principles of Teaching. Professional standards of the teacher as related to the pupil, community, and school; adolescence; pupils' interests and ideals and individual differences as related to methods and discipline; purposes, organization, and methods of the socialized recitation and formal recitation; use of illustrative materials; the use of the project, laboratory, and field exercises; lesson planning, teaching how to study; routine classroom procedure; marking pupils' work; and vocational guidance. Three periods, first term. Required of Seniors in Vocational Education. Assistant Professor MYERS.

402. Rural School Organization and Administration. Adaptation of the school to the needs of the rural community; the financial and legal status of education in North Carolina compared with a few other states; school consolidation; supervision; educational measurements; the curricula; equipment; the teaching staff; the principal and his job; extramural activities; and student extraclass activities. This course is designed to meet the needs of agricultural teachers who at the same time act as principals in the smaller rural high schools. Three periods. Required of Seniors in Vocational Education. Assistant Professor MYERS.

411-412. 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, methods of cataloging 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. So far as possible, the practice teaching will be collateral with the teaching of methods of instruction, thereby observing the principle "We learn to do by doing." Three periods throughout the year. Required of Seniors in Vocational Education. Professor COOK.

421-422. Rural Sociology. The development of the rural community from the time of colonization showing how the political, economic, social, and religious environments were reflected in the organization, customs, manners, and ideals of rural people; needed changes in the home, school, church, and local government to meet modern ideals of living; the place of the negro in educational and social readjustment; short small unit surveys by individuals. Readings, reports, and class discussions. One period a week throughout the year. Elective for Seniors in Vocational Education. Assistant Professor MYERS.

ELECTRICAL ENGINEERING

101. 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. He is also given instruction in some of the more elementary electrical construction, such as wiring and installation of electrical

systems. One period. Required of Freshman in Electrical Engineering. Professor BROWNE.

201-202. Electrical Practice. Exercises in wiring for bells and annunciators, simple telephone wiring, house wiring, care and operation of electrical machinery, practical methods of measuring and testing to locate faults, installation of electrical machinery. This course is planned to make the student familiar with the ordinary care and maintenance of electrical apparatus. One period, first term. Required of Sophomores in Electrical Engineering. Professor BROWNE.

301-302. Direct Current Machinery and Apparatus. A thorough study is made of the production and utilization of electric currents, beginning with the theory of the magnetic circuit, the electric circuit, electromagnetic induction, electrical measurements, construction of dynamos and motors, operation and care of electrical machinery. Three periods. Required of Juniors in Electrical Engineering and Seniors in Textile Engineering. Prerequisites, Physics 201-202. Professor BROWNE, Associate Professor MCINTYRE.

311-312. Electrical Engineering. An introductory course for students in other engineering departments, consisting of the study of the apparatus used in the production, distribution, and utilization of electrical power. Required of Seniors in Mechanical and Juniors in Chemical Engineering. Two periods. Prerequisites, Physics 201-202. Associate Professor MCINTYRE.

341-342. 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 periods. Required of Juniors in Textile Industry. Associate Professor MCINTYRE.

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 periods. Required of Seniors in Electrical Engineering. Prerequisites, Subjects 301-302. Professor BROWNE.

411. Industrial Applications of Electrochemistry. Primary batteries, types and methods of testing; storage batteries, manufacture, testing, care and maintenance, uses and methods of control; electrochemical methods in the production and purification of materials and refining of metals; the electric furnace for the production and refining of metals and other materials; various electrochemical processes. Includes a brief discussion of electrochemical theories. Three periods, first term. Required of Seniors in Electrical Engineering. Associate Professor MCINTYRE.

412. Electrical Communication. A discussion of the practice involved in the transmission of intelligence by the means of the electric telegraph and telephone. Wire telegraph systems. Rapid telegraphy. Radio telegraphy. Practice of telephony. Manual and automatic telephone systems. Radio telephony. Two periods recitation, one period practice, second term. Associate Professor McINTYRE.

421. Electrical Distribution for Lighting and Power. A study of low potential circuits and systems of distribution, lighting systems, electric lamps, interior illumination, street lighting, the electric drive in mill and factory, electric traction, etc. Two periods, first term. Required of Seniors in Electrical Engineering. Professor BROWNE.

422. Electrical Transmission of Power. A practical study of the problems involved in the transmission of power from the generating station to the consumer; hydroelectric developments; high-tension transmission. Required of Seniors in Electrical Engineering. Two periods, second term. Prerequisites, Subjects 301-302 and 321-322. Professor BROWNE.

321-322. Direct Current Laboratory. This study accompanies that of direct current machinery. It includes use of standardizing apparatus, calibration of instruments, advanced electric and magnetic measurements, and the operation and testing of direct current dynamos and motors. Two periods. Fee, $2. Required of Juniors in Electrical Engineering and Seniors in Textile Engineering. Prerequisites, Physics 201-202 and Physics 211-212. Associate Professor McINTYRE.

331-332. Electrical Engineering Laboratory. A course to accompany Subjects 311-312. Instruction is given in the care and operation of direct and alternating current machinery. One period. Fee, $1. Prerequisites, Physics 201-202 and Physics 211-212. Associate Professor McINTYRE.

451. Advanced Electrical Measurements. A study of the more advanced methods of making electrical and magnetic measurements. Measurements of conductivity and resistance. Calibration of instruments, and the determination of constants. High potential measurements. Magnetic and dielectric constants. One period lecture, one period practice, first term. Associate Professor McINTYRE.

431-432. Alternating Current Laboratory. This study is taken up simultaneously with the study of alternating currents. It includes practice with alternating currents, measurements of inductance and capacity, experimental study of transformers, alternating current generators and motors, advanced methods of testing electrical apparatus, and shop testing. Two periods. Fee, $2. Required of Seniors

in Electrical Engineering. Prerequisites, Subjects 301-302 and 321-322. Associate Professor McINTYRE.

441-442. 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. Two periods, first term; one period, second term. Required of Seniors in Electrical Engineering. Prerequisites, 301-302. Professor BROWNE and Associate Professor McINTYRE.

ENGLISH

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. Three periods throughout the year. Associate Professor SUMMEY, Mr. WILSON, and Mr. KINARD.

201-202. American Literature. The work consists mainly of the reading and analysis of American works in prose and verse. The students are required to make frequent written and oral reports on their class and parallel reading. Three periods, first term, and second term to March 1. Required of Sophomores. Associate Professor SUMMEY, Mr. WILSON, and Mr. KINARD.

212. Public Speaking. The technique of public speaking is taught in text-book and lectures, with analysis of published speeches and with frequent exercises in the composition and delivery of short arguments and orations. Some attention is given to parliamentary procedure and decorum. Three periods after March 1. Required of Sophomores. Associate Professor SUMMEY, Mr. WILSON, and Mr. KINARD.

301. English Literature. A rapid review of the history of the literature is followed by the intensive study of carefully chosen poetry and prose. The purpose of the course is to furnish a background and to cultivate a discriminative taste for reading. Three periods, first term. Required of Juniors in Engineering. Professor HARRISON.

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 periods, second term. Required of Juniors in Engineering. Professor HARRISON.

401. Classics. The lives and works of the great scientists and of other great writers, particularly of the nineteenth century, are studied in this course. Essays will form an important part of the work. Three periods, 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. Three periods, second term. Open to Seniors. Professor HARRISON.

11-12. Short Course. 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 hours a week. Required of first-year Short Course students. Mr. WILSON, Mr. KINARD.

HORTICULTURE

Four-year Courses

201. Plant Propagation. A course in the multiplication of plants and nursery practice. Seedage, separation and division, cuttage, layerage, and graftage are considered in turn. Three credits, first term; recitation two hours; practice two hours a week. Fee, $1. Required of Sophomores. Mr. PEDLOW.

301. Fruit Growing. A general course in the principles and practices of fruit production, designed to answer the needs of students in General Agriculture, and in special groups other than Horticulture. Practice will embrace work in planning, planting, pruning, spraying, and in harvesting, grading, and packing fruit. Three credits, first term; recitation two hours, practice two hours a week. Fee, $1. Required of Juniors in General Agriculture, Agronomy, Vocational Education, and Poultry. Mr. PEDLOW.

302. Vegetable Gardening. A course which deals with the principles of vegetable growing, and with the different methods employed in the home, truck, and market gardening areas. Special attention is given to the home garden, and the trucking industry in North Carolina. Practice work includes seed-sowing, transplanting, use of cold frames and hotbeds, planning and planting gardens, and the culture, harvesting, storing, and marketing of all important vegetables. Three credits, second term; recitation two hours; practice two hours a week. Fee, $1. Required of all Juniors. Mr. PEDLOW.

311. Practical Pomology. A course in the principles and practices of fruit growing as applied to the tree and vine fruits. Consideration is given to the choice of locations, sites, soils, and varieties; the establishment and management of orchards and vineyards, and the harvesting, storing, and marketing of fruits. Three credits, first term; recitation two hours, practice two hours a week. Required of Juniors in Horticulture. Professor PILLSBURY.

312. Pruning and Spraying. A course in the training of fruit trees and vines, and their protection from insect pests and fungous diseases. Methods of protection from frost are also considered. A continuation of Course No. 302, which is prerequisite. Three credits, second term; recitation two hours, practice two hours a week. Fee, $1. Required of Juniors in Horticulture. Professor PILLSBURY.

322. Small Fruits. A course which treats of the culture of the strawberry, dewberry, and other small fruits. Locations, sites, varieties, preparation of the land, fertilization, training, pruning, spraying, harvesting, and marketing are among the most important topics considered. Three credits, second term; recitation two hours; practice two hours a week. Required of Juniors in Horticulture. Mr. PEDLOW.

332. Trees and Shrubs. A course which is designed to enable the student to become familiar with the technical characteristics and the uses of the more important forest trees and ornamental plants. Two credits, second term; recitation one hour, practice two hours a week. Required of Juniors in Horticulture. Mr. PEDLOW.

401. Greenhouse Management. A course which deals with the principles and practice of growing plants under glass, including both vegetable and flowering crops. In practice work a given area is assigned to each student and he is required to plan, plant, and manage it to a successful conclusion. Three credits, first term; recitation two hours, practice two hours a week. Required of Seniors in Horticulture. Mr. PEDLOW.

411. Systematic Pomology. A course which combines both study and practice in the description, identification, classification, and judging of varieties of fruits. Three credits, first term; recitation two hours, practice two hours a week. Required of Seniors in Horticulture. Professor PILLSBURY.

412. Plant Breeding. A course of study of the principles of genetics as applied to plants. Practice work consists in the collection of plant variations, in detailed study of variations in different crops, in the measurement of variations, and in the planning and planting of breeding plats. Mendelism and biometrical measurements constitute an important part of the course. Three credits, second term;

recitation two hours, practice two hours a week. Required of Seniors in Agriculture. Professor PILLSBURY.

422. Landscape Gardening. A course in the study of the principles of the arts of design, and their application to the design of landscapes. The principal styles of composition are considered and compared as to history, development, and adaptation. Practice consists in surveying, mapping, designing, plans and specifications, and the execution of important parts of the practical work of improving grounds. Three credits, second term; recitation two hours, practice two hours a week. Required of Seniors in Horticulture. Professor PILLSBURY.

421. Farm Forestry. A course in the principles and practice of forestry as applied to the farm woodlot. Practice work includes observation of woodland areas, surveying, listing and measuring trees, estimating volumes and lumber content, qualities and uses of various kinds of timber, and the formation of plans for maintenance and improvements. Three credits, first term; recitation two hours, practice two hours a week. Required of Seniors in Horticulture. Professor PILLSBURY.

432. Horticultural Elective. A course designed to give the student an opportunity to elect and pursue the study of some special line of horticultural investigation. Three credits, second term; hours to be arranged. Open to Seniors in Horticulture only. Professor PILLSBURY.

Short Courses

12. Vegetable Growing. A course designed from the production standpoint which will include all methods of propagation involved in it, together with study and practice in growing seedlings under glass, locating, planning and preparing the garden, planting out and sowing seed in the field, cultivating, spraying, and harvesting. First year, second term. Recitation two hours, practice two hours a week.

21. Fruit Growing. A course in the practical methods of propagation of fruit plants; the planning, laying out, planting, cultivation, fertilization, and intercropping of orchards; and the harvesting, grading, and packing of fruits. Second year, first term. Recitation two hours, practice two hours a week.

22. Pruning and Spraying. A course in the preparation and application of spraying materials by means of various appliances best adapted to orchard and garden crops, and in the training and pruning of fruit plants. Second year, second term. Recitation two hours, practice two hours a week.

Three Weeks 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.

11. Algebra. Well's *New Higher 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 all first-year students in the two-year courses. First term, five periods. Mr. LEHMAN, Mr. BUCKNER.

12. Plane Geometry. Wentworth and Smith's *Plane and Solid Geometry.* A complete course in plane geometry, including numerous original exercises. Required of all first-year students in the two-year courses. Five periods, second term. Mr. LEHMAN, Mr. BUCKNER.

121. Algebra. Wells's *New Higher Algebra.* This course begins with quadratic equations and completes logarithms, embracing ratio and proportion, variation, the progressions, and binomial theorem. Three periods, first term. Required of Agricultural Freshmen. Prerequisite, entrance requirements. Mr. SLIFER, Mr. LEHMAN.

122. Agricultural Mathematics. Kenyon and Lovitt's *Mathematics for Agriculture and General Science.* This course consists of elementary Geometry, Trigonometry, and Conic Sections, with their practical applications to Agricultural Science. Three periods, second term. Required of Agricultural Freshmen. Prerequisite, 121. Mr. SLIFER, Mr. LEHMAN.

101. Algebra. Wells's *New Higher Algebra.* This course begins with quadratic equations and completes summation of series, embrac-

ing ratio and proportion, variation, the progressions, the binomial theorem, undetermined coefficients, logarithms, compound interest and annuities, permutations, combinations, and continued fractions. Five periods, first term. Required of Engineering, Chemical, and Textile Freshmen. Prerequisite, entrance requirements. Professor YATES, Mr. MOCK, Mr. SLIFER, Mr. LEHMAN, Mr. BUCKNER.

112. Advanced Algebra. Wells's *New Higher Algebra.* The general theory of equations, the solution of higher equations, determinants, etc. Required of Engineering, Chemical, and Textile Freshmen. One period, second term. Prerequisite, 101. Professor YATES, Mr. MOCK, Mr. SLIFER, Mr. LEHMAN, Mr. BUCKNER.

102. Solid Geometry. Wentworth and Smith's *Plane and Solid Geometry.* This course begins with and completes Solid Geometry, including numerous original exercises. Four periods, second term. Required of Engineering, Chemical, and Textile Freshmen. Prerequisite, 101. Professor YATES, Mr. MOCK, Mr. SLIFER, Mr. LEHMAN, Mr. BUCKNER.

201. Trigonometry. Wentworth and Smith's *Plane and Spherical Trigonometry.* Plane Trigonometry. Definitions of the trigonometric functions; derivation of formulae, 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 periods, first term. Prerequisites, 101 and 102. Professor YATES, Assistant Professor HARRELSON, Mr. MOCK, Mr. SLIFER.

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 periods, second term. Prerequisite, 201. Professor YATES, Assistant Professor HARRELSON, Mr. MOCK.

301-302. Differential and Integral Calculus. Osborne's *Differential and Integral Calculus.* A thorough treatment of the fundamental principles and derivations of formulae; 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 periods, first and second terms. Required of Juniors in Engineering. Elective for Seniors in Chemistry. Prerequisites for differential calculus, 202; for integral calculus, differential calculus. Professor YATES, Assistant Professor HARRELSON.

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 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 material 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.

MECHANICAL ENGINEERING

Four-year Courses

Freshman Year

101-102. 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 period, first and second terms. Required of Freshmen in Mechanical and Textile Engineering. Professor SATTERFIELD and Assistants.

111-112. Mechanical Drawing. Instruction in the care and use of instruments, lettering, geometrical drawing; projection drawing; isometric and cabinet projections; drawings from working sketches of machine details; tracing; blue-printing; elements of descriptive geometry; miscellaneous problems. Two periods of two hours each. First and second terms. Required of Freshmen in Mechanical, Electrical, Civil, Chemical, and Textile Engineering. Mr. CLOYD, Mr. MAYNARD, and Mr. 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.

121. 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. 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. First term. Required of Freshmen in Mechanical, Electrical, Civil, and Chemical Engineering. Mr. BUSBY.

122. Wood Shop Work. The second term continues the principles outlined in the first term to turning lathes and wood-working machinery. 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 wood-working machinery all of the common wood-working 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. Furniture and equipment for the various departments of the College are given special attention in the mill shop. Second term. Required of Freshmen in Mechanical, Electrical, Civil, and Chemical Engineering. Mr. BUSBY.

142. Wood Shop. The use and care of ordinary woodworking and bench tools. Exercises in sawing, planing, and making joints. As much time as possible is spent in making models of small buildings, gates, etc. Required of Agricultural Freshmen. One period, second term. Mr. BUSBY.

Sophomore Year

201-202. Descriptive Geometry. 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. Prerequisite, Mechanical Drawing 111-112. One period, first and second terms. Required of Sophomores in Mechanical and Electrical Engineering. Mr. CLOYD.

203. 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 period, first term. Required of Sophomores in Mechanical Engineering. Mr. MARTIN.

211. 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. Required of Sophomores in Mechanical Engineering. One period, first term. Prerequisite, Woodwork 121-122. Mr. MARTIN.

212. Mechanical Drawing. Making drawings and calculations setting forth the general principles of Descriptive Geometry. The design of cams to give specified motions, and problems in elementary machine design. Two periods, second term. Required of Sophomores in Mechanical and Electrical Engineering and Textile Industry. Prerequisite, Mechanical Drawing 111-112. Mr. CLOYD.

231. Engineering Lectures. A continuation of the course in the Freshman year, with special attention paid to the study of the field of Mechanical Engineering. Designed to help the student in the selection of the particular branch of Mechanical Engineering he is to follow. One period, first term. Professor SATTERFIELD.

232. Forge Shop Work. Treatment of iron and steel, the use of punches, swages, fullers and set-hammers, both hand and machine 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 period, second term. Required of Sophomores in Engineering. Mr. MARTIN.

Junior Year

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 are studied. Elementary thermodynamics as applied to the steam and gas engine cycles is studied. Classification, details, valves, valve gears, and governors of steam engines are studied. Determination of indicated and brake horsepower and efficiency of engines for given conditions is made. Steam turbines and gas engines are studied briefly. Three periods, first and second terms. Required of Juniors in Mechanical and Chemical Engineering, and Seniors in Electrical Engineering. Professor SATTERFIELD.

321-322. 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 periods, first and second terms. Required of Juniors in Mechanical and Electrical Engineering. Prerequisites, Mechanical Engineering 202 and Mechanical Engineering 302. Assistant Professor FOSTER.

331-332. Machine Shop Work. Bench work: exercises in chipping and filing. Machine shop work: exercises in lathe work, boring, reaming, drilling, planing, milling, and shaping. One period, first and second terms. Required of Juniors in Mechanical Engineering. Mr. PARK.

341-342. 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 period. Required

of Juniors in Mechanical Engineering. Prerequisites, Mechanical Engineering 341 and Physics 201-202. Professor VAUGHAN.

361-362. Industrial Engineering. In this course a study is made of the origin of the Industrial System; principles of industrial organizations; forms of industrial ownership; nature and distribution of expense; the primary wage system; philosophies of management; and the buying, handling, and use of materials. Three periods, first and second terms. Elective for Engineers. Professor SATTERFIELD.

351-352. Heat Engines. First and second terms. 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 periods. Required of Seniors in Civil and Textile Engineering. Prerequisites, Physics 201-202, Algebra 122. Professor SATTERFIELD.

Senior Year

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 periods, first and second terms. Required of Mechanical Engineering Seniors. Professor SATTERFIELD and Professor VAUGHAN.

411. 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 periods, first term. Required of Seniors in Mechanical Engineering. Prerequisites, Heat Engines 301 and 302, and Mechanics M. E. 311 and 312. Professor VAUGHAN.

421. 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*. Three periods, first term. Required of Seniors in Mechanical and Electrical Engineering. Assistant Professor FOSTER.

422. 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 shear. Torsion and its application to shafting, with theories as to elastic limit and failure. Two periods, second term. Required of Seniors in Mechanical and Electrical Engineering. Prerequisites, Mechanical Engineering 311 and Mechanical Engineering 421. Assistant Professor FOSTER.

432. 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 periods, second term. Required of Seniors in Mechanical Engineering. Professor SATTERFIELD.

441. Machine Design. Advanced Machine Design, based on the thermal and mechanical problems involved in the design of a steam engine for power, economy, and regulation. The students are given the requirements of the engine—such as speed, regulation, and economical point of cut-off for required horse-power—and are required to make calculations and detailed drawings for problems assigned. Three periods, first term. Required of Seniors in Mechanical Engineering. Prerequisites, Mechanical Engineering 321, 311-312, 302 and 301. Assistant Professor FOSTER.

442. Gas Engine Design. The practical application of the principles discussed in Mechanical Engineering 411 and 322, combined with the rational and empiric methods of design as developed in standard practice. Three periods, second term. Either this or 452 or 404 or 401 is to be elected by Seniors in Mechanical Engineering. Prerequisite, Mechanical Engineering 411 and Mechanical Engineering 401 and 441. Assistant Professor FOSTER.

452. Turbine Design. The calculations for the most economical water rate are made and are based on the general principles related to the flow of steam through nozzles with the resulting action

upon turbine buckets, including the losses due to friction, rotation, etc. The estimates for the sizes of the nozzles, shaft bearings, etc., with the shape of the buckets to suit the velocity diagrams, are made. Assembly and detail drawings are made. Three periods, second term. Either this or 442 or 404 or 491 is to be elected by Seniors in Mechanical Engineering. Prerequisite, Mechanical Engineering 411, 401, and 441. Assistant Professor FOSTER.

404. 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 consisting of the layout of the piping. Detail drawings are made and a bill of material is gotten out. Three periods, second term. Either this or 452 or 442 or 491 is to be elected by Seniors in Mechanical Engineering. Prerequisite, Mechanical Engineering 411, 401, and 441. Assistant Professor FOSTER.

492. Machine Design. Advanced work in design which will be a summation and practical application of the fundamental principles of machine design heretofore taken. Exact subject to be selected by student and professor in charge. Three periods, second term. Either this or 452 or 442 or 404 is to be elected by Seniors in Mechanical Engineering. Prerequisite, Mechanical Engineering 441. Assistant Professor FOSTER.

471-472. 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. A continuation of the heat problem work from Mechanical Engineering 461. Two periods, second term. Required of Seniors in Mechanical Engineering. Prerequisite, Mechanical Engineering 471, 411, and 421. Professor VAUGHAN.

461-462. 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. Two periods. First and second terms. Required of Seniors in Mechanical Engineering. Mr. PARK.

481-482. Industrial Engineering. This course is intended to follow that given in the Junior year. New subjects and more advanced work will be taken up. Three periods, first and second terms. Elective for those Mechanical Engineering Seniors not taking drill. Professor SATTERFIELD.

Gas Engines and Tractors. With the present conditions of shortage and high-priced labor, it is realized that the gas engine and tractor must be used on the farms of North Carolina to a far greater extent than has been the case in the past. In order to get the maximum benefit from their use, they must be handled by those who have a knowledge of their construction and design and practical experience in their operation. In order to supply this information and give some experience in their operation on the farm, the College will devote a certain amount of the time of the short course this year to short practical work of this kind.

This part of the course will consist of lectures and discussions on the subject of gas and oil engines, their accessories and equipment, and the application of these engines to farm tractors.

The practice work will consist of dismantling, adjusting, and repairing tractors under the direction of an experienced instructor.

Although considerable field practice will be given with tractors, main emphasis for this year will be placed upon instruction planned to train the operator to detect mechanical troubles as they arise, to make competent inspection of the condition of the tractor, and to make the necessary adjustments and repairs. This particular work is designed to instruct farmers and any others who may attend to become more proficient in the handling of these labor-saving machines on the farm.

(The work has been transferred to Department B, Agricultural Engineering.)

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; elements of Descriptive Geometry; cylinders; cones; prisms; intersections and developments; miscellaneous problems. Three periods. Mr. 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. First term. 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. Special attention is given to making cabinets, tables, and other articles for the different laboratories, and also to a general line of repairing for the College. The students also get a good working knowledge of wood-working machinery, such as hand saw, jig saw, rip saw, planers, boring machines, jointers, and other machines. They also get good experience in hand finishing, scraping, gluing, sand-papering, staining, and varnishing. One period. Mr. BUSBY.

22. Wood Shop Work. Second term. 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 period. Mr. BUSBY.

31. Forge Shop Work. First term. Treatment of iron and steel, the uses of punches, swages, fullers, and set-hammers, both hand and machine 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 period. Mr. BUSBY.

41. Engineering Lectures. First term. 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. Two periods. Professor SATTERFIELD and Assistants.

Second Year

51-52. Machine Drawing. Sketching and drawing of machine parts and machines. Detail working drawings. Tracing and blue-printing. Three periods. Assistant Professor FOSTER.

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. Three periods. 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 periods. Mr. PARK.

82. Elementary Mechanics. This subject is intended to treat the elementary mechanics problems which arise in connection with machine shop and drafting room practice. Two periods, second term. Professor SATTERFIELD.

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 period, second term. Professor VAUGHAN.

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. Two periods, first term. Mr. MARTIN.

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. Two periods, first term. Mr. BUSBY.

AUTOMOBILE COURSE

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 all 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 Machine Shop will be arranged and 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 ART

101. Military Art. (*a*) Practical: Physical drill (*Manual of Physical Training*—Koehler); Infantry drill (*U. S. Infantry Drill Regulations*), to include the School of the Soldier, Squad and Company, Close and Extended Order. Preliminary instruction, sighting position and aiming drills, gallery practice, nomenclature and care of rifle and equipment. (*b*) Theoretical: Theory and target practice, individual and collective (use of landscape targets made up by United States Military Disciplinary Barracks, Fort Leavenworth, Kans.); military organization (Tables of Organization); map reading; service of security; personal hygiene. Three periods, four hours. Required of Freshmen.

102. Military Art. (*a*) Practical: Physical drill (*Manual of Physical Training*—Koehler); Infantry drill (*U. S. Infantry Drill Regulations*), to include School for Battalion; special attention devoted to fire direction and control; ceremonies; manuals (Part V, Infantry Drill Regulations); bayonet combat; intrenchments (584-695, Infantry Drill Regulations); first-aid instruction; range and gallery practice. (*b*) Theoretical: Lectures, general military policy as shown by military history of United States and military obligations of citizenship; service of information; combat (to be illustrated by small tactical exercises); United States Infantry Drill Regulations, to include School of Company; camp sanitation for small commands. Three periods, four hours. Required of Freshmen.

201. Military Art. (*a*) Practical: The same as course 102*a*. Combat firing, if practicable, but collective firing should be attempted in indoor ranges by devices now in vogue at United States Disciplinary Barracks. (*b*) Theoretical: United States Infantry Drill Regulations, to include School of Battalion and Combat (350-622); Small Arms Firing Regulations, lectures as in part *b* of course 2; map reading; camp sanitation and camping expedients. Three periods, four hours. Required of Sophomores.

202. Military Art. (*a*) Practical: The same as course 102*a*; signaling, semaphore and flag; first-aid. Work with sand table by constructing to scale intrenchments, field works, obstacles, bridges, etc. Comparison of ground forms (constructed to scale) with terrain as represented on map; range practice. (*b*) Theoretical: Lectures, military history (recent); service of information and security (illustrated by small tactical problems in patroling, advance guards, rear guards, flank guards, trench and mine warfare, orders, messages, and camping expedients); marches and camps (*Field Service Regulations* and *Infantry Drill Regulations*). Three periods, four hours. Required of Sophomores.

301. Military Art. (*a*) Practical: Duties consistent with rank as cadet officers or noncommissioned officers in connection with the practical work and exercises laid down for the unit or units. Military sketching. (*b*) Theoretical: Minor tactics; field orders (studies in minor tactics, United States School of the Line); map maneuvers. Company administration, general principles (papers and returns). Military history. Four periods, five hours. Required of Juniors.

Only two periods, three hours, are required of Juniors who do not elect Advance R. O. T. C.

302. Military Art. (*a*) Practical: Same as course 301*a*, Military sketching. (*b*) Theoretical: Minor tactics (continued); map maneuvers. Elements of international law. Property accountability; method of obtaining supplies and equipment (*Army Regulations*). Weight 1. Four periods, five hours. Required of Juniors, except that only two periods, three hours, are required of Juniors who do not elect R. O. T. C.

401. Military Art. (*a*) Practical: Duties consistent with rank as cadet officers or noncommissioned officers in connection with the practical work and exercises scheduled for the unit or units. Military sketching. (*b*) Theoretical: Tactical problems, small forces, all arms combined; map maneuvers; court-martial proceedings (*Manual for Court-martial*). International relations of America from discovery to present day; gradual growth of principles of international law embodied in American diplomacy, legislation, and treaties. Lec-

tures: Psychology of war and kindred subjects. General principles of strategy only, planned to show the intimate relationship between the statesman and the soldier. Four periods, five hours. Required of Seniors who have elected R. O. T. C. in Junior year.

402. Military Art. (*a*) Practical: Same as course 401*a*. (*b*) Theoretical: Tactical problems (continued); map maneuvers. Rifle in war. Lectures on military history and policy. Five periods. Four periods, five hours, required of Seniors who have elected R. O. T. C. in Junior year.

MODERN LANGUAGES

The primary purpose of the work in this Department is to enable the student to read and translate intelligently the scientific literature of French, German, and Spanish. With this object in view grammar is taught only as an aid in translating. 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 of either French, German, or Spanish is required of all members of the Reserve Officers' Training Corps.

French

331-332. Beginner's French. Grammar, composition, and translation. Meras: *Le Premier Livre*, first term. DeMonvert: *La Belle France*, second term. Required of Sophomore Electrical Engineering and Junior Mechanical Engineering students. Both terms (two hours). Professor HINKLE.

341-342. Beginner's French. Same as 331-332. Required of Junior Agricultural students who enter the Reserve Officers' Training Corps. Both terms. Professor HINKLE.

431-432. Introductory Scientific French. Reading, translation, and discussions. Review of the fundamental facts of grammar. Daniels, *French Scientific Reader*. Elective for Seniors. Both terms (three hours). Professor HINKLE.

German

201-202. Beginner's German. Grammar, translation, and composition. Bacon, *German Grammar*, first term. Storm, *Immensee;* Gerstacker, *Germelshausen:* Seidel, *Der Lindenbaum*, and Hillern, *Höher als die Kirche*, second term. Required of Sophomore Chemical and Junior Dyeing students. Both terms (two hours). Professor HINKLE.

311-312. Introductory Scientific German. Reading, translation, and discussions. Special attention given to the grammatical peculiarities of scientific German and to the acquisition of a vocabulary of scientific terms. Wallentin, *Grundzüge der Natürlehre; Du* Bois-Reymond, *Vortrage;* and Lassar-Cohn, *Die Chemie im Taglichen Leben.* Required of Junior Chemical and Senior Dyeing students. Both terms (three hours). Professor HINKLE.

421-422. Advanced Scientific German. An extensive course in scientific literature, with special reference to Chemical German. Designed to meet the needs of Seniors in Chemistry. Phillips, *Chemical German.* Helmholtz, *Populare Vortrage.* Other authors will be read according to the needs of the students. Senior elective. Open to graduates. Both terms (three hours). Professor HINKLE.

NOTE.—Graduate students electing this work will arrange for additional outside work.

Spanish

301-302. Beginner's Spanish. Grammar, composition, translation, and conversation. Marion-Des Garrennes, *Introduccion a la Lengua Castellana,* first term. Ramsey, *Elementary Spanish Reader,* second term. Required of Junior Civil Engineering and Textile students. Both terms (two hours). Professor HINKLE.

411-412. Intermediate Spanish. A continuation of Beginners' Spanish. Designed primarily to develop rapid reading and conversational ability. A number of Spanish stories are read. Some attention given to composition and letter writing. Open to students who have had one year's work in the language. Elective for Seniors. Both terms (three hours). Professor HINKLE.

PHYSICS

101-102. Physics. The first half of this course is designed to give a knowledge of the fundamental principles of Mechanics as a basis for advanced work in Physics and Mechanics given later in the Engineering courses. The second half of the course includes a study of the fundamental principles of Sound, Heat, and Light. Demonstrated lectures are given each week and essays on parallel reading in the History of the Physical Sciences are required each month. Recitations are given on the lectures and on Black and Davis's *Practical Physics* as a text-book. Two periods. Required of Freshmen in Engineering and Chemistry. Professor HECK, Assistant Professor DERIEUX, MR. DIXON.

111-112. Physical Laboratory. In the shops the engineering student handles and works with the materials of construction. In the laboratory he is taught to measure them and the interaction of

forces. This course is arranged to make him familiar through actual observation with physical phenomena and teach him how they are measured and controlled. It includes practice in handling units in the British and Metric systems, measurements in the composition and resolution of forces, the lever, the inclined plane, the pendulum, density of materials, and specific gravity, the thermometer, heat and its effect on materials, sound laws, and the laws of lenses and mirrors. One period. Fee, $1. Required of Freshmen in Engineering and Chemistry. Mr. DIXON, Mr. BLOUNT, Mr. WILLIAMS.

201-202. Sophomore Physics. A continuation of the study of Physics for Engineers, requiring more mathematical preparation and having a more practical application to engineering. The first half of the year is given to the elements of mechanics and heat, including elementary thermodynamics. The second half of the year is given to magnetism, electricity, and light. A full survey of the phenomena of electricity and thorough practice in solving general electrical problems is given. Demonstrated lectures and recitations. Four periods. Required of Sophomores in Engineering and Chemistry. Prerequisite, Physics 101-102. Professor HECK, Assistant Professor DERIEUX, Mr. DIXON.

211-212. Sophomore Physical Laboratory. A more advanced laboratory course in Physical Measurements. The theory of measurements and estimation of accuracy is given by lectures at the beginning of the work. Accurate measurements of heat and mechanics are given throughout the first half of the year. General quantitative measurements in light and the magnetic and electrical properties of materials comprise the work of the second half of the year. One three-hour period. Fee, $1. Required of Sophomores in Engineering and Chemistry. Prerequisite, Physical Laboratory 111-112. Assistant Professor DERIEUX, Mr. DIXON.

221-222. Textile Physics. As textile work continually presents the operations of forces in machines and the more intricate problems of humidity and elasticity, a thorough course in Physics is required of all Textile students. This course emphasizes the particular problems met in textile work and gives a broad basis for interpretation of related engineering problems. The work embraces lectures, recitations on text-book assignments, and practical measurements in the laboratory. Lectures are given with demonstrations of the action of forces in machines and materials as nearly as possible like those the student will meet in practical textile work. The historical development of the science is discussed to give the students a broader outlook and to stimulate a desire for further study. The demonstrations and the work in the laboratory are made with machines and problems taken from actual practice. Two periods of recitation throughout

the year and one period of laboratory the first term. Required of Sophomores. Fee, 50 cents. Assistant Professor DERIEUX.

231-232. Agricultural Physics. Physics is the study that treats of the action of all forces wherever found, whether in an engine or in the soil, in the atmosphere causing a change in weather or in a seed causing it to swell. Agricultural students must therefore study Physics to get a proper understanding of the cause and method of action of the mechanical and life forces that they meet in their other studies. The course in Physics required of Agricultural students is made thorough, and the subject-matter taken up is made to bear on the practical problems of agriculture. The course embraces lectures, recitations on a text-book, and demonstrations and measurements in the laboratory. The lectures are given with demonstrations and measurements of forces actually operating in machines and instruments as nearly as possible like those the student will meet in after life. The lectures also emphasize the historical development of the science for the purpose of giving the student an impulse toward continued development and study. They include a short course in the study of weather, and during the months of January and February weather maps and local observations are followed so as to give the students practical experience in forecasting. Two periods of class work and one period of laboratory throughout the year. Required of Sophomores. Fee, $1. Professor HECK.

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 Short Course Agriculture and in Mechanic Arts. Three periods a week during the Spring term. Mr. WILLIAMS.

POULTRY SCIENCE

Four-year Courses

301. 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 will be occupied with 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 poultry students who are taking poultry for the first time. *Poultry Culture, Sanitation, and Hygiene* will be used as a text. Three periods, first term, Junior year. Mr. HALL.

321. General Poultry. This course will include the fundamentals of selection and mating for egg production and for standard breeding; also a discussion of feeds and feeding for egg production, breeders, and chick production; the methods of handling the sitting hens and their broods; the principles of poultry house construction and how, in general, to handle poultry on the farm.

This course is designed for the students in vocational education and for the general agricultural course fitting men to do general farm work. Three periods, first term, Junior year. Mr. HALL.

312. Advanced General Course. This is a continuation of course 301 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. Four periods, Junior year, second term. Mr. HALL.

311. 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 a week, first term, Junior year. Mr. HALL.

331. 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. Two periods a week, first term, Junior year. Dr. 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 periods, Senior year, second term. Dr. 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 periods a week, first term, Senior year. Dr. KAUPP.

411. 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 period, first term, Senior year. Dr. KAUPP.

421. 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 periods a week, Senior year, first term. Dr. KAUPP.

422. Incubation, Brooding, and Flock Management. This course will be divided as follows: four weeks to the running of an incubator. Each student operates his own incubator. Eight weeks to lectures and practice work in operating a brooder. Each student

operates 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 a week credit. Given first term, Senior year, to General Agricultural students, and second term, Senior year, to Poultry and Vocational Education groups. MR. HALL.

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 1920-1921.

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 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.

511-512. 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 the eggs; (*e*) the effects of feeds upon the quality of flesh of table fowls; (*f*) the effects of cottonseed meal upon poultry breeding stock, egg production, development of young, and upon 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.

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. First term, second year. *Poultry Culture, Sanitation, and Hygiene* will be used as a text. Two-year course in Agriculture.

SOILS

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. Two periods, second term. Required of Agricultural Sophomores. Mr. ROYSTON.

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 bacteriological soil conditions are discussed in relation to each other and to their effects on soil fertility. Three periods, first term; two periods, second term. Required of Agricultural Juniors. Deposit, $2. Prerequisites, Chemistry 101-102, 201-202, and 212, and Physics 231-232. Professor SHERWIN and Mr. ROYSTON.

401. Farm Drainage. This includes both principles and practice of drainage. The student becomes familiar with the use of various drainage instruments and implements, as the course involves considerable field work in laying out systems of underdrains. Different methods of leveling and determining grade are discussed and practiced.

Determination of size of tile needed, depth, and methods of laying, influence of depth of tile and distance apart of drains on withdrawal of water from the soil, and all of these as influenced by texture and character of the soil are considered. Drainage by means of open ditches and surface drainage by means of terraces will also be given attention. Three periods a week, first term. Required of Agricultural Seniors. Prerequisite, Soils 301-302. Professor SHERWIN and Mr. ROYSTON.

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 periods, second term. Required of Agricultural Seniors. Prerequisite, Soils 301-302. Professor SHERWIN.

411-412. 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 periods a week throughout the year. Elective for Seniors. No deposit. Prerequisite, Soils 301-302. Professor SHERWIN and Mr. ROYSTON.

422. 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. Elective, second term. No deposit. Professor SHERWIN and Mr. ROYSTON.

Short 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 periods a week, first term of second year. Professor SHERWIN and Mr. ROYSTON.

TEXTILE MANUFACTURING AND TEXTILE ENGINEERING

121-122. 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 period, first and second terms. Mr. HART.

101-102, 201-202, 301-302, 401-402. Carding and Spinning. Lectures and recitations; practice in operating card and spinning room machinery. Cotton: Classifying the plant, its growth, varieties, ginning, baling, and marketing 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, Sophomores, Juniors, and Seniors. Mr. PRICE and Mr. HART.

111-112, 211-212, 311-312, 411-412. 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 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. Magazine 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 dobby; 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. Sophomores. Juniors, and Seniors in the Four-year Course. Professor NELSON. Mr. PRENTIS. Mr. HART.

221-222, 321-322, 421-422. 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, Juniors, and Seniors. Professor NELSON, Mr. PRENTIS.

232, 332, 431-432. 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 or warp and filling in stripe 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, Juniors, and Seniors. Professor NELSON, Mr. PRENTIS, Mr. HART.

241-242. Analytical Chemistry and Dyeing. This course comprises a systematic study of the procedure for identifying and classifying compounds. A regular qualitative procedure for separating the metals into groups, analyzing the groups, and determining the

acidic constituents is carried out. This course aims to familiarize the student with the identification of compounds, determination of adulterants, etc., which is supplemented later in the course by quantitative determinations.

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. Required of Sophomores in Textile Manufacturing and Textile Chemistry and Dyeing. Mr. Leddy.

351-352. 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 diazotizing 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 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 or 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.

Required of Juniors in Textile Manufacturing and Textile Chemistry and Dyeing. Mr. LEDDY.

451-452. 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 remainder of the term is devoted to a general review of the work previously given. Required of Seniors in Textile Manufacturing and Textile Chemistry and Dyeing. Mr. LEDDY.

241-242. Analytical Chemistry and Dyeing. A full description is given under heading, Textile Manufacturing 241-242. Mr. LEDDY.

361-362. Organic Chemistry. Study of the composition, purification, and analyses of organic compounds. Deduction of formulae and determination of molecular weights. Organic structures. Study of the saturated hydrocarbons, the olefines, monohydric alcohols, ethers, aldehydes and ketones, fatty acids, and esters. Study of the syntheses which employ ethyl acetoacetate and ethyl malonate. Alkyl compounds of nitrogen, zinc, etc. The glycols and their oxidation products. Isomerism Di-, tri-, and polyhydric alcohols, carbohydrates, and the cyanogen compounds. Manufacture, purification, properties, and constitution of aromatic hydrocarbons. Halogen,

nitro, and amino derivatives of benzene and its homologues. Diazonium salts, sulphonic acids, phenols, aromatic alcohols, ketones, and quinones. Carboxylic and hydrocarboxylic acids. Naphthalene, and its derivatives, anthracene and phenanthrene. The cyclo-olefines and other types of closed chain compounds. Dyes. Text-book: *Organic Chemistry*, by Perkin and Kipping. Required of Juniors in Textile Chemistry and Dyeing. Professor WITHERS.

371-372. Organic Chemistry, Laboratory. 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 nitrosodimethylaniline hydrochloride.

M-toluylene diamine, benzidene, benzal chloride, m-dinitro phenol, beta-napthol, Schaffer's salt, R salt, alpho-naphthylamine, anthraquinone, and anthraquinone sulphonic acid.

Fast Green O, Napthol Yellow S, Chrysoidine R, Orange 11, Fast Red B, and A. Chrysamine G, Benzo purpurine 4B, Napthol Black B, Auramine O, Malachite Green, Methyl Violet, Fluorescein, Methylene Blue, Induline (spint soluble) and Sulphur Black T. Text-book, Cain and Thorpe. Required of Juniors in Textile Chemistry and Dyeing. Dr. WILLIAMS.

381-382. Quantitative Analysis. Preparation and standardization of solutions of varying normality. This includes solutions of acids, alkalies, oxidizing and reducing agents. The term is devoted to volumetric determinations of commercial chemicals. Required of Juniors in Textile Chemistry and Dyeing. Dr. WILLIAMS.

401. Historical Chemistry. A study of development of chemical theories and their application to practical work; processes for manufacturing and using various chemicals, intermediates, and dyes. A considerable part of the course is devoted to the study of the development of the dye industry. Required of Seniors in Textile Chemistry and Dyeing. Professor WITHERS.

402. Industrial Chemistry. General processes, water, fuels, sulphuric, nitric, and hydrochloric acids. Manufacture of chemical compounds having commercial importance. Chlorine and allied products. Electrochemical industries. Lime, cement, and plaster. Clay, bricks, and porcelain. Glass. Pigments, paints, white lead, and zinc oxid. Fertilizers, organic chemicals, distillation of coal tar, petroleum, and wood. Oils. Soaps and glycerin. Resins, shellac, rubber, varnish, sugar, starch, glucose, etc. Textiles, dyestuffs, and the cellulose industries. The course consists of lectures, with Rogers and Aubert and Thorpe as reference texts. Required of Seniors in Textile Chemistry and Dyeing. Professor WITHERS.

441-442. Quantitative Analysis. Devoted to commercial analyses which employ gravimetric and volumetric methods. Required of Seniors in Textile Chemistry and Dyeing. Dr. WILLIAMS.

351-352, 451-452. Dyeing. A complete course is given in the fundamental principles of bleaching and dyeing. Experiments with the different classes of dyes are made in the laboratory. This is supplemented by actual practical work in the dyehouse with the vacuum and revolving type of dyeing and bleaching machines. The dyehouse contains a full equipment for dyeing raw stock, yarns, and cloth in quantity. Mr. LEDDY.

Two-year 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. 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. Professor NELSON, Mr. PRENTIS.

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. 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. Mr. PRENTIS, Mr. HART.

VETERINARY MEDICINE

The Department of Veterinary Medicine offers the first two years of a four-year course in Veterinary Medicine; the subject of General Physiology to all Sophomore Agricultural students; the subject of Animal Diseases to Seniors in Agriculture, and the subject of Elementary Physiology and Hygiene to students in One-year Agri-

culture. A One-week Graduate Course in Veterinary Medicine is offered annually, open to the graduate veterinarians in the State.

201. Comparative Physiology. This course, which combines elementary anatomy and physiology both of man and of domestic animals is especially designed to teach the student the structures, uses, and phenomena of the human mechanism; and as these are common and analogous to those of domestic animals, attention will be given to a comparison of the fundamentals of all systems in each class of domestic animals. The subject of anatomy will be taught by use of mounted skeletons of man, horse, cow, and hog; by dissection of small animals, and from collections of fresh specimens of the various organs and prepared material in the laboratory. This will be followed by a comparative study of the functions of the various systems and organs of the body, such as the skeleton, muscles, nerves, digestion, reproduction, etc. The subject will be covered by text-book, lecture, recitation, demonstrations, and laboratory exercises. Three periods, first term. Required of Sophomores. Fee, $1. Professor REEDER.

302. Veterinary Hygiene and Sanitation. This course will logically follow that of Sophomore Physiology. The subject-matter will deal more 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. Two periods, second term. Elective for Juniors in General Agriculture, Animal Husbandry, and Poultry. Professor REEDER.

311-312. 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, clinics, and proximity to slaughterhouse, abundance of histological material of various animals is obtainable. Three periods. Required of Juniors in Veterinary Division. Fee, $1. Dr. COREL.

321-322. 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. Five periods, first term; four periods, second term. Required of Juniors in the Veterinary Division. Fee, $2. Dr. COREL.

332. Materia Medica. This study of the inorganic drugs used in comparative medicine will treat of their classification, composition, physiological actions, and doses. Three periods, second term. Required of Juniors in Veterinary Division. Professor REEDER.

411-412. Veterinary Anatomy. A continuation of Course 321-322. A study of the digestive, respiratory, circulatory, urinary, re-

productive, and nervous systems will be made, with dissections of each in the horse. Four periods, first term; five periods, second term. Required of Seniors in Veterinary Division. Fee, $2. Dr. CORL.

421-422. 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 periods. Required of Seniors in Veterinary Division. Professor REEDER.

432. Materia Medica and Pharmacy. Course 332, 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 periods, second term. Fee, $1. Required of Seniors in Veterinary Division. Professor REEDER and Dr. CORL.

441-442. 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, immunity, 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. Two periods. Required of Seniors in Veterinary Division. Fee, $1. Dr. CORL.

402. 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 the cause, its habits, mode of entering the body, and bodily resistance (immunity). The above phases will be largely considered in this course. Three periods, second term. Required of Seniors in Agriculture. Professor REEDER and Dr. CORL.

501-502. Experimental Physiology. Appreciating the value of many of the interesting phenomena in physiology recently discovered, opportunity is here given to consider those specially applicable to the animal husbandman, the teacher, and the research student. The course will cover investigations dealing with various phases of reproduction and milk secretion; of internal secretions, and of those phenomena of the circulation resulting from infections, pregnancy, etc., such as hemolysis, bacteriolysis, and agglutination. First or second term. Elective for Postgraduates. Professor REEDER and Dr. CORL.

Short Courses

11. Physiology and Hygiene. The principles of physiology and hygiene are essential to the rational feeding and care of the human body as well as the bodies of animals. Lectures, recitations, and demonstrations will be used in covering this subject in an elementary way. Three periods, first term. Dr. CORL.

22. Animal Diseases. This course must not be confused with course 402. 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 periods, second term. Professor REEDER.

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.

One-week Graduate Course in Veterinary Medicine

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 municipality owned 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. Dr. CORL.

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 discussion, in a practical manner, of the respiratory and the 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 to have opportunity to show typical reactions from use of intradermal and ophthalmic tuberculin. Drs. CORL, 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.

ZOOLOGY AND ENTOMOLOGY

Four-year Courses

101-102. 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 which follows. Three periods, first and second terms. Required of Freshmen. Prerequisite for all other courses in the Department. Fee, $2. Professor METCALF, Mr. SPENCER, Mr. WILLIAMS.

301-302. 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. Two periods, first and second terms. Required of Juniors. Fee, $1. Professor METCALF, Mr. SPENCER.

321-322. 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 periods, first and second terms. Required of Juniors in Biology Division. Professor METCALF.

331-332. 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. Required of Juniors in Biology Division. Professor METCALF.

401. Zoology. This is a course in the study of the cell. Cell division, maturation, the morphology of the spermatozoon and the egg, fertilization, and cleavage are studied in detail. The student is required to collect and prepare his own material as far as practicable. Three periods, first term. Required of Seniors in Poultry and Biology Divisions. Fee, $2. Professor METCALF, Mr. SPENCER.

402. Vertebrate Zoology. 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 periods, second term. Required of Seniors in Veterinary, Biology, and Poultry Divisions. Fee, $2. Professor METCALF.

421-422. Apiculture. The first term will be devoted to a study of the life history and anatomy of the honey bee and prepara-

tion of hives for wintering. The second term will be devoted to spring management, comb and extracted honey production. Three periods, both terms. Required of Seniors in Biology Division. Professor METCALF, Mr. SPENCER.

501-502. Graduate 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 periods. Professor METCALF.

431-432. 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 period per week. Elective for Seniors. First term, Professor METCALF; second term, Dr. KAUPP.

Short Courses

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 periods, first year. Professor METCALF, Mr. SPENCER, and Mr. WILLIAMS.

21. Entomology. 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 periods, second term.

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 government 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.

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 5th.

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 towards 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 Committee Studies, 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 year credit for more than eight periods, to be distributed as follows: both minors, the major, or a minor and one-half the major. In this connection a year will extend from Commencement day to Commencement day.

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. Credit will not be allowed during any year unless the candidate shall have filed with the Registrar an approved course of study by October 5th of that year or a previous year.

14. Candidates for advanced degrees must register by October 5th of each year for which they wish to receive credit.

FORM OF THESIS

The thesis must be presented on unruled white paper, 8⅛ 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 1½ 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 the 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.

SUMMER SCHOOL

From June 15 to July 28, 1920, inclusive, the State College of Agriculture and Engineering at West Raleigh, N. C., will turn over its plant valued in excess of a million dollars, to the teachers of the State and to other Summer School students.

June 15 will be devoted to registration; July 28 will be devoted to final examinations. The State Teachers' Examinations will be held at the School on July 29th and 30th.

The work of the Summer School is divided into two parts, one being the State Summer School, the other the County Summer School. The State Summer School is for graduates of a standard high school or teachers who hold a one-year temporary certificate or any higher certificate. All teachers who hold the provisional "A" certificate secured on the basis of graduation from a standard high school or because they hold an elementary term certificate with no renewal credits may enter the State Summer School.

The State Summer School courses are for city and county superintendents, principals and supervisors, high school teachers, primary teachers, and teachers holding the elementary certificate or the one-year temporary certificate, or graduates of standard high schools. These courses are so arranged that by taking them (1) graduates of standard high schools may receive the professional credit which will entitle them to elementary certificates; (2) holders of elementary certificates may raise their grade to primary or grammar grade certificates; and (3) holders of high school certificates may raise the grade of their certificate.

Four years at the six weeks Summer School will represent one year of College work.

The County Summer School is intended for all prospective teachers who are not graduates of standard high schools and for holders of the following:

1. Second Grade Certificate.
2. Provisional B.
3. Provisional A, issued on the basis of credits from a summer school and credit on two groups of academic subjects by State examination.
4. Provisional A, issued on the basis of credits on three groups of subjects by State examination and no summer school credits.
5. Teachers' Permit.

This arrangement of the work of the Summer School is in accordance with the recently formulated plans of the State Department of

Education. A member of the State Board will be in attendance from time to time during the session of the School, to represent officially the State Department of Education.

The Nineteen-Eleven and South 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. Moving 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 School 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.

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.

During the 1919 session there was an enrollment of 281 teachers, 22 candidates for college entrance and college credit, 81 home demonstration agents, 49 homemakers, 21 rehabilitation students, and 20 boys and girls in the demonstration school. The distribution of teachers was as follows: Elementary and High School, six weeks, 229; Vocational Agriculture, 14; Agricultural, 19; High School Conference, 13; Agricultural Conference, 6.

There were 80 men and 16 boys, 374 women and 4 girls, a total of 474. Eight states were represented. Seventy-six North Carolina counties were represented.

The first session of the school was held in 1903, during the presidency of Dr. George T. Winston, the registration being 338. The second session, in 1904, was under the directorship of Dr. J. Y. Joyner, and the attendance reached 840. There were no sessions of the school from 1905 to 1916, inclusive. In 1917 the enrollment was 517. In 1918 there was an enrollment of 311 teachers, 61 home demonstration agents, 63 practice school pupils, 28 attendants at the Agricultural Conference, and 95 housekeepers, making a total of 558. In addition to these figures, 14 soldiers were enrolled in French during the 1917 session, and 98 during the 1918 session.

Fees and Expenses

The expenses for the entire six weeks session will be as follows:

Tuition	$10.00
Room rent, each (two in a room)	6.00
Board	30.00
	$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.

In a limited number of cases one may be able to room alone on payment of $9 room rent.

All fees and charges are payable in advance and there will be no refund of fees or charges after the first ten days.

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 for alternate weeks will be required for each one selected for this work. The compensation for the six weeks session will be $15 each. Applications for these positions 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.

For catalog or other information regarding the school apply to

W. A. WITHERS, *Director*,
Rooms 215-217, Winston Hall,
West Raleigh, N. C.

SUMMER SCHOOL STUDENTS, 1919

AGRICULTURAL TEACHERS

Name	*Postoffice*
George Benjamin Blum	Lillington
Ernest Floyd Brown	Vass
George Cleveland Buck	Salemburg
Harley Wilson Bullard	Aulander
Andrew Jerome Caldwell	Campobello, S. C.
Harper Nicholson Cherry	Zebulon
Hugh Woody Dixon	Elkin
Howard Henley Gordon	Raleigh
Kenneth L. Greenfield	Rocky Mount, R. 3
James Shoffner Hathcock	Wilson, R. 2
John Stewart Howard	Cary
William Jesse Isbell	Newton
Omra Burr Jones	China Grove
Harvey Langill Joslyn	Vanceboro
Daniel Ernest Roberts	Rich Square
Marion Polk Sanford	Stem, R. 1
Arthur Lee Teachey	Pleasant Garden
Jew Irvin Wagoner	Durham, R. 3
Nathaniel Warren Weldon	Stovall

CONFERENCE OF AGRICULTURAL WORKERS

July 24-25, 1919

M. B. Dry	Cary
Thomas R. Faust	Greensboro
P. J. Long	Jackson
D. A. Morgan	Cary
A. H. Pleasants	Cary
E. M. Rollins	Henderson

DEMONSTRATION SCHOOL

John Grange Ashe	Raleigh
John Phil Cooper	Raleigh
Henry H. Dalton	Raleigh
Grace Eaton	Louisburg
Mary Alice Goodwin	Raleigh
Alston Grimes	Raleigh
John D. Grimes	Raleigh
Gilbert Hay	Raleigh
William Grimes Haywood, Jr.	Raleigh
Nathaniel J. Heyward	Raleigh
Oliver Massey Horton	Raleigh

Name	*Postoffice*
WILLIAM PATE	Raleigh
ELIZABETH RHEA PRESTON	West Raleigh
BEN RENFROW	West Raleigh
JOHN RODNEY	Raleigh
MARVIN SMITH	Raleigh
WILLIAM ROUTH STALLINGS	Raleigh
NATHANIEL ELMER WINTERS	West Raleigh
MARY LAURENS WITHERS	West Raleigh
WILLIAM ALPHONSO WITHERS, JR.	West Raleigh

STUDENTS IN COURSES FOR COLLEGE ENTRANCE AND COLLEGE CREDIT

ZENOBIA EVANGELINE BAGWELL	Raleigh
EDNA BEASLEY	Louisburg
ELIZABETH BRIDGERS	Raleigh
VIRON BURTON EDGERTON	Kenly
GEORGE S. GARDNER	Williamston
JOHN LELAND HIGGINS	Jacksonville
PATTIE GEE HILL	Raleigh
HUMIE LEE HORTON	Apex
KATHLEEN HUNTER	West Raleigh
EMILY JONES	Raleigh
INEZ LYNN	Raleigh, R. 6
LEWIS PAKULA	Raleigh
NATHANIEL DUNN PIERSON	Enfield
ALICE LEE POPE	Raleigh, R. 4
CECIL HOLMES RAND	Garner
WADE PERRY RENFROW	West Raleigh
MAE SAMS	Raleigh
SIGFRIED SCHAFER	Mt. Airy
LULA STOCKARD	Raleigh
DAVID B. VANSANT	Chestertown, Md.
JAMES PRESTON VAUGHN	Raleigh
LUCILE VIOLA WINSTEAD	Wakefield

HIGH SCHOOL CONFERENCE

J. T. ALLEN	Cherryville
LAURA VIRGINIA COX	Asheville
JAMES WALTER DANIEL	Bethania
MRS. JAMES WALTER DANIEL	Bethania
CHARLES B. GARRETT	Mount Olive
STELLA F. GARRETT	Mount Olive
FLOSSIE MAE KERSEY	Greensboro

Name	*Postoffice*
BILLIE ROBINSON	Biltmore
LURA A. SCOTT	Concord
ROBERT MICHAEL SCOTT	Concord
MRS. ROBERT MICHAEL SCOTT	Concord
MRS. LEAH JONES STEVENS	Southport
MATTHIAS T. TANNER	Rich Square

HOME DEMONSTRATION AGENTS

MARCIE ALBERTSON	Elizabeth City
FLAX ANDREWS	Lumberton
MARY BAGWELL	Rich Square
ANNA MAY BAKER	Elizabethtown
M. CLIFF BENNETT	Town Creek
MRS. CHLOE BLALOCK	Raleigh
ELIZABETH BOGLE	Winston-Salem
MRS. W. W. BOYETTE	Wilson
MABEL BRADSHER	Greenville
FANNIE BROOKS	Lillington
IDA M. BROOKS	Bailey
ADELAIDE BULGIN	Franklin
LILLIAN W. CAPEHART	Oxford
BLANCHE CARTER	Monroe
LULU M. CASSIDY	Brevard
LUCILLE CLARK	Whiteville
CIRCE COBLE	Edenton
IRMA K. COBLE	Graham
MRS. L. W. COGGINS	Asheboro
LILLIAN COLE	Troy
ELIZABETH CORNELIUS	Hillsboro
MRS. J. S. COVINGTON	Rockingham
MARTHA CREIGHTON	Charlotte
MRS. J. W. DYER	Murphy
MRS. W. F. EARLY	Aulander
BEULAH EUBANKS	Durham
MARY FEIMSTER	Sylva
ELIZABETH GAINEY	Fayetteville
HELEN GAITHER	Hertford
ESTHER GLUYAS	Williamston
EDNA STRANGE GREENE	Raleigh
MRS. RACHEL T. HANAMON	Asheville
CELESTE HENKLE	Statesville
MRS. MITTIE N. HENLEY	Asheville
BERTHA HERMAN	Shelby

Name	*Postoffice*
Sallie W. Hunter	Concord
Florence Jeffress	Wilmington
Mamie Sue Jones	Smithfield
Myrtle Keller	Albemarle
Mazie D. Kirkpatrick	Reidsville
Mrs. W. B. Lamb	Garland
Ethel Leatherwood	Roanoke Rapids
Gertrude Little	Sanford
Eva Logan	Burgaw
Janie P. McFadger	Jacksonville
Eleanor McMillan	Wilmington
Alice McQueen	Plymouth
Mrs. Mary O'Keif Mills	Rutherfordton
Mrs. C. C. Morris	Washington
Kate Norsworthy	Kenansville
Lida M. Olive	Salisbury
Daisy B. Padgett	Washington
Sarah M. Padgett	Jackson
Emma E. Penny	Lexington
Nell Pickens	Gastonia
Iantha Pittman	Louisburg
Mrs. J. K. Plummer	Middleburg
Mary Powell	Roanoke Rapids
Bertha Proffitt	Carthage
Annie Lee Rankin	Warrenton
Mrs. Rosalind Redfern	Wadesboro
Bertha Reid	Swan Quarter
Leila M. Rhyne	Roxboro
Emma Robertson	Hillsboro
Mary Rowe	Newton
Timoxena Sloane	Goldsboro
Mrs. Estelle Smith	Goldsboro
Pauline Smith	Louisburg
Rachel J. Speas	Winston-Salem
Ola Stephenson	Greensboro
Allie Stribbling	Nashville
Della Stroud	Bryson City
Edna Stroup	Snow Hill
Myrtle Swindell	Winton
Gertrude Taylor	Rutherfordton
Helen Thomas	Bennettsville
Mrs. J. W. Thomas	Raleigh
Marion F. Thompson	Hampton, Va.

Name	*Postoffice*
LAURA WINGFIELD	Raleigh
MRS. FLORENCE WINN	Lincolnton
WINNIFRED YOUNG	Tarboro

TEACHERS' SIX WEEKS SESSION

ANNIE ELIZABETH ADAMS	Faison, R. 1
ORA ALFORD	Zebulon, R. 2
BERTHA DORA ALLEN	Cary
MAMIE ARNOLD	Cameron
HATTIE FLOY ASHBURN	Liberty
KATE BALLARD	Franklinton
EUNICE BANKS	Raleigh, R. 3
PATTIE VIOLA BATTLE	Pee Dee
ETHEL IRENE BAUGH	West Raleigh
ETHEL MAE BEAL	Rocky Mount
BERTHA ADDIE BEASLEY	Edenton
LILLIAN CAROLINE BEASLEY	Louisburg
MATTIE LUCILE BEASLEY	Edenton
ELLA ELIZABETH BELL	University
BOBBIE OLIVIA BIRCHETT	Creedmore, R. 1
DAISY LEE BLAND	Sanford
ROSE BLAND	Sanford
MINNIE LEIGH BONE	Nashville, R. 1
EUGENIA BOONE	Castalia
FLORINE BOONE	Mapleville
ADDIE E. BORDEAUX	Durham, R. 7
MRS. J. C. BOWMAN	Raleigh
JUDITH CHRISTIAN BOYD	Townsville
LUCY GRAHAM BOYD	Townsville
MARY BRADLEY	Elizabeth City
CARRIE BRAME	Macon
LULA BARNES BRANTLEY	Spring Hope
MRS. KATIE ROYALL BREECE	Raleigh
MARY LUCILE BRITTON	Seaboard
MAGGIE BROWN	Rich Square
NORA ALMA BRYANT	Pilot Mountain, R. 2
JULIA FRANCES BURWELL	Stovall
ETHEL L. CALLIS	Henderson, R. 7
MABEL V. CALLIS	Henderson, R. 7
BESSIE MERRITT CAMERON	Vass
IDA ORLEAN CAMPBELL	Raleigh, R. 4
WIRTA CASH	Oxford
OLIVE CHEAVES	Louisburg
EVIE LEE CHEEK	Graham, R. 2

Name	*Postoffice*
Blonnie Cole	Rigsbee
Blanche Cone	Spring Hope
Emma D. Conn	Raleigh
Ruth Conyers	Youngsville
Mrs. R. J. Conyers	Youngsville
Lelia Cooper	Dobson
Thomas Reed Corr	Edmond, Okla.
Beatrice Council	Apex
Bettie Council	Apex
Enid Council	Apex
Leona F. Cox	Richlands
Cinnye Crisp	Pinetops
Beulah Cyrus	Louisburg
Lena M. Danford	Bolivia
Mrs. Della P. Daughtry	Clayton
Mrs. Luella Davis	Washington, D. C.
Mary A. Davis	Kittrell
Onie Virginia Davis	Lucama
Sallie Young Davis	Louisburg
Swannee Diamond Davis	Wade
Madeline Debnam	Louisburg, R. 5
Mary Belle Dement	Louisburg
Mamie G. Dickens	Franklinton
Mittie Dillard	Bahama
Sallie Dosher	Southport
Mabel Duke	Mapleville
Hilda Dupree	Garner
Mildred Durham	Hillsboro
Mrs. Luther T. Edgerton	Kenly
Alice Brooks Edmundson	Garner
Virginia A. Eldridge	Raleigh
Hettie Mae Ennis	Duke
Judith Eure	Norfolk, Va.
Jessie Farabow	Stem
Florence Fitzgerald	Raleigh
Mildred Eliot Fleming	Raleigh
E. Lee Fox	Louisburg
Janie Carroll Futrelle	Conway
Kate M. Gainey	Clinton
Annie Elvira Galloway	Derita
Mattie Ruby Garner	Raleigh, R. 3
Mabel Elizabeth Garriss	Conway
Minnie Gay	Spring Hope
Edith Fleming Gilbert	Cooleemee

Name	*Postoffice*
Ola Giles	Hookerton
Lena Elizabeth Gill	Henderson, R. 4
Mary James Gilliam	Sanford, R. 3
Mrs. J. L. Gilmore	Sanford
Vergie Alice Goodwin	Raleigh
Belle Grady	Mount Olive
Minnie G. Gray	Windsor
Edna Greene	Zebulon
Fannie B. Gupton	Louisburg
Josephine Antoinette Harmon	Buies Creek
Belle Harris	Mountain View
Nettie Lou Harris	Roxboro
Ruby Harris	Louisburg
Mrs. J. F. Hatch	Raleigh
Ernestine Stapleton Hayes	Louisburg, R. 4
Mrs. L. S. Hayes	Zebulon
Natalie Henry	Tarboro
Mrs. Nannie Skinner Hill	Raleigh
Annie Virginia Holdford	Weldon
Bertha Belo Holman	Raleigh
Elizabeth F. Holman	Raleigh
Mary Belo Holman	Raleigh
Ella Bonner Hooker	Aurora
Clara Silver Hudson	Reidsville, R. 3
Bessie Faye Jackson	Garner
Ida Jackson	Stovall
Mary Etta Jarrett	Reidsville, R. 3
Ada Jeffreys	Youngsville
Estelle Barnes Jenkins	Pinetops
Mamie B. Jenkins	Kelford
Lottie Aldridge Johnson	Louisburg
Mae Johnson	Rose Hill
Stella Johnson	Garner
Gertrude Johnston	Raleigh
Mary Johnston	Raleigh
Alva Lee Jones	Wakefield
Beatrice Jones	Wendell, R. 2
Lena Marion Jones	South Mills
Lottie Lee Jones	Elon College
Beatrice Kellum	Trenton
Annie M. Kittrell	Ayden
Callie Koontz	Linwood
Erma Naomi Kutz	Raleigh
Pattie Blanche Lamm	Mapleville

Name	*Postoffice*
LETTIE LEE LEONARD	Louisburg, R. 4
LILLIAN LILES	Wendell
LEILA LOWERY	Neuse, R. 1
ANNIE MAE LOWRY	Raleigh
HAZEL ELIZABETH LYON	Neuse, R. 3
SALLIE GILES LYON	Neuse, R. 3
MRS. ALEX. MCDONALD	Raleigh
MARGARET ELLEN MCGEACHY	St. Pauls
MAYBETH MCGHEE	Franklinton, R. 1
ELIZABETH MCLAUCHLIN	Carthage
MRS. C. E. MCLEAN	Wendell
VERA MCLEOD	Broadway
ELEANOR MACMILLAN	Wilmington
ANNIE JANE MCNEILL	Broadway, R. 1
FLORA MCQUEEN	Dunn
GENEVIEVE MACON	Louisburg
MARY OMA MADDREY	West Raleigh
NELLIE R. MARKS	Winnabow
ALICE LEE MARROW	Soudan, Va.
HALLIE MAUDE MARSTON	Henderson
HILLIARD J. MASSEY	Middlesex
MAUDE LEIGH MEADOWS	Moriah
INEZ MARIE MESSER	Murphy
BELLE MITCHINER	Raleigh
FLORENCE ANNIE MURRAY	St. Pauls
MABEL BIRCHETTE MUSE	Cameron
MINNIE MOSHER MUSE	Cameron
BERTHA NEAL	Alert
FRANCES B. NELSON	Rich Square
RUTH NEVILLE	Whitakers
ELLA MAE NIXON	Edenton
EMMA O'NEAL	Middlesex
MARY ANDERSON PAGE	Raleigh
RUTH PARRISH	Alert
OLA PASCHAL	Sanford
ALMA ALETHIA PATRICK	Creswell, R. 1
LILY PENNY	Garner
MAMIE PERRY	Louisburg
MAY BENNETT PERRY	Louisburg
MARY BELLE PIPPIN	Wakefield
EMMIE SUSAN RATCLIFFE	Wadesboro, R. A
DOROTHY CAROLINE RAY	Raleigh
MARY J. RENN	Oxford
THELMA REYNOLDS	Teer

Name	*Postoffice*
Asa Carr Rhew	Rougemont, R. 2
Ila Rhew	Rougemont, R. 2
Faye Ritchie	Clarkton
Emma Robertson	Hillsboro
Roselma Irene Sauls	McCullers
Mazie Roselle Sears	Morrisville, R. 1
Mrs. Herman Senter	Raleigh
Mrs. Mary B. Sherwood	Raleigh
Irene Sledge	Louisburg, R. 2
Minda Elizabeth Smith	McCullers
Pattie Lou Smith	Rocky Mount
Mrs. R. R. Smithwick	Wendell
Lucille Southerland	Southport
Lucile Caroline Spears	Lillington
Mamie North Stacy	Marion
Rose Stacy	Marion
Lola Stallings	Reidsville, R. 1
Lucille Christine Stelle	Wakefield
Lena Stephens	Cary
Ruth Ethelene Stephens	Garner, R. 1
Eura Vance Strother	Franklinton, R. 1
Melissa Strother	Franklinton, R. 1
Laura Virginia Swink	Berkley, Norfolk, Va., R. 4
Thelma Susan Tapp	Roxboro, R. 5
Alice Pettus Taylor	Stovall
Lizzie Z. Terrell	Raleigh
Effie Rue Tharrington	Youngsville
Mary Etta Tharrington	Alert
Beulah Thomas	Cameron
Eva Thomas	Stokes
Mrs. Florence Thorne	Farmville
Vera Torrence	Greenville
Annie Elizabeth Tripp	Blounts Creek
Lora Truckner	Peletier
Mary Burt Turner	Louisburg
Bettie McBride Tyler	Roxobel
Eva Clair Tyler	Roxobel
Mrs. G. F. Uzzle	Wilson's Mills
Bessie Weaver	Pinetops
Lilly White	Mobjack, Va.
Effie Whitley	Pinetops
Mrs. H. P. Whitley	Zebulon
Beulah Whitmire	Rosman
Lacy H. Williams	Wake Forest, R. 3

Name	*Postoffice*
Elizabeth Wilson	Raleigh
Carrie Wilson	Trenton
Gertrude E. Winston	Youngsville
Mamie Withers	Davidson
Annie C. Witty	Summerfield, R. 1
Mrs. Eustace L. Womble	Raleigh
Ione Helen Woodley	Creswell, R. 2
Mary E. Wortham	Franklinton
Camilla Webb Yarborough	Louisburg
Eleanor Yarborough	Louisburg
Estelle Yarborough	Cary
Leonita Yates	Raleigh
Marjorie Yates	Raleigh
Leola Gladys Young	Wake Forest, R. 3

HOMEMAKERS

Mrs. William J. Andrews	Raleigh
Augusta W. W. F. Andrews	Raleigh
Martha B. H. Andrews	Raleigh
Jeannette Ball	Raleigh
Elizabeth Barber	Raleigh
Harriet Barber	Raleigh
Lizzie Pullen Belvin	Raleigh
Mrs. J. Crawford Biggs	Raleigh
Blanche Bonner	West Raleigh
Phyllis Bowen	West Raleigh
Rebecca Bowen	West Raleigh
Mrs. Mattie C. Brantley	Raleigh
Alice Brogden	Raleigh
Eula Bumgarner	Raleigh
Mrs. W. R. Camp	Raleigh
Katherine Carter	Raleigh
Melissa Chamberlain	Raleigh
Katharine Lassiter Crews	Raleigh
Maude D. Croom	Wilmington
Teresa Day	Raleigh
Frances Green	Raleigh
Katherine Harden	Raleigh
Nancy Harden	Raleigh
Josephine Hogg	West Raleigh
Virginia Hogg	West Raleigh
Charlotte Johnson	Raleigh
Marie Lowry	Weeksville
Jean MacCarty	Raleigh

Name	*Postoffice*
Mrs. Jess McGlamery	Raleigh
Eleanor Haywood Mason	Raleigh
Mrs. Carleton F. Miller	West Raleigh
Mrs. Elizabeth D. Miller	West Raleigh
Charlotte Ruth Nelson	West Raleigh
Mary Walmsley Nelson	West Raleigh
Mrs. Thomas Nelson	West Raleigh
Dorothy O'Donnell	Raleigh
Mrs. Mara Maye Perdue	Raleigh
Betty Rose Phillips	Raleigh
Dorothy May Pillsbury	West Raleigh
Eugenia Riddick	West Raleigh
Mrs. Ivey Goodman Riddick	Raleigh
Roe Ella Robbins	Raleigh
Mrs. Wilfred Robbins	Raleigh
Mishew Rogers	Raleigh
Mary Elizabeth Separk	Raleigh
Mrs. George Summey, Jr.	West Raleigh
Agnes Cotten Timberlake	Raleigh
Mary Yarborough	West Raleigh
Elizabeth Yates	West Raleigh

VOCATIONAL AGRICULTURE

Victor Vard Aderholdt	Lincolnton
Walter Dorsey Barbee	Seaboard
Edwin Erwin Connor	Candler, R. 2
W. L. Cooper, Jr.	Graham
Arthur Foster Corbin	Mill Spring
Ernest P. Dixon	Saxapahaw
Coffey Harlan Gryder	Taylorsville
Robert Henry Hutchison	Candler
Robert Hamilton Lankford	Harmony
George Oliver McBroom	Harmony
Paul H. Nance	Boulee
Francis A. Penland	Barnardsville
Paul B. Stephens	Wartrace, Tenn.
Alpheus Folger Zachary	Bahama

REHABILITATION SOLDIERS

Therman W. Ayers	Chattanooga, Tenn.
Robert Bela Beach	Gastonia
Luther L. Belk	Monroe, R. 8
John Elisha Boone	Pittsboro

Name	*Postoffice*
THOMAS WAYNE BRIDGES	Mooresboro, R. 2
JOHN DUNCAN BULLARD	Parkton
ELBERT DANIEL CODY	Misenheimer
WILLIAM CLAUD FERGUSON	Vass, R. 1
THOMAS ALEX. HARRINGTON	Broadway
VASTON HOWELL	Rockingham
RUPERT B. LEE	Benson, R. 2
HAYWOOD ROMULUS MASON	Scranton
MARION MOODY	Erastus
WILLIE E. MOSER	Mt. Airy
SETH PUTNAM	Grover, R. 2
THOMAS ELSON ROBERTSON	Zebulon
SYLVESTER BRYAN ROLLINS	Forest City
RUFUS E. ROUTH	Millboro
JOHN PERRY RYALS	Benson
PATRICK MCCLELLAN SULLIVAN	Savannah, Ga.
MCKINLEY WHITE	Kinston

THIRTIETH ANNUAL COMMENCEMENT

MAY 27, 1919

DEGREES CONFERRED

BACHELOR OF SCIENCE

In Agriculture

Samuel Otto Bauersfeld
Clarence Anderson Brame
George Latta Clement
Hugh Woody Dixon
Alvah Dunham
Howard Henley Gordon
Dennis Henry Hall, Jr.
James Shoffner Hathcock
John Gray Hicks
Harry Vann Latham
Paul Thomas Long
Zeb Arch McCall
James Lathan Rea
Marion Polk Sanford
James Gray Stokes
Warner Minnieweather Vernon
Jew Irvin Wagoner

In Agricultural Chemistry

B. Cundiff Williams

BACHELOR OF ENGINEERING

In Civil Engineering

Thomas Marion Denson
Fred Duncan Jerome
James Thomas Larkins
George Mason Parker

In Electrical Engineering

Arthur Lee Humphrey
William Daniel Johnston
James Gilmore Leonard
William Carey Murrell
Palmer William Pressly
George Randolph Robinson
Walter Leith Shuping

In Mechanical Engineering

Edward Andrew Adams, Jr.
William Staley Bridges
Walter Myatt Johnson

In Textile Engineering

George Edward Bush
James Wesley Cooper
Edwin Wood Fuller
Forrest Bainie Long
Harry Gallant McGinn
Burton Forrest Mitchell
Zeb Vance Potter
Walter DuPre Shields
Jacob Neely Summerell
Samuel Stanhope Walker
Robert Phifer Watson

ADVANCED DEGREES

CIVIL ENGINEER

Benjamin Oliver Hood — Fletcher Hess Barnhardt

HONORS IN SCHOLARSHIP FOR 1918-1919

Senior Class

S. O. Bauersfeld — A. Dunham
C. A. Brame — H. H. Gordon
G. L. Clement — J. T. Larkins
J. I. Wagoner

Junior Class

R. D. Pillsbury — D. B. Worth

Freshman Class

W. N. Hicks — J. A. Morris, Jr.
E. G. Singletary

Medal awarded by National Association of Cotton Manufacturers to George Edward Bush.

CATALOG OF STUDENTS

1919-1920

GRADUATE STUDENTS

Name	*Course*	*Postoffice*
Minor Revere Adams, Jr.	Tex.	Statesville
Bascom Otto Austin, B.E.	E. E.	Wilkinsburg, Pa.
Thomas Levingston Bayne, Jr., B.S.	Agr.	West Raleigh
Charles Edward Bell, B.S.	Chem.	Raleigh
Beverly Moss Blount, B.E.	M. E.	West Raleigh
John Clarence Corl, V.M.D.	Agr.	West Raleigh
Sherman Grady Crater, B.S.	Agr.	West Raleigh
McNeely DuBose, B.E.	E. E.	Badin
Raymond Rowe Eagle, B.E.	C. E.	New Bern
Gardner Marion Garren	Agr.	West Raleigh
Dennis Henry Hall, Jr., B.S.	Agr.	High Point
John Fleming Harris, Jr., B.E.	M. E.	Pittsburg, Pa.
Thomas Roy Hart, B.E.	Tex.	West Raleigh
Vernon Ray Herman, B.S.	Agr.	West Raleigh
Edgar Allen Hester, B.E.	E. E.	Pittsburgh, Pa.
John Eli Ivey, B.S.	Agr.	West Raleigh
Paul Thomas Long, B.S.	Agr.	Jackson
William McCormick Neale, B.E.	M. E.	Greensboro
Charles McKee Newcomb, B.E.	C.E.	Brighton, Trinidad, B.W.I.
Augustus Fleetwood Roller, B.A.	Agr.	Raleigh
Walter Herbert Smith, B.E.	E. E.	Washington, D. C.
Herbert Spencer, B.S.	Agr.	West Raleigh
Talmadge Holt Stafford, B.S.	Agr.	West Raleigh
Herbert Lee Taylor, B.E.	E. E.	Baltimore, Md.
John Henry Williams, A.B.	Agr.	West Raleigh

SENIOR CLASS

William Gaston Allen	C. E.	Neuse, R. 1
Wilburn Clegg Austin	M. E.	Indian Trail, R. 1
Wade Vance Baise	C. E.	Pelham, R. 1
Bruce Crayton Baker	Tex.	Fairmont
Walter Robert Baynes	Agr.	Hurdle Mills, R. 2
James Cyrus Black, Jr.	Chem. Eng.	Davidson, R. 2
John Henry William Bonitz	C. E.	Wilmington
Dallas Marion Buchanan	Agr.	Oxford
William Carey Bunch	Agr.	Edenton
John Summerell Chamberlain	Agr.	Raleigh

Name	*Course*	*Postoffice*
William Clayborne Cheek	M. E.	Durham
Franklin Dewey Cline	C. E.	Asheville
James Kirk Coggin	Agr.	New London, R. 2
Cecil Edwards Cooke	Agr.	Graham
Samuel Allen Cooper	Agr.	Graham, R. 2
Horace Downs Crockford	Agr. Chem.	Charlotte, R. 5
Moses Moore Dew	Agr.	Wilson
Le Roy Dock	Agr.	Balsam
Robert Hobson Duke	E. E.	Durham
Randall Bennet Etheridge	Agr.	Manteo
Howard Lee Evans	Tex.	Lexington, R. 3
Edward York Floyd	Agr.	Hester, R. 1
George Maxwell Greenfield	Chem. Eng.	Kernersville
Richard Nestus Gurley	Tex.	Goldsboro
John Greene Hall, Jr.	C. E.	Oxford
Thomas Wheeler Hancock, Jr.	Agr.	Jacksonville, R. 1
Adam Hugh Harris	Agr.	Oriental, R. 1
Fred Bryan Harton	Agr.	Rutherfordton, R. 3
Jesse Meachem Henley	Agr.	Guilford College, R. 1
Harry Lee Herman	Agr.	Conover, R. 1
Edward Gibbon Hobbs	Agr.	Clinton
Wilbur Breeden Hodges	Agr.	Brownsville, S. C.
Ray Augustus Holshouser	Tex.	Concord
Solomon Linn Homewood	Agr.	Burlington, R. 1
Harry Eley Hood	Tex.	Waxhaw, R. 3
William Frank Humbert, Jr.	E. E.	Polkton, R. 2
John Blake Hunter	M. E.	Greensboro
Christopher Thomas Hutchins	E. E.	Portsmouth, Va.
Eugene Carl Jernigan	Agr.	Benson
Frank Lee Lassiter	M. E.	Wagram, R. 1
Louie Mills Lattimore	E. E.	Shelby
Ray Elliott Mackenzie	C. E.	Charlotte
Alexander Bryan McCormick	Tex.	Rowland
Fred Alwyn Long	E. E.	Roxboro
Andrew Willis McMurry, Jr.	Tex.	Shelby
Harvey Blount Mann	Agr.	Lake Landing
Peyton Howard Massey	Agr.	Zebulon, R. 2
Melville Lee Matthews	E. E.	Henderson
Edward Newton Meekins	Agr.	Manteo
Gratz Brown Millsaps	E. E.	Statesville
Graham Clements Monroe	Agr.	Council, R. 2
John Thaddeus Monroe	Agr.	Council, R. 2
Tycho Norris Nissen	M. E.	Winston-Salem
Paul Shepard Oliver	Agr.	Marietta, R. 1

Name	*Course*	*Postoffice*
Dwight Hendricks Osborne	Agr.	Greensboro, R. 3
Robert James Pearsall	E. E.	Dunn
James Murchison Peden	E. E.	Wilkesboro
Charles Fuller Phillips	Agr.	Thomasville, R. 4
Ross Dunsford Pillsbury	C. E.	West Raleigh
Edwin Theodore Porter	Tex.	Georgetown, S. C.
Herman Newton Pickett	E. E.	Greensboro
Dillard Charles Ragan	Tex.	High Point
Oliver Ramsaur	E. E.	Dunn
Caleb Edward Rhodes	E. E.	Dallas
William Lewis Roach	C. E.	Durham
Ralph Reed Robertson	C. E.	Portsmouth, Va.
William Marcellus Russ	Agr.	Raleigh
Cecil Vann Saunders	E. E.	Lilesville
Charles Anthony Sheffield	Agr.	Randleman, R. 2
Frank Pierce Shore	C. E.	East Bend, R. 2
William Nathan Harrell Smith, Jr.	C. E.	Raleigh
Robert Pinkney Stacey	E. E.	Ruffin
John Guy Stuart	Agr.	Jackson Springs
Dennis Howard Sutton	Agr.	Columbia, R. 2
Richard Frazier Tabor	C. E.	Morganton, R. 5
George William Tiencken	E. E.	Wilmington
Marion Francis Trice	Chem. Eng.	Hendersonville
Seth Thomas Walton	Agr.	Jacksonville, R. 3
Sylvester Hassell Warren	Agr.	Hurdle Mills, R. 2
Clarence Westbrook Warrick	Agr.	Goldsboro, R. 4
Earle Parks Welch	Agr.	Charlotte, R. 7
Albert Linwood White, Jr.	M. E.	Hampton, Va.
Daniel Barnes Worth	M. E.	Raleigh, R. 2
Sam King Wright	Tex.	Ruffin
Robert Cleveland Young	Agr.	Swannanoa
Thomas Grady Young	E. E.	Micaville

JUNIOR CLASS

Claude Winifred Absher	C. E.	Mount Airy
Judson Davis Albright, Jr.	Chem. Eng.	Charlotte
Norman Alexander	Agr.	Liberty
Samuel Craighead Alexander	Tex.	Charlotte
Charles Snead Allen	Tex.	Weldon
Hilton Worth Allsbrook	E. E.	Greenville
Lindsey Otis Armstrong	Agr.	Columbia
Charles Davis Arthur, Jr.	Chem. Eng.	Raleigh
Robert Earle Atkinson	Agr.	Latta, S. C.

Name	*Course*	*Postoffice*
BASIL DUKE BARR	M. E.	Creston
JAMES PERCY BEAL	Chem. Eng.	Rocky Mount, R. 3
CLARENCE WALTER BERRUM	M. E.	Minneapolis, Minn.
RICHARD VON BIBERSTEIN	C. E.	Charlotte
GRADY WASHINGTON BOWERS	Tex.	Lexington
HARVEY PRESTON BROWER	Agr.	Liberty, R. 1
OWENS HAND BROWNE	Chem. Eng.	West Raleigh
SAMUEL LEE CARPENTER	Agr.	Lincolnton, R. 5
HENRY OTTIS CLODFELTER	M. E.	Lexington, R. 1
FRED SHERWOOD CHILDS	Tex.	Lincolnton
ROBERT STUART COLLINS	E. E.	Catharine Lake
WILBURN BRYAN COLLINS	Agr.	Edwards Crossroads
ERNEST WILLIAM CONSTABLE	Chem. Eng.	Lake Landing
WILLIAM HOWARD CORPENING	Agr.	Worry
ROBERT ANDREW COUGHENOUR	M. E.	Scotland Neck
LOUIS BROADDUS DANIEL	Tex.	Weldon
BENJAMIN FRANKLIN DAUGHETY	Agr.	Kinston, R. 2
ROBERT ANTINE MCCOLOUGH DEAL	C. E.	Spencer
WALTER CONNOR EAGLES	Agr.	Macclesfield, R. 1
ROBERT CRAIG ERNST	Chem. Eng.	Henderson
JOSEPH GRAHAM EVANS	M. E.	Elizabeth City
DEWEY AUGUSTUS FLOYD	E. E.	Fairmont, R. 3
JAY BALDWIN FOOTE	Agr.	Milton
PERRY HAMILTON GASTON	Agr.	Candler, R. 2
BARTHOLOMEW MOORE GATLING, JR.	E. E.	Raleigh
JOHN GATLING	E. E.	Raleigh
LEO CHARLES GUIRKIN	E. E.	Elizabeth City
LAURENS ADAMS HAMILTON	Agr.	Carlisle, S. C.
JOHN WILLIAM HARDEN, JR.	Agr.	Raleigh
MACON LEROY HARDY	Tex.	Hookerton
WILLIAM MURCHISON HAYES, JR.	M. E.	Kershaw, S. C.
ROBERT CLIFF HINKLE	Tex.	Lexington
ROY ARTHUR HOLLOWELL	Agr.	Aulander
OLIVER KNIGHT HOLMES	Agr.	Fayetteville, R. 2
FRANK PORTER HUSKIN	E. E.	Andrews
ARTHUR SPROOL JENNETTE	C. E.	New Bern
JUDSON PEELE JOHNSON	M. E.	Chalybeate Springs
WILLIAM MORTON JOHNSTON	Agr.	Greenville
GASTON VANCE JONES	Tex.	Newark, N. J.
ASBURY CROUSE JONES	Agr.	Winston-Salem
JOHN KEITH JONES	E. E.	Selma
PRESCOTT MILTON JONES	Agr.	Wake Forest, R. 3
WILLIAM HUGH JONES	Agr.	Winton
RICHARD GREEN KENDRICK	Tex.	Charlotte

Name	*Course*	*Postoffice*
Charles Dickerson Kirkpatrick	Agr.	Charlotte, R. 2
John Haywood Lane	Agr.	Wilson, R. 4
William Andrew Franklin Lawing	E. E.	Huntersville, R. 20
Joel Brevard Lawrence	Agr.	Statesville, R. 5
Edwin Clinard LeGrand	Tex.	Mocksville
James Furman Lewis	Tex.	Fairmont, R. 3
Homer DeWitt Long	C. E.	Concord
Samuel Marsh Long	E. E.	Trenton, S. C., R. 1
Wilson Copes McCoy	Agr.	Portsmouth, Va.
John Douglas McRae	Tex.	Bennettsville, S. C.
Warren Staten Mann	E. E.	Fairfield
John Daniel Miller	Agr.	Newton, R. 4
Bartholomew Figures Moore	Tex.	Raleigh
Augustus Ray Morrow	Agr.	Mount Ulla, R. 2
Emmet Brown Morrow	Agr.	Mount Ulla, R. 2
Manley Parker Moss	C. E.	Youngsville
George King Murray	Tex.	Charlotte
Dolphin Henry Overton	Agr.	Nashville
Edwin Pate	Agr.	Laurel Hill
Lewis Brenard Peck	C. E.	Concord
Josephus Daniels Pell	Tex.	Raleigh
Edward Ancel Peterkin	Agr.	Dillon, S. C.
James Robert Powell	Agr.	Clinton, R. 2
Kirby Jernigan Quinn	Chem. Eng.	Warsaw, R. 2
Charles Louis Rackley	Agr.	Hendersonville, R. 4
Martin Luther Rhodes	Tex.	Lincolnton
Wade Hampton Rice	Agr.	Wilson
John Hollis Ripple	Tex.	Lexington
Thomas Davis Roper, Jr.	Chem. Eng.	Portsmouth, Va.
Guy Rudisill Sipe	Agr.	Cherryville
Geddie Blair Strickland	C. E.	High Point
Donald Shaw Stubbs	Agr.	Laurinburg, R. 2
William Whitmel Swain, Jr.	Agr.	Henderson, R. 1
William Austin Sydnor, Jr.	M. E.	North Wilkesboro
Junius Albert Temple	C. E.	Sanford
John Clifton Terry	M. E.	Rockingham
Theodore Ruggles Timby	E. E.	Fayetteville
Sidney Jones Walters	M. E.	Oxford
Charles Edward Watson	Chem. Eng.	Kipling, R. 1
Herbert Carlyle Weathers	M. E.	Raleigh
William Toxey Whitaker	C. E.	Raleigh
Duncan Alexander Wicker	M. E.	Greensboro
Atticus Morris Williams	Agr.	Duke, R. 1
John Howard Williams	Tex.	Wilson

Name	*Course*	*Postoffice*
ROBERT EDGAR WILLIAMS	E. E.	Wilmington
DAVID CARLYLE WINDLEY	Agr.	Pantego
ELMER BERNARD YOUNG	C. E.	Rock Hill, S. C.
OTIS ALLEN ZACHARY	Tex.	Cooleemee

SOPHOMORE CLASS

JOHN THOMAS ALDERMAN, JR.	E. E.	Henderson
THOMAS WATKINS ALEXANDER	Tex.	Derita, R. 14
WILLIAM ROY ALEXANDER	Agr.	Fletcher, R. 2
EDWARD MICHAEL ARENDELL	E. E.	Morehead City
WILLIAM FRANKLIN ARMSTRONG	Agr.	Columbia
GILBERT SETH ARTHUR	Chem. Eng.	Raleigh
VERNON LEITH ASHWORTH	Agr.	Fair View
CLARENCE EDWARD BAILES	Tex.	Charlotte, R. 11
BENJAMIN DEWEY BAKER	E. E.	Wilson, R. 1
FRANK KUGLER BAKER	M. E.	Norfolk, Va.
HAROLD HOYT BANGS	E. E.	Hendersonville
CHARLIE RAINE BARBER	Tex.	Greensboro
GERALD THOMAS BARNES	C. E.	Kenly, R. 4
EDWARD DOYLE BARR	E. E.	Creston
WILLIAM FOY BEAL	C. E.	Rocky Mount, R. 3
TERRY FULTON BEAMER	Agr.	Mt. Airy, R. 3
MILTON ERWIN BELAND	M. E.	Wilson
GRAHAM WHITEHURST BELL	C. E.	Elizabeth City
GUY HIBERT BENNETT	E. E.	Morehead City
LACY RANKIN BETHEA	Agr.	Latta, S. C.
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.
OLIN LINK BRADSHAW	E. E.	Lenoir
MAX HIRAM BRASWELL	E. E.	Enfield, R. 2
JOHN RHODES BROCK	M. E.	Richlands, R. 2
WILLIAM HAND BROWNE, III	E. E.	West Raleigh
RAYMOND ARTHUR BRYAN	C. E.	Newton Grove, R. 1
CLYDE DAVIS BUCHANAN	E. E.	Dillsboro
DOYLE LUROY CANNON	E. E.	Rosemary
WILLIAM WALKER CANTRELL	Tex.	Winston-Salem
LAWRENCE BERNARD CARR	M. E.	Goldsboro
OBED CASTELLOE	Agr.	Aulander
ADDIS PITTARD CATES	Agr.	Mebane, R. 3
JOSEPH STICKNEY CHAMBERLAIN	Agr.	Raleigh
GEORGE BRYAN CHERRY	C. E.	Windsor
COLIN F. CHURCHILL	E. E.	Kinston

Name	*Course*	*Postoffice*
CLINTON ALBERT CILLEY	M. E.	Hickory
FRANK SILER CLARKE	C. E.	Ansonville, R. 1
EDWIN OSBORNE CLARKSON	M. E.	Charlotte
JASPER LESLIE CLUTE	M. E.	Clinton
QUINCEY ETHAN COLVARD	Agr.	Wilbar
BRUCE HARRISON CONNER	C. E.	Rich Square
FLAVE HART CORPENING	M. E.	Brevard
ALEXANDER YOHNLOSSIE COTTRELL	C. E.	Lenoir
JONATHAN EVANS COURTNEY	Agr.	Fayetteville
WILLIAM OLIVER CRARY	E. E.	Brevard
THEODORE GRAHAM CRAVER	M. E.	Lexington
ADRIAN MOULTRIE DAUGHTRIDGE	C. E.	Rocky Mount, R. 6
JESSE WILLIAM DAVENPORT	E. E.	Battleboro, R. 1
FRANK JENKINS DAVIS	M. E.	Mount Holly, R. 1
JAMES CAMPBELL DAVIS	E. E.	Waxhaw
ROBERT LEWIS DAVIS	Tex.	Henderson, R. 4
HAROLD ALBERT DEAL	Tex.	Randleman
JOSEPH GADDY DEBERRY	M. E.	Mt. Gilead, R. 2
JOHN THOMAS DENNY, JR.	C. E.	Rennert
ROBERT ESTON DUNNING	Agr.	Aulander
WILMER SINGLETARY DUPREE	C. E.	Wilson
WILLIAM WALL ELLERBE	M. E.	Rockingham, R. 4
JOHN FRANKLIN ERVIN	E. E.	Catawba
PAUL KOONCE EWELL	M. E.	Elizabethtown
ISAAC WORTH FAIRES	Agr.	Charlotte, R. 11
DWIGHT MOODY FARMER	Agr.	Bailey, R. 2
RALPH POWELL FARRELL	Tex.	Leaksville
CLARENCE EDWIN FIELD	C. E.	Bamberg, S. C.
CLARENCE FISHER	Agr.	Battleboro
ROBERT SAMUEL FLIPPIN	M. E.	Pilot Mountain
AVERETTE GASTON FLOYD	Agr.	Fairmont, R. 1
ALVA JUSTIN FLOYD	C. E.	Fair Bluff
GILES PITTMAN FLOYD	M. E.	Fairmont, R. 3
JOHN ELLIOTT FORTESCUE	M. E.	Scranton, R. 1
JOSEPHUS COSTON FOSCUE	Agr.	Maysville
ALFRED JAY FOX	E. E.	Winston-Salem
WILLIAM FRANKLIN FREEMAN	C. E.	Norfolk, Va.
JOHN DAVID GILL	C. E.	Henderson, R. 4
JOHN BENNETT GORDON	Agr.	Raleigh
WILLIAM FRANKLIN GRAHAM	M. E.	Rennert, R. 1
HENRY DES'CHAMPS GREEN	Agr.	Hendersonville
LUTHER WILSON GREENE	Chem. Eng.	Norfolk, Va.
JOHN DWIGHT GROOME	Agr.	Greensboro, R. 3
JOSEPH DANIEL GROOME	Tex.	Greensboro, R. 3
ARMSTEAD ELIASON GUY	C. E.	Statesville

Name	*Course*	*Postoffice*
Alexander Caswell Hambrick	M. E.	Asheville
William Thomas Harding, Jr.	E. E.	Raleigh
Lera Rhinehart Harrill	Agr.	Lattimore
Ernest Baton Harris	C. E.	Spencer
Elliott Woodard Harris	E. E.	Seaboard
James Calhoun Harris, Jr.	Tex.	Anderson, S. C.
Charley Henry Herring	M. E.	Dillon, S. C.
Harry Thomas Hicks, Jr.	Chem. Eng.	Raleigh
William Norwood Hicks	M. E.	Durham, R. 4
Henry Selby Hill	E. E.	New Bern
James Oscar Holt	Tex.	Greensboro, R. 2
John Randolph Hudson	Tex.	Shelby
John Gates Huff	M. E.	East Bend
James Aubrey Hughes	E. E.	Portsmouth, Va.
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
Luther Jackson Jordan	C. E.	Elm City
Mandel Samuel Kadis	Chem. Eng.	Goldsboro
Frederick Rulfs Keith	Agr.	Currie, R. 2
Heath Owen Kennette	Tex.	Mooresville
Robert Morris Kimzey	Agr.	Horse Shoe, R. 1
Henry Jefferson Kinard	E. E.	Epworth, S. C.
James Hurdle King	C. E.	Portsmouth, Va.
Charles Person Kirby	Agr.	Selma
James William Kistler, Jr.	C. E.	Charlotte
Gladstone Leighton Kohloss	M. E.	Salisbury
Daniel Emmet Koonts	Agr.	Cooleemee
Raymond Warner Kraft	E. E.	Norfolk, Va.
Paul Frederick Lancaster	C. E.	Winston-Salem
John Hall Lander	C. E.	Greenwood, S. C.
Roy Batterham Lee	E. E.	Asheville
Leonidas Rosser LeGwin	C. E.	Wilmington
Charles Darwin Lemmond	M. E.	Charlotte
Hiram Samuel Lemmond	C. E.	Indian Trail
William Bennett Liles	Agr.	Lilesville
William Joseph Lucas	E. E.	New Bern
Robert Nooe McCall	M. E.	Charlotte
Harvey Ellis McComb, Jr.	Agr.	Hickory
James Alexander McCormac	M. E.	Dillon, S. C., R. 1
Bertram Augustus McCown	Agr.	Anderson, S. C., R. 6
John Alex. McIntyre	Agr.	Laurinburg, R. 3

Name	*Course*	*Postoffice*
Owen Clinton McKinnie, Jr.	M. E.	Winston-Salem
Arthur Frazier McLean	M. E.	Asheville
John Frank McLeod	Agr.	McBee, S. C.
Martin Alexander McRae	Tex.	Wadesboro
Jennings Brooks Mabry	E. E.	Shankle
Herbert Raymond Madry	Agr.	Scotland Neck
Edward Branham Manning	Tex.	Henderson
Lester LaFayette Marion	Agr. Chem.	Blountville, Tenn.
Hugh Lee Mauney	M. E.	Shelby, R. 5
Sidney Franklin Mauney, Jr.	Chem. Eng.	Old Fort
Frank Barnard Meacham	Agr.	Statesville, R. 6
William Redmond Mercer	E. E.	Tarboro
Harry Clyne Merritt	C. E.	Wilmington
Alonza Thomas Mial, Jr.	M. E.	Raleigh
William Thomas Midyette	Agr.	Lake Landing, R. 1
Robert Lathan Mills	Chem. Eng.	Mooresville
William Martin Monroe	Agr.	Lauringburg, R. 2
Thomas Gilbert Moody	C. E.	Waynesville, R. 2
James Wright Moore	E. E.	Trenton, S. C.
Eli John Morgan	Agr.	Benson
Joseph Atticus Morris, Jr.	C. E.	Oxford, R. 2
Paul Lyman Moses	Agr.	Higdonville
James Lloyd Nicholson	C. E.	Richlands
Koyt Samuel Nissen	M. E.	Winston-Salem
Harold Ernest Norwood	E. E.	Brevard
John Hugh Norwood, Jr.	C. E.	Norwood
James Gordon Olive	Agr.	Apex, R. 3
Dolphin Dunnaha Overton, Jr.	M. E.	Greenville
Channing Nelson Page	Agr.	Aberdeen
Charles Benjamin Park, Jr.	Agr.	West Raleigh
Thomas Needham Park	C. E.	West Raleigh
George Thomas Parker, Jr.	E. E.	Kelford
Walter Wellington Parker, Jr.	Chem. Eng.	Henderson
Earl Deaton Pasour	Agr.	Dallas, R. 1
Robert Dealer Patton	C. E.	Nebo, R. 1
Charles Fisher Paxton	Chem.	North Charlotte
Calvin Winchester Pegram	Agr.	Lincolnton
Nathaniel Dunn Peirson	C. E.	Enfield
George Torry Peoples	Tex.	Townsville, R. 1
John Evander Phillips, Jr.	M. E.	Cameron
Wesley Irwin Pickens	Tex.	Charlotte
Jack Dillard Piercy	E. E.	Andrews
Watson Odean Powell	E. E.	Portsmouth, Va.
Walter Newbern Poyner	E. E.	Grandy

Name	*Course*	*Postoffice*
Moses Kirkman Rankin	Agr.	Greensboro, R. 4
Rufus Pinkney Rankin	Tex.	Gastonia
James Dantzler Rast	E. E.	Camerson, S. C., R. 1
Charles Franklin Reisner, Jr.	Tex.	Salisbury
Colon Arthur Richardson	C. E.	Asheboro
Robert Millikan Richardson	C. E.	Greensboro, R. 3
John Franklin Rockett	E. E.	Randleman, R. 1
John Arvle Rudisill	Tex.	Rock Hill, S. C.
Edward Wolfe Ruggles	E. E.	Southern Pines
Sigfried Schafer	E. E.	Mount Airy
Felix Andrew Scroggs	Tex.	Charlotte
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
Craven Smith	Chem. Eng.	Wentworth
William Rufus Spainhour	M. E.	Wilkesboro
James Weldon Spratt	C. E.	Charlotte, R. 3
Charles Douglas Springs	Tex.	Waverly Mills, S. C.
Edward Ranson Spruill	M. E.	Elizabeth City
Richard Alexander Stanford	Agr.	Burlington, R. 1
William Weaver Starr	E. E.	Wilkesboro
William Little Steele, Jr.	Tex.	Rockingham
Matt Ransom Stephenson, Jr.	Agr. Chem.	Seaboard
Daniel Augustus Stevens	M. E.	Martins Point, S. C.
John Alexander Stewman, Jr.	M. E.	Lancaster, S. C.
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
Jesse Lee Thrower	C. E.	Entwistle
Richard Lee Townsend	E. E.	Manquin, Va.
Mebane Ewing Turner	M. E.	Winston-Salem
Richard Dent Turner	C. E.	North Wilkesboro
Eugene Pettigrew Tuttle	Agr.	Hickory, R. 2
John Francis Tuttle	C. E.	Lenoir
Friel Tate Vance	E. E.	Plumtree
James Preston Vaughn	Tex.	Raleigh
William Weaver Vaughn, Jr.	Tex.	Raleigh
Alexander Holloway Veazey	Agr.	Creedmoor, R. 3
John D. Wallace	E. E.	Laurinburg, R. 3
William Richard Wearn, Jr.	C. E.	Charlotte

Name	*Course*	*Postoffice*
HENRY HARWARD WEAVER	C. E.	Durham
CHARLES WHARTON WHITE	Tex.	Raleigh
WILLIAM BURGESS WHITE	Agr.	Olin
HERBERT LAFAYETTE WHITESELL	Agr.	Gibsonville
HOKE SMITH WHITESELL	E. E.	Gibsonville
BENTON WRAY WILLIAMS	M. E.	Angier
THOMAS SMITH WILLIAMS	C. E.	Buie
CHARLES REA WILSON	C. E.	Jackson Springs
HENRY WATSON WINGATE	C. E.	Gatesville
GEORGE MORGAN WOMBLE	C. E.	Raleigh
SIDNEY BADGETT WOOD	E. E.	Ashboro
BRADLEY LEE WOODALL	M. E.	Raleigh
ALBERT MACON WORTH	C. E.	Raleigh, R. 2
DAVID RALPH WRIGHT	E. E.	Hunting Creek

FRESHMAN CLASS

WILTON LEROY ADAMS	Agr.	Raynham, R. 1
WALTER HOWELL ALBERTSON	Tex.	High Point
DWIGHT MOODY ALEXANDER	Agr.	Matthews, R. 17
RICHARD BAXTER ALEXANDER	E. E.	Montreat
WILSON ALEXANDER	M. E.	Huntersville
CHRISTOPHER BLAKE ALLEN	E. E.	Raleigh
ETHAN ALLEN	E. E.	Biltmore
MARK CICERO ALLEN	Chem. Eng	Raleigh
SAMUEL ADOLPH ALLRED	Agr.	Staley
WILLARD ROY ANDERSON	Agr.	Mars Hill
FRANK MARSHALL ARMSTRONG	Chem. Eng.	Troy
EDWARD DENNY AUSTIN	Tex.	Greenville
ADOLPHUS TILLEY BALL	Agr.	Bahama, R. 1
BRUCE PALMER BARBER	C. E.	Reidsville
WILLIAM JACKSON BARBER	M. E.	Reidsville
WILLIAM HORACE BARNHARDT	Tex.	Harrisburg, R. 2
WILLIAM PLUMMER BATCHELOR	C. E.	Raleigh, R. 5
ROBAH FETUS BAYNES	Tex.	Hurdles Mill, R. 2
RICHARD TROY BEAL	M. E.	Nashville, R. 3
GEORGE HARRISON BECTON	Agr.	Goldsboro, R. 1
JOHN BELL, JR.	Agr.	Moncure, R. 2
LAWRENCE DUFFY BELL	E. E.	Pilot Mountain
WILLIAM GEORGE BELL	E. E.	Pineville
WILLIAM MURPHEY BETHUNE	E. E.	Clinton
EARL RAY BETTS	Tex.	Raleigh
JAMES RUSSELL BETTS, JR.	Agr.	Macon
JAMES ALBERT BLAKENEY	Agr.	Matthews, R. 17
WILLIAM HACKETT BLANTON, JR.	Tex.	Shelby

Name	*Course*	*Postoffice*
JOSEPH KELLEY BLUM	Chem. Eng.	Reidsville, R. 2
FITZHUGH LEE BONNER	E. E.	Aurora
THOMAS FRANKLIN BOSTIAN	M. E.	China Grove
GEORGE THORNTON BOSTIC	Tex.	Shelby
EDGAR FRANCIS BOUNDS	Agr.	Weldon
THADDEUS CARLYLE BRADLEY	E. E.	Old Fort
EDGAR THOMAS BRAME	C. E.	Kenly, R. 3
GAITHER COLUMBUS BRIGGS	E. E.	Waynesville
ROBERT EDWARD BRIMLEY	E. E.	Raleigh
ROBERT HOUSTON BROOM, JR.	E. E.	Morehead City
HERMAN HOOKER BROWN	Agr.	Hillsboro
JAMES MILTON BROWN, JR.	E. E.	Albemarle
JAMES VAN BROWN	M. E.	Arden
ANDREW MCMASTER BROWNING	Tex.	Hillsboro
DANIEL BUDISAVGEVICH	Agr.	Korenica, Serbia
ROBERT BURNS BULLARD	Agr.	Elrod, R. 1
WILLIAM TAYLOR BURGIN	Tex.	Old Fort
CHARLES ORMONDE BUTLER	M. E.	Wilmington
JULIAN BUTLER	Tex.	St. Pauls
BENJAMIN ZERO CAMERON	Tex.	Kinston, R. 1
LLOYD EDWARD CANADY	C. E.	Raleigh
MILES SMITH CARPENTER	Tex.	Gastonia
ROBERT LEE CARPENTER	C. E.	Charlotte, R. 11
WILBERT JAMES CARTER	Tex.	Wallace
BARRETT HOUSTON CHAMPION	M. E.	Lawndale, R. 1
YOUNG THOMAS CHEATHAM	Tex.	Henderson
NORWOOD BENNETT CHESNUTT	Agr.	Turkey
MARVIN DOUGLAS CLARK	C. E.	Charlotte, R. 4
IRVING ALLEN CLAY, JR.	M. E.	Clinton
THEODORE DEFOREST CLEMENT	E. E.	Brevard
WILLIAM STURGES COLLINS	E. E.	Middleburg
ELMER RANDOLPH COMMANDER	E. E.	Elizabeth City
EUCLID MONROE COOKE	Tex. Chem.	Graham, R. 2
JOHN BENNETT CORNWELL	Tex.	Chester, S. C.
ANDREW JACKSON CORPENING	Tex.	Worry
HAROLD OSCAR COVINGTON, JR.	Agr.	Laurinburg
EDWARD YOUNG COX, JR.	E. E.	Rocky Mount
JAMES LANGLEY CREWS	Tex.	Raleigh
RICHARD HALLAS CROCKFORD	M. E.	Charlotte, R. 5
ALONZO HARTWELL CROWELL, JR.	Tex.	Newton
CHARLES HOWARD CULPEPPER	M. E.	Portsmouth, Va.
WILLIAM MICHAEL CUMMINGS	E. E.	Reidsville, R. 2
HARRY BERNARD CURTIS	Tex.	Greensboro
LUCIAN JACKSON DALE	E. E.	Kinston

Name	*Course*	*Postoffice*
STANLEY LEON DAUGHTRIDGE	Agr.	Rocky Mount, R. 6
MERRYMAN ROSE DAVIS	Tex.	Charlotte
ROY WILSON DAVIS	Agr.	Beaufort
RALPH MACGILL DEAL	E. E.	Randleman
DOUGLAS WILLIAM DEBNAM	E. E.	Snow Hill
CLARENCE EVANS DEDMON	M. E.	Shelby, R. 6
OSCAR ELMORE FRANKLIN DELLINGER	E. E.	Conover
RICHARD SAMUEL DILL	M. E.	New Bern
HENRY DIXON	Tex.	Mebane
JOHN CLABORN DODSON	E. E.	Winston-Salem
SILAS COLIN DOUGHERTY	C. E.	Asheville
CLAUDE THOMAS DOUGHTON	Tex.	Laurel Springs
WILMOT CARLYLE DOUGLAS	E. E.	Princeton, W. Va.
HAROLD DAVIS DUKE	Tex.	Hamlet
HENRY EMERSON DUKE	M. E.	Durham
DEAN FRANKLIN DUNCAN	M. E.	Edwards Crossroads
SAMUEL MELVIN DURHAM	M. E.	Hillsboro
SAMUEL DAVIS DYSART	Chem. Eng.	Lenoir
NORMAN EDWARD EDGERTON, JR.	Tex.	Raleigh
FRED GRAHAM ELLIOTT	Agr.	Sanford, R. 4
MAURICE SHAW EMMART	Agr.	Winston-Salem
DEWEY LEE ENGLISH	Tex.	Monroe
WILLIAM JESSE EVERETT	C. E.	Plymouth
ARVLE FRANKLIN EVERHART	Tex.	Lexington
GEORGE GROSE FARRINGTON	Agr.	Charlotte
WILLIAM WARREN FAULKNER, JR.	E. E.	Brooksville, Fla.
JOHN FRANKLIN FERGUSON	E. E.	Littleton
SAMUEL JOSEPH FETZER	E. E.	Montreat
JAMES BARR FINK	Agr.	Glass, R. 1
CHARLES HAROLD FORBES	E. E.	Poplar Branch
ALVIN MARCUS FOUNTAIN	E. E.	Catharine Lake, R. 1
LYNWOOD MILTON FOWLKES	Tex.	Rockingham
WILFONG MCLEOUD FRAZIER	Agr.	Kings Creek, R. 1
EDGAR STRONG FREEMAN, JR.	M. E.	Raleigh
EDWARD MELTON FURLOUGH	E. E.	Columbia, R. 1
JAMES CLINTON GARNER	Agr.	Weldon
JAMES WALTER GENTRY	E. E.	Jefferson
GEORGE EVAN SMITH GLENN	C. E.	Gastonia
HERBERT SHIELDS GLENN	Tex.	Gastonia
THOMAS BASIL GLOVER	E. E.	Roanoke Rapids
GEORGE ROCKCO GOODING	Agr.	Bachelor
CHARLES BRYAN GRAHAM	Agr.	Sulphur Springs
EDGAR FORD GRAHAM	M. E.	Rennert, R. 1

Name	*Course*	*Postoffice*
JOHN CRAIG GRAY	Tex. Chem.	Wadesboro
JOSEPH LOGAN GREENLEE	C. E.	Old Fort, R. 1
CHARLIE WITT GUNTER	Tex.	Apex, R. 5
JAMES SAMUEL HALL, JR.	M. E.	Fayetteville
ROYALL ALBERT HAND	Tex.	Belmont
JOHN SHERROD HARRELL	Tex.	Scotland Neck
JOSEPH MANN HARRIS	Agr.	Louisburg
SCOTT GLENNARD HARRIS	E. E.	Hendersonville
ZEB MARION HARRY	E. E.	Gastonia
JAMES CZAR HARWELL	E. E.	Troutman, R. 1
WILLIAM BOOKER HAYNES	C. E.	Mt. Airy
JOHN DAWKINS HENRY	E. E.	North Wilkesboro
REENIE CLARENCE HERMAN	Agr.	Stanley
JOHN LELAND HIGGINS	C. E.	Jacksonville
ISAAC MIDDLETON HOBBS	Tex.	Clinton
GEORGE STERLING HOBSON	E. E.	Greensboro
ASHLEY HORNE	Agr.	Clayton
EXUM BOYD HORTON	Agr.	Raleigh
RAYMOND JOSEPH HOTCHKISS	C. E.	Raleigh
JACK HOWARD	Agr. Chem.	Denver, R. 2
JAMES OWEN HUBBARD	E. E.	Moravian Falls
JAMES TOWNSEND HUMPHRIES, JR.	E. E.	Moravian Falls
PAUL REVERE HYATT	E. E.	Waynesville, R. 1
BLAIR JENKINS, JR.	E. E.	Lincolnton
HENRY HAYNES JENKINS	Tex.	Henrietta
WILLIAM HARNEY JENNINGS, JR.	Chem. Eng.	Elizabeth City
IRENEUS PARHAM JETER	Tex.	Carlisle, S. C., R. 1
WILBURN CARR JOHN	M. E.	Lumber Bridge
JAMES WASHINGTON JOHNSON	Tex.	Weldon
MARLE LOVE JOHNSON	M. E.	Lumber Bridge, R. 1
THOMAS RUFFIN JOHNSON	Tex.	Goldsboro
GEORGE SHUFORD JOHNSTON	Tex.	Hickory
WILFRED IVEY JOHNSTON	Tex.	Charlotte
WILLIAM WILLIS JOHNSTON	E. E.	Weldon
CHARLES LEE JONES	Tex.	Lenoir
CICERO MAY JONES	Tex.	Rocky Mount, R. 3
CLARKSON JONES	Tex.	Little Switzerland
EVETT ASBURY JONES	E. E.	Earl
JAMES ADDISON JONES, JR.	Tex.	Charlotte
WRIGHT OSCAR JONES	E. E.	Fairmont
WALTER THOMAS JONES	Tex.	Lenoir
EVERETT THOMAS KEARNS	Agr.	Thomasville
LEROY MONROE KEEVER	E. E.	Lincolnton
JOHN WILLIAM KEYES, JR.	Tex.	Raleigh

Name	*Course*	*Postoffice*
Robert Bliss Keys	Agr.	Damascus, Va.
James Dinwiddie Kilgore	M. E.	Raleigh
Carl Dan Killian	Agr.	Hayesville
George Sidney King	E. E.	Wilmington
James Richard King	Tex.	Statesville
Marion Elmer King	E. E.	Fredericksburg, Va.
William Lee Kirksey	E. E.	Charlotte, R. 7
Moses Kiser	Agr.	Reepsville
Francis Wilson Kittrell	Chem. Eng.	Landrum, S. C.
Bruce Edward Lancaster	C. E.	Henderson, R. 4
Oliver Dockery Landis	Tex.	Charlotte
Lewis Burleyson Laughlin	Tex.	Concord
Thomas Smith Lee	Tex.	Charlotte
Thomas Alexander Leeper	C. E.	Belmont, R. 1
Charles Shandy Leigh	Tex.	Winston-Salem
Roy St. Clair Lewark	C. E.	Seagull
Joe Morris Lilly	Tex.	Norwood
Graydon Holmes Lineberry	E. E.	North Wilkesboro
Frank Bennett Looper	E. E.	Granite Falls
John Angus McAulay, Jr.	Tex.	Rockingham
Hubert Prentiss McCain	E. E.	Waxhaw
Richard Harry McComb	Tex.	Hickory
John George McGill	E. E.	Charlotte, R. 3
James Manley McGougan	Agr.	Lumber Bridge
George Carl McKee	C. E.	Belmont, R. 1
William Gordon McKoy	C. E.	Old Fort
Roy Crump McNairy	E. E.	Kinston, R. 3
Kenneth McNeill	Tex.	Fayetteville
John Clifford Mabry	M. E.	Shankle
Joseph Emerson Maddox, Jr.	E. E.	Greensboro
Dewey Fleenor Marion	M. E.	Raleigh
Henry Heath Massey	Tex.	Waxhaw
Ralph Faison Matthews	E. E.	Raleigh
Ben Heber Maynard	E. E.	Apex
Samuel Willard Mendenhall	Agr.	High Point, R. 2
George Michael Meyer, Jr.	E. E.	Charlotte
Wilton Clements Mock	Agr.	Damascus, Va.
George Walker Mong	C. E.	Goldsboro
Fred Bethune Monroe	Agr.	Biscoe
Lloyd Malcolm Monroe	C. E.	Biscoe
Ernest Waldo Moore	E. E.	Rural Hall, R. 2
John White Moore	M. E.	Mooresville
Roy Wilson Morris	Tex.	Gastonia
Hugh Maxwell Morrison	C. E.	Concord, R. 1

Name	*Course*	*Postoffice*
MIODRAG MRSHEVITCH	Agr.	Usitze, Serbia
ROBERT CAMPBELL MURPHY	Agr.	Atkinson, R. 1
ROBERT ALEXANDER MUSGROVE	M. E.	Weldon
JAMES DEWEY MYERS	Agr.	Hoffman
CLYDE NEWELL NEELY	E. E.	Charlotte, R. 11
JOHN BOONE NELSON	Tex.	Lenoir
WILLIAM THEO NEWCOMB	E. E.	Henderson
SAMUEL GRAY NEWLIN	Tex.	Randleman
CHARLES EDGAR NEWSOM	Tex.	Raleigh
JAMES TOWNSEND NOLAND	E. E.	Waynesville, R. 2
THOMAS LETSON NOOE	C. E.	Pittsboro
CYRIL WARREN NORMAN	E. E.	Plymouth
BONNIE FRANK NORRIS, JR.	M. E.	Gastonia
LAWRENCE DAY NUCHOLS	Tex.	Charlotte
THOMAS WASHINGTON O'KELLY, JR.	Tex.	Raleigh
LEWIS BEAR PAKULA	E. E.	Raleigh
CYRUS COLON PARKER	E. E.	Aulander
WILLIAM WAITT PARKER	E. E.	Raleigh
HARRY PASMAN	Chem. Eng.	New Bern
ALDEN BRYAN PEARSON	M. E.	Bradentown, Fla.
CHARLES PEARSON, JR.	C. E.	Bradentown, Fla.
WILLIAM LESTER PHELPS	Tex.	Creswell
SHETTON REED POOLE	Agr.	Jackson Springs, R. 1
HERMAN BRITTON POPE	E. E.	Goldsboro
EDWIN LEROY PRIDGEN	E. E.	Tabor
ROY MAXWELL PROFFITT	M. E.	Bald Creek
RALPH QUERY	C. E.	Richmond, Va.
LUTHER EUGENE RAPER	Agr.	Welcome, R. 1
DAVID WILBUR RAY	E. E.	Clinton
HARDY MURFREE RAY	E. E.	Raleigh
HAZEL EMMET REA	Tex.	Matthews, R. 27
PAUL VERNON REDD	Tex.	Maysville, R. 2
GEORGE HOWARD REDFEARN	M. E.	Biltmore, R. 1
MARCUS LAFAYETTE REED, JR.	M. E.	Asheville, R. 2
JOSEPH STUBBLEBINE REINHARD	Agr.	Newton
HENRY WILBAR RHODES	M. E.	Comfort
CONLEY JEREMIAH RICH	Agr.	Asheville, R. 4
JOSEPH ASHER RICKARDS	M. E.	Ocean View, Del.
THOMAS PURDIE RICHARDSON, JR.	E. E.	Lilesville
WADE HAMPTON RITCHIE	Agr.	Concord, R. 4
WILLIAM HUGH ROBERSON	Agr.	Robersonville, R. 1
MANGUM MARTIN ROBERTS	Tex.	Shelby
THOMAS KESLER ROBERTS	C. E.	Red Springs
JOHN ROBERTSON, JR.	E. E.	Raleigh

Name	*Course*	*Postoffice*
Lee Tillery Robertson	E. E.	Roanoke Rapids
Joseph Jackson Rogers	E. E.	Seaboard
Walter Hubert Rogers	Agr.	Hurdle Mills, R. 2
Hubert Royal	Agr.	Clinton, R. 3
William Jennings Russell	E. E.	Albemarle
Joseph Judson Sanders	Agr.	Smithfield, R. 1
William Stanback Scales	Chem. Eng.	Rockingham
Herbert London Seagrove	Agr.	Vass
Vene Phillip Shepardson	Agr.	Belhaven
Joe Elliott Sherrill	Tex.	Hickory
William Franklin Shipman	Tex.	Raleigh
Joe Luther Shuping	E. E.	Morganton, R. 4
Isaac Silverman	M. E.	Wilmington
Lawrence Glenn Simmons	C. E.	Asheville
Joseph Stanton Skeen	Tex.	Ashboro
Walter Thomas Sledge	Tex.	Fair View
Clyde Forehand Smith	Agr.	Rich Square
Duncan L. Smith	Tex.	St. Pauls, R. 3
Frederick William Smith	Agr.	Mt. Airy
Lloyd B. Smith	E. E.	Granite Falls, R. 2
Pelham Eugene Smith	Tex.	Cooleemee
Roy Edwin Smith	M. E.	Benson
Thomas Jacob Smith	Tex.	Trenton, S. C., R. 1
William Thomas Smith	Agr.	Laurinburg
William Franklin Snider, Jr.	Tex.	Salisbury
John Roger Spier	Agr.	Ayden, R. 1
Amos Morehead Stack, III	Tex.	Monroe
Royal Clementine Stephenson	C. E.	Raleigh
Julian Byrd Stepp	E. E.	Black Mountain
Daniel Elmond Stewart	E. E.	Coats
William Denny Stockton	Tex.	Mocksville, R. 2
Hernay Elton Stout	M. E.	Siler City
Joseph Arnold Stradley	E. E.	Asheville
William Hunter Strong	Agr.	Raleigh
Eugene Frank Strupe	Agr.	Tobaccoville, R. 1
George Joseph Studdert, Jr.	C. E.	Norfolk, Va.
Leoleon Douglass Styron	E. E.	Morehead City
Patrick McClellan Sullivan	E. E.	Savannah, Ga.
Timothy Wyatt Suttenfield	Tex.	Leaksville, R. 1
Hugh Haynes Tate	Chem. Eng.	Old Fort
Matthew Lee Tatum	Agr.	Fayetteville, R. 3
Jesse Powell Tayloe	Agr.	Aulander
Perry Nichols Taylor	Agr.	White Plains
Joseph Earl Teague	Chem. Eng.	High Point

Name	*Course*	*Postoffice*
MASON PAGE THOMAS	Tex.	Charlottesville, Va.
NORMAN HOPKINS THOMAS	E. E.	Greensboro
JOSEPHUS IRA THOMASON, JR.	C. E.	Greensboro
DEWEY WALTERS THOMPSON	C. E.	Richlands, R. 1
BRUCE PENNINGTON TILLERY	Tex.	Roanoke Rapids
JAMES WILLIAM TOLAR	Tex.	Cedar Grove, R. 2
SAMUEL STEVENS TOLER	M. E.	Rocky Mount
DANIEL EARLE TOWNSEND	Agr.	McDonald
REYNOLD BRUNER TUCKER	Agr. Chem.	Raleigh
JAMES LEWIS TURNAGE	E. E.	Wilson's Mills
WILEY LUDWIG UMBERGER	Agr.	Concord, R. 3
ROBERT WARD UNDERWOOD	M. E.	Durham
DAVID BRAINERD VANSANT	M. E.	Chestertown, Md., R. 3
ROBERT EDWARD VICK	Agr.	Seaboard
CHARLES EDWARD WALKER	E. E.	Spray
EUGENE LITTLE WALL	Agr.	Pee Dee, S. C., R. 1
JAMES LESTER WALL	Agr.	Edgar
ROBERT WALTER WALLACE, JR.	E. E.	Morehead City
THOMAS STEEL WALLIS	Agr.	Arden, R. 1
WILLIAM GRAHAM WARE	Tex.	Kings Mountain, R. 4
CHARLES HENRY WARREN	Agr.	Lenoir
JESSE WASHBURN	Tex.	Shelby
ROBERT PEEBLES WEBB	Agr.	Hillsboro
HARRY SWAIN WEBSTER	M. E.	Weaverville
JOHN KENDLE WELLS, JR.	M. E.	Middleburg
WILLIAM STARLING WELLS	E. E.	Morehead City
FRED DEWEY WEST	E. E.	Greenwood, S. C.
WILLIAM LOVE WEST, JR.	M. E.	Norfolk, Va.
JOHN DONNELL WHARTON	Agr.	Gibsonville, R. 2
WILLIAM HERBERT WHISNANT	E. E.	Shelby
CHARLES MAYFIELD WHITE, JR.	C. E.	Manson, R. 1
GEORGE WILLIAM WHITE	Tex.	Raleigh
THOMAS ARLINGTON WHITE	Agr.	Aulander, R. 1
WILLIAM AMBRO WHITE	Tex.	Edenton
WILLIAM DUNLOP WHITE	C. E.	Burlington
WILLIAM WALLACE WHITE	M. E.	Manson, R. 1
JOHN WESLEY WHITEHEAD	E. E.	Morehead City
JOHN SUMMIE WHITENER	C. E.	Hickory
ALFRED WILLIAMS, JR.	Tex.	Raleigh
CLAUDE BAXTER WILLIAMS	Tex.	Lincolnton
THOMAS CONRAD WILLIAMS, JR.	E. E.	Essex
DEWEY LEE WILLIAMS	Tex.	Lincolnton
CLYDE GORDON WILLIS	E. E.	Morehead City
PHILIP AUGUSTUS WILLIS	M. E.	New Bern

Name	*Course*	*Postoffice*
SAMUEL EUGENE WILSON	Agr.	Louisburg, R. 5
GEORGE LUTHER WINCHESTER	Agr.	Summerfield, R. 2
JAMES FREDERICK WOOTEN	M. E.	Chadbourn
MONZON LONG WORSHAM	Agr.	Cornelius
THOMAS ELMORE WRAY	Tex.	Reidsville
ROBERT HAIDTAWAY WRIGHT, JR.	C. E.	Andrews
WINFRED DENNING YARBORO	Agr.	Hope Mills, R. 2
JAMES CARPENTER YOUNG	M. E.	Mooresville

FIRST-YEAR MECHANIC ARTS

Name	*Postoffice*
DAVID SANDER AVERA	Smithfield, R. 1
NATHAN SHOCKENCY BENHAM	Graham
JOHN MCKOY BLUE	Raeford
EVERETT WRIGHT BURGESS	Elizabeth City
WILLIAM HENNY CAPELL, JR.	Weldon
JOSEPH JONATHAN DAVIS	Stovall
JOHN THOMAS FAUCETTE	Raleigh
WILLIAM MALCOLM FOWLER	Duke, R. 2
HARRY GRAYSON GOOD	Rutherford College
WILLIAM CAMPBELL HAYES, JR.	Kinston
JESSIE VANN HOLLOMAN	Aulander, R. 3
ARTHUR ALLEN LOFTIN	Trenton
GEORGE LEWIS ODOM	Laurinburg
VIRGINIUS BODDIE PERRY	Littleton
JAMES MARION PICKELL, JR.	Raleigh
WADE PERRY RENFROW	West Raleigh
WALTER ARMSTEAD SPICER	Stovall
EDWIN EARLY ROBBINS	Raleigh
WALTER CLEMONS TUCKER	Raleigh
BONNER LEE WILKINSON	Belhaven, R. 1
WILLIAM BENNETT WILLIAMS	Wadesboro

SECOND-YEAR MECHANIC ARTS

PHILIP MCKEE ADAMS	Raleigh
EDWARD RINEHART KINARD	Ninety Six, S. C., R. 1
JAMES WALLACE PAYNE	Ninety Six, S. C.

FIRST-YEAR TEXTILE

LEDEWEY ELLIS ALLEN	Gibsonville
LAURENCE BARRETTE	Fayetteville
HOWARD MILTON HILLIARD	Asheboro
ROBERT RILEY JOHNSON	Bessemer City

Name	*Postoffice*
CHARLES LEE JONES	Lenoir
ANDREW MAITLAND JOYNER	Woodville
SAMUEL CORUM PHARR	Harrisburg, R. 2
EUGENE SYDNOR SPAINHOUR	Wilkesboro

SIXTEEN-WEEKS AGRICULTURE

FLOYD MAXTON BUCHANAN	Greensboro, R. 2
BRUTUS CORNELIUS	Troutman, R. 1
LINDSEY ENNIS	Duke, R. 2
JOHN GILES FLEMING	Woodleaf
WILLIE WILLIAM GRIFFIN	Seven Springs
WILLIAM JENNINGS MCCRAREY	Clyde, R. 1
BEN FRANK MCGREGOR, JR.	Laurinburg, R. 1
OSCAR HUGH PHILLIPS	Salisbury, R. 6
HOYLE EDGAR REAP	Albemarle, R. 5
OWEN DEWEY RIVENBARK	Watha, R. 2
CLAY CARTER STUDDERT	Norfolk, Va.
JOEL LOFTIN SUTTON	Kinston, R. 6
WILLIAM WEST	Asheville

SPECIAL COURSES

OSCAR DIXON BAXTER	Chemistry	Raleigh
JIM KENNEY DALE	Chemistry	Fort Smith, Ark.

ONE-YEAR AUTO

CHARLES CLIFTON ADAMS	Purvis
ANDREW BAXTER BAILES	Pineville
FRED LEE BEAMER	Mt. Airy, R. 3
ROY EDWARD BENSON	Battleboro, R. 1
CLYDE WILLIAM BOYLES	Raleigh
WALTER A. DAVIS	Elkton
JOHN EDWARD FARRIOR, JR.	Rose Hill, R. 3
EDWARD ALBERTSON FLORA	Elizabeth City
CHARLES ARMFIELD GROOME	Greensboro, R. 3
WARREN HALL, JR.	Hampton, Va.
JULIUS MUSE HEALY	Streets, Va.
LACY DAVID KIRKMAN	Randleman
JOHN EWART KNIGHT	Gastonia
RAIBE LEWIS	Fairmont, R. 3
CHARLES HENDERSON MICHAUX	Worry
FRANK PIERCE MONTGOMERY	Wilmington
REGINALD LEE OVERMAN	Stantonsburg

Name	*Postoffice*
George Thomas Riddick	Belhaven
Will Stackhouse, Jr.	Marion, S. C.
Alonza Thain Watson	Fayetteville
Ward Herman Yoder	Hickory, R. 1

ONE-YEAR AGRICULTURE

George Henry Williams Baker	High Point, R. 3
Ernest Banks Cochran	Newell, R. 1
James Strudwick Compton	Cedar Grove, R. 1
Sam Morgan Cooper, Jr.	Ninety Six, S. C., R. 1
Simon Parrott Jackson	Kinston, R. 4
Victor Blue McCallum	Rowland
Paul Weston Majette	Como
William Luther Medley	Battleboro, R. 1
Artemus Blue Pate	Raynham
Thomas Reuben Scott	Reidsville, R. 4

SECOND-YEAR TEXTILE

William Joseph Butler	St. Pauls

THREE-WEEKS COURSE IN AGRICULTURE

John Blick Alexander	Mooresville, R. 3
Martin Clinton Auman	High Point, R 1
Marv'n Eugene Ball	Bahama, R. 2
Eli Barnes	Lucama
Victor O'B. Blaylock	Roxboro, R. 1
Reuben Taylor Bunn	Spring Hope, R. 2
Espy Mack Cannon	Concord, R. 1
Alfonso Pettigrew Chamblee	Middlesex, R. 2
Urbane Chamblee	Middlesex, R. 2
James Thomas Clark	Littleton, R. 1
Laurie Howard Ellis	Winterville
Jasper Young Hamrick	Boiling Springs
Joseph Lee Harmon	Moncure, R. 2
John Henry Harper	Louisburg, R. 6
Duncan Franklin Holder	Broadway, R. 2
Loyd Burton Karriker	Mt. Ulla, R. 1
Walter Samuel Kestler	Davidson, R. 24
Weaver William Landrum	Cullasaja
Claud Monroe McCain	Waxhaw, R. 2
William Raford McCain	Waxhaw, R. 2

Name	*Postoffice*
Reuben Ernest McGougan	Rennert, R. 1
Claudius Mintz	Ash, R. 2
Murdock Alton Saunders	Burgaw, R. 2
Albert Gutlobe Seiter	Wilmington, R. 1
James Spencer Shelton	Yanceyville, R. 1
John Tolliver Smith	Columbus
Willoughby Thomas Spence	Kipling, R. 1
Alonza Hanby Walker	Reidsville, R. 1
Robert Pharr Walthall	Concord, R. 6
Nathaniel Elton Watson	Lucama
Carvie Wilder	Middlesex, R. 2

REHABILITATION STUDENTS

Name	*Course*	*Postoffice*
Benjamin Blaine Absher	Eng.	Austin, R. 1
Avery Columbus Anderson	Agr.	Lenoir
Roy Jefferson Anderson	Agr.	Climax, R. 1
Jesse Oscar Anthony	Agr.	Belew Creek, R. 1
George Elam Arney	Agr.	Lenoir, R. 5
Henry Lee Austin	Agr.	Unionville, R. 2
Lewis Slocumb Autry	Agr.	Autryville, R. 1
Burrell Benjamin Barbee	Agr.	Concord, R. 2
Alex. Frank Barbrey	Eng.	Goldsboro
Robert Bela Beach	Tex.	Gastonia
Stewart Beacher Beachum	Agr.	Polkton, R. 2
Luther Lamar Belk	Auto	Monroe, R. 8
Bracknel Arthur Benfield	Agr. (Soph.)	Crossnore
John Wesley Bentley	Auto	Kannapolis
Thomas David Blake	Agr.	Fairfield
Dyar Columbus Blalock	Agr.	Timberlake, R. 2
Gerald Raeden Blount	Agr.	Mackey's
John Elisha Boone	Agr.	Pittsboro
Hasel Oren Boyd	Chem. Eng.	Goldsboro, R. 4
Thomas Branch	Agr.	Kernersville, R. 4
Earley Windred Bridges	Eng.	Wakefield, R. 1
Thomas Wayne Bridges	Agr.	Mooresboro
Ernest Britt	Eng.	Lumberton, R. 4
Herbert Mitchell Brown	Agr.	Greensboro, Denim
James Arthur Bruce	Agr.	Randleman, R. 1
Thomas Newton Bryson	Agr.	Cullasaja
John Duncan Bullard	Agr.	Parkton
Ralph Roland Burrows	Farm Mech.	Allen, R. 1
Joseph Eli Bush	Tex.	Greensboro, Denim
Ernest Fiddillie Capps	Agr.	Hendersonville, R. 4

Name	*Course*	*Postoffice*
THOMAS VANN CARPENTER	Agr.	Peachland
CLAUDE CORNELIUS CASH	Agr.	Atanta, Ga.
JESSE BIRT CHAMPION	Eng.	Henderson, R. 6
BENJAMIN O. CHATHAM	Agr.	Fairview, R. 1
JOHN HOYTE CLINE	Agr.	Lawndale
ELBERT DANIEL CODY	Agr.	Misenheimer
JAMES GRADDY COLLUM	Agr.	Council, R. 2
JOHN CONNER	Agr.	Fairview
WILLIAM LEROY CROSBY	Eng.	Asheville
THOMAS DANIELS	Eng.	Culberson, R. 1
HARRY LEE DAVIS	Eng.	Kinston
WILLIAM LEE DAVIS	Agr.	Carthage
MILLARD CHARLES DAWSON	Agr.	Ulah
PLEASANT LEROY KLUTTZ DEATON	C. E. (Sen.)	Statesville, R. 1
DUNCAN JENNINGS DEVANE	Agr.	Wilmington
HARRY DOUGLAS DOYLE	Auto	Winston-Salem
ANDREW OSBON EAKER	Tex.	Shelby
MARION GASTON EAKER	Agr.	High Point
LIEU DERAIN ERTEL	Agr.	Morrow, Ohio., R. 1
WOODIE EUBANKS	Agr.	Lumberton, R. 1
GRADY EVANS	Agr.	West Asheville
WILLIAM MARSLENDER EVETT	Agr.	Blounts Creek, R. 1
JAMES ELIAS FAISON	Spec. Agr.	Faison
WILLIAM CLAUDE FERGUSON	C. E. (Fresh.)	Vass, R. 1
HOY LEE FISHER	C. E. (Fresh.)	Rockwell, R. 2
FRED GUY FLEMING	Agr.	Creedmoor
FRANK CARTER FLOYD	Agr.	Rocky Point
FRANK JAMES FLYNN	Agr.	Uree, R. 2
CLAUDE GETTYS	Agr. (Fresh)	Hollis, R. 1
CHARLIE IRVIN GIBSON	Tex.	Henderson
JOHN HENRY GILL	C.E. (Fresh.)	Henderson, R. 4
JULIAN AUSTIN GLAZENER	Agr. (Soph.)	Calvert
EUGENE GRIFFIN	Auto	Raleigh
WILLIAM FRANKLIN HACKNEY	Agr.	Scotland Neck, R. 2
JOHN HENRY HARRELL	Agr.	Goldsboro, R. 1
ALBERT BERTIE HARRELSON	Agr.	Tabor
THOMAS ALEX. HARRINGTON	1st Yr. M. A.	Broadway, R. 2
BERNIE POPE HARRIS	Tex.	Henderson
CLAUDE HARRIS	Agr.	State Road, R. 2
CLAUDE EDMUND HARRIS	1st Yr. M. A.	Macon, R. 2
EDWARD HELMS	Agr.	Monroe
HUSTON HENDERSON	Agr.	Jennings, R. 2
ALVIN E. HERMAN	Tex.	Catawba
JAMES EDGAR HICKS	Agr.	Marion, R. 1

Name	*Course*	*Postoffice*
HENRY CLAY HOBBS	Tex.	West Durham
TROY BASCOM HONEYCUTT	Tex.	Oakboro, R. 1
FOREST HUMBLE	Tex.	Spartanburg, S. C.
FRED MCKINLEY HYATT	Agr.	Weaverville
JAMES EDWARD JENKINS	Eng.	Parmele
ERVIN MONROE JOHNSON	Agr.	Lillington, R. 1
JUNIUS ALLEN JOHNSON	Eng.	Smithfield, R. 1
DAVID LOY JONES	Agr.	Alexis, R. 1
TILLMAN WASHINGTON JONES	Auto	Franklin
NASH RAY JOYNER	Agr.	Greenville, R. 6
JAMES ESLEY LANDRETH	Eng.	Salisbury
DALLAS REECE LANGLEY	Agr.	Randleman, R. 2
ISAAC LEWIS LANGLEY	Tex.	Barnwell, S. C.
MELVILLE GRAY LASSITER	Agr.	Henderson, R. 6
RUPERT BERNARD LEE	Agr.	Benson, R. 2
BENNIE EDGAR LEWIS	Agr.	Zebulon
GLAUCUS WINER LEWIS	Agr.	Enfield, R. 1
HARVEY E. MCLAURIN	Agr.	Fayetteville, R. 2
NEILL JAMES MCMILLAN	Agr.	Manchester
BERT MASH	Auto	Othello
LORENZO DOWELL MASSEY	Agr.	Mt. Olive, R. 7
ROMULUS HAYWOOD MASON	Eng.	Scranton
ANDREW ASHFORD MATHES	Auto	Marion
ERNEST ALFRED MELIN	Agr.	Stamford, Conn.
JESSE CLYDE MERRITT	Auto	Rose Hill, R. 3
CHARLES ROSS MEYERS	Tex. (Soph.)	Newark, N. J.
HARLIE ABEL MILLER	Agr.	Lenoir, R. 2
ELIS FLEET MILLSAPS	Agr.	Hiddenite, R. 1
ANDREW LEE MONROE	E. E.	Monroe
MARION MOODY	Agr.	Erastus
JOHN WHEELER MOORE	Agr.	Williamston, R. 2
WILLIE ELEXANDER MOSER	Eng.	Mt. Airy
SAMUEL ANDREW MYERS	Trade Try-out	Thomasville, R.3
CLAUD JONES NEEDHAM	Agr.	Old Trap
GEORGE DAVID NEWTON	C. E.	Hope Mills
LENNIE LESTER PARKER	M. A.	Maysville, R. 1
MARSHALL LEAK PARSONS	Eng.	Norwood
HERBERT PENDER	Eng.	Selma, R. 3
THAMAR ESPRON PROPST	Agr.	Morganton, R. 4
WILLIAM RANDOLPH PUGH	Auto	Liberty, R. 1
SETH PUTNAM	Agr.	Grover, R. 2
FRANKLIN R. QUINN	Agr.	West Asheville, R. 3
ROBERT CLAYTON RAGAN	Auto	Othello
EMORY LEE RAY	Agr.	State Road, R. 1

Name	*Course*	*Postoffice*
THOMAS ELSOM ROBERTSON	Eng.	Zebulon, R. 3
CARL ROCHE	Auto	Hudson, Mass.
JAMES WALTER ROLLINS	Agr.	Randleman, R. 2
RUFUS FREDERICK ROUTH	Agr.	Randleman, R. 2
JOHN PERRY RYALS	Agr.	Benson, R. 2
EDGAR MANTON SATTERTHWAITE	Agr.	Ransomville, R. 1
GRAHAM LANE SAVAGE	Agr.	Clarkton, R. 3
WALTER RALEIGH SHEPPARD	Agr.	Washington, R. 4
LUCIAN ROSCOE SHERRILL	Auto	Davidson, R. 2
EMMITT BRAXTON SHERRON	Agr.	Youngsville, R. 3
THOMAS BAXTER SIMPSON	Agr.	Waxhaw, R. 2
MARK HENRY SMITH	Agr.	Kannapolis, R. 2
WILLIAM MULLINGTON SMITH	Agr.	Whiteville, R. 1
FRANK BENTLEY SPURLOCK	Agr.	Chattanooga, Tenn.
ERNEST RAY STEWART	Agr.	Stony Point, R. 1
ERNEST ASBURY STONE	Tex.	Greenville, S. C.
JESSE LAWRENCE STUTTS	Auto	Star
VESTAL COLUMBUS TAYLOR	Agr. (Fresh.)	Ararat, R. 1
ALBERT HUMPHREY TOMPKINS	C. E. (Soph.)	Newnan, Ga.
CHARLES BERNARD TORRENCE	Agr.	Mt. Ulla, R. 2
WILLIAM ALEXANDER VAUGHAN	Agr.	Cumberland
JOHN CRAFORD WADKINS	Agr.	Entwistle
HARVEY WALKER	Agr.	Olin
ALPHONSE DEKALB WALLACE	Agr.	Batesburg, S. C., R. 2
WADE CLINGMAN WATKINS	Tex.	Asheville, R. 5
BALLON MABRY WATTS	Agr.	Nakina
CHARLES PARISH WEAVER	Agr.	Durham
PETER ANCELL WEBB	Tex.	Winston-Salem
MCKINLEY WHITE	Agr.	Kinston
GLENN ROBERT WILKINSON	Tex.	Durham
JOHN DANIEL WILL, JR.	Eng.	Raleigh
WILEY HINTON WILLIAMS	Eng.	Washington, R. 3
ROBERT BRUCE WILSON	M. A.	Newton Grove
SEWARD JOHNSON WILSON	Agr.	Spray
EDWARD DANDY WINSTEAD	Eng.	Wilson
NICKOLAS MONROE WRIGHT	Eng.	Marshall, R. 4
MOSE LEE WYATT	Auto	Granite Quarry

SUMMER SCHOOL FOR DEMONSTRATION AGENTS

August, 1919

C. R. HUDSON, State Agent, Department of Agriculture, Raleigh, N. C.
H. H. B. MASK, Assistant State Agent, Department of Agriculture, 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.
N. B. STEVENS, Eastern District, Wilson, N. C.
O. F. MCCRARY, Northeastern District, Washington, N. C.

COUNTY AGENTS

County	*Name*	*Postoffice*
ALAMANCE	J. P. Kerr	Haw River
ALEXANDER	U. A. Miller	Taylorsville
ANSON	J. W. Cameron	Polkton
AVERY	J. W. Goodman, Jr.	Newland
BEAUFORT	H. H. Lawley	Washington
BERTIE	J. C. Anderson	Washington
BLADEN	R. K. Craven	Clarkton
BRUNSWICK	H. L. Miller	Shallotte
BUNCOMBE	E. D. Weaver	Weaverville
CABARRUS	R. D. Goodman	Concord
CALDWELL	D. W. Roberts	Lenoir
CAMDEN	J. W. Nyegaard	Camden
CARTERET	Z. T. Koonce	Beaufort
CASWELL	J. W. Williamson	Yanceyville
CATAWBA	J. C. Phelps	Newton
CHATHAM	R. L. Edwards	Pittsboro
CHEROKEE	J. H. Hampton	Murphy
CHOWAN	N. K. Rowell	Edenton
CLAY	John Deal	Hayesville
CLEVELAND	R. M. Gidney	Shelby
COLUMBUS	J. T. Lazar	Whiteville
CUMBERLAND	J. W. Brockington	Fayetteville
CRAVEN	H. E. Nelson	New Bern
CURRITUCK	J. E. Chandler	Currituck
DAVIDSON	W. G. Yeager	Lexington
DAVIE	W. F. Reece	Mocksville
DUPLIN	O. W. Collins	Kenansville

County	*Name*	*Postoffice*
DURHAM	O. H. Stanard	Durham
EDGECOMBE	Zeno Moore	Whitakers
FORSYTH	R. W. Pou	Winston-Salem
FRANKLIN	C. H. Stanton	Louisburg
GASTON	C. L. Gowan	Gastonia
GRAHAM	R. W. Gray	Robbinsville
GRANVILLE	J. L. Dove	Oxford
GUILFORD	S. R. Bivens	Greensboro
HALIFAX	F. G. Tarbox	Enfield
HARNETT	J. C. Anthony	Lillington
HENDERSON	Frank Fleming	Hendersonville
HERTFORD	E. W. Gaither	Winton
HYDE	Jesse Murray	Swan Quarter
IREDELL	J. A. Arey	Statesville
JACKSON	J. C. Brammer	Sylva
JOHNSTON	A. M. Johnson	Smithfield
JONES	E. F. Fletcher	Trenton
LEE	R. R. McIver	Sanford
LENOIR	R. V. Hood	Kinston
LINCOLN	W. L. Smarr	Lincolnton
MCDOWELL	J. L. Thruman	Marion
MACON	R. P. McCracken	Franklin
MADISON	E. D. Bowditch	Marshall
MARTIN	J. L. Holliday	Williamston
MECKLENBURG	Charles E. Miller	Charlotte
MITCHELL	J. W. Lindley	Bakersville
MONTGOMERY	E. B. Garrett	Troy
MOORE	H. S. Poole	Pinehurst
NASH	G. D. Burroughs	Nashville
NEW HANOVER	J. P. Herring	Wilmington
NORTHAMPTON	M. W. Wall	Jackson
ONSLOW	D. L. Latham	Jacksonville
ORANGE	E. S. Vanatta	Hillsboro
PASQUOTANK	G. W. Falls	Elizabeth City
PENDER	R. T. Melvin	Burgaw
PERQUIMANS	L. W. Anderson	Hertford
PERSON	L. C. Herring	Roxboro
PITT	J. E. Dodson	Greenville
POLK	J. R. Sams	Columbus
RANDOLPH	D. S. Coltrane	Asheboro
RICHMOND	J. G. Lawton	Rockingham
ROBESON	O. O. Dukes	Lumberton
ROWAN	S. S. Stabler	Salisbury
ROCKINGHAM	F. S. Walker	Reidsville

Name	*Course*	*Postoffice*
RUTHERFORD	C. C. Proffitt	Rutherfordton
SAMPSON	H. L. Boyd	Clinton
STOKES	J. H. Speas	Danbury
SURRY	Ewing Millsaps	Dobson
TRANSYLVANIA	R. E. Lawrence	Brevard
UNION	T. J. W. Broom	Monroe
VANCE	G. W. Goodwon	Henderson
WAKE	W. H. Chamblee, Jr.	Wakefield
WARREN	J. W. Bason	Warrenton
WASHINGTON	R. W. Johnston	Plymouth
WAYNE	A. K. Robertson	Goldsboro
WILKES	A. G. Hendren	Straw
WILSON	B. T. Ferguson	Wilson
YADKIN	M. W. Mackie	Yadkinville
YANCEY	F. E. Patton	Burnsville

SUMMARY

By Classes

Graduate	25
Senior	86
Junior	101
Sophomore	230
Freshman	343
Short Courses:	
Mechanic Arts, 2 years	24
Textile, 2 years	9
Winter Course in Agriculture	31
Automobiles	21
Sixteen Weeks Agriculture	15
One Year Agriculture	10
Rehabilitation	154
Total	1049

By Courses

Agricultural, including short courses	359
Chemical	38
Civil Engineering	116
Mechanical Engineering, including short courses	174
Electrical Engineering	171
Textile, including short courses	169
Special, Rehabilitation Engineering	22
Rehabilitation	
Total	1049

School for Demonstration Agents	93
Summer School	474

REGISTER OF GRADUATES

Name — *Degree* — *Address*

CLAUD SHUFORD ABERNETHY....B.E. 1916....Hickory, N. C.
Member of firm, Abernethy Hardware Co.

DURANT STEWART ABERNETHY....B.E. 1906....Chattanooga, Tenn.
Executive General Agent, Southern Railway System

LEROY FRANKLIN ABERNETHY....B.Agr. 1905....Hickory, N. C.
Cashier Consolidated Trust Co.

EDWARD ANDREWS ADAMS, JR....B.E. 1919....Charlotte, N. C.
Manager Sash Department, Southern Engineering Co.

NELSON ADAMS....B.E. 1904....McColl, S. C.
Farmer

HAYWOOD LEWIS ALDERMAN....B.E. 1904....Greensboro, N. C.
Bagley & Alderman, Wholesale Dealers in Paper and Stationery

HENRY MILTON ALEXANDER....B.E. 1915....Camp Stotsenburg, Pampanga, P. I.
First Lieutenant, 1st Cavalry

KEMP ALEXANDER....B.E. 1900....Asheboro, N. C.
Superintendent Acme Hosiery Mills

NEILY ORMOND ALEXANDER....B.S. 1912....R. 17, Matthews, N. C.
Farmer

WILLIAM DAVIDSON ALEXANDER, JR....B.S. 1899....Charlotte, N. C.
Consulting Drainage Engineer

BONVA CLOSSON ALLEN....B.E. 1918....Moore, Pa.
Engineering Department, Westinghouse Electric and Manufacturing Co.

DANIEL ALLEN....B.S. 1896....Raleigh, N. C.
Farmer and Real Estate Dealer

GEORGE GILDEROY ALLEN....B.E. 1906....Kannapolis, N. C.
Assistant Superintendent, Cannon Mills

LESLIE LYLE ALLEN....B.E. 1900....Spartanburg, S. C.
Cotton Merchant

ROBERT WILSON ALLEN....B.E. 1893....Monroe, N. C.
Superintendent of Schools

LEWIS ALLEN AMMON....B.S. 1913....Mecosta, Mich.
Farmer

CHARLES SIDNEY ANDREWS....B.E. 1914....Newport News, Va.
Draftsman with Newport News Shipbuilding and Dry Dock Co.

GRAHAM HUDSON ANTHONY....B.E. 1914....Hartford, Conn.
Superintendent Allen Manufacturing Co.

OLIVER STANHOPE ANTHONY....B.E. 1916....Shelby, N. C.
Real Estate Dealer

JOHN CAMILLUS APP....B.S. 1908....Charleston, W. Va.
Chemist, United States Public Service Reserve, City Department of Health

JOHN ALLEN AREY....B.S. 1909....Raleigh, N. C.
With N. C. Extension Service

GILBERT LUTHER ARTHUR, JR....B.S. 1913....Raleigh, N. C.
Chemist, State Department of Agriculture

JOHN W. ARTZ....B.S. 1917....Old Fort, N. C.
Union Tanning Co.

DORSEY FROST ASBURY....B.S. 1898....Washington, D. C.
Office, National Savings and Trust Building

GEORGE PAGE ASBURY....B.E. 1906....Charlotte, N. C.
Office Engineer, Southern Railroad Lines (Lines East) and Associated Railroads

SAMUEL ERSON ASBURY....B.S. 1893....College Station, Tex.
M.S. 1896. Assistant State Chemist

SYDNEY WOODWARD ASBURY....B.E. 1904....Wallville, Md.
Farmer

LEWIS CARROLL ATKISSON....B.E. 1915....Greensboro, N. C.
With H. F. Livermore Company, Boston, Mass.

BASCUM OTTO AUSTIN....B.E. 1914....Wilkinsburg, Pa.
Design Engineer, Westinghouse Electric and Mfg. Co.

Name	*Degree*	*Address*
GEORGE GANZER AVANT	B.E. 1918 With Tidewater Power Co.	Wilmington, N. C.
JOHN WILLIAM AVERA	B.S. 1917 Tobacco Dealer	Smithfield, N. C.
ROBERT JAMES AVERY	B.Agr. 1905 Railroad Contractor	Morganton, N. C.
ROBERT KENNETH BABINGTON	B.E. 1910 With Southern Bell Telephone and Telegraph Co.	Charlotte, N. C.
CHARLES ALBION BACHE	B.E. 1913 Inspector of Engineering Material, Bureau of Steam Engineering, U. S. N.	Philadelphia, Pa.
OSCAR LUTHER BAGLEY	B.S. 1905 Farmer and Salesman, Wholesale Groceries	Goldsboro, N. C.
EUGENE CLEVELAND BAGWELL	B.E. 1904 Superintendent, Seaboard Air Line Railway	Hamlet, N. C.
CLARE RUSSELL BAILEY	B.S. 1914 Farmer	Chadbourn, N. C.
HUGH MARCELLUS BAILEY	B.S. 1914 Farmer	Woodleaf, N. C.
ROGER MOORE BAILEY	B.S. 1913 Member of firm, John L. Bailey & Sons	Elm City, N. C.
WILLIAM BAILEY	B.E. 1917 With Palmetto Power and Light Co.	Darlington, S. C.
CHARLES VERNON BAKER	B.E. 1916 Resident Engineer, Gilbert C. White	Benson, N. C.
FRED ALLEN BAKER	B.E. 1916 Equipment Engineer, Southern Bell Telephone and Telegraph Co.	Charlotte, N. C.
FRANK OSCAR BALDWIN	B.S. 1908 Director of Settling Basins and Laboratory, Richmond City Waterworks	Richmond, Va.
WM. HERBERT DOUGHTY BANCK	B.E. 1908 Civil Engineer	Wilmington, N. C.
IRA WILSON BARBER	B.S. 1899 Superintendent Electric Light and Power Plant and Waterworks	Mount Airy, N. C.
JAMES CLAUDIUS BARBER	B.E. 1904 Farmer	Barber, N. C.
TOLLIE CHESTER BARBER	B.E. 1911 Superintendent, The Mayo Mills	Mount Airy, N. C.
WILLIAM WALTON BARBER	B.E. 1904 Farmer	Ammon, Va.
FLETCHER HESS BARNHARDT	B.E. 1901 C.E. 1919. The Phoenix Bridge Co.	Phoenixville, Pa.
JAMES MONROE BARNHARDT	B.S. 1918 Farmer	Urbanna, Va.
WILLIAM ALEXANDER BARRETT	B.E. 1904 Electrical Engineer, Puget Sound Navy Yard	Bremerton, Wash.
GEORGE FRANCIS BASON	B.E. 1908 M.E. 1916, Cornell. Instructor, Cornell University	Ithaca, N. Y.
JERE WILSON BASON	B.S. 1916 Director of Agriculture, Farm-life School	Vass, N. C.
HERBERT SCANDLIN BATTIE	B.E. 1907 With Carolina Steel and Iron Co.	Greensboro, N. C.
JOHN ROBIN BAUCOM	B.S. 1917 Farmer	R. 2, Raleigh, N. C.
SAMUEL OTTO BAUERSFELD, JR.	B.S. 1919 Farmer	Hamlet, N. C.
THOMAS LEVINGSTON BAYNE, JR.	B.S. 1914 Instructor, N. C. State College	West Raleigh, N. C.
JOHN MANN BEAL	B.S. 1911 M.S. 1913, Miss. A. & M. Professor of Botany and Forestry, Miss. A. & M. College Botanist for Miss. Agr. Experiment Station Assistant Director of Summer School	Agricultural College, Miss.
MARVIN EDDLEMAN BEATTY	B.E. 1916 Farmer	Charlotte, N. C.
JAMES CLAUDIUS BEAVERS	B.Agr. 1906 Farmer and Agricultural Writer	Guilford College, N. C.

Name	*Degree*	*Address*
SIDNEY HAMILTON BECK	B.S. 1898 Not heard from	New York
JOHN LELAND BECTON	B.E. 1908 C.E. 1913. Civil Engineer	Wilmington, N. C.
HARWOOD BEEBE	B.E 1908 Consulting Engineer	Spartanburg, S. C.
THOMAS AMBROSE BELK	B.S. 1918 Farmer	Mount Holly, N. C.
CHARLES EDWARD BELL	B.S. 1911 Manufacturer of Ice Cream	Wilson, N. C.
FREDERICK NEIL BELL	B.E. 1918 Engineer, Westinghouse Electric and Manufacturing Co.	Wilkinsburg, Pa.
NEEDHAM ERIC BELL	B.S. 1906 Soil Specialist	Montgomery, Ala.
JAY LANG BENBOW	B.S. 1918 Instructor in Farm Crops, N. C. State College	West Raleigh, N. C.
JOHN SAMUEL BENNETT	B.E. 1916 City Manager and Engineer	Morehead City, N. C.
WILLIAM OSBORNE BENNETT	B.E. 1901 Manager Elba Manufacturing Co.	Maxton, N. C.
ROBERT LINN BERNHARDT	B.S. 1900 Secretary-Manager, Salisbury Hardware and Furniture Co. and Breeder of Shorthorn Cattle	Salisbury, N. C.
LESLIE GRAHAM BERRY	B.E. 1900 President, Southern Engineering Co.	Charlotte, N. C.
WILMER ZADOCK BETTS	B.E. 1918 With State Highway Commission	Raleigh, N. C.
HERMAN VON BIBERSTEIN	B.E. 1914 Draftsman, R. C. Biberstein, Mill Architect and Engineer	Charlotte, N. C.
JOHN HENDERSON BIRDSONG	B.S. 1899 Chief Chemist and Metallurgist, the National Malleable Castings Co.	Chicago, Ill.
JOE PITTMAN BIVENS	B.E. 1907 Member of firm, Michael & Bivens, Electrical Constructors	Gastonia, N. C.
JAMES ADRIAN BIZZELL	B.S. 1895 M.S. 1900. Ph.D. 1903, Cornell University. Professor of Soil Technology	Ithaca, N. Y.
FRED MCCULLOUGH BLACK	B.E. 1910 Salesman, Westinghouse Electric and Manufacturing Co.	Milwaukee, Wis.
KENNETH LEON BLACK	B.E. 1906 President and Treasurer of K. L. Black & Co., Inc., Engineers and General Contractors	Richmond, Va.
WILLIAM LAMAR BLACK	B.E. 1908 With South Florida Contracting Co.	Key West, Fla.
ENOS CLARKSON BLAIR	B.S. 1914 Assistant Agronomist in Soils, N. C. Agricultural Experiment Station	West Raleigh, N. C.
TYSON YATES BLANTON	B.S. 1917	Kelso, Wash.
BEVERLEY MOSS BLOUNT	B.E. 1915 Instructor in Physics, N. C. State College	West Raleigh, N. C.
GEORGE BENJAMIN BLUM	B.S. 1918 Superintendent and Agriculturist, Lillington Public High School and Farm-life School	Lillington, N. C.
WILLIAM MORTON BOGART	B.E. 1903 Chief Engineer, General Fire Extinguisher Co.	Charlotte, N. C.
ALLISON HODGES BOND	B.E. 1912 Leading Draftsman, War Department, Ordnance Office	Washington, D. C.
THOMAS SAWYER BOND	B.E. 1910 Engineer, International and Great Northern Railway Co.	Palestine, Tex.
LESLIE NORWOOD BONEY	B.E. 1903 Architect	Wilmington, N. C.
FRED WILHELM BONITZ	B.E. 1901 With Engineering Department of Standard Oil Co.	Baltimore, Md.
HENRY EMIL BONITZ	B.E. 1898 Architect	Wilmington, N. C.

Name	*Degree*	*Address*
JAMES SHEPHERD BONNER	B.E. 1916	Nashville, Tenn.
Long Line Engineer, Cumberland Telephone and Telegraph Co.		
WILLIAM DAVID BOSEMAN	B.E. 1902	Rocky Mount, N. C.
Farmer, with R. H. Ricks		
BARRETT WOODWARD BOULWARE	B.E. 1917	Dayton, Ohio
839 Manhattan Ave.		
ZOLLY MOSBY BOWDEN	B.E. 1901	Plant City, Fla.
Electrician, Coronet Phosphate Co.		
EDWIN DENNIS BOWDITCH	B.S. 1913	Marshall, N. C.
County Farm Demonstration Agent		
ROY BOWDITCH	B.E. 1910	Pittsfield, Mass.
Designing Engineer, General Electric Co.		
ALAN THURMAN BOWLER	B.E. 1912	Raleigh, N. C.
With W. S. Boyd, Republic Trucks		
RODNEY LAW BOYLIN	B.S. 1916	Tulsa, Okla.
ASA GRAY BOYNTON	B.E. 1908	Blowing Rock, N. C.
Landscape Architect		
ZEB BOYCE BRADFORD	B.E. 1917	Kannapolis, N. C.
With Cannon Manufacturing Co.		
CARL RAY BRADLEY	B.E. 1910	St. Louis, Mo.
Electrical Engineer (Large Motor Division), Wagner Electric Manufacturing Co.		
CLARENCE ANDERSON BRAME	B.S. 1919	Kenly, N. C.
Farmer		
JAMES WASHINGTON BRAWLEY	B.S. 1895	Greensboro, N. C.
Vice President and Treasurer, Real Estate and Trust Co.		
JOHN BENJAMIN BRAY	B.E. 1911	Raleigh, N. C.
Vice President, Fort Realty Co.		
VICTOR WINFRED BREEZE	B.E. 1914	Charlotte, N. C.
With Southern Engineering Co.		
THOMAS JOHNSON BREVARD	B.S. 1910	Flint, Mich.
2025 Winans Ave.		
CHARLES MEEKINS BRICKHOUSE	B.S. 1914	Kinston, N. C.
Farm Demonstration Agent		
WILLIAM STALEY BRIDGES	B.E. 1919	West Raleigh, N. C.
Instructor in Auto Mechanics, N. C. State College		
HERMON BURKE BRIGGS	B.E. 1913	Seattle, Wash.
M.E. 1916. Cashier, Kaiser Paving Co.		
CARL DWIGHT BRITTAIN	B.E. 1916	Summerfield, N. C.
RALPH BROOKS	B.S. 1916	Alliance, N. C.
Farmer		
THOMAS WESTMORE BROOKS	B.E. 1916	Newport News, Va.
Engineering Department, Newport News Shipbuilding and Dry Dock Co.		
BENJAMIN ALEXANDER BROOME	B.E. 1905	Sioux City, Iowa.
Consulting Mechanical and Electrical Engineer		
CECIL DEWITT BROTHERS	B.E. 1909	New York, N. Y.
160 Front Street		
BEDFORD JETHRO BROWN	B.E. 1901	Charlotte, N. C.
With Southern Power Co.		
BRYCE BENJAMIN BROWN	B.E. 1918	Schenectady, N. Y.
With General Electric Co.		
CLAYTON EDWARD BROWN	B.E. 1912	Gaffney, S. C.
Assistant Engineer, Southern Railway		
FRANK HAMILTON BROWN	B.Agr. 1908	Cullowhee, N. C.
Teacher of Science and Agriculture, Cullowhee Normal and Industrial School		
JOEL EDWARD BROWN	B.S. 1911	Grimes, Cal.
With Standard Oil Co.		
JAMES HOWARD BROWN	B.S. 1911	Rich Square, N. C.
M.S. 1912. D.V.M. 1914, Kansas City Veterinary College		
Veterinarian		
WILLIAM BACHMAN BROWN	B.E. 1911	Charlotte, N. C.
Maintenance of Way Department, Southern Railway		
JOSEPH BRANDON BRUNER	B.S. 1915	Phoenix, Ariz.
With Southwest Cotton Co.		

Name	*Degree*	*Address*
STEPHEN COLE BRUNER	B.S. 1912	Santiago de las Vegas, Cuba
Chief, Department of Plant Pathology, Estacion Agronomica de Cuba		
THOMAS KINCAID BRUNER	B.E. 1910	Sheffield, Ala.
Chief Clerk to Superintendent, Southern Railway		
CARNEY JOHN BRYAN	B.E. 1907	St. Andrews, Fla.
C. J. Bryan & Co., Wholesale Fish Dealers		
GUY KEDAR BRYAN	B.E. 1911	Tampa, Fla.
JOHN HARVEY BRYAN	B.E. 1908, M.E. 1913	New York, N. Y.
With Macon Dray Co.		
KIT BRYAN	B.E. 1911	Bangkok, Siam
With Royal Siamese Railways		
JAMES RAMSEY BUCHANAN	B.E. 1914	Sylva, N. C.
Electrician for Armour & Co., Acid Plant and Tannery		
ELTON ELROY BUCK	B.E. 1910	Bridgeport, Conn.
Civil Engineer		
GEORGE GLEVELAND BUCK	B.S. 1916	Salemburg, N. C.
Superintendent, Vocational Training School		
JOSEPH SAMUEL BUFFALOE	B.S. 1897	Garner, N. C.
Physician		
HARLEY WILSON BULLARD	B.S. 1914	Aulander, N. C.
Teacher of Agriculture, Farm-life School		
WALTER AUSTIN BULLOCK	B.S. 1895	Red Springs, N. C.
Farmer		
JAMES HARRY BUNN	B.E. 1900	Henderson, N. C.
Superintendent, Henderson Cotton Mills and Croatan Spinning Mills		
NOAH BURFOOT, JR.	B.E. 1917	Elizabeth City, N. C.
Superintendent, Pasquotank Hosiery Mills		
WILLIAM BRYANT BURGESS	B.E. 1908	Portsmouth, Va.
Electrical Chargeman, Government Navy Yard, Norfolk		
GEORGE EDWARD BUSH	B.E. 1919	Akron, Ohio
With Fabric Department, Firestone Tire & Rubber Co.		
WILLIAM ANDERS BUYS	B.E. 1906	Belhaven, N. C.
Civil Engineer, the Interstate Cooperage Co. and Assistant to Manager		
VON PORTER BYRUM	B.E. 1911	Great Falls, S. C.
BRICE LEGRIER CALDWELL	B.S. 1913	Vicksburg, Miss.
District Chemist, The Refuge Cotton Oil Co.		
ROBERT OLIN CALDWELL	B.S. 1914	Concord, N. C., R. 1
Farmer		
WALTER GRAHAM CALDWELL	B.S. 1914	Jonestown, Miss.
Farm Manager for Mrs. D. M. Russell		
LINDSAY FERGUSON CARLETON	B.E. 1907	St. Louis, Mo.
Sales Manager, H. W. Johns-Manville Co.		
CLAUDIUS LEROY CARLTON	B.E. 1916	Tulsa, Okla.
Sales Engineer, Foamite Firefoam Co.		
JOHN CLINE CARPENTER	B.E. 1915	Greensboro, N. C.
Resident Engineer, N. C. State Highway Commission		
JOHN SAMUEL PINKNEY CARPENTER	B.E. 1903	Philadelphia, Pa.
Treasurer of the Mauney-Steele Co., Cotton Yarns		
JOHN WILLIAM CARROLL	B.S. 1897	Wallace, N. C.
Physician		
ALMON HILL CARTER	B.S. 1916	Wallace, N. C.
JOHN MANN CARTER	B.E. 1915	Newport News, Va.
Draftsman, Newport News Shipbuilding and Dry Dock Co.		
HENRY BROZIER CARTWRIGHT	B.E. 1905	Jacksonville, Fla.
District Engineer, Seaboard Air Line Railway		
HENRY ROY CATES	B.S. 1911	Washington, D. C.
With U. S. Department of Agriculture		
JUNIUS SIDNEY CATES	B.S. 1902	R. 1, Rosslyn, Va.
M.Agr. 1904. Ph.D., American University, 1915. Agricultural Journalist		
WILLIAM MILLER CHAMBERS	B.E. 1905	Maben, W. Va.
Payroll Man, W. M. Ritter Lumber Co.		
JAY VICTOR CHAMPION	B.E. 1916	Glencove, Long Island, N. Y.
Superintendent of the Shoe Department, Edward Ladew Co., Inc.		

Name	*Degree*	*Address*
HARPER NICHOLSON CHERRY	B.S. 1918	Vanceboro, N. C.
Principal, Farm-life School		
LOUIS GORHAM CHERRY	B.E. 1916	Raleigh, N. C.
With Seaboard Air Line Offices		
MARK HOPKINS CHESBRO	B.Agr. 1906	Kelowna, B. C.
Pruning School Instructor. Provincial Department of Agriculture		
CONNOR CALHOUN CLARDY	B.E. 1906	San Diego, Cal.
Assistant Superintendent of Motive Power, San Diego Electric Railway (Not recent)		
CHARLES EDWARD CLARK	B.S. 1897	Rocky Mount, N. C.
Assistant Director, Edgecombe Test Farm		
CLETE WALTON CLARK	B.S. 1916	Castleberry, Ala.
Farmer		
DAVID CLARK	B.E. 1895	Charlotte, N. C.
M.E. 1896; C.E. 1897. Owner and Editor, *Southern Textile Bulletin* President, *Industrial and Engineering News*		
JAMES DUNCAN CLARK	B.S. 1906	Tampa, Fla.
President, Peninsular Paper Co.		
JOHN WASHINGTON CLARK	B.E. 1906	West Durham, N. C.
E.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		
WM. 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.
With H. Clarke & Sons, Inc., Manufacturing Chemists		
HENRY CALEB CLAY	B.E. 1911	Eagle Butte, Mont.
Ranchman		
WILEY THEODORE CLAY	B.E. 1906	Rio de Janiero, Brazil
M.E. 1910. Supervisor of Construction, Board of Missions, M. E. Church, South		
GEORGE LATTA CLEMENT	B.S. 1919	Asheville, N. C.
AMOS BAXTER CLEMENT	B.E. 1913	Oxford, N. C.
With Oxford Hardware Co.		
WILLIAM RANDOLPH CLEMENTS	B.E. 1913	Cincinnati, Ohio
Traction Building		
AMBROSE SCHENCK CLINE	B.S. 1917	Wenona, N. C.
Assistant Director, Branch Experiment Station		
EDWARD LAMAR CLOYD	B.E. 1915	West Raleigh, N. C.
Instructor, N. C. State College		
EDWIN LACY COBLE	B.S. 1914	Raleigh, N. C.
Owner, firm of J. L. O'Quinn Co., Florists		
ROBERT BAXTER COCHRAN	B.E. 1902	East Norwood, Ohio
With Allis-Chalmers Manufacturing Co., Bullock Works		
ANSON ELIKEM COHOON	B.S. 1898	Elizabeth City, N. C.
Farmer		
JOHN ELIOT COIT	B.Agr. 1903	339 Hilgard Hall, Berkeley, Cal.
Professor of Citriculture, University of California		
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. Home Address, Goldsboro, N. C.		
PAUL COLLINS	B.S. 1901	New Haven, Conn.
Analytical and Consulting Chemist. (No recent address)		
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.
Farmer		
HENRY BACON CONSTABLE	B.S. 1915	Charlotte, N. C.
Salesman, E. I. DuPont De Nemours & Co.		

Name	*Degree*	*Address*
CHARLES KEARNEY COOKE, JR.	B.E. 1918	Louisburg, N. C.
Highway Engineer		
EVERETT HANSON COOPER	M.S. 1916	Wilson, N. C.
With Export Leaf Tobacco Co.		
JAMES WESLEY COOPER	B.E. 1919	Henderson, N. C.
Assistant Superintendent, Harriet Cotton Mills		
JOHN DOWNEY COOPER, JR.	B.E. 1911	Henderson, N. C.
Superintendent, Harriet Cotton Mills Nos. 2 and 3		
GEORGE WASHINGTON CORBETT, JR.	B.E. 1895	R. 2, Currie, N. C.
Lumberman and Merchant		
WILLIAM S. CORBITT	B.E. 1916	Henderson, N. C.
With Corbitt Motor Truck Co.		
CHARLES EDWARD CORPENING	B.E. 1894	R. 2, Lenoir, N. C.
Farmer and Lumber Dealer		
MILTON LEE CORRELL	B.S. 1916	Laurinburg, N. C.
EDWARD LIVINGSTON COTTON	B.E. 1911	Flint, Mich.
With Chevrolet Motor Co.		
LLEWELLYN HILL COUCH	B.E. 1908	Pontiac, Mich.
Plant Engineer, Oakland Motor Car Co.		
WALTER MILLER COWLES	B.S. 1916	Pittsburgh, Pa.
With Frost-Morton Motor Car Co.		
DAVID COX	B.E. 1894	Hertford, N. C.
Civil Engineer and Timber Dealer and Estimator		
DAVID DAVIES COX	B.E. 1914	Ensley, Ala.
Chief Testing Engineer, Tennessee Coal, Iron and Railroad Co.		
DUNCAN ARCHIBALD COX	B.S. 1906	Rowland, N. C.
Manager, Hub Hardware Co.		
GEORGE CHANDLER COX	B.E. 1917	Sylva, N. C.
Engineer, with Thomas A. Cox		
JOHN WILLIAM COX	B.E. 1915	Oriental, N. C.
Junior Hydrographic and Geodetic Engineer, U. S. Coast and Geodetic Survey, Steamer *Onward*		
SAINT JOHN COX	B.E. 1914	Ensley, Ala.
Assistant Testing Engineer, Tennessee Coal, Iron and Railroad Co.		
FRANCIS EDWIN COXE	B.E. 1917	Perth Amboy, N. C.
Electrical Research Laboratory, Standard Underground Cable Co.		
LELAND MIOT CRAIG	B.E. 1914	Charlotte, N. C.
Vice President, Southern Engineering Co.		
SHERMAN GRADY CRATER	B.S. 1916	Raleigh, N. C.
Educational Representative, J. B. Lippincott Co.		
JOHN BENNETT CRAVEN	B.S. 1913	Chicago, Ill.
Assistant Superintendent, Peoples Gas, Light, and Coke Co.		
WILLIAM LOIS CRAVEN	B.E. 1901	Raleigh, N. C.
Bridge Engineer, State Highway Commission		
SIDNEY MOTT CREDLE	B.E. 1916	Tarboro, N. C.
WOODFIN GRADY CREDLE	B.S. 1914	Swan Quarter, N. C.
Farmer		
CHARLES LESTER CREECH	B.S. 1903	Winston-Salem, N. C.
Sales Manager, J. C. Spach Wagon Works		
ALEXANDER DOANE CROMARTIE	B.Agr. 1906	Garland, N. C.
Farmer		
RICHARD OLIVER CROMWELL	M.S. 1916	Chicago, Ill.
A.B. 1912; Ph.D. 1918, University of Nebraska		
In Charge of Crop Reporting Bureau, E. W. Wagner & Co. (Stocks, Bonds, Grain, etc.), 208 South LaSalle St.		
WILLIAM HENRY CROW	B.E. 1910	Monroe, N. C.
Merchant (not recent)		
RUSSELL ALEXANDER CROWELL	B.S. 1918	Acton, N. C.
Farmer		
RAYMOND CROWDER	B.E. 1915	Raleigh, N. C.
President, Garage Equipment Co.		
CHARLES LEE CRUSE	B.S. 1912	Statesville, N. C.
Veterinarian		

Name	*Degree*	*Address*
FELIX GRAY CRUTCHFIELD	B.E. 1901	Philadelphia, Pa.
5015 Chester Avenue		
EUGENE ENGLISH CULBRETH	B.E. 1903	Raleigh, N. C.
With Commercial National Bank		
HUGH MCCOLLUM CURRAN	B.S. 1898	Bahia, Brazil
Forester. Care of U. S. Consul		
LISTON LLOYD DAIL	B.S. 1913	Ensley, Ala.
Chemist, Tennessee Coal, Iron and Railroad Co.		
DALLAS THORNTON DAILY	B.E. 1915	Portsmouth, Va.
Assistant Engineer, Valuation Department, S. A. L. Railway		
EDWIN SPEIGHT DARDEN	B.S. 1895	Stantonsburg, N. C.
Farmer and Merchant		
WALTER LEE DARDEN	B.E. 1903	Norfolk, Va.
Engineer of Buildings, Seaboard Air Line Railway		
JOSEPH FRANK DAVIDSON	B.E. 1909	Pedro Miguel, C. Z.
With Ocu Copper Mining Co.		
SAMUEL FREDERICK DAVIDSON	B.S. 1914	Jacksonville, N. C.
North Carolina Department of Agriculture. Home Address, Swannanoa, N. C.		
CHARLES WEBB DAVIS	B.E. 1917	Naval Base, Va.
Topographic Draftsman, Home Address, Beaufort, N. C.		
GEORGE MASLIN DAVIS	B.E. 1901	Roanoke, Va.
Mechanical Engineer		
PAUL DEXTER DAVIS	B.E. 1913	Raleigh, N. C.
Civil Engineer		
ROBERT VERNON DAVIS	B.E. 1916	Atlanta, Ga.
Engineer, Southern Bell Telephone and Telegraph Co.		
WILLIAM ANDERSON DAVIS	B.S. 1918	Columbia, N. C.
Soil Survey, N. C. Department of Agriculture		
WILLIAM EARLE DAVIS	B.E. 1910	Newport News, Va.
Electrician, Newport News Shipbuilding and Dry Dock Co.		
WILLIAM HURD DAVIS	B.E. 1911	Badin, N. C.
Maintenance Engineer, Electrical Department Tallassee Power Co.		
WILLIAM KEARNEY DAVIS	B.E. 1895	Marion, S. C.
Superintendent, Marion Manufacturing Co.		
WILLIAM PRESSLEY DAVIS	B.E. 1917	Portsmouth, Va.
Engineering Inspector, Seaboard Air Line Railway		
CLAUD COUNCIL DAWSON	B.E. 1908	Mayworth, N. C.
Superintendent, Mays Mills, Inc.		
THOMAS THEODORE DAWSON	B.E. 1910	Durham, N. C.
Assistant Engineer, City Engineering Department		
ALBERT GEORGE DAY	B.E. 1917	Charleston, W. Va.
Electrical Engineer, U. S. Naval Ordnance Plant		
RALPH CAMPBELL DEAL	B.E. 1912	Clifton Forge, Va.
Virginia-Western Power Co.		
WILLIAM SAMUEL DEAN	B.E. 1909	Roanoke Rapids, N. C.
Cotton Buyer, Roanoke Mills Co. and Rosemary Manufacturing Co.		
LEONIDAS POLK DENMARK	B.E. 1915	Raleigh, N. C.
With Engineering Department, State Highway Commission		
THOMAS MARVIN DENSON	B.E. 1919	High Point, N. C.
With State Highway Commission		
ERNEST COFIELD DERBY	B.E. 1912	Fayetteville, N. C.
City Engineer		
LOUIS REINHOLD DETJEN	M.S. 1911	Newark, Del.
Associate Professor of Horticulture, Delaware State College		
EDWIN SEXTON DEWAR	B.S. 1911	Raleigh, N. C.
Assistant Chemist, North Carolina Department of Agriculture		
JOSEPH CHARLES DEY	B.S. 1895	Norfolk, Va.
Not heard from for several years		
JUNIUS FRANKLIN DIGGS	B.S. 1903	Rockingham, N. C.
Planter and Merchant		
WILLIAM SERGEANT DIXON, JR.	B.E. 1918	Raleigh, N. C.
With Dillon Supply Co.		

Name	*Degree*	*Address*

HUGH WOODY DIXON ..... B.S. 1919 ..... Jamestown, N. C.
Agricultural Teacher, Jamestown Farm-life School

WILLIAM CARTER DODSON ..... B.E. 1917 ..... Charlotte, N. C.
Technical Representative, Atlantic Dyestuff Co.

MINOR CECIL DONNELL ..... B.S. 1917 ..... 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

MCNEELY DUBOSE ..... B.E. 1912 ..... Badin, N. C.
Assistant Electrical Superintendent, Tallassee Power Co.

FREDERICK EMMETT DUCEY ..... B.S. 1918 ..... Portsmouth, Va.
Farmer

FRED. ATHA DUKE ..... B.E. 1909 ..... Portsmouth, Va.
Assistant Engineer, Seaboard Air Line Railway

ALVAH DUNHAM ..... B.S. 1919 ..... Clinton, N. C.
Director, County Recreation, Samson County

JAMES LEONIDAS DUNN ..... B.S. 1910 ..... Scotland Neck, N. C.
Agricultural Representative, North Carolina and Virginia, E. I. du Pont de Nemours & Co.

ALVIN DEANS DUPREE ..... B.E. 1908 ..... Little Rock, Ark.
Special Agent, Liverpool and London and Globe Insurance Co.

RAYMOND ROWE EAGLE ..... B.E. 1908 ..... New Bern, N. C.
Consulting Civil Engineer

MINNIC LUTHER EARGLE ..... B.Agr. 1908 ..... Heath Springs, S. C.
Smith-Hughes Teacher of Agriculture, Heath Springs High School

JOHN IVEY EASON ..... B.S. 1911 ..... Stantonsburg, N. C., R. 1
Carpenter

WILLIAM HUNT EATON ..... B.S. 1909 ..... Auburn, Ala.
Dairy Husbandman, U. S. Department of Agriculture

LATTA VANDERION EDWARDS ..... B.E. 1906 ..... Winston-Salem, N. C.
C.E. 1911, Cornell University. Spinks & Edwards, Civil Engineers

CHARLES PATTERSON ELDRIDGE ..... B.E. 1915 ..... Raleigh, N. C.
Secretary and Treasurer, Raleigh Engineering and Construction Co.

SEBA ELDRIDGE ..... B.E. 1907 ..... Rockford, Ill.
Professor of Sociology and Head of the Department of the Social Sciences, Rockford College

TIMOTHY ELDRIDGE ..... B.E. 1904 ..... Mount Olive, N. C.

WILLIAM KING ELDRIDGE ..... B.E. 1915 ..... Pittsburgh, Pa.
Draftsman, The Koppers Co.

THOMAS BENJAMIN ELLIOTT ..... B.S. 1918 ..... Castalia, N. C.
Principal, Farm-life School

WILLIAM HENRY ELLIOTT ..... B.S. 1917 ..... Fayetteville, N. C., R. 6
Farmer

THEOPHILUS THOMAS ELLIS ..... B.E. 1903 ..... Henderson, N. C.
Farmer

WELDON THOMPSON ELLIS ..... B.E. 1906, M.E. 1908 ..... Blacksburg, Va.
Professor of Power Engineering and Machine Design, Director of Department of Heat and Power, Virginia Polytechnic Institute

LEE BORDEN ENNETT ..... B.S. 1895 ..... Stella, N. C.
Superintendent of County Public Schools, and Farmer

ALBERT EDWARD ESCOTT ..... B.E. 1906 ..... Charlotte, N. C.
Editor and Manager of *Mill News*

WILLIAM CARLYLE ETHERIDGE ..... B.Agr. 1906 ..... Columbia, Mo.
M.S. 1908. Ph.D., Cornell, 1915. Professor of Farm Crops, University of Missouri

EARLE MONTIER EVANS ..... B.E. 1913 ..... Badin, N. C.
Master Mechanic, Aluminum Ore Co.

BENJAMIN BRYAN EVERETT ..... B.Agr. 1907 ..... Palmyra, N. C.
M.S. 1912, University of Wisconsin. Farmer

JAMES BECKETT EWART ..... B.E. 1906 ..... Chicago, Ill.
Electrician, Western Electric Co.

Name	*Degree*	*Address*
RALPH RINGGOLD FAISON	B.S. 1909	Greensboro, N. C.
Manufacturers' Agent, Steel Products		
WILLIAM ALEXANDER FAISON	B.E. 1909	Chester, Pa.
President, Atlantic Steel Castings Co.		
ARCHIE ARRINGTON FARMER	B.E. 1914	Schoolfield Barracks, Hawaii
Captain Signal Corps, U. S. Army, Commanding 53d Telegraph Battalion		
ISAAC HERBERT FARMER	B.E. 1903	Wilson, N. C.
JAMES WILLIAM FARRIOR	B.E. 1904	Warsaw, N. C.
Physician		
JOHN ALEXANDER FARRIOR	B.S. 1916	Raleigh, N. C.
Farmer		
WILLIAM DOLLISON FAUCETTE	B.E. 1901	Norfolk, Va.
C.E. 1910. Chief Engineer, Seaboard Air Line Railroad		
ISAAC HENRY FAUST	B.E. 1895	Ramseur, N. C.
Farmer		
JOHN BARTLETT FEARING, JR.	B.S. 1914	Windsor, N. C.
Farmer and Merchant		
ALEXANDER LITTLEJOHN FIELD	M.S. 1914	Niagara Falls, N. Y.
Research Metallurgist, Union Carbide and Carbon Corporation, Electro Metallurgical Company's Works		
RUTLEDGE HUGHES FIELD	B.S. 1915	Flora Dale, Pa.
Assistant Sales Manager, Tyson Bros.		
BENJAMIN CAREY FENNELL	B.S. 1898, M.E. 1900	Milwaukee, Wis.
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 and General Manager, Ferebee & Young Co.		
BENJAMIN TROY FERGUSON	B.Agr. 1908	Wilson, N. C.
County Farm Demonstration Agent		
JOHN LINDSAY FERGUSON	B.E. 1907	Oakland, Cal.
Electrical Supply Store		
KARL MCATEE FETZER	B.E. 1914	New York, N. Y.
Western Electric Co., Department 210 K		
WALTER GOSS FINCH	B.E. 1905	Baltimore, Md.
Junior Engineer, U. S. Engineer Department		
WILLIAM WALTER FINLEY	B.Agr. 1904	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.
Electrical Distribution Department, Alabama Power Co.		
DANIEL BURNIE FLOYD	B.E. 1913	Camp Knox, Ky.
First Lieutenant, Field Artillery. Home Address, Fairmont, N. C.		
FRANK FULLER FLOYD	B.E. 1893	Knoxville, Tenn.
Vice President and Sales Manager, Jellico Coal Mining Co.		
AARON CONRAD FLUCK	B.E. 1915	New York, N. Y.
With General Railway Signal Co.		
FRANK LINDSAY FOARD	B.S. 1909	R. 7, Salisbury, N. C.
Farmer		
JAMES FONTAINE	B.E. 1914	Woodsdale, N. C.
Lumber Dealer		
MATTHEW MAURY FONTAINE	B.E. 1916	Woodsdale, N. C.
Lumber Dealer		
RUFUS EUGENE FORBIS	B.E. 1910	Charlotte, N. C.
M.E. 1913. Chief Draftsman, Chemical Construction Co.		
ARTHUR CRAWFORD FOSTER	B.S. 1917	Madison, Wis.
Research Assistant, Department of Plant Pathology, University of Wisconsin		
SHIRLEY WATSON FOSTER	B.Agr. 1906	San Francisco, Cal.
Entomologist and Manager Insecticide Department, General Chemical Co.		
WILLIAM BENJAMIN FOSTER	B.E. 1915	Raleigh, N. C.
Contractor, with H. E. Satterfield, Builder		
GEORGE WASHINGTON FOUSHEE	B.E. 1904	Greensboro, N. C.
Secretary and Treasurer, Dicks Laundry Co.		

Name	*Degree*	*Address*
ELIAS VAN BUREN FOWLER	B.E. 1907	R. 1, Horseshoe, N. C.
Farmer		
ROSCOE LOOMIS FOX	B.E. 1909	Lumberton, N. C.
Secretary and Treasurer, Kingsdale Lumber Co.		
JAMES ROSCOE FRANCK	B.S. 1914	Richlands, N. C.
Farmer		
CHARLES DUFFY FRANCKS	B.E. 1893	Laurinburg, N. C.
With Southern Life & Trust Co. of Greensboro, and the Travelers Co. of Hartford, Conn.		
GEORGE STRONACH FRAPS	B.S. 1896	College Station, Tex.
Ph.D. Johns Hopkins University. State Chemist of Texas. Chemist, Texas Experiment Station. Chemist, Texas Feed Control		
DANIEL ROBERT STEELE FRAZIER	B.E. 1918	Columbia, S. C.
With State Highway Commission		
JOHN ALEXANDER FRAZIER	B.E. 1916	Kings Creek, N. C.
Farmer		
ELMO VERNON FREEMAN	B.E. 1911	Middlesborough, Ky.
Salesman, Westinghouse Electric and Manufacturing Co.		
EDWIN WOOD FULLER	B.E. 1919	Raeford, N. C.
Dealer in Automobiles		
PERCY LEIGH GAINEY	B.Agr. 1908	Manhattan, Kans.
M.S. 1910. Assistant Professor Bacteriology, Kansas State Agricultural College		
EDGAR WILLIAM GAITHER	B.S. 1904	Goldsboro, N. C.
District Farm Demonstration Agent, Eastern District		
JAMES JERVEY GANTT	B.E. 1910	Toccoa, Ga.
Assistant Engineer, Southern Railway System		
FREDERICK CARLTON GARDNER	B.E. 1917	Box 445, Allentown, Pa.
Civil Engineer, Phoenix Utility Co.		
JUNIUS TALMAGE GARDNER	B.E. 1908	Shelby, N. C.
With U. S. Postoffice, Shelby, N. C.		
OLIVER MAX GARDNER	B.S. 1903	Shelby, N. C.
Lawyer, Lieutenant Governor		
ZEBULON CLIFTON GARDNER	B.S. 1916	Shelby, N. C., R. 6
Farmer		
CLEMENT LEINSTER GARNER	B.E. 1907	Washington, D. C.
Hydrographic and Geodetic Engineer, U. S. Coast and Geodetic Survey		
EARLY BAXTER GARRETT	B.S. 1918	Troy, N. C.
County Agricultural Demonstration Agent		
LEWIS PRICE GATTIS	B.E. 1909	Charleston, S. C.
Traveling Representative, Carolina Portland Cement Co. (Not recent)		
JOHN GEORGE HARVEY GEITNER, JR.	B.E. 1914	Hickory, N. C.
No recent address		
EDWARD MOORE GIBBON	B.E. 1893	Jacksonville, Fla.
Division and Soliciting Engineer for J. B. McCreary Co., Engineers, Atlanta, Ga. Not heard from this year		
NICHOLAS LOUIS GIBBON	B.S. 1897	Washington, D. C.
Special Agent, Division of Manufactures, Department of Commerce		
SETH MANN GIBBS	B.E. 1908	Savannah, Ga.
Resident Engineer, Seaboard Air Line Railway		
THOMAS FENNER GIBSON	B.E. 1912	Philadelphia, Pa.
Structural Engineer, Cramp and Co., Contractors		
LAMAR CARSON GIDNEY	B.E. 1903	Shelby, N. C.
Engineering Department, Southeastern Underwriters Association		
RICHARD F. GIERSCH, JR.	B.E. 1912	Maryville, Tenn.
Electrical Superintendent, Aluminum Co. of America, Sheet Mill		
LOVIC RODGERS GILBERT	B.E. 1907	Raleigh, N. C.
T.E. 1915. Superintendent, Caraleigh Mills Co.		
PETER MELVIN GILCHRIST	B.S. 1915	Laurinburg, N. C.
Farmer		
RALPH ALLISON GILL	B.E. 1914	El Paso, Tex.
Secretary to Manager for El Paso Electric Railway Co.		
GEORGE WILLIAM GILLETTE	B.E. 1911	Wilmington, N. C.
General Superintendent, Railway Department, Tide Water Power Co.		

Name	*Degree*	*Address*
MAURICE MORDECAI GLASSER	B.E. 1908	Charleston, S. C.
Proprietor Standard Electric Co. and M. M. Glasser Electric and Manufacturing Co.		
BENJAMIN DUKE GLENN	B.E. 1918	Howard Bldg., Providence, R. I.
Eastern Representative, Erwin Cotton Yarn Agency, Inc.		
CHARLES WILLIS GOLD	B.S. 1895	Greensboro, N. C.
Treasurer, Jefferson Standard Life Insurance Co.		
MOSES HENRY GOLD	B.E. 1908	Hamlet, N. C.
Trainmaster, Seaboard Air Line Railway		
ROY DURANT GOODMAN	B.S. 1913	R. 2, Concord, N. C.
County Farm Demonstration Agent		
AMZI NEALY GOODSON	B.E. 1916	Salisbury, N. C.
Signal and Electrical Department, Southern Railway		
HOWARD HENLEY GORDON	B.S. 1919	Chula, Va.
Manager, Glenmore Stock Farm		
CICERO FRED GORE	B.E. 1913	Weldon, N. C.
Superintendent and Engineer of Highways, Halifax County		
ALBERT SIDNEY GOSS	B.E. 1909	Charlotte, N. C.
With Goss-Heath & Co., Automotive Distributors, 313 Kingston Avenue		
JOHN DAVID GRADY	B.Agr. 1908	Seven Springs, N. C.
Farmer and Trader		
ROBERT WALTER GRAEBER	B.S. 1911	Statesville, N. C.
County Agricultural Demonstration Agent		
WILLIAM HAYWOOD GRAHAM, JR.	B.E. 1912	Atlanta, Ga.
Supervisor of Traffic, Southern Bell Telephone and Telegraph Co.		
ROBERT STRICKLER GRAVES	B.E. 1907	Cincinnati, Ohio
District Meter Specialist, General Electric Co.		
CHARLIE POOL GRAY	B.E. 1909	Buxton, N. C.
Merchant		
FRANK TEMPLE GRAY	B.E. 1915	Charlotte, N. C.
Foreman, Southern Bell Telephone and Telegraph Co.		
GEORGE PENDER GRAY	B.S. 1893	Tarboro, N. C.
Not heard from in several years		
JAMES MILLER GRAY	B.S. 1910	Asheville, N. C.
District Farm Demonstration Agent		
STERLING GRAYDON	B.E. 1905	Charlotte, N. C.
Secretary, High Shoals Co.		
ANDREW HARTSFIELD GREENE, JR.	B.S. 1909	Raleigh, N. C.
With Department of Internal Revenue		
MARION JACKSON GREENE	B.S. 1896	Charlotte, N. C.
Teacher of Manual Training, Charlotte High School		
KENNETH LEE GREENFIELD	B.S. 1916	R. 3, Rocky Mount, N. C.
Agricultural Director, Red Oak Farm-life School		
ARTHUR WYNNS GREGORY	B.S. 1906	Shanghai, China
Sales Manager, Wuhu Office, British-American Tobacco Co. Not heard from this year		
JOHN LEROY GREGSON, JR.	B.E. 1917	Charlotte, N. C.
Engineer, State Highway Commission. 111 Ransom Place		
PAUL STIREWALT GRIERSON	B.E. 1904	New York, N. Y.
Engineer, Charles Cory & Son, Inc.		
WILLIAM HENRY GRIFFIN, JR.	B.E. 1914	Goldsboro, N. C.
Member of firm, W. H. Griffin & Son, Coal and Wood Dealers		
JOSEPH PERRIN GULLEY, JR.	B.E. 1904	Norfolk, Va.
Traveling Salesman, Woodhouse Electric Co.		
WINSTON PAYNE GWATHMEY	B.E. 1913	Richmond, Va.
Civil Engineer		
JAMES HOLMES HADDOCK	B.E. 1915	Durham, N. C.
Assistant Efficiency Engineer, Erwin Cotton Mills Co.		
DORSEY YATES HAGAN	B.E. 1908	Greensboro, N. C.
FRANK JOSHUA HAIGHT	B.E. 1917	Goldsboro, N. C.
With Carolina Power and Light Co.		
FELIX STANTON HALES	B.E. 1913	Cleveland, Ohio
C.E., Cornell University, 1916. Assistant Engineer, N. Y. C. & St. L. Ry.		

Name	*Degree*	*Address*

DENNIS HENRY HALL, JR. ..... B.S. 1919 ..... West Raleigh, N. C.
Instructor in Poultry Science, N. C. State College

CHARLES GANZER HALL ..... B.E. 1913 ..... Pawtucket, R. I.
General Superintendent, Taunton Manufacturing Co.

JOHN HUBBARD HALL, JR. ..... B.S. 1915 ..... Durham, N. C.
Law Student, Trinity College

HORACE LESTER HAMILTON ..... B.E. 1906 ..... Philadelphia, Pa.
With N. W. Ayer & Son, Advertising Agents

ROBERT WILLIAMS HAMILTON, JR. ..... B.S. 1916 ..... Pacolet, S. C.
Farmer

WILLIAM ROY HAMPTON ..... B.S. 1909 ..... Plymouth, N. C.
Owner, firm of W. H. Hampton & Son, Inc., Merchants and Bankers

LEROY CORBETT HAND ..... B.E. 1913 ..... Chadbourn, N. C.
Merchant

JOHN ISAAC HANDLEY ..... B.S. 1914, M.S. 1916 ..... Atlanta, Ga.
President and General Manager, Southeastern Laboratories, Inc.

JOHN FREDERICK HANSELMAN ..... B.E. 1906 ..... Waverly, Va.

PHILIP WILLIAM HARDIE ..... B.E. 1907 ..... Greensboro, N. C.

JARVIS BENJAMIN HARDING ..... B.E. 1904 ..... Greenville, S. C.
C.E. 1909. Engineer, Pitt County Highway Commission

ROBERT MCKENZIE HARDISON ..... B.E. 1912 ..... Boston, Mass.
B.Arch., Columbia University, 1915. District Engineer, Corrugated Bar Co.

NATHAN DAVID HARGROVE ..... B.S. 1912 ..... Richmond, Va.
U. S. Aviation General Supply Depot

RICHARD HUGH HARPER ..... B.S. 1905 ..... Charlotte, N. C.
With Alexander & Garsed

GEORGE ROLAND HARRELL ..... B.S. 1900 ..... Grasselli, N. J.
With Grasselli Chemical Co., as Division Head in Manufacturing Department

JOHN WILLIAM HARRELSON ..... B.E. 1909 ..... West Raleigh, N. C.
M.E. 1915. Assistant Professor of Mathematics, N. C. State College

CARL RUSH HARRIS ..... B.E. 1917 ..... Lancaster, S. C.
With Lancaster Cotton Mills

CEBERN DODD HARRIS ..... B.S. 1897 ..... Anchorage, Ky.
C. D. Harris & Co.

GORDON HARRIS ..... B.E. 1909 ..... New York, N. Y.
E.E. 1914. With E. B. Stott & Co.

JOHN FLEMING HARRIS ..... B.E. 1917 ..... South Philadelphia, Pa.
With Condenser Engineering Department, Westinghouse Electric and Manufacturing Co.

RUSSELL PEYTON HARRIS ..... B.S. 1915 ..... Louisburg, N. C.
Farmer

THOMAS DEVIN HARRIS ..... B.E. 1911 ..... Albemarle, N. C.
Highway Engineer

WILLIAM HENRY HARRISS ..... B.E. 1895 ..... New York, N. Y.
M.E. 1896. Textile Broker, 366 Broadway

ABRAM EDGAR HARSHAW ..... B.E. 1918 ..... Newport News, Va.
With Newport News Shipbuilding and Dry Dock Co.

HENRY MERCER HARSHAW ..... B.E. 1915 ..... Pontiac, Mich.
Assistant Maintenance Engineer, Oakland Motor Car Co.

THOMAS ROY HART ..... B.E. 1913 ..... West Raleigh, N. C.
Instructor in Textile Engineering, N. C. State College

ADOLPH THEODORE HARTMANN ..... B.E. 1917 ..... Charlotte, N. C.
No recent address

HARRY HARTSELL ..... B.E. 1912 ..... Philadelphia, Pa.
Assistant Sales Manager, Certainteed Products Co.

JOHN HARVEY, JR. ..... B.E. 1914 ..... West Philadelphia, Pa.
Medical Student, University of Pennsylvania. Home Address, Snow Hill, N. C.

JAMES SHOFFNER HATHCOCK ..... B.S. 1919 ..... R. 2, Wilson, N. C.
Teacher of Science, Rock Ridge High School

JOHN RUBY HAUSER ..... B.E. 1918 ..... East Pittsburgh, Pa.
With Westinghouse Electric and Manufacturing Co.

FRANK HAWKS ..... B.E. 1910 ..... Newport News, Va.
Draftsman, Piping Division, Newport News Shipbuilding and Dry Dock Co.

Name	*Degree*	*Address*
CLAUDE JACQUES HAYDEN	M.S. 1916	Hamlet, N. C.
Development Agent, Seaboard Air Line Railway		
HENRY WADSWORTH HAYWARD	B.E. 1917	Toledo, Ohio
With Henry L. Doherty and Co.		
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	Ridgewood, N. J.
Dealer in Electrical Supplies. (Not recent)		
HARRY BENJAMIN HENDERLITE	B.E. 1915	Raleigh, N. C.
Testing Engineer, N. C. State Highway Commission		
LEONARD HENDERSON	B.E. 1909	Salisbury, N. C.
Resident Engineer, State Highway Commission		
MAURICE HENDRICK	B.E. 1908	Cliffside, N. C.
Assistant Superintendent, Cliffside Mills		
JOHN WADE HENDRICKS	B.S. 1917	Newton, N. C.
County Agricultural Demonstration Agent		
LEONARD ORR HENRY	B.E. 1916	Charlotte, N. C.
Junior Engineer, Southern Bell Telephone and Telegraph Co.		
VERNON RAY HERMAN	B.S. 1915	West Raleigh, N. C.
Assistant in Plant Breeding, North Carolina Agricultural Experiment Station and Extension Service		
LAWRENCE JAMES HERRING	B.Agr. 1907	Wilson, N. C.
D.V.S., Kansas City Veterinary College. Veterinarian		
JERE ISAAC HERRITAGE	B.E. 1905	Jacksonville, N. C.
Civil Engineer, John L. Roper Lumber Co., and Superintendent of Construction of Drainage District No. 5, Washington County, N. C.		
EDGAR ALLEN HESTER	B.E. 1916	Pittsburgh, Pa.
With Supply Engineering Department, Westinghouse Electric and Manufacturing Company		
THOMAS JASPER HEWETT	B.E. 1913	Wilmington, N. C.
Junior Engineer, U. S. Engineer Office		
CLARENCE WILSON HEWLETT	B.E. 1906	Greensboro, N. C.
M.A., Ph.D., Johns Hopkins University. Professor of Physics, N. C. State College for Women		
JOHN GRAY HICKS	B.S. 1919	Whiteville, N. C.
With Whiteville Lumber Co.		
RUFUS WILLIAM HICKS, JR.	B.E. 1910	New York, N. Y.
M.E. 1915. With U. S. A. Ordnance Department. Home Address, Wilmington, N. C.		
BASCOMBE BRITT HIGGINS	B.S. 1909	Experiment, Ga.
M.S. 1910, Ph.D. 1913. Botanist, Georgia Agricultural Experiment Station		
LYDA ALEXANDER HIGGINS	B.S. 1910	Starkville, Miss.
Dairy Husbandman, Dairy Division, U. S. Department of Agriculture and Mississippi Agricultural College		
RILEY WEAVER HIGGINS	B.S. 1913	Spring Garden, Fla.
Hog Manager, Spring Garden Ranch		
JAMES ALLAN HIGGS, JR.	B.E. 1906, C.E. 1910	Atlanta, Ga.
Resident Manager, Southeastern District, Massey Concrete Products Corporation, 302 Candler Building		
JERE. EUSTIS HIGHSMITH	B.S. 1897	Parkersburg, N. C.
Farmer		
DANIEL HARVEY HILL, JR.	B.S. 1909	Charlotte, N. C.
Treasurer, Hill, Clark & Co., Stocks and Bonds		
DAVID RAYMOND HINKLE	B.E. 1911	Cedartown, Ga.
Superintendent, Cedartown Cotton and Export Co.		
GUY FRANCIS HINSHAW	B.E. 1907	Winston-Salem, N. C.
C.E. 1915. Hinshaw & Ziglar, Civil Engineers		
BRUCE DUNSTON HODGES	B.E. 1917	Statesville, N. C.
With R. L. Greenlee, Street and Highway Improvement		
GEORGE HERBERT HODGES	B.E. 1904	Uniontown, Pa.
Superintendent of Continental No. 2 Mine, H. C. Frick Coke Co.		
RALPH HINTON HODGES	B.S. 1916	Washington, N. C.
Farmer		

Name	*Degree*	*Address*

EDGAR ALLAN HODSON.....M.S. 1914.....Fayetteville, Ark.
B.S., Alabama Polytechnic Institute, 1911. In charge of Cotton Investigations, Arkansas Agricultural Experiment Station

LABAN MILES HOFFMAN, JR.....B.E. 1905.....Dallas, N. C.
Cashier, Bank of Dallas

WILLIS ASKEW HOLDING.....B.S. 1912.....Raleigh, N. C.
Member of firm, King & Holding, Men's Clothing

CHARLES BOLLING HOLLADAY.....B.E. 1893.....Wilmington, Del.
Retired

EDISON PARKER HOLMES.....B.E. 1917.....Frostburg, Md.
Electrical Engineer, Cumberland & Westernport Electric Roadway Co.

THOMAS HALL HOLMES, JR.....B.E. 1916.....Goldsboro, N. C.
Manager, Wayne Red Brick Co.

DEAN RONEY HOLT.....B.E. 1916.....Glen Cove, Long Island, N. Y.
With E. R. Ladew Belting Co.

PETER ARMSTRONG HOLT.....B.S. 1913.....Graham, N. C.
Office Clerk, L. Banks Holt Manufacturing Co.

WILLIAM NORMAN HOLT.....B.E. 1907.....Norfolk, Va.
Supervisor of Textile Oil Sales, The Texas Company

EDWARD HOLLAND HOLTON.....B.S. 1917.....Winston-Salem, N. C.
Dairyman

BENJAMIN OLIVER HOOD.....B.E. 1901.....Port Newark, N. J.
C.E. 1919. Designer, Submarine Boat Corporation

LOUIE LEE HOOD.....B.E. 1910.....Raleigh, N. C.
Manager Raleigh Talking Machine Shop

DAVID LEE HOOPER.....B.E. 1915.....Camp Meade, Md.
Captain 17th Infantry, Commanding Company A. Home Address, Cullowhee, N. C.

ROBERT MULLEN HOOPER.....B.E. 1917.....Charlotte, N. C.
With Engineering Department, Southern Bell Telephone and Telegraph Co.

WILLIAM RANSOM HOOTS.....B.S. 1917.....East Flat Rock, N. C.
Nurseryman

HERNDON HOPKINS.....B.S. 1915.....Greensboro, N. C.
Farmer

WALTER CLEARY HOPKINS.....B.E. 1913.....Newport News, Va.
Civil Engineers' Office, Newport News Shipbuilding and Dry Dock Co.

WAYNE ARINGTON 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. du Pont de Nemours Co.

JOHN HOWARD.....B.S. 1896.....Middlesboro, Ky.
Attorney at Law

JOHN STEWART HOWARD.....B.S. 1915.....Cary, N. C.
Teacher of Agriculture, Cary Farm-life School

PAUL NOBLE HOWARD.....B.E. 1916.....Kinston, N. C.
Contractor

SAMUEL BENJAMIN HOWARD.....B.E. 1913.....Lenoir, N. C.
County Engineer, Caldwell County Road Commission

RALPH WILKINSON HOWELL.....B.S. 1912.....Terra Ceia, N. C.
Manager, The Nissen Farms

JESSE FRANCIS HUETTE.....B.E. 1914.....Newport News, Va.
Draftsman, 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.
General Manager of George W. Huggins, Inc., Jewelers

CHRISTOPHER MILLER HUGHES.....B.E. 1895.....Richmond, Va.
B.S. 1899. Wholesale Lumber Dealer

ARTHUR LEE HUMPHREY.....B.E. 1919.....Wilmington, N. C.
With Engineering Department, Tide Water Power Co.

Name	*Degree*	*Address*
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, and Eno Cotton Mills		
MALCOLM BEALL HUNTER	B.E. 1895	Charlotte, N. C.
President, Acme Plumbing and Heating Co.		
WILLIAM TISDALE HURTT	B.E. 1914	Atlanta, Ga.
With Westinghouse Electric and Manufacturing Co.		
JOHN ELI IVEY	B.S. 1917	West Raleigh, N. C.
Assistant Poultry Investigator and Pathologist, N. C. Experiment Station		
JOHN WILLIAM IVEY	B.E. 1909	Seven Springs, N. C.
Farmer		
JOHN JACOB JACKSON	B.E. 1918	Kinston, N. C.
Farmer		
SHOBER KORNER JACKSON	B.S. 1918	West Raleigh, N. C.
With N. C. Agricultural Experiment Station		
WILLIAM COLBERT JACKSON	B.S. 1896	Wake Forest, N. C.
Farmer		
MURRAY GIBSON JAMES	B.S. 1918	Maple Hill, N. C.
Farmer and Agricultural Engineer		
GEORGE LINWOOD JEFFERS	B.E. 1915	Gloversville, N. Y.
Commercial Agent, Fulton County Gas and Electric Company		
ERNEST JUDSON JEFFRESS	B.E. 1913	Goldsboro, N. C.
Superintendent, Carolina Power and Light Co., Goldsboro Office		
DOUGLAS CREELMAN JEFFREY	B.E. 1913	Williamsville, N. Y.
Automobile Dealer		
JOHN LEBON JENKINS	B.E. 1916	Detroit, Mich.
With E. E. MacCrone & Co., Bond Brokers		
SIDNEY EARL JEANNETTE	B.E. 1916	Lake Landing, N. C.
Farmer		
FRED DUNCAN JEROME	B.E. 1919	Raleigh, N. C.
With Engineering Department, State Highway Commission		
WILLIAM LEON JEWELL	B.E. 1914	Sanford, N. C.
With J. W. Stout & Co., Contractors		
LACY JOHN	B.S. 1914	Lumber Bridge, N. C.
Farmer		
EUGENE COLISTUS JOHNSON	B.E. 1903	Ingold, N. C.
Lumberman and Farmer		
JAMES WRIGHT JOHNSON	B.E. 1913	Seymour, Conn.
Electrical Engineer, Kerite Insulated Wire and Cable Co.		
LEANDER BROWNLOW JOHNSON	B.S. 1916	R. 5, Hendersonville, N. C.
PAUL WORTHY JOHNSON	B.S. 1917	Lumber, S. C.
Vice President and General Manager, Johnson Lumber Co.		
WILLIAM FLADGER R. JOHNSON	B.E. 1909	Marion, S. C.
Real Estate Dealer		
WALTER MYATT JOHNSON	B.E. 1917	New Orleans, La.
With New Orleans Baseball Club. Home Address, Chalybeate Springs, N. C.		
VICTOR ALLISON JOHNSTON	B.S. 1916	Mooresville, N. C.
M.S. 1917. With Cooperative Creamery Co.		
WILLIAM DANIEL JOHNSTON	B.E. 1919	Schenectady, N. Y.
Student Engineer, General Electric Co.		
WILLIS NEAL JOHNSTON	B.E. 1914	Mooresville, N. C.
Hardware and Automobile Dealer. (Not recent)		
ALBERT CARL JONES	B.Agr. 1907	High Point, N. C.
D.V.S., Kansas City Veterinary College. Veterinarian, Meat and Milk Inspector		
FREDERICK JOHN JONES	B.E. 1909	New Bern, N. C.
Civil Engineer		
GARLAND JONES	B.S. 1900	Raleigh, N. C.
ROBERT FRANK JONES	B.E. 1910	Wilmington, N. C.
Assistant Engineer, Valuation Department, Atlantic Coast Line Railroad		

Name	*Degree*	*Address*

WILLIAM COOKE JONES....B.E. 1918....Newport News, Va.
With Newport News Shipbuilding and Dry Dock Co.

WILLIAM MANLEY JONES....B.E. 1914....New Kensington, Pa.
Power Engineer, U. S. Aluminum Co.

WILLIAM WHITMORE JONES....B.E. 1907....Oak Park, Ill.
129 S. Euclid Avenue

CLYDE RAYMOND JORDAN....B.E. 1910....Elizabethtown, N. C.
Vice President, Bladen Auto Co.

HARVEY LANGHILL JOSLYN....B.S. 1913....Vanceboro, N. C.
M.S. 1916. Superintendent, Craven County Farm-life School

SIR KEITH KELLER....B.E. 1914....Jacksonville, Fla.
Assistant Engineer, Seaboard Air Line Railway
Not heard from this year

JOHN GORDON KELLOGG....B.S. 1912....Sunbury, N. C.
With Quartermaster Department, U. S. Army, Philippine Islands

MARTIN KELLOGG....B.Agr. 1901....Sunbury, N. C.
Farmer

REX LIVINGSTON KELLY....B.E. 1916....Badin, N. C.
With Electrical Department, Tallassee Power Co.

CLYDE BENNETT KENDALL....B.S. 1897....Santo Domingo City, Dominican Republic
With Dominican Topographic Survey. Home Address, U. S. Geological Survey, Washington, D. C. (Not recent)

ALPHEUS ROUNTREE KENNEDY....B.S. 1898....Bethlehem, Pa.
Chief Draftsman, Hull Engineering Division, Bethlehem Shipbuilding Corporation

JAMES MATTHEW KENNEDY....B.E. 1903....Raleigh, N. C.
Architect

SYDNEY GUSTAVUS KENNEDY....B.S. 1897....Lakeland, Fla.
General Foreman, 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. Swine Specialist, Extension Division

GEORGE EDISON KIDD....B.E. 1913....Hampton, Va.
With N. N. & H. Ry., G. & E. Co.

WAVERLY FLETCHER KILPATRICK....B.S. 1915....Asheville, N. C.
Cashier, American Railway Express Co.

PAUL HANNER KIME....B.S. 1916....Scotland Neck, N. C.
Farmer

PAUL KING....B.E. 1914, C.E. 1916....Petersburg, Va.
Engineer, with Atlantic Coast Realty Co.

CARL JAMES KIRBY....B.S. 1917....West Grove, Pa.

LUTHER HILL KIRBY....B.E. 1910....San Juan, Porto Rico
Captain, Engineer Reserve Corps, U. S. Army
Not heard from this year

SAM JONES KIRBY....B.S. 1912....Smithfield, N. C.
Farm Demonstration Agent, Johnston County

WILLIAM FRANKLIN KIRKPATRICK....B.E. 1904....Storrs, Conn.
B.Agr. 1905. Professor of Poultry Husbandry, Connecticut Agricultural College

LYMAN KISER....B.S. 1918....Lincolnton, N. C.
Plant Manager Lincolnton Creamery & Ice Cream Co.

JOSEPH LAWRENCE KNIGHT....B.S. 1897....Stocktonia, Fla.
Farmer and Dealer in Naval Stores

LOUIS BRASWELL KNIGHT....B.S. 1913....43d Inf., Camp Lee, Petersburg, Va.
Home Address, R. 1, Tarboro, N. C.

ROBERT VERNON KNIGHT....B.S. 1915....Tarboro, N. C.
Farmer

STARR NEELY KNOX....B.E. 1905....Charlotte, N. C.
Assistant Engineer, Southern Railway

Name	*Degree*	*Address*
WILLIAM GRAHAM KNOX	B.S. 1906	New York, N. Y.
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.
City Engineer		
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. Home Address, Thomasville, N. C.		
BENNETT LAND, JR.	B.E. 1903	Tampa, Fla.
Division Engineer, Seaboard Air Line Railway		
JOHN THOMAS LAND	B.E. 1903	Jacksonville, Fla.
Civil Engineer		
JAMES THOMAS LARKINS	B.E. 1919	Phoenixville, Pa.
Draftsman, Phoenix Bridge Co.		
MARK CLINTON LASITTER	B.E. 1910	Snow Hill, N. C.
Civil Engineer		
HARRY VANN LATHAM	B.S. 1909	Belhaven, N. C.
Farmer		
JAMES EDWARD LATHAM	B.S. 1919	Parmele, N. C.
Merchant		
CHARLES EDWARD LATTA	B.E. 1908	Raleigh, N. C.
DOUGLAS ALLEN LEARD	B.E. 1914	Norfolk, Va.
Right of Way Engineer, Seaboard Air Line Railway		
CURTIS WILLIAMS LEE	B.E. 1912	Monroe, N. C.
Superintendent, Water and Light Plant		
EUGENE TALMAGE LEE	B.E. 1910	Dunn, N. C.
Postmaster		
JOSEPH LEE, JR.	B.S. 1917	Landrum, S. C.
Farmer and Nurseryman, with W. R. Hoots		
WILLIAM DANIEL LEE	B.S. 1918	Asheville, N. C.
With N. C. Department of Agriculture, Soil Survey. Home Address, Asheville, N. C.		
WILLIAM EDWARD LEEPER	B.E. 1918	Gastonia, N. C.
Civil Engineer		
JOSEPH RAOUL LEGUENEC	B.E. 1915	Cleburne, Texas
Transitman, Division Engineer's Office, Santa Fe Railway		
SAMUEL GEORGE LEHMAN	M.S. 1917	West Raleigh, N. C
With N. C. Agricultural Experiment Station		
CHARLES RILEY LEONARD	B.E. 1919	Schenectady, N. Y.
With General Electric Co.		
JAMES GILMORE LEONARD	B.S. 1918	Reynolds, N. C.
Poultry Farmer		
ELBERT FRANCIS LEWIS	B.E. 1918	Seattle, Wash.
Junior Hydrographic and Geodetic Engineer, U. S. Coast and Geodetic Survey Home Address, Greensboro, N. C.		
IRVIN TRACEY LEWIS	B.S. 1915	Charlotte, N. C.
D.V.M. 1917. Veterinarian		
ROBERT LINGLE LEWIS	B.E. 1918	Gastonia, N. C.
Civil Engineer		
WILLIAM DIXON LEWIS	B.S. 1914	Rockingham, N. C.
Manager, Diggs Farm		
MORRIS LIFEROCK	B.E. 1913	Washington, D. C.
C.E. 1917. Assistant, American Ephemeris, U. S. Naval Observatory		
JESSE JULIAN LILES	B.E. 1901	Baltimore, Md.
With Power and Mining Department, General Electric Co.		
HENRY ALBERT LILLY	B.S. 1917	Badin, N. C.
Bacteriologist, Tallassee Power Co.		

Name	*Degree*	*Address*
HENRY MARVIN LILLY	B.E. 1905	Portsmouth, Va.
Assistant Engineer, Seaboard Air Line Railway		
ERNEST ERWIN LINCOLN	B.E. 1904	Newark, N. J.
With Submarine Boat Corporation		
JESSE WEBB LINDLEY	B.S. 1915	Bakersville, N. C.
County Agricultural Demonstration Agent		
DAVID LINDSAY	B.E. 1908	Fieldale, Va.
Superintendent, Fieldale Mills		
ROBERT OPIE LINDSAY	B.E. 1916	Madison, N. C.
Secretary and Treasurer, Madison Hosiery Mills		
JOHN HENRY LITTLE	B.E. 1908	Philadelphia, Pa.
Sales Engineer, General Electric Co.		
WILLIAM BENNETT LITTLE	B.S. 1914	Motor Route A, Wadesboro, N. C.
Planter		
MARION LAMAR LIVERMON	B.E. 1914	Norfolk, Va.
Draftsman, Bridge Department, Seaboard Air Line Railway		
ULPHIAN CARR LOFTIN	B.S. 1910	Durango, Mexico
With Federal Horticultural Board, Apartado 4444, C. Lerdo		
RALPH LONG	B.S. 1909	Greensboro, N. C.
Proprietor, Vice President, and Sales Manager, Penny & Long		
FORREST BAINIE LONG	B.E. 1919	R. 3, Charlotte, N. C.
With Atherton Mills		
PAUL THOMAS LONG	B.S. 1919	West Raleigh, N. C.
Instructor, N. C. State College		
LOUIS EDGAR LOUGEE	B.S. 1907	Charleston, W. Va.
Chemist, Becker Steel Company		
LOUIS OMER LOUGEE	B.E. 1901	Toledo, Ohio
Chief Engineer, the Ohio Collieries Co., the Cambria Collieries Co., the Tropic Mining Co., and the Geo. M. Jones Co.		
THOMAS PINKNEY LOVELACE	B.E. 1912	Metasville, Ga.
Lumberman		
GEORGE LAFAYETTE LYERLY	B.E. 1908	Hickory, N. C.
Hardware Dealer		
LIPSCOMBE GOODWIN LYKES	B.E. 1905	Havana, Cuba
Vice President, Lykes Brothers, Inc.		
THOMPSON MAYO LYKES	B.E. 1906	Tampa, Fla.
Vice President, Lykes Brothers, Inc.		
GEORGE GREEN LYNCH	B.E. 1905	Wilmington, N. C.
Chief Draftsman, Atlantic Coast Line Railway Co.		
ALBERT SYDNEY LYON	B.S. 1899	Rocky Mount, N. C.
Superintendent, Rocky Mount Public Works		
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.		
DONALD GRATTAN MCARN	B.E. 1915	Northside, Pittsburgh, Pa.
With 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, University of North Carolina		
FRANK WHITESIDE MCCOMB	B.E. 1913	Bluemont, Va.
Farmer and Dairyman Home address, Hickory, N. C.		
HENRY KREIGER MCCONNELL	B.S. 1907	Louisville, Ky.
Superintendent, Tobacco By-Products and Chemical Corporation		
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	Lynchburg, Va.
With Lynchburg Cotton Mill Co.		
JAMES EDGAR MCDOUGALL	B.E. 1917	Raleigh, N. C.
Salesman, Atlantic Dyestuff Company		

Name	*Degree*	*Address*
FRANK NEELY MCDOWELL	B.S. 1910	Goldsboro, N. C.
Automobile Dealer		
ROBERT WISSNER MCGEACHY	B.E. 1917	Charlotte, N. C.
With Chemical Construction Co.		
JAMES EDWARD MCGEE	B.E. 1912	Rosemary, N. C.
With Rosemary Manufacturing Co.		
HARRY GALLANT MCGINN	B.E. 1919	Raleigh, N. C.
With Caraleigh Cotton Mills		
MALCOLM ROLAND MCGIRT	B.Agr. 1905	Sanford, N. C.
Farmer		
WALTER HODGE MACINTIRE	B.S. 1905	Knoxville, Tenn.
M.S., Pennsylvania State, 1909; Ph.D., Cornell, 1916. Soil Chemist, Agricultural Experiment Station, University of Tennessee		
SAMUEL CHRISTOPHER MCKEOWN	B.E. 1895	Newark, N. J.
Assistant Chief Engineer, Splitdorf Electrical Co.		
JOHN FAIRLY MCINTYRE	B.E. 1904	Laurinburg, N. C.
Farmer		
Not heard from this year		
CHARLES MCKIMMON, JR.	B.S. 1911	Ensley, Ala.
Chemist, Tennessee Coal and Iron Co.		
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		
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.
With Railway Equipment Engineering Department, General Electric Co.		
OSCAR FRANKLIN MCNAIRY	B.E. 1907	Portsmouth, Va.
Assistant Engineer, Seaboard Air Line Railway Co.		
JAMES EDGAR MCNEELY	B.E. 1904	Mooresville, N. C.
Railway Mail Clerk		
SAMUEL HUXLEY MCNEELY	B.E. 1909	Buffalo, N. Y.
Commercial Engineer, Allis Chalmers Co.		
FRANK COBLE MCNEIL	B.E. 1917	Newport News, Va.
Draftsman, Newport News Shipbuilding and Dry Dock Co.		
HARVEY CAMPBELL MCPHAIL	B.S. 1914	Mount Olive, N. C.
Dairyman and Farmer		
ELBERT MCPHAUL	B.S. 1917	Red Springs, N. C.
Farmer		
CHARLES HARDEN MCQUEEN	B.E. 1901	Greensboro, N. C.
With Warren Brothers Co., Bitulithic Pavements, Boston, Mass.		
NEILL MCQUEEN	B.E. 1912	Fayetteville, N. C.
No recent address		
SAMUEL MACON MALLISON	B.E. 1909	Washington, N. C.
Hardware Dealer		
CARROLL LAMB MANN	B.S. 1898	West Raleigh, N. C.
C.E. 1906. Professor of Civil Engineering, N. C. State College		
LOUIS HENRY MANN	B. E. 1900	Washington, N. C.
Dentist		
WALTER RAY MANN	B.S. 1912	Tanes, France
Major of Infantry, U.S.A. Graves Registration Service		
WILLIAM LEAKE MANNING	B.E. 1910	Rosemary, N. C.
Rosemary Manufacturing Co.		
CLARENCE TALMAGE MARSH	B.E. 1908	Fort Banks, Mass.
Lieutenant Colonel, Coast Artillery Corps, U.S.A.		
WILLIAM ROYDAN MARSHALL	B.E. 1909	New York, N. Y.
Salesman, Westinghouse Electric and Manufacturing Co.		

Name	*Degree*	*Address*
MARK STRUVE MARTENET	B.S. 1917	Alexandria, Va.
Manufacturer of Fertilizers		
JACOB LEE MARTIN	B.E. 1911	Marion, N. C.
Highway Engineer		
THOMAS JACKSON MARTIN, JR.	B.E. 1917	West Raleigh, N. C.
Instructor, N. C. State College, Mechanical Engineering Department		
WILLIAM DANIEL MARTIN	B.E. 1915	Raleigh, N. C.
Shop Foreman, Baker-Thompson Lumber Co.		
JOSEPH HENRY MASON	B.E. 1916	Philadelphia, Pa.
With C. E. Mason Co., Cotton Yarns		
RALPH CECIL MASON	B.S. 1909	Harrellsville, N. C.
Farmer		
ARTHUR BALLARD MASSEY	B.S. 1909	Blacksburg, Va.
Associate Professor of Plant Pathology and Bacteriology, Virginia Polytechnic Institute and Virginia Agricultural Experiment Station		
WALTER JEROME MATTHEWS	B.E. 1893	Goldsboro, N. C.
Contractor		
WILLIAM EMERY MATTHEWS	B.E. 1917	Maxton, N. C.
Surveyor		
ROBERT SYLVANUS MAUNEY	B.E. 1913	Kansas City, Mo.
Electrical Engineer, Kansas City Light and Power Co.		
RAYMOND MAXWELL	B.E. 1906	New Bern, N. C.
Owner and Manager, Seven Springs Hotel and Wholesale Grocery at New Bern, N. C.		
MELVIN SOLOMON MAYES	B.E. 1910	Stem, N. C.
Automobile Salesman		
MORELL BATTLE MAYNARD	B.E. 1917	West Raleigh, N. C.
Instructor, N. C. State College, Department of Mechanical Engineering		
FRANK THEOPHILUS MEACHAM	B.S. 1893	Statesville, N. C.
M.S. 1894. Superintendent Experiment Station, U. S. Department of Agriculture		
EUGENE FRANKLIN MEADOR	B.E. 1907	Danville, Va.
With Reynolds-Meador Service Co.		
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	Bethlehem, Pa.
With Bethlehem Shipbuilding Corporation, Ltd.		
HENRY BASCOM MERCER	B.E. 1912	Portsmouth, Va.
Engineer for Portsmouth Water Department		
LEWIS LARKINS MERRITT	B.E. 1913	Wilmington, N. C.
Engineer, U. S. Emergency Fleet Corporation		
REPTON HALL MERRITT	B.S. 1897	Raleigh, N. C.
Secretary-Treasurer, Powell & Powell, Inc., Coal, Ice, and Wood		
ROBERT GRAHAM MEWBORNE	B.S. 1896	Louisville, Ky.
Chemist, Tobacco By-Products and Chemical Corporation, Inc.		
BENNETT TAYLOR MIAL	B.E. 1907	Philadelphia, Pa.
Manager of Erection, Belmont Iron Works		
THOMAS KENNETH MIAL	B.E. 1913	Pittsburgh, Pa.
Manager, Electrical Department, 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	Statesville, N. C.
Partner, Iredell Tire and Service Co.		
DAVID JOHN MIDDLETON	B.Agr. 1908	Warsaw, N. C.
Farmer		
GORDON KENNEDY MIDDLETON	B.S. 1917	West Raleigh, N. C.
Instructor in Farm Crops, N. C. State College Home Address, Warsaw, N. C.		
JOHN DANIEL MILLER	B.E. 1916	Indian Head, Ind.
With Bureau of Yards and Docks, U. S. Navy		
JOSEPH ALFRED MILLER	B.E. 1904	Brevard, N. C.
Manager, Miller Supply Co.		

Name	*Degree*	*Address*
WALKER MOREHEAD MILLNER	B.E. 1909	Wilmington, Del.
E. I. DuPont de Nemours Co.		
JOHN MAPLE MILLS	B.E. 1907	Raleigh, N. C.
Salesman, Mills Tire Co.		
EWING STEPHENSON MILLSAPS	B.S. 1917	Statesville, N. C.
Automobile Dealer		
THOMAS LEE MILLWEE	B.E. 1916	Charlotte, N. C.
With Southern Bell Telephone and Telegraph Co.		
BURTON FORREST MITCHELL	B.E. 1919	Gastonia, N. C.
With Armstrong Cotton Mills		
SIMON TURNER MITCHENER	B.E. 1912	Garner, N. C.
Farmer		
THOMAS GUY MONROE	B.S. 1914	Staunton, Va.
Field Instructor, Dairy and Creamery Work, State of Virginia		
BENJAMIN FRANKLIN MONTAGUE	B.E. 1909	Erwin, Tenn.
Assistant Engineer, Carolina, Clinchfield and Ohio Railway		
HENRY STARBUCK MONTAGUE	B.S. 1907	Tallulah, La.
Chemist, Tallulah Cotton Oil Co.		
LEON DAVIS MOODY	B.E. 1910	La Porte, N. C.
Farmer		
WARREN LAFAYETTE MOODY	B.S. 1914	Alexandria, Va.
Chemist, Southern Railway System		
CHARLES ALFRED MOORE	B.E. 1916	Milwaukee, Wis.
Assistant Inspector Engineering Material, U. S. Navy Home Address, Kinston, N. C.		
EUGENE BOISE MOORE	B.E. 1910	Morven, N. C.
Member of firm, J. E. Moore and Co.		
EUGENE JAMES MOORE	B.S. 1918	Columbus, Ohio
Veterinary Student, Ohio State University, 207 W. 8th Avenue		
LACY MOORE	B.E. 1906	Charlotte, N. C.
Assistant Engineer, Southern Railway		
JAMES OSCAR MORGAN	B.Agr. 1905	College Station, Tex.
M.S.A. 1907, Ph.D. 1909, Cornell University. Professor of Agronomy, Texas A. and M. College		
JESSE JOHN MORRIS	B.E. 1903	Weeksville, N. C.
Farmer, County Surveyor, and Road Commissioner		
WILLIAM FLAUD MORRIS	B.E. 1909	Clayton, N. C.
Assistant Manager, Fertilizer and Engineering Department, Ashley Horne & Son; Secretary and Treasurer, Horne & Morris Motor Co.		
JOSEPH GRAHAM MORRISON	B.Agr. 1906	Stanley, N. C.
Farmer		
ROBERT HALL MORRISON	B.E. 1900	Charlotte, N. C.
Mechanical Engineer, with Parks-Cramer Company		
ROBERT LEE MORRISON	B.E. 1911	Bristol, Va.-Tenn.
Member of the Engineering Firm of Gladding, Morrison and Ott		
JOHN LIGHTFOOT MORSON	B.E. 1907	Portsmouth, Va.
Assistant Engineer, Valuation Department, Seaboard Air Line Railway		
WILLIAM FIELD MORSON	B.E. 1904	Raleigh, N. C.
Division Engineer, N. C. State Highway Commission		
LAURIE MOSELEY	B.E. 1902	Atlanta, Ga.
Thompson & Moseley, Inc., Contractors		
VASSAR YOUNG MOSS	B.E. 1902	Canonsburg, Pa.
With Fort Pitt Bridge Co.		
HARRY YEOMANS MOTT	B.S. 1910	Mooresville, N. C.
Farmer		
JAMES RICHARD MULLEN	B.S. 1912	Norfolk, Va.
With F. S. Royster Guano Co.		
LINDSLEY ALEXANDER MURR	B.E. 1905	Portsmouth, Va.
District Engineer, Seaboard Air Line Railway		
EDWARD MOSBY MURRAY	B.E. 1917	Charlotte, N. C.
With Murray-Crowell Motor Co.		
WILLIAM CAREY MURRELL	B.E. 1919	Ithaca, N. Y.
Graduate Student, Cornell University		

Name	*Degree*	*Address*
ZACHARIAH ENNISS MURRELL, JR.	B.S. 1917	Jacksonville, N. C.
Farm Development in Onslow. Home Address, Wilmington, N. C.		
GARLAND PERRY MYATT	B.S. 1905	Brooklyn, N. Y.
Chemist		
O'KELLY W. MYERS	B.S. 1899	Brooklyn, N. Y.
Engineer, with Smith, Hauser and MacIsaac, Contractors		
JESSE CLARENCE MYRICK	B.E. 1906	Pedro Miguel, Canal Zone
Assistant Superintendent, Pacific Locks, Panama Canal		
HENRY KOLLOCK NASH, JR.	B.S. 1914	Asheville, N. C.
With Wachovia Bank & Trust Co.		
LEON ANDREWS NEAL	B.E. 1904	Marion, N. C.
President and Treasurer, Marion Ice and Fuel Co.		
WILLIAM MCCORMICK NEALE	B.E. 1910	Greensboro, N. C.
Consulting Mechanical Engineer in the Development of Special Machinery		
JOHN FRANKLIN NEELY, JR.	B.S. 1916	Pineville, N. C.
Traveling Salesman, R. T. French Co., Rochester, N. Y.		
CHARLES MCKEE NEWCOMB	B.E. 1912	Brighton, Trinidad, B. W. I.
With New Trinidad Lake Asphalt Co.		
ROBERT TIMBERLAKE NEWCOMB	B.S. 1915	Raleigh, N. C.
With Caraleigh Fertilizer Co.		
CHARLES ARTHUR NICHOLS	B.E. 1902	Muskogee, Okla.
With Dougherty-Nichols Construction Co.		
EDGAR BYRON NICHOLS	B.E. 1914, M.E. 1918	Rochester, N. Y.
Chief Engineer, The Pfaudler Co.		
CHARLES FRANKLIN NIVEN	B.Agr. 1906	R. 1, Ravenel, S. C.
Farmer		
LOLA ALEXANDER NIVEN	B.Agr. 1906	Birmingham, Ala.
Advertising Manager, *Progressive Farmer*		
WILLIAM TIMOTHY NIXON	B.S. 1913	Sumter, S. C.
With American Railway Express Co.		
DAVID BENJAMIN NOOE	B.S. 1916	Pittsboro, N. C.
Farmer		
JOHN ANDREW NORTHCOTT, JR.	B.E. 1918	Norfolk, Va.
Radio Draftsman, Navy Yard		
LEWIS MILTON ODEN	B.Agr. 1906	Norfolk, Va.
In Government Service		
THOMAS JEFFERSON OGBURN, JR.	B.E. 1906	Richmond, Va.
With Everett Waddey Co.		
ALBERT HICKS OLIVER	B.S. 1897	Mount Olive, N. C.
Farmer		
SAMUEL LOFTIN OLIVER	B.E. 1909	care P. M., New York City
Ensign U. S. N. Junior Engineer Officer, U. S. S. *St. Louis.* (Not recent)		
HENRY BLOUNT OSBORNE	B.S. 1918	Columbus, Ohio
Veterinary Student, Ohio State University		
KARL OSBORNE	B.E. 1915	Atlanta, Ga.
With J. B. McCrary Construction Co.		
JAMES ELWOOD OVERTON	B.Agr. 1907	Ahoskie, N. C.
Traveling Grader, Inspector, and Peanut Buyer for American Peanut Corporation		
DAVID STARR OWEN	B.E. 1903	Savannah, Ga.
General Superintendent, Atlantic Turpentine and Pine Tar Co.		
EDWIN BENTLEY OWEN	B.S. 1898	West Raleigh, N. C.
Registrar, N. C. State College		
CHARLES WASHINGTON OWENS	B.E. 1912	Raleigh, N. C.
Engineer and Superintendent, North Carolina Building Commission		
REID ALLISON PAGE	B.S. 1916	Aberdeen, N. C.
Farmer and Fruit Grower		
JOHN ALSEY PARK	B.E. 1905	Raleigh, N. C.
Publisher, *The Raleigh Times*		
GEORGE MASON PARKER	B.E. 1919	Woodland, N. C.
CLYDE ESTER PARKER	B.S. 1906	Raleigh, N. C.
Member of firm, C. E. Parker & Co., Cotton Brokers and Merchants		
EUGENE LEROY PARKER	B.S. 1899	Mount Pleasant, Tenn.
Chemist and Manager, E. L. Parker & Co.		

Name	*Degree*	*Address*
JAMES LAFAYETTE PARKER	B.E. 1902	Montgomery, Ala.
Bridge Engineer, U. S. Bureau of Public Roads		
JOHN HARVEY PARKER	B.E. 1903	New Bern, N. C.
President, Service Motor Corps and Tidewater Automotive Co.		
JULIUS MONROE PARKER	B.E. 1909	Louisville, Ky.
With Construction Department, Louisville & Nashville Railway		
THOMAS FRANKLIN PARKER	B.Agr. 1907	Raleigh, N. C.
M.S. 1908. State Field Agent and Director (U. S. and N. C.), Crop Reporting Service		
WALTER HERBERT PARKER	B.E. 1913	Washington, D. C.
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.
With Purchasing Department, Fairbanks, Morse and Co.		
WALTER LEIGH PARSONS, JR.	B.E. 1918	Rockingham, N. C.
With The Bank of Pee Dee		
ARTHUR LEE PASCHAL	B.Agr. 1907	Riverside, Cal.
Agent for *The Golden Age*		
JOHN GILBERT PASCHAL	B.E. 1909	Mars Bluff, S. C.
Lumber Manufacturer		
WILLIAM FRANKLIN PATE	B.S. 1901	West Raleigh, N. C.
M.S. 1913. With Soil Fertility Section, Division of Agronomy, N. C. Department of Agriculture		
MANN CABE PATTERSON	B.E. 1895	Paris, France
With American Y. M. C. A., 12 Rue d'Agnesscan. Home Address, Durham, N. C.		
ROBERT DONNELL PATTERSON	B.S. 1894	Chase City, Va.
M.S. 1898. President, The First State Bank		
FITZGERALD ELIZUR PATTON	B.S. 1914	Burnsville, N. C.
County Farm Demonstration Agent		
WILLIAM JOEL PATTON	B.E. 1904	Dallas, Texas
Salesman, Dallas Power and Light Co.		
WILLIAM ROBERT PATTON	B.E. 1914	Morganton, N. C.
Town Manager		
WILLIAM VICTOR PEARSALL	B.S. 1915	Wilmington, N. C.
Pearsall & Co.		
CHARLES PEARSON	B.E. 1894	Palatka, Fla.
General Superintendent, Florida Drainage and Construction Co.		
FRED TAYLOR PEDEN	B.S. 1911	Springdale, N. C.
Agent in Animal Husbandry, United States and North Carolina Departments of Agriculture		
JOHN TAYLOR PEDEN	B.E. 1911	Pittsburgh, Pa.
Salesman, Westinghouse Electric and Manufacturing Co.		
THOMAS CLAYTON PEGRAM	B.E. 1916	McColl, S. C.
With Marlboro Cotton Mills		
JAMES HICKS PEIRCE	B.S. 1905	Warsaw, N. C.
Owner, J. H. Peirce Manufacturing Co., Sash, Doors, and Blinds		
WILLIAM CASPER PENNINGTON	B.E. 1910	Thomasville, N. C.
Secretary and Treasurer, Thomasville Hosiery Mills		
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		
Not heard from this year		
WILLIAM MONTGOMERY PERSON	B.E. 1900	Fairfield, Ala.
With Semet-Solvay By-Product Coke Plant, of Ensley, Ala.		
ASA GRAY PHELPS	B.E. 1915	Newport News, Va.
Technicist, Newport News Shipbuilding and Dry Dock Co.		
FREDERICK COLWELL PHELPS	B.E. 1904	Fort Worth, Texas
Captain Air Service, Taliaferro Field		
ARTHUR JEFFERSON PHILLIPS, JR.	B.E. 1914	Lester, Pa.
With Marine Department, Westinghouse Electric and Manufacturing Co.		

Name	*Degree*	*Address*
HENRY MARRIOTT PHILLIPS	B.S. 1914 Farmer	Battleboro, N. C.
WILLIAM RANSOM PHILLIPS	B.E. 1910 E.E. 1913. Local Manager, Western Electric Co.	Charlotte, N. C.
PETER PENICK PIERCE	B.E. 1909 Assistant Engineer, M. of W. Department, Florida East Coast Railway	St. Augustine, Fla.
GUY PINNER	B.E. 1907 Civil Engineer, James Stewart Construction Co.	New York, N. Y.
JOHN GAY PINNER	B.S. 1915 With Albemarle Fertilizer Co.	Elizabeth City, N. C.
WINSLOW GERALD PITMAN	B.E. 1907 Farmer and Cashier of Bank	Lumberton, N. C.
PAUL NATHANIEL PITTENGER	B.E. 1911 Engineer, with Lockwood, Greene and Co., Healey Bldg.	Atlanta, Ga.
BENJAMIN FRANKLIN PITTMAN	B.E. 1908 With Wm. Croup & Son, Engine and Shipbuilding Co.	Philadelphia, Pa.
LAWRENCE LYON PITTMAN	B.E. 1908 Civil Engineer and Farmer	Whitakers, N. C.
PAUL MILLER PITTS	B.E. 1909 Mechanic, Tennessee Coal, Iron and Railroad Co.	Birmingham, Ala.
ANGELO BETTLENA PIVER	B.E. 1906 Assistant Engineer, Submarine Boat Corporation, Newark Bay Shipyard	Newark, N. J.
WILLIAM CRAWFORD PIVER	B.S. 1906 Riches, Piver & Company, Chemical and Color Manufacturers	New York, N. Y.
JAMES KEMP PLUMMER	B.S. 1907 M.S. 1909. Ph.D. 1915, Cornell University. State Chemist	Raleigh, N. C.
ROBERT AVERY PLYLER	B.E. 1914 Second Lieutenant of Engineers, U. S. Army	Camp A.A. Humphrey, Va.
PLEASANT H. POINDEXTER, JR.	B.Agr. 1905 Manager, C. E. Sharp Lumber Co.	Vici, Okla.
FREDERICK DAVIS POISSON	B.S. 1914 With Liggett & Myers Tobacco Co.	Durham, N. C.
JULIAN HAWLEY POOLE	B.S. 1916 Orchardist	Jackson Springs, N. C.
RUBLE ISAAC POOLE	B.E. 1908 Architect and Civil Engineer	Raleigh, N. C.
EDWARD GRIFFITH PORTER	B.E. 1905 Junior Engineer, Engineer Office, U. S. Custom House	Norfolk, Va.
JUNIUS EDWARD PORTER	B.E. 1900 President and Treasurer, J. E. Porter Co.	Aurora, N. C.
TRACY WINCHESTER PORTER	B.S. 1914 Manager, Carson Brothers	Stovall, Miss.
WILLIAM OWEN POTTER	B.E. 1919 Assistant Manager, Nantucket and Lily Mills, Carolina Cotton and Woolen Mills Co.	Spray, N. C.
BRYANT MONROE POTTER	B.E. 1912 Civil Engineer	New Bern, N. C.
ZEB VANCE POTTER	B.E. 1914 (Mech.) With Standard Oil Co.	Baltimore, Md.
HARRY ALEXANDER POWELL	B.E. 1908 Naval Stores Operator	Jacksonville, Fla.
JAMES ALEXANDER POWELL	B.E. 1908 Mechanical Engineer, W. S. Barstow Management Association	Reading, Pa.
JOEL POWERS	B.E. 1903 Draftsman, Dewey Bros., Inc.	Goldsboro, N. C.
THOMAS MILTON POYNER	B.E. 1908 Engineer, West Construction Co.	Chattanooga, Tenn.
PALMER WILLIAM PRESSLY	B.E. 1919 Electrician, Swift & Co.	Alafia, Fla.
JAMES BRUCE PRICE	B.E. 1910 Electrical Engineer, U. S. Naval Ordnance Plant	South Charleston, W. Va.
JOHN MOIR PRICE	B.E. 1909 Sales Engineer, Electro-Metallurgical Sales Corporation	New York, N. Y.

Name	*Degree*	*Address*
JOHN BAILEY PRIDGEN	B.E. 1916	Elm City, N. C.
With State Highway Commission		
ABRAM HINMAN PRINCE	B.S. 1895	R. 1, Beaumont, Texas
Superintendent, Substation No. 4, State Experiment Station		
CHARLES MARCELLUS PRITCHETT	M.E. 1895	Asheville, N. C.
Resident Engineer, State Highway Commission		
VICTOR VASHTI PRIVOTT	B.E. 1895	Suffolk, Va.
Mechanic and Electrician		
FRANK WILSON PROCTER	B.E. 1915	Baltimore, Md.
General Engineer, Black & Decker Manufacturing Co.		
CARL CLAWSON PROFFITT	B.S. 1915	Forest City, N. C.
Manager, Farm Department of Farmers Bank & Trust Co.		
CHARLES LANDON PROFFITT	B.S. 1915	Kansas City, Mo.
Salesman of Tractors and Farm Machinery		
Home Address, Bald Creek, N. C.		
THOMAS HECTOR PURCELL	B.S. 1913	Maxton, N. C.
JACK ADDISON PUREFOY	B.S. 1916	Asheville, N. C.
HENRY AUBREY QUICKEL	B.S. 1913	Charlotte, N. C.
With American Telephone and Telegraph Co.		
JOSEPHUS PLUMMER QUINERLY	B.S. 1911	Auburn, Ala.
Dairy Husbandman, U. S. Department of Agriculture		
MILLARD REED QUINERLY	B.S. 1914	Grifton, N. C.
Manager, Grifton Motor Co.		
WALTER ROSCOE RADFORD	B.S. 1917	Spruce Pine, N. C.
With N. C. and U. S. Departments of Agriculture		
PARKER ROYALL RAND	B.S. 1916	Garner, N. C.
Farmer		
HENRY RANKIN	B.E. 1916	Gastonia, N. C.
Vice President and Treasurer, Rankin Mills, Inc., Ridge Mills, Inc., and Pinkney Mills, Inc.		
JOHN OLAN RANKIN, JR.	B.S. 1913	Gastonia, N. C.
WILLIAM WALTER RANKIN	B.E. 1904	New York, N. Y.
Instructor, Columbia University		
JOHN DUNCAN RAY	B.S. 1915	Kansas City, Mo.
D.V.M. 1917. With Kinsley Laboratories		
LEWIS BANKS RAY	B.E. 1916	Milwaukee, Wis.
Steam Turbine Designer, Allis-Chalmers Manufacturing Co.		
Home Address, Graham, N. C.		
JAMES LATHAN REA, JR.	B.S. 1919	R. 27, Matthews, N. C.
Farmer		
DAVID MILLER REA	B.E. 1917	Waynesville, N. C.
Civil Engineer, with J. W. Seaver, Jr.		
HUGH CALVIN REA	B.S. 1916	Charlotte, N. C.
D.V.S., Kansas City Veterinary College, 1918. Veterinarian		
RISDEN PATTERSON REECE	B.E. 1904	Winston-Salem, N. C.
Mechanical Engineer, Engineering Department, R. J. Reynolds Tobacco Co.		
JOHN BARTOW REES	B.E. 1914	Atlanta, Ga.
Engineer, Southern Bell Telephone and Telegraph Co.		
ROBERT RICHARD REINHARDT	B.S. 1909	Lincolnton, N. C.
Veterinarian		
WILLIAM BENEDICT REINHARDT	B.E. 1902	Dawson, Y. T., Canada
Electrician, Dawson Electric Light and Power Co.		
VICTOR ARTHUR RICE	B.S. 1917	Amherst, Mass.
Assistant Professor of Animal Husbandry, Massachusetts Agricultural College		
ROGER FRANCIS RICHARDSON	B.E. 1900	Birmingham, Ala.
Construction Engineer, Semet-Solvay Co.		
WILLIAM RICHARDSON, JR.	B.E. 1904	Ensley, Ala.
Assistant Superintendent, Coal Washories, Coal Mining Department, Tennessee Coal, Iron, and Railroad Co.		
EDWARD HAYES RICKS	B.E. 1903	Roanoke Rapids, N. C.
Real Estate Dealer		
WALLACE WHITFIELD RIDDICK	B.E. 1916	Demopolis, Ala.
Secretary-Treasurer, Demopolis Cotton Mills		

Name	*Degree*	*Address*
LOUIS NAPOLEON RIGGAN	B.E. 1912	Norfolk, Va.
Chief Clerk to Chief Engineer, Seaboard Air Line Railway		
ALFRED PRATTE RIGGS	B.E. 1909	West Palm Beach, Fla.
With South Florida Contracting and Engineering Company		
RAY MILLER RITCHIE	B.S. 1916	Marion, S. C.
Teacher		
THURMAN LESTER ROBERSON	B.E. 1914	Newport News, Va.
With Order Department, Newport News Shipbuilding and Dry Dock Co.		
DANIEL ERNEST ROBERTS	B.S. 1914	Rich Square, N. C.
Teacher of Agriculture, Rich Square High and Farm-life School		
JOHN MORGAN ROBERTS	B.S. 1914	Louisville, Ga.
Farmer		
PHILIP AUSTIN ROBERTS	B.E. 1916	Tarboro, N. C.
With W. M. Piatt, Municipal Engineer		
ARCHIE KNIGHT ROBERTSON	B.S. 1912	Goldsboro, N. C.
County Farm Demonstration Agent		
DURANT WAITE ROBERTSON	B.E. 1906	Washington, D. C.
Vice President and Treasurer, J. W. Hunt & Co., Paint Manufacturers		
HORACE BASCOMB ROBERTSON	B.E. 1917	McColl, S. C.
With Marlboro Cotton Mills		
JOHN PAUL ROBERTSON	B.S. 1916	Rowland, N. C.
Farmer		
JOSEPH HENRY ROBERTSON	B.E. 1909	Salisbury, N. C.
With North Carolina Public Service Co.		
GEORGE RANDOLPH ROBINSON	B.E. 1919	Wilmington, N. C.
Clerk to Purchasing Agent, Atlantic Coast Line Railroad Co.		
JAY FREDERICK ROBINSON	B.E. 1910	Newport News, Va.
Draftsman, Newport News Shipbuilding and Dry Dock Co.		
ZEB BLAINE ROBINSON	B.E. 1916	Badin, N. C.
Lumber Dealer		
GASTON WILDER ROGERS	B.E. (Elec.) 1903	Birmingham, Ala.
B.E. (Civil) 1905. Physician		
JAMES HENRY ROGERS	B.S. 1917	Roxboro, N. C.
Half Owner and Manager, Ioka Stock Farm		
WILLIAM HAYWOOD ROGERS, JR.	B.E. 1916	Greenville, N. C.
Engineer, Pitt County Highway Commission		
JOHN WESLEY ROLLINSON	B.E. 1911	Savannah, Ga.
Superintendent, Meter Department, Savannah Light and Power Co.		
WILLIAM EDWIN ROSE	B.E. 1900	Washington, D. C.
Mechanical Engineer. Member Washington Society Engineers and The American Society of Marine Draftsmen. (Not recent)		
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.		
GEORGE ROMULUS ROSS	B.S. 1911	Jackson Springs, N. C.
Farmer and Manager, Jackson Springs Co.		
GRAEME ROSS	B.E. 1911	Joplin, Mo.
Manager, Joplin Office, Westinghouse Electric and Manufacturing Co.		
JOE WILLIAM ROSS	B.S. 1914	R. 2, Fort Mill, S. C.
Farmer		
LANDON COATS ROSSER	B.E. 1915	Jonesboro, N. C.
EMERY PELL ROUSE	B.E. 1914	La Grange, N. C.
LINDLEY MURRAY ROWE	B.E. 1916	Charleston, S. C.
Structural Steel Worker		
GARLAND THOMAS ROWLAND	B.E. 1913	Camp Zachary Taylor, Ky.
Second Lieutenant, Machine Gun Battalion		
HORACE RALPH ROYSTER	B.E. 1918	Shelby, N. C.
With Knitting Mill		
JAMES MALCOLMSON RUMPLE	B.E. 1917	Charlotte, N. C.
With Chemical Construction Co.		
HENRY FRED RUSH	B.S. 1916	Greensboro, N. C.
Cotton Salesman, Latham Co.		

Name	*Degree*	*Address*
AUGUSTINE JOSEPH RUSSO	B.E. 1916	Portsmouth, Va.
Leading Draftsman, Shop Engineer's Office, Seaboard Air Line Railway Co.		
CARL COLLINS SADLER	B.E. 1910	Cleveland, Ohio
Field Engineer, American Steel and Wire Co.		
JAMES OLIN SADLER	B.E. 1909	Norfolk, Va.
General Superintendent, J. H. Pearce, Contractor and Builder		
DAVID MORTON SAINTSING	B.E. 1917	Newport News, Va.
Inspector for Newport News Shipbuilding and Dry Dock Co.		
MARION POLK SANFORD	B.S. 1919	Middleburg, N. C.
Teacher of Agriculture, Middleburg High School		
JOHN HYER SAUNDERS	B.E. 1894	Kinston, N. C.
Locomotive Engineer, Atlantic Coast Line Railroad		
WILLIS HUNTER SAUNDERS	B.S. 1897	Wichita Falls, Tex.
Field Manager, R. C. Sanders, Oil Well Contractor. (Not recent)		
DANIEL RUSSELL SAWYER	B.S. 1918	New York, N. Y.
With Swift & Company. Home Address, Waverly Place, Harrison, N. J.		
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.
Manager and Superintendent, Lily Mill and Power Co.		
LEON JACOB SCHWAB	B.E. 1907	Goldsboro, N. C.
No recent address		
ROBERT WALTER SCOTT, JR.	B.Agr. 1905	Bolton, N. C.
Farmer		
WILLIAM KERR SCOTT	B.S. 1917	Haw River, N. C.
Farmer		
EARLE ALOYSIUS SEIDENSPINNER	B.S. 1910	Opon, Cebu, P. I.
With Visayan Refining Co.		
CLEMENT OSCAR SEIFERT	B.E. 1916	Haverhill, Mass.
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 Woonsockett, R. I.		
JOHN WILLIAM SEXTON	B.E. 1910	Atlanta, Ga.
Division Engineer, Seaboard Air Line Railway		
NATHAN STOWE SHARP	B.E. 1916	Mason City, Iowa
With Burroughs Adding Machine Co.		
JAMES MORGAN SHERMAN	B.S. 1911	Washington, D. C.
M.S. 1912, Ph.D. 1915, University of Wisconsin. Bacteriologist, U. S. Department of Agriculture		
FLEMING BATES SHERWOOD	B.S. 1912, M.S. 1915	Kansas City, Mo.
Chemist, with Cook Paint and Varnish Co.		
FRANCIS WEBBER SHERWOOD	B.S. 1909	Raleigh, N. C.
M.S. 1911. Assistant Chemist, N. C. Agricultural Experiment Station		
WALTER DUPRE SHIELDS	B.E. 1919	Charlotte, N. C.
With Atlantic Dyestuff Co., Inc.		
ROBERT ARNOLD SHOPE	B.E. 1909	Atlanta, Ga.
Traveling Salesman		
JOHN WADE SHORE	B.S. 1900	Boonville, N. C.
Cashier, Commercial and Savings Bank		
IRA SHORT	B.E. 1911	South Philadelphia, Pa.
With Marine Engineering Department, Westinghouse Electric and Mfg. Co.		
JOHN HOUSTON SHUFORD	B.S. 1903	Charlotte, N. C.
With National Aniline and Chemical Co.		
JOHN OSCAR SHUFORD	B.E. 1907	Lincolnton, N. C.
Superintendent Electric Plant		
WILLIAM TALMAGE SHULL	B.E. 1912	Newport, N. C.
Civil Engineer, Portsmouth Fisheries Co.		
WALTER LEITH SHUPING	B.E. 1919	Atlanta, Ga.
Sales Engineer, Westinghouse Electric and Manufacturing Co.		
THOMAS PARK SIMMONS	B.E. 1917	Truxillo, Honduras, C. A.
With Truxillo Railroad Co. Home Address, Asheville, N. C.		
JOHN ASA SIMMS	M.S. 1917	New Orleans, La.
Consulting Livestock Specialist		

Name	*Degree*	*Address*
GEORGE GRAY SIMPSON	B.E. 1909	Norfolk, Va.
With T. S. Southgate & Co., Wholesale Brokers		
WILLIAM DUDLEY SIMPSON	B.E. 1913	Norfolk, Va.
Chief Draftsman, Seaboard Air Line Railway Co.		
FREDERICK ERASTUS SLOAN	B.S. 1899	Dallas, Texas
General Agent, Felt and Tarrant Manufacturing Co.		
KARL SLOAN	B.E. 1916	Statesville, N. C.
Engineer and Contractor		
ROBERT LEE SLOAN	B.S. 1913	Colfax, La.
County Farm Demonstration Agent		
WILLIAM NEVILLE SLOAN	B.E. 1909	Franklin, N. C.
Examiner of Surveys, U. S. Government Forest Service		
ALLEN ERNEST SMITH	B.S. 1918	Hope Mills, N. C.
Farmer and Teacher		
ANDREW THOMAS SMITH	B.S. 1899	Newport News, Va.
With Engineer's Department, Newport News Shipbuilding and Dry Dock Co.		
BASCOM PIERCE SMITH	B.E. 1916	West Allis, Wis.
Estimator, Steam Turbine Department, Allis Chalmers Co.		
EDGAR ENGLISH SMITH	B.E. 1908	Washington, D. C.
With U. S. Coast and Geodetic Survey. (Not recent)		
EDWIN HARRISON SMITH	B.E. 1910	Weldon, N. C.
With Bank of Weldon		
EDWARD OSCAR SMITH	B.E. 1901	Newport News, Va.
With Newport News Shipbuilding and Dry Dock Co.		
FRANCIS CLARK SMITH	B.E. 1913	Jacksonville, N. C.
Highway Engineer		
FRANK STEED SMITH	B.E. 1913	Savannah, Ga.
Division Traffic Supervisor, Southern Bell Telephone and Telegraph Co.		
JAMES LAWRENCE SMITH, JR.	B.E. 1908	Norfolk, Va.
Inspector of Fire Risks, Seaboard Air Line Railway		
JAMES MCCREE SMITH	B.S. 1912	State Road, N. C.
Fruit Grower		
JONATHAN RHODES SMITH	B.E. 1905	Bethlehem, Pa.
Engineer of Structures, Bethlehem Shipbuilding Corporation		
ORUS WILDER SMITH	B.E. 1912	Chicago, Ill.
District Service Manager, Splitdorf Electrical Co.		
WALTER HERBERT SMITH	B.E. 1914	Pittsburgh, Pa.
With 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.
With Asheville Mica Co.		
WILLIAM TURNER SMITH	B.E. 1900	R. 1, Duke, N. C.
Civil Engineer and Farmer		
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.
Division Highway Engineer, North Carolina State Highway Commission		
JOSEPH MCKAY SPEARS	B.E. 1915	Boston, Mass.
Student, Massachusetts Institute of Technology		
JOHN HENRY SPEAS	B.S. 1916	East Bend, N. C.
Fertilizer Salesman		
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	West Raleigh, N. C.
M.S. 1917. Instructor in Entomology and Zoology, N. C. State College		
JOHN DAVIDSON SPINKS	B.E. 1905	Winston-Salem, N. C.
C.E. 1913. Spinks & Edwards, Civil Engineers		

Name	*Degree*	*Address*
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 and Springs, Wholesale and Retail Builders' Supplies		
ERVIN BLACKENEY STACK	B.E. 1905	Monroe, N. C.
Electrical Engineer and Chemist		
TALMAGE HOLT STAFFORD	B.S. 1912	West Raleigh, N. C.
Alumni Secretary, N. C. State College		
CHARLES BURT STAINBACK	B.E. 1910	Wilkinsburg, Pa.
With Sales Department, Westinghouse Electric and Manufacturing Co.		
JOHN ALPHEUS STALLINGS	B.E. 1917	Newport News, Va.
With Newport News Shipbuilding and Dry Dock Co.		
EDWARD ROE STAMPS	B.E. 1903	Macon, Ga.
Superintendent, F. S. Royster Guano Co.		
HARRIS INGRAM STANBACK	B.E. 1910	Harrison, N. J.
Superintendent, Edison Lamp Works, General Electric Co.		
JEFFREY FRANKLIN STANBACK, JR.	B.S. 1916	Washington, D. C.
Assistant Chemist, Division of Technology, Bureau of Internal Revenue		
CHARLES WHITSON STANFORD, JR.	B.S. 1917	Teer, N. C.
Farmer		
ERNEST ELWOOD STANFORD	M.S. 1917	Cleveland, Ohio
Professor of Pharmacognosy, Western Reserve University		
NUMA REID STANSEL	B.S. 1898	El Paso, Tex.
E.E. 1901. Local Manager, Southwest General Electric Co.		
THOMAS BARNES STANSEL	B.S. 1910	Mascot, Tenn.
With American Zinc Co.		
CLARENCE ALEXANDER STEDMAN	B.S. 1912	Arlington, N. J.
Supervisor, Stock Department and Solvent Recoveries, E. I. du Pont de Nemours & Co.		
ALEXIS PRESTON STEELE	B.S. 1899	Statesville, N. C.
Mechanical Engineer, firm of J. C. Steele & Sons		
JOHN BROWN STEELE	B.S. 1913	Yadkin Valley, N. C.
Farmer		
LUCIUS ESEK STEERE, JR.	B.E. 1911	Washington, D. C.
Assistant Engineer, Potomac Electric Power Co.		
SAMUEL FATIO STEPHENS	B.E. 1909	Norfolk, Va.
Vice President, Physicians and Surgeons Supply Co.		
NEEDHAM BRYAN STEVENS	B.S. 1912	Plymouth, N. C.
Stevens & Stedman		
JAMES GRAY STOKES	B.S. 1919	Burgaw, N. C.
Farmer and Real Estate Dealer		
REUBEN BENNETT STOTESBURY	B.S. 1917	Columbus, Ohio
Veterinary Student, Ohio State University		
MICHAEL ALFRED STOUGH	B.E. 1917	Charlotte, N. C.
With the DuPont Company		
WILLIAM BEEVER STOVER	B.E. 1918	East Pittsburgh, Pa.
With Sales Department, Westinghouse Electric and Manufacturing Co.		
CHARLIE BERRYHILL STOWE	B.S. 1913	R. 4, Charlotte, N. C.
Farmer		
GEORGE YATES STRADLEY	B.E. 1903	Roanoke, Va.
With Valuation Department, Norfolk & Western Railway		
JOHN SNIPES STROUD	B.E. 1908	Cooleemee, N. C.
Assistant Manager and Superintendent, The Erwin Cotton Mills Co.		
WALTER STEPHENS STURGILL	B.E. 1901	Fort Sill, Okla.
Colonel of Field Artillery		
WILLIAM CLARK STYRON	B.E. 1910	Newport News, Va.
Engineering Department, Newport News Shipbuilding and Dry Dock Co		
TEISAKU SUGISHITA	B.S. 1898	Japan
Not heard from since Russo-Japanese War		
BEVERLY NATHANIEL SULLIVAN	B.S. 1901	Winston-Salem, N. C.
JACOB NEELEY SUMMERELL	B.E. 1919	Mayworth, N. C.
With The May Mills		
THOMAS BRYAN SUMMERLIN	B.E. 1910	Mount Olive, N. C.
Summerlin Implement Co.		

Name	*Degree*	*Address*
HENRY NEWBOLD SUMNER	B.E. 1909	Charleston, S. C.
Captain, Coast Artillery Corps. Professor of Military Science and Tactics, Porter Military Academy		
WILBUR BURNETTE SUMNER	B.E. 1916	Asheville, N. C.
First Lieutenant, U. S. Army		
LLOYD HURST SWINDELL	B.E. 1911	Raleigh, N. C.
Farmer		
LOUIS JOSEPH SWINK	B.E. 1917	Anderson, S. C.
With the Broyan Mills		
STANTON BANKS SYKES	B.E. 1913	Chicago, Ill.
Industrial Control Specialist, General Electric Co.		
VANCE SYKES	B.E. 1907	Hamlet, N. C.
Division Engineer, Seaboard Air Line Railway		
GEORGE FREDERICK SYME	B.S. 1898	Raleigh, N. C.
C.E. 1907. Supervising Engineer, State Highway Commission		
FREDDIE JACKSON TALTON	B.Agr. 1906	R. 2, Pikeville, N. C.
Farmer		
GURDON LUCIUS TARBOX	B.E. 1917	Plainfield, N. J.
Investigating Engineer, Spicer Manufacturing Corporation		
CLAUDE STRATON TATE	B.E. 1909	Littleton, N. C.
Proprietor of Garage and Machine Shop		
DANIEL MCGILVARY TATE	B.S. 1915	Parkerton, Wyo.
Farmer		
REUBEN L. TATUM	B.E. 1916	Raleigh, N. C.
With State Highway Commission		
ALFRED TENNYSON TAYLOR	B.S. 1916	Raleigh, N. C.
With Food and Oil Division, N. C. Department of Agriculture		
ARTHUR WILLIS TAYLOR	B.E. 1912	Baltimore, Md.
B.E. 1919, Johns Hopkins University. Lubrication Representative for Standard Oil Co.		
CULVER MURAT TAYLOR	B.E. 1912	Tarboro, N. C.
HERBERT LEE TAYLOR	B.E. 1912	Baltimore, Md.
Clerk, with Baltimore & Ohio Railroad		
WALTER CLYBURN TAYLOR	B.E. 1913	Icard, N. C.
T.E. 1916. With the Icard Knitting Mills		
ARTHUR LEE TEACHEY	B.S. 1915	Pleasant Garden, N. C.
Agriculturist, Pleasant Garden Farm-life School		
BEN TEMPLE	B.S. 1917	Mitchell, Va.
Farmer		
JAMES CLARENCE TEMPLE	B.S. 1904	Ocala, Fla.
M.S. 1908. Farmer		
MALVERN HILL TERRELL	B.E. 1909	Ronceverte, W. Va.
Chief Engineer, Greenbrier Power Plant		
ROGER VERNON TERRY	B.E. 1918	Newport News, Va.
Engineering Department, Estimating Division, Newport News Shipbuilding and Dry Dock Co.		
GEORGE LOGAN THOMPSON	B.E. 1912	Raleigh, N. C.
Superintendent of Distribution, Carolina Power and Light Co.		
JOHN SAM THOMPSON	B.S. 1912	Woodville, N. C.
Farmer		
THOMAS HAMPTON THOMPSON	B.E. 1910	Greensboro, N. C.
Chief Clerk to C. A. Pamplin, Southern Railway		
THOMAS WHITMELL THORNE	B.E. 1911	Atlanta, Ga.
Salesman, National Tube Co., Pittsburgh, Pa.		
DANIEL WOOD THORP, JR.	B.S. 1914	Charleston, S. C.
With Jefferson Construction Co.		
LOUIS DALE THRASH	B.E. 1914	Rutherfordton, N. C.
County Agricultural Demonstration Agent		
LUTHER RUSSELL TILLETT	B.E. 1907	Cotabato, P. I.
Civil Engineer		
RICHARD HENRY TILLMAN	B.E. 1906	Baltimore, Md.
Manager, New Business Department, Consolidated Gas, Electric Light and Power Co.		

Name	*Degree*	*Address*
WILLIAM SIDNEY TOMLINSON	B.E. 1906	Columbia, S. C.
President, Tomlinson Engineering Co.		
JAMES EDWIN TOOMER	B.S. 1909	Atlanta, Ga.
Chief Chemist, Morris Fertilizer Co.		
JAMES RICHARD TOWNSEND	B.E. 1914	Wilmington, N. C.
Civil Engineer		
JESSE ERNEST TREVATHAN	B.S. 1915	Warrenton, N. C.
Farm Demonstration Agent for Warren County		
GEORGE REID TROTTER	B.E. 1912	Charlotte, N. C.
Secretary, Electrical Constructors Co.		
GEORGE BOSTON TROXLER	B.S. 1918	Brown 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.
Cotton Gin Salesman		
ISAAC NORRIS TULL	B.E. 1910	Cleveland, Ohio
Electrical Engineer, The McKinney Steele 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	Maryville, Tenn.
Farm Superintendent		
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	Auburn, Ala.
Student of Veterinary Medicine, Alabama Polytechnic Institute		
GROVER WILLIAM UNDERHILL	B.S. 1916	Chester, Va.
M.S. 1918. Assistant Entomologist, 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	West Raleigh, N. C.
Professor of Experimental Engineering, N. C. State College		
WARNER MINNIEWEATHER VERNON	B.S. 1919	Raleigh, N. C.
Superintendent of Farm, Methodist Orphanage		
SOLOMON ALEXANDER VEST	B.S. 1900 (Chem.)	Mount Pleasant, Tenn.
B.Agr. 1901. President, Secretary and Treasurer, the S. A. Vest Laboratory, and Chemist for J. J. Gray, Jr., Rockdale, Tenn.		
SYLVESTER MURRAY VIELE	B.E. 1905	Altoona, Pa.
With Pennsylvania Railroad Co.		
JOHN LAWRENCE VON GLAHN	B.E. 1908	Spartanburg, S. C.
With Harwood Beebe, Consulting Engineer		
EDWIN THOMAS WADSWORTH	B.E. 1911	Charlotte, N. C.
With Huntley, Wadsworth and Huntley, Expert Vulcanizers		
ROSCOE MARVIN WAGSTAFF	B.E. 1900	Port Richmond, N. Y.
Chief Draftsman, Engineering Department, Staten Island Shipbuilding Co.		
JEW IRVIN WAGONER	B.S. 1919	R. 3, Durham, N. C.
Superintendent and Agricultural Supervisor, Lowes Grove Farm-life School		
JOSEPH KENDALL WAITT	B.E. 1904	Portsmouth, Va.
Assistant Valuation Engineer, Seaboard Air Line Railway		
SAMUEL STANHOPE WALKER	B.E. 1919	Martinsville, Va.
Assistant Superintendent, 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.
With the General Electric Co.		

Name	*Degree*	*Address*
BENJAMIN FRANKLIN WALTON	B.S. 1894	R. 1., Raleigh, N. C.
Farmer		
CHARLES EMMETTE WALTON	B.E. 1910	New York City
Electrical Engineer, Dodwell & Co., Ltd.		
EDMUND FARRIS WARD	B.Agr. 1907	Smithfield, N. C.
Lawyer		
JAMES HUGH WARD, JR.	B.E. 1915	Rocky Mount, N. C.
Member of firm, J. H. Ward Lumber Co.		
HUGH WARE	B.S. 1899	Kings Mountain, N. C.
Farmer		
JACOB OSBORNE WARE	B.S. 1916	Ithaca, N. Y.
M.S. 1918. Graduate Student, Cornell University		
HENRY CAPERTON WARWICK	B.E. 1918	Washington, D. C.
With U. S. Coast and Geodetic Survey		
ROBERT PHIFER WATSON	B.E. 1919	Box 15, McColl, S. C.
With Marlboro Mills Co.		
JAMES HUNTER WATSON	B.S. 1911	Raleigh, N. C.
Real Estate Dealer		
WALTER WELLINGTON WATT, JR.	B.E. 1905	Charlotte, N. C.
Engineer and Salesman, Fred H. White, Complete Mill Equipment		
JAMES WIGGINS WATTS, JR.	B.E. 1914	Williamston, N. C.
Merchant		
EDWARD HOWERTON WEATHERSPOON	B.E. 1914	New York City
Sales Engineer, Chas. Cory & Son, Inc.		
CHARLES WRIGHT WEAVER	B.E. 1915	Charleston, S. C.
Engineer, C. C. Railway Light and Power Co.		
LINDSAY MARADE WEAVER	B.E. 1907	Lexington, N. C.
With the Erlanger Mills		
GEORGE HENDERSON WEBB	B.E. 1916	Covington, Va.
Civil Engineer, West Virginia Pulp and Paper Co.		
MARION EMERSON WEEKS	B.E. 1904	Seattle, Wash.
Mechanical and Electrical Engineer		
CLEVELAND DOUGLAS WELCH	B.E. 1902	Mayworth, N. C.
Vice President and Agent, Mays Mills, Inc.		
NATHANIEL WARREN WELDON	B.S. 1917	Stovall, N. C.
Principal, Stovall High School		
HOWARD WALDO WELLES, JR.	B.E. 1910	Philadelphia, Pa.
With Engineering Department, Cumberland Truck Co.		
JOHN JACKSON WELLS	B.E. 1907, C.E. 1916	Rocky Mount, N. C.
Civil and Consulting Engineer		
ALBERT CLINTON WHARTON	B.S. 1904	Reynolds, N. C.
President and Manager, Reynolds Farm Co.		
HARRY GRAVES WHARTON	B.S. 1916	Greensboro, N. C.
DRUID EMMETT WHEELER	B.E. 1917	Camp Grant, Ill.
First Lieutenant, 54th Inf., U. S. Regulars. Home Address, Asheville, N. C.		
FRED BARNETT WHEELER	B.E. 1912	Raleigh, N. C.
M.E. 1915. Superintendent, Raleigh Manufacturing Co.		
BUXTON WHITE	B.S. 1915	Elizabeth City, N. C.
Seed Breeder and Merchant		
DAVID LYNDON WHITE	B.Agr. 1907	Gold Hill, N. C.
Superintendent, Gold Hill Dairy		
JONATHAN WINBORNE WHITE	B.S. 1903	State College, Pa.
M.S. 1912, University of Illinois. Professor of Soil Technology, Pennsylvania State College		
PERCY STANLEY WHITE	B.S. 1918	Indianapolis, Ind.
With Experimental Feeding Laboratory, Research Division, U. S. Department of Agriculture		
ROYALL EDWARD WHITE	B.E. 1908	Aulander, N. C.
Postmaster. Not heard from this year		
JOSEPH SLAUGHTER WHITEHURST	B.E. 1909	Lake Wales, Fla.
Assistant Cashier Lake Wales State Bank		
GEORGE WHITSON	B.E. 1916	Florence, S. C.
Central Office Man, Southern Bell Telephone and Telegraph Co.		

Name	*Degree*	*Address*
LEVI ROMULUS WHITTED	B.S. 1896	Denver, Colo.
C.E. 1897. Superintendent of Construction, U. S. Public Buildings, Treasury Department		
FREDERICK CARL WIGGINS	B.S. 1915	Kansas City, Mo.
Manager, Cook Paint and Varnish Co.		
ARCHIE CARRAWAY WILKINSON	B.E. 1905	Blue Ridge, Ga.
Assistant Engineer, Georgia State Highway Department		
BELTON CUNDIFF WILLIAMS	B.S. 1919	Raleigh, N. C.
Assistant Chemist, State Department of Agriculture		
CHARLES BURGESS WILLIAMS	B.S. 1893	West 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	Ware Shoals, S. C.
B.A.S. 1910. General Secretary, Y. M. C. A.		
JOHN C. WILLIAMS	B.E. 1908	Norfolk, Va.
Draftsman, Seaboard Air Line Railway		
JOHN FRANCIS WILLIAMS, JR.	B.S. 1917	Canandaigua, N. Y.
With Ross Phillips, Chemist		
JOHN FRANKLIN WILLIAMS	B.E. 1916	Charlotte, N. C.
With Southern Power Co.		
JOHN RODMAN WILLIAMS	B.E. 1915	Richmond, Va.
Student, Union Theological Seminary		
PETER MCK. WILLIAMS, JR.	B.S. 1916	Fayetteville, N. C.
M.S. 1917. Farmer		
ROY LEE WILLIAMSON	B.E. 1917	Weldon, N. C.
Resident Engineer, N. C. State Highway Commission		
ALVIN CHESLEY WILSON	B.E. 1913	Baltimore, Md.
Operating Electrical Engineer, Pennsylvania Water and Power Co.		
ARTHUR JOHN WILSON	B.S. 1907	Crawfordsville, Ind.
M.S. 1908. Ph.D. 1911, Cornell. Professor of Chemistry, Wabash College		
JOHN MCCAMY WILSON	B.E. 1894	Middletown, Ohio
Superintendent of Power		
JOHN SPICER WILSON	B.E. 1909	Chicago, Ill.
Testing Engineer, The Steel & Tube Co. of America. (Not recent)		
WALTER BOOKER WINFREE	B.S. 1911	R. 2, Wadesboro, N. C.
Farmer		
EDWARD LEIGH WINSLOW	B.E. 1910	Truxillo, Honduras
Contractor and Engineer		
HERMAN ELTON WINSTON	B.E. 1916	Enfield, N. C.
Tobacconist		
LEWIS TAYLOR WINSTON	B.Agr. 1906	Big Stone Gap, Va.
Chief Clerk, Auditing Department, Stonega Coke & Coal Co., Inc.		
THOMAS HUTCHINSON WINSTON	B.E. 1914	Philadelphia, Pa.
Assistant Engineer Bell Telephone Co. of Pennsylvania. 1631 Arch St.		
HOWARD WISWALL, JR.	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.
Chief Draftsman, 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	Durham, N. C.
With State Highway Commission		
OWEN ZELOTES WRENN	B.E. 1914	Charlotte, N. C.
With Southern Engineering Co.		
BENJAMIN VAIDEN WRIGHT	B.E. 1901	Laurel, Miss.
With Gilchrist Fordney Lumber Co.		

Name	*Degree*	*Address*
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.
Lieutenant, U. S. Naval Reserve Flying Corps		
CHARLES GARRETT YARBROUGH	B.E. 1895	Los Angeles, Cal.
District Service Manager, Westinghouse Electric and Manufacturing Co.		
LOUIS THOMAS YARBROUGH	B.E. 1893	Raleigh, N. C.
Postoffice Inspector, Headquarters, Washington, D. C.		
WOODFIN BRADSHER YARBROUGH	B.E. 1908	Morenci, Ariz.
Chief Electrician, Phelps Dodge Corporation, Morenci Branch		
JAMES FULLER YATES, JR.	B.E. 1918	Toledo, Ohio
Junior Engineer, Toledo Railways and Light Co.		
HARRY CURTIS YOUNG	M.S. 1915	East Lansing, Mich.
Research Associate in Botany, Michigan Agricultural College		
SAMUEL MARVIN YOUNG	B.E. 1893	Wilson, N. C.
Traveling Salesman, Watkins-Cottrell Co., Richmond, Va.		
YARO ZENISHEK	B.E. 1917	Greenwich, Conn.
Draftsman, Perry Engineering Co., New York		
JOHN FRANKLIN ZIGLAR	B.E. 1908	Winston-Salem, N. C.
C.E. 1915. Hinshaw & Ziglar, Civil Engineers		

DECEASED GRADUATES

THOMAS MARTIN ASHE	B.E.	1895
EDWARD PAR BAILEY	B.E.	1904
JOHN ISHAM BLOUNT	B.E.	1895
JOEL W. BULLOCK	B.Agr.	1905
ROBERT HILL CARTER	B.E.	1907
SUMMEY CROUSE CORNWELL	B.E.	1903
WILLIAM PESCUD CRAIG	B.S.	1901
JACOB TATUM EATON	B.Agr.	1907
JOHN DANIEL FERGUSON	B.E.	1903
NEVIN GOULD FETZER	B.S.	1912
HUGH PIERCE FOSTER	B.E.	1903
FRANCIS MARION FOY	B.S.	1899
RANSOM EATON GILL	B.E.	1910
ROY JOSEPH GILL	B.E.	1907
JOHN HOWARD GLENN	B.E.	1903
EMIL GUNTER	B.E.	1903
SAMUEL MERRILL HANFF	B.S.	1900
GEORGE ROM. HARDESTY	B.E.	1907
THOMAS FREDERICK HAYWOOD	B.E.	1909
ROBERT IRVING HOWARD	B.E.	1902
ARTHUR TEMPLETON KENYON	B.E.	1905
JAMES HERITAGE KOONCE	B.E.	1905
JOE POINDEXTER LOVILL	B.E.	1906
JAMES WILLIAM MCKOY	B.E.	1893
ROBERT LEE MORGAN	B.E.	1910
FRANK BULLOCK MORTON	B.E.	1914
B. MOORE PARKER	B.S.	1898
ALEXANDER HOLLADAY PICKEL	B.E.	1912
HUGH WILLIAMS PRIMROSE	Z.S.	1897
ZEBBIE GEORGE ROGERS	B.E.	1894
CARL DEWITT SELLARS	B.E.	1893
CHARLES EDGAR SEYMORE	B.S.	1893
WILLIAM THOMAS SHAW, JR.	B.E.	1914
ORIN MORROW SIGMON	B.E.	1911
CHARLIE AUGUSTINE SPEAS	B.E.	1911
JOHN FRANCIS SPEIGHT	B.E.	1910
HUGH STUART STEELE	B.E.	1909
WILLIAM ANDERSON SYME	B.S.	1899
ZEBULON WHITEHURST TAYLOR	B.E.	1914
FRANK MARTIN THOMPSON	B.E.	1910
BUXTON WILLIAMS THORNE	B.E.	1893
CHARLES EDWARD TROTTER	B.S.	1903
REID TULL	B.E.	1906
CLYDE LOREINE VANN	B.E.	1914
STEVEN DOCKERY WALL	B.E.	1905
CHARLES AUGUSTUS WATSON	B.S.	1901
JORDAN LEA WATSON	B.S.	1897
JAMES THADDEUS WEATHERLY	B.S.	1918
CECIL BERNARD WHITEHURST	B.E.	1907
EDWIN SEYMOUR WHITING	B.E.	1903
GAITHER HALL WHITING	B.S.	1900
BRADLEY JEWETT WOOTEN	B.S.	1897

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