CATALOGUE

State College Record

VOL. 17 No. 12

MAY, 1919

WEST RALEIGH, N. C.

PUBLISHED MONTHLY BY THE NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING

Entered as second class matter October 10, 1917, at the postoffice at West Raleigh, N. C., under the Act of August 24, 1912. "Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 11, 1918."

NORTH CAROLINA STATE COLLEGE
OF
AGRICULTURE AND ENGINEERING

1918-1919

WEST RALEIGH

CALENDAR

1919

JANUARY

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

FEBRUARY

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

MARCH

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

APRIL

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

MAY

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

JUNE

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

JULY

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

AUGUST

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

SEPTEMBER

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

OCTOBER

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

NOVEMBER

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

DECEMBER

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

1920

JANUARY

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

FEBRUARY

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

MARCH

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

APRIL

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

MAY

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

JUNE

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

JULY

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

AUGUST

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

SEPTEMBER

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

OCTOBER

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

NOVEMBER

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

DECEMBER

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

TABLE OF CONTENTS

COLLEGE CALENDAR

1919

Tuesday,	June	10.	Summer School begins.
Tuesday,	September	2.	Entrance examinations at the College.
Wednesday,	September	3.	First Term begins; Registration Day.
Tuesday,	October	28.	Farmers' Course begins.
Thursday,	November	27.	Thanksgiving Day.
Friday,	December	19.	First Term ends.

1920

Tuesday,	January	6.	Second Term begins; Registration Day.
Sunday,	May	23.	Baccalaureate Sermon.
Monday,	May	24.	Annual Address; Alumni Meeting.
Tuesday,	May	25.	Commencement Day. Annual Meeting of Trustees.

BOARD OF TRUSTEES

GOVERNOR THOMAS WALTER BICKETT, *Ex Officio Chairman*

Name.	*Postoffice.*	*Term Expires.*
W. E. DANIEL	Weldon	March 20, 1921
W. H. RAGAN	High Point	March 20, 1921
H. L. STEVENS	Warsaw	March 20, 1921
A. M. DIXON	Gastonia	March 20, 1921
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

EXECUTIVE COMMITTEE

W. H. RAGAN, *Chairman*

P. S. BOYD
R. H. RICKS
O. L. CLARK
C. W. GOLD, *Secretary*

FARM COMMITTEE

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

MEMBERS OF JOINT COMMITTEE

O. L. CLARK
T. T. THORNE
W. H. RAGAN
C. W. GOLD

FACULTY

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

WILLIAM ALPHONSO WITHERS
Vice President and Professor of Chemistry
A.B. 1883, A.M. 1885, D.Sc. 1917, Davidson College; Fellow in Chemistry, 1889-1890, Cornell University

THOMAS PERRIN HARRISON
Professor of English, and Dean of the College
B.S. 1886, S. C. Military Academy; Ph.D. 1891, Johns Hopkins University
(On leave for Y. M. C. A. Work, in France)

CHARLES BURGESS WILLIAMS
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

ROBERT E. LEE YATES
Professor of Mathematics
A.M. 1889, Wake Forest College

THOMAS NELSON
Professor of Textile Industry
Preston (England) Technical School

CLIFFORD LEWIS NEWMAN
Professor of Agriculture
B.S. 1886, M.S. 1887, Alabama Polytechnic Institute

WILLIAM HAND BROWNE
Professor of Electrical Engineering
A.B. 1890, Certificate in Electrical Engineering 1892, Johns Hopkins University

HOWARD ERNEST SATTERFIELD
Professor of Mechanical Engineering
B.S. 1904, M.E. 1909, Purdue University

GUY ALEXANDER ROBERTS
Professor of Veterinary Science and Physiology
B.Agr. 1899, B.S. 1900, University of Missouri; D.V.S. 1903, Kansas City Veterinary College

JOSHUA PLUMMER PILLSBURY
Professor of Horticulture
B.S. 1910, Pennsylvania State College

MELVIN ERNEST SHERWIN
Professor of Soils
B.S. 1908, University of Missouri; M.S. 1909, University of California

CARROLL LAMB MANN
Professor of Civil Engineering
C.E. 1906, N. C. State College of Agriculture and Engineering

ZENO PAYNE METCALF
Professor of Zoology and Entomology
B.A. 1907, Ohio State University

THOMAS EVERETT BROWNE
Professor of Vocational Education
A.B. 1902, Wake Forest College

WILLIAM ROSWELL CAMP
Professor of Agricultural Economics
B.A. 1909, Leland Stanford University; Ph.D. University of Missouri, 1918

BENJAMIN FRANKLIN KAUPP
Professor of Poultry Science
M.S. 1909, Colorado Agricultural College; D.V.M. Kansas City Veterinary College

FREDERICK ADOLPHUS WOLF
Professor of Botany and Plant Pathology
A.M., University of Nebraska; Ph.D., Cornell University

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

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

THOMAS CLEVELAND REED
Professor of Animal Husbandry and Dairying
B.S. (in Agr.) 1912, M.A. 1914, University of Missouri

CHARLES NEWTON HULVEY
Professor of Military Science and Tactics
Major of Infantry

GEORGE SUMMEY, JR.
Associate Professor of English
A.B. 1897, Ph.D. 1919, Columbia University
(Acting Head of Department)

LEON FRANKLIN WILLIAMS
Associate Professor of Chemistry
A.B. 1901, Trinity College; Ph.D. 1907, Johns Hopkins University

HENRY KNOX MCINTYRE
Associate Professor of Electrical Engineering
E.E. 1899, Columbia University

HARRY TUCKER*
Associate Professor of Railroad Engineering
B.A. and B.S. 1910, Washington and Lee University

LEON EMORY COOK
Associate Professor of Vocational Education
A.B. 1913, B.S. in Agr. 1914, M.S. in Agr. 1917, Cornell University

LILLIAN LEE VAUGHAN
Assistant Professor of Experimental Engineering
B.E. 1906, N. C. State College of Agriculture and Engineering; M.E. 1917, Columbia University

JOHN WILLIAM HARRELSON*
Assistant Professor of Mathematics
B.E. 1909, M.E. 1915, N. C. State College of Agriculture and Engineering

RUBLE ISAAC POOLE*
Assistant Professor of Civil Engineering
B.E. 1908, N. C. State College of Agriculture and Engineering; C.E. 1910, Cornell University

CARLETON FRIEND MILLER
Assistant Professor of Chemistry
B.S. 1909, Wesleyan; Ph.D. 1914, Cornell University

JOHN MILTON FOSTER
Assistant Professor of Machine Design and Applied Mechanics
B.M.E. 1911, University of Kentucky

WALTER CAMERON REEDER
Assistant Professor of Physiology and Pathology
B.S.A. 1908, M.S. 1913, Maryland State College; V.M.D. 1912, University of Pennsylvania

JOHN BEWLEY DERIEUX
Assistant Professor of Physics
B.S. 1909, M.A. 1914, University of Tennessee; Graduate Student, University of Chicago, 1914-16

CHARLES BENJAMIN PARK
Instructor in Machine Shop and Superintendent of Power Plant

*On leave, in military service.

HERBERT NATHANIEL STEED
Instructor in Weaving and Designing

LAFAYETTE FRANK KOONCE
Instructor in Veterinary Science
B. Agr. 1907, N. C. State College of Agriculture and Engineering; D.V.M. 1909, Kansas City Veterinary College

HERMON BURKE BRIGGS
Instructor in Mechanical Drawing
B.E. 1913, M.E. 1916, N. C. State College of Agriculture and Engineering

EDWIN LOUIS FREDERICK*
Instructor in Chemistry
A.B. 1911, Ph.D. 1914, Johns Hopkins University

SAMUEL GEORGE LEHMAN
Instructor in Botany
B.S. 1915, Ohio University; M.S., N. C. State College of Agriculture and Engineering

TALMAGE HOLT STAFFORD
Instructor in Soils
B.S. 1912, N. C. State College of Agriculture and Engineering

JACOB OSBORNE WARE
Instructor in Agronomy
B.S. 1916, N. C. State College of Agriculture and Engineering; M.S. 1918

ALFRED ALEXANDER DIXON
Instructor in Physics
B.S. 1909, Guilford College; A.M. 1911, Haverford College; Fellow in Physics in Rice Institute, 1915-17

JOHN ELI IVEY
Instructor in Poultry Science
B.S. 1917, N. C. State College of Agriculture and Engineering

DONALD MCCLUER
Instructor in Animal Husbandry and Dairying
B.Sc. 1913, Mississippi A. and M. College

EDWARD LAMAR CLOYD
Instructor in Mechanical Drawing
B.E. 1915, N. C. State College of Agriculture and Engineering

OWEN ZELOTES WRENN
Instructor in Civil Engineering
B.E. 1914, N. C. State College of Agricultural and Engineering

*On leave, in military service.

JAMES BLAINE DAVIS
Instructor in Mathematics
A.B. 1917, Wake Forest College

JOHN HENRY HIGHSMITH
Instructor in War Aims
A.B. 1900, A.M. 1902, Trinity College; Graduate Student 1904-6, Teachers College, Columbia University

CLARENCE HAMILTON KENNEDY
Instructor in Zoology and Entomology
A.B. 1902, A.M. 1903, Indiana University; A.M. 1914, Stanford University

SIMON JASPER MARION
Instructor in Chemistry
A.B. 1913, Roanoke College

THOMAS JACKSON MARTIN, JR.
Instructor in Drawing
B.E. 1917, N. C. State College of Agriculture and Engineering

CARL LOUIS WILLIAM MEYER
Instructor in French and English
A.B. 1910, University of Michigan; M.A. 1912, Columbia University

HARRY LEWIS MOCK
Instructor in Mathematics
A.B. 1907, Roanoke College; Graduate Student 1914, Johns Hopkins University

PERCY WALTER PRICE
Instructor in Carding and Spinning

CHARLES HENRY SLIFER
Instructor in Mathematics
B.S.D. 1902, A.B. 1906, McPherson College

JOSEPH ALEXANDER SMITH
Instructor in Wood Shop

RONALD BONAR WILSON
Instructor in English

THOMAS LESLIE WILSON
Instructor in English
A.B. 1906, Catawba College; A.M. 1912, Wofford College

CLARENCE THOMAS PEDLOW
Instructor in Horticulture
1917, Graduate of Missouri Botanical Garden

VERLIN WILLIAMS BUSBY
Instructor in Forge

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

OFFICERS

EDWIN BENTLEY OWEN, B.S.
Registrar

ARTHUR FINN BOWEN, C.P.A.
Bursar and Purchasing Agent

BUXTON WHITE, B.S.
Alumni Secretary

HUBERT BENBURY HAYWOOD, M.D.
Physician

ARTHUR BUXTON HURLEY
Steward

MRS. CHARLOTTE M. WILLIAMSON
Librarian

MRS. ELLA I. HARRIS
Hospital Matron

JAMES JOSHUA KING
General Secretary of the Young Men's Christian Association

MISS ISABEL BRONSON BUSBEE
Secretary to President

DEMONSTRATION AGENTS

C. R. HUDSON, State Agent, Department Agriculture, Raleigh, N. C.
H. H. B. MASK, Assistant State Agent.

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. McCRABY, Northeastern District, Washington, N. C.

COUNTY AGENTS

County	*Name*	*Postoffice*
ALAMANCE	J. P. Kerr	Haw River
ALEXANDER	U. A. Miller	Taylorsville
ALLEGHANY		
ANSON	J. W. Cameron	Polkton
ASHE		
AVERY	C. A. Ledford	Newland
BEAUFORT	H. H. Lawley	Washington
BERTIE	J. C. Anderson	Windsor
BLADEN	R. K. Craven	Clarkton
BRUNSWICK	H. L. Miller	Shallotte
BUNCOMBE	E. D. Weaver	Weaverville
BURKE	E. L. Perkins	Morganton
CABARRUS	R. D. Goodman	Concord
CALDWELL	D. W. Roberts	Lenoir
CAMDEN	J. W. Nyergaard	Camden
CARTERET	Z. T. Koonce	Beaufort
CASWELL	J. W. Williamson	Yanceyville
CATAWBA	J. C. Phelps	Newton
CHATHAM	R. L. Edwards	Ore Hill
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	W. J. Brockington	Fayetteville
CRAVEN	H. E. Nelson	New Bern
CURRITUCK	J. E. Chandler	Currituck
DARE		Manteo
DAVIDSON	W. G. Yeager	Lexington

County	*Name*	*Postoffice*
DAVIE	W. F. Reece	Mocksville
DUPLIN	O. W. Collins	Kenansville
DURHAM	H. T. Prosser	Durham
EDGECOMBE	Zeno Moore	Whitakers
FORSYTH	R. W. Pou	Winston-Salem
FRANKLIN	C. H. Stanton	Louisburg
GASTON	C. L. Gowan	Gastonia
GATES		
GRAHAM	R. W. Gray	Robbinsville
GRANVILLE	J. L. Dove	Oxford
GREENE		Snow Hill
GUILFORD		Greensboro
HALIFAX	F. G. Tarbox	Enfield
HARNETT	J. C. Anthony	Lillington
HAYWOOD		Waynesville
HENDERSON	Frank Fleming	Hendersonville
HERTFORD	E. W. Gaither	Winton
HOKE		Raeford
HYDE	Jesse Murray	Swan Quarter
IREDELL	J. A. Carey	Statesville
JACKSON	J. C. Brammer	Sylva
JOHNSTON	A. M. Johnson	Smithfield
JONES	E. F. Fletcher	Trenton
LEE	R. R. McIver	Sanford
LENOIR	W. T. Kyzer	Kinston
LINCOLN	W. L. Smarr	Lincolnton
McDOWELL	J. L. Thurman	Marion
MACON	R. P. McCracken	Franklin
MADISON	E. D. Bowditch	Marshall
MARTIN	J. L. Holliday	Williamston
MECKLENBURG	Chas. E. Miller	Charlotte
MITCHELL	J. W. Lindley	Bakersville
MONTGOMERY	C. S. McLeod	Troy
MOORE	H. S. Poole	Pinehurst
NASH	G. D. Burroughs	Nashville
NEW HANOVER	J. P. Herring	Wilmington
NORTHAMPTON	W. M. Wall	Jackson
ONSLOW	D. L. Latham	Jacksonville
ORANGE	E. S. Vanetta	Hillsboro
PAMLICO		
PASQUOTANK	G. W. Falls	Elizabeth City
PENDER	R. T. Melvin	Burgaw
PERQUIMANS	L. W. Anderson	Hertford
PERSON	M. G. James	Hurdle Mills

PITT	J. E. Dodson	Greenville
POLK	J. R. Sams	Columbus
RANDOLPH	D. S. Coltrane	Asheboro
RICHMOND		Rockingham
ROBESON	O. O. Dukes	Lumberton
ROWAN	S. S. Stabler	Salisbury
ROCKINGHAM	F. S. Walker	Reidsville
RUTHERFORD	C. C. Proffitt	Rutherfordton
SAMPSON	H. L. Boyd	Clinton
SCOTLAND		
STANLY	R. L. Hough	Albemarle
STOKES	J. H. Speas	Danbury
SURRY	Ewing Millsaps	Dobson
SWAIN		
TRANSYLVANIA	R. E. Lawrence	Brevard
TYRRELL		Columbia
UNION	T. J. W. Broom	Monroe
VANCE	J. A. Goodwin	Henderson
WAKE	W. H. Chamblee, Jr.	Wakefield
WARREN	J. W. Bason	Warrenton
WASHINGTON	R. W. Johnston	Plymouth
WATAUGA		
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

LOCAL AGENTS

E. F. Colson, Ansonville, Anson County.
_____, Winton, Hertford County.
Oliver Carter, Parmele, Pitt, Edgecombe and Martin.
D. D. Dupree, Wilmington, New Hanover, Pender and Brunswick.
H. G. Forney, Bricks, Nash, Halifax and Edgecombe (North).
G. W. Herring, Clinton, Sampson.
R. J. Johnson, Warsaw, Duplin.
E. C. Lackey, Winston-Salem, Forsyth, Davie and Yadkin.
C. S. Mitchell, Gatesville, Gates County.
J. W. Mitchell, Clarkton, Columbus and Bladen.
T. B. Patterson, Salisbury, Rowan County.
R. C. Ward, Laurinburg, Scotland and Robeson.
H. E. Webb, Greensboro, Guilford, Rockingham, Alamance.
F. D. Wharton, Henderson, Vance, Warren, Granville.
L. H. Roberts, Raleigh, Wake County.

OFFICERS AND STAFF OF THE N. C. AGRICULTURAL EXPERIMENT STATION AND THE N. C. AGRICULTURAL EXTENSION SERVICE

W. C. RIDDICK ..... President of the College
W. A. GRAHAM ..... Commissioner of Agriculture
B. W. KILGORE ..... Director
C. B. WILLIAMS ..... Vice Director, Agronomist
W. A. WITHERS ..... Chemist
FRANKLIN SHERMAN, JR. ..... Entomologist
G. A. ROBERTS ..... Veterinarian
C. R. HUDSON[1] ..... Farm Demonstration
MRS. JANE S. MCKIMMON ..... Home Demonstration
J. P. PILLSBURY ..... Horticulturist
Z. P. METCALF ..... Entomologist
DAN T. GRAY ..... Animal Industry
W. R. CAMP ..... Marketing
B. F. KAUPP ..... Poultry Investigator and Pathologist
F. A. WOLF ..... Plant Diseases
J. M. PICKELL ..... Feed Chemist
W. G. HAYWOOD ..... Fertilizer Chemist
L. L. BRINKLEY ..... Soil Survey
S. O. PERKINS ..... Soil Survey
C. D. MATTHEWS ..... Acting Horticulturist
R. S. CURTIS ..... Associate in Animal Industry
F. H. JETER ..... Agricultural Editor
J. K. PLUMMER ..... Soil Chemist
E. H. MATHEWSON[3] ..... Tobacco Expert
L. R. DETJEN ..... Assistant Horticulturist
R. W. LEIBY ..... Assistant Entomologist
CHARLES L. SAMS ..... Beekeeping
R. Y. WINTERS ..... Agronomist in Crops
W. F. PATE ..... Agronomist in Soils
A. R. RUSSELL ..... Assistant in Field Experiments
E. S. DEWAR ..... Assistant Chemist
H. M. LYNDE[4] ..... Drainage Engineer
J. M. JOHNSON[5] ..... Farm Management
F. O. BARTEL ..... Junior Drainage Engineer

J. E. ECKERT.....Assistant Entomologist
W. A. THOMAS.....Extension Entomologist
A. J. REED[2].....Dairy Farming
STANLEY COMBES.....Dairy Experimenter
D. R. NOLAND.....Cheese Work
EARL HOSTETLER.....Assistant in Beef and Swine
F. T. PEDEN.....Assistant in Beef Cattle
H. H. B. MASK[1].....Assistant State Agent, Farm Demonstration
S. G. RUBINOW.....Assistant to Director of Extension
ALLEN G. OLIVER[2].....Poultry Extension
BOLLING HALL.....Horticultural Extension
G. L. ARTHUR, JR.....Assistant Chemist
R. A. FETZER.....Assistant Chemist
E. C. BLAIR.....Assistant Agronomist in Soils
W. A. HARRIS.....Assistant Chemist
J. R. MULLEN.....Assistant Chemist
R. W. COLLETT.....Assistant Director Branch Stations
F. T. MEACHAM, Assistant Director in Charge Piedmont Station, Iredell County, Statesville, N. C.
W. J. BROCKINGTON, Assistant Director in Charge Trucking Station, Pender County, Willard, N. C.
S. C. CLAPP, Assistant Director in Charge Mountain Station, Buncombe County, Swannanoa, N. C.
E. G. Moss, Assistant Director in Charge Tobacco Station, Granville County, Oxford, N. C.
C. E. CLARK, Assistant Director in Charge Coastal Plain Station, Edgecombe County, Rocky Mount, N. C.
A. S. CLINE, Assistant Director in Charge Black Land Station, Wenona, Washington County, N. C.
V. R. HERMAN[3].....Assistant Agronomist
N. E. WINTERS.....Extension Agronomist
S. K. JACKSON.....Assistant Agronomist in Soils
S. F. DAVIDSON.....Soil Survey
W. A. DAVIS.....Soil Survey
GEORGE EVANS.....Sheep Extension
F. R. FARNHAM[2].....Cheese Work
J. A. SLOSS.....Field Agent, Beef Cattle Work
J. B. PERRY.....Assistant Field Agent, Beef Cattle Work
H. B. KRAUSZ.....Farm Forestry
E. R. RANEY.....Farm Machinery
C. S. JONES[6].....Livestock Marketing

GORRELL SCHUMAKER.....Assistant in Marketing
JOHN E. IVEY.....Assistant in Poultry Investigations and Pathology
W. W. SHAY.....Swine Extension
W. W. GENNETT.....Examiner in Rural Credits
A. F. BOWEN.....Bursar and Purchasing Agent

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.

---

[1] In coöperation with the United States Department of Agriculture, States Relations Service.

[2] In coöperation with the United States Department of Agriculture, Bureau of Animal Industry.

[3] in coöperation with the United States Department of Agriculture, Bureau of Plant Industry.

[4] In coöperation with the United States Department of Agriculture, Office of Roads and Rural Engineering.

[5] In coöperation with the United States Department of Agriculture, Office of Farm Management.

[6] In coöperation with the United States Department of Agriculture, Bureau of Markets and Rural Organizations.

MILITARY ORGANIZATION

COMMANDANT OF CADETS

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

ASSISTANT INSTRUCTORS

FIRST SERGEANT CHARLES J. SMITH, United States Army
SERGEANT ALLEN BONDS, United States Army
SERGEANT CHARLES ELLIOTT, United States Army

CADET LIEUTENANT COLONEL

HARRY G. MCGINN

CADET MAJORS

P. W. PRESSLEY
W. L. SHUPING

REGIMENTAL STAFF

A. L. HUMPHREY, Captain and Adjutant
J. G. LEONARD, Captain and Quartermaster

REGIMENTAL NONCOMMISSIONED STAFF

A. M. BELL, Regimental Sergeant-Major
J. B. HUNTER, Regimental Quartermaster Sergeant
A. E. MACKENZIE, Regimental Color Sergeant

BATTALION STAFF

W. D. SHIELDS, 1st Lieut. and Bat. Adjt. 1st Bat.
F. D. JEROME, 1st Lieut. and Bat. Adjt. 2d Bat.

BAND

P. W. PRICE (Faculty), Captain
R. D. TURNER, First Sergeant
R. C. STEPHENSON, Sergeant
J. D. PELL, Sergeant
C. F. KENDRICK, Sergeant
T. C. FELTON, Corporal
W. H. RICE, Corporal

COMPANY "A"

ZEB V. POTTER, Captain
JACOB N. SUMMERELL, First Lieutenant
DANIEL B. WORTH, First Sergeant
RICHARD N. GURLEY, Sergeant
JOHN R. HUDSON, Sergeant
CHARLES D. KIRKPATRICK, Sergeant
ANDREW W. MCMURRAY, JR., Sergeant
JUDSON D. ALBRIGHT, JR., Corporal
JAMES P. CLAWSON, Corporal
ASA B. HOLLOWELL, Corporal
ROY A. HOLLOWELL, Corporal
FRANK P. HUSKIN, Corporal
GEDDIE B. STRICKLAND, Corporal
RICHARD F. TABOR, Corporal
OTIS A. ZACHARY, Corporal

COMPANY "B"

GEORGE M. PARKER, Captain
SAMUEL S. WALKER, First Lieutenant
ROBERT P. WATSON, Second Lieutenant
GEORGE M. GREENFIELD, First Sergeant
OBED CASTELLOE, Sergeant
JOHN G. HALL, JR., Sergeant
HERMAN N. PICKETT, Sergeant
GEORGE W. TIENCKEN, Sergeant
ROBERT E. DUNNING, Corporal
FRANK R. ENGLISH, Corporal
LOUIS M. LATTIMORE, Corporal
PAUL S. OLIVER, Corporal
RALPH R. ROBERTSON, Corporal
ROBERT P. STACEY, Corporal
MARION F. TRICE, Corporal

COMPANY "C"

WILLIAM D. JOHNSTON, Captain
BURTON F. MITCHELL, First Lieutenant
HORACE D. CROCKFORD, Second Lieutenant
DENNIS H. SUTTON, First Sergeant
WILLIAM V. BAISE, Sergeant
EDWARD Y. FLOYD, Sergeant
ROSS D. PILLSBURY, Sergeant
ALBERT L. WHITE, Sergeant

JAMES P. BEAL, Corporal
FRED S. CHILDS, Corporal
SAMUEL L. CARPENTER, Corporal
WARREN S. MANN, Corporal
JAMES L. MAXWELL, Corporal

COMPANY "D"

WILLIAM S. BRIDGES, Captain
ALEXANDER B. MCCORMICK, First Lieutenant
FORREST B. LONG, Second Lieutenant
RAY A. HOLSHOUSER, First Sergeant
LAURENS A. HAMILTON, Sergeant
ADAM H. HARRIS, Sergeant
WILLIAM B. HODGES, Sergeant
WILSON C. MCCOY, Sergeant
ROBERT A. M. DEAL, Corporal
DEWEY A. FLOYD, Corporal
BART M. GATLING, Corporal
MACON L. HARDY, Corporal
WILLIAM M. JOHNSTON, Corporal
WILLIAM A. F. LAWING, Corporal
CHARLES S. RACKLEY, Corporal
GUY R. SIPE, Corporal

COMPANY "E"

SAMUEL O. BAUERSFELD, Captain
JAMES C. BLACK, First Lieutenant
THOMAS M. DENSON, Second Lieutenant
JOHN H. LANE, First Sergeant
WILLIAM C. BUNCH, Sergeant
JESSE M. HENLEY, Sergeant
EDWARD N. MEEKINS, Sergeant
AUGUSTUS R. MORROW, Sergeant
CHARLES A. SHEFFIELD, Sergeant
JOSEPH G. EVANS, Corporal
THOMAS C. FELTON, Corporal
PERRY H. GASTON, Corporal
LEO C. GUIRKIN, Corporal
EDWARD B. MANNING, Corporal
EMMETT R. MORROW, Corporal
COLON A. RICHARDSON, Corporal
CLAUDE WILSON, Corporal

COMPANY "F"

WILLIAM C. MURRELL, Captain
GEORGE E. BUSH, First Lieutenant
GEORGE R. ROBINSON, Second Lieutenant
MELVILLE L. MATTHEWS, First Sergeant
FRANKLIN D. CLINE, Sergeant
ROBERT H. DUKE, Sergeant
OLIVER K. HOLMES, Sergeant
EDWIN T. PORTER, Sergeant
RICHARD D. TURNER, Sergeant
ROYAL D. STEVENSON, Sergeant
WILLIAM G. ALLEN, Corporal
WILLIAM C. CHEEK, Corporal
CHRISTOPHER T. HUTCHINS, Corporal
TYCHO N. NISSEN, Corporal
JAMES M. PEDEN, Corporal
CALEB E. RHODES, Corporal
WILLIAM L. ROACH, Corporal
FRANK P. SHORE, Corporal

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 land which had been impoverished partly by slave labor. 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 bright young men, explained its mission by declaring that it was "an association in the city of Raleigh designed to find out and make known information on practical subjects that will be of public use." In 1885 this club presented to the Legislature a memorial urging that body "to establish an industrial school in North Carolina which shall be a training place for young men who wish to acquire skill in the wealth-producing arts and sciences."

This memorial quickened general interest in the proposed school, and several bills looking to its foundation were introduced in the Legislature of 1885. On March 7th, one of these bills, introduced by Hon. Augustus Leazar, of Iredell County, became a law. This law provided that the Board of Agriculture should seek proposals from the cities and towns of the State, and that the school should be placed in the town offering the most 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. Col. 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 full 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 possesses 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 class-rooms and laboratories of the Physics Department. The main floor contains the offices of the Executives and class-rooms of the Departments of English and Mathematics.

Patterson Hall, the main Agricultural building, is a buff press-brick structure, 204 feet long by 74 deep, of two stories and a basement. The lower floor is used as a dairy with wash-rooms and sterilization chamber. The first floor provides room for the offices of the Experiment Station, and for class-rooms 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 class-rooms.

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 in 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 class-rooms 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 tool rooms.

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, which embraces 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 farm foreman, near the barns; 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 100-horsepower boilers with a working steam pressure of 150 pounds. The engine plant embraces a 100-horsepower engine, generators, and steam and vacuum pumps.

AGRICULTURAL EQUIPMENT

Farm Crops. The department has the necessary accessories for present-day 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. Adjoining this laboratory are two rooms equipped with modern creamery machinery. The creamery, which is maintained as a commercial enterprise, provides for instructional work in cheese manufacturing.

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, dissecting and pharmacy rooms are supplied with all necessary apparatus. For class and laboratory instruction there are mounted skeletons, specimens of disease, 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.

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. For this department are provided class-rooms supplied for demonstration work, a suitably furnished designing room, an instrument laboratory fitted up with standardizing apparatus and measuring instruments, a dynamo laboratory, etc. The dynamo laboratory is equipped with various types and sizes of dynamos and motors, and with the general apparatus used in the study of electrical machines. The machinery of the College Power Plant and of the local power company is also available for instruction and study.

Physics. The William Kearny Carr Physical Laboratory embraces two lecture rooms and six laboratories, excellently equipped. The research laboratories offer exceptional facilities for advanced study in Physics. They include a dark room for work in light and a sound-proof room for acoustic work, 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 class-rooms, 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 lapping. 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 class-room, 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 investigations in agriculture, and for publishing the same. 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 will be 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, draughtsmen, machinists, electricians, miners, metallurgists, chemists, dyers, mill workers, manufacturers, stock raisers, fruit growers, truckers, and dairymen, by giving them not only a liberal, but also a special education, with such manual and technical training as will qualify them for their future work.

It offers practical and technical education in Agriculture, Horticulture, Animal Industry, 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 an immediate dismissal.

Students attend this College, of course, to fit themselves for a technical business life. They are therefore expected to be business-like 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—these offenses it is expected that a student's self-respect will lead him to abstain from, 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 by the Dean 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 not profitable to himself nor 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 Sabbath 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, and 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 on the campus, which was erected at a cost of $41,000.

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 meets the needs of the various athletic teams.

It is the aim of the College to encourage participation in athletic sports by all students as far as possible. 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 Catalogue 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 who has been a member or a substitute member of the football or baseball team of another college or university during the preceding year shall be permitted to become a member of either team at this College during his first session. In no case shall such student be eligible for these teams at this College unless he shall have been a student here for at least one-half of the preceding session; and no student who is unable to pass examination on two-thirds of the work required for admission to the Freshman class shall be allowed to participate until he has been in College one 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 substitute is interpreted to mean any student who has taken part in two or more intercollegiate contests.

Note 2. The term college is interpreted to mean any college named in the latest report of the Commissioner of Education which has as many as one hundred and fifty male students of collegiate grade recorded in its catalogue for the preceding year.

Note 3. 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. 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 the Leazar 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 class-rooms. 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.

REQUISITES FOR ADMISSION

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

To the Four-Year Courses

Admission to the Freshman Class of all four-year courses is by the unit system. 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.

Until notice of change is given, eleven units will be required for unconditioned admission to the Freshman Class of all four-year courses.

Of these eleven units, eight and one-half are in specified subjects, two and one-half are elective.

Specified Subjects

SUBJECTS.	*Units.*
English	3
History	2
Mathematics	2½
Science	1
	8½

Elective Subjects

SUBJECTS.	*Units.*
Agriculture or Farm Practice	½ or 1
Botany	½ or 1
Bookkeeping	½
Chemistry	½ or 1
Civics	½
Drawing (freehand or mechanical)	½
History	1
French, German, or Spanish	1
Latin	3
Manual Arts	½
Mill Practice	½
Physical Geography	1
Physics	½ or 1
Physiology	½
Science, General Introductory	½
Zoology	½ or 1

Explanation of Requirements

ENGLISH.	*Units.*
(*a*) Grammar and Composition	1
(*b*) Reading and Practice	1
(*c*) Study and Practice	1

(a) Grammar and Composition. English grammar should be carefully reviewed during the high school course, with special emphasis on correct terminology, the functions of the parts of speech, and the analysis of sentences. The study of composition is given system and unity by the use of a good text-book, but this should be accompanied with frequent written and oral exercises. Without constant practice in writing the study of the principles of composition is a waste of time. It is suggested that the exercises be generally short, one page being sufficient, on subjects chosen mainly from the student's personal experience and observation, not exclusively from literature. The fundamentals in composition—correct spelling, punctuation, and grammar—should be insisted upon.

(b) Reading and Practice. The aim of this work is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by giving him first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads. With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made except as otherwise provided under Group 1:

GROUP 1—Classics in Translation; two to be selected: 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. Homer's *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII. Homer's *Iliad*, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI. Vergil's *Æneid*. The *Odyssey*, the *Iliad*, and the *Æneid* should be read in English translation of recognized literary excellence. For any selection of this group a selection from any other group may be substituted.

GROUP 2—Shakespeare; two to be selected: *A Midsummer Night's Dream, The Merchant of Venice, As You Like It, Twelfth Night, The Tempest, Romeo and Juliet, King John, Richard II, Richard III, Henry V, Coriolanus, Julius Cæsar, Macbeth, Hamlet.* (The last three only if not chosen for study.)

GROUP 3—Prose Fiction; two to be selected: Malory's *Morte de'Arthur* (about 100 pages). Bunyan's *Pilgrim's Progress*, Part I, Swift's *Gulliver's Travels* (Voyages to Lilliput and to Brobdingnag). Defoe's *Robinson Crusoe*, Part I. Goldsmith's *Vicar of Wakefield*. Frances Burney's *Evelina*. Scott's novels: any one. Jane Austen's novels: any

one. Maria Edgeworth's *Castle Rackrent*, or *The Absentee*. Dickens's novels: any one. Thackeray's novels: any one. George Eliot's novels: any one. Mrs. Gaskell's *Cranford*. Kingsley's *Westward Ho!* or *Hereward the Wake*. Reade's *The Cloister and the Hearth*. Blackmore's *Lorna Doone*. Hughes's *Tom Brown's School Days*. Stevenson's *Treasure Island*, or *Kidnapped*, or *The Master of Ballantrae*. Cooper's novels: any one. Poe's *Tales*. Hawthorne's *The House of the Seven Gables*, or *Twice Told Tales*, or *Mosses from an Old Manse*. A collection of short stories by various standard writers.

GROUP 4—Essays, Biography, etc.; two to be selected: The *Sir Roger de Coverley Papers*, or selections from the *Tatler* and the *Spectator* (about 200 pages). Boswell's *Life of Johnson* (about 200 pages). Franklin's *Autobiography*. Irving's *Sketch Book* (about 200 pages), or *Life of Goldsmith*. Southey's *Life of Nelson*. Selections from Lamb's *Essays of Elia* (about 100 pages). Lockhart's *Life of Scott* (about 200 pages). Thackeray's Lectures on Swift, Addison, and Steele, in *English Humorists*. Macaulay, one of the following essays: *Lord Clive*, *Warren Hastings*, *Milton*, *Addison*, *Goldsmith*, *Frederic the Great*, *Madame d'Arblay*. Trevelyan's *Life of Macaulay* (about 200 pages). Ruskin's *Sesame and Lilies*, or selections (about 150 pages). Dana's *Two Years Before the Mast*. Lincoln: the two inaugurals, and the speeches in Independence Hall and at Gettysburg, his last public address, and letter to Horace Greeley, together with a brief memoir or estimate of Lincoln. Parkman's *The Oregon Trail*. Thoreau's *Walden*. Selected essays of Lowell (about 150 pages). Holmes's *The Autocrat of the Breakfast Table*. Stevenson's *Inland Voyage*, and *Travels with a Donkey*. Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*. A collection of essays by Bacon, Lamb, DeQuincey, Hazlitt, Emerson, and later writers. A collection of letters by various standard writers.

GROUP 5—Poetry; two to be selected: Palgrave's *Golden Treasury* (first series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns. Palgrave's *Golden Treasury* (first series), Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study). Goldsmith's *The Traveller* and *The Deserted Village*. Pope's *The Rape of the Lock*. A collection of English and Scottish Ballads, as, for example, some Robin Hood Ballads, *The Battle of Otterburn*, *King Estmere*, *Young Beichan*, *Bewick and Grahame*, *Sir Patrick Spens*, and selections of later ballads. Coleridge's *The Ancient Mariner*, *Christabel*, and *Kubla Khan*. Byron's *Childe Harold*, Canto III or IV, and *The Prisoner of Chillon*. Scott's *The Lady of the Lake* or *Marmion*. Macaulay's *The Lays of Ancient Rome*, *The Battle of Naseby*, *The Armada*, *Ivry*. Tennyson's *The*

Princess, or *Gareth and Lynette, Launcelot 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, "De Gustibus," The Pied Piper, Instans Tyrannus*. Arnold's *Sohrab and Rustum*, and *The Forsaken Merman*. Selections from American poetry, with special attention to Poe, Lowell, Longfellow, and Whittier.

(c) Study and Practice. This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.

GROUP 1—Drama; one to be selected: Shakespeare's *Julius Cæsar, Macbeth, Hamlet*.

GROUP 2—Poetry; one to be selected: Milton's *L'Allegro, Il Penseroso*, and either *Comus* or *Lycidas*. Tennyson's *The Coming of Arthur, The Holy Grail*, and *The Passing of Arthur*. The selections from Wordsworth, Keats, and Shelley, in Book IV of Palgrave's *Golden Treasury* (first series).

GROUP 3—Oratory; one to be selected: Burke's *Speech on Conciliation with America*. Macaulay's *Speeches on Copyright*, and Lincoln's *Speech at Cooper Union*. Washington's *Farewell Address*, and Webster's *First Bunker Hill Oration*.

GROUP 4—Essays; one to be selected: Carlyle's *Essay on Burns*, with a selection from Burns's poems. Macaulay's *Life of Johnson*. Emerson's *Essay on Manners*.

HISTORY.	*Units.*
(*a*) American	1
(*b*) English	1
(*c*) Ancient	1
(*d*) General Medieval and Modern	1

American history must be offered for one of the specified units in history, and one of the others named for the second. Only one elective unit in history can be offered. Standard text-books of high school grade should be studied.

MATHEMATICS.	*Units.*
(*a*) Algebra (high-school text-book)—	
To Quadratics	1
Quadratics through Progressions	½
(*b*) Plane Geometry (complete)	1

SCIENCE AND VOCATIONAL SUBJECTS.	*Units.*
(*a*) Botany	½ or 1
Chemistry	½ or 1
Physics	½ or 1
Physiology	½ or 1
Zoology	½ or 1
(*b*) Agriculture*	½ or 1
Bookkeeping	½
Civics	½
Drawing (freehand or mechanical)	½
Manual Arts	½ or 1
Mill Practice	½
Physical Geography	½ or 1
Science, General Introductory	½

The specified science must be chosen from group (*a*). Any other than that chosen as the specified science from group (*a*) or any one from group (*b*) may be offered as an elective subject.

In drawing, the stress should be placed on accurate observation and on definite and truthful representation. It is recommended that the pupils be taught to draw from the object itself. Elementary rules of perspective, light, and shade should be given, and the drawing of the simpler geometrical plane and solid figures and of simple pieces of machinery.

As the work is as yet scarcely begun in the schools of the State, no definite requirements can be indicated for high-school instruction in manual arts. The following branches are suggested as pointing the direction in which the work should be developed: joinery, forging, machine and sheet-metal work, molding, and pattern making.

One unit is allowed for a science when work in the text-book is supplemented with laboratory practice; only a half unit is allowed for the study of the text-book without laboratory. If full credit is asked, the applicant for admission must present a satisfactory note-book indicating the amount and the character of the laboratory work done, and certified by the teacher, the principal, or the superintendent of his school.

*Two and one-half units of vocational agriculture may be offered for entrance as elective subjects. One and one-half units of credit will be allowed for each year's work in vocational agriculture, completed in a high school operating under the direction of the State Board for Vocational Education.

Foreign Languages.		*Units.*
French—	(*a*) Grammar and Composition	½
	(*b*) Translation (250 pages of prose)	½
German—	(*a*) Grammar and Composition	½
	(*b*) Translation (200 pages of prose)	½
Latin—	(*a*) Grammar and Composition	1
	(*b*) Cæsar (Books I-IV of the Gallic War)	1
	(*c*) Vergil (Books I-VI of the Æneid)	1
	(*d*) Cicero, six orations	1
Spanish—	(*a*) Grammar and Composition	½
	(*b*) Translation (250 pages of prose)	½

The faculty of the College reserves the right to pass upon the adequacy of an applicant's preparation in any subject to fulfill the requirements of admission.

Admission on Certificate. Applicants for admission to the Freshman Class who present certified statements on the official College admission blanks from proper officials of high schools or other preparatory schools of approved standing that the applicant has satisfactorily completed the eleven units required by the College, will be admitted without further examination. These certificates must be submitted to the Dean of the College for approval.

No applicant will be registered until his certificate is presented.

To the Two-Year Courses. Applicants for admission to the two-year courses in Mechanic Arts and Textile Industry will be examined or must present certificates of proficiency on Arithmetic complete and Algebra through fractions, English Grammar and Composition, and American History.

To the One-Year Course in Agriculture. Applicants for admission to the one-year course in Agriculture will be required to pass examination on Arithmetic through decimal fractions, on English Grammar, and on American History.

To the Farmers' Course. No entrance examination is required of candidates for admission to the farmers' course. No one under eighteen years of age will be admitted to the farmers' course.

ADVANCED CREDIT

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

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 to the students.

EXPENSE

The total college expense of a Freshman student need not exceed $325.

The total college expense of a Freshman student having a scholarship need not exceed $280.

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.

The allowances which parents make their sons for contingencies and spending money, it is suggested, should be kept small; for small allowances take away temptation to unwise living.

DETAILED INFORMATION

The largest payment is made in September. On entrance, a Freshman student will need $120 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 $97.50. The $120 includes payment to the College of $85.50, of which $20 is a deposit for military equipment 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 $16 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 60 cents a day, or $4 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 on account of withdrawal to students under age are made upon the written request of their parents or guardians.

Itemized Expense by Months

SEPTEMBER: Room rent, fuel, and lights, $15; 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 deposit, $15; waste and breakage deposit, $5; board for September, $16—a total of $63 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 $85.50 to be paid to the College. Thirty-five dollars is required to buy books and drawing instruments and for incidentals.

OCTOBER: Board, $16.

NOVEMBER: Board, $16; tuition, if it was not paid in September, $22.50.

DECEMBER: Board, $10, through the 19th.

JANUARY: Tuition, $22.50; lodging and fuel and lights, $15; medical and hospital fee, $3; furniture fee, $1; physical culture fee, $3; Y. M. C. A. fee, $1; board, $14. A total of $59.50.

FEBRUARY: Board, $16.

MARCH: Board, $16.

APRIL: Board, $16.

MAY: Board, $16.

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 classes 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	Soils ..... $2 Agronomy ..... 1 Poultry 1 4	Soils ..... $2 Poultry ..... 1 Bacteriology ... 3 Agronomy ..... 1 Entomology ... 1 Plant Disease ... 1 9	Plant Propagation ... $1 Dairying ..... 3 Chemical Lab. 3 Plant Physiology ..... 1 Animal Physiology ..... 1 Physics 1 10	Botany ... $1 Chemical Lab. 2 Woodwork and Drawing ..... 1 Zoology 2 6
Animal Husbandry and Dairying	Chemistry ..... $2 Bacteriology ... 3 5	Soils ..... $2 Poultry ..... 1 Chemistry ..... 2 Agronomy ..... 1 Entomology ... 1 7	Same as General Agriculture	Same as General Agriculture
Horticulture	Bacteriology ... $3 3	Soils ..... $2 Chemistry ..... 2 Pruning ..... 1 Entomology ... 1 Agronomy 1 7	Same as General Agriculture	Same as General Agriculture
Voc. Ed.	Chemistry ..... $2 Bacteriology ... 3 Plant Diseases . 1 6	Soils ..... $2 Poultry ..... 1 Chemistry ..... 2 Pruning ..... 1 Agronomy 1 7	Same as General Agriculture	Same as General Agriculture
Veterinary	Anatomy ..... $2 Materia Medica 1 Pathology ..... 1 Chemistry ..... 2 Zoology ..... 2 Bacteriology ... 3 11	Agronomy ..... $1 Poultry ..... 1 Histology ..... 1 Anatomy ..... 2 Chemistry 2 7	Same as General Agriculture	Same as General Agriculture
Poultry	Chemistry ..... $2 Poultry ..... 4 Zoology 2 8	Chemistry ..... $2 Pruning ..... 1 Soils ..... 2 Poultry 2 7	Same as General Agriculture	Same as General Agriculture
Biology	Plant Disease ... $1 Bacteriology ... 3 4	Soils ..... $2 Agronomy ..... 1 Bacteriology ... 3 Entomology ... 1 Poultry ..... 1 Zoology ..... 2 Botany ..... 2 Anatomy 2 14	Same as General Agriculture	Same as General Agriculture

FEES AND DEPOSITS FOR ENGINEERING STUDENTS

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

FEES AND DEPOSITS FOR SHORT COURSES

One-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 go with the regular ones.

3. Mr. R. M. Miller, of Charlotte, offers a scholarship to one student in the Textile School. This scholarship covers the tuition of the holder.

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 furnishing-houses and pressing clubs. The College employs a few students for the dining-room and for other purposes. 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 class-room take most of a student's time. College duties begin at 8 a.m. and do not end until 4 p.m., hence 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 day 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 $16 per month, payable in advance.

Rooms in the College dormitories are supplied with electric lights, steam heat, and all necessary furniture, except sheets, blankets, pillow-cases, 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 to provide for five hundred and sixty students. The assignment of rooms is made by the military department when students register.

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 from the Government uniforms.

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 nor 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 four 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.

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 $100 per year by the United States Government.

Upon completion of the military training course to the satisfaction of the College authorities, graduates will be placed on the list of reserve officers of the United States Army for a period of ten years.

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 o'clock 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. However, 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.

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.

PHYSICAL EXAMINATION

Physical examination by the College Physician is required of all new students. The object of this examination is to discover any physical defects and to take proper steps to correct them.

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 Medicine, and Agricultural Chemistry.**
- **c. One-year Course in General Agriculture.**
- **d. Farmers' Course in General 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 Industry.

- **a. Four-year Textile Course.**
- **b. Four-year Textile Chemistry and Dyeing Course.**
- **c. Two-year Textile Course.**

IV. Summer School.

A six weeks Summer School for Teachers, of subjects of Primary, of Grammar, and of High School grade; for School Officials, and for candidates for admission to College.

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.

VI. 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 Bachelor of Science is conferred upon a graduate of the four-year courses in Agriculture, in Chemistry, and in Dyeing; and the degree 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 Farm Crops, Animal Husbandry, Horticulture, Vocational Education, Poultry Science, Biology, Veterinary Medicine, and Agricultural Chemistry.**

AGRICULTURAL COURSES

The Agricultural Courses are organized and arranged so 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, broadening 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, 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 addition to the preparation given for the successful operation of their own farms, graduates in Agriculture may become farm managers, demonstration agents, teachers of agriculture and science in farm-life and

other rural schools, orchardists, dairymen, poultrymen, and may fill many other responsible positions requiring technical training, such as teachers in colleges, experiment stations and extension workers, various offices with the United States Department of Agriculture, and many other responsible positions.

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, Mechanical Engineering, 131	1	3	0	0
Shop Work, Mechanical Engineering, 142	0	0	1	3
English, 101-102	3	3	3	3
Military Art, 101-102	4	4	4	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	22	28	22	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	4	4	4	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	22	28	22	28

*Work of Freshman 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
Poultry, 301	3	4	0	0
Vegetable Gardening, 302	0	0	3	4
Total required	13	18	13	18
Electives	9		9	
	22		22	
ELECTIVE LIST:				
Military Art, 301-302* and	4	4	4	4
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	3	4
Fertilizers, 402	0	0	3	4
Animal Diseases, 402	0	0	3	4
Plant Breeding	0	0	0	0
Animal Breeding, 401	3	4	0	0
Drainage, 401	3	5	0	0
Total required	12	16	12	16
Electives	10		10	
	22		22	
ELECTIVE LIST:				
Military Art, 401-402*	4	4	4	4

*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, 312	0	0	3	4
Dairy Cattle and Milk Production, Animal Husbandry, 301.....	3	4	0	0
English, 301	3	3	0	0
Grasses and Small Grain, Farm Crops, 312	0	0	3	4
Economics, 312	0	0	3	3
Veterinary Hygiene and Sanitation, 302	0	0	3	4

Senior Year

Rural Sanitation, Zoology, 431-432..	1	1	1	1
Gas Engines, Mechanical Engineering	0	0	3	4
Incubation and Brooding, Poultry...	3	4	0	0
Apiculture, Zoology, 421-422.....	2 or 3	3 or 4	2 or 3	3 or 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.

FARM CROPS

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Grasses and Small Grain, Farm Crops, 312	0	0	3	4
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, 314	3	4	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

ANIMAL HUSBANDRY

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Dairy Cattle and Milk Production, Animal Husbandry, 301	3	4	0	0
Swine Production, Animal Husbandry, 312	0	0	3	4
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	3	4
Veterinary Hygiene and Sanitation, 302	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
Advanced Stock Judging, Animal Husbandry, 431	3	4	0	0
Hay, Pasture and Silage, Farm Crops, 412	0	0	3	4
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	4	0	0
Trees and Shrubs, Horticulture, 332	0	0	3	4
Systematic Botany, 311	3	4	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
Gas Engines, Mechanical Engineering	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	3	4
Advanced General Poultry, 312	0	0	3	4
Fruit-growing, Horticulture, 301	3	4	0	0
Veterinary Hygiene and Sanitation, 302	0	0	3	4
Poultry Anatomy, 331	3	4	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	3	4	3	4
Advanced Plant Physiology, 312	3	4	0	0
Systematic Botany, 311	0	0	3	4

Senior Year

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

VOCATIONAL EDUCATION

Junior Year

Education, 301-302	3	3	3	3
Grasses and Small Grain, Farm Crops, 312	0	0	3	4
Swine Production, Animal Husbandry, 312	0	0	3	4
Fruit-growing, Horticulture, 301	3	4	0	0
Dairy Cattle, Animal Husbandry, 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
Incubation and Brooding, 422	0	0	3	4
Rural Sanitation, Zoology, 431-432	1	1	1	1
Horses and Mules, Animal Husbandry 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.

VETERINARY COURSE

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Farm Crops, Legumes	3	4	0	0
Anatomy, Veterinary Medicine, 321-322	4	6	4	6
Bacteriology, Botany, 302	0	0	3	4
Chemistry (Quantitative), 321	3	4	0	0
Chemistry (Physiological), 462	0	0	3	4
Dairy Cattle and Milk Production, Animal Husbandry, 301	3	4	0	0
English, 301	3	3	0	0
Principles of Feeding, Animal Husbandry, 312	0	0	3	4
Swine Production, Animal Husbandry, 312	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
Stock Judging, Animal Husbandry, 431	0	0	3	4
Anatomy, Veterinary Medicine, 411-412	4	6	4	6
Diagnosis, Veterinary Medicine, 432	0	0	3	4
Embryology, Zoology, 302	0	0	3	4
Pathology, Veterinary Medicine, 441-442	3	4	3	4
Pharmacy, Veterinary Medicine, 431	3	4	0	0
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

CHEMICAL COURSES

a. Four-year Course in Agricultural Chemistry.
b. Four-year Course in Chemical Engineering.
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 North Carolina State College of Agriculture and Engineering at West Raleigh 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 dye-house, 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 Agricultural Chemist receives instruction in Botany, Bacteriology, Physiology, and some elementary agricultural subjects.

The student in Chemical Engineering receives instruction in Physics, Electrical Engineering, Shop Work, Drawing, and other engineering subjects.

All three of these courses afford opportunities 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, micro-chemical 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 two classrooms, one for about thirty students 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 micro-chemical 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 opportunities for employment of chemists were excellent before the war, but more recently have greatly increased.

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	Agricultural Chemistry*				Chemical Engineering†				Textile Chemistry and Dyeing‡			
	First Term		Second Term		First Term		Second Term		First Term		Second Term	
	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours
Chemistry, 101-102	2	2	2	2	3	3	3	3	3	3	3	3
Chemistry, Laboratory, 111-112	1	2	1	2	1	3	1	3	1	3	1	3
Algebra, 101	0	0	0	0	5	5	0	0	5	5	0	0
Algebra, 112	0	0	0	0	0	0	1	1	0	0	1	1
Geometry, 102	0	0	0	0	0	0	4	4	0	0	4	4
English, 101-102	3	3	3	3	3	3	3	3	3	3	3	3
Drawing, 131 or 111-112	1	3	0	0	2	4	2	4	2	4	2	4
Engineering Lectures, 101-102	0	0	0	0	1	1	1	1	1	1	1	1
Physics, 101-102	0	0	0	0	2	2	2	2	0	0	0	0
Physics, Laboratory, 111-112	0	0	0	0	1	2	1	2	0	0	0	0
Wood Shop, 132 or 121-122	0	0	1	3	1	3	1	3	0	0	0	0
Military Art, 101-102	4	4	4	4	4	4	4	4	4	4	4	4
Algebra, 121	3	3	0	0	0	0	0	0	0	0	0	0
Botany, 101-102	3	4	3	4	0	0	0	0	0	0	0	0
Field Crops, 101	2	3	0	0	0	0	0	0	0	0	0	0
Geometry and Trigonometry, 122	0	0	3	3	0	0	0	0	0	0	0	0
Animal Husbandry, 102	0	0	2	3	0	0	0	0	0	0	0	0
Zoology, 101-102	3	4	3	4	0	0	0	0	0	0	0	0
Carding and Spinning, 101-102	0	0	0	0	0	0	0	0	1	2	1	2
Weaving, 111-112	0	0	0	0	0	0	0	0	2	3	2	3

*Same as for Freshman in Agriculture.
†Same as for Freshman in Civil, Electrical and Mechanical Engineering.
‡Same as for Freshman in Textile Engineering.

Sophomore Year

SUBJECTS	Agricultural Chemistry*				Chemical Engineering				Textile Chemistry and Dyeing†			
	First Term		Second Term		First Term		Second Term		First Term		Second Term	
	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours
Chemistry, Analytical, 211-212	3	6	3	6	3	6	3	6	2	4	4	8
English, 201-202	3	3	3	3	3	3	3	3	3	3	3	3
Physics, 201-202	2	2	2	2	4	4	4	4	2	2	2	2
Physics, Laboratory, 211-212	1	2	1	2	1	3	1	3	1	2	1	2
Trigonometry, 201	0	0	0	0	5	5	0	0	5	5	0	0
Geometry, 202	0	0	0	0	0	0	5	5	0	0	0	0
Modern Language, 201-202	0	0	0	0	2	2	2	2	0	0	0	0
Military Art, 201-202	4	4	4	4	4	4	4	4	4	4	4	4
Botany, 201	3	4	0	0	0	0	0	0	0	0	0	0
Chemistry, 202	0	0	1	1	0	0	0	0	0	0	0	0
Dairy, 202	0	0	3	4	0	0	0	0	0	0	0	0
Farm Crops, 202	0	0	3	4	0	0	0	0	0	0	0	0
Geology, 202	0	0	2	3	0	0	0	0	0	0	0	0
Plant Propagation, 201	3	4	0	0	0	0	0	0	0	0	0	0
Physiology, 201	3	4	0	0	0	0	0	0	0	0	0	0
Carding and Spinning, 201-202	0	0	0	0	0	0	0	0	1	3	2	4
Cloth Analysis, 232	0	0	0	0	0	0	0	0	0	0	1	2
Designing, 221-222	0	0	0	0	0	0	0	0	3	4	2	3
Weaving, 211-212	0	0	0	0	0	0	0	0	1	3	3	4

*Same as for Sophomore in Agriculture, substituting Analytical Chemistry and Inorganic Chemistry 2d term for Agricultural Organic Chemistry.
†Same as for Sophomores in Textile Engineering.

Junior Year

Chemistry, Organic, 301-302	3	3	3	3	3	3	3	3	3	3	3	3
Chemistry, Organic, Laboratory, 311-312	1	3	1	3	1	3	1	3	1	3	1	3
Chemistry, Quantitative Analysis, 321-322	3	6	3	6	3	6	3	6	3	6	3	6
English, 301	3	3	3	3	3	3	3	3	3	3	3	3
Modern Language, 311-312	2	2	2	2	3	3	3	3	2	2	2	2
Electrical Machines, 311-312	0	0	0	0	2	2	2	2	0	0	0	0
Heat Engines, 301-302	0	0	0	0	3	3	3	3	0	0	0	0
Military Art, 301-302	4	4	4	4	4	4	4	4	4	4	4	4
Farm Crops, Legumes, 301	3	4	0	0	0	0	0	0	0	0	0	0
Soils, 301-302	3	4	3	4	0	0	0	0	0	0	0	0
Bacteriology, 302	0	0	3	4	0	0	0	0	0	0	0	0
Dyeing, 351-352	0	0	0	0	0	0	0	0	3	3	3	3
Dyeing, Laboratory, 361-362	0	0	0	0	0	0	0	0	3	6	3	6
	22	29	22	29	22	27	22	27	22	30	22	30

Senior Year

Subjects	Agricultural Chemistry				Chemical Engineering				Textile Chemistry and Dyeing			
	First Term		Second Term		First Term		Second Term		First Term		Second Term	
	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours	Periods	Hours
Chemistry, Historical, 401	2	2	0	0	2	2	0	0	2	2	0	0
Chemistry, Industrial, 402	0	0	2	2	0	0	2	2	0	0	2	2
Chemistry, Inorganic, 412	0	0	2	2	0	0	2	2	0	0	0	0
Chemistry, Micro-Analysis, 411	2	2	0	0	2	2	0	0	0	0	0	0
Chemistry, Physical, 421-422	3	3	3	3	3	3	3	3	3	3	3	3
Chemistry, Physical, Laboratory, 431-432	1	3	1	3	1	3	1	3	1	3	1	3
Chemistry, Quantitative Analysis, 441-442	6	12	6	12	6	12	6	12	6	12	6	12
Military Art, 401-402	4	4	4	4	4	4	4	4	4	4	4	4
Elective Subjects	4	4	4	4	3	3	3	3	0	0	0	0
Dyeing, 451-452	0	0	0	0	0	0	0	0	2	2	2	2
Dyeing, Laboratory, 461-462	0	0	0	0	0	0	0	0	4	8	4	8
	22	30	22	30	21	29	21	29	22	34	22	34

Elective Subjects for Seniors

Chemistry, Organic, Laboratory, 451-452	2	4	2	4	2	4	2	4	0	0	0	0
Chemistry, Physiological, 461-462	3	4	3	4	3	4	3	4	0	0	0	0
Economics, 401	3	3	3	3	3	3	3	3	0	0	0	0
English, 401-402	3	3	3	3	3	3	3	3	0	0	0	0
Feeds, 312	0	0	3	4	0	0	3	4	0	0	0	0
Fertilizers, 402	0	0	3	4	0	0	3	4	0	0	0	0
Modern Language, 421-422	3	3	3	3	3	3	3	3	0	0	0	0

Other subjects if approved by the Professor of Chemistry.

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

More detailed descriptions of the different courses follow.

Four Year 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	..	..
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, 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	4	4	4	4
Totals	23	30	23	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	..	..	2	4
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	4	4	4	4
Totals	21	27	21	29

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
Masonry Construction, Civil Engineering, 341	2	2	..	..
Highway Engineering, Civil Engineering, 351-2	1	2	1	2
Graphic Statics, Civil Engineering, 362	..	..	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
ELECTIVE:				
Military Art, 301-302.....	4	5	4	5
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 the departments.				
Totals.....	22 or 24	26 or 27	22 or 24	30 or 31

Senior Year

SUBJECTS	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	2	4	..	..
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	3	3	..	..
Railroad Economics, Civil Engineering, 452	..	..	2	2
Water Supply, Civil Engineering, 462	..	..	2	2
Mechanics, Civil Engineering, 471	2	2	..	..
Astronomy, Civil Engineering, 482	..	..	2	2
Laboratory, Civil Engineering, 492	..	..	2	4
Heat Engines, Mechanical Engineering, 351-2	2	2	2	2
ELECTIVES:				
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 or 24	25 or 26	22 or 24	28 or 29

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, as will be seen from the equipment described elsewhere, is well supplied with dynamos, 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	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, 102-102	2	2	2	2
Physical Laboratory, 111-112	1	2	1	2
Electrical Engineering Lectures, 101.	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	4	4	4	4
Totals	23	30	23	30

Sophomore Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
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, 211-212.....	1	3	1	3
Descriptive Geometry, Mechanical Engineering, 202	1	3	1	3
Pattern-making, Mechanical Engineering, 211	1	3	..	..
Foundry, Mechanical Engineering, 201	1	3	..	..
Electrical Engineering Lectures, 201-202	1	1	..	..
Mechanical Drawing, Mechanical Engineering, 212	..	..	2	4
Forge, Mechanical Engineering, 232.	..	..	1	3
Military Art, 401-402.....	4	4	4	4
Totals.....	21	29	21	29

Junior Year

Direct Currents, Electrical Engineering, 301-302	3	3	3	3
Direct Current, Laboratory, 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
Modern Language, 331-332.....	2	2	2	2
ELECTIVE:				
Military Art, 301-302.....	4	5	4	5
Two subjects from the following list:				
Industrial Engineering, Mechanical Engineering, 351-352	3	3	3	3
Economics, 301-302	3	3	3	3
Subjects in other departments which can be scheduled and approved by the heads of the departments concerned.				
Totals.....	22 or 24	27 or 28	22 or 24	27 or 28

Senior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Alternating Currents, Electrical Engineering, 401-402	3	3	3	3
Electrical Transmission, Electrical Engineering, 421-422	2	2	2	2
Electrical Applications, Electrical Engineering, 411-412	2	2	2	2
Electrical Design, Electrical Engineering, 441-442	1	2	1	2
Alternating Current Laboratory, Electrical Engineering, 431-432	3	6	3	6
Mechanics, Mechanical Engineering, 421	3	3	2	2
Heat Engines, Mechanical Engineering, 301-302	3	3	3	3
Plane Surveying, Civil Engineering, 321	1	3	..	..
Hydraulics, Civil Engineering, 442	..	..	2	2
ELECTIVES:				
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, 401-402	3	3	3	3
Industrial Engineering, Mechanical Engineering, 413-414	3	3	3	3
Modern Languages, 431-432	3	3	3	3
Totals	22 or 24	29 or 30	22 or 24	27 or 28

FOUR-YEAR COURSE IN MECHANICAL ENGINEERING

The regular four-year course in Mechanical Engineering offers a training in the fundamental principles of design, construction, manufacture, and operation of all classes of standard and special machinery, and their economic application to railroads, steamships, mills, shops, factories, and power plants, as well as in the technical and executive management of the manufacturing and transportation industries. To this end the course of instruction is as broad as is possible to give in a technical school.

The course begins with a thorough training in mathematics, physics, and chemistry as a foundation for the appropriate technical work which is developed along several parallel lines. Applications of these fundamental sciences to the physical properties of the materials of construction, especially the metals and their practical manipulation, lead through the courses in mechanics, resistance of materials, shop processes, the materials-testing laboratory, drafting and kinematics, to the principles of design, which are fixed by application to the design of machinery for the execution of any kind of process in which machinery is either absolutely essential or more economical than corresponding hand execution of the same process. The principles underlying the performance of machinery are developed by courses in thermodynamics, mechanics, and hydraulics, with experimental laboratory demonstrations. The instruction in the performance, design, and manufacture of machine and power units in the classroom and laboratory, supplemented by visits to power plants and factories, is the basis of the work on the design of plants and mills.

To succeed in any one of these particular branches or phases of this profession, a thorough technical training is absolutely indispensable, for it supplies the broad, general foundation, which must in its turn be supplemented by practical experience and by contact with the special line of work chosen.

For descriptions of Short Courses in Mechanic Arts and Automobiles see pages 150a, 150b, 150c, and 150d.

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	4	4	4	4
Totals	23	30	23	30

Sophomore Year

Physics, 201-202	4	4	4	4
Physical Laboratory, 211-212	1	3	1	3
Descriptive Geometry, Mechanical Engineering, 201-202	1	3	1	3
Mechanical Drawing, Mechanical Engineering, 212	..	..	2	4
Trigonometry, Mathematics, 201	5	5	..	..
Analytical Geometry, Mathematics, 202	..	..	5	5
Foundry, Mechanical Engineering, 221	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	..	..
Military Art, 201-202	4	4	4	4
Totals	21	29	21	29

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
Design, Mechanical Engineering, 321-322	2	4	2	4
Machine Shop, Mechanical Engineering, 331-332	1	2	1	2
Laboratory, Mechanical Engineering, 341-342	1	2	1	2
English, 301-302	3	3	3	3
Modern Languages, 331-332	2	2	2	2
ELECTIVE:				
Military Art, 301-302, or	4	4	3	3
Industrial Engineering, Mechanical Engineering, 343-344, and	3	3	3	3
Economics, 301-302, or	3	3	3	3
Subjects in other departments which can be scheduled.				
Totals	22	26	22	26

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, 482, 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 may elect Military Art, 401-402, in the Senior year.				
Military Art, 401-402	4	4	4	4
Those who do not elect Military Art in the Junior year will elect two subjects from the following list:				
Modern Languages, 411-412	3	3	3	3
Journals, Classics, English, 401-402	3	3	3	3
Industrial Engineering, Mechanical Engineering, 413-414	3	3	3	3
Economics	3	3	3	3
Totals	22	29	22	29

III. TEXTILE COURSES

III (a). The Four-year Course in Textile Industry

THE TEXTILE DEPARTMENT

The Textile Department, which is a fully equipped Textile School, contains all the necessary machinery for instruction in manufacturing cotton yarns and fabrics from the bale to the finished product. The student is taught the theory of cotton spinning, weaving, designing, and dyeing. In connection with the theory, he learns the practical operation of cotton machinery used in carrying on the different processes. Further, he learns such essential practical details as enable him to adjust and fix the machinery so as to produce the proper results. As a result of this training, each student produces for himself cotton yarns of different numbers, and cotton fabrics of different kinds, from his own designs and choice of colors.

TEXTILE INSTRUCTION

In this department two courses of instruction are offered, the four-year course, leading to the degree Bachelor of Engineering, and the two-year course in carding and spinning, weaving, designing, and dyeing.

Four-year Course

The four-year course offers complete facilities for full instruction in all branches of cotton manufacturing. Practical training in textile work begins in the Freshman year and forms a part of the work in each of the following years. The combination of practical with theoretical training is begun in the Sophomore year, and continues in the Junior and Senior years. The theoretical work is directly related to the practical work going on, and this combination offers the best means for studying cotton mill work and its operations.

III (a). The Four-year Course in Textile Industry, leading to the degree Bachelor of Engineering.

Freshman Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Industry, 101-102	1	2	1	2
Weaving, Textile Industry, 111-112	2	3	2	3
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
Shop Lectures, Mechanical Drawing, 101-102	1	1	1	1
Algebra, Mathematics, 101	5	5	0	0
Geometry, Mathematics, 102	0	0	4	4
Advanced Algebra, Mathematics, 112	0	0	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
Drill	4	4	4	4
Totals	22	28	22	28

Sophomore Year

Carding and Spinning, Textile Industry, 201-202	1	3	2	4
Weaving, Textile Industry, 211-212	1	3	3	4
Designing, Textile Industry, 221-222	3	4	2	2
Cloth Analysis, Textile Industry, 232	0	0	1	2
Physics, 221-222	2	2	2	2
Physics, Laboratory, 211-212	1	2	0	0
Analytical Chemistry, 211-212	2	4	2	4
Drawing, Mechanical Engineering, 212	0	0	2	4
Trigonometry, Mathematics, 201	5	5	0	0
English, 201-202	3	3	0	0
Public Speaking, English, 212	0	0	3	3
Forge	0	0	1	2
Drill	4	4	4	4
Totals	22	26	22	27

Junior Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Industry, 301-302	3	5	3	5
Weaving, Textile Industry, 311-312	3	5	3	5
Designing, Textile Industry, 321-322	3	4	2	2
Cloth Analysis, Textile Industry, 332	0	0	1	2
Dyeing, Textile Industry, 351-352	1	1	1	1
Dyeing, Laboratory, Textile Industry, 361-362	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
ELECTIVES:				
Military Art, 301-302, or	4	4	4	4
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.				
Totals	28	28	28	28

Senior Year

Carding and Spinning, Textile Industry, 401-402	4	6	4	6
Weaving, Textile Industry, 411-412	4	6	4	6
Designing, Textile Industry, 421-422	3	3	3	3
Cloth Analysis, Textile Industry, 431-432	1	2	1	2
Dyeing, Textile Industry, 451-452	2	2	2	2
Dyeing, Laboratory, Textile Industry, 461-462	2	4	2	4
Heat Engines, Mechanical Engineering, 301-302	2	2	2	2
Totals	18	25	18	25

TWO-YEAR SHORT COURSE IN TEXTILES

First Year

Subject	First Term		Second Term	
	Credits	Hours	Credits	Hours
Carding and Spinning	1	3	1	3
Weaving	2	5	2	5
Designing	2	4	1	2
Cloth Analysis	..	..	1	2
Drawing	2	4	2	4
Shop Lectures	1	1	1	1
Algebra	5	5	..	..
Geometry	..	..	5	5
English	3	3	3	3
Totals	16	25	16	25
Military Art	4		4	

Second Year

Carding and Spinning	3	6	3	6
Weaving	3	6	3	6
Designing	3	4	2	2
Cloth Analysis	..	..	1	2
Dyeing Laboratory	3	5	3	5
Machine Shop	1	3	1	3
English	3	3	3	3
Totals	16	27	16	27
Military Art	4		4	

Elective Subjects

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Those students who elect Military Art in the Junior year will elect Military Art, 401-402, in the Senior year.				
Military Art, 401-402	4	4	..	..
Those students who do not elect Military Art in the Junior year will elect two subjects from the following list:				
Modern Languages, 411-412	3	3	3	3
Economics	3	3	3	3
English, 401-402	3	3	3	3
Industrial Engineering, Mechanical Engineering, 413-414	3	3	3	3

TEXTILE CHEMISTRY AND DYEING COURSE

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 embrace 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 dyeing the student is taught the different practical methods of the dye-house; the chemistry of the dyestuffs, some of each class of which he actually makes; the chemical changes brought about by mordants, assistants, etc. He also learns color matching, dye testing, and the methods for the analysis of the different chemicals used in the dye-house. 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, engines, boilers, etc., together with such general studies as English, Mathematics, Physics, and General Chemistry, which are required in all four-year courses.

The Four-year Course in Textile Chemistry and Dyeing, leading to the degree Bachelor of Science.

Freshman Year

SUBJECTS	FIRST TERM		SECOND TERM	
	Periods	Hours	Periods	Hours
Carding and Spinning, Textile Industry, 101-102	1	2	1	2
Weaving, Textile Industry 111-112	2	3	2	3
Mechanical Drawing, Mechanical Engineering, 111-112	2	4	2	4
Shop Lectures, Mechanical Drawing, 101-102	1	1	1	1
Algebra, Mathematics, 101	5	5	0	0
Geometry, Mathematics, 102	0	0	4	4
Advanced Algebra, Mathematics, 112	0	0	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
Drill	4	4	4	4
Totals	22	28	22	28

Sophomore Year

Carding and Spinning, Textile Industry, 201-202	1	3	2	4
Weaving, Textile Industry, 211-212	1	3	3	4
Designing, Textile Industry, 221-222	3	4	2	2
Cloth Analysis, Textile Industry, 232	0	0	1	2
Physics, 221-222	2	2	2	2
Physics, Laboratory, 211-212	1	2	0	0
Analytical Chemistry, 211-212	2	4	2	4
Drawing, Mechanical Engineering, 212	0	0	2	4
Trigonometry, Mathematics, 201	5	5	0	0
English, 201-202	3	3	0	0
Public Speaking, English, 202	0	0	3	3
Forge, Mechanical Engineering, 232	0	0	1	2
Drill	4	4	4	4
Totals	22	26	22	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
Dyeing, Textile Industry, 351-352	2	2	2	2
Dyeing, Laboratory, Textile Industry, 361-362	4	8	4	8
English, 301-302	3	3	3	3
Modern Language, 201-202	2	2	2	2
ELECTIVE				
Military Art, 301-302, or	4	4	4	4
Economics, 301-302, and	3	3	3	3
One Textile subject	3	3	3	3
Totals	22	31	22	31

Senior Year

Chemistry, Historical, 401	2	2	0	0
Chemistry, Industrial, 402	0	0	2	2
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
Dyeing, 451-452	2	2	2	2
Dyeing, Laboratory, 461-462	4	8	4	8

Elect two periods from the following:

Modern Language	3	3	3	3
English	3	3	3	4
Economics	3	3	0	0
Textile subject	3	3	0	0

NOTE. 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.

SHORT COURSES

I. SHORT COURSES IN AGRICULTURE

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 short courses are offered. None of these courses will lead to graduation, and they are not in any sense intended as preparatory courses to the regular four-year classes. They are 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 spheres of industrial activity.

Those students whose inclinations, limitations, or necessities lead them to take these shorter courses will be carefully drilled in the handicraft and mechanism of their art, and in the application of elementary science to the farm, dairy, garden, and orchard.

ONE-YEAR COURSE IN AGRICULTURE

This course offers, in addition to the purely agricultural branches, introductory and cultural subjects, and thus enables the student to secure work in Physiography, Physics, English, and Mathematics, in addition, and all the better prepares young men to become farmers, farm managers, and teachers of agriculture and allied branches in the public schools.

One-year Course

Subjects	Periods a Week	
	1st Term	2d Term
Carpentry, Mechanical Engineering, 13	3	--
Drill, 101-102	4	4
English, 11-12	5	5
Mathematics, 11-12	5	5
Physics, 11-12	2	3
Forge Shop, 32	2	--
Physiography, Soils, 22	--	3
Physiology and Hygiene, Veterinary Science, 11	3	--
Plant Culture, Horticulture, 42	--	3
Totals	24	23

II. THE FARMERS' SIXTEEN WEEKS COURSE IN AGRICULTURE

This Short Course in Agriculture is open to all who are either engaged in or interested in farming. It does not prepare for any other course offered by the College. It is designed to aid any who wish to become more modern and more businesslike in the pursuit of farming, and it gives an opportunity for the busy man to spend two or four months at the College studying the branches of farming he is interested in. He is brought in close association with the specialists in College, Experiment Station, and Extension Work, and is given an opportunity of becoming acquainted with the service done by the various departments of the College. The object of the course is to better fit men for the lives they are to live by aiding them to secure a broader view of agriculture and a better skill and higher efficiency in their chosen fields of endeavor.

This Short Course offers eighteen periods per week of required work in the several departments giving instruction in agriculture, and permits the student to elect six periods per week either in Agronomy, in Animal Husbandry and Dairying, in Horticulture, or in Poultry, making a total of twenty-four periods per week.

The Fall Term begins October 28, 1919, and continues for eight weeks. The Spring Term begins January 9, 1920, and continues for eight weeks. While the course is continuous through two terms, students may enter at the beginning either of the Fall Term or of the Spring Term.

Farmers' Sixteen Weeks Course in Agriculture

SUBJECTS	PERIODS A WEEK 1st Term	2d Term
REQUIRED WORK		
Plant Life, Botany, 11	3	--
Entomology, Zoology, 12	--	3
Farm Equipment, Agronomy, 11	3	--
Grains, Agronomy, 12	--	3
Dairying, Animal Husbandry, 11	3	--
Breeds and Judging, Animal Husbandry, 12	--	3
Plant Propagation, Horticulture, 11	3	--
Pruning and Spraying, Horticulture, 12	--	3
Sanitation and Diseases, Poultry, 11	3	--
Poultry House Construction and Feeding, Poultry, 12	--	3
Soil Geology and Soil Physics, Soils, 11	3	--
Fertilizers and Manures, Soils, 12	--	3
OPTIONAL WORK		
Agronomy Group—		
Forage Crops, Agronomy, 21	3	--
Cotton, Agronomy, 22	--	3
Corn, Agronomy, 31	3	--
Tobacco, Agronomy, 32	--	3
Animal Husbandry and Dairying Group—		
Swine Production, Animal Husbandry, 21	3	--
Beef Cattle Production, Animal Husbandry, 22	--	3
Milk Production, Animal Husbandry, 31	3	--
Farm Curing of Meat, Animal Husbandry, 32	--	3
Horticulture Group—		
Fruit Growing, Horticulture, 21	3	--
Vegetable Gardening, Horticulture, 22	--	3
Improvement of Home Grounds, Horticulture, 31	3	--
Marketing Horticultural Products, Horticulture, 32	--	3
Poultry Group—		
Incubation and Brooding, Poultry, 21	3	--
Selection and Breeding, Poultry, 22	--	3
Breeds and Judging, Poultry, 31	3	--
Marketing Farm Poultry, Poultry, 32	--	3
Totals	24	24

III. 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 9, 1920, 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

DESCRIPTION OF COURSES

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. Professor REED, Mr. MCCLUER.

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. Professor REED, Mr. MCCLUER.

301. 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 Juniors. Professor REED.

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; the selection of sheep by judging. First term, three periods. Elective for Juniors. Professor REED.

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

general survey of feeding stuffs. Second term, three periods. Required of Juniors. Professor REED.

312. 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. Second term, three periods. Elective for Juniors. Mr. MCCLUER.

401. Animal Breeding. Deals with the improvement of domestic animals; a discussion on variation and heredity of animal characters; reproduction, development, selection, line breeding, in breeding, cross breeding, grading and other factors dealing with the improvement of farm animals. First term, three periods. Required of Seniors. Professor REED.

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. MCCLUER.

421. Horse and Mule Production. This course deals with methods of breeding, feeding, 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. MCCLUER.

431. 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 for exhibition, and to judging at livestock shows. First term, three periods. Elective for Seniors. Professor REED and Mr. MCCLUER.

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. Mr. MCCLUER.

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. Farm Dairying. This course is given to furnish the student instruction regarding the dairy industry. It should be of use and interest to any farmer, whether he is especially interested in making dairy farming the largest part of the farm operations or not. The subject material includes the testing of milk and cream for butter-fat, need and value of testing individual cows, the composition and properties of milk, its food value and use as a food, the separation of cream and farm butter-making, and the proper method of handling milk and cream. All discussions and laboratory work will be taken up from the farm viewpoint. Two lectures and one laboratory period a week during the fall term of the Short Course. Professor REED.

12. Breeds and Judging. This course consists of a brief study of the most important breeds and market classes of horses, cattle, sheep, and swine. Their history, development, distinctive characteristics, adaptation and value to the stockman, butcher, and consumer are studied. The differences in function and conformation between pure-bred animals and scrubs or natives is pointed out. By lectures, demonstrations, and personal score-card practice the student learns the good points and defects of the animals before him in the show ring. After the use of the score-card is learned, work will be given in comparative judging. Second term, three periods. Mr. MCCLUER.

21. Swine Production. This course consists of a brief study of the most economic and best methods of producing hogs on Southern

farms, also preparing them for market or exhibition. Special attention is given to home-grown feeds and to the practical management of hogs. The distinctive characteristics and the adaptability of the most important breeds are discussed. First term, three periods. Mr. MCCLUER.

22. Beef Cattle Production. This course consists of practical methods of handling the beef cattle herd, emphasizing production, maintenance, finishing, and marketing. The utilization of pastures will be given prominent consideration in the discussions. In considering the subject the breeder, feeder, and butcher or consumer will be given close consideration. All work will be based on the breeds of beef cattle adapted to Southern conditions. Work will consist of lectures, judging breed and market types, assigned readings, quizzes, and examinations. Second term, three periods.

31. Milk Production. The aim of this course is to furnish practical instruction regarding the dairy cow on the farm. A study of the different breeds will be made, their adaptation to conditions and purposes, selection of individual cows by use of the score-card and by records, keeping production records, general herd improvement, selecting of the herd bull, calf raising, feeding cows, care and management of the herd, and dairy barn construction. A large herd owned by the College, consisting of Jerseys, Holsteins, and Ayrshires, will be used in demonstrations throughout the course. Three lecture periods a week in the fall term of the Short Course. Professor REED.

32. Farm Curing of Meats. This work takes up questions relative to farm butchering, curing and care of meats. A study is made of the best systems applied to North Carolina conditions. A smokehouse is available and other butchering appliances, so that the studies can be made practical. Second term, three periods.

Farm Dairying. This course is given to furnish the student instruction regarding the dairy industry. It should be of use and interest to any farmer, whether he is especially interested in making dairy farming the largest part of the farm operations or not. The subject material includes the testing of milk and cream for butter-fat, need and value of testing individual cows, the composition and properties of milk, its food value and use as a food, the separation of cream and farm butter-making, and the proper method of handling milk and cream. All discussions and work will be taken up from the farm viewpoint.

Types and Market Classes of Livestock. This course will consist of a brief study of the most important breeds and market classes of horses, cattle, sheep and swine. Their history, development, distinc-

tive characteristics, adaptation and value to the stockman, butcher and consumer, will be studied. The differences in function and conformation between pure-bred animals and scrubs, or natives, will be pointed out and emphasized. By lectures, demonstrations, and personal score-card practice, the students will learn the good points and defects of animals before them. After the use of the score-card is learned, work will be given in competitive judging.

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 anatomical structures with their physiological functions. The second term will be devoted to the general morphology of algæ, fungi, mosses, and ferns, 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 sex of those forms which are of both scientific and economic importance. Fee, $1. Three periods throughout the year. Required of Freshmen. Mr. LEHMAN.

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. Three periods, first term. Required of Sophomores. Mr. LEHMAN.

301. Plant Diseases. Consideration will be given to those diseases of farm, garden, and truck crops of parasitic and nonparasitic origin

which are of greatest economic importance. The lectures will consist of a review and discussion of the more important publications dealing with the symptoms, life histories, and methods of control of plant diseases. Some attention will be given to the morphology and methods of identification of fungi, emphasizing types of the orders concerned in the production of diseases. The laboratory work is designed to acquaint the student with field and laboratory methods of diagnosis of plant diseases, with laboratory technique involving the isolation of causal organisms and the making of inoculations, and with the preparation of fungicides and disinfectants. Each student will be required to collect and diagnose a considerable number of pathogenic fungi. Fee, 50 cents. Three periods, first term. Open only to students who have completed courses 101-102 and 201. Professor WOLF.

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. Fee, $3. Three periods, second term. Open to all students who have completed courses 101-102 and 201. Professor WOLF.

311-312. Advanced Plant Physiology and Systematic Botany. A more thorough and comprehensive study of plant function will be given than was possible in course 201. Time will be afforded to relate the subject-matter of physiology to the problem of crop production, and to familiarize the student with recent problems and advances in the subject. Systematic botany presupposes the necessity of a knowledge of the local flora, particularly grasses, legumes, trees, and weeds in order to successfully cope with botanical problems in general. Lectures treating on the principles of classification and the relationship of the principal families to each other will be given. The laboratory work will acquaint the student with the various books, manuals, and bulletins dealing with taxonomic botany. Professor WOLF and Mr LEHMAN.

411-412. 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. Prerequisite, 302. Professor WOLF.

422. Plant Ecology. Studies dealing with plant distribution, acclimation, reforestation, reclamation of waste lands, plant succession, etc., will be considered in their relation to plant physiology.

Short Courses

11. Plant Life. This study will deal with plants with a view of obtaining a better understanding of their activities. Such topics as the absorption of minerals from the soil, their transport through the stem of the plant, the making of food by the leaves, breathing, digestion, fermentation, seed production and growth of plants will be discussed in an elementary way and the practice work accompanying it will consist of appropriate laboratory demonstrations and tests. This will be followed by a study of the more common diseases of field, orchard, and garden crops. Emphasis will be given to methods of recognizing these diseases and of controlling and preventing them. Preserved and dried specimens of these diseases will be examined in the laboratory. Professor WOLF.

Plant Diseases and Their Control. This course will consist of lectures and practical exercises dealing with the destructive diseases of the important crops of the State. The following points will be especially emphasized: (1) The annual loss to farm crops caused by diseases; (2) the increasing destructiveness of diseases in intensified farming; (3) the appearance and means of identifying the more important diseases; (4) agencies concerned in the spread of plant diseases; (5) seed selection and seed treatment; (6) and the preparation and application of sprays.

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, and Mr. MCINTYRE.

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. (*a*) One credit (2 hours). Required of Agricultural Freshmen. Fee, $2. One period (3 hours). Required of other Freshmen. Fee, $3. Dr. MILLER, Mr. MARION, Mr. MCINTYRE, and Mr. STAFFORD.

202. Inorganic Chemistry. A continuation of 101-102. One credit, second term, for Agricultural Chemical Sophomores. Mr. STAFFORD.

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. (*a*) Three credits. The first term. Required of Agricultural and Chemical Engineering Sophomores. Fee, $2. (*b*) Two credits. Required of Sophomores in Textile courses. Fee, $2. Dr. MILLER.

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. (*a*) Three credits, second term, required of Sophomores in Agricultural Chemistry and Chemical Engineering. Fee, $2. (*b*) Two credits, second term, required of Sophomores in Textile Chemistry and Dyeing. Fee, $2. Dr. MILLER.

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. Professor WITHERS.

232. Organic Chemistry. Laboratory work to accompany 222. One credit (3 hours), second term. Required of Agricultural Sophomores. Professor WITHERS.

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 Chemical courses.

311-312. Organic Chemistry. Laboratory work to accompany course 301-302. One credit (3 hours). Required of Chemical Juniors. Fee, $1.

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 (6 hours). Required of Juniors in Chemistry. Fee, $3. Dr. WILLIAMS.

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, radio activity, the coordination theory, and the modern trend of chemical thought. Two credits, second term. Required of Seniors in Chemistry. Dr. MILLER.

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. MILLER.

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. MILLER.

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. MILLER.

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 (4 hours). Elective for Seniors in Chemistry. Fee, $2.

461-462. Physiological Chemistry. Mathews's *Physiological Chemistry*. Two credits. Elective for Seniors.

471-472. Physiological Chemistry. Laboratory work to accompany course 461-462. One credit (3 hours). Fee, $2. Elective for Seniors.

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, two periods. 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. Text-book, Randall's *Elements of Descriptive Geometry*.

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 comparing 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. Masonry Construction. First term, two periods. Juniors in Civil Engineering. Elements of engineering geology, with particular attention to the origin and characteristics of materials used in masonry construction. Manufacture, use, and properties of lime, brick, and Portland cement. Methods and cost of constructing foundations, dams, retaining walls, arches, piers, and other masonry constructions. Study of materials found in North Carolina. Text-book, Baker's *Masonry Construction*, and lectures and notes.

351. Highway Engineering. First term, one period. Juniors in Civil Engineering. Study of methods and materials used in the construction of county roads and city pavements. Maintenance of roads and pavements. Text-book, Agg's *Construction of Roads and Pavements.*

352. Highway Engineering. Second term, one period. Juniors in Civil Engineering. Economics of highway location and construction. Surveys, plans, and estimates for a section of country road. Text-book, Harger and Bonney's *Highway Engineer's Handbook.*

362. Graphic Statics. Second 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 stu-

dent, 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, two periods. Seniors in Civil Engineering. Reconnaissance, preliminary, and location surveys for a section of railroad. The located line is cross-sectioned, the earth-work 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.

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 water-power 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, three periods. Seniors in Civil Engineering. Turn-outs, spirals, track-laying, cross-sections, calculation of earth-work, vertical curves, and general principles of railroad surveying. Text-book, Searles & Ives's *Field Engineering.*

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.*

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, two 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.

492. Civil Engineering Laboratory. Second term, two periods. 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. Professor MANN.

HIGHWAY ENGINEERING

Civil Engineering

To meet the demand in the State for well-trained highway engineers, several of the courses in the Civil Engineering Department have been particularly adapted to fitting young men for practical work in road building. Many of the graduates of this College have entered this field of work.

Courses are offered in surveying, bridge design and construction, testing of materials, and in the other fundamentals of Highway Engineering. In Highway Engineering 351 a detailed study of roads and pavements is made, together with complete surveys, plans and estimates for a section of country road.

ARCHITECTURE

Civil Engineering

The General Assembly of North Carolina passed in 1915 an act entitled "An act to regulate the practice of architecture, and creating a board of examination and registration of 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 362, 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.

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. Professor CAMP.

312. Market Distribution. This course is designed to give the student 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. Professor CAMP.

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. Professor CAMP.

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

EDUCATION

301-302. Introduction to Education. Three hours a week throughout the year for Juniors in Vocational Education. The purpose of this course is to give the student some conception of the fundamental principles of scientific educational procedure, including some of the most important phases of educational psychology and their application to the teaching process and to the organization of the school. A study is made of the bases for the present tendencies in education, psychological, social, and economic. Some of the topics considered are practical methods of study; original nature and its modification; attention; interest; habit; memory; imagination; possibilities and limitations of the transfer of training; characteristics of the child, especially of the adolescent; individual differences and their significance (emphasized); educational needs of society and of the individual; school population; a study of aims and values of education and their application to the organization of curricula and courses of study in secondary schools with particular reference to vocational education. Associate Professor COOK.

401. Principles of Teaching. Three hours a week, first term of Senior year. Types of learning as related to methods of presentation, motor skill, drill, reflective thinking, etc.; illustration and exposition in teaching; discipline; technique of the recitation; class and laboratory methods, with special reference to the use of the double period; supervised study; lesson planning; some consideration of educational measurements. Required of Seniors in Vocational Education. Associate Professor COOK.

402. Rural School Organization and Administration. Three hours a week, second term of the Senior year. Consideration of the social and educational status and needs of the rural community and the adaptation of the school to these needs. A study is made of educa-

tional administration in North Carolina, as compared with other States with reference to the advantages and defects of the system. The preparation of teachers, methods of supervision, school consolidation, as well as a study of rural school reorganization in the United States are studied. Required of Seniors in Vocational Education. Associate Professor COOK.

411-412. Methods of Teaching Agriculture, Observation and Practice Teaching. Three hours a week throughout the Senior year. This course aims to give specific helps needed by a teacher of agriculture. Following are some of the topics included: Cataloguing and filing of bulletins useful in the teaching of agriculture and the related sciences; laboratory and classroom arrangement; equipment; selection and organization of subject-matter; lesson planning; home projects; school farm; the use of illustrative materials and chart making; school and farm accounting; community activities of the teacher of agriculture. Some systematic study is made of schoolroom observation and the students are required to make observation in neighboring high schools. Arrangements have been made for the students to do practice teaching in a near-by agricultural school. Required of Seniors in Vocational Education. Associate Professor COOK.

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 Freshmen in Electrical Engineering. Professor W. H. BROWNE.

201. Electrical Engineering Lectures. Continuation of subject 101. One period, first term. Required of Sophomores in Electrical Engineering. Professor W. H. BROWNE.

301-302. Direct Current Machinery and Apparatus. A thorough study is made of the production and utilization of direct currents, beginning with the theory of the magnetic circuit, the electric circuit, electromagnetic induction, electrical measurements, storage batteries, dynamos and motors, operation and care of direct current machinery, electrical distribution and lighting. Three periods. Required of Juniors in Electrical Engineering. Prerequisites, Physics 201-202. Professor W. H. 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. Professor W. H. BROWNE, 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. Professor W. H. BROWNE and 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 W. H. BROWNE.

411-412. Industrial Applications of Electricity. A detailed study is made of various industrial applications of electricity, such as electric traction, the electric drive in mill and factory, electric power stations, industrial electro-chemistry and electro-metallurgy, telegraphy and telephony. Two periods. Required of Seniors in Electrical Engineering. Prerequisites, Subjects 301-302 and 321-322. Professor W. H. BROWNE and Associate Professor MCINTYRE.

421-422. Electrical Transmission of Power. A practical study of the problems involved in the transmission of power from the generating station to the consumer; hydro-electric developments; high-tension transmission. Required of Seniors in Electrical Engineering. Two periods. Prerequisites, Subjects 301-302 and 321-322. Professor W. H. 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. Prerequisites, Physics 201-202 and Physics 211-212. Associate Professor MCINTYRE.

331-332. Electrical Engineering Laboratory. This course accompanies 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.

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. One period. 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 ten inches, with rings six inches apart, and a dictionary as large at least as the Desk Standard or Webster's Secondary School 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. Mr. T. L. WILSON, Mr. R. B. WILSON, and Mr. MEYER.

201-202. American Literature. The work consists mainly of the analysis and presentation 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. Dr. SUMMEY, Mr. T. L. WILSON, and Mr. R. B. WILSON.

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

301. Advanced Rhetoric. This course includes a study of style and of the forms of discourse, with particular reference to scientific exposition as exemplified in standard and current essays and addresses. Three periods, first term. Required of Juniors. Dr. SUMMEY.

302. English Literature. The inductive study of the development of English poetry and prose is pursued in the works of standard writers of the different periods. Occasional essays based on parallel reading form an important part of the work. The purpose of the course is to cultivate in the student a discriminating judgment of literary form and material. Three periods, second term. Dr. SUMMEY.

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 frequent 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. MEYER.

FARM CROPS

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. Professor NEWMAN.

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. WARE.

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. WARE.

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. Three periods, second term. Mr. WARE.

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. Professor NEWMAN and Mr. WARE.

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. Professor NEWMAN.

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. Professor NEWMAN.

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. Professor NEWMAN and Mr. WARE.

431. Farm Equipment. Selecting, organizing, and equipping farms; locating, planning, and constructing buildings, fences, gates, bridges, and roads; tools, implements, and machinery; miscellaneous appliances; farm power; water supply; sanitation. Three periods, first term. Professor NEWMAN.

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. Professor NEWMAN.

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. Farm Equipment and Organization. Each student makes an outline drawing of his home farm, showing its present arrangement into fields, pastures, etc., the location of buildings, roads, fences, wooded areas, and other features. The acreage devoted to each crop will be given, and from these data a study will be made of the equipment needed and reorganization desirable and profitable. The duty of farm equipment, its care and relationship to man and animal labor, will be studied.

12. Small Grains. Wheat, oats, rye, barley, and rice will each be studied, a greater time being given wheat and oats. Some of the phases of small grain culture included in the course are soil and regional adaptation, preparation of soil, fertilization, seeding, harvesting; utilization, rotations, varieties, seed selection and improvement.

21. Forage Crops, Hay Production, and Pastures. Over a large portion of the State the quantity of cheap animal foods available is insufficient for the profitable raising or maintenance of the numbers of livestock each farm should carry. The object of this course is to show how an abundance of forage, hay, and pasturage may be produced and that its production will lead to more and better livestock and more fertile soils.

22. Cotton. The details of economic cotton production and especially such problems as soil preparation, fertilization, varieties, and improvement by selection of seed. The rapid approach of the boll weevil makes it imperative that the average cotton grower either give up cotton growing or adopt modern cultural practices.

31. Corn. This great cereal is the most widely grown and the most important of American crops. The fact that the application of correct corn-growing principles and practices by boys under sixteen years of age has more than doubled the acreage yields of corn in the State is conclusive evidence that the men farmers may do as well. The object of this course is to show how better yields of better corn may be made.

32. Tobacco: Miscellaneous Crops. Only the more recently accepted and approved practices in tobacco growing will be given in this course. Under miscellaneous crops peanuts, soybeans, sorghums, Sudan grass, rape, etc., will be briefly discussed.

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

There is a large number of crops adapted to the soil and climate of North Carolina that deserve more attention than has been given them. These minor crops may be grown profitably in association with the crops now employed as staple crops, and with a minimum increase in equipment and labor. The appropriate selection and adjustment of these crops to established systems of farming is one of the surest means by which farming in 1919 may be made more profitable. This course covers the selection of crops for the different sections of the State, their culture and uses, and their adjustment to present farm plans.

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

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 special groups other than Horticulture. Practice will embrace work in planning, planting, pruning, spraying fruit plants, 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 more important forest trees and ornamental plants. Three credits; second term; recitation two hours, 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; detailed study of variations in different crops; the measurement of variations; and in the planning and planting of breeding plots. 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 in 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.

Sixteen Weeks Course

11. Plant Propagation. A course designed to give a working knowledge of the best and most commonly employed methods of multiplying plants. Fall term.

12. Pruning and Spraying. A course which will include instruction and practice both in the training of fruit plants and in the practical methods of protecting them from insect pests and diseases. Winter term.

21. Fruit Growing. This course will deal with the problems involved in establishment and management of orchards—the productive end of the fruit business. Home orchard problems will be emphasized. Fall term.

22. Vegetable Gardening. A course which will consist in a study of the principal vegetable crops, and their requirements as to soils, preparation for planting, planting, and culture. All-the-year-round vegetable gardens will be given prominence. Winter term.

31. Improvement of Home Grounds. This course is designed not only to give instruction in the planting of ornamental plants about the home, but also in the planning of the grounds for efficient use. Fall term.

32. Marketing Horticultural Products. A course in which practical consideration will be given to the best methods of harvesting, packing, and marketing fruits and vegetables. Winter term.

One Year Course

42. Principles of Plant Culture. A course in which the functions of various parts of plants and their growth as affected by environmental factors are considered. The propagation, planting, and training of plants are also included. Three periods, second term; recitations one hour, practice two hours per 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. Wells'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. SLIFER.

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. SLIFER.

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. DAVIS, Mr. SLIFER.

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. MOCK, Mr. DAVIS.

101. Algebra. Wells's *New Higher Algebra.* This course begins with quadratic equations and completes summation of series, embracing ratio and proportion, variation, the progressions, the binomial theorem, undetermined coefficients, logarithms, compound interest and annuities, permutations, combinations, and continued fractions. Five periods, first term. Required of Engineering, Chemical, and Textile Freshmen. Prerequisite, entrance requirements. Professor YATES, Mr. MOCK, Mr. DAVIS, Mr. SLIFER.

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. DAVIS, Mr. SLIFER.

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. DAVIS, Mr. SLIFER.

201. Trigonometry. Wentworth and Smith's *Plane and Spherical Trigonometry.* Plane Trigonometry. Definitions of the trigonometric functions; derivation of formulæ, with their application. Solution of plane triangles, etc. Spherical Trigonometry. Solution of spherical triangles. This course includes the solution of many practical problems. Required of Sophomores in Engineering, Chemical, and Textile Courses. Five periods, first term. Prerequisites, 101 and 102. Professor YATES, Mr. MOCK.

202. Analytical Geometry. Wentworth'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, Mr. MOCK.

301-302. Differential and Integral Calculus. Osborne's *Differential and Integral Calculus.* A thorough treatment of the fundamental principles and derivations of formulæ; applications to various problems, such as expansion into series, evaluation of indeterminate forms, maxima and minima, radius and curvature, lengths of curves, areas, volumes, etc. Four 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.

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. BRIGGS, Mr. MARTIN.

NOTE. Each student will be required to furnish at his own expense the following outfit: Text-book, drawing board 23 x 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.

121-122. Wood Shop Work. Elementary instruction in bench work, involving the use of ordinary hand tools, such as planes, saws, squares, chisel, etc. All exercises are made from blue-prints and sketches. This work leads up largely to cabinet lines, such as book cases, tables, drawing boards, and similar things. Wherever possible, cases, tables, and other articles are made for the laboratories and other departments.

Besides the above, it is endeavored to give a working knowledge of wood-working machinery of all kinds, as well as instruction in hand finishing, scraping, gluing, sandpapering, staining and varnishing. One period of three hours. First and second terms. Required of Freshmen in Mechanical, Electrical, Civil, and Chemical Engineering. Mr. SMITH.

131. Drawing. Elementary drawing, elementary projection, freehand sketching and lettering. Geometrical problems. Freehand drawing. One period, first term. Required of Freshmen in Agriculture. Mr. CLOYD.

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. SMITH.

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. Assistant Professor FOSTER.

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 and Electrical 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 and Electrical Engineering. One period, first term. Prerequisite, Woodwork 121-122. Mr. SMITH.

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. Assistant Professor FOSTER.

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 horse-power 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. Design. 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.

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 Junior Mechanical Engineers. Mr. PARK.

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. Determin-

ing 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, and chill points 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. Assistant Professor VAUGHAN.

343-344. Industrial Engineering. In this course a study is made of the origin of the Industrial Systems; principles of industrial organizations; forms of industrial ownership; nature and distribution of expense; the primary wage systems; 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 Engineers. Professor SATTERFIELD and Assistant 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 pro-

ducers, 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. Assistant Professor VAUGHAN.

421. Mechanics. A study of the kinetics of a particle and the mass center of a rigid body, with the equations of motion for translation, moment of inertia, work, energy, principle of work and its application to 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.

403. 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 491 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.

491. Machine Design. Advanced work in design which will be a summation and practicable 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. 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 horse-power 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 Mechani-

cal Engineering. Prerequisite, Mechanical Engineering 471, 411, and 421. Assistant 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.

413-414. 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.

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. Four periods, first term. 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 (584-595, 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. Four periods. 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 (*b*) course 2; map reading; camp sanitation and camping expedients. Four periods. 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*). Four periods. 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. Five periods. Required of Juniors.

Only four periods 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. Five periods. Required of Juniors.

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. Lectures: Psychology of war and kindred subjects. General principles of strategy only, planned to show the intimate relationship between the statesman and the soldier. Five periods. Elective for Seniors.

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. Elective for Seniors.

DEPARTMENT OF MODERN LANGUAGE

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 Junior Electrical Engineering and Junior Mechanical Engineering students. Both terms (two hours). Mr. MEYER.

341-342. Beginner's French. Same as 331-332. Required of Junior Agricultural students who enter the Reserve Officers' Training Corps. Both terms (two hours). Mr. MEYER.

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). Mr. MEYER.

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 Engineers and Junior Dyeing students. Both terms (two hours). Professor HINKLE, Mr. MEYER.

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 Naturlehre;* Du Bois-Reymond, *Vortrage;* and Lassar-Cohn, *Die Chemie im Taglichen Leben.* Required of Junior Chemical Engineers 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.

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 a 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.

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.

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. DIXON.

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. Fee, $1. Mr. VERNON.

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. Fee, $1. Mr. VERNON.

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 same; a study of the method of saving feathers, grading, storing, packing, curing, and shipping same; and the methods of collecting, preserving, and handling poultry manure. Three periods, Junior year, second term. Fee, $1. Mr. VERNON.

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. VERNON.

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. Three 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. Fee, $1. 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 treat-

ment; 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. VERNON.

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 1919-1920.

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 Courses

11. Diseases of Poultry, and Sanitation. A practical short course in the study of external and internal parasites of poultry and practice exercises in dealing with such infested birds and premises. Noncontagious and contagious diseases, their causes, symptoms, and treatment. Practice exercises in how to vaccinate birds against chicken-pox. How to prevent and how to eradicate a contagious disease among fowls. Practice exercises in the preparation of disinfectant sprays and in the use of the same. The specimens in the Poultry Pathology and Anatomical Laboratory will be used in these studies. Three periods a week, first term.

21. Incubation and Brooding. Both natural and artificial incubation and brooding will be taught. In natural incubation the student will be taught how to properly construct the nest box and make the nest. How to care for the sitting hen and what and when to feed her. How to properly construct the combination sitting and brooding coop and how to handle the brooding hen and her brood. How to feed the chicks. How to protect the flock from the hawks and other enemies, as rats and minks. In artificial incubation and brooding there will be taught the construction of the incubator and brooder and how to operate both. The student will operate a machine or set a hen and care for the brood. Three periods a week, first term.

31. Breeds and Judging. Classes, breeds, and varieties of the domestic fowls will be taught in this course. The twenty breeds kept on the Poultry Plant will be used in the practical lessons given. The principles of judging, preparation of birds for the show room, and show room rules will be taught. Three periods a week, first term.

12. Poultry-house Construction and Feeding. In this course there will be taught practical lessons in ventilation and poultry-house construction. The poultry plant contains many different types of houses and the demonstration laboratory contains both models and poultry-house equipment. Practice exercise in actually doing work will be given each week. A study of feeds and how to mix them, and how to feed for the best results will be taken up. The student will have exercises in mixing feeds, and feeding the plant flocks. Three periods a week, second term.

22. Selection and Breeding of Poultry. In this course there will be taught the proper methods of selecting and mating birds for the best results. The proper mating for the production of eggs, broilers, capons, and for general purposes. How to properly mate the birds to preserve in the flock the proper feather color. The selection for constitutional vigor and for longevity. How to handle the breeding flock and the care of the eggs for sitting purposes. The student will have the care of a farm flock. Three periods a week, second term.

32. Marketing Farm Poultry. In this course there will be studied the different kinds of containers for shipping eggs and dressed as well as live poultry. These object-lessons will be given in the demonstration laboratory and in actual practice from the Poultry Plant. A candling room is provided in which the student will candle and grade eggs. Different grades of eggs and their comparative market values will be studied. The markets of three large cities and of fourteen North Carolina towns will be studied. Picking and feeding laboratories are provided in which the student will be given lessons in feeding birds for market and in properly sticking, picking, and packing birds. The principles of the coöperative community circles will be given consideration. Three periods a week, second term.

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. Professor SHERWIN and Mr. STAFFORD.

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, $3. Prerequisites, Chemistry 101-102, 201-202 and 212, and Physics 231-232. Professor SHERWIN and Mr. STAFFORD.

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 under-drains. 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. STAFFORD.

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 student 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.

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. STAFFORD.

Short Courses

11. Soil Geology and Soil Physics. 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.

12. Fertilizers and Manures. Studies in the composition, sources, and efficiency of various fertilizing materials; original and residual effects on the soil and on each other. Studies of the value and economical use of stable and green manures.

22. Physiography. A study of the natural agencies affecting the earth's surface, soil, water, and temperature, and their effect upon plants and animals. Three periods, second term. Required in One-Year Course in Agriculture.

Soil Acidity, its nature, causes and remedy; testing for acidity with litmus paper; loss of organic matter in acid soils by leaching and decay.

Lime and Its Use. Agricultural and commercial value of different forms; determination of the composition and value of limestone. Lectures, demonstrated lectures, laboratory and field practice.

TEXTILE ENGINEERING

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.

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. STEED.

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. STEED.

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 of 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 woolen, 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. STEED.

Dyeing

351-352, 451-452. Dyeing. With the microscope and other testing apparatus, the student makes a careful study of the various fibers used in the textile industry. He also studies the chemical and physical properties of these fibers, and the action of acids, alkalis, heat, moisture, and the various other agencies to which fibers are liable to be subjected. He next takes up the study of the fundamental principles which underlie the arts of bleaching and dyeing, such as the boiling out and bleaching of cotton, and the chemical reactions involving each step; the adaptability of water for bleaching and dyeing, followed by the theories of dyeing; substantive dyestuffs and their application to cotton; after-treatment of direct dyestuffs, including diazotising and developing and the topping with basic dyestuffs; the application to cotton of basic dyestuffs, acid dyestuffs, mordant dyestuffs, including a study of the various mordants and their fixation with metallic salts; dyeing with sulphur dyestuffs, indanthrenes, indigo, natural and artificial, aniline black, turkey red, and the insoluble azo colors developed on the fiber; the methods of bleaching and dyeing of linen, jute, ramie, and other vegetable fibers; the scouring and bleach-

ing of wool; the carbonization and chlorination of wool; the application of basic, acid, chromo, eosin, and direct colors to wool; dyeing wool with logwood, fustic, and other natural dyewoods; methods of the making and dyeing of artificial silk; the boiling off, bleaching and dyeing of natural silk; study of the chemical and physical changes which take place during mercerization; also the methods of dyeing mercerized goods; the use of the various kinds of machines used in bleaching and dyeing; the dyeing of raw-stock, skeins, cops, warps, piece goods, hosiery, underwear, and unions; the science of color-mixing; color matching on textiles; the use of the tintometer and colorimeter; calico printing, including the various methods of preparing the various pastes, thickening agents, mordants, and assistants used in printing; quantitative analysis of mixed yarns, and fabrics composed of cotton, wool, and silk; the testing of dyestuffs for their shade, tinctorial power, and leveling properties, comparative dye trials to determine money value; testing for mixtures; the reactions of acids, alkalis, and reducing agents on several samples taken from the different classes of dyestuffs.

The course of lectures as outlined above will include the consideration of many difficult problems that arise in the dye-house, with especial reference to the dyeing, mercerizing, and finishing of cotton yarns and pieces. Required of Juniors and Seniors in Textile Industry.

361-362, 461-462. Dyeing Laboratory. A series of experiments is performed which covers all the subjects taken up in the lecture course, and includes a large amount of work done in the laboratory and dye-house. Special stress is put on the matching of colors and the dyeing of sulphur and indanthrene dyestuffs. Each student is required to bleach and dye a large number of samples of yarn and cloth on a small scale, and is required to mount specimens of his work in a pattern book. At the discretion of the instructor in charge, the class bleaches and dyes larger quantities of raw-stock, cloth and yarn in the dye-house, as well as prints samples on the laboratory printing machine. This work will be supplemented by visits to the mills in the city of Raleigh which do dyeing. Required of Juniors and Seniors in Textile Industry.

Short Courses

11-12. 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 first- and second-year students. Mr. PRICE.

21-22. Weaving. Lectures on construction of plain, twill, sateen, gingham, pick and pick looms are given; also on construction of dobbies and jacquards.

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. Additional motions and parts required to be added to a plain loom in order to weave twill and sateen cloths. Magazine looms; construction and advantages. Drop box looms; construction of the various motions; arranging colors in boxes; methods of building box chains. Dobby: construction of single and double index; setting and starting up dobby on loom; fixing dobby. Pick and pick looms: construction of loom; construction of head motion; building box chains to have easy-running loom. Jacquard: single and double lift; construction and tie-up. Weave-room calculations for speed and production; counts of reed and cotton harness. Finishing cotton fabrics. Necessary equipment for warp preparation, weaving, finishing; approximate cost of production of fabrics in the different processes. Text-book: Nelson's *Practical Loom Fixing*. Required of first- and second-year students. Professor NELSON, Mr. STEED.

31-32. Textile Designing. Lectures and practice in designing. Method of representing weaves on design paper. Foundation weaves; plain; twill; satin. Ornamentation of plain weave; color effects on plain weave. Derivative weaves; 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. Fancy 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 design; pointed twills; diamond effects. Cloths backed with warp; cloths backed with filling. Cloths ornamented with extra warp. Cloths ornamented with extra filling. Combination of plain and fancy weaves. Practical application of weaves to fabrics. Advanced designs. Required of first- and second-year students. Professor NELSON, Mr. STEED.

42. Cloth Analysis and Fabric Structure. Calculating particulars of cloth from data ascertained from samples. Shrinkages. Dents in patterns; patterns in warp. Drafting and pattern chain building. Reed and harness calculations. Calculations to obtain quantities of warp and filling in 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 woolen, 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 first- and second-year students. Professor NELSON, Mr. STEED.

51-52. Dyeing. With the microscope and other testing apparatus, the student makes a careful study of the various fibers used in the textile industry. He also studies the chemical and physical properties of these fibers, and the action of acids, alkalis, heat, moisture, and the various other agencies to which fibers are liable to be subjected. He next takes up the study of the fundamental principles which underlie the arts of bleaching and dyeing, such as the boiling out and bleaching of cotton, and the chemical reactions involving each step; the adaptability of water for bleaching and dyeing, followed by the theories of dyeing; substantive dyestuffs and their application to cotton; after-treatment of direct dyestuffs, including diazotising and developing and the topping with basic dyestuffs; the application to cotton of basic dyestuffs, acid dyestuffs, mordant dyestuffs, including a study of the various mordants and their fixation with metallic salts; dyeing with sulphur dyestuffs, indanthrenes, indigo, natural and artificial, aniline black, turkey red, and the insoluble azo colors developed on the fiber; the methods of bleaching and dyeing of linen, jute, ramie, and other vegetable fibers; the scouring and bleaching of wool; the carbonization and chlorination of wool; the application of basic, acid, chromo, eosin, and direct colors to wool; dyeing wool with logwood, fustic, and other natural dyewoods; methods of the making and dyeing of artificial silk; the boiling off, bleaching and dyeing of natural silk; study of the chemical and physical changes which take place during mercerization; also the methods of dyeing mercerized goods; the use of the various kinds of machines used in bleaching and dyeing; the dyeing of raw-stock, skeins, cops, warps, piece goods, hosiery, underwear, and unions; the science of color-mixing; color-matching on textiles; the use of the tintometer and colorimeter; calico printing, including the various methods of preparing the various pastes, thick-

ening agents, mordants, and assistants used in printing; qualitative analysis of mixed yarns and fabrics composed of cotton, wool, and silk; the testing of dyestuffs for their shade, tinctorial power, and leveling properties; comparative dye trials to determine money value; testing for mixtures; the reactions of acids, alkalis, and reducing agents on several samples taken from the different classes of dyestuffs.

DEPARTMENT OF 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; offers the subject of Animal Diseases to Seniors in Agriculture, and the subject of Elementary Physiology and Hygiene to students in One-year Agriculture. 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 ROBERTS and Dr. 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. Three periods, second term. Elective for Juniors in General Agriculture, Animal Husbandry and Poultry. Dr. 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. REEDER.

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. Three periods. Required of Juniors in the Veterinary Division. Fee, $2. Professor ROBERTS.

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 ROBERTS.

411-412. Veterinary Anatomy. A continuation of Course 321-322. A study of the digestive, respiratory, circulatory, urinary, reproductive, and nervous systems will be made, with dissections of each in the horse. Four periods. Required of Seniors in Veterinary Division. Fee, $2. Professor ROBERTS.

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. Dr. REEDER.

431. 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, first term. Fee, $1. Required of Seniors in Veterinary Division. Professor ROBERTS and Dr. REEDER.

432. Diagnosis and Clinics. Diagnosis is taught for the purpose of studying the methods of examining animals to detect disease in them and to determine the location, character, and cause for same. The subject will be discussed largely from a clinical standpoint, but the autopsy lesions and laboratory means of diagnosis will likewise be considered. Clinics will be held regularly at a veterinary hospital and practical demonstrations of diagnosis will be made. Three periods, second term. Required of Seniors in Veterinary Division. Professor ROBERTS and Dr. KOONCE.

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 tissues changes. Two periods. Required of Seniors in Veterinary Division. Fee, $1. Dr. REEDER.

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 ROBERTS and Dr. REEDER.

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 ROBERTS and Dr. REEDER.

Short Course

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. 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.

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. KENNEDY.

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 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. KENNEDY.

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 Biology Division. Fee, $2. Professor METCALF, Mr. KENNEDY.

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 preparation 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.

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; 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 Course

12. 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.

ONE-WEEK GRADUATE COURSE IN VETERINARY MEDICINE

January 5-10, 1920.

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 municipally owned abattoir, the city market, and some of the better dairies about Raleigh. Dr. KOONCE.

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. Professor ROBERTS.

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. Dr. 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 intra-dermal and ophthalmic tuberculin. Drs. ROBERTS, 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.

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	2	4	2	4
Woodwork	1	3	1	3
Forge Work	1	3	..	..
Engineering Lectures	2	2	..	..
Mechanical Technology	..	..	2	2
Physics	..	..	3	3
Algebra	5	5	..	..
Plane Geometry	..	..	5	5
English	5	5	5	5
Military Drill	4	4	4	4
Totals	20	26	22	26

Second Year

Machine Drawing, Mechanical Engineering	3	6	3	6
Machine-shop Work, Mechanical Engineering	3	6	3	6
Power Machinery, Mechanical Engineering	3	3	3	3
Elementary Mechanics, Mechanical Engineering	..	..	2	2
Gas Engine, Laboratory, Mechanical Engineering	..	..	1	3
Pattern Work, Mechanical Engineering	1	3	..	..
Foundry, Mechanical Engineering	1	3	..	..
Algebra, Mathematics	5	5	..	..
Geometry, Mathematics	..	..	5	5
English	3	3	3	3
Drill	4	4	4	4
Totals	23	33	24	33

Description of Courses

First Year

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. BRIGGS.

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 x 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.

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. SMITH.

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. SMITH.

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.

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

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

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.

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 horse-power problems. Three periods. Mr. PARK.

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.

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. Assistant Professor VAUGHAN.

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.

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 comprising the automobile. 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.

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 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 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 10 to July 23, 1919, 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 10 will be devoted to registration; July 23 will be devoted to final examinations. The State Teachers' Examinations will be held at the School on July 24th and 25th.

Courses will be arranged to include primary and grammar grade subjects, as during 1918. Provision more ample than heretofore will be made for high school subjects. Instruction in Elementary Agriculture will be given to enable teachers to comply with the State law regarding that subject. Vocational Agricultural courses will be given to prepare teachers in high schools to avail themselves of the benefits of the Smith-Hughes Act. In addition, courses preparatory for College entrance will be given in English, History, Mathematics, and Science. Credit courses for Freshmen will be given in Mathematics and Physics.

This School will afford a splendid opportunity to secure or renew a Teacher's Certificate; to increase efficiency as a teacher; to prepare for leadership in the new education for agriculture and the other industries; to receive inspiration from association with fellow-teachers and to enjoy a sojourn at the State's Capital and educational center.

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. The Third and Fourth Dormitories and Watauga Hall will be reserved for men.

The County Home Demonstration Agents will hold their annual convention June 2-13, under the direction of Mrs. Jane S. McKimmon. These ladies will occupy South Dormitory and Holladay Hall.

The Y. M. C. A. building will be the social and recreational center of the school and will be in charge of Miss Nannie Carrington Dinwiddie of Washington, D. C. 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 1918 session there was an enrollment of 311 teachers, 61 home demonstration agents, 63 practice school pupils, 28 attendants at the Agricultural Conference, 95 house-keepers and other non-teachers, making a total of 558. Seventy-one counties and five other states were represented in the student body. The pupils of the school were made up of 51 men, 444 women, 30 boys, and 33 girls. In addition to the above, there were 98 soldiers enrolled in the study of French.

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 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	$9.00
Room rent, each (two in a room)	6.00
Board	25.00
Total	$40.00

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 $12.50 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.

DEPARTMENTS OF INSTRUCTION

The following subjects will be presented during the 1919 Summer School:

In Agriculture

I. For Grammar Grades. II. Field Crops. III. Soils. IV. Teaching of Agriculture in the High School. V. Animal Husbandry. VI. Dairy Cattle and Dairy Farming. VII. Poultry Production. VIII. Swine Production. IX. Teaching of Agriculture in the High School, Advanced. X. Conference of Agricultural Teachers and Workers.

In Drawing and Manual Training

I. Primary Freehand Drawing. II. Intermediate Freehand Drawing. III. Basketry. IV. Basketry, Advanced. V. Mechanical Drawing. VI. Woodwork.

In Primary Subjects

I. Reading. II. Language. III. Spelling. IV. Arithmetic. V. Drawing. VI. Writing. VII. Story Telling. VIII. Games. IX. Practice School.

In Intermediate Subjects

I. Teaching of Intermediate Subjects. II. Reading and Grammar. III. Teaching of History. IV. Story Telling. V. Games. VI. Practice School. VII. Elocution. VIII. Esthetic Physical Culture.

In Education

I. Educational Psychology. II. Principles of Teaching. III. Rural School Management. IV. School Administration. V. Teaching of History. VI. Teaching of Intermediate Subjects. VII. Teaching of Elementary Agriculture. VIII. Teaching of Agriculture in the High School. IX. Teaching of Agriculture in the High School, Advanced.

In English

I. Grammar for Teachers. II. English Composition for Teachers and for College Entrance. III. English and American Literature for Teachers and College Entrance.

In Geography

I. Geography for Grammar Grades.

In History

I. Teaching of History. II. American History. III. Modern European History.

In Home Economics

I. Housekeepers' Course in Cooking. II. Elementary Cooking. III. Sewing. IV. Dietetics.

In Languages

I. Beginners' Latin. II. Virgil. III. Cæsar. IV. Elementary French. V. Advanced French. VI. Rapid Reading and Conversation (French). VII. Spanish.

In Mathematics

I. Arithmetic, Grammar Grades. II. Beginners' Algebra for Teachers. III. High School Algebra for Teachers. IV. Algebra for College Entrance. V. Plane Geometry for College Entrance. VI. Algebra for College Credit. VII. Advanced Algebra for College Credit. VIII. Solid Geometry for College Credit.

In Music

I. Public School Music, Primary Grade. II. Public School Music, Intermediate Grade. III. Normal Piano Teaching. IV. Community Singing.

In School Law

I. School Law.

In Science

I. General Science for College Entrance. II. Chemistry for College Entrance. III. Physics for College Credit. IV. Physics, second term, College Credit.

In Swimming

I. Swimming.

In Writing

I. Writing, Palmer Method.

SUMMER SCHOOL STUDENTS

Teachers' Six Weeks Session

Name	*Postoffice*
ANNIE MAE ADAMS	Willow Springs
OLA DELANIE ALFORD	Bunn
LANNIE PEARLE ALLEN	Apex, R. 3
MRS. J. N. ATWATER	Raleigh
ESTILENE BAIN	Fayetteville
BETSY B. BAKER	Louisburg, R. 2
BESSIE LEE BALDWIN	Hoffman
ETTA RUTH BANKS	Eure, R. 1
LILLIE BARKER	Lumberton
LILLIAN CAROLINE BEASLEY	Louisburg
LELA BEVES	Durham
MARY ELLA BLACKLEY	Kittrell, R. 2
LOUISE BLAKENEY	Monroe, R. 4
GAYNELLE BONNER	Bonnerton
GLADYS BONNER	Bonnerton
FLORINE BOONE	Mapleville
BEULAH BOYD	Aurora
ADDIE BREEDLOVE	Hester, R. 1
BESSIE T. BROWN	Raleigh
LERLENE BROWN	Wendell
PRETTO BROWN	Elon College
ANNA META BUCHANAN	Laurinburg
SARAH REBECCA CARLYLE	Lumberton
DAISY CARMICHAEL	Pollocksville
ALMA ODESKA CATO	Thomasville
BERTHA CLINE	Lincolnton, R. 2
ANNIE M. COLE	Sanford, R. 3
BLANCHE CONE	Spring Hope
EMMA D. CONN	Raleigh
IRVIN LEAH COOKE	Castalia, R. 1

Name	*Postoffice*
BEULAH CRANFORD	Salisbury
MARGUERITE DAVIS	Youngsville
DAISY DEAN	Louisburg, R. 4
EULA BOONE DEAN	Louisburg, R. 4
MAMIE G. DICKENS	Franklinton
MRS. MITTIE DILLARD	Princeton
ARTIE DISHMAN	Wake Forest
LOUISE DOWTIN	Warrenton
MABEL CLAIRE DUKE	Mapleville
MARY AUGUSTA EAVES	Youngsville
KATHLEEN EGERTON	Louisburg
ELIZABETH TERRY ELLERBE	Roberdel
LUCY HINES ELLIOTT	Rich Square
EXNIE DONA ENNIS	Duke, R. 2
FLORENCE ENNIS	Duke, R. 2
MINNIE BRYAN FARRIOR	Raleigh
BELLE FLEMING	Raleigh
MYRTHA FRANCES FLEMING	Raleigh
E. LEE FOX	Germantown
MYRTLE CASIER FULLER	Wake Forest
MRS. G. M. GARREN	Raleigh
CORA BELLE GIBBS	Fletcher
MARY GORDON	Hamlet
MINNIE G. GRAY	Windsor
PEARLE GRIFFIN	Wakefield
FANNIE GUPTON	Louisburg
NETTIE L. HARRIS	Roxboro
VERA HAYES	Willow Springs
ETHEL E. HERRING	Roseboro
MARY BELLE HERRING	Raleigh
NAN HINES	Louisburg
LENORA HIPP	Charlotte, R. 5
MAMIE HOCUTT	Selma, R. 2
GENEVEIVE HOLLEMAN	Currituck
MYRTLE MARVIN HOLMES	Youngsville
SUE HUNTER	Cameron
TRIXIE ARLENE JENKINS	Jacksonville
LOTTIE LEE JONES	Elon College
MATTIE HARDY JONES	Louisburg
SALLIE BOYD JORDAN	Gibsonville
MRS. ANNIE W. KILLIAN	Raleigh
PATTIE BLANCHE LAMM	Mapleville
LILLIAN MAY LILES	Wendell

Name	*Postoffice*
E. MAY LOWRY	Wake Forest
ANNIE LEE LUTZ	Newton
LILLIAN MCCULLEN	Mt. Olive
GEORGIA MCCULLEN	Mt. Olive
MAUDE MCCULLOCH	Raleigh
ETHEL MACKETHAN	Fayetteville, R. 4
LELA MCMILLAN	Wade, R. 1
SALLIE LOU MACON	Louisburg, R. 5
LILLY CHRISTINE MANESS	Biscoe, R. 1
MARY LULA MANESS	Biscoe, R. 1
NONA DELL MICHAEL	Lexington, R. 5
BELLE MITCHINER	Raleigh
JULIA MAY MOORE	Cleveland, R. 1
LILLIAN NANCE	Lumberton
BERTHA NEAL	Alert, R. 1
FANNIE NICHOLSON	Fayetteville
SUE MAE NOBLE	Trenton
EVA OGLESBY	Harrisburg
EDNA WILLIAM O'NEAL	Wake Forest, R. 5
EMMA O'NEAL	Selma, R. 2
O. H. ORR	Matthews
FLORENCE OWEN	Clarksville, R. 1
RUTH OWEN	Clarksville, R. 1
CHRISTINE PAIRAMORE	Plymouth, R. 2
ANNIE PEARLE PARKER	Youngsville
VERA PARRISH	Wilson's Mills
LILLIAN REBECCA PEEBLES	Raleigh, R. 6
MAUDE L. PEOPLES	Blowing Rock
IDA MAE PERRYMAN	Welcome, R. 1
MARGARET ELIZABETH PERRYMAN	Welcome, R. 1
ALICE WALKER PHELPS	Creswell
A. BEAUFORT POWELL	Wake Forest, R. 1
ILA LEE PRITCHETT	Brown Summit, R. 1
SARA SELENA RAMSEUR	Kings Mountain
ANNIE SARRA RAMSEY	Raleigh
ELSIE M. RHEW	Raleigh
NETTIE S. RHEW	Raleigh
LOUISE RICHARDSON	Gaffney, S. C.
MARTHA RICHARDSON	Louisburg, R. 1
GOLDIE MARIE RIDDICK	Elon College
SUSIE BELLE RIDDICK	Elon College
RUTH ROBERSON	Durham, R. 4
LOUISE ROLLINS	Caroleen

Name	*Postoffice*
JANE HAWKINS ROWLAND	Middleburg
PENNIE ROWLAND	Lumberton
WINIFRED ROWLAND	Lumberton
J. A. RUDISILL	Lucama
MARGIE RUSSELL	Lumberton
ANNIE MAE SNIDER	Linwood, R. 1
ANNIE MOORE SPIERS	Como
NINNIE STEPHENSON	Wilson
MAUDE STUART	Willow Springs, R. 2
LIZZIE Z. TERRELL	Raleigh
MARY ETTA THARRINGTON	Louisburg, R. 6
EFFIE RUE THARRINGTON	Youngsville, R. 1
MARY ELSIE TINGEN	Apex, R. 3
JENNIE GRAHAM TRAPIER	Raleigh
J. M. TURNER	Garner
ELIZABETH UNDERWOOD	Youngsville
ALICE A. UTLEY	Franklinton
MARTHA ELEANOR UZZELL	Louisburg, R. 2
MYRTLE MAE WHEELER	Creedmoor, R. 3
EMMA WHITE	Raleigh
ALICE WILLIAMS	Wade, R. 1
MARY WILLIAMS	Wade, R. 1
LILLIE WILLIAMSON	Salemburg
NELL WILSON	Raleigh
MARY ELIZABETH YOUNG	Henderson
MRS. W. J. YOUNG	Raleigh
DORA ZIMMERMAN	Lexington, R. 1

VOCATIONAL AGRICULTURE—SIX WEEKS SESSION

W. L. COOPER, JR.	Graham, R. 2
E. P. DIXON	Saxapahaw, R. 1
D. D. DOUGHERTY	Boone
ROBERT HENRY HUTCHISON	Neuse, R. 1
H. H. MCKEOWN	Roxboro
HARVEY A. NANNEY	Macon
W. N. RHYNE	Gastonia
W. W. STEDMAN	Boone
R. A. SULLIVAN	Pinnacle
A. F. ZACHARY	Snow Camp

HIGH SCHOOL INSTITUTE, JUNE 12-25

Name	*Postoffice*
JOHN LAYMOND CRUMPTON	Roxboro
KATE INEZ HAYES	Raleigh
SUSANNE WALKER JONES	Raleigh
CLARA LONG	Louisburg, R. 4
MINNIE LEWIS MILLS	Wake Forest
ALLIE ANNE PIERCE	Colerain
ELIZA A. POOL	Raleigh
HELEN MAY SEABOLT	Roper
T. H. SLEDGE	Rocky Mount, R. 3
ETHEL B. SMITH	Cary
ROSSER HOWARD TAYLOR	Castalia
HELEN EDITH THOMPSON	Macon
JUANITA WILLIAMS	Apex

ELEMENTARY INSTITUTE, JUNE 17-28

BELL ANDREWS	Raleigh
DORA ASHTON BARBOUR	Spring Hope
MYRTLE BARNETT	Roxboro
KITTY COLON BAUCOM	Raleigh, R. 2
ANNIE BISHOP	Bath
LONIE CREMA BISSETTE	Bailey
RUBY ELIZABETH BISSETTE	Bailey
BEULAH BRADFORD	Loray
ELIZABETH BREECE	Fayetteville, R. 1
HELEN R. BROWN	George
ANNIE LAURIE BUTLER	Windsor, Va.
HELEN CHAPMAN	Grifton
PRUDIE COLEY	Fuquay Springs
RUTH LEE CONYERS	Youngsville
MARGARET WALKER FINCH	Henderson
FLORENCE FITZGERALD	Raleigh
LELA FLOYD	Fairmount
MARY ELIZABETH GARDNER	Raleigh
RUBY GARNER	Raleigh, R. 3
LENA ELIZABETH GILL	Henderson, R. 4
META GODWIN	Dunn, R. 3
EVELYN JOHNS GREGORY	Richmond, Va.
ADA GUTHRIE	Burlington
GRACE HARRIS	Bunn
ERNESTINE HAYES	Louisburg, R. 4
UNA MAY HAYES	Louisburg
LENOA HICKS	Ridgeway

Name	*Postoffice*
HALLIE WOODS HOLLOWAY	Gorman, R. 1
ILA ETHEL HOUSE	Cary
MARY ESTHER IVEY	Cary
ADA JEFFREYS	Youngsville
MAE JOHNSON	Rose Hill
MAUDE E. JOHNSON	Rose Hill
OLIVIA IRENE JOHNSON	Ingold
MARVIN FRANCES KEITH	Creedmoor, R. 1
FRANCES LACY	Raleigh
FLORENCE WRIGHT LAMB	Garland
JOSEPHINE LASSITER	Rich Square
MARY HILL LENTZ	Norwood
LILLIE MAE LEONARD	Louisburg, R. 2
MRS. C. E. MCLEAN	Wendell
LILLIAN MASSENBURG	Louisburg
LIZZIE MATTHEWS	Wade, R. 1
SUE SATTERFIELD MERRITT	Roxboro
CLARA BARTON NEWTON	Kerr
FOY MARJORIE NEWTON	Tomahawk
REVAH VIRGINIA NEWTON	Tomahawk
FLOSSIE NOBLES	Polkton
OMA CEOLA NORWOOD	Neuse
OLIVE GRACE CARLTON	Apex
LOLA MARGARET OUTLAND	Woodland
ALMA PASCHALL	Norlina, R. 1
LILLIE PENNY	Garner
BURMA PERRY	Youngsville
MAY BENNETT PERRY	Louisburg, R. 4
PANNIE A. PETTY	Durham
GLADYS PIERCE	Colerain, R. 1
ONIE DELLE PRINCE	Cary, R. 2
MARY ELIZABETH PRUDEN	Windsor
MRS. SAMUEL S. REEKS	Macon
MARGARET ROSS	Bonnerton
MARGARET E. SALLENGER	Windsor
SUSAN F. SHAW	Macon
MRS. MARY B. SHERWOOD	Raleigh
ANNIE WRIGHT SLOAN	Ingold
ATWOOD SLOAN	Ingold
EDNA SLOAN	Dahlonega, Ga.
CLARA SPICER	Goldsboro
MARY P. THOMAS	Cofield
JOSIE BEULAH WESTER	Norlina
ESTELLE YARBOROUGH	Cary

ELEMENTARY INSTITUTE, JULY 8-19

Name	*Postoffice*
BEATRICE ADAMS	Willow Springs
BERTHA DORA ALLEN	Cary
MAMIE ARNOLD	Cameron
GRACE H. BATES	Raleigh
ANNALEE BEST	Warsaw
FANNIE BEST	Warsaw
JESSIE BIGGS	Laurinburg
MARY WHITING BOND	Norlina
LUCY M. BRASSFIELD	Neuse, R. 1
CLAYTON BROWN	Mocksville
MYRTLE BROWN	Raleigh
BESSIE BROWN	Raleigh
NORMA ALMA BRYANT	Pilot Mountain, R. 2
VERONA CABLE	Clayton
EFFIE ELIZABETH COXE	Mt. Gilead
BERTIE DANIEL	Youngsville, R. 1
REGINA EGERTON	Warrenton
ANNIE A. FUTRELL	Woodland
RUTH GATLING	Ahoskie, R. 3
ANNIE GILL	Wake Forest
ANNE ALEXANDER GREGORY	Stovall
AGNES HALES	Kenly
ELIZABETH HARRIS	Youngsville, R. 1
SALLIE V. HARRIS	Youngsville, R. 1
SUSIE EATON HAYES	Louisburg, R. 4
EULEE HERRING	Parkersburg
MRS. MARY MCCULLERS HOBBY	Raleigh, R. 3
OLIVIA HOBGOOD	Louisburg
MRS. H. H. HOBGOOD	Louisburg
WALTER HOGAN	Ellerbe
LILLY HOLLOWAY	Durham
MAMIE HOOVER	Lenoir
FLORRIE HORTON	Raleigh
BETTIE HUNT	Castalia, R. 2
DAISY VERTA HUNTER	Turkey
MYRA HUNTER	Apex
BENJAMIN C. INGRAM	Linwood, R. 1
MARTHA RACHEL IVEY	Cary
GENEVA MARJORIE JAMES	Robersonville
EVA KELLY	Clarkton

Name	*Postoffice*
MAUDE LANCASTER	Castalia
HENRI ETTA LEE	Summerville, S. C.
NANCY D. LEE	Raleigh
LUCILE LEGGETT	Scotland Neck
MARGARET MCLAUCHLIN	Carthage
MARY MCKINNON	Wadeville
MARY BELLE MACON	Louisburg
LULA C. MOTSINGER	Wallburg
ROSE HOWARD OWEN	Mocksville
MINNIE LEE PEEDIN	Selma
ROSALIE PENNY	Raleigh, R. 3
LUCY POWELL	Auburn
LECTA PASCHALL RAY	Franklinton
LIZZIE READE	Timberlake
ALMA O. SAVAGE	Raleigh
ANNIE LEE SEYMORE	Wakefield, R. 1
CLARA SEYMORE	Bunn
LUCY CORA SMITHWICK	Louisburg
FANNIE B. SPEED	Durham
MOLLIE SPEED	Durham
AMMA C. STANCILL	Selma
EDNA FORREST STEWART	Mocksville
ORA TAYLOR	Raleigh, R. 4
RENA TILLMAN	Waxhaw
CLAIRE TINGEN	Apex, R. 3
MYRTLE UNDERWOOD	Raleigh
JEAN GALES WARD	Wake Forest
FLORENCE ALVA WHITE	Ore Hill
LELIA WHITE	Henderson
GAIL WILLIAMSON	Ivanhoe
LOIS WILLIAMSON	Ivanhoe, R. 2
ANNIE M. WILDER	Franklinton
MAY WILLSON	Roxboro
EMMA YARBRO	Sanford, R. 2

HOUSEKEEPERS AND OTHER NON-TEACHERS

Name	*Postoffice*
MRS. G. W. ALSTON	Raleigh
KATHERINE ALSTON	Raleigh
ZENOBIA EVANGELINE BAGWELL	Raleigh
ELIZABETH WHITLEY BAKER	Raleigh
KATHERINE BAKER	Raleigh
HAYWOOD BALL	Raleigh
MRS. W. G. BARNES	Raleigh
EMMA MARJORIE BARNHILL	Robersonville
LIZZIE PULLEN BELVIN	Raleigh
MRS. T. W. BICKETT	Executive Mansion, Raleigh
BLANCHE BONNER	Raleigh
MRS. A. F. BOWEN	West Raleigh
ANNIE BOWEN	West Raleigh
ELIZABETH BOWEN	West Raleigh
ISABELLE WORTH BOWEN	West Raleigh
PHYLLIS EUGENIA BOWEN	West Raleigh
ALICE BALL BROGDEN	Raleigh
CICELY C. BROWNE	West Raleigh
HELEN HOYT BRUNER	Raleigh
JOSEPH IRVIN BUSBEE	Raleigh
MARGARET DALE CALVERT	Raleigh
PATSY ADELINE CALVERT	Raleigh
MRS. WILLIAM R. CAMP	Raleigh
ELIZABETH MURRAY CROSS	Raleigh
MRS. J. D. DAVIS	West Raleigh
SARAH DENSON	Raleigh
HATTIE LUCILE DIXON	Kinston
MARION DUNCAN	Apex
FRANCIS GILCHRIST GIBSON	Raleigh
DR. M. R. GIBSON	Raleigh
MRS. W. A. GRAHAM	Warrenton
FRANCES MACRAE GRAY	Raleigh
CHARLES O. GRIMES	Raleigh
MRS. J. BRYAN GRIMES	Raleigh
JANE MCBEE GRIMES	Raleigh
ANNIE MONTAGUE HALL	Cary
PHYLLIS HALSTEAD	Raleigh
ELIZABETH PULLEN HARDEN	Raleigh
KATHERINE PARMELE HARDEN	Raleigh
ELSIE B. HAYWOOD	Raleigh
RANDOLPH HILL	Raleigh

Name	*Postoffice*
MARGARET E. HINES	Raleigh
MARY HOKE	Raleigh
MRS. C. L. HORNADAY	Durham
JOHN BLAKE HUNTER	Greensboro
CHARLOTTE ELIZABETH JOHNSON	Raleigh
MRS. CLARENCE A. JOHNSON	Raleigh
HELEN LAUGHINGHOUSE	Greenville
MRS. W. D. LAWLER	Raleigh
MRS. JOHN C. LOCKHART	Zebulon
ELSIE LOUISE LUMSDEN	Raleigh
JEAN MACCARTY	Raleigh
MRS. H. H. MCKEOWN	Roxboro
ELEANOR HAYWOOD MASON	Raleigh
VIC MIAL	Raleigh
MRS. C. F. MILLER	Raleigh
ELIZABETH MILLER	Raleigh
GEORGE P. MOORE	Raleigh, R. 6
MRS. G. W. MORDECAI	Raleigh
CHARLOTTE NELSON	West Raleigh
MARY WALMSLEY NELSON	West Raleigh
MRS. THOMAS NELSON	West Raleigh
RUTH OLDHAM	Raleigh
MRS. R. BLINN OWEN	Raleigh
MRS. CHARLES B. PARK	Raleigh
JOHN A. PARK	Raleigh
MRS. JOHN A. PARK	Raleigh
RUTH PENNY	Raleigh, R. 6
GORDON RACKLIFFE	Raleigh
IONE RICHARDSON	Greensboro
ANNA RIDDICK	West Raleigh
NARCISSA RIDDICK	West Raleigh
MRS. W. C. RIDDICK	West Raleigh
LEONARD PHILLIP RIPPY	Elon College
LYNN ROBBINS	Raleigh
ROE ELLA ROBBINS	Raleigh
VIRGINIA PAGE ROYSTER	Raleigh
EVELYN MARY SENTELLE	Lumberton
ELIZABETH ROWLAND SHAW	Lumberton
LILLIAS MCD. SHEPHERD	Raleigh
MARY PAULINE SMITH	Cary
MARY STALLINGS	Spring Hope, R. 2
MRS. MARY BRYAN SYME	Raleigh
ELVA MURIEL TEMPLETON	Cary

Name	*Postoffice*
MARY WESTON TUCKER	Raleigh
MRS. W. W. VASS	Raleigh
ANNIE W. WADDELL	Raleigh
VIRGINIA WADDELL	Raleigh
CARROLL W. WEATHERS	Raleigh
MARY BERTRAND WILSON	Raleigh
EMMA WISE	Raleigh
MRS. W. A. WITHERS	West Raleigh
FRANK R. YARBOROUGH	Cary
GINNIE MARY YARBROUGH	West Raleigh
MRS. R. E. L. YATES	West Raleigh

PRACTICE SCHOOL

HERBERT ACTON	Raleigh
ROBERT MAYNE ALBRIGHT	Raleigh
PHILIP KING ALSTON	Raleigh
JESSIE ROSE BAGWELL	Raleigh
MAHLON BAGWELL	Raleigh
ANN BALL	Raleigh
JOSEPH BARBER	Raleigh
REBECCA BOWEN	Raleigh
SARAH WOOTEN BRIGGS	Raleigh
LAURA CARTER	Raleigh
WILLIAM CAVENESS	Raleigh
MARY LOU COFFEY	Raleigh
J. F. COOPER	Raleigh
BERNARD CROCKER	Raleigh
KENNETH CURTIS	Raleigh
MARGARET CURTIS	Raleigh
ROBERT CURTIS	Raleigh
DOROTHY EVANS	Raleigh
HARRY W. GLASCOCK, JR.	Raleigh
CHARLES GUIRKIN	Raleigh
JOHN N. HALSTEAD	Raleigh
NANCY BELVIN HARDEN	West Raleigh
MYRTLE HICKS	Raleigh
MARGARET ELIZABETH HINES	Raleigh
MARGARET HUGHES	Raleigh
BRYCE JUDD	Raleigh
NANCY G. KENDRICK	Raleigh
ELIZABETH KENNEDY	Raleigh
HENRY M. LONDON, JR.	Raleigh

Name	*Postoffice*
FRANK LUMSDEN	Raleigh
HUNTER LUMSDEN	Raleigh
KATHRYN LUMSDEN	Raleigh
WILLIAM MCPHERSON	Raleigh
CARROLL MANN	Raleigh
JOHN MARSHALL	Raleigh
SUSANNA MARTIN	Raleigh
EMMA MATTHEWS	Raleigh
WILLIAM MAXWELL	Raleigh
MARY FRANCES MITCHELL	Raleigh
WILLIAM MOORE	Raleigh
KARL MORGAN	Raleigh
KATHERINE MORGAN	Raleigh
WILLIAM O'KELLEY	Raleigh
MARY HOLLAND OWENS	Raleigh
WARNER LEWIS PICKELL	Raleigh
ELIZABETH RAY PRESTON	Raleigh
WORTHAM PROCTOR	Raleigh
MARY AGNES RANSON	West Raleigh
CHARLES RAY	Raleigh
EUGENIA TRAVERS RIDDICK	West Raleigh
CHARLES ROBBINS	Raleigh
SUE MAE ROBINS	Raleigh
ALICE SEPARK	Raleigh
VIRGIL ST. CLOUD	Raleigh
JAMES STEPHENSON	Raleigh
EMILY STORR	Raleigh
KATHERINE VAUGHN	Raleigh
LOUISE MANN WADE	Raleigh
ELIZABETH WARD	Raleigh
MARGARET WARD	Raleigh
THOMAS WARD	Raleigh
MARY LAURENS WITHERS	West Raleigh
ELIZABETH HINES YATES	Raleigh

AGRICULTURAL CONFERENCE

FRANK HAMILTON BROWN	Cullowhee
H. W. BULLARD	Aulander
WM. R. CAMP	Raleigh
GEORGE A. COLE	Middleburg
W. B. CRUMPTON	Wilson, R. 2
MRS. W. B. CRUMPTON	Wilson, R. 2

Name	*Postoffice*
CARRIE ELLEN CRUMPTON	Wilson, R. 2
WILLIAM WARD CRUMPTON	Wilson, R. 2
SUPT. THOMAS R. FAUST	Greensboro
MRS. L. C. FISHER	Roseboro
KENNETH L. GREENFIELD	Kernersville
THOMAS L. HILL	Clemmons, R. 1
MRS. T. L. HILL	Clemmons, R. 1
JOHN STEWART HOWARD	Cary
C. R. HUDSON	Raleigh
H. L. JOSLYN	Vanceboro
MRS. H. L. JOSLYN	Vanceboro
C. H. LANE	Washington, D. C.
SUPT. C. W. MASSEY	Durham
O. S. MILLER	Lowes Grove
D. ERNEST ROBERTS	Rich Square
ARTHUR LEE TEACHEY	Pleasant Garden
GEORGE B. TROXLER	Jamestown
C. L. VAUGHN	Red Oak
MRS. P. C. WALKER	Wilson, R. 2
NATHANIEL WARREN WELDON	Vanceboro
MRS. NATHANIEL WARREN WELDON	Vanceboro
DR. W. T. WHITSETT	Whitsett

HOME DEMONSTRATION AGENTS

MARCELINE PESCUD ALBERTSON	Elizabeth City
LOU ELLA AVRA	Greenville
ANNA MARY BAKER	Hendersonville
MRS. CHLOE PARKER BLALOCK	Raleigh
FANNIE E. BROOKS	Jonesboro
MRS. DAVID H. BROWN	George
MRS. LILLIAN WISE CAPEHART	Oxford
BLANCHE CARTER	Bayboro
LULU M. CASSIDEY	Lumberton
LUCY MARIA COBB	Kenansville
CIRCE COBLE	Edenton
IRMA KATHLEEN COBLE	Graham
HARRIET ELIZABETH COFFROTH	Keyser, West Va.
JOSEPHINE COPELAND	Wincassett
MRS. JOHN SANDY COVINGTON	Rockingham, R. 1
OTELIA C. CUNNINGHAM	Durham
MRS. MARY MOORE DAVIS	Statesville
MRS. ELIZABETH BARNARD EARLEY	Aulander, R. 2

Name	*Postoffice*
MRS. BEULAH AREY EUBANKS	Durham
ELIZABETH GAINEY	Fayetteville
HELEN WINGFIELD GAITHER	Hertford
MRS. B. H. GRIFFIN	Marshville
MRS. EDNA L. HARGRAVE	Norwood
LENNIE V. HATCHETT	Murphy
MRS. MITTIE MAY HENLEY	West Raleigh
WILLIE NORFLEET HUNTER	Winston-Salem
EVA LENORE KEELER	New Bern
MAZIE D. KIRKPATRICK	Reidsville
MRS. MARY H. LAMB	Garland, R. F. D.
EVA LOGAN	Burgaw
ELIZABETH MCCARGO	Tarboro
ETHEL MCDONALD	Asheville
ALICE MCQUEEN	Plymouth
LILA MELVIN	Roxboro
MRS. BLANCHE MILLER	North Wilkesboro
MARY LOUISE MILLS	Bladenboro
CORNELIA CURRIN MORRIS	Roanoke Rapids
KATHARINE CURRIN MORRIS	Henderson
AVA MYATT	Jacksonville
LIDA M. OLIVE	Salisbury
EUNICE ESTHER PENNY	Lexington
NELL PICKENS	Gastonia
MARGUERITE PIERCE	Winston-Salem
MRS. JAMES KEMP PLUMMER, SR.	Middleboro
BERTHA LUCILE PROFFITT	Carthage
ANNIE LEE RANKIN	Raleigh
MRS. ROSALIND A. REDFEARN	Wadesboro
GLENNORA P. ROMINGER	Winston-Salem
MARY JULIA ROWE	Newton
HELEN KATHLEEN SIMMONS	Durham
TIMOXENA SLOAN	Franklin
ANNIE PAULINE SMITH	Louisburg
MRS. E. T. SMITH	Goldsboro
CORNELIA ADELINE STEELE	St. Pauls
OLA STEPHENSON	Greensboro
ALLIE STRIBLING	Nashville
WILLIE L. WHITE	Wilson
MRS. J. M. WHITTED	Durham
LAURA JANE WILLSON	Dobson
LAURA MARELLA WINGFIELD	Greensboro
MRS. FLORENCE RUTH WINN	Lincolnton

SOLDIERS IN FRENCH

Name	*Postoffice*
LAMAR ABERNATHY	Gastonia
CALVIN M. ADAMS	Statesville
HENRY C. AGNER	Gold Hill
LYRA C. BAILEY	Kenly
FERRY W. BARBER	Goldston
MARVIN BARRINGTON	Weldon
JOHN E. BEAMON	Raleigh
LEROY BEASLEY	Wilmington
COOPER L. BELAND	Wilson
CARR BELL	Stokesville
CHARLES L. BENTON	Goldsboro
BENJAMIN C. BERRY	Hertford
CLAUDE B. BEST	Warsaw
ALLEN G. BRADY	Henderson
ROY O. BRICKHOUS	Columbia
WALTER P. BRIDGERS	Warsaw
CHARLES S. BUNN	Bailey
WALTER J. BURDEN	Orlando
CARLTON G. CAHOON	Swan Quarter
JOHN R. CAMERON	Kinston
HERMAN D. CARROW	Washington
WESLEY G. CATON	Marshall
DONALD F. CHEATHAM	Norfolk, Va.
JOSEPH R. CLARKE	Reidsville
CUSTER CRAWFORD	Hayesville
JOHN F. CRAWFORD	Tear
JOHN M. DAVIS	Rosemary
WALTER L. DAVIS	Proximity
CONNIE H. DUKE	Tar River
RAYMOND E. EARP	Selma
JOHN L. EPLEY	Marion
JOHN E. FEREBEE	Camden
ALBERT E. FERGUSON	Neuse
JULIAN E. FINCH	Bailey
JAMES E. GREEN	Mt. Gilead
WILLIAM T. GRIGG	Gastonia
WILLIAM H. HEINS	Raeford
AQUILLA P. HYMAN	Tarboro
ZOE L. JOHNSON	Durham
JASPER G. JONES	Rutherfordton
THOMAS F. JONES	Eureka
EARL F. KING	Graham

Name	*Postoffice*
HARRY LIPMAN	New Bern
GROVER LOVEN	Linville
JAMES K. MCARTHUR	Greenville
OTTO B. MABRY	Norwood
JOHN L. MALONEY	Fayetteville
LEVY B. MEDLIN	Monroe
JOHN W. MILLS	Wadesboro
PRESTON J. MINTON	Roxobel
ARTHUR L. MORGAN	Rockingham
THOMAS L. NOOE	Beaufort
LINVILLE B. PARKER	Raleigh
ROBERT G. PARSONS	Mouth of Wilson, Va.
EDGAR PEARSONS	Gastonia
GRAY H. PEDDYCORD	Winston-Salem
LEON E. PENDER	Pinehurst
ORAN W. PENLAND	West Asheville
ROBERT G. PHILLIPS	Robbinsville
BENJAMIN F. PICKARD	Greensboro
ELLIS M. POWELL	Raleigh
JAMES R. POWELL	Clinton
CHARLES A. PURCELL	Wagram
CHARLES C. RANDALL	Lincolnton
CHARLES C. REA	Biltmore
ANDREW W. REID	Dean
GAITHER L. RITCHIE	China Grove
PAUL M. ROGERS	Glass
EARLE V. SCOTT	Trenton
JOE H. SHARP	Hickory
GEORGE A. SHORT	Greensboro
LUTHER C. SIDES	Winston-Salem
RODNEY E. SNOW	Greensboro
PAUL E. SPRINKLE	Winston-Salem
HENRY G. STANFORD	Charlotte
F. D. TATE	Waynesville
LLOYD M. TATE	Waynesville
JOHN L. TAYLOR	Asheville
CLEVELAND THAYER	Raleigh
JOHN R. THOMAS	Durham
EDGAR E. THOMPSON	Durham
GEORGE W. THOMPSON	Ramseur
CHARLES L. TUCKER	Winston-Salem
THOMAS J. TURLINGTON	Duke
HENRY C. TYSINGER	Thomasville

Name	*Postoffice*
JOSEPH B. WALLER	Fair Bluff
ROBERT E. WARD	Durham
ROLLIN W. WARREN	Rich Square
CLYDE M. WHISNANT	Henrietta
GEORGE W. WILLIAMS	Fayetteville
JAMES B. WILLIAMS	Marshville
ROBERT D. WILLIAMS	Gatesville
WAYNE W. WILLIAMS	Bryson City
CHAPPEL WILSON	Lumberton
LEE P. WOODY	Woodsdale
ERNEST L. WORTHINGTON	Winterville
DAVID R. WRIGHT	Hunting Creek
WILLIAM A. YOUNG	Linwood

TWENTY-NINTH ANNUAL COMMENCEMENT

MAY 28, 1918

DEGREES CONFERRED

BACHELOR OF SCIENCE

In Agriculture

James Monroe Barnhardt
Thomas Ambrose Belk
Jay Lang Benbow
George Benjamin Blum
Harper Nicholson Cherry
Russell Alexander Crowell
William Anderson Davis
Frederick Emmett Ducey
Thomas Benjamin Elliott
Early Baxter Garrett
Shober Körner Jackson
Lyman Kiser
William Daniel Lee
Charles Riley Leonard
Eugene James Moore
Henry Blount Osborne
Daniel Russell Sawyer
Allen Ernest Smith
George Boston Troxler
Suade Gower Walker
James Thaddeus Weatherly
Percy Stanley White
Murray Gibson James

BACHELOR OF ENGINEERING

In Civil Engineering

Wilmer Zadock Betts
William Thomas Combs
Daniel Robert Steele Frazier
William Edward Leeper
Elbert Francis Lewis
Robert Lingle Lewis
Henry Caperton Warwick

In Electrical Engineering

George Ganzer Avant
Frederick Neil Bell
Bryce Benjamin Brown
Paul Brandon Fleming
Landon Cabell Flournoy
John Ruby Hauser
John Andrew Northcott, Jr.
James Fuller Yates, Jr.

In Mechanical Engineering

Bonva Closson Allen
Charles Kearney Cooke, Jr.
William Sergeant Dixon, Jr.
Abram Edgar Harshaw
William Cooke Jones
Roger Vernon Terry

In Textile Industry

Benjamin Duke Glenn
John Jacob Jackson
Ralph McDonald
Walter Leak Parsons, Jr.
Horace Ralph Royster

ADVANCED DEGREES

MECHANICAL ENGINEER

Edgar Byron Nichols

MASTER OF SCIENCE

In Agriculture

Grover William Underhill
Jacob Osborne Ware

CATALOGUE OF STUDENTS

GRADUATE STUDENTS

Name	*Course*	*Postoffice*
Fletcher Hess Barnhardt, B.E.	C. E.	Newark, N. J.
Charles Edward Bell, B.S.	Chem.	Raleigh
Donald McCluer, B.S.	Agr.	West Raleigh
Vernon Ray Herman, B.S.	Agr.	West Raleigh
Benjamin Oliver Hood, B.E.	E. E.	Port Newark, N. J.
John Eli Ivey, B.S.	Agr.	West Raleigh
Herbert Lee Taylor, B.E.	E. E.	Baltimore, Md.
John Spicer Wilson, B.E.	E. E.	Chicago, Ill.

SENIOR CLASS

Edward Andrew Adams, Jr.	M. E.	Raleigh
Samuel Otto Bauersfeld, Jr.	Agr.	Hamlet
Robert Edward Brackett	Agr.	Landrum, S. C.
Clarence Anderson Brame	Agr.	Kenly, R. 3
William Staley Bridges	M. E.	Wakefield
George Edward Bush	Tex.	Granite Falls
George Latta Clement	Agr.	Asheville
Thomas Marvin Denson	C. E.	High Point
Hugh Woody Dixon	Agr.	Elkin
Alvah Dunham	Agr.	White Oak, R. 1
Edwin Wood Fuller	Tex.	Raeford
Howard Henley Gordon	Agr.	Raleigh
Dennis Henry Hall, Jr.	Agr.	High Point
James Shoffner Hathcock	Agr.	Norwood
Arthur Lee Humphrey	E. E.	Wilmington
Fred Duncan Jerome	C. E.	Kenly
Walter Myatt Johnson	M. E.	Chalybeate Springs
William Daniel Johnston	E. E.	Washington
James Thomas Larkins	C. E.	Garland
Harry Vann Latham	Agr.	Belhaven, R. 1
James Gilmore Leonard	E. E.	Lexington, R. 1
Forrest Bainie Long	Tex.	Charlotte, R. 3
Paul Hedrick Long	M. E.	Thomasville, R. 3
Paul Thomas Long	Agr.	Jackson
Zebulon Archibald McCall	Agr.	Elrod
Harry Gallant McGinn	Tex.	Charlotte, R. 3
Burton Forrest Mitchell	Tex.	Shelby
George Mason Parker	C. E.	Woodland
Zeb. Vance Potter	Tex.	Vandemere

Name	*Course*	*Postoffice*
PALMER WILLIAM PRESSLY	E. E.	Bartow, Fla.
JAMES LATHAN REA	Agr.	Matthews, R. 27
GEORGE RANDOLPH ROBINSON	E. E.	Rocky Mount
HARRY TATUM ROWLAND	Tex.	Middleburg
MARION POLK SANFORD	Agr.	Stem, R. 1
WALTER DUPRE SHIELDS	Tex.	Scotland Neck
JAMES GRAY STOKES	Agr.	Burgaw
WARNER MINNIEWEATHER VERNON	Agr.	Raleigh
JEW IRVIN WAGONER	Agr.	Gibsonville, R. 1
SAMUEL STANHOPE WALKER	Tex.	Martinsville, Va.
ROBERT PHIFER WATSON	Tex.	Salisbury, R. 4
BELTON CUNDIFF WILLIAMS	Agr. Chem.	Mannassas, Va.

JUNIOR CLASS

WILLIAM GASTON ALLEN	C. E.	Neuse, R. 1
WADE VANCE BAISE	C. E.	Pelham, R. 1
WALTER ROBERT BAYNES	Agr.	Hurdle Mills
JAMES CYRUS BLACK, JR.	Chem. Eng.	Davidson, R. 2
OWENS HAND BROWNE	Chem. Eng.	West Raleigh
WILLIAM CAREY BUNCH	Agr.	Edenton
JOHN SUMMERELL CHAMBERLAIN	Agr.	West Raleigh
WILLIAM CLAYBORNE CHEEK	M. E.	Durham
JAMES HAROLD CLICK	Agr.	Elkin
FRANKLIN DEWEY CLINE	C. E.	Asheville
SAMUEL ALLEN COOPER	Agr.	Graham, R. 2
HORACE DOWNS CROCKFORD	Agr. Chem.	Charlotte, R. 5
ROBERT HOBSON DUKE	E. E.	Durham
WILLIAM THEODORE ESKEW	E. E.	Henderson, R. 3
RANDAL BENNET ETHERIDGE	Agr.	Manteo
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
ADAM HUGH HARRIS	Agr.	Oriental, R. 1
FRED BRYAN HARTON	Agr.	Rutherfordton, R. 3
JESSE MEACHAM HENLEY	Agr.	Guilford College, R. 1
ROBERT CLIFF HINKLE	Tex.	Lexington
EDWARD GIBBON HOBBS	Agr.	Clinton
WILBUR BREEDEN HODGES	Agr.	Brownsville, S. C.
SOLOMON LINN HOMEWOOD	Agr.	Burlington, R. 1
HARRY ELEY HOOD	Tex.	Waxhaw, R. 3
WILLIAM FRANK HUMBERT, JR.	E. E.	Polkton, R. 2
CHRISTOPHER THOMAS HUTCHINS	M. E.	Portsmouth, Va.

Name	*Course*	*Postoffice*
ARTHUR SPROOL JENNETTE	C. E.	New Bern
ASBURY CROUSE JONES	Agr.	Winston-Salem, R. 1
OMRA BURR JONES	Agr.	Weaverville
LOUIS MILLS LATTIMORE	E. E.	Shelby
JENNINGS ANDERSON LOVEN	M. E.	Linville
ALEXANDER BRYAN MCCORMACK	Tex.	Rowland
HARVEY BLOUNT MANN	Agr.	Lake Landing
MELVILLE LEE MATTHEWS	E. E.	Henderson
EDWARD NEWTON MEEKINS	Agr.	Manteo
GRAHAM MONROE	Agr.	Council, R. 2
JOHN THADDEUS MONROE	Agr. Chem.	Council, R. 2
WILLIAM CAREY MURRELL	E. E.	Wilmington
TYCHO NORRIS NISSEN	M. E.	Winston-Salem
PAUL SHEPARD OLIVER	Agr.	Marietta, R. 1
JAMES MURCHISON PEDEN	E. E.	Wilkesboro
CHARLES FULLER PHILLIPS	Agr.	Thomasville, R. 4
HERMAN NEWTON PICKETT	E. E.	Greensboro
ROSS DUNFORD PILLSBURY	C. E	West Raleigh
EDWIN THEODORE PORTER	Tex.	Georgetown, S. C.
OLIVER RAMSEUR	E. E.	Kings Mountain
CALEB EDWARD RHODES	E. E.	Dallas
WILLIAM LOUIS ROACH	C. E.	Durham
RALPH REED ROBERTSON	E. E.	Portsmouth, Va.
BERNICE UMSTEAD ROSE	Agr. Chem.	Durham
CECIL VANN SAUNDERS	E. E.	Lilesville
CHARLES ANTHONY SHEFFIELD	Agr.	Randleman, R. 2
FRANK PIERCE SHORE	E. E.	East Bend, R. 2
WALTER LEITH SHUPING	E. E.	Morganton
ROBERT PINKNEY STACEY	E. E.	Ruffin
JOHN GUY STUART	Agr.	Jackson Springs
JACOB NEELY SUMMERELL	Tex.	China Grove, R. 2
DENNIS HOWARD SUTTON	Agr.	Columbia, R. 2
GEORGE WILLIAM TIENCKEN	E. E.	Wilmington
MARION FRANCIS TRICE	Chem. Eng.	Hendersonville
AUBREY BRYANT WADDELL	Tex.	Louisburg
SETH THOMAS WALTON	Agr.	Jacksonville, R. 3
CLARENCE WESTBROOK WARRICK	Agr.	Goldsboro, R. 4
ALBERT LINWOOD WHITE	M. E.	Hampton, Va.
THOMAS MCALISTER WHITE	E. E.	Ramseur
FOOK WAI WONG	Tex.	Canton, China
DANIEL BARNES WORTH	M. E.	Raleigh, R. 2
ELMER BERNARD YOUNG	C. E.	Rock Hill, S. C.
THOMAS GRADY YOUNG	E. E.	Micaville
TSIIN SAM YOUNG	Tex.	Canton, China

SOPHOMORE CLASS

Name	*Course*	*Postoffice*
CLAUDE WINIFRED ABSHER	C. E.	Mount Airy
JUDSON DAVIS ALBRIGHT, JR.	Chem. Eng.	Charlotte
SAMUEL CRAIGHEAD ALEXANDER	Tex.	Charlotte
CHARLES SNEAD ALLEN	Tex.	Weldon
HILTON WORTH ALLSBROOK	E. E.	Greenville
CHARLES DAVIS ARTHUR, JR.	Chem. Eng.	Raleigh
BASIL DUKE BARR	M. E.	Creston
JAMES PERCY BEAL	Chem. Eng.	Rocky Mt., R. 3
ANDREW MCALPINE BELL	C. E.	Morganton
RICHARD VON BIBERSTEIN	C. E.	Charlotte
JULIAN H. BLUE	C. E.	Raeford
GRADY WASHINGTON BOWERS	Tex.	Lexington
AARON LEON CAPEL	Tex.	Troy
SAMUEL LEE CARPENTER	Agr.	Lincolnton, R. 5
OBED CASTELLOE	Agr.	Aulander
JOSEPH STICKNEY CHAMBERLAIN	Agr.	West Raleigh
FRED SHERWOOD CHILDS	Tex.	Lincolnton
JAMES POOL CLAWSON	E. E.	Beaufort
HENRY OTIS CLODFELTER	M. E.	Lexington, R. 1
ERNEST WILLIAM CONSTABLE	Chem. Eng.	Lake Landing
ROBERT ANDREW COUGHENOUR	M. E.	Scotland Neck
LOUIS BROADDUS DANIEL	Tex.	Weldon
BENJAMIN FRANKLIN DAUGHETY	Agr.	Kinston, R. 2
WILLIAM SPEED DAVIS	Tex.	Henderson, R. 4
ROBERT ANTINE MCCOLOUGH DEAL	E. E.	Spencer
WALTER CONNOR EAGLES	Agr.	Macclesfield, R. 1
FRANK REVERDY ENGLISH	Tex.	Martinsville, Va.
ROBERT CRAIG ERNST	Chem. Eng.	Henderson
JOSEPH GRAHAM EVANS	M. E.	Elizabeth City
CLAUDE HAMILTON FLIPPIN	E. E.	Pilot Mountain
DEWEY AUGUSTUS FLOYD	E. E.	Fairmont, R. 3
PERRY HAMILTON GASTON	Agr.	Candler, R. 2
BARTHOLOMEW MOORE GATLING, JR.	E. E.	Raleigh
LEO CHARLES GUIRKIN	E. E.	Elizabeth City
JOHN MURDOCK HALL	E. E.	Highlands
LAURENS ADAMS HAMILTON	Agr.	Carlisle, S. C.
JOHN WILLIAM HARDEN, JR.	Agr.	Raleigh
WILLIAM MURCHISON HAYES, JR.	M. E.	Kershaw, S. C.
ASA BAKER HOLLOWELL	Agr.	Aulander
ROY ARTHUR HOLLOWELL	Agr.	Winton
OLIVER KNIGHT HOLMES	Agr.	Fayetteville, R. 2

Name	*Course*	*Postoffice*
ROY AUGUSTUS HOLSHOUSER	Tex.	Concord
JAMES SYLVANUS HUNTER	M. E.	Gastonia
JOHN BLAKE HUNTER	E. E.	Greensboro, R. 2
FRANK PORTER HUSKINS	E. E.	Andrews
ANDREW ELLERSON JAMES	E. E.	Wilson
JUDSON PEELE JOHNSON	M. E.	Chalybeate Springs
WILLIAM CARMI JOHNSTON, JR.	Chem. Eng.	Mooresville
WILLIAM MORTON JOHNSTON	Agr.	Greenville
GASTON VANCE JONES	Tex.	Newark, N. J.
JOHN KEITH JONES	E. E.	Selma
WILLIAM HUGH JONES	Agr.	Winton
RICHARD GREEN KENDRICK	Tex.	Charlotte
CHARLES DICKERSON KIRKPATRICK	Agr.	Charlotte, R. 2
JOHN HAYWOOD LANE	Agr.	Wilson, R. 4
WILLIAM ANDREW FRANKLIN LAWING	E. E.	Huntersville, R. 20
EDWIN CLINARD LEGRAND	Tex.	Mocksville
HORNER DEWITT LONG	C. E.	Concord
SAMUEL MARSH LONG	E. E.	Trenton, S. C., R. 1
SAMUEL DARDEN LOVELACE	E. E.	Wilson
RAY ELLIOTT MACKENZIE	C. E.	Charlotte
WILSON COPES MCKOY	Agr.	Portsmouth, Va.
ANDREW WILLIS MCMURRY, JR.	Tex.	Shelby
JOHN DOUGLAS MCRAE	Tex.	Bennettsville, S. C.
WARREN STATEN MANN	M. E.	Fairfield
EDWARD BRANHAM MANNING	M. E.	Henderson
HOWELL FOSTER MASSEY	M. E.	New York, N. Y.
FRANK PIERCE MONTGOMERY	M. E.	Wilmington
BARTHOLOMEW FIGURES MOORE	Tex.	Raleigh
AUGUSTUS RAY MORROW	Agr.	Mount Ulla, R. 2
EMMET BROWN MORROW	Agr.	Mount Ulla, R. 2
JONATHAN HAVENS MOSS	Tex.	Washington
MANLEY PARKER MOSS	C. E.	Youngsville
GEORGE KING MURRAY	Tex.	Charlotte
DOLPHIN HENRY OVERTON	Agr.	Nashville
ALLAN KENT OWEN	C. E.	Winston-Salem
CHANNING NELSON PAGE	C. E.	Aberdeen
EDWIN PATE	Agr.	Laurel Hill
LEWIS BRENARD PECK	C. E.	Concord
JOSEPHUS DANIELS PELL	Tex.	Raleigh
GEORGE TORREY PEOPLES	Tex.	Townsville, R. 1
EDWARD ANCEL PETERKIN	Agr.	Dillon, S. C.
JOSEPH JOHNSON POLAND	Agr.	Raleigh
WILLIAM CLAUDE POLK	Tex.	Charlotte

Name	*Course*	*Postoffice*
GEORGE EVERARD PRIVOTT	Agr.	Edenton
WILLIE WOODSON PUGH	M. E.	Cedar Creek
KIRBY JERNIGAN QUINN	Chem. Eng.	Warsaw, R. 2
CHARLES LOUIS RACKLEY	Agr.	Hendersonville, R. 4
DILLARD CHARLES RAGAN	Tex.	High Point
JAMES DANTZLER RAST	E. E.	Cameron, S. C., R. 1
MARTIN LUTHER RHODES	Tex.	Lincolnton
WADE HAMPTON RICE	Agr.	Wilson
COLON ARTHUR RICHARDSON	C. E.	Asheboro
JOHN HOLLIS RIPPLE	Tex.	Lexington
THOMAS DAVIS ROPER, JR.	Chem. Eng.	Portsmouth, Va.
WILLIAM BUNTING SAUNDERS	M. E.	Lilesville
JAMES CARLTON SENTER	M. E.	Kipling
GUY RUDISILL SIPE	Agr.	Cherryville
WILLIAM NATHAN HARRELL SMITH	C. E.	Raleigh
JOEL ALEXANDRIA SMITHWICK	Agr.	Manson, R. 2
THOMAS ANCRUM SPENCER	E. E.	Whiteville
GEDDIE BLAIR STRICKLAND	E. E.	High Point
FRANK RALPH SWINDELL	E. E.	Belhaven
WILLIAM AUSTIN SYDNOR, JR.	M. E.	North Wilkesboro
RICHARD FRAZIER TABOR	C. E.	Morganton, R. 5
JUNIUS ALBERT TEMPLE	C. E.	Sanford
JOHN CLIFTON TERRY	M. E.	Rockingham
THEODORE RUGGLES TIMBY	E. E.	Fayetteville
JAMES HIX TOWNSEND	E. E.	McDonald
WILLIAM WEAVER VAUGHN	Tex.	Raleigh
WILLIAM DANIEL WAGNER	M. E.	Tarboro
JOHN WALTER WALKER	Agr.	Raeford
JOHN D. WALLACE	Chem. Eng.	Laurinburg, R. 3
SIDNEY JONES WALTERS	M. E.	Oxford
FRANK TRENWITH WARD, JR.	E. E.	Raleigh
WILLIAM RICHARD WEARN, JR.	C. E.	Charlotte
WILLIAM TOXEY WHITAKER	C. E.	Raleigh
CHARLES WHARTON WHITE	Tex.	Raleigh
DUNCAN ALEXANDER WICKER	M. E.	Greensboro
ATTICUS MORRIS WILLIAMS	Agr.	Duke, R. 1
BENTON WRAY WILLIAMS	M. E.	Angier
ROBERT EDGAR WILLIAMS	M. E.	Wilmington
OTIS ALLEN ZACHARY	Tex.	Cooleemee

FRESHMAN CLASS

Name	*Course*	*Postoffice*
BRUCE BELLE ABERNETHY	M. E.	Matthews, R. 19
EDWARD VICTOR ABERNETHY	Agr.	Lenoir
HORACE ALLEN ABERNETHY	E. E.	Monroe
WALLACE WARREN ABERNETHY	Agr.	Monroe
WILTON LEROY ADAMS	E. E.	Raynham, R. 1
ROBERT KNIGHT ADKINS	E. E.	Robersonville
ERNEST HEATH AGLE	M. E.	Albemarle
JOHN PATTEN AIRHEART	M. E.	Sweetwater, Tenn.
FREDERICK GLADSTONE ALBERT	M. E.	Statesville
JOHN THOMAS ALDERMAN, JR.	E. E.	Henderson
CARL BARNHARDT ALEXANDER	M. E.	Liberty
ROBERT OWEN ALEXANDER, JR.	M. E.	Charlotte
THOMAS WATKINS ALEXANDER	Tex.	Derita, R. 14
WILLIAM ROY ALEXANDER	Agr.	Fletcher, R. 2
WILLIAM T. ALLRED	E. E.	Mount Airy
CLYDE DONALD ANDERSON	E. E.	Williamston
ETHNA GORDON ANDERSON	M. E.	Tarboro, R. 4
NICHOLAS HERBERT ANDREWS	M. E.	Rockingham, R. 1
MONTROSE ANGLE	M. E.	Milton
EDWARD MICHAEL ARENDELL	E. E.	Morehead City
FRANK MARSHALL ARMSTRONG	C. E.	Troy
JOHN THOMAS ARMSTRONG	Tex.	New Bern
WILLIAM FRANKLIN ARMSTRONG	Agr.	Columbia
GILBERT SETH ARTHUR	Chem. Eng.	Raleigh
VERNON LEITH ASHWORTH	Agr.	Fair View
KEMP BATTLE ATKINSON	Tex.	Siloam, R. 1
ROBERT AUSBON	Tex.	Hobgood
ANDREW BAXTER BAILES	M. E.	Pineville
CLARENCE EDWARD BAILES	Tex.	Charlotte, R. 11
CLARENCE WHITFIELD BAILEY	M. E.	Roper
RAYMOND GRAVES BAILEY	M. E.	Woodsdale, R. 2
ROBAN OLAND BAILEY	C. E.	Neuse, R. 3
BENJAMIN DEWEY BAKER	E. E.	Wilson, R. 1
CLOVIE NEELY BAKER	M. E.	Charlotte, R. 2
FRANK KUGLER BAKER	M. E.	Norfolk, Va.
DAVID LENNAN BALDWIN	M. E.	Whiteville, R. 2
HAROLD HOYT BANGS	E. E.	Hendersonville
CHARLIE RAINE BARBER	Tex.	Greensboro
CHARLES STANFORD BARDEN	Chem. Eng.	Monroe
CLINTON OLIVER BARNES	M. E.	Sims, R. 1
GERALD THOMAS BARNES	M. E.	Kenly, R. 4
EDWARD DOYLE BARR	M. E.	Creston

Name	*Course*	*Postoffice*
ROBERT CORNELISON BASINGER	Agr.	Salisbury, R. 2
NATHAN ROSCOE BASS	Agr.	Warrenton
ROBERT W. BAUGHAN	Chem. Eng.	Rich Square
JULIAN FROST BAUM	Chem. Eng.	Poplar Branch
LLOYD CURTIS BAUM, JR.	Agr.	Poplar Branch
ROBAH FETUS BAYNES	E. E.	Hurdle Mills, R. 2
WILLIAM FOY BEAL	C. E.	Rocky Mount, R. 3
TERRY FULTON BEAMER	Agr.	Mount Airy, R. 3
MONSON HAVENER BELK	Agr.	Mount Ulla, R. 1
GRAHAM WHITEHURST BELL	C. E.	Elizabeth City
JOHN BELL, JR.	Agr.	Moncure, R. 2
GUY HIBERT BENNETT	E. E.	Morehead City
ROBERT LEE BENNETT	Agr.	Clinton, R. 1
ROY EDWARD BENSON	M. E.	Battleboro, R. 1
RICHMOND GILBERT BERNHARDT	E. E.	Lenoir
ROY HENDERSON BERRY	M. E.	Asheboro
LAUCHLIN BETHUNE	C. E.	Clinton
VAUGHN BILLINGS	Chem. Eng.	Dockery
HENRY ALEXANDER BIZZELLE	M. E.	Tampa, Fla.
LESSIE FRANCIS BLACK	C. E.	Cherryville
WILLIAM WADE BLAKENEY	E. E.	Monroe, R. 4
CLAUDIUS FRANKLIN BLAND	M. E.	Hendersonville
WILLIAM HACKETT BLANTON, JR.	Agr.	Shelby
OTTO HEATH BOETTCHER	E. E.	Elizabeth City
MARSHALL NEY BOLICK	M. E.	Newton
WILLIAM CRAWFORD BONNER	Tex.	Aurora
GARNET LEE BOOKER	Agr.	Greensboro, R. 7
ORTON A. BOREN	M. E.	Pomona
JOHN CAREY BOSEMAN	Tex.	Enfield
HOWARD WISWALL BOWEN, JR.	C. E.	Washington
JOSEPH ADRAIN BOWEN	C. E.	Washington
SAM PRIDEON BRABSON	E. E.	Franklin
WILLIAM ERNST BRACEY	M. E.	Rowland, R. 3
BENJAMIN AVERY BRACKETT	M. E.	Landrum, S. C.
OLIN LINK BRADSHAW	E. E.	Lenoir
EDGAR THOMAS BRAME	C. E.	Kenly, R. 3
MAX HIRAM BRASWELL	E. E.	Enfield
HENRY EMMETT BREWER, JR.	E. E.	Rocky Mount
HENRY FRANKLIN BRIGGS	M. E.	High Point, R. 2
JOSEPH BENJAMIN BRITTINGHAM	E. E.	Hampton, Va.
BERNARD BRITTON	C. E.	Vineland
ERNEST ALEXANDER BROADNAX	E. E.	Greensboro
JOHN RHODES BROCK	M. E.	Richlands, R. 2

Name	*Course*	*Postoffice*
BROADUS GARLAND BROOKS	M. E.	Roxboro, R. 2
JOHN DALY BROTHERS	M. E.	LaGrange, R. 5
EUGENE CLYDE BROWN	M. E.	Mooresville
ROY EUGENE BROWN	C. E.	Statesville
WILLIAM HAND BROWNE, III	E. E.	West Raleigh
JOHN GARLAND BRUMLEY	E. E.	Gastonia
SAMUEL BROOKS BRUMMITT	M. E.	Henderson
RAYMOND ARTHUR BRYAN	C. E.	Newton Grove, R. 1
CLYDE DAVIS BUCHANAN	E. E.	Dillsboro
CARL GLENN BUCHANAN	C. E.	Marion
SHAFTER WATSON BUCHANAN	Tex.	Jonesboro
LEWIS WILBURN BUMGARNER	Agr.	Webster
WORTH BAGLEY BURDEN	E. E.	Aulander
EDGAR ALLAN BURGESS	Agr.	McDonogh, Md.
MAURICE LENNON BURRUS	Tex.	Hatteras
JOHN HARRELL BURWELL	C. E.	Warrenton
ARCHIE RAEFORD BUTLER	M. E.	Rowland
EDWARD FAISON BUTLER	C. E.	Elliott
WILLIAM JOSEPH BUTLER	Tex.	St. Pauls
GUY LEE BYERLY	M. E.	High Point
RICHARD MURRAY BYRD	Agr.	Calypso
WILLIAM STERNE CAMP	M. E.	Lincolnton
DOYLE LUROY CANNON	E. E.	Rosemary
WILLIAM WALKER CANTRELL	Tex.	Winston-Salem
CHARLES DUFFY CARMEN	C. E.	New Bern
COY CORNELIUS CARPENTER	Chem. Eng.	Morrisville, R. 1
OLLIE LEE CARPENTER	M. E.	Morrisville, R. 1
ROBERT EDGAR CARPENTER	C. E.	Cliffside
LAWRENCE BERNARD CARR	M. E.	Goldsboro
CARL CARLYSLE CARTER	M. E.	Winston-Salem
ADDIS PITTARD CATES	Agr.	Mebane, R. 3
BARRETT HOUSTON CHAMPION	M. E.	Lawndale, R. 1
GEORGE BRYAN CHERRY	C. E.	Windsor
NORWOOD BENNETT CHESNUTT	Agr.	Turkey
JOHN LESLIE CHOATE	M. E.	Pineville, R. 15
COLIN CHURCHILL	E. E.	Kinston
CLINTON ALBERT CILLEY	M. E.	Hickory
FRANK SILER CLARKE	E. E.	Ansonville, R. 1
JAMES MCNEILL CLARK	C. E.	Fayetteville, R. 4
REGIS MCGOWAN CLARKE	Chem. Eng.	Hamlet
EDWIN OSBORNE CLARKSON	M. E.	Charlotte
KENNETH KEY CLEGG	M. E.	Guilford College
JASPER LESLIE CLUTE	M. E.	Clinton

Name	*Course*	*Postoffice*
HARRY WOODS COBLE	M. E.	Monroe
ELMER CLARENCE COCKERHAM	E. E.	Elkin
QUINCEY ETHAN COLVARD	Agr.	Wilbar
ELMER RANDOLPH COMMANDER	E. E.	Elizabeth City
BRUCE HARRISON CONNER	C. E.	Rich Square
GUY HARRIS COOPER	C. E.	Columbus, Ga.
JACOB THOMAS CORBETT	M. E.	Waterboro, S. C.
WILFORD BRIEN CORNWELL	M. E.	Franklin
FLAVE HART CORPENING	M. E.	Brevard
ALEXANDER Y. COTTRELL	C. E.	Lenoir
HUBERT CARL COWARD	E. E.	Kinston
EDWARD YOUNG COX, JR.	C. E.	Rocky Mount
HENRY LAVERN COX	M. E.	Siloam, R. 2
WILLIAM OLIVER CRARY	E. E.	Brevard
THEODORE GRAHAM CRAVER	M. E.	Lexington
ROLAND CORNELIUS CRAWFORD	E. E.	Williamston
GERALD TAYLOR CREECH	Agr.	LaGrange
NATHANIEL SULLIVAN CREWS	M. E.	Walkertown
EDWARD CAMERON CRIDDLEBAUGH	M. E.	High Point, R. 2
WILLIAM BROWN CRINKLEY	E. E.	Macon
RICHARD HALLAS CROCKFORD	C. E.	Charlotte, R. 5
WILLIAM THOMAS CROSS, JR.	C. E.	Gatesville
MARSHALL STONE CUNNINGHAM	M. E.	Franklin
PERRY CUNNINGHAM	E. E.	Franklin
JAMES CALDWELL CURTIS	E. E.	Atkinson
DONALD WILLIAM CUTHRELL	Tex.	Rocky Mount
CHARLES GRAHAM DAILEY	M. E.	Wilson
STEVE FOWLER DANIEL	E. E.	New Bern
CLIFTON MILLER DANIELS	Agr.	Oriental
RUPERT LINWOOD DAUGHTERY	M. E.	Goldsboro
ADRIAN MOULTRIE DAUGHTRIDGE	C. E.	Rocky Mount, R. 6
TRUMAN PERCY 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
LLOYD WOOD DAVIS	E. E.	Beaufort
MERRYMAN ROSE DAVIS	M. E.	Charlotte
ROBERT LEWIS DAVIS	Tex.	Henderson, R. 4
HAROLD ALBERT DEAL	Tex.	Randleman
JAMES AUGUSTUS DEATON	M. E.	Statesville
JOHN THOMAS DENNY, JR.	C. E.	Rennert
WILLIAM HAL DICKENS	Tex.	Whitakers
MATTHEW O'BRIEN DIGGS	E. E.	Lake City, S. C.

Name	*Course*	*Postoffice*
ALBERT THOMPSON DIXON	M. E.	Hendersonville
JOHN CLABORN DODSON	E. E.	Winston-Salem
JOSEPH ARDREY DONALDSON	M. E.	West End
CLAUDE REECE DORSETT	M. E.	Farmer
ROBERT EDWARD DUNN	M. E.	Raleigh
ROBERT ESTON DUNNING	Agr.	Aulander
WILMER SINGLETARY DUPREE	E. E.	Wilson
FRED OWEN DURANT	M. E.	Snow Hill
CARL CLEMENT DURHAM	C. E.	Salisbury
JAMES LEWIS DURHAM	E. E.	Dallas
LOUIS GORDON DURHAM	E. E.	Hendersonville
ARCHIE WELLONS DYE, JR.	E. E.	Raleigh
WILLIAM ATAWAY EATON	Agr.	Franklinton, R. 2
NORMAN EDWARD EDGERTON, JR.	Tex.	Selma
VIRON BURTON EDGERTON	M. E.	Kenly
FELIX ELMER EDMUNDS	C. E.	Blanch, R. 1
WILLIAM WALL ELLERBE	M. E.	Rockingham, R. 4
FRED GRAHAM ELLIOTT	C. E.	Sanford, R. 4
WILLIAM ASTRON ELLIS	M. E.	Clayton, R. 3
JOSEPH EDWARD ENTHOFFER	E. E.	Asheville
DELMAR WILLIAM ERWIN	M. E.	Newton
JULIAN CARR ETHERIDGE	M. E.	Elizabeth City
HOWARD LEE EVANS	Tex.	Lexington, R. 3
ARVLE FRANKLIN EVERHART	Tex.	Lexington
PAUL KOONCE EWELL	M. E.	Elizabethtown
ISAAC WORTH FAIRES	Agr.	Charlotte, R. 11
WILLIAM FRANK FALLS	C. E.	Salisbury, R. 7
CLYDE FLEMING FARLEY	M. E.	High Point
GEORGE DEWEY FARLOWE	Chem. Eng.	High Point
DWIGHT MOODY FARMER	Agr.	Bailey, R. 2
RALPH POWELL FARRELL	Chem. Eng.	Leaksville
ROBERT DEWEY FARRELL	Chem. Eng.	Graham
EMANUEL FELS	M. E.	Reidsville
THOMAS CONNOR FELTON	M. E.	Wilson
CLARENCE FISHER	Tex.	Battleboro
ROBERT SAMUEL FLIPPIN	M. E.	Pilot Mountain
ALVA JUSTIN FLOYD	C. E.	Fair Bluff
GILES PITTMAN FLOYD	M. E.	Fairmont, R. 3
EDMUND FRANCES FOIL	E. E.	Concord
CHARLES HAROLD FORBES	C. E.	Bertha
VANCE E. FOREHAND	M. E.	Colerain
JOSEPHUS CORTON FOSCUE	Agr.	Maysville
THEODORE KING FOUNTAIN	Tex.	Raleigh

Name	*Course*	*Postoffice*
ALFRED JAY FOX	M. E.	Winston-Salem
EDGAR STRONG FREEMAN	M. E.	Raleigh
WILLIAM FRANKLIN FREEMAN	E. E.	Norfolk, Va.
THOMAS LEE FUNDERBURK	Agr.	Matthews
CLAUDE FRANKS GARLAND	M. E.	Franklin
JAMES CLIFTON GARNER	Agr. Chem.	Weldon
JAMES EDWARD GARRETT	Tex.	Rockingham
ROBERT U. GARRETT, JR.	E. E.	Sylva
AMOS JAMES GATLIN	E. E.	Wilson
EUGENE JOHN GAY, JR.	M. E.	Jackson
ALEXANDER DUNCAN GIBSON	E. E.	Laurel Hill, R. 1
JOSEPH WARREN GILBERT	M. E.	Grifton, R. 3
CHARLES HENDERSON GILES	E. E.	Marion
ERNEST NEILL GILES	M. E.	Glen Alpine
JOHN DAVIS GILL	C. E.	Henderson, R. 4
EDWARD ALGERNON GILLIS	E. E.	Charlotte
JOHN BENNETT GORDON	Agr.	Raleigh
CHARLES HOWARD GRADY	Agr. Chem.	Kenly
WILLIAM FRANKLIN GRAHAM	M. E.	Rennert, R. 1
MURRAY CROSSLY GREASON	Tex.	Wake Forest
HENRY DES'CHAMPS GREEN	M. E.	Hendersonville
LUTHER WILSON GREENE	Chem. Eng.	Norfolk, Va.
MARCUS LAFAYETTE GREER	E. E.	Lenoir
JOHN DWIGHT GROOME	Agr.	Greensboro, R. 3
JOSEPH DANIEL GROOME	Tex.	Greensboro, R. 3
BUSHROD CLARK GURKIN	M. E.	Pantego
ARMSTEAD ELIASON GUY	C. E.	Statesville
CHALMERS GAITHER HALL, JR.	Chem. Eng.	Salisbury
J. D. HAMBRIGHT	Chem. Eng.	Kings Mountain
ALEXANDER CASWELL HAMRICK	M. E.	Asheville
EDWARD JOE HANSON	Chem. Eng.	Wilmington
THOMAS DEWEY HARDIN	Agr.	Greensboro, R. 5
WILLIAM THOMAS HARDING, JR.	E. E.	Raleigh
MACON LEROY HARDY	Tex.	Hookerton
JAMES CARROLL HARGROVE	E. E.	Dillon, S. C.
HORACE WESLEY HARMON	M. E.	Buies Creek
JAMES EDWIN HARRELL	C. E.	Williamston
SHERROD HARRELL	M. E.	Scotland Neck
WILLIAM LEONARD HARRELL	Tex.	Scotland Neck
LERA RHINEHART HARRILL	Agr.	Lattimore
ENOCH ALEXANDER HARRIS	E. E.	Elkin
ERNEST BATON HARRIS	M. E.	Spencer
ELLIOTT WOODARD HARRIS	E. E.	Seaboard

Name	*Course*	*Postoffice*
WILLIE THOMAS HARRIS	E. E.	Mount Gilead
LOUIS SWEPSON HARRISON	Chem. Eng.	Littleton
JAMES CZAR HARWELL	E. E.	Troutman, R. 1
JAMES BERNARD HATCH	C. E.	Burlington
HENRY MAYER HAVIRD	E. E.	Silverstreet, S. C.
RAYMOND LEROY HAYES	C. E.	Southern Pines
WILLIAM HORACE HELMS	Agr.	Monroe, R. 4
JAMES HAROLD HELTON	Agr.	Hickory, R. 1
RICHARD HENDERSON	Tex	Salisbury
FRANK CLINE HENDRICK	E. E.	Shelby
ARTHUR LEE HENSLY	Agr.	Cane River
CHARLEY HENRY HERRING	E. E.	Dillon, S. C.
JAMES BOYCE HERRING	M. E.	Aulander
JOHN CASPER EDWARD HEYER	M. E.	Wilmington
CARL THOMAS HICKS	Tex.	Rockingham
HARRY THOMAS HICKS, JR.	Chem. Eng.	Raleigh
WILLIAM NORWOOD HICKS	M. E.	Durham, R. 4
LYMAN CLAYTON HIGDON	Agr.	Higdonville
JOHN JARRELL HOGG HILL	M. E.	Norwood
BERRY LEE HINNANT	M. E.	Wilson
JOHN DALY HODGES	M. E.	LaGrange
FLAY HENKEL HOEY	Tex.	Shelby
HENRY CARTER HOFLER	C. E.	Gatesville
JOE EARL HOKE	E. E.	Hopewell, Va.
ROBERT ALFRED HOLLAND	M. E.	Winston-Salem
GEORGE WESLEY HOLLOWAY	M. E.	Winston-Salem
JAMES OSCAR HOLT	Tex.	Greensboro, R. 2
SEBRON YATES HOOD	Agr.	Matthews
PERCY VICTOR HOOPER	Chem. Eng.	Elizabeth City
GARLAND JOHN HOOVER	E. E.	Lenoir, R. 5
HUGH BRYANT HOUSER	M. E.	Charlotte
GILBERT MONROE HOWLAND	M. E.	Charlotte, R. 7
DANIEL EDWARD HUDGINS	M. E.	Warrenton
ERNEST LOCKE HUDGINS	E. E.	Warrenton
JOHN RANDOLPH HUDSON	Tex.	Shelby
JOHN GATES HUFF	C. E.	East Bend
WILLIAM WESLEY HUGGINS	Chem. Eng.	Wilmington
JAMES AUBREY HUGHES	E. E.	Portsmouth, Va.
CHARLES DETRICH HUTAFF, JR.	C. E.	Fayetteville
GEORGE HENRY HUTAFF, JR.	M. E.	Wilmington
JOHN WHITE IVES	M. E.	Smithfield
HENRY TAYLOR IVEY	C. E.	Proctorville
CLYDE ALFRED JACKSON	Agr.	High Point, R. 2

Name	*Course*	*Postoffice*
JAMES ROY JACKSON	E. E.	Goldsboro
WILLIAM RANSOM JACKSON	M. E.	Dunn
MEEDY GOLD JARRELL	E. E.	Rocky Mount, R. 1
RICHARD FLEMING JEFFRESS	M. E.	Norlina, R. 1
DONALD BURTON JENKINS	C. E.	Greenville
JOHN FRANK JOHNSON	Agr.	Mount Airy, R. 3
ROCHELLE JOHNSON	M. E.	Chalybeate Springs
EDWARD GARLAND JOHNSTON, JR.	Chem. Eng.	Rocky Mount
GEORGE SHUFORD JOHNSTON	M. E.	Hickory
WILLIAM WILLS JOHNSTON	E. E.	Weldon
BRYAN KIMBROUGH JONES	M. E.	Raleigh, R. 1
CLIFTON MARTIN JONES	M. E.	Sweetwater, Tenn.
DANIEL SILAS JONES	M. E.	Raeford
EDWARD BROOMFIELD JONES	M. E.	Wake Forest, R. 1
ELDON DAVIS JONES	M. E.	Elizabeth City
JOHN M. JONES, JR.	E. E.	Charlotte, R. 3
SION GRADY JONES	Chem. Eng.	Apex, R. 2
GEORGE WORTH JORDAN	M. E.	Gibsonville
MENDAL SAUL KADIS	C. E.	Goldsboro
FREDERICK RULFS KEITH	Agr.	Currie, R. 2
THOMAS WRIGHT KEITH	E. E.	Atkinson
HERBERT THOMAS KELLY	C. E.	Fayetteville
HEATH OWEN KENNETTE	Tex.	Mooresville
DAVIS EVERETT KEY	Agr.	Ronda, R. 1
BENJAMIN WESLEY KILGORE, JR.	Agr. Chem.	Raleigh
HENRY JEFFERSON KINARD, JR.	E. E.	Epworth
GEORGE B. KING, JR.	M. E.	Washington, D. C.
HURLEY HOBSON KING	C. E.	Roanoke Rapids
JAMES HURDLE KING	M. E.	Portsmouth, Va.
CHARLES PERSON KIRBY	Agr.	Selma
JAMES WILLIAM KISTLER, JR.	C. E.	Charlotte
DANIEL EMMET KOONTS	Agr.	Cooleemee
RAYMOND WARNER KRAFT	E. E.	Norfolk, Va.
ELI ALEXANDER LACKEY	C. E.	Hamlet
JOHN CORNELIUS LACKEY	Agr.	Hamlet
PAUL FREDERICK LANCASTER	C. E.	Washington, D. C.
HENRY RAIFORD LANEY, JR.	M. E.	Monroe
WILLIAM HARRY LANG	E. E.	Farmville
JOHN HENRY LASHLEY	M. E.	Goldsboro
CARL CLAYTON LASSITER	Agr.	Mechanic
MACON WATKINS LAWRENCE	M. E.	Creedmoor
FRANK ROGER LEACH	M. E.	Franklin
GEORGE THOMAS LEACH, JR.	M. E.	Washington

Name	*Course*	*Postoffice*
FABIAN CARRINGTON LEE	Chem. Eng.	Dunn, R. 2
ROY BATTERHOM LEE	M. E.	Asheville
MILTON AUGUSTUS LEEPER	M. E.	Belmont
TOM ALEXANDER LEEPER	M. E.	Belmont, R. 1
WILLIAM THOMAS LEEPER	Tex.	Belmont
LEONIDAS ROSSER LEGWIN	E. E.	Wilmington
CHARLES DARWIN LEMMONDS	M. E.	Charlotte
HIRAM SAMUEL LEMMONDS	E. E.	Indian Trail
CHARLES ERVIN LEONARD	M. E.	Linwood, R. 1
WILLIAM AUGUSTUS LESLIE, JR.	C. E.	Morganton
JULIUS LEVITCH	M. E.	Asheville
ROY ST. CLAIR LEWARK	C. E.	Seagull
RICHARD VERNON LILES	Agr.	Lilesville
WILLIAM BENNETT LILES	Agr.	Lilesville
FRED CLIFTON LINDSAY	Tex.	High Point
ROBERT ALEXANDER LINDSAY	Tex.	Rocky Mount
JOHN HOMER LINGLE	Agr.	Salisbury, R. 7
JAMES D. LINK	E. E.	Forest City
JAMES GORDON LINK	Tex.	Forest City
WILLIAM ELI LIPE	M. E.	Matthews, R. 19
IVEY WASHINGTON LOHR	C. E.	Lexington, R. 2
MARION CULPEPPER LOVE	Agr.	Elizabeth City
WALTER ERDMAR LOVE	Chem. Eng.	Charlotte, R. 1
MORTIMER VANCE LOWDER	Agr.	Norwood
WILLIAM JOSEPH LUCAS	E. E.	New Bern
ARCHIE WALDO MCASKILL	Chem. Eng.	Ellerbe
OREN BLOUNT MCCALL	M. E.	Elrod
ROBERT HOOE MCCALL	M. E.	Charlotte
HARVEY ELLIS MCCOMB, JR.	Agr.	Hickory
RICHARD HARRY MCCOMB	M. E.	Hickory
JAMES ALEXANDER MCCORMAC	E. E.	Dillon, S. C., R. 1
HERBERT STEVENS MCCOY	Agr.	Elizabeth City
JAMES MANLEY MCGOUGAN	Agr.	Lumber Bridge, R. 3
JOHN ALEX MCINTYRE	Agr.	Laurinburg, R. 3
NEILL ARCHIBALD MCKEITHEN, JR.	E. E.	Carthage
OWEN CLINTON MCKINNIE, JR.	M. E.	Winston-Salem
MASON HARRIS MCKNIGHT	Chem. Eng.	Mooresville
ARTHUR FRAZIER MCLEAN	M. E.	Asheville
JOHN FRANK MCLEOD	Agr.	McBee, S. C.
AULAY SHAW MCRAE	E. E.	Mount Gilead
MARTIN ALEXANDER MCRAE	Tex.	Wadesboro
JENNINGS BROOKS MABRY	M. E.	Shankle
HAL THOMAS MACON	C. E.	Warrenton

Name	*Course*	*Postoffice*
JOSEPH EMERSON MADDOX	E. E.	Greensboro
MONROE BOLLING MADISON	Chem. Eng.	Webster
HERBERT RAYMOND MADRY	Agr.	Scotland Neck
WILLIAM LEON MADRY	E. E.	Scotland Neck
RALPH HAMILTON MARLER	C. E.	Winston-Salem
ROBERT FRANKLIN MARLER	Tex.	Winston-Salem
WILLIAM PENN MARSHALL	E. E.	Mount Airy
JAMES MARTIN	Chem. Eng.	Pelham, R. 2
SIMMONS DILLARD MARTIN	E. E.	Martinsville, Va.
HUGH LEE MAUNEY	M. E.	Shelby, R. 5
SIDNEY FRANKLIN MAUNEY, JR.	Chem. Eng.	Old Fort
JAMES LOUIS MAXWELL	Tex.	Goldsboro
SAMUEL NICHOLSON MAYO	Tex.	New Bern
FRANK BARNARD MEACHAM	Agr. Chem.	Statesville, R. 6
JAROLD BAPTISTE MELVIN, JR.	Chem. Eng.	Rocky Mount
WILLIAM REDMOND MERCER	E. E.	Tarboro
HARRY CLINE MERRITT	M. E.	Wilmington
GEORGE MICHAEL MEYER, JR.	E. E	Charlotte
JOSEPH JOHN MEYER	M. E.	Charlotte
ALONZO THOMAS MIAL, JR.	M. E.	Raleigh
JAMES WILLIAM MICHAELS	Tex.	Durham
CHARLES HENDERSON MICHAEX	M. E.	Worry
WILLIAM THOMAS MIDGETTE	Agr.	Lake Landing, R. 1
HAL YOUNG MILLER	M. E.	Wilkesboro
WILLIAM EDWIN MILLS	E. E.	Atkinson
WILLIAM MARTIN MONROE	Agr.	Laurinburg, R. 2
JOHN C. MONTGOMERY	E. E.	Montgomery, W. Va.
THOMAS GILBERT MOODY	C. E.	Waynesville, R. 2
JAMES ABSALOM MOORE	C. E.	Fayetteville
JOHN THOMAS MOORE, JR.	E. E.	Charlotte
RICHARD OWEN MOORE	Tex.	Scotland Neck
EDWIN CECIL MORRIS	C. E.	Mocksville
JOSEPH ATTICUS MORRIS, JR.	M. E.	Oxford, R. 2
CHESLEY MORTON	Chem. Eng.	Oxford, R. 4
SAMUEL VENABLE MORTON, JR.	M. E.	Oxford, R. 4
PAUL LYMAN MOSES	Agr.	Higdonville
NETTLETON PAYNE MURPHY, JR.	Tex.	Salisbury
CHARLES EMORY MYERS	M. E.	Powellsville, R. 1
ROBERT BREVARD NEELY	M. E.	Pineville, R. 15
JOHN BOONE NELSON	Tex.	Lenoir
HARVEY ELLIOTT NEWMAN	M. E.	Milton
OWEN NICHOLS	M. E.	Raleigh, R. 7
JAMES LLOYD NICHOLSON	C. E.	Richlands

Name	*Course*	*Postoffice*
WALTER D. NICHOLSON	Agr.	Gibson, R. 2
KOYT SAMUEL NISSEN	M. E.	Winston-Salem
THOMAS DIXON NOLAN	Tex.	Lawndale, R. 2
THOMAS LETSON NOOE	C. E.	Pittsboro
CYRIL W. NORMAN	E. E.	Plymouth
HAROLD ERNEST NORWOOD	E. E.	Brevard
JOHN HUGH NORWOOD, JR.	C. E.	Norwood
CECIL HOLLEY NOWELL	M. E.	Windsor
ALBERT EDWARD NOWLAN	M. E.	Greensboro
SHERWOOD NYE	C. E.	Orrum
GEORGE LEWIS ODOM	E. E.	Laurinburg
GRAHAM TYREE OLIVE	E E.	Godwin
RANDOLPH JACKSON OUTLAW	E. E.	Seven Springs, R. 1
DOLPHIN DUNNAHA OVERTON, JR.	M. E.	Greenville
RICHARD BUXTON OVERTON	Chem. Eng.	Nashville
ALGER LOTT OWENS	Chem. Eng.	Pilot Mountain
EARLE WELBORN OWENS	Chem. Eng.	Pilot Mountain
CHARLES BENJAMIN PARK, JR.	Agr.	West Raleigh
THOMAS NEEDHAM PARK	C. E.	West Raleigh
CHARLES JACKSON PARKER, JR.	C. E.	Raleigh
DARR BEAUREGARD PARKER	E. E.	Robertsonville
GEORGE THOMAS PARKER, JR.	E. E.	Kelford
JAMES HOWARD PARKER	Chem. Eng.	Clinton, R. 1
VIRGIL ROY PARKER	M. E.	Hunting Creek
WALTER WELLINGTON PARKER, JR.	Chem. Eng.	Henderson
BENJAMIN PASMAN	Chem. Eng.	New Bern
HARRY HYMAN PASMAN	Chem. Eng.	New Bern
EARL DEATON PASOUR	Agr.	Dallas, R. 1
CHARLES SUMNER PATCH	E. E.	Southern Pines
WILLIAM HENRY PATRICK	E. E.	Lowell, R. 1
ROBERT DEALER PATTON	E. E.	Nebo, R. 1
HOYT JEROME PAUL	Tex.	Aurora
CHARLES FISHER PAXTON	E E.	Charlotte
BENJAMIN FRANKLIN PEACOCK	M. E.	Roper
CHARLES HENRY PEEK	Agr.	Ellijay
OSCAR GENERAL PENEGAR	M. E.	Monroe, R. 4
WILBUR STONE PERRY	C. E.	Henderson
SEATON EARNHART PHELPS	E. E.	Windsor
JOHN EVANDER PHILLIPS, JR.	M. E.	Cameron
WESLEY IRWIN PICKENS	Tex.	Charlotte
JACK DILLARD PIERCY	E. E.	Andrews
HERMAN OSCAR PILAND	C. E.	Winton
HERBERT JOHNSTON PLONK	Tex.	Kings Mountain

Name	*Course*	*Postoffice*
JOSEPH CALVIN PLONK	E. E.	Kings Mountain
HERMAN BRITTON POPE	E. E.	Goldsboro
GEORGE ROANE PORTER	M. E.	Andrews
JAMES STEPHEN PORTER	E. E.	Franklin
WILLIAM EARL POST	Chem. Eng.	Asheville
WATSON ODEAN POWELL	E. E.	Portsmouth, Va.
WALTER NEWBERN POYNER	E. E.	Grandy
GEORGE DEWEY PROCTOR	E. E.	Davidson
PAUL D. PROCTOR	C. E.	Rocky Mount
HAROLD EUGENE PUGH	M. E.	Greensboro
MOSES KIRKMAN RANKIN	Agr.	Greensboro, R. 4
RUFUS PINKNEY RANKIN	Tex.	Gastonia
HAZEL EMMET REA	M. E.	Matthews, R. 27
JOHN LOGAN REDMAN	E. E.	Pilot Mountain
ROBERT CECIL REINHARDT	Tex.	Newton
CHARLES FRANKLIN REISNER, JR.	Tex.	Salisbury
LAWRENCE HOUSTON REYNOLDS	E. E.	Selma
CLARENCE LINWOOD RICHARDSON	M. E.	Selma
LESTER LELAND RICHARDSON	C. E.	Snow Camp, R. 2
ROBERT MILLIKAN RICHARDSON	C. E.	Greensboro, R. 3
GEORGE DAVID ROBERTSON	M. E.	Asheville
LEE TILLERY ROBERTSON	E. E.	Roanoke Rapids
WINFIELD SCOTT ROBINSON	C. E.	Ivanhoe
CHARLES CAESAR RODNEY	C. E.	Laurel, Del.
HOMER WILLIAM ROSE	M. E.	Warrenton
ROBERT DIXON ROUSE	Chem. Eng.	Snow Hill, R. 2
WALTER ALBERT ROYAL	C. E.	Georgetown, S. C.
ROBERT FULTON ROYALL	Tex.	Clinton, R. 3
HENRY WYCOFF RUDISILL	Tex.	Lincolnton
EDWARD WOLFE RUGGLES	E. E.	Southern Pines
EDWARD CALDWELL RUSSELL	M. E.	Matthews, R. 27
JOHN REUBEN SAMUEL	M. E.	Walnut Cove, R. 2
SIMON WARREN SANDERS	M. E.	Wilmington
CHARLES MADISON SAPPENFIELD, JR.	E. E.	Concord
HUGH VIRGIL SATTERFIELD	E. E.	Raleigh
JOHN WESLEY SATTERFIELD	C. E.	Reidsville
FRED AUSTIN SAWYER, JR.	M. E.	Charlotte
SIGFRIED SCHAFER	E. E.	Mount Airy
JOSEPH S. SCHULKER	E. E.	Whiteville
ALFRED L. SEARS	Tex.	Raleigh
ROY FRANKLIN SECHREST	M. E.	Lexington
EUBERT VANCE SEITZ	M. E.	Newton, R. 2
JOHN BURGAW SESSOMS	E. E.	Ahoskie

Name	*Course*	*Postoffice*
JAMES ROSS SHARPE	M. E.	Rockingham
HENRY MARCHAND SHAW, JR.	M. E.	Oxford
HARRY MICHAEL SHEELY	Tex.	Baltimore, Md.
VENE PHILLIPS SHEPARDSON	E. E.	Belhaven
WILLIAM SPRINGS SHEPERD, JR.	M. E.	Winston-Salem
ROBERT CECIL SHIELDS	Tex.	Hobgood
WILLIAM FRANKLIN SHIPMAN	C. E.	Raleigh
DANIEL ELIAS SIGMON, JR.	M. E.	Newton, R. 3
EMORY GORDON SINGLETARY	C. E.	Proctorville
R. D. VAN SISK	M. E.	Franklin
WALTER THOMAS SLEDGE	M. E.	Fair View
CRAVEN SMITH	M. E.	Wentworth
DAVID LOUIS SMITH	Agr.	Wilson, R. 2
EDWIN ALDERMAN SMITH	M. E.	St. Pauls
ELBERT HILLIARD SMITH	C. E.	Asheville
HARROLD ALLYN SMITH	E. E.	Whitefield
HENRY NEWBERRY SMITH	E. E.	Fremont
JOE SAMUEL SMITH	E. E.	Trenton, S. C., R. 1
ROY EDWIN SMITH	M. E.	Benson
THOMAS JACOB SMITH	E. E.	Trenton, S. C., R. 1
THOMAS RAMSAUR SMITH	E. E.	Concord
MACON GLENN SMITHWICK	Agr.	Louisburg
ROBERT WALTER SMITHWICK	M. E.	Louisburg
WILLIAM RUFUS SPAINHOUR	M. E.	Wilkesboro
LEVI OLD SPENCER	Agr.	South Mills
PAUL REVERE SPENCER	M. E.	High Point
JAMES WELDON SPRATT	M. E.	Charlotte, R. 3
CHARLES DOUGLAS SPRINGS	Tex.	Waverly Mills, S. C.
ROBERT LEE SPRINKLE	C. E.	Reidsville
EDWARD RANSON SPRUILL	M. E.	Elizabeth City
WILLIAM WAITT SPURGEON	M. E.	Hillsboro
WILLIAM LEE STAINBACK, JR.	Tex.	Greensboro
WALLACE BRAXTON STANBACK	Tex.	Mount Gilead
WILLIAM WEAVER STARR	M. E.	Wilkesboro
HOBART T. STEELE	E. E.	Burlington
WILLIAM LITTLE STEELE, JR.	Tex.	Rockingham
EDWIN STERNBERGER	E. E.	Wilmington
DANIEL AUGUSTUS STEVENS	M. E.	Martin's Point, S. C.
THOMAS GRADY STEVENS	M. E.	Walthall
ANGUS MCLEAN STEWART	Agr.	Maxton, R. 1
WILLIAM PROSPER STEWART	E. E.	Portsmouth
JOHN ALEXANDER STEWMAN	M. E.	Lancaster, S. C.
JOSEPH ELMORE STICKNEY	E. E.	Charleston, S. C.

Name	*Course*	*Postoffice*
CARL EDWARD STILWELL	M. E.	Webster
WILLIAM ALEXANDER STILLWELL	M. E.	Webster
HARRY PARSONS STOKELY	M. E.	Elizabeth City
WILLIAM CAPERS STOKES	Tex.	Reidsville
HERNAY ELTON STOUT	M. E.	Siler City
THOMAS FRANCIS STRADLEY	E. E.	Lincolnton
SAMUEL HYMAN STRANGE, JR.	M. E.	Fayetteville, R. 6
JAMES HUNTER STRICKLAND	M. E.	Four Oaks
SAMUEL HECTOR STRICKLAND	C. E.	High Point
BENJAMIN FRANKLIN STROUPE	Agr.	Gastonia, R. 2
VICTOR STROUPE	M. E.	Cherryville
STEPHEN MENDAL SUSMAN	Agr.	Washington
PAUL SAMUEL SWANSON	M. E.	Pilot Mountain
WALTER FRANK SWANSON	M. E.	Pilot Mountain
WILLIAM JOSHAN SWINK, JR.	Tex.	China Grove
EZRA CARL TATUM	Agr.	Mocksville, R. 4
HERMAN WARD TAYLOR	Agr.	Magnolia, R. 1
LEON BAYARD TAYLOR	C. E.	Pikeville, R. 1
PERRY TAYLOR	M. E.	White Plains
JOSEPH EARLE TEAGUE	Chem. Eng.	High Point
CHARLES BROOKE TEMPLE	Agr.	Danville, Va.
HERMAN LAFAYETTE THACKER	C. E.	Greensboro
JAMES WILLIAM THOMAS	M. E.	Merry Oaks
JOHN LEA THOMAS	M. E.	Clayton
LUMAS CARPER THOMAS	Tex.	Goldsboro
PAUL JUDSON THOMAS	M. E.	Jonesboro
HALSEY KENT THOMPSON	Tex.	Aurora
JESSE LEE THROWER	C. E.	Entwistle
REGINALD ARCHIBALD TILLMAN	E. E.	Kinston
JAMES WILLIAM TOLAR	M. E.	Cedar Grove, R. 2
DWIGHT G. TOMLINSON	Agr.	Troy
MEBANE EWING TURNER	M. E.	Winston-Salem
RICHARD DENT TURNER	C. E.	North Wilkesboro
THOMAS TURNER	E. E.	High Point
JOHN FRANCES TUTTLE	E. E.	Lenoir
WILLIAM DONALD VANN	Agr.	Rich Square
JAMES PRESTON VAUGHN	Tex.	Raleigh
SLADE VINCENT	M. E.	Mebane
HUGH DINSMORE WALDROP	E. E.	Hendersonville
JOHN HARRIS WALKER, JR.	M. E.	High Point
WILLIAM WALTON WALKER	M. E.	High Point
EUGENE LITTLE WALL	Agr.	Pee Dee, R. 1
MAX SOLOMON WALL	E. E.	High Point

Name	*Course*	*Postoffice*
GEORGE ROZIER WALLER	M. E.	Clinton
HARRY HOWARD WALTON	C. E.	Macclesfield
WILLIAM GRAHAM WARE	Chem. Eng.	Kings Mtn., R. 4
CHARLES EDWARD WATSON	Chem. Eng.	Kipling, R. 1
ROBERT MORRISON WEARN	E. E.	Charlotte
HENRY HARWARD WEAVER	C. E.	Durham
ISAAC MARSHALL WHISNANT	M. E.	Charlotte
MANLY HERRING WHITE	M. E.	Coleraine
WILLIAM BURGESS WHITE	Agr.	Olin
WILLIAM JARRETTE WHITE	C. E.	Durham
JOHN SUMMIE WHITENER	C. E.	Hickory
STEWART CARLYLE WHITENER	M. E.	Hickory
HERBERT LAFAYETTE WHITESELL	Agr.	Gibsonville
HOKE SMITH WHITESELL	E. E.	Gibsonville
SAM PATTERSON WIGG	M. E.	Portsmouth, Va.
JAMES WRIGHT WIGGINS, JR.	E. E.	Tarboro
LOUIS OAKEY WILBURN	M. E.	Portsmouth, Va.
THOMAS GASTON WILES	C. E.	Ashboro
BOYCE CONLEY WILKIE	C. E.	Forest City
ALFRED WILLIAMS, JR.	Tex.	Raleigh
BARNES KITTRELL WILLIAMS	M. E.	Cofield
CHARLIE ALEXANDER WILLIAMS	Agr.	South Mills
FRANK WEBB WILLIAMS	M. E.	South Mills
JOHN HOWARD WILLIAMS	Tex.	Wilson
THOMAS SMITH WILLIAMS	C. E.	Buie
ARTHUR BERNARD WILSON	M. E.	Lowell
CLAUDE WILSON, JR.	Agr.	Tarboro, R. 1
SAMUEL MORRIS WILSON	Agr.	Dallas, R. 1
GEORGE LUTHER WINCHESTER	E. E	Summerfield, R. 2
DAVID CARLYLE WINDLEY	Agr.	Pantego
CHARLIE DAVID WINSTON	Agr.	Virgilina, Va.
GEORGE MORGAN WOMBLE	C. E.	Raleigh
SIDNEY BADGETT WOOD	M. E.	Ashboro
BRADLEY LEE WOODALL	E. E.	Raleigh
LUCIEN HARRELL WOODHOUSE	Agr.	Sigma, Va.
JAMES JENNINGS WOODY	M. E	Denniston, Va. R. 1
MANLY RUFFIN WOODY	M. E.	Woodsdale, R. 2
STANCEL ATWOOD WOOLARD	Agr.	Wilmington
JAMES FREDERICK WOOTEN	M. E.	Chadbourn
THOMAS MYERS WOOTEN	C. E.	Fayetteville
ALBERT MACON WORTH	Chem. Eng.	Raleigh, R. 2
DAVID RALPH WRIGHT	E. E.	Hunting Creek
JOHN HERMAN WRIGHT	C. E.	Ashboro

Name	*Course*	*Postoffice*
LEE DEWEY WRIGHT	Chem. Eng.	Hendersonville
PHILIP LLOYD WRIGHT	M. E.	Spring Hope
ROBERT HARDTAWAY WRIGHT, JR.	Agr.	Andrews
ROBERT WILBAR YATES	C. E.	Raleigh
DAVID REDD YOUNG	E E.	Reidsville
JAMES YOUNG	M. E.	Mooresville
SAMUEL MARVIN YOUNG, JR.	E. E.	Raleigh

TWO-YEAR MECHANIC ARTS

First Year

Name	*Postoffice*
PHILIP MCKEE ADAMS	Raleigh
GIDEON CHARLES BELL	Newport, R. 2
BENJAMIN ZERO CAMERON	Kinston, R. 1
YOUNG THOMAS CHEATHAM	Henderson
LAWRENCE EUGENE CRABTREE	Bahama
CHARLES BRANTLEY DAVIS	Goldsboro, R. 1
JOSEPH JONATHAN DAVIS	Stovall
WALTER A. DAVIS	Elkton
HENRY EMERSON DUKE	Durham
JOHN BUXTON WILLIAMS ELLINGTON	Henderson, R. 4
WILLIAM BOONE HARRIS	Louisburg
MONTROSE MILLER HINNANT	Wilmington
LYNDON TURNER HOBBS	Greensboro
JAMES NORWOOD HOLMES	Goldsboro
IRA CLIFTON HUFF	Henderson, R. 4
EDWARD RINEHART KINARD	Ninety-six, S. C., R. 1
MOSES KISER	Reepsville
SAM MCMASTER LEWIS	Hills Store
SEBASTIAN MACON	Louisburg
BENJAMIN SKINNER MASSEY	Salisbury
ALFRED THOMAS MAY	Spring Hope
JAMES THOMAS MURDOCK	Statesville
WILLIAM THEODORE NEWCOMB	Henderson
STEPHEN HENRY NICHOLS	Gorman, R. 1
JAMES WALLACE PAYNE	Ninety-six, S. C.
CHARLES ABRAM PORTER	Pittsburgh, Pa.
RALPH QUERY	Richmond, Va.
FITZBUGH TREASVANT READ	Norlina, R. 1
WADE PERRY RENFROW	Woodville
HENRY WILBAR RHODES	Comfort
REID ADDINGTON ROGERS	Washington, D. C.

Name	*Postoffice*
MARSHALL MONROE SHEPHERD, JR.	Hendersonville
THOMAS GARLAND SHORT	Rocky Mount
JOE DAVID STEED	Candor
ROYAL CLEMENTINE STEPHENSON	Raleigh
EVANDER STONE	Greensboro
THURMAN ANDREW STONE	Kittrell, R. 1
INDO HUITT TOMLINSON	Statesville
JESSE WASHBURN	Shelby
WORTH W. WHITTINGTON, JR.	Greensboro
HERBERT MILLS WILLIAMS	Wilmington
WILLIAM BANKS WITHERS	West Raleigh

Second Year

WILLIAM HERBERT CROWELL	Whiteville
WILLIAM PATRICK WOOTTEN	Hickory

TWO-YEAR TEXTILE

First Year

JOSEPH PRISK BENDER	Raleigh

ONE-YEAR AUTOMOBILE

GEORGE NELSON ADAMS	Charlotte
HERMAN WALTER APPEL	Garner
FRANCIS GAITHER AUSTIN	Mocksville
ERNEST MERRITT BAILEY	Woodsdale, R. 2
VIRGIL MCKINLEY BAKER	Wilkesboro
CLAUDE THOMAS BOWERS	Littleton, R. 1
GEORGE EDWARD CLARK	McCullers, R. 1
F. WALLACE DALTON	Winston-Salem
FRANK WOLF DILLON	Monroe
ROGER PATTERSON DOWTIN	Warrenton
ROBERT DEWEY FARMER	Bailey
MACK GIBSON FEIMSTER	Taylorsville
JAMES SAMUEL HALL, JR.	Fayetteville
C. HAL HARRINGTON	Clarkton
OSCAR PORTER HILBURN	Council, R. 2
HAMPTON MCRAE JACKSON, JR.	Garner
SIDNEY THOMAS JONES	Battleboro, R. 2
CLAUD V. LEWIS	Mill Spring
EDWARD CASTELLO LOUGHLIN	Henderson
KENLY HADDON MCGEE	Rocky Mount

Name	*Postoffice*
EDWIN GLENN PARRISH	Middleburg
FRANCIS MARION PITTMAN	Mount Olive
WALDO WINDHAM PRIMM	Broadway
JAMES CLARK ROBINSON	Littleton, R. 2
CHARLES ESPER ROYSTER	Cherryville, R. 3
ANDREW CLAUDE SHANKLE	Landrum, S. C.
LOUIS SILER	Waynesville, R. 3
JOHN ALEXANDER SPRINGS	Hickory
WILLIAM ADDISON STOUT	Greensboro
CLIFFORD HENDERSON THOMAS	Broadway
HENRY ALLAN WOOTEN	Kinston, R. 2

WINTER COURSE IN AGRICULTURE

JOHN L. ASHBY	Mount Airy
URRAH CARL BARNETT	Landrum, S. C., R. 3
JOHN ASHCRAFT BIVENS	Wingate
ENOS CLARKSON BLAIR	Raleigh
RUFUS BREWER	Siler City, R. 1
TROY SMITH CHILTON	Francisco, R. 1
JAMES STRUDWICK COMPTON	Cedar Grove, R. 1
WILL ALLEN CONNELL, JR.	Warren Plains, R. 1
RAY DANIEL COULTER	Connelly Springs
ALBERT DOUB	Raleigh
ANDREW ENNETT	Cedar Point
JOHN EWBANK	Hendersonville, R. 6
ROY ERSON FOREST	Francisco, R. 1
ALVIN JOSEPH GAY	Asheville
ARTHUR KNOX GOODMAN	Mount Ulla
THOMAS WHEELER HANCOCK	Winston-Salem
JAMES FRANKLIN IRELAND	Winston-Salem
SHOBER KÖRNER JACKSON	High Point
ERNEST EARLE KENDRICK	Gastonia, R. 2
BOYD HARLAN LEYBURN	Durham
HUBERT MITCHELL LLOYD	Hillsboro, R. 3
LOUIS BURGIN MCBRAYER, JR.	Sanatorium
CARL STICKNEY MCKNIGHT	China Grove, R. 2
WILLIAM MALCOM MCNEIL	Red Springs, R. 3
IRA BROADUS MULLIS	Raleigh
FRANKLIN DEWITT PATTERSON	China Grove, R. 2
ERNEST JUDSON PINNER	Canton
HERBERT LEON POPE	Macon, R. 3
WILLIAM GLENN SHIELDS	Huntersville, R. 20

Name	*Postoffice*
BENJAMIN SMITH SKINNER	Salisbury
JACOB OSBORNE WARE	West Raleigh
WILSON PINKNEY WELLMON	Belwood, R. 1
HENRY HOLMES WHEELER	Lakewood, Ohio
WILLIAM AYCOCK WILSON	Newton, R. 5

SPECIAL

Name	*Course*	*Postoffice*
WILLIAM YARBOROUGH BICKETT	Tex.	Raleigh
JOHN ELISHA BOONE	Rehabilitation	Pittsboro
ELBERT DANIEL CODY	Rehabilitation	Misenheimer
WILLIAM CLAUDE FERGUSON	Rehabilitation	Vass, R. 1
THOMAS ALEX HARRINGTON	Rehabilitation	Broadway
FRITHJOF HOFF	Science	Stoughton, Wis.
MISS SUSANNE WALKER JONES	Chem.	Raleigh
MARION MOODY	Rehabilitation	Pittsboro
WILLIE ALEXANDER MOSER	Rehabilitation	Mount Airy
SETH PUTNAM	Rehabilitation	Grover, R. 2
ANNIE SABRA RAMSEY	Math.	Raleigh
JOHN PERRY RYALS	Rehabilitation	Benson
CLAUDE CLEVELAND SMITH	Rehabilitation	Raleigh

SCHOOL FOR FARM DEMONSTRATION AGENTS, AUGUST, 1918

Name	*Postoffice*	*County*
C. R. HUDSON	Raleigh	Wake
T. E. BROWNE	West Raleigh	Wake
E. S. MILLSAPS	Statesville	Iredell
T. D. McLEAN	Aberdeen	Moore
O. F. McCRARY	Washington	Beaufort
R. W. FREEMAN	Wilson	Wilson
JAMES M. GRAY	Asheville	Buncombe
J. P. KERR	Haw River	Alamance
J. WADE HENDRICKS	Taylorsville	Alexander
C. A. LEDFORD	Newland	Avery
J. W. CAMERON	Polkton	Anson
R. K. CRAVEN	Abbottsburg	Bladen
H. H. LAWLEY	Washington	Beaufort
E. R. RANEY	Windsor	Bertie
E. L. PERKINS	Morganton	Burke
W. P. PACE	Shallotte	Brunswick

Name	*Postoffice*	*County*
E. D. WEAVER	Weaverville	Buncombe
C. C. BEARDEN	Beaufort	Carteret
J. C. HUNTER	Yanceyville	Caswell
H. H. B. MASK	Newton	Catawba
R. L. EDWARDS	Ore Hill	Chatham
R. M. GIDNEY	Shelby	Cleveland
G. M. GOFORTH, JR.	Lenoir	Caldwell
R. D. GOODMAN	Concord	Cabarrus
C. W. CLARK	Fayetteville	Cumberland
M. C. VAUGHN	New Bern	Craven
J. H. HAMPTON	Murphy	Cherokee
JOHN DEAL	Hayesville	Clay
F. N. MCDOWELL	Warsaw	Duplin
M. R. MCGIRT	Durham	Durham
W. F. REECE	Mocksville	Davie
ZENO MOORE	Whitakers	Edgecombe
W. G. YEAGER	Lexington	Davidson
C. H. STANTON	Louisburg	Franklin
BRUCE ANDERSON	Winston-Salem	Forsyth
E. H. ANDERSON	Greensboro	Guilford
R. W. GRAY	Robbinsville	Graham
J. A. MORRIS	Oxford	Granville
D. J. MIDDLETON	Snow Hill	Greene
W. H. FERGUSON	Waynesville	Haywood
E. W. GAITHER	Winton	Hertford
FRANK FLEMING	Hendersonville	Henderson
R. N. LOOPER	Raeford	Hoke
N. B. STEVENS	Halifax	Halifax
JESSE MURRAY	Swan Quarter	Hyde
OWEN ODUM	Lillington	Harnett
G. E. DULL	Statesville	Iredell
C. L. MCCLUNG	Sylva	Jackson
A. M. JOHNSON	Smithfield	Johnston
N. K. ROWELL	Trenton	Jones
R. R. MCIVER	Sanford	Lee
W. T. KYZER	Kinston	Lenoir
W. L. SMARR	Lincolnton	Lincoln
W. E. GROSS	Franklin	Macon
C. S. MCLEOD	Troy	Montgomery
CLYDE L. DAVIS	Aberdeen	Moore (Sandhills)
J. WEBB LINDLEY	Bakersville	Mitchell
J. R. SAMS	Marshall	Madison
P. T. FARABOW	Carthage	Moore

Name	*Postoffice*	*County*
J. L. HOLLIDAY	Williamston	Martin
J. L. THURMAN	Marion	McDowell
J. P. HERRING	Wilmington	New Hanover
M. W. WALL	Jackson	Northampton
GEORGE DICKEY	Jacksonville	Onslow
GEORGE D. BURROUGHS	Nashville	Nash
H. L. CHANCE	Hillsboro	Orange
W. C. WARREN	Hurdle Mills	Person
R. T. MELVIN	Burgaw	Pender
J. E DODSON	Greenville	Pitt
G. W. FALLS	Elizabeth City	Pasquotank
D. S. COLTRANE	Asheboro	Randolph
S. S. STABLER	Salisbury	Rowan
C. C. PROFFITT	Rutherfordton	Rutherford
F. S. WALKER	Reidsville	Rockingham
H. L. BOYD	Clinton	Sampson
S. J. LENTZ	Norwood	Stanly
J. H. SPEAS	Danbury	Stokes
EWING S. MILLSAPS, JR.	Mount Airy	Surry
W. M. LAUGHINGHOUSE	Columbia	Tyrrell
R. E. LAWRENCE	Brevard	Transylvania
T. J. W. BROOM	Monroe	Union
F. B. NEWELL	Warrenton	Warren
R. W. JOHNSTON	Plymouth	Washington
W. H. CHAMBLEE, JR.	Wakefield	Wake
A. G. HENDREN	Straw	Wilkes
B. T. FERGUSON	Wilson	Wilson
V. G. MARTIN	Goldsboro	Wayne
F. E. PATTON	Burnsville	Yancey
M. W. MACKIE	Yadkinsville	Yadkin

SUMMARY

By Classes

Graduate	8
Senior	41
Junior	73
Sophomore	123
Freshman	651
Short Courses:	
Mechanic Arts, 2 years	45
Textile, 2 years	1
Winter Course in Agriculture	34
Automobiles	31
Special	13
Total	1020

By Courses

Agricultural, including short courses	194
Chemical	66
Civil Engineering	122
Mechanical Engineering, including short courses	320
Electrical Engineering	192
Textile, including short courses	113
Special	4
Rehabilitation	9
Total	1020
School for Demonstration Agents	89
Summer School	558
Technicians' Schools	320

REGISTER OF GRADUATES

Name — *Degree* — *Address*

CLAUDE SHUFORD ABERNETHY....B.E. 1916.....East Pittsburgh, Pa.
Westinghouse Electric and Manufacturing 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.

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

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

HENRY MILTON ALEXANDER .....B.E. 1915.....Camp Benning, Ga.
First Lieutenant, 1st Cavalry

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

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

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

BONVA CLOSSON ALLEN.....B.E. 1918.....Norfolk, Va.
Ensign, United States Navy

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

GEORGE GILDEROY ALLEN.....B.E. 1906.....Kannapolis, N. C.
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.....Miami, Fla.
U. S. Marine Flying Field

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

JOHN ALLEN AREY.....B.S. 1909.....Statesville, N. C.
County Farm Demonstration Agent

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.

DORSEY FROST ASBURY.....B.S. 1898.....Wallville, Md.

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

Name — *Degree* — *Address*

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.
H. F. Livermore Company, Boston, Mass.

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

GEORGE GANZER AVANT.....B.E. 1918.....Wilmington, N. C.
American Baking Company

JOHN WILLIAM AVERA.....B.S. 1917.....Smithfield, N. C.

ROBERT JAMES AVERY.....B.Agr. 1905.....Morganton, N. C.
Railroad Contractor, Hazard, Ky.

ROBERT KENNETH BABINGTON....B.E. 1910.....Gastonia, N. C.
Superintendent of Plant, Piedmont Telephone and Telegraph Co.

CHARLES ALBION BACHE.....B.E. 1913.....Philadelphia, Pa.
Assistant Inspector of Electric Machines for U. S. Government

OSCAR LUTHER BAGLEY.....B.S. 1905.....Bagley, N. C.
Farmer

EUGENE CLEVELAND BAGWELL....B.E. 1904.....Hamlet, N. C.
Superintendent, Seaboard Air Line Railway

CLARE RUSSELL BAILEY.....B.S. 1914.....Chadbourn, N. C.
Farmer

HUGH MARCELLUS BAILEY.....B.S. 1914.....Statesville, N. C.
Farmer

ROGER MOORE BAILEY.....B.S. 1913.....Elm City, N. C.
Member of firm, John L. Bailey & Sons

WILLIAM BAILEY .....B.E. 1917.....New York City
Ensign, U.S.S. *Chattanooga*

CHARLES VERNON BAKER.....B.E. 1916.....Raleigh, N. C.

FRED ALLEN BAKER.....B.E. 1916.....New Orleans, La.
Equipment Estimator, Cumberland Telephone and Telegraph Co.
Home Address, Kings Mountain, N. C.
Not heard from this year

FRANK OSCAR BALDWIN.....B.S. 1908.....Richmond, Va.
Director of Settling Basins and Laboratory, Richmond City Waterworks

WM. HERBERT DOUGHTY BANCK...B.E. 1908.....American Exp. Forces
Second Lieutenant, Army Engineers, Company 306

IRA WILSON BARBER.....B.S. 1899.....Mount Airy, N. C.
Superintendent Electric Light and Power Plant and Waterworks

JAMES CLAUDIUS BARBER.....B.E. 1904.....Barber, N. C.
Farmer

TOLLIE CHESTER BARBER.....B.E. 1911.....Mount Airy, N. C.
Superintendent, The Mayo Mills

WILLIAM WALTON BARBER.....B.E. 1904.....Ammon, Va.
Farmer

FLETCHER HESS BARNHARDT.....B.E. 1901.....Newark, N. J.
Assistant Engineer, Submarine Boat Corporation, Newark Bay Shipyard

JAMES MONROE BARNHARDT.....B.S. 1918.....Harrisburg, N. C.
Farmer

Name *Degree* *Address*

WILLIAM ALEXANDER BARRETT...B.E. 1904..... Bremerton, Wash.
Electrical Engineer, Puget Sound Navy Yard

GEORGE FRANCIS BASON.....B.E. 1908.....Ithaca, N. Y.
M.E. 1916, Cornell. Instructor, Cornell University

JEEE WILSON BASON.....B.S. 1916.....Warrenton, N. C.
Agricultural Demonstration Agent

HERBERT SCANDLIN BATTLE.....B.E. 1907.....Greensboro, N. C.
First Lieutenant, Engineers, U.S.A.

JOHN ROBIN BAUCOM.....B.S. 1917 ..... France
332d Infantry, Co. G, 81st Infantry

THOMAS LIVINGSTON BAYNE, JR...B.S. 1914 ..... France
First Lieutenant, Co. A, 321st Infantry, Home Address, Manchester, N. C.

JOHN MANN BEAL.....B.S. 1911 .....Agricultural College, Miss.
M.S. 1913, Miss. A. & M. Prof. of Botany and Forestry, Miss. A. & M. College
Plant Pathologist for Miss. Agr. Experiment Station

MARVIN EDDLEMAN BEATTY.....B.E. 1916 .....High Rock, N. C.
Engineer, Tallassee Power Co.
Not heard from this year

JAMES CLAUDIUS BEAVERS.....B.Agr. 1906.....Guilford College, N. C.
Farmer and Agricultural Writer

SIDNEY HAMILTON BECK.....B.S. 1898..... New York
45 West 84th Street

JOHN LELAND BECTON.....B.E. 1908.....Wilmington, N. C.
C.E. 1913. Civil Engineer

HARWOOD BEEBE .....B.E. 1908.....Spartanburg, S. C.
Engineer

THOMAS AMBROSE BELK.....B.S. 1918.....Mount Holly, N. C.
Farmer

CHARLES EDWARD BELL.....B.S. 1911.....Raleigh, N. C.
Assistant Food and Oil Chemist, N. C. Department of Agriculture

FREDERICK NEIL BELL.....B.E. 1918.....Wilkinsburg, Pa.
Westinghouse Electric and Manufacturing Co.

NEEDHAM ERIC BELL.....B.S. 1906.....Greenville, Ala.
Farm Demonstration Agent

JAY LANG BENBOW.....B.S. 1918.....American Exp. Forces
Co. A, Provisional Engineer, A.PO. 762
Home Address, Oak Ridge, N. C.

JOHN SAMUEL BENNETT.....B.E. 1916.....care of P.M., New York
Electrician, First Class, U. S. Navy, U.S.S. *Maui*
Home Address, Morehead City, N. C.

WILLIAM OSBORNE BENNETT.....B.E. 1901.....Maxton, N. C.
Manager Elba Manufacturing Co.

ROBERT LINN BERNHARDT.....B.S. 1900.....Salisbury, N. C.
Secretary-Manager Salisbury Hardware and Furniture Co.
and Breeder of Short-horn Cattle

LESLIE GRAHAM BERRY.....B.E. 1900.....Charlotte, N. C.
Manager Southern Engineering Co.

WILMER ZADOCK BETTS.....B.E. 1918.....Raleigh, N. C.
Engineer, Tank School

HERMAN VON BIBERSTEIN.....B.E. 1914.....Coblenz, Germany
29th Engineers. Home Address, Charlotte, N. C.

Name *Degree* *Address*

JOHN HENDERSON BIRDSONG.....B.S. 1899..... Chicago, Ill.
Chief Chemist and Metallurgist, the National Malleable Castings Co.

JOE PITTMAN BIVENS.....B.E. 1907.....Gastonia, N. C.
Member of firm of Michael & Bivens, Electrical Constructors

JAMES ADRIAN BIZZELL.....B.S. 1895.....Ithaca, N. Y.
M.S. 1900. Ph.D. 1903, Cornell University, Professor of Soil Technology

FRED MCCULLOUGH BLACK.....B.E. 1910.....Milwaukee, Wis.
Salesman, Westinghouse Electric and Manufacturing Co.

KENNETH LEON BLACK.....B.E. 1906..... Richmond, Va.
President and Treasurer of K. L. Black & Co., Inc., Engineers and General Contractors

WILLIAM LAMAR BLACK.....B.E. 1908.....Key West, Fla.
South Florida Contracting Co.

ENOS CLARKSON BLAIR.....B.S. 1914.....West Raleigh, N. C.
Assistant Agronomist in Soils, N. C. Agricultural Experiment Station

TYSON YATES BLANTON.....B.S. 1917.....Vancouver, Wash.
412th Construction Squadron. Home Address, Mooresboro, N. C.
Not heard from this year

BEVERLY MOSS BLOUNT.....B.E. 1915.....American Exp. Forces
Battalion D, 111th Field Artillery. Home Address, Washington, D. C.

JOHN ISHAM BLOUNT.....B.E. 1895.....Birmingham, Ala.
C.E. 1897. J. I. Blount & Co., and the Blount Specialty Co.
President, Home Building Co. of Alabama

GEORGE BENJAMIN BLUM.....B.S. 1918.....Lillington, N. C.
Principal Farm-life School

WILLIAM MORTON BOGART.....B.E. 1903.....Charlotte, N. C.
Chief Engineer, General Fire Extinguisher Co.
Not heard from

ALLISON HODGES BOND.....B.E. 1912.....Washington, D. C.
Draftsman, War Department, Ordnance Office

THOMAS SAWYER BOND.....B.E. 1910.....Palestine, Tex.
U. S. Railroad Administration

LESLIE NORWOOD BONEY.....B.E. 1903.....Wallace, N. C.
Architect

FRED. WILHELM BONITZ.....B.E. 1901.....Wilmington, N. C.
Lawyer, Engineering Department of Standard Oil Co.

HENRY EMIL BONITZ.....B.E. 1893.....Wilmington, N. C.
Architect

JAMES SHEPHERD BONNER.....B.E. 1916.....Nashville, Tenn.
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..... Austin, Tex.
Second Lieutenant, Aero Squadron, Air Service, Penn. Field

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.....Indianapolis, Ind.
With Merchants Heat and Light Co.

ALAN THURMAN BOWLER.....B.E. 1912.....Raleigh, N. C.
With Howard White, Lumber Dealer

Name *Degree* *Address*

RODNEY LAW BOYLIN.....B.S. 1916.....Coblenz, Germany
Co. A, Military Police, 3d Army. Home Address, Wadesboro, N. C.

ASA GRAY BOYNTON.....B.E. 1908.....Asheville, N. C.
Landscape Architect

ZEB BOYCE BRADFORD.....B.E. 1917..... France
Second Lieutenant, Co. G, 321st Infantry. Home Address, Huntersville, N. C.

CARL RAY BRADLEY.....B.E. 1910..... France
Second Lieutenant, 168th Aero Squadron
Home Address, Old Fort, N. C.

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.
Highway and Municipal Engineer

VICTOR WINFRED BREEZE.....B.E. 1914.....Charlotte, N. C.
Southern Engineering Co.

THOMAS JOHNSON BREVARD.....B.S. 1910..... ———
Address not known

CHARLES MEEKINS BRICKHOUSE..B.S. 1914.....American Exp. Forces
Sergeant Co. B, 306th Engineers, A.PO. 791. Home Address, Columbia, N. C.

HERMON BURKE BRIGGS.....B.E. 1913.....Raleigh, N. C.
M.E. 1916. Instructor, N. C. State College.

CARL DWIGHT BRITTAIN.....B.E. 1916.....Summerfield, N. C.

RALPH BROOKS .....B.S. 1916.....A. E. F., France
Veterinarian. Home Address, Alliance, N. C.

THOMAS WESTMORE BROOKS.....B.E. 1916.....Newport News, Va.
Engineering Department, Newport News Shipbuilding and Dry Dock Co.

BENJAMIN ALEXANDER BROOM....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.
Southern Power Co.

BRYCE BENJAMIN BROWN.....B.E. 1918..... Hampton Roads, Va.
Electrical School, N.O.B., Drafting Department
Home Address, Greenville, N. C.

CLAYTON EDWARD BROWN.....B.E. 1912.....Belmont, N. 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.
Merchant

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.....American Exp. Forces
Home Address, Glass, N. C. Headquarters Co., 6th Infantry, A.PO. 745

JOSEPH BRANDON BRUNER.. ....B.S. 1915.....Los Angeles, Cal.
California Representative of Vincent B. McDonnell & Co., Fruit and Produce Brokers, Detroit, Michigan

Name	*Degree*	*Address*
STEPHEN COLE BRUNER	B.S. 1912	Santiago de las Vegas, Cuba
Pathologist, 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	New York, N. Y.
With A. G. de Shervinin & Co.		
KIT BRYAN	B.E. 1911	Washington, D. C.
Office of Public Roads		
JAMES RAMSEY BUCHANAN	B.E. 1914	Dillsboro, N. C.
ELTON ELROY BUCK	B.E. 1910	Bridgeport, Conn.
Civil Engineer, Lake Torpedo Boat Co.		
GEORGE CLEVELAND BUCK	B.S. 1916	Salemburg, N. C.
Principal Farm-life 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 Draftsman, Government Navy Yard, Norfolk		
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	Fort Lauderdale, Fla.
Chief Engineer, Fort Lauderdale Ice and Electric Co.		
Not heard from		
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
Partner, Caldwell and Michael Co., Merchandise and Milling		
WALTER GRAHAM CALDWELL	B.S. 1914	Jonestown, Miss.
Managing Farm for Mrs. D. M. Russell		
LINDSAY FERGUSON CARLETON	B.E. 1907	Annapolis, Md.
Lieutenant, U. S. Naval Reserve Force. Instructor Engineering, U. S. Naval Academy. Home Address, North Wilkesboro, N. C.		
CLAUDIUS LEROY CARLTON	B.E. 1916	Boykins, Va.
JOHN CLINE CARPENTER	B.E. 1915	Waco, Tex.
Science and Research Division, Aviation Section, Signal Corps. Home Address, Charlotte, N. C., R. 12		
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		

Name *Degree* *Address*

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.
Assistant Engineer, Seaboard Air Line Railway

HENRY ROY CATES.....B.S. 1911..... France
Captain Central Med. Lab. Division Food and Nutrition, American Exp. Forces, A.PO., 721

JUNIUS SIDNEY CATES.....B.S. 1902.....Washington, D. C.
M.Agr. 1904. Ph.D., American University, 1915. Agriculturist, Office of Farm Management, United States Department of Agriculture

WILLIAM MILLER CHAMBERS.....B.E. 1905.....Maben, W. Va.
Pay-roll Man, W. M. Ritter Lumber Co.

JAY VICTOR CHAMPION.....B.E. 1916.....Glencove, Long Island, N. Y.
Edward Ladew Co.

HARPER NICHOLSON CHERRY.....B.S. 1918.....Zebulon, N. C.
Principal Farm-life School, Wakelon High School

LOUIS GORHAM CHERRY.....B.E. 1916.....Raleigh, N. C.

MARK HOPKINS CHESBRO.....B.Agr. 1906.....Kelowna, B. C.
With Occidental Fruit Co.

CONNOR CALHOUN CLARDY.....B.E. 1906.....San Diego, Cal.
Assistant Superintendent of Motive Power, San Diego Electric Railway

CHARLES EDWARD CLARK.....B.S. 1897.....Rocky Mount, N. C.
Assistant Director Edgecombe Test Farm

CLETE WALTON CLARK.....B.S. 1916.....Owassa, 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. Manager Ingleside Orange Groves

JOHN WASHINGTON CLARK.....B.E. 1909.....West Durham, N. C.
B.E. (Tex.) 1907. Superintendent Erwin Bleaching and Finishing Plant

THORNE MCKENZIE CLARK.....B.E. 1909.....Raleigh, N. C.
National Bank Examiner

WALTER CLARK, JR.....B.E. 1903.....Raleigh, 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 W. H. Clarke & Sons, Inc., Manufacturing Chemists

HENRY CALEB CLAY.....B.E. 1911.....Eagle Butte, Mont.
Ranchman

WILEY THEODORE CLAY.....B.E. 1906.....Raleigh, N. C.
M.E. 1910. Secretary and Treasurer, the Heiner Specialty and Manufacturing Co.

AMOS BAXTER CLEMENT.....B.E. 1913..... France
First Lieutenant Co. B, 315th Engineers, American Exp. Forces, A.PO. 770. Home Address, Oxford, N. C.

Name *Degree* *Address*

WILLIAM RANDOLPH CLEMENTS...B.E. 1913 .....Annapolis, Md.
Lieutenant U.S.S. *Florida*. Home Address, Richmond, Va.

AMBROSE SCHENCK CLINE.....B.S. 1917.....Wenona, N. C.
Assistant Director, Branch Exp. 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 J. L. O'Quinn Co., Florists

ROBERT BAXTER COCHRAN.....B.E. 1902.....East Norwood, Ohio
Allis-Chalmers Manufacturing Company, Bullock, Works

ANSON ELIKEM COHOON.....B.S. 1898.....Elizabeth City, N. C.
Farmer

JOHN ELIOT COIT.....B.Agr. 1903.....Los Angeles, Cal.
Farm Adviser, Los Angeles County

THOMAS ALEXANDER COLE.....B.S. 1913 ..... France
Second Lieutenant, 278th Aero Squadron
Home Address, Carthage, N. C.

JOHN CALHOUN COLLIER.....B.E. 1916.....West Allis, Wis.
Allis-Chalmers Manufacturing Company. Home Address, Goldsboro, N. C.
Not heard from this year

PAUL COLLINS .....B.S. 1901.....New Haven, Conn.
Analytical and Consulting Chemist

WILLIAM THOMAS COMBS.....B.E. 1918.....Washington, D. C.
U. S. Coast Observer, Geodetic Survey

GUY WINSTON COMMANDER.....B.S. 1915.....Berkley, Va., R. 4
Farmer

HENRY BACON CONSTABLE.....B.S. 1915.....Charlotte, N. C.
National Aniline and Chemical Co. of Buffalo, N. Y.

CHARLES KEARNEY COOKE, JR....B.E. 1918.....Louisburg, N. C.

EVERETT HANSON COOPER.....M.S. 1916.....Wilson, N. C.
Tobacco Business

JOHN DOWNEY COOPER, JR.....B.E. 1913.....Henderson, N. C.
Superintendent Harriet Cotton Mills Nos. 2 and 3

GEORGE WASHINGTON CORBETT, JR..B.E. 1895.....Currie, N. C., R. 2
Saw, Planing and Grist Mills, and Merchandise

WILLIAM S. CORBITT.....B.E. 1916.....Henderson, N. C.
Corbitt Motor Truck Co.

CHARLES EDWARD CORPENING....B.E. 1894.....Lenoir, N. C., R. 3
Farmer and Lumber Dealer

MILTON LEE CORRELL.....B.S. 1916 ..... France
First Lieutenant, 18th Infantry, Regulars. Home Address
Laurinburg, N. C.

EDWARD LIVINGSTON COTTON.....B.E. 1911.....Badin, N. C.
Mechanician with Tallassee Power Co.

LLEWELLYN HILL COUCH.....B.E. 1908.....City Point, Va.
Electrical Engineer, Du Pont Chemical Co.

WALTER MILLER COWLES.....B.E. 1909.....Charlotte, N. C.

DAVID COX .....B.E. 1894.....Hertford, N. C.
Civil Engineer and Timber Dealer and Estimator

DAVID DAVIES COX.....B.E. 1914 ..... Ensley, Ala.
Testing Engineer, Tennessee Coal, Iron and Railroad Co.

Name *Degree* *Address*

DUNCAN ARCHIBALD COX.....B.S. 1906.....Rowland, N. C.
Manager Hub Hardware Co.

GEORGE CHANDLER COX.....B.E. 1917 .....Coblenz, Germany
Captain Co. C, 2d Field Bn. Sig. Corps, 1st Div.
Home Address, Cullowhee, N. C.

JOHN WILLIAM COX.....B.E. 1915 .....Hampton, Va.
Aid, U. S. Coast and Geodetic Survey, Schooner
Matchless

SAINT JOHN COX.....B.E. 1914 .....Ensley, Ala.
Assistant Testing Engineer, Tenn. Coal, Iron and Railroad Co.

FRANCIS EDWIN COXE.....B.E. 1917.....Hoboken, N. J.
Stevens Institute, Navy Engineering School. Home Address,
Red Springs, N. C.

LELAND MIOT CRAIG.....B.E. 1914.....Charlotte, N. C.
Engineer, Southern Engineering Co.

SHERMAN GRADY CRATER.....B.S. 1916 ..... France
American Exp. Forces. Home Address, Cycle, N. C.

JOHN BENNETT CRAVEN.....B.S. 1913..... Chicago, Ill.
Chemist, People 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.....New York City
Ensign, Junior, Division Officer, Receiving Ship. Home Address, Swan
Quarter, N. C.

WOODFIN GRADY CREDLE.....B.S. 1914 ..... France
Co. H, 321st Infantry, A.PO. 791. Home Address, Swan Quarter, N. C.

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 ..... Ames, Iowa
A.B. 1912; Ph.D. 1918 at University of Nebraska. Extension Plant
Pathologist, Iowa State College, Ames, Iowa

WILLIAM HENRY CROW.....B.E. 1910.....Monroe, N. C.
Mercantile business

RUSSELL ALEXANDER CROWELL...B.S. 1918.....Acton, N. C.
Farmer

RAYMOND CROWDER .....B.E. 1915..... Pittsburgh, Pa.
Guarantee Liquid Measure Company

CHARLES LEE CRUSE.....B.S. 1912.....Statesville, N. C.
Veterinarian

FELIX GRAY CRUTCHFIELD.....B.E. 1901..... Berwyn, Pa.
American Bronze Corporation
Not heard from this year

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.
Draftsman, Valuation Department, S. A. L. Ry.

Name *Degree* *Address*

EDWIN SPEIGHT DARDEN.....B.S. 1895.....Stantonsburg, N. C.
Farmer and Merchant

WALTER LEE DARDEN.....B.E. 1903..... Portsmouth, Va.
Engineer of Buildings, Seaboard Air Line Railway

JOSEPH FRANK DAVIDSON.....B.E. 1909, San Francisco, Veraguas, Panama
Mining

SAMUEL FREDERICK DAVIDSON....B.S. 1914.....Carthage, N. C.
North Carolina Department of Agriculture. Home Address, Swannanoa, N. C.

CHARLES WEBB DAVIS.....B.E. 1917.....Naval Base, Va.
Ensign, U. S. Navy. Home Address, Beaufort, N. C.

GEORGE MASLIN DAVIS.....B.E. 1901..... Roanoke, Va.
Locomotive and All-steel Car Designer

PAUL DEXTER DAVIS.....B.E. 1913.....West Raleigh, N. C.
Civil Engineer

ROBERT VERNON DAVIS.....B.E. 1916.....Charleston, S. C.
Estimator, Sou. Bell Tel. & Tel. Co.

WILLIAM ANDERSON DAVIS.....B.S. 1918.....Carthage, N. C.
Soil Survey Work, 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 PRESSLY DAVIS.....B.E. 1917.....Hampton Roads, Va.
First Class Machinist (Special) U.S.N., R.F. Care Public Works Department

CLAUD COUNCIL DAWSON.....B.E. 1908.....Mayworth, N. C.
Superintendent Mays Mill, Inc.

THOMAS THEODORE DAWSON.....B.E. 1910.....Durham, N. C.
Assistant Engineer, City Engineering Department

ALBERT GEORGE DAY.....B.E. 1917 ..... France
1106th Aero Squadron, Signal Corps. Home Address, Trenton, S. C.

RALPH CAMPBELL DEAL.....B.E. 1912.....Clifton Forge, Va.
Virginia-Western Power Co.

WILLIAM SAMUEL DEAN.....B.E. 1909.....Roanoke Rapids, N. C.
Superintendent Cotton Mill

LEONIDAS POLK DENMARK.....B.E. 1915 ..... France
Aerial Observer. Second Lieutenant, U. S. Air Service, American Exp. Forces. Home Address, Raleigh, N. C.

ERNEST COFIELD DERBY.....B.E. 1912.....Charlotte, N. C.
Assistant Engineer, Southern Railroad

LOUIS REINHOLD DETJEN.....M.S. 1911.....West Raleigh, N. C.
North Carolina Agricultural Experiment Station

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

Name *Degree* *Address*

WILLIAM SERGEANT DIXON, JR....B.E. 1918 ..... France
Meteorological Section, A.PO. 731-a
Home Address, Mebane, N. C.

WILLIAM CARTER DODSON.....B.E. 1917.....Charlotte, N. C.
Technical Representative for Dystuff Co.

MINOR CECIL DONNELL.....B.S. 1917.....Greensboro, N. C.

ARCHIE JAY DOOLITTLE.....B.E. 1914.....Passaic, N. J.
Designing Engineer, Turner Cons. Co. of New York City

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

JAMES LEONIDAS DUNN.....B.S. 1910.....Scotland Neck, N. C.
Agricultural Representative North Carolina and South Carolina 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.
Teacher of Agriculture, Rural Schools, Lancaster County

JOHN IVEY EASON.....B.S. 1911 ..... France
320th Ambulance Co., 305th Sanitary Train, American Exp. Forces
Home Address, Stantonsburg, N. C., R. 1

WILLIAM HUNT EATON.....B.S. 1909 .....Auburn, Ala.
Dairy Division, 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.

SEBA ELDRIDGE .....B.E. 1907.....New York, N. Y.
Assistant in Philosophy, Columbia University; Chairman of Executive Committee, Committee on the Federal Constitution
Not heard from this year

TIMOTHY ELDRIDGE .....B.E. 1904.....Mount Olive, N. C.
Superintendent Electric Light Plant and Waterworks

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

THOMAS BENJAMIN ELLIOTT.....B.S. 1918 ..... France
Lieutenant Co. K, 141st Infantry. Home Address, Sanford, N. C.

WILLIAM HENRY ELLIOTT.....B.S. 1917 ..... France
Lieutenant, Co. K, 324th Infantry. Home Address, Thornwall, N. C.

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

WELDON THOMPSON ELLIS.....B.E. 1906..... Blacksburg, Va.
Professor of Power Engineering and Machine Design. Director of Power Plants, Heating and Lighting, V. P. I.

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

Name — *Degree* — *Address*

ALBERT EDWARD ESCOTT.....B.E. 1906.....Charlotte, N. C.
Secretary and Treasurer *The Mills News*

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

EARL MONTIER EVANS.....B.E. 1913.....Badin, N. C.
American Aluminum Co.

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

JAMES BECKETT EWART.....B.E. 1906.....New York, N. Y.
Electrical Officer, U.S.S. *Iowa*

RALPH RINGGOLD FAISON.....B.S. 1909.....American Exp. Forces
Captain Co. M, 7th Infantry, A.PO., 740

WILLIAM ALEXANDER FAISON.....B.E. 1909..... Chester, Pa.
Manager Atlantic Steel Castings Co.

ARCHIE ARRINGTON FARMER.....B.E. 1914..... Monterey, Cal.
Captain, 21st Infantry, U. S. Regulars. Commanding Presidio of Monterey. Home Address, Wilson, N. C.

ISAAC HERBERT FARMER.....B.E. 1908 ..... France
First Lieutenant, 317th Infantry, National Army. Home Address, 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.
U. S. Department of Agriculture, State Labor Specialist

JOHN BARTLETT FEARING, JR.....B.S. 1914.....Windsor, N. C.
Farmer and Merchant

ALEXANDER LITTLEJOHN FEILD...M.S. 1914..... Cleveland, Ohio
Research Physical Chemist, National Carbon Co.

RUTLEDGE HUGHES FEILD.....B.S. 1915.....West Philadelphia, Pa.
Hamilton Court, C-101

BENJAMIN CAREY FENNELL.....B.S. 1898..... Milwaukee, Wis.
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.....Balboa, Canal Zone
Mechanical and Electrical Draftsman, Panama, Canal

KARL MCATEE FETZER.....B.E. 1914.....Rochester, N. Y.
General Railway Signal Co.

WALTER GOSS FINCH.....B.E. 1905..... Baltimore, Md.
Junior Engineer, U. S. Engineer Department, 309 Custom House

WILLIAM WALTER FINLEY.....B.Agr. 1904..... Charlottesville, Va.
Proprietor Win Wilkes Farm

Name *Degree* *Address*

PAUL BRANDON FLEMING.....B.E. 1918..... Naval Base, Va.
U. S. Navy

LANDON CABELL FLOURNOY.....B.E. 1918..... Darlington, S. C.
Assistant Engineer, Phœnix Construction Co.

DANIEL BURNIE FLOYD.....B.E. 1913.....Camp Taylor, Ky.
First Lieutenant, F.A.C., O.T.S.

FRANK FULLER FLOYD.....B.E. 1893..... Knoxville, Tenn.
Vice President and Sales Manager, Jellico Coal Mining Co.

AARON CONARD FLUCK.....B.E. 1915.....Hampton Roads, Va.
Ensign, U.S.N., R. F. Naval Air Station
Home Address, Telford, Pa.

FRANK LINDSAY FOARD.....B.S. 1909.....Salisbury, N. C., R. 7
Not heard from

JAMES FONTAINE .....B.E. 1914..... Bladensburg, Md.
Electrical Expert Aid, U. S. Navy Yard, Washington, D. C.

MATTHEW MAURY FONTAINE.....B.E. 1916.....Woodsdale, N. C.
Lumber business

RUFUS EUGENE FORBES.....B.E. 1910.....Charlotte, N. C.
M.E. 1913. Chief Draftsman, Chemical Construction Co.

ARTHUR CRAWFORD FOSTER.....B.S. 1917.....Washington, D. C.
Army Medical School

SHIRLEY WATSON FOSTER.....B.Agr. 1906.....San Francisco, Cal.
Entomologist and Manager Insecticide Department, General Chemical Co.

WILLIAM BENJAMIN FOSTER.....B.E. 1915.....Newport News, Va.
Contractor

GEORGE WASHINGTON FOUSHEE...B.E. 1904.....Greensboro, N. C.
Secretary and Treasurer, Dicks Laundry Co.

ELIAS VAN BUREN FOWLER.....B.E. 1907.....Horseshoe, N. C., R. 1
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.....Hartsville, S. C.
Phœnix Public Utilities Company

JOHN ALEXANDER FRAZIER.....B.E. 1916 ..... France
321st Infantry, American Exp. Forces. Home Address, Kings Creek, N. C.

ELMO VERNON FREEMAN.....B.E. 1911 ..... France
Co. H, 2d Bn., 814th Pioneer Infantry, A.PO. 701, American Exp. Forces
Home Address, Wake Forest, N. C.

PERCY LEIGH GAINEY.....B.Agr. 1908..... Manhattan, Kans.
M.S. 1910. Assistant Professor Bacteriology, Kansas State Agricultural College

EDGAR WILLIAM GAITHER.....B.S. 1904.....Winton, N. C.
County Farm Demonstration Agent

Name — *Degree* — *Address*

JAMES JERVEY GANTT.....B.E. 1910..... Toccoa, Ga.
Assistant Engineer, Southern Railway System

FREDERICK CARLTON GARDNER....B.E. 1917.....Rocky Mount, N. C.

JUNIUS TALMAGE GARDNER.....B.E. 1908..... Tours, France
Second Lieutenant, Infantry; Assistant Superintendent 5th Division Postal Express Service. Home Address, 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.....Burlington, N. C.
Farming

LEWIS PRICE GATTIS.....B.E. 1909.....Charleston, S. C.
Traveling Representative, Carolina Portland Cement Co.

JOHN GEORGE HARVEY GEITNER, JR..B.E. 1914 ..... France
Captain Co. L, 4th Infantry, American Exp. Forces, A.PO. 717. Home Address, Hickory, N. C.

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.....Southern Pines, N. C.
General Hardware, Building Material and Auto Specialties

SETH MANN GIBBS.....B.E. 1908..... Savannah, Ga.
Resident Engineer, Seaboard Air Line Railway
Not heard from this year

THOMAS FENNER GIBSON.....B.E. 1912.....Kansas City, Mo.
C.E. 1915. District Engineer, Corrugated Bar Co., 1505 Waldheim Bldg.,

LAMAR CARSON GIDNEY.....B.E. 1903..... Shelby, N. C.
Engineering Department, Southeastern Underwriters Association

RICHARD F. GIERSCH, JR.....B.E. 1912.....Badin, N. C.
Electrical Engineer, Tallassee Power Co.

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.
Purchasing Agent and Secretary to Manager for El Paso Electric Ry. Co.

GEORGE WILLIAM GILLETTE.....B.E. 1911.....Wilmington, N. C.
Engineer

MAURICE MORDECAI GLASSER.....B.E. 1908.....Charleston, S. C.
Proprietor Standard Electric Co. and M. M. Glasser Electric and Mfg. Co.

BENJAMIN DUKE GLENN.....B.E. 1918.....Greensboro, N. C.

CHARLES WILLIS GOLD.....B.S. 1895.....Greensboro, N. C.
Treasurer Jefferson Standard Life Insurance Co.

MOSES HENRY GOLD.....B.E. 1908.....Hamlet, N. C.
Division Engineer, Seaboard Air Line Railway

ROY DURANT GOODMAN.....B.S. 1913.....Concord, N. C., R. 2
County Farm Demonstration Agent

Name *Degree* *Address*

AMZI NEALY GOODSON.....B.E. 1916 ..... France
Second Lieutenant, F.A., U.S.R.

CICERO FRED GORE.....B.E. 1913.....Weldon, N. C.
Superintendent and Engineer Highways, Halifax County

ALBERT SIDNEY GOSS.....B.E. 1909.....Charlotte, N. C.
Engineer, 313 Kingston Avenue

JOHN DAVID GRADY.....B.Agr. 1908.....Seven Springs, N. C.

ROBERT WALTER GRAEBER.....B.S. 1911.....Lancaster, S. C.
County Agricultural Demonstration Agent

WILLIAM HAYWOOD GRAHAM, JR..B.E. 1912..... Mobile, Ala.
District Traffic Chief, 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.
Mercantile Business

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.
President and Superintendent Atherton Mills

ANDREW HARTSFIELD GREEN, JR...B.S. 1909.....Raleigh, N. C.
With White Ice Cream Company

MARION JACKSON GREEN.....B.S. 1896.....Charlotte, N. C.
Pattern-maker, the Cole Manufacturing Co. Member, Charlotte School Board

KENNETH LEE GREENFIELD.....B.S. 1916.....Rocky Mount, N. C., R. 3
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.....Greensboro, N. C.
Engineer

PAUL STIREWALT GRIERSON.....B.E. 1904.....New York, N. Y.
Engineer, Charles Cory & Son, Inc.

WILLIAM HENRY GRIFFIN, JR.....B.E. 1914 ..... France
Headquarters Co. F. A. Replacement Regiment, American Exp. Forces, A.P.O. 778

JOSEPH PERRIN GULLEY, JR.....B.E. 1904..... Norfolk, Va.
Traveling Salesman, Woodhouse Electric Co.

WINSTON PAYNE GWATHMEY.....B.E. 1913..... Coblenz, Germany
First Lieutenant, Co. B, 308th Engineers, U.S.R. Home Address, Richmond, Va.

JAMES HOLMES HADDOCK.....B.E. 1915..... Stonewall, Miss.
Superintendent Stonewall Cotton Mills

DORSEY YATES HAGAN.....B.E. 1908.....Greensboro, N. C.

FRANK JOSHUA HAIGHT.....B.E. 1917.....Port au Prince, Haiti
Captain, 57th Co., Marine Corps. Home Address, Balsam, N. C.

Name — *Degree* — *Address*

FELIX STANTON HALES.....B.E. 1913..... Cleveland, Ohio
C.E., Cornell University, 1916. Assistant Engineer, N. Y. C. & St. L. Ry.

CHARLES GANZER HALL.....B.E. 1913..... Taunton, Mass.

JOHN HUBBARD HALL, JR.....B.S. 1915..... Coblenz, Germany
Lieutenant, Co. A, 1st Pioneer Infantry, American Exp. Forces

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

ROBERT WILLIAMS HAMILTON, JR....B.S. 1916.....Ampilly, Le Lec, France
First Lieutenant, 321st Infantry. Home Address, Jonesville, S. C.

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.

JOHN ISAAC HANDLEY.....B.S. 1914 ..... Germany
M.S. 1916. First Lieutenant, 41st Division Headquarters, American Exp. Forces, A.P.O. 729

JOHN FREDERICK HANSELMAN....B.E. 1906..... Waverly, Va.
Proprietor, the Central Garage

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

JARVIS BENJAMIN HARDING.....B.E. 1904.....Greenville, N. C.
C.E. 1909. Harding & Rivers, Civil Engineers and Chief Engineer, Atlantic Coast Realty Co. of Petersburg, Va.

ROBERT MCKENZIE HARDISON....B.E. 1912..... Boston, Mass.
With Corrugated Bar Co.

NATHAN DAVID HARGROVE.....B.S. 1912..... Richmond, Va.

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 Dept.

JOHN WILLIAMSON HARRELSON...B.E. 1909.....Washington, D. C.
M.E. 1915. Major, Coast Artillery, on duty with General Staff

CARL RUSH HARRIS.....B.E. 1917.....Ellington Field, Tex.
4th Cadet Squadron, Aviation Service. Home Address, Mount Gilead, N. C.

CEBURN DODD HARRIS.....B.S. 1897..... Anchorage, Ky.
Ferguson, Scott, & Harris, Fire Insurance

GORDON HARRIS .....B.E. 1909.....Schenectady, N. Y.
E.E. 1914. Lighting Engineering Department, General Electric Co.

JOHN FLEMING HARRIS.....B.E. 1917..... Pittsburgh, Pa.
Testing Engineer, Westinghouse Electric and Manufacturing Co.

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

THOMAS DEVIN HARRIS.....B.E. 1911.....Stem, N. C.

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

ABRAM EDGAR HARSHAW.....B.E. 1898.....Newport News, Va.
Newport News Shipbuilding and Dry Dock Co.

HENRY MERCER HARSHAW.....B.E. 1915..... Hopewell, Va.
General Engineer, Charging Stations, Dupont Co.

Name *Degree* *Address*

THOMAS ROY HART.....B.E. 1913..... Nevers, France
109th Co., 19th Grand Division, Transport Corps, American Exp. Forces, A.PO. 708. Home Address, Monroe, N. C.

ADOLPH THEODORE HARTMANN....B.E. 1917.....American Exp. Forces
Corporal, Co. K, 56th Pioneer Infantry. Home Address, Charlotte, N. C.

HARRY HARTSELL .....B.E. 1912.....Wilmington, Delaware
Experimental Engineer, Dupont Co.

JOHN RUBY HAUSER.....B.E. 1918.....Camp Zachary Taylor, Ky.
Lieutenant, Prisoner Office, Base Hospital

JOHN HARVEY, JR.....B.E. 1914.....West Philadelphia, Pa.
Medical Student, University of Pennsylvania. Home Address, Snow Hill N. C. Not heard from this year

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

CLAUDE JACQUES HAYDEN.....M.S. 1916.....American Exp. Forces
Captain, 11th Infantry, U.S.A.

HENRY WADSWORTH HAYWARD....B.E. 1917..... Toledo, Ohio
Toledo Power and Light Co.

EDMUND BURKE HAYWOOD.....B.E. 1910.....Raleigh, N. C.

WILLIAM STEPHEN HAYWOOD.....B.E. 1916.....Newport News, Va.
Engine Estimating Division, Newport News Shipbuilding and Dry Dock Co.

JOKTAN LAFAYETTE HEMPHILL...B.E. 1907.....Schenectady, N. Y.
Engineer, General Electrical Co.

HARRY BENJAMIN HENDERLITE...B.E. 1915..... Brest, France
Sergeant, Co. B, 33d Engineering Corps, American Exp. Forces. Home Address, Raleigh, N. C.

LEONARD HENDERSON .....B.E. 1909.....Salisbury, N. C.

MAURICE HENDRICK .....B.E. 1908.....Cliffside, N. C.
Assistant Superintendent, Cliffside Mills

JOHN WADE HENDRICKS.....B.S. 1917.....Mayen, Germany
Co. L, 56th Pioneer Infantry, American Exp. Forces. Home Address, Cana, N. C., R. 2

LEONARD ORR HENRY.....B.E. 1916.....Gastonia, N. C.
City Manager of firm, Michael & Bivens, Electrical Contractors

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..

EDGAR ALLAN HESTER.....B.E. 1916.....Pittsburgh, Pa.
Instrument and Relay Engineer, Westinghouse Electric and Manufacturing Company

THOMAS JASPER HEWITT.....B.E. 1913.....New York City
Ensign, U.S.S. *W. D. Munson*, U. S. War Department. Home Address, Newport N. C., R. 2

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

RUFUS WILLIAMS HICKS, JR.....B.E. 1910.....Wilmington, N. C.
M.E. 1915

Name — *Degree* — *Address*

BASCOMBE BRITT HIGGINS.....B.S. 1909.....American Exp. Forces
M.S. 1910, Ph.D. 1913. Second Lieutenant, Company K, 2d Pioneer Infantry, A.P.O. 716. Home Address, Leiscester, N. C.

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.....DeLeon Springs, Fla.
Dairying for Mr. George Le Fever

JAMES ALLAN HIGGS, JR.....B.E. 1906, C.E. 1910.....Atlanta, Ga.
Southeastern Sales Manager, Massey Concrete Products Corporation, 409 Candler Building

JERE. EUSTIS HIGHSMITH.....B.S. 1897.....Parkersburg, N. C.
Farmer

DANIEL HARVEY HILL, JR.....B.S. 1909.....Charlotte, N. C.
With *Textile Bulletin* and Editor *Industrial and Engineering News*

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 HOGDES.....B.E. 1917.....Washington, N. C.

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

EDGAR ALLAN HODSON.....M.S. 1914.....Ithaca, N. Y.
B.S. (A.P.I.) 1911. Assistant, Department Farm Crops, Cornell University

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.

EDISON PARKER HOLMES.....B.E. 1917..... Toledo, Ohio
Henry L. Doherty Training School

THOMAS HALL HOLMES, JR.....B.E. 1916.....Goldsboro, N. C.

DEAN RONEY HOLT.....B.E. 1916.....New York, care P. M.
Chief Machinist's Mate, U.S.S. *Porter*. Home Address, Graham, N. C.

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

WILLIAM NORMAN HOLT.....B.E. 1907..... Norfolk, Va.
Traveling Salesman, the Texas Co.

EDWARD HOLLAND HOLTON.....B.S. 1917 ..... France
Lieutenant, Co. H, 321st Infantry. Home Address, Winston-Salem, N. C.

BENJAMIN OLIVER HOOD.....B.E. 1901.....Port Newark, N. J.
With Submarine Boat Corporation

LOUIE LEE HOOD.....B.E. 1910.....Greensboro, N. C.
With Greensboro Music Co.

DAVID LEE HOOPER.....B.E. 1915.....Camp Meade, Md.
Captain, Commanding Co. C, 11th Infantry. Home Address, Cullowhee, N. C.

Name *Degree* *Address*

ROBERT MULLEN HOOPER.....B.E. 1917.....Charlotte, N. C.
Southern Power Co.

WILLIAM RANSOM HOOTS.....B.S. 1917.....Clemson College, S. C.
Assistant Horticulturist

HERNDON HOPKINS .....B.S. 1915.....Greensboro, N. C.
In Fertilizer Plant

WALTER CLEARY HOPKINS.....B.E. 1913.....Fort Sill, Okla.
Lieutenant, Engineer in charge, Supply Officer

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.
No. 168 Sixth Street

JESSE MCRAE HOWARD.....B.E. 1904.....Concord, N. C.
Superintendent, Kerr Bleaching and Finishing Works

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 ..... France
Lieutenant, Co. C, 111th Engineers, American Exp. Forces. Home Address, Kinston, N. C.

SAMUEL BENJAMIN HOWARD.....B.E. 1913.....Morganton, N. C.
With State Highway 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.
Member firm of Beck-Huggins Co., Contractors and Engineers
Not heard from this year

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

LLOYD RAINEY HUNT.....B.E. 1905.....Badin, N. C.
Electrical Engineering Department of Southern Aluminum Co.

HILL MCIVER HUNTER.....B.E. 1904.....Greensboro, N. C.
Purchasing Agent Revolution Mills, Asheville Mills, Minnesota Mills, Cliffside Mills, White Oak Mills, Proximity Print Works, Proximity Mills, Haynes Mills

MALCOLM BEALL HUNTER.....B.E. 1895.....Charlotte, N. C.
President Acme Plumbing and Heating Co.

WILLIAM TISDALE HURTT.....B.E. 1914.....E. Pittsburgh, Pa.
Assistant Inspector of Machinery, 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

Name — *Degree* — *Address*

JOHN JACOB JACKSON.....B.E. 1918.....Kinston, N. C.
Caswell Cotton Mill

SHOBER KÖRNER 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.....Roxboro, N. C.
County Agricultural Demonstration Agent

GEORGE LINWOOD JEFFERS.....B.E. 1915..... Germany
Lieutenant, 7th Field Artillery, A. of O. Home Address, Richmond, Va.

ERNEST JUDSON JEFFERS.....B.E. 1913.....Goldsboro, N. C.
Superintendent Carolina Power and Light Co.

DOUGLAS CREELMAN JEFFREY.....B.E. 1913.....Buffalo, N. Y.
With Curtiss Aeroplane and Motor Co.
Not heard from this year

JOHN LEBON JENKINS.....B.E. 1916..... Tours, France
Sergeant, 34th Aero Squadron, American Expeditionary Forces. Home Address, Charlotte, N. C.

SIDNEY EARL JENNETTE.....B.E. 1916.....Lake Landing, N. C.

WILLIAM LEON JEWELL.....B.E. 1914.....Wilmington, N. C.

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, Seymour Manufacturing Co.

LEANDER BROWNLOW JOHNSON....B.S. 1916..... Appalachia, Va.

PAUL WORTHY JOHNSON.....B.S. 1917.....Lumber, S. C.
Logging and Lumber

WILLIAM FLADGER R. JOHNSON...B.E. 1909.....Marion, S. C.

WALTER MYATT JOHNSON.....B.E. 1917.....West Raleigh, N. C.
Student, N. C. State College

VICTOR ALLISON JOHNSTON.....B.S. 1916.....Mooresville, N. C.
M.S. 1917. With Coöperative Creamery Co.

WILLIS NEAL JOHNSTON.....B.E. 1914.....Mooresville, N. C.
Hardware and Automobile Business

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.....Washington, D. C.
Junior Civil Engineer, Interstate Commerce Commission
Home Address, New Bern, N. C.

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

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

WILLIAM MANLEY JONES.....B.E. 1914.....American Exp. Forces
Home Address, Raleigh, N. C.

Name *Degree* *Address*

WILLIAM WHITMORE JONES.....B.E. 1907.....Franklin, N. C.
Manager, Franklin Telephone and Electric Co.
Not heard from this year

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

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

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

JOHN GORDON KELLOGG.....B.S. 1912 ..... France
Sergeant, Supply Company, 17th Field Artillery. Home Address, Sunbury, N. C.

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

REX LIVINGSTON KELLY .....B.E. 1916 ..... France
15th Balloon Co., Air Service, American Exp. Forces. Home Address, Sanford, N. C.

CLYDE BENNETT KENDALL.....B.S. 1897 ..... France
Captain, Coast Artillery Corps. Home Address, Washington, D. C.

ALPHEUS ROUNTREE KENNEDY....B.S. 1898..... Bethlehem, Penn.
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 ..... France
First Lieutenant, 317th Field Artillery, American Exp. Forces

WILLIAM PENDLETON KENNEDY...B.E. 1916.....Charlotte, N. C.
Southern Power Co.

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.
N. N. & H. Ry. Co., G. & E. Co.

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

PAUL HANNER KLIME.....B.S. 1916.....West Raleigh, N. C.
Assistant Agronomist, N. C. Agricultural Experiment Station

PAUL KING .....B.E. 1914..... Bordeaux, France
Captain, Headquarters 1st Battalion, 32d Engineers
Home Address, Emporia, Va.

CARL JAMES KIRBY.....B.S. 1917..... Brest, France
First Lieutenant, Aviation, Base Section No. 5, Personnel Adj. Office, Casual Officers Headquarters

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.....West Raleigh, N. C.
North Carolina Agricultural Experiment Station

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

Name — *Degree* — *Address*

LYMAN KISER ..... B.S. 1918 ..... Lebanon, Tenn.
Tester, Wilson County Coöperative Cow-testing Association

JOSEPH LAWRENCE KNIGHT ..... B.S. 1897 ..... Pittville, Fla.
Naval Stores and Farming

LOUIS BRASWELL KNIGHT ..... B.S. 1913 ..... Camp Lee, Va.
Home Address, Tarboro, N. C.

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

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

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 ..... Manila, P. I.
Captain of Infantry, U. S. Army. 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 ..... Fort Benning, Columbus, Ga.
Engineer of Roads and Terminals for Lockwood, Green & Co.

MARK CLINTON LASSITER ..... B.E. 1910 ..... Snow Hill, N. C.

JAMES EDWARD LATHAM ..... B.S. 1909 ..... Parmelee, N. C.
Mercantile Business

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

WILLIAM DANIEL LEE ..... B.S. 1918 ..... Camp Grant, Illinois
Lieutenant, Infantry

WILLIAM EDWARD LEEPER ..... B.E. 1918 ..... Gastonia, N. C.
Construction Department, Southern Railway Co.

JOSEPH RAOUL LEGUENEC ..... B.E. 1915 ..... Cleburne, Texas
Division Engineer's Office, Santa Fe Railway

SAMUEL GEORGE LEHMAN ..... M.S. 1917 ..... West Raleigh, N. C.
Instructor in Botany, N. C. State College

Name *Degree* *Address*

CHARLES RILEY LEONARD.....B.S. 1918.....Reynolda, N. C.
Poultry Farmer

ELBERT FRANCIS LEWIS.....B.E. 1918.....Washington, D. C.
Deck Officer, 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..... Germany
10th Photo Section, 3d Army, American Exp. Forces
Home Address, Gastonia, N. C.

WILLIAM DIXON LEWIS.....B.S. 1914.....Rockingham, N. C.
Manager Diggs Farm

MORRIS LIFEROCK .....B.E. 1913.....New York City
C.E. 1917. U. S. Engineer, Department No. 745, Brook Avenue (Bronx)

JESSE JULIAN LILES.....B.E. 1901 ..... Baltimore, Maryland
Power and Mining Department, General Electric Co.

HENRY ALBERT LILLY.....B.S. 1917.....Badin, N. C.
Chemist, Tallassee Power Co.

HENRY MARVIN LILLY.....B.E. 1905..... Portsmouth, Va.
Resident Engineer, Seaboard Air Line Railway

ERNEST ERWIN LINCOLN.....B.E. 1904.....Newark, N. J.
Draftsman, 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 ..... France
First Lieutenant, Aviation. Home Address, Madison, N. C.

JOHN HENRY LITTLE.....B.E. 1908.....Pinetops, N. C.
First Lieutenant, Ordnance, U.S.A.

WILLIAM BENNETT LITTLE.....B.S. 1914.....Washington, D. C.
Secretary to Congressman L. D. Robinson

MARION LAMAR LIVERMON.....B.E. 1914.....Norfolk, Va.
Draftsman, Bridge Department, Seaboard Air Line Railway

ULPHIAN CARR LOFTIN.....B.S. 1910.....Durango, Mexico
Federal Horticultural Board, Apartado 4444, C. Lerdo

RALPH LONG .....B.S. 1909.....Winston-Salem, N. C.
Manager, Chero-Cola Bottling Co.

LOUIS EDGAR LOUGEE.....B.S. 1907.....Charleston, W. Va.
Chemist, Becker Steel Co.
Not heard from this year

LOUIS OMER LOUGEE.....B.E. 1901..... Toledo, O.
Chief Engineer, the Ohio Collieries Co. and the Cambria Collieries Co.

THOMAS PINKNEY LOVELACE.....B.E. 1912..... Metasville, Ga.
Lumberman

GEORGE LAFAYETTE LYERLY.....B.E. 1908.....Hickory, N. C.

LIPSCOMB GOODWIN LYKES.....B.E. 1905..... Havana, Cuba
Vice President Lykes Brothers, Inc.

THOMPSON MAYO LYKES.....B.E. 1906.....Tampa, Fla.
Secretary and Treasurer The Lykes Co. Secretary Tampa Packing Co.

Name *Degree* *Address*

GEORGE GREEN LYNCH.....B.E. 1905.....Wilmington, N. C.
Chief Draftsman, Atlantic Coast Line Ry. 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.....Charlotte, N. C.
Southern Power Co.

JAMES ROBERT MCARTHUR.....B.S. 1917..... France
American Expeditionary Forces

FRANK WHITESIDE MCCOMB.....B.E. 1913.....Glen Vale, Va.
Farmer and Dairyman

HENRY KREIGER MCCONNELL.....B.S. 1907..... Louisville, Ky.
Assistant Chemist, Kentucky Tobacco Products Co.

EUGENE RICHARD MCCRACKEN....B.E. 1911.....Winston-Salem, N. C.
Cotton Classer, Arista Mills Co.

THOMAS ROBERT MCDEARMAN....B.E. 1914..... Ridgeway, Va.
Resident Engineer on Highway Construction
Not heard from this year

RALPH MCDONALD .....B.E. 1918.....Raleigh, N. C.
Pilot Cotton Mills

JAMES EDGAR MCDOUGALL.....B.E. 1917.....American Exp. Forces
Captain, Co. B, 322d Infantry, A.PO. 791. Home Address
Amesbury, Mass.

FRANK NEELY MCDOWELL.....B.S. 1910.....Goldsboro, N. C.
Tractor Salesman, International Harvester Co.

ROBERT WISSNER MCGEACHEY....B.E. 1917.....American Exp. Forces
Second Lieutenant, 105th Engineers. Home Address, Raleigh, N. C.

JAMES EDWARD MCGEE.....B.E. 1912.....Rosemary, N. C.
Rosemary Manufacturing Co.

MALCOLM ROLAND MCGIRT.....B.Agr. 1905.....Sanford, N. C.
Farmer

WALTER HOGE 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.
Not heard from this year

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

JAMES WILLIAM MCKOY.....B.E. 1893.....Black Mountain, N. C.
Civil Engineer and Merchant
Not heard from this year

Name *Degree* *Address*

HORACE SMITH MCLENDON.....B.Agr. 1906.....Saint 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 Capitola Manufacturing Co. of Marshall, N. C., and President Prendergast Cotton Mills of Prendergast, Tenn.

JAMES WALTER MCLEOD.....B.S. 1916.....Rowland, N. C.
Farming

JACOB WYATT MCNAIRY.....B.E. 1917.....Schenectady, N. Y.
Student Engineer, General Electric Company

OSCAR FRANKLIN MCNAIRY.....B.E. 1907..... Baltimore
Office of Auditor, Seaboard Air Line Railway. Home Address Greensboro, N. C.

JAMES EDGAR MCNEELY.....B.E. 1904.....Mooresville, N. C.
Railway Mail Clerk. Not heard from this year

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.....Raleigh, N. C.
With Veterinary Department, State Department of Agriculture

CHARLES HARDEN MCQUEEN.....B.E. 1901..... Atlanta, Ga.
Inspector Bitulithic Pavements, Warren Brothers Co.

NEILL MCQUEEN .....B.E. 1912 ..... France
Military Service. Home Address, Fayetteville, N. C.

SAMUEL MACON MALLISON.....B.E. 1909.....Washington, N. C.
Hardware Dealer

CARROLL LAMB MANN.....B.S. 1899.....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.....Del Rio, Tex.
Major of 7th Infantry, U.S.A.

WILLIAM LEAKE MANNING.....B.E. 1910.....Rosemary, N. C.
Rosemary Manufacturing Company

CLARENCE TALMAGE MARSH.....B.E. 1908.....Fort Monroe, Va.
Lieutenant Colonel, Coast Artillery Corps, U.S.A.

WILLIAM ROYDAN MARSHALL.....B.E. 1909.....New York, N. Y.
Salesman, Westinghouse Electric and Manufacturing Co.

MARK STRUVE MARTENET.....B.S. 1917.....Baltimore, Md.
Manufacturer of Fertilizers

JACOB LEE MARTIN.....B.E. 1911.....Nebo, N. C.
With Western Carolina Power Co.

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.
Baker-Thompson Lumber Co.

Name — *Degree* — *Address*

JOSEPH HENRY MASON.....B.E. 1916.....Charlotte, N. C.
E. L. Mason & Co., Cotton

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 Agr. Experiment Station

WALTER JEROME MATTHEWS.....B.E. 1893.....Goldsboro, N. C.
With State Highway Commission

WILLIAM EMERY MATTHEWS.....B.E. 1917.....Wagram, N. C.

ROBERT SYLVANUS MAUNEY.....B.E. 1913..... Atlanta, Ga.
Salesman, General Electric Co.
Not heard from this year

RAYMOND MAXWELL .....B.E. 1906.....Seven Springs, N. C.
Owner and Proprietor Seven Springs Hotel and Wholesale Grocery at New Bern, N. C.

MELVIN SOLOMON MAYES.....B.E. 1910.....Raleigh, N. C.
Delco Light Company

MORELL BATTLE MAYNARD.....B.E. 1917.....American Exp. Forces
Sergeant, 304th Railroad Supply Detachment, Q. M. Depot, No. 2, B. S. No. 1, A.PO. 767. Home Address, Kerr, N. C.

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.
Danville Motor Car Company

TODD BOWMAN MEISENHEIMER....B.E. 1917..... Wilmington, Del.
Dye Department, Dupont Powder Co.

ROBERT TOLAR MELVIN.....B.S. 1913.....Burgaw, N. C.
County Farm Demonstration Agent

SHERROD ERVIN MENZIES.....B.E. 1916..... Alexandria, Va.
With Virginia Shipbuilding Corporation

HENRY BASCOM MERCER.....B.E. 1912 ..... France
Master Engineer, Topographical Unit, Headquarters Detachment, 305th Engineers. Home Address, Wilmington, N. C.

LEWIS LARKINS MERRITT.....B.E. 1913.....Wilmington, N. C.
Assistant Supervising Plant Engineer, U. S. Emergency Fleet Corporation, Wilmington, N. C.

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, Kentucky Tobacco Products Co.

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. Electrician, Michael & Bivens

JOSEPH EDGAR MICHAEL.....B.S. 1914.....Concord, N. C., R. 1
Merchant and Farmer

Name *Degree* *Address*

DAVID JOHN MIDDLETON.....B.Agr. 1908.....Warsaw, N. C.
Farming

GORDON KENNEDY MIDDLETON.....B.S. 1917..... Washington, D. C.
Army Medical School
Home Address, Warsaw, N. C.

JOHN DANIEL MILLER.....B.E. 1916.....Indian Head, Md.
Bureau of Yards and Docks, U. S. Navy

JOSEPH ALFRED MILLER.....B.E. 1904.....Brevard, N. C.
Manager Miller Supply Co.

WALKER MOREHEAD MILNER.....B.E. 1909.....City Point, Va.
Area Supervisor, Dupont Powder Co.
Not heard from this year

JOHN MAPLE MILLS.....B.E. 1907.....Raleigh, N. C.

EWING STEPHENSON MILLSAPS...B.S. 1917.....Dobson, N. C.
County Farm Demonstration Agent

THOMAS LEE MILLWEE.....B.E. 1916.....Charlotte, N. C.
Southern Bell Telephone and Telegraph Co.

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.....Agricultural College, Miss.
Assistant Chemist, Mississippi State Laboratory

LEON DAVIS MOODY.....B.E. 1910.....Charleston, S. C.
Chief Engineer, Interstate Chemical Corporation
Not heard from this year

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

EUGENE BOISE MOORE.....B.E. 1910..... Cleveland, Ohio
Manager Cleveland Sales Office, Allis Chalmers Manufacturing Co.

EUGENE JAMES MOORE.....B.S. 1918.....Norfolk, Va.
331 W. 12th Street

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 and County Surveyor
Not heard from this year

WILLIAM FLAUD MORRIS.....B.E. 1909.....Clayton, N. C.
Assistant Manager, Fertilizer and Engineering Department for Ashley
Horne & Son; also Secretary and Treasurer
Horne & Morris Motor Co.

JOSEPH GRAHAM MORRISON.....B.Agr. 1906.....Stanley, N. C.
Farmer

Name *Degree* *Address*

ROBERT HALL MORRISON.....B.E. 1900..... Paris, France
Captain, Motor Transport Corps, Overhaul Park, No. 702, A.P.O.
Home Address, Lincolnton, N. C.

ROBERT LEE MORRISON.....B.E. 1911.....Charlotte, N. C.
Resident Engineer for Anderson & Christie, Inc.

JOHN LIGHTFOOT MORSON.....B.E. 1907..... Norfolk, Va.
Assistant Engineer, Valuation Department, Seaboard Air Line Railway

WILLIAM FIELD MORSON.....B.E. 1904.....Raleigh, N. C.
Engineer, N. C. State Highway Commission

LAURIE MOSELEY .....B.E. 1902..... Atlanta, Ga.
Thompson & Moseley, Inc., Contractors

VASSAR YOUNG MOSS.....B.E. 1902.....Newark, N. J.
Special Work, Submarine Boat Corporation, Newark Bay Shipyard

HARRY YEOMANS MOTT.....B.S. 1910.....Mooresville, N. C.
Farmer

JAMES RICHARD MULLEN.....B.S. 1912.....Raleigh, N. C.
Chemist, N. C. State Department of Agriculture

LINDSLEY ALEXANDER MURR .....B.E. 1905 ..... Portsmouth, Va.
Assistant Engineer, Seaboard Air Line Railway

EDWARD MOSBY MURRAY.....B.E. 1917 ..... France
Captain, American Expeditionary Forces. Home Address
Charlotte, N. C.

ZACHARIAH ENNIS MURRELL, JR...B.S. 1917.....Otisville, N. Y.
U. S. General Hospital, No. 8, Chemical Laboratory
Home Address, Wilmington, N. C.

GARLAND PERRY MYATT.....B.S. 1905.....Brooklyn, N. Y.
Chemist, No. 11 Bartlett Street

O'KELLY W. MYERS.....B.S. 1899.....Brooklyn, N. Y.
Major, Construction Division of Q. M. C., No. 825 E. 3d Street

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.....Charleston, W. Va.
Virginia Power 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.....Charlotte, N. C.
Real Estate and Bonds

CHARLES MCKEE NEWCOMB.....B.E. 1912.....Brighton, Trinidad, B. W. I.
New Trindad Lake Asphalt Co.

ROBERT TIMBERLAKE NEWCOMB..B.S. 1915 ..... France
First Lieutenant, 322d Infantry, A.P.O. 791. Home Address, Raleigh, N. C.

CHARLES ARTHUR NICHOLS.....B.E. 1902.....Muskogee, Okla.
Secretary and Treasurer, Cane Creek Petroleum Co.

EDGAR BYRON NICHOLS.....B.E. 1914, M.E. 1918.....Rochester, N. Y.
Chief Engineer, The Pfaudler Co.

CHARLES FRANKLIN NIVEN.....B.Agr. 1906.....Ravenel, S. C.
Farmer
Not heard from this year

Name *Degree* *Address*

LOLA ALEXANDER NIVEN.....B.Agr. 1906 .....Birmingham, Ala.
Advertising Manager *Progressive Farmer*

WILLIAM TIMOTHY NIXON.....B.S. 1913 ..... France
Company C, 53d Infantry, American Exp. Forces

DAVID BENJAMIN NOOE.....B.S. 1916 ..... France
Sergeant, Service Company, 9th Eng. Forestry. American Exp. Forces
Home Address, Pittsboro, N. C.

JOHN ANDREW NORTHCOTT, JR...B.E. 1918..... Wilkinsburg, Pa.
Student Engineer, Westinghouse Electric and Mfg. Co.

LEWIS MILTON ODEN.....B.Agr. 1906 .....Hopewell, Va.
Office of E. I. Dupont Powder Co.

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*
Home Address, Mount Olive, N. C.

HENRY BLOUNT OSBORNE.....B.S. 1918 .....Philadelphia, Pa.
Veterinary Student, University of Pennsylvania

KARL OSBORNE .....B.E. 1915 ..... France
American Expeditionary Forces. Home Address, Cleveland Mills, N. C.

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, State College

CHARLES WASHINGTON OWENS...B.E. 1912.....Wilmington, N. C.
Field Engineer, Liberty Shipbuilding Co.

REID ALLISON PAGE.....B.S. 1916..... Tours, France
Second Lieutenant, 304th Labor Battalion, Quartermaster Corps.
Home Address, Aberdeen, N. C.

JOHN ALSEY PARK.....B.E. 1905.....Raleigh, N. C.
Publisher The *Raleigh Times*

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.

JAMES LAFAYETTE PARKER.....B.E. 1902.....Fayetteville, N. C.

JOHN HARVEY PARKER.....B.E. 1903..... Philadelphia, Pa.
Ensign, Officers Material School, University of Pennsylvania

JULIUS MONROE PARKER.....B.E. 1909.....South Corbin, Ky.
Resident Engineer, L. & N. Railway

THOMAS FRANKLIN PARKER.....B.Agr. 1907.....Raleigh, N. C.
M.S. 1908. State Field Agent, Bureau of Crop Estimates, U. S.
Department of Agriculture

WALTER HERBERT PARKER.....B.E. 1913 ..... France
Captain, Air Craft Armaments Section, U. S. Army
Home Address, Rocky Mount, N. C.

Name — *Degree* — *Address*

FRED MAYNARD PARKS.....B.E. 1907.....E. Pittsburg, Pa.
Industrial Control Engineer, Westinghouse Electric and Manufacturing Co.

THADDEUS ROWLAND PARRISH....B.E. 1913.....Washington, D. C.
Captain, Signal Corps, U.S.A., Office Chief Signal Officer. Home Address, Middleburg, N. C.

WALTER LEAK PARSONS, JR.....B.E. 1918 ..... France
Co. C, 324th Infantry, American Exp. Forces, A.P.O. 791. Home Address, Rockingham, N. C.

ARTHUR LEE PASCHALL.....B.Agr. 1907..... Riverside, California
Bible Student

JOHN GILBERT PASCHALL.....B.E. 1909.....Mars Bluff, S. C.
Lumber Manufacturer

WILLIAM FRANKLIN PATE.....B.S. 1901.....Raleigh, N. C.
M.S. 1913. Soil Fertility, Division of Agronomy, N. C. Department of Agriculture

MANN CABE PATTERSON.....B.E. 1895..... Paris, France
American Y.M.C.A., 12 Rue d'Agnessean. 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..... Bradentown, 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 ..... France
American Expeditionary Forces. Home Address, Wilkesboro, N. C.

THOMAS CLAYTON PEGRAM.....B.E. 1916.....McColl, S. C.
Marlboro Cotton Mills

JAMES HICKS PEARCE.....B.S. 1905.....Warsaw, N. C.
Owner J. H. Pearce Manufacturing Co., Sash, Doors, and Blinds

WILLIAM CASPER PENNINGTON....B.E. 1910.....Thomasville, N. C.
Secretary and Treasurer, Southern Finishing Mills and 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.....Fort Leavenworth, Kans.
Co. E, 7th Engineers. Home Address, Durant's Neck, N. C.
Not heard from this year

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 Byproduct Coke Plant, of Ensley, Ala.

Name *Degree* *Address*

ASA GRAY PHELPS.....B.E. 1915.....Newport News, Va.
Technicist, Newport News Shipbuilding and Dry Dock Co.

FREDERICK COLWELL PHELPS.....B.E. 1904 ..... France
Major, Third Motor Mechanics' Battalion, A.PO. 713-a

HENRY MARRIOTT PHILIPS.....B.S. 1914.....Battleboro, N. C.
Farmer

ARTHUR JEFFERSON PHILLIPS, JR....B.E. 1914.....E. Pittsburgh, Pa.
Marine Department, Westinghouse Electric and Mfg. Co.

WILLIAM RANSOME PHILLIPS.....B.E. 1910.....Charlotte, N. C.
E.E. 1913. Local Manager, Western Electric Co.

PETER PENICK PIERCE.....B.E. 1909.....St. Augustine, Fla.
Assistant Engineer, M. of W. Department, Florida East Coast Railway

GUY PINNER .....B.E. 1907 .....Norfolk, Va.
James Stewart Construction Co.

JOHN GAY PINNER.....B.S. 1915.....American Exp. Forces
Regiment Supply Sergeant, 316th Regiment, F. A. Home Address, Columbia, N. C., R. 1

WINSLOW GERALD PITMAN.....B.E. 1907.....Lumberton, N. C.
Farmer
Not heard from this year

PAUL NATHANIEL PITTENGER.....B.E. 1911.....Fort Caswell, N. C.
Captain, Coast Artillery. Home Address, Raleigh, N. C.

BENJAMIN FRANKLIN PITTMAN....B.E. 1908 .....Philadelphia, Pa.
Philadelphia Electric Co.

LAWRENCE LYON PITTMAN.....B.E. 1908.....Whitakers, N. C.
Civil Engineer and Farmer

PAUL MILLER PITTS.....B.E. 1909 .....Birmingham, Ala.
Mechanic, W. T. Sanborn & Co.

ANGELO BETTLENA PIVER.....B.E. 1906.....Newark, N. J.
Submarine Boat Corporation, Newark Bay Shipyard

WILLIAM CRAWFORD PIVER.....B.S. 1906.....New York, N. Y.
Riches, Piver & Company, Chemical and Color Manufacturers

JAMES KEMP PLUMMER.....B.S. 1907.....Raleigh, N. C.
M.S. 1909. Ph.D. 1915, Cornell University. Chemist, Tennessee Copper and Chemical Corp. of New York

ROBERT AVERY PLYLER.....B.E. 1914.....Durmid, Va.
With United Cigarette Machine Co. Home Address, Monroe, N. C., R. 5
Not heard from this year

PLEASANT H. POINDEXTER, JR.....B.Agr. 1905 .....Sharon, Okla.
Manager C. E. Sharp Lumber Co.

FREDERICK DAVIS POISSON.....B.S. 1914.....Durham, N. C.
With Liggett & Myers Tobacco Co.

JULIAN HARVEY POOLE.....B.S. 1916.....Jackson Springs, N. C.
Orchardist

RUBLE ISAAC POOLE.....B.E. 1908 ..... Germany
First Lieutenant, 3d Division, U. S. Regulars. Home Address, Randleman, N. C., R. 3

EDWARD GRIFFITH PORTER.....B.E. 1905..... Norfolk, Va.
Junior Engineer, Engineer Office, U. S. Custom House

JUNIUS EDWARD PORTER.....B.E. 1900.....Aurora, N. C.
President and Treasurer, J. E. Porter Co.

Name *Degree* *Address*

TRACEY WINCHESTER PORTER.....B.S. 1914..... Farrell, Miss.
Superintendent Corley Farm.
Not heard from this year

BRYANT MONROE POTTER.....B.E. 1912.....New Bern, N. C.
Civil Engineer

WILLIAM OWEN PORTER.....B.E. 1914 (Mech.), 1915 (Civil)....France
Gas Defense Service, Army. Home Address, Cash Corner, N. C.

HARRY ALEXANDER POWELL.....B.E. 1908..... Jacksonville, Fla.
Naval Stores Operator

JAMES ALEXANDER POWELL.....B.E. 1908..... Pittsburgh, Pa.
Assistant Manager and Chief Engineer Condenser Department, Elliott Co.

JOEL POWERS .....B.E. 1903..... Goldsboro, N. C.
Draftsman, Dewey Bros., Inc.

THOMAS MILTON POYNER.....B.E. 1908.....Goldsboro, N. C.
North Carolina Highway Commission

JAMES BRUCE PRICE.....B.E. 1910 .....Lebanon, Pa.
Electrical Superintendent, Bethlehem Steel Co.

JOHN MUIR PRICE.....B.E. 1909 .....Detroit, Mich.
Captain, Ordnance Department, U.S.A.

JOHN BAILEY PRIDGEN.....B.E. 1916.....Elm City, N. C.

ABRAM HINMAN PRINCE.....B.S. 1895.....Beaumont, Tex., R. 1
Superintendent Substation No. 4, State Experiment Station

CHARLES MARCELLUS PRITCHETT..M.E. 1895.....Washington, D. C.
C.E. 1896. Superintendent of Construction, Supervising Architect's Office, U. S. Treasury Department

VICTOR VASHTI PRIVOTT.....B.E. 1895..... Suffolk, Va.
Mechanic and Electrician

FRANK WILSON PROCTER.....B.E. 1915..... Baltimore, Md.
With Black & Decker Manufacturing Co.

CARL CLAWSON PROFFITT.....B.S. 1915.....Rutherfordton, N. C.
County Farm Demonstration Agent

CHARLES LANDON PROFFITT.....B.S. 1915.....Bald Creek, N. C.

THOMAS HECTOR PURCELL.....B.E. 1913 ..... France
Sergeant, 306th Field Signal Corps

JACK ADDISON PUREFOY.....B.S. 1916.....Asheville, N. C.

HENRY AUBREY QUICKEL.....B.S. 1913..... London, Eng.
In the U. S. Naval Reserves. Home Address, Lincolnton, N. C.

JOSEPHUS PLUMMER QUINERLY...B.S. 1911 .....Auburn, Ala.
Dairy Husbandman, U. S. Department of Agriculture

MILLARD REED QUINERLY.....B.S. 1914 ..... France
Sergeant, Sanitary Train 305, American Exp. Forces
Home Address, Grifton, N. C.

WALTER ROSCOE RADFORD.....B.S. 1916.....Spruce Pine, N. C.
With N. C. and U. S. Department of Agriculture

PARKER ROYALL RAND.....B.S. 1916.....Smithfield, N. C.
Fordson Tractor Representative, Sanders Motor Co.

HENRY RANKIN .....B.E. 1916.....Gastonia, N. C.
Vice President and Treasurer, Rankin Mills, Inc.

Name *Degree* *Address*

JOHN OLAN RANKIN, JR.....B.S. 1913 ..... France
Captain, Co. A, 115th Machine Gun Battalion. Home Address, Gastonia, N. C.

WILLIAM WALTER RANKIN.....B.E. 1904.....Chapel Hill, N. C.
Assistant Professor of Mathematics, University of North Carolina

JOHN DUNCAN RAY.....B.S. 1915.....Kansas City, Mo.
Kinsley Laboratories

LEWIS BANKS RAY.....B.E. 1916..... Norfolk, Va.
U.S.S. *Chilhowee,* care Commandant 5th Naval Division

DAVID MILLER REA.....B.E. 1917.....Fort Caswell, N. C.
Lieutenant, Seventh Company, Coast Artillery. Home Address, Matthews, N. C.

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..... Nashville, Tenn.
Equipment Engineer, Cumberland Telephone and Telegraph Co.

ROBERT RICHARD REINHARDT.....B.S. 1909 ..... France
American Expeditionary Forces. Home Address, Lincolnton, N. C.

WILLIAM BENEDICT REINHARDT...B.E. 1902.....Dawson, Y. T., Canada
Electrician, Dawson Electric Light and Power Co.

VICTOR ALLISON RICE.....B.S. 1917 .....Amherst, Mass.
Pig Club Work, U. S. Department of Agriculture

ROGER FRANCIS RICHARDSON.....B.E. 1900 .....Birmingham, Ala.
Construction Engineer, Semet-Solvay Co.

WILLIAM RICHARDSON, JR.....B.E. 1904..... Birmingham, Ala.
Construction Engineer, Coal Mining Department, Tennessee Coal, Iron and Railroad Co.

EDWARD HAYES RICKS.....B.E. 1903.....Roanoke Rapids, N. C.
Real Estate

WALLACE WHITFIELD RIDDICK....B.E. 1916.....Greenville, S. C.
Mill Engineer, with J. E. Divine

LOUIS NAPOLEON RIGGAN.....B.E. 1912..... Norfolk, Va.
Chief Clerk to Chief Engineer, Seaboard Air Line Railway

ALFRED PRATTE RIGGS.....B.E. 1909.....Key West, Fla.
South Florida Contracting and Engineering Company

RAY MILLER RITCHIE.....B.S. 1916.....American Exp. Forces
First Lieutenant, 3d Pioneer Infantry. Home Address, Concord, N. C.

THURMAN LESTER ROBERSON.....B.E. 1914.....Newport News, Va.
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.....American Exp. Forces
Sergeant, Headquarters Company, 54th Infantry, Regulars
Home Address, Louisville, Ga.

PHILIP AUSTIN ROBERTS.....B.E. 1916.....American Exp. Forces
Lieutenant, Engineers, A.P.O. 702. Home Address, Red Springs, N. C.

ARCHIE KNIGHT ROBERTSON.....B.S. 1912.....Goldsboro, N. C.
County Farm Demonstration Agent

Name *Degree* *Address*

DURANT WAITE ROBERTSON.....B.E. 1906.....Washington, D. C.
Captain, Quartermaster Corps, U.S.R., care Adjutant General
Not heard from this year

HOWARD BASCOMB ROBERTSON...B.E. 1917.....Asheville, N. C.

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.

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.
Draftsman, with Tallassee Power Co.

GASTON WILDER ROGERS.....B.E. (Elec.) 1903.....France
B.E. (Civil) 1905. Captain, Medical Corps. Home Address
Raleigh, N. C.

JAMES HENRY ROGERS.....B.S. 1917.....Roxboro, N. C.
Owner and Manager Ioka Stock Farm

WILLIAM HAYWOOD ROGERS, JR...B.E. 1916.....American Exp. Forces
First Lieutenant 306th Engineers. Home Address, Raleigh, N. C.

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

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 of Jackson Springs Co.

GRAEME ROSS .....B.E. 1911 .....Joplin, Mo.
Manager Joplin Office, Westinghouse Electric and Manufacturing Co.

JOE WILLIAM ROSS.....B.S. 1914.....Fort Caswell, N. C.
Coast Artillery Corps. Home Address, Fort Mill, S. C.
Not heard from this year

LANDON COATS ROSSER.....B.E. 1915.....Jonesboro, N. C.

EMERY PELL ROUSE.....B.E. 1914 ..... France
20th Engineers. Home Address, LaGrange, N. C.

LINDLEY MURRAY ROWE.....B.E. 1916..... Huntingbury, Ind.
Supervisor, Southern Railway Company

GARLAND THOMAS ROWLAND.....B.E. 1913.....American Exp. Forces
21st M. G. Battalion

HORACE RALPH ROYSTER.....B.E. 1918..... Germany
Evacuation Hospital 26, American Exp. Forces
Home Address, Shelby, N. C.

JAMES MALCOLMSON RUMPLE.....B.E. 1917.....Charlotte, N. C.
Chemical Construction Co.

HENRY FRED RUSH.....B.S. 1916.....Newport News, Va.
Manager of Sanitary Milk Products Co.

Name *Degree* *Address*

AUGUSTINE JOSEPH RUSSO.....B.E. 1916..... Portsmouth, Va.
Draftsman, Newport News Shipbuilding Co.

CARL COLLINS SADLER.....B.E. 1910.....Camp Jackson, S. C.
Construction Division, Q. M. C. Utility Branch, U.S.A.

JAMES OLIN SADLER.....B.E. 1909..... Portsmouth, Va.
S. A. L. Valuation Department

DAVID MORTON SAINTSING.....B.E. 1917.....American Exp. Forces
Corporal, 660th AA., A.P. No. 1, A.PO. 702
Home Address, Wise, N. C.

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

DANIEL RUSSELL SAWYER.....B.S. 1918.....New York, N. Y.
420 Waverly Place

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.....Luxemburg, Germany
Company C, 108th Engineers

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.
Visayan Refining Company

CLEMENT OSCAR SEIFERT.....B.E. 1916.....American Exp. Forces
Sergeant, Headquarters Co., 54th Infantry, A.PO. 777

DAVID WALTER SEIFERT.....B.E. 1913.....American Exp. Forces
Sergeant, Headquarters Co., 6th Trench Artillery
Home Address, New Bern, N. C.

JOHN WILLIAM SEXTON.....B.E. 1910.....Atlanta, Ga.
Division Engineer, Seaboard Air Line Railway

NATHAN STOWE SHARP.....B.E. 1916.....Cleveland, Ohio
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 ..... France
M.S. 1915. First Lieutenant, Gas Defense Service Corps of Engineers,
National Army. Home Address, Raleigh, N. C.

FRANCIS WEBBER SHERWOOD.....B.S. 1909..... Swarthmore, Pa.
M.S. 1911. Eastern Laboratory, E. I. Dupont de Nemours & Co.

ROBERT ARNOLD SHOPE.....B.E. 1909.....Atlanta, Ga.
Greenbrier Department, No. 7

JOHN WADE SHORE.....B.S. 1900.....Boonville, N. C.
Cashier Commercial and Savings Bank

IRA SHORT .....B.E. 1911.....East Pittsburgh, Pa.
Marine Engineering Department, Westinghouse Electric & Mfg. Co.

Name — *Degree* — *Address*

JOHN HOUSTON SHUFORD.....B.S. 1903..... Charlotte, N. C.
Manager Southern Office, Berlin Aniline Works

JOHN OSCAR SHUFORD.....B.E. 1907.....Lincolnton, N. C.
Superintendent Electric Plant

WILLIAM TALMAGE SHULL.....B.E. 1912.....Morehead City, N. C.
Plant Engineer, N. C. Shipbuilding Co.

THOMAS PARK SIMMONS.....B.E. 1917 .....Brownsville, Tex.
Lieutenant, 16th U. S. Cavalry. Home Address, Asheville, N. C.

JOHN ASA SIMMS.....M.S. 1917.....Baton Rouge, La.
Livestock Agent (Beef Cattle Specialist), University Station

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, S. A. L. Ry. Co.

FREDERICK ERASTUS SLOAN.....B.S. 1899..... Dallas, Texas
General Agent, Felt and Tarrant Manufacturing Co.

KARL SLOAN .....B.E. 1916 .....Badin, N. C.
Engineer, in Charge of Construction Office at Yadkin Falls Development

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.....American Exp. Forces
Corporal, Co. L, 26th Infantry. Home Address, Hope Mills, N. C.

ANDREW THOMAS SMITH.....B.S. 1899..... Richmond, Va.
Engineer Richmond Plant, 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

EDWIN HARRISON SMITH.....B.E. 1910.....Weldon, N. C.
With Bank of Weldon

EDWARD OSCAR SMITH.....B.E. 1901.....Richmond, Va.
Executive Assistant N. N. S. & D. D. Co., Agents Richmond Boiler Plant

FRANCIS CLARK SMITH.....B.E. 1913.....American Exp. Forces
Sergeant, Co. A, 534th Engineers, A.P.O., 758

FRANK STERD 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.....Montgomery, Ala.
First Lieutenant, Air Service, Aviation Repair Depot. Home Address, Kipling, N. C.

WALTER HERBERT SMITH.....B.E. 1914.....Washington, D. C.
Lieutenant, U.S.N.R.F., Bureau of Steam Engineering

Name *Degree* *Address*

WALTER JOHNSTON SMITH, JR....B.S. 1915.....Scotland Neck, N. C., R. 3
Farming

WHITEFORD INGERSOLL SMITH....B.E. 1915.....American Exp. Forces
Second Lieutenant, School Detachment, A.PO. 923. Home Address Asheville, N. C.

WILLIAM TURNER SMITH.....B.E. 1900.....Duke, N. C., R. 1
Civil Engineer, Farmer

THOMAS JEHU SMITHWICK.....B.S. 1897.....Mount Airy, N. C.
Consulting and Erecting Engineer

PAUL ELWOOD SNEAD.....B.E. 1916.....Reidsville, N. C.
Signal Department, Southern Railway

RUSSELL ELSTNER SNOWDEN.....B.E. 1902.....Raleigh, N. C.
Division Highway Engineer, North Carolina State Highway Commission

JOSEPH MCKAY SPEARS.....B.E. 1915.....care P. M., New York City
Ensign, U. S. Cruiser *Columbia*. Home Address, Lillington, N. C.

JOHN HENRY SPEAS.....B.S. 1916.....Danbury, N. C.
County Farm Demonstration Agent

EDWARD PINKNEY SPEER.....B.E. 1912..... Waco, Tex.
Superintendent of Shops, Texas Light and Power Co.

COLIN GEORGE SPENCER.....B.S. 1913.....Carthage, N. C.
Lumber and Timber

HERBERT SPENCER .....B.S. 1915.....Washington, D. C.
M.S. 1917. Army Medical School

JOHN DAVIDSON SPINKS.....B.E. 1905.....Winston-Salem, N. C.
C.E. 1913. Spinks & Edwards, Civil Engineers

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.....Charleston, S. C.
Ensign, U.S.N.R.F. Home Address, Georgetown, S. C.

ERVIN BLACKENEY STACK.....B.E. 1905.....Monroe, N. C.
Electrical Engineer

TALMAGE HOLT STAFFORD.....B.S. 1912.....West Raleigh, N. C.
Instructor in Soils, 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.
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 Company

JEFFREY FRANKLIN STANBACK, JR...B.S. 1916.....Le Mans, France
Second Lieutenant, Sanitary Corps, U.S.A. Central Laboratory, American Embarkation Center, A.PO. 762. Home Address, Raleigh, N. C.

CHARLES WHITSON STANFORD, JR.B.S. 1917.....Teer, N. C.
Farmer

ERNEST ELWOOD STANFORD.....M.S. 1917.....Washington, D. C.
Scientific Assistant, Bureau of Chemistry, U. S. Department of Agriculture

NUMA REID STASEL.....B.S. 1898.....El Paso, Tex.
E.E. 1901. Local Manager Southwest General Electric Co.

Name	*Degree*	*Address*
THOMAS BARNES STANSEL	B.S. 1910	Mascot, Tenn.
With American Zinc Company Not heard from this year		
CLARENCE ALEXANDER STEDMAN	B.S. 1912	Chrome, N. J.
Chemist, Armour Fertilizer Works		
ALEXIS PRESTON STEELE	B.S. 1899	Statesville, N. C.
Mechanical Engineer, firm of J. C. Steele & Sons		
JOHN BROWN STEELE	B.E. 1913	Yadkin Valley, N. C.
Farmer		
LUCIUS ESEK STEERE, JR.	B.E. 1911	Port au Prince, Haiti
Pilot, Second Lieutenant, U.S.M.C.R., 1st Division, Squadron E, Marine Aviation Force. Home Address, Charlotte, N. C.		
SAMUEL FATIO STEPHENS	B.E. 1909	Norfolk, Va.
Commission Merchant		
NEEDHAM BRYAN STEVENS	B.S. 1912	Wilson, N. C.
District Farm Demonstration Agent		
REUBEN BENNETT STOTESBURY	B.S. 1917	Swan Quarter, N. C.
MICHAEL ALFRED STOUGH	B.E. 1917	N. Charlotte, N. C.
Assistant Superintendent, Johnston Manufacturing Co. Not heard from this year		
WILLIAM BEEVER STOVER	B.E. 1913	Wilkinsburg, Pa.
Sales Department, Westinghouse Electric and Manufacturing Co.		
CHARLIE BERRYHILL STOWE	B.S. 1913	Vancover, Wash.
No recent address		
GEORGE YATES STRADLEY	B.E. 1903	Roanoke, Va.
Valuation Department, Norfolk & Western Railway		
JOHN SNIPES STROUD	B.E. 1908	Cooleemee, N. C.
Assistant Manager and Superintendent The Erwin Cotton Mills Co.		
WALTER STEPHEN STURGILL	B.E. 1901	Washington, D. C.
Colonel, Care Office of Adjutant General, War Department		
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.
THOMAS BRYAN SUMMERLIN	B.E. 1910	Mount Olive, N. C.
With M. O. Summerlin, Automobiles, Machinery, and Implements		
HENRY NEWBOLD SUMNER	B.E. 1909	Washington, D. C.
Lieutenant Colonel, General Staff, U. S. Army		
WILBUR BURNETTE SUMNER	B.E. 1916	France
First Lieutenant, Field Artillery, American Expeditionary Forces		
LLOYD HURST SWINDELL	B.E. 1911	Raleigh, N. C.
Farmer		
LOUIS JOSEPH SWINK	B.E. 1917	Berkley, Va., R. 4
STANTON BANKS SYKES	B.E. 1913	Schenectady, N. Y.
Engineer, General Electric Co.		
VANCE SYKES	B.E. 1907	Savannah, Ga.
Division Engineer, Seaboard Air Line Railway		
GEORGE FREDERICK SYME	B.S. 1898	Raleigh, N. C.
C.E. 1907, Bridge Engineer, State Highway Commission		

Name — *Degree* — *Address*

FREDDIE JACKSON TALTON.....B.Agr. 1906.....Pikeville, N. C., R. 2
Farmer

GURDON LUCIUS TARBOX.....B.E. 1917.....Elizabeth, N. J.
Aeronautical Engineer, Standard Aero Corporation

CLAUDE STRATON TATE.....B.E. 1909.....Littleton, N. C.
Garage and Machine Shop

DANIEL MCGILVARY TATE.....B.S. 1915.....Norlina, N. C.

REUBEN L. TATUM.....B.E. 1916 ..... France
Engineers, American Expeditionary Forces
Home Address, Cooleemee, N. C.

ALFRED TENNYSON TAYLOR.....B.S. 1916.....American Exp. Forces
First Sergeant, Co. A, 322d Infantry, A.P.O. 791
Home Address, McCullers, N. C.

ARTHUR WILLIS TAYLOR.....B.E. 1912.....Camp Meade, Md.
Sergeant, Co. K, 313th Infantry
No recent address

CULVER MURAT TAYLOR.....B.E. 1912.....Syracuse, N. Y.
Meter Engineer, Niagara, Lockport & Ontario Power Co.

HERBERT LEE TAYLOR.....B.E. 1912..... Baltimore, Md.
With Baltimore & Ohio Railroad

WALTER CLYBURN TAYLOR.....B.E. 1913 ..... France
T.E. 1916. American Expeditionary Forces
First Lieutenant, 11th Engineers, General Headquarters, A.P.O. 706
Home Address, Rhodhiss, N. C.

ARTHUR LEE TEACHEY.....B.S. 1915.....Pleasant Garden, N. C.
Agriculturist, Pleasant Garden Farm-life School

BEN TEMPLE .....B.S. 1917 .....Danville, Va.

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.
Estimating Draftsman, Newport News Shipbuilding and Dry Dock Co.

GEORGE LOGAN THOMPSON.....B.E. 1912.....Hamlet, N. C.
Superintendent, Yadkin River Power Co.

JOHN SAM THOMPSON.....B.S. 1912.....Woodville, N. C.
Farmer

THOMAS HAMPTON THOMPSON....B.E. 1910.....Greensboro, N. C.
With Southern Railway

THOMAS WHITMELL THORNE.....B.E. 1911 ..... Germany
Captain, 10th M. G. Bn., American Exp. Forces. Home Address,
Littleton, N. C.

DANIEL WOOD THORP, JR.....B.S. 1914.....Charleston, S. C.
Jefferson Construction Co.

LOUIS DALE THRASH.....B.E. 1914.....Asheville, N. C.

LUTHER RUSSELL TILLETT.....B.E. 1907.....Zamboango, 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.
General Manager and Treasurer, Tomlinson Engineering Co.

JAMES EDWIN TOOMER.....B.S. 1909.....St. Louis, Mo.
Research Chemist, American Zinc, Lead, and Smelting Co.

JAMES RICHARD TOWNSEND.....B.E. 1914.....Fort Caswell, N. C.
Captain, N. C. Coast Artillery Corps, National Guard
Home Address, Greensboro, N. C.

JESSE ERNEST TREVATHAN.....B.S. 1915..... Middletown, Va.
Assistant Principal of Frederick County Agricultural High School

GEORGE REID TROTTER.....B.E. 1912.....Charlotte, N. C.
Electrical Department, Mees & Mees, Consulting Engineers

GEORGE BOSTON TROXLER.....B.S. 1918.....Jamestown, N. C.
Principal Farm-life School

WILLIAM BROOKS TRUITT.....B.E. 1907..... Philadelphia, Pa.
Expediting Department, American International Shipbuilding Corp.

FRED GOODE TUCKER.....B.E. 1911 ..... France
Lieutenant, Aviation Service, U.S.A. Flying Corps. Home Address,
Henderson, N. C.

ISAAC NORRIS TULL.....B.E. 1910.....Cleveland, Ohio
Electrical Engineer, The McKinney Steel Co.

JOHN EDWIN TURLINGTON.....B.Agr. 1907..... Gainesville, Fla.
M.S., Ph.D., Cornell University. Professor of Agronomy, University of
Florida, College of Agriculture

ERNEST CRAIG TURNER.....B.S. 1917..... Nashville, Tenn.
Farm Superintendent

JOSEPH PLATT TURNER.....B.E. 1902.....Leaksville, N. C.
Grocery Business

WILLIAM HARRISON TURNER.....B.E. 1893.....Winston-Salem, N. C.
Wholesale Dealer and Manufacturer of Feedstuffs

JACKSON CORPENING TUTTLE.....B.E. 1906..... Baltimore, Md.
Industrial Power Department, Consolidated Gas, Electric Light and
Power Co.

NAPOLEON BONAPARTE TYLER.....B.S. 1917.....Roxobel, N. C.
Second Lieutenant, Infantry, U. S. Army

GROVER WILLIAM UNDERHILL.....B.S. 1916.....Blacksburg, Va.
M.S. 1918 Assistant Entomologist Crop Pest Commission

ROBERT PEELE UZZELL.....B.Agr. 1906.....Goldsboro, N. C.
Real Estate and Farming

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.
M.E. 1909. M.E. 1911, Columbia University. Assistant Professor of
Experimental Engineering, N. C. State College

SOLOMON ALEXANDER VEST.....B.S. 1900 (Chem.),..Mount Pleasant, Tenn.
B.Agr. 1901. President, Secretary and Treasurer, the Smith 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.....Greenville, S. C.
Superintendent of Construction, M. M. Elkan, General Contractor,
of Macon, Ga.

Name *Degree* *Address*

EDWIN THOMAS WADSWORTH.....B.E. 1911 ..... France
Corporal, First Regiment, First Company, Motor Mechanics, American Exp. Forces, A.P.O. 747

ROSCOE MARVIN WAGSTAFF.....B.E. 1900.....Port Jefferson, N. Y.
Chief Machinery Draftsman, Bayles Shipyard, Inc.

JOSEPH KENDALL WAITT.....B.E. 1904 .....Portsmouth, Va.
Assistant Valuation Engineer, Seaboard Air Line Railway

SUADE GOWER WALKER.....B.S. 1918.....Rutherfordton, N. C., R. 4
Not heard from

WALTER JENNINGS WALKER.....B.E. 1905.....Schenectady, N. Y.
Railway Supply Department, General Electric Co.

BENJAMIN FRANKLIN WALTON....B.S. 1894.....Raleigh, N. C., R. 1
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.....B.E. 1915.....Gastonia, N. C.
Masonry Inspector, Southern Railway

HUGH WARE .....B.S. 1899.....Kings Mountain, N. C.
Farmer

JACOB OSBORNE WARE.....B.S. 1916.....West Raleigh, N. C.
M.S. 1918. Instructor in Agronomy, N. C. State College

HENRY CAPERTON WARWICK.....B.E. 1918.....Hampton Roads, Va.
Student Officer, Material School, U. S. Navy
Home Address, Slab Fork, W. Va.

JAMES HUNTER WATSON.....B.S. 1911.....Raleigh, N. C.

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 ..... France
First Lieutenant, Aviation Section, American Expeditionary Forces. Home Address, Williamston, N. C.

EDWD. HOWERTON WEATHERSPOON. B.E. 1914..... Jacksonville, Fla.
Manager Branch of Horne Manufacturing Co.

CHARLES WRIGHT WEAVER.....B.E. 1915.....Charleston, S. C.
Assistant Engineer, C. C. Light & Street Railway Co.

LINDSAY MARADE WEAVER.....B.E. 1907.....Lexington, N. C.
Erlanger Mills

GEORGE HENDERSON WEBB.....B.E. 1916..... Norfolk, Va.
Ensign, U. S. Navy, R. F.

MARION EMERSON WEEKS.....B.E. 1904.....Brooklyn, N. Y.
With Horne Manufacturing Co.

CLEVELAND DOUGLAS WELCH.....B.E. 1902.....Mayworth, N. C.
Vice President and Agent, Mays Mills, Inc.

NATHANIEL WARREN WELDON.....B.S. 1917.....Vanceboro, N. C.
Farm-life School

HOWARD WALDO WELLES, JR.....B.E. 1910.....American Exp. Forces
303d Mechanical Repair Shop, Motor Transport Corps
Home Address, Poughkeepsie, N. Y.

JOHN JACKSON WELLS.....B.E. 1907, C.E. 1916...Rocky Mount, N. C.
Civil and Consulting Engineer

Name — *Degree* — *Address*

ALBERT CLINTON WHARTON.....B.S. 1904.....Reynolda, N. C.
President and Manager Reynolda Farm Co.

HARRY GRAVES WHARTON.....B.S. 1916..... Paris, France
Sergeant, Co. C, 105th Engineers
Sorbonne Detachment, A.PO. 702. Home Address, Greensboro, N. C.

DRUID EMMET WHEELER.....B.E. 1917.....American Exp. Forces
First Lieutenant, 54th Inf., U. S. Regulars. Home Address, Asheville, N. C.

FRED BARNETT WHEELER.....B.E. 1912.....Raleigh, N. C.
M.E. 1915. With Baker Thompson Lumber Co.

BUXTON WHITE .....B.S. 1915.....West Raleigh, N. C.
Alumni Secretary, State College

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. Associate Professor of Experimental Agronomy, Pennsylvania State College

PERCY STANLEY WHITE.....B.S. 1918 ..... France
Corporal, 81st Division. Home Address, Greensboro, N. C.

ROYALL EDWARD WHITE.....B.E. 1908.....Aulander, N. C.
Postmaster. Not heard from this year

JOSEPH SLAUGHTER WHITEHURST.B.E. 1909..... Tampa, Fla.
First Lieutenant, F.A.O.R.C., Box 1802

GEORGE WHITSON .....B.E. 1916.....Florence, S. C.
Central Office Man, Southern Bell Telephone and Telegraph Co.

LEVI ROMULUS WHITTED.....B.S. 1896.....Glenwood Springs, Colo.
C.E. 1897. Superintendent of Construction, U. S. Public Buildings, Treasury Department

FREDERICK CARL WIGGINS.....B.S. 1915.....Washington, D. C.
First Lieutenant, Air Service, Training Section, Balloon and Airship Branch, D.M.A.

ARCHIE CARRAWAY WILKINSON...B.E. 1905.....Gaffney, S. C.
Assistant Engineer, Southern Railway

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 HARDY 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.....Camp Dix, N. J.
Captain, Infantry, U.S.A. Home Address, Charlotte, N. C.

JOHN FRANKLIN WILLIAMS.....B.E. 1916.....Charlotte, N. C.
Southern Power Co.

JOHN RODMAN WILLIAMS.....B.E. 1915..... Richmond, Va.
Care Theological Seminary

PETER MCK. WILLIAMS, JR.....B.S. 1916.....Fayetteville, N. C.
M.S. 1917

Name *Degree* *Address*

ROY LEE WILLIAMSON.....B.E. 1917 ..... France
Second Lieutenant, Co. C, 306th Engineers, 81st Division
Home Address, Raleigh, N. C.

ALVIN CHESLEY WILSON.....B.E. 1913.....Washington, D. C.
First Lieutenant, Engineers, American University
Not heard from this year

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.....Middleton, Ohio
Superintendent of Power

JOHN SPICER WILSON.....B.E. 1909.....Chicago, Ill.
Testing Engineer, the Steel & Tube Co. of America

WALTER BOOKER WINFREE.....B.S. 1911.....Wadesboro, N. C., R. 2
Farmer

EDWARD LEIGH WINSLOW.....B.E. 1910..... Truxilla, Honduras
Chief Engineer, Truxilla R. R. Co.

HERMAN ELTON WINSTON.....B.E. 1918.....Camp Gordon, Ga.
Captain, Co. G, 45th Infantry. Home Address, Youngsville, N. C.

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 ..... France
Major, Co. E, 404th Telegraph Battalion, Signal Corps, U.S.A.
Home Address, Edenton, N. C.

HOWARD WISWALL, JR.....B.E. 1895..... Savannah, Ga.
Civil Engineer

JAMES HARVEY WITHERS, JR.....B.S. 1916 ..... Germany
Company D, 7th Infantry, 3d Division, Army of Occupation
Home Address, Broadway, N. C., R. 1

HENRY KOLLOCK WITHERSPOON...B.E. 1915.....Raleigh, N. C.
Engineer, 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.....Camp Lee, Va.
First Sergeant, Co. B, E.R.O.T.C. Home Address, Fountain, N. C.

OWEN ZELOTES WRENN.....B.E. 1914.....West Raleigh, N. C.
Instructor, Civil Engineering Department, State College

BENJAMIN VAIDEN WRIGHT.....B.E. 1901..... Laurel, Miss.
With Gilchrist Fordway Lumber Co.

MARION FULLER WYATT.....B.E. 1911 ..... France
322d Infantry, Regimental Infirmary. Home Address, Raleigh, N. C.

ROBERT JOB WYATT.....B.E. 1909.....Raleigh, N. C.
Treasurer Job P. Wyatt & Sons Co.

FORREST EDGAR WYSONG.....B.E. 1915.....New York, N. Y.
Ensign, U. S. Navy, Flying Corps. Home Address, Greensboro, N. C.

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.

Name	*Degree*	*Address*
WOODFIN BRADSHER YARBROUGH	B.E. 1908	Morenci, Ariz.
With Detroit Copper Mining Co. Not heard from this year		
JAMES FULLER YATES, JR.	B.E. 1918	Greensboro, N. C.
HARRY CURTIS YOUNG	M.S. 1915	New Haven, Conn.
Second Lieutenant, Sanitary Crops, General Hospital No. 16		
SAMUEL MARVIN YOUNG	B.E. 1893	Raleigh, N. C.
Traveling Salesman, Watkins-Cottrell Co., Richmond, Va.		
YARO ZENISHEK	B.E. 1917	Yonkers, N. Y.
Y.M.C.A. Building		
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	Hugh Williams Primrose	B.S. 1897
Edward Par Bailey	B.E. 1904	Zebbie George Rogers	B.E. 1894
Joel W. Bullock	B.Agr. 1905	Carl DeWitt Sellars	B.E. 1893
Robert Hill Carter	B.E. 1907	Charles Edgar Seymore	B.S. 1893
Summey Crouse Cornwell	B.E. 1903	William Thomas Shaw, Jr.	B.E. 1914
William Pescud Craig	B.S. 1901	Orin Morrow Sigmon	B.E. 1911
Jacob Tatum Eaton	B.Agr. 1907	Charlie Augustine Speas	B.E. 1911
John Daniel Ferguson	B.E. 1903	John Francis Speight	B.E. 1910
Nevin Gould Fetzer	B.S. 1912	Hugh Stuart Steele	B.E. 1909
Hugh Pierce Foster	B.E. 1903	William Anderson Syme	B.S. 1899
Francis Marion Foy	B.S. 1899	Zebulon Whitehurst Taylor	B.E. 1914
Ransom Eaton Gill	B.E. 1910	Frank Martin Thompson	B.E. 1910
Roy Joseph Gill	B.E. 1907	Buxton Williams Thorne	B.E. 1893
John Howard Glenn	B.E. 1903	Charles Edward Trotter	B.S. 1903
Emil Gunter	B.E. 1903	Reid Tull	B.E. 1906
Samuel Merrill Hanff	B.S. 1900	Clyde Loreine Vann	B.E. 1914
George Rom. Hardesty	B.E. 1907	Steven Dockery Wall	B.E. 1905
Thomas Frederick Haywood	B.E. 1909	Charles Augustus Watson	B.S. 1901
Robert Irving Howard	B.E. 1902	Jordan Lea Watson	B.S. 1897
Arthur Templeton Kenyon	B.E. 1905	James Thaddeus Weatherly	B.S. 1918
James Herritage Koonce	B.E. 1905	Cecil Bernard Whitehurst	B.E. 1907
Joe Poindexter Lovill	B.E. 1906	Edwin Seymour Whiting	B.E. 1903
Robert Lee Morgan	B.E. 1910	Gaither Hall Whiting	B.S. 1900
B. Moore Parker	B.S. 1898	Bradley Jewett Wooten	B.S. 1897
Alexander Holladay Pickell	B.E. 1912		

INDEX