

**CLEMSON COLLEGE**

**South Carolina**



**CATALOGUE**

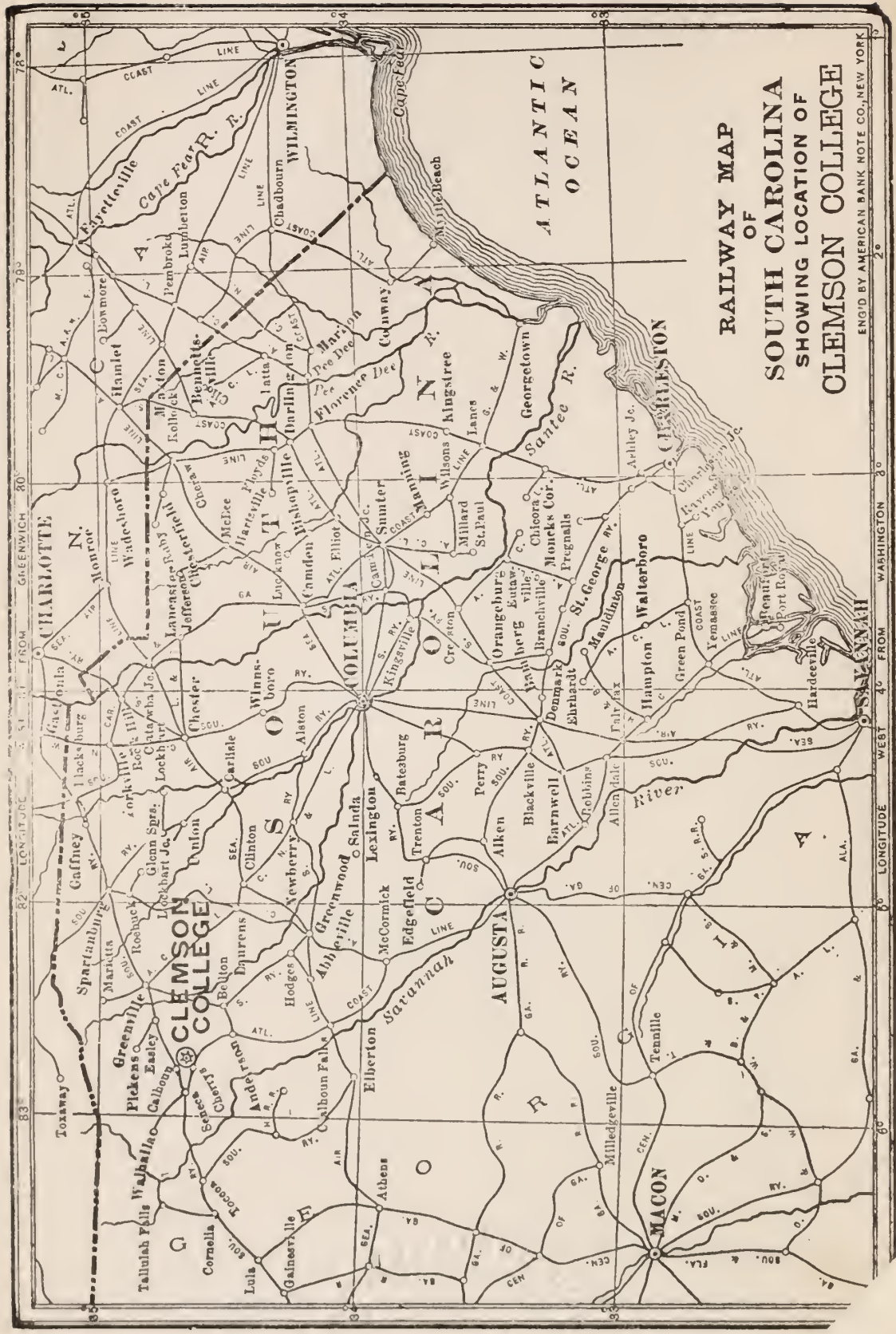
**1916-17**

**ANNOUNCEMENTS**

**1917-18**

**Telegraph and Post Office: Clemson College, S. C.**

**Freight and Express Office: Calhoun, S. C.**



**RAILWAY MAP**  
**OF**  
**SOUTH CAROLINA**  
**SHOWING LOCATION OF**  
**CLEMSON COLLEGE**

ENG'D BY AMERICAN BANK NOTE CO., NEW YORK

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# 1917

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# COLLEGE CALENDAR

## Session of 1917-1918

### 1917

### First Term

- Sept. 17—Cadet Majors, Captains and First Sergeants arrive.  
Sept. 18—All other old students arrive.  
Sept. 19—Opening of the 25th session. Exercises begin at 8:30 A. M. Assignment to sections, etc.  
Sept. 20—Class work begins. Examinations for removal of conditions and make-up work.  
Sept. 21—Examinations for removal of conditions and make-up work.  
Sept. 22—Examinations for removal of conditions and make-up work.  
Sept. 25—New students arrive.  
Sept. 26—Class work and entrance examinations for new students begin.  
Oct. 10—One-year Agricultural Course begins.  
Nov. 3—First "month" of first term ends.  
Nov. 21—Stated meeting of Board of Trustees.  
Nov. 29—Thanksgiving Day. A holiday.  
Dec. 20—Examinations for first term end.  
Dec. 21—First day of the Christmas Holidays.

### 1918

### Second Term

- Jan. 2—Students return from Christmas vacation by 11:30 P. M.  
Jan. 3—Class work for second term begins.  
Jan. 19—Lee's birthday. A holiday.  
Jan. 19—Annual public exercises of the Columbian Literary Society.  
Feb. 9—First "month" of second term ends.  
Feb. 22—Washington's birthday. A holiday.  
Feb. 22—Annual public exercises of the Palmetto Literary Society.  
March 18—Calhoun's birthday. A holiday.  
March 22—Examinations end.  
March 23—Second term ends.

### 1918

### Third Term

- March 24—Third term begins.  
March 30—Annual public exercises of the Calhoun Literary Society.  
April 3—Stated meeting of the Board of Trustees.  
May 1—Stated meeting of the Board of Visitors.  
May 4—First "month" of the third term ends.  
June 7—Closing exercises of the One-year Agricultural Course.  
June 8—Examinations for the Senior Class end.  
June 8 to 15—"Make-up" week for Senior Class.  
June 15—Examinations for all other students end.  
June 16—Commencement exercises begin. Baccalaureate sermon. Closing exercises of the Y. M. C. A.  
June 17—Closing exercises of the Literary Societies. Military exercises. Address of the Alumni orator and Alumni meeting.  
June 18—Commencement Day. Graduating exercises.

### 1918

- July 3—Stated meeting of the Board of Trustees.  
July 12—Scholarship and entrance examinations at the county seats.  
July 15—Last day for receiving scholarship applications.

NOTE.—The above schedule is subject to change by the Faculty.

## BOARD OF TRUSTEES

### Life Members

ALAN JOHNSTONE, President	-----	Newberry, Newberry Co.
B. R. TILLMAN	-----	Trenton, Edgefield Co.
M. L. DONALDSON	-----	Greenville, Greenville Co.
J. E. WANNAMAKER	-----	St. Matthews, Calhoun Co.
W. W. BRADLEY	-----	Abbeville, Abbeville Co.
R. I. MANNING	-----	Sumter, Sumter Co.
A. F. LEVER	-----	Peak, Lexington Co.

### Terms Expire 1918

J. J. EVANS	-----	Bennettsville, Marlboro Co.
I. M. MAULDIN	-----	Pickens, Pickens Co.
B. H. RAWL	-----	Lexington, Lexington Co.

### Terms Expire 1920

S. A. BURNS	-----	R. 4, Anderson, Anderson Co.
R. H. TIMMERMAN	-----	Batesburg, Lexington Co.
S. T. McKEOWN	-----	Cornwell, Chester Co.

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**Finance.**—Mauldin, Donaldson, Bradley, Burns, Manning.

**Agricultural.**—Tillman, Lever, Manning, Rawl, Wannamaker.

**Fertilizer.**—Manning, McKeown, Wannamaker.

**Entomological.**—Timmerman, Lever, McKeown.

**Veterinary.**—Lever, Rawl, Timmerman.

**Scholarship.**—Bradley, Burns, Timmerman.

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\*The President of the Board of Trustees is, ex officio, a member of all committees.

**BOARD OF VISITORS**

**Sessions of 1915-1916, and 1916-1917**

**First District**

CHARLTON DURANT ----- Manning, S. C.

**Second District**

W. I. JOHNS ----- Baldoc, S. C.

**Third District**

J. HOWARD MOORE ----- Abbeville, S. C.

**Fourth District**

W. W. HARRIS ----- Clinton, S. C.

**Fifth District**

W. P. ODOM ----- Chesterfield, S. C.

**Sixth District**

D. D. McColl ----- Bennettsville, S. C.

**Seventh District**

JAMES M. MOSS ----- St Matthews, S. C.

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Director of Engineering Department

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Director of Chemical Department

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State Agent of Farm Demonstration Work and Director of  
Extension Division

FRED HARVEY HALL CALHOUN, Ph.D.,  
Director of Resident Teaching, Agricultural Department

HENRY WALTER BARRE, B. S., M. A.,  
Director of Research, Experiment Station

RALPH ALLEN JONES,  
Captain of Infantry, U. S. Army—Commandant

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Acting Director of Academic Department

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Surgeon

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Registrar and Assistant to the President

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Treasurer and Secretary of Board of Trustees.

KATHERINE BOCQUET TRECOT,  
Librarian

---

\*Resigned December 31, 1916.



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Professor of History and Political Economy
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Professor of Mathematics
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Assistant Professor of English
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Assistant Professor of Mathematics
- ANDREW BRAMLETT, B. S.,  
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- LAWRENCE ANDREW SEASE, B. S.,  
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- GEORGE MILTON CRUM, A. B.,  
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- JAMES ERSKINE McDANIEL, A. B., A. M.,  
Instructor in English

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Professor of Horticulture

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Professor of Botany and Bacteriology

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Professor of Entomology and Zoology

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Professor of Agronomy

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Professor of Soils

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Professor of Veterinary Science

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Associate Professor of Horticulture

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OLIN MITCHELL CLARK, B. S.,  
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Assistant Professor of Veterinary Science

WILLIAM BARRE AULL, B. S.,  
Assistant Professor of Bacteriology

ELIAS HARDIN PRESSLEY, B. S.,  
Assistant in Agronomy and Farm Machinery

\*\*DUANE B. ROSENKRANS, A. B.,  
Instructor in Botany and Bacteriology

---

\* Resigned Jan. 1, 1917.

\*\* Absent on leave.

\*\*\* Absent on leave.

OFFICERS OF INSTRUCTION

11

THOMAS ANDREW ROUSE, B. S. A.,  
Assistant Professor of Animal Husbandry

\*\*\*CHALMERS JACKSON KING, B. S.,  
Instructor in Soils

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Instructor in Botany and Bacteriology

TILLMAN DICKSON PADGETT, B. S.,  
Acting Instructor in Soils

FRANKLIN C. HARE,  
Poultry Husbandman

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Professor of Civil Engineering

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Assistant Professor of Woodwork

GEORGE SAMUEL EATON, B. S.,  
Assistant Professor of Civil Engineering

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Instructor in Drawing

DAVID NIVEN HARRIS, B. S.,  
Instructor in Drawing

DANIEL WILLIS SYLVESTER,  
Instructor in Forge and Foundry

LAWRENCE SIDNEY FUNKE, B. S.,  
Instructor in Woodwork

WALLACE WOLCOTT, B. Arch.,  
Instructor in Architectural Engineering

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Director—Professor of Chemistry

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Assistant Professor of Chemistry

JOHN HARRIS MITCHELL, M. S.,  
Assistant Professor of Chemistry

CLAUDE FURMAN INMAN, B. S.,  
Instructor in Chemistry

BENJAMIN FREEMAN, B. S.,  
Assistant in Chemistry

#### TEXTILE DEPARTMENT

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Director—Professor of Textile Chemistry and Dyeing

CLAUDE WIGHTMAN McSWAIN, B. S.,  
Associate Professor of Weaving and Designing

WILLIAM GARDINER BLAIR,  
Assistant Professor of Carding and Spinning

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 Director—Professor of Military Science and Tactics  
 Commandant of Cadets

CAPTAIN LEMUEL WHITAKER BOYKIN, JR., B. S.,  
 Assistant Commandant

CAPTAIN HARRY A. SLOAN,  
 Quartermaster

1st LIEUTENANT WILLIAM H. DINNISON (1st Sergeant Regular  
 Army Reservist)  
 Assistant to the Commandant

**GRADUATE STUDENT ASSISTANTS**

W. E. LESLIE, B. S.—Dean's Office, Agricultural Department.

G. E. PRINCE, B. S.—Horticultural Division.

J. A. SIMPSON, B. S.—Botany Division.

J. W. SANDERS, B. S.—Botany Division.

R. F. POOLE, B. S.—Botany Division.

F. O. MYERS, B. S.—Entomological Division.

C. S. MAJOR, B. S.—Veterinary Division.

H. H. QUATTLEBAUM, B. S.—Physics Division.

M. C. MORRISON, B. S.—Electrical Division.

**RELIGIOUS OFFICERS**

ROY JOHN, A. B., M. A.,  
 General Secretary of Y. M. C. A.

P. B. HOLTZENDORFF, B. S.,  
 Assistant Secretary of Y. M. C. A.

**College Preachers**

REV. T. V. McCAUL, ----- Baptist

REV. R. M. MARSHALL, ----- Episcopal

REV. J. M. STEADMAN, ----- Methodist

REV. W. H. MILLS, ----- Presbyterian

**COMMENCEMENT SPEAKERS—JUNE 1917****Baccalaureate Sermon**

DR. B. D. HAHN ----- Greenville, S. C.

**Commencement Address**

DR. IRA LANDRITH ----- Chicago, Ill.

### STANDING COMMITTEES OF THE FACULTY\*

**Discipline.**—The President, the Commandant, Brackett, Calhoun, Doggett, Earle, Keitt, Martin, Morrison, Poats, Shields.

**Re-examination and Promotions.**—Martin, Brackett, Calhoun, Daniel, Dargan, Doggett, Earle, Houston, Littlejohn, Morrison.

**Entrance Requirements.**—Daniel, Calhoun, Hutchinson, Littlejohn, Martin, Morrison, Sease.

**Schedule.**—Morrison, Bramlett, Bryan, Calhoun, Henry, Lee, McSwain, Poats.

**Student Activities.**—Calhoun (Athletics), Daniel (Public Speaking), Henry (Annual, Finances), Bradley (Annual, Literary), Bryan (Agricultural Journal), Routten (Band), Gantt ("C" Club), Crum (Glee Club), McDaniel (Chronicle), Littlejohn (Tiger), Johnstone and Jones (Dancing).

**Student Petitions.**—Littlejohn, Barre, Henry, Jones, Martin, McSwain, Routten.

**Library.**—Bryan, Calhoun, Earle, Henry, Keitt, McSwain.

**Irregular Students.**—Hunter, Burgess, Klugh, Lipscomb, Poats.

**Catalogue.**—Poats, Clark, Henry, Klugh, Littlejohn, McSwain.

**Religious Services.**—Earle, Bradley, Burgess, Holmes, Wells.

**Chapel Music.**—Daniel, McSwain, Routten.

**Chapel Entertainments.**—Daniel, Birch, Houston, Johnstone, Martin.

**State Fair.**—Howard, Burgess, Conradi, Jones, McSwain, Shields.

**Campus.**—Houston, Barre, Newman.

**Reception.**—Brackett, Daniel, Jones, Stackhouse.

**Alumni.**—Lee, Bryan, Burgess, Henry, Klugh.

**Museum.**—Calhoun, Barre.

**Text-book.**—Shanklin, Mitchell, Wells.

**Summer School.**—Calhoun, Barre, Blair, Littlejohn, Long, Mills.

---

\*The President is, ex officio, a member of all committees. The first named in each instance is chairman.

## AGRICULTURAL EXPERIMENT STATION

\*JOSEPH NELSON HARPER, B. S., M. Agr.,  
Director and Agronomist

HENRY WALTER BARRE, B. S., M. A.,  
Director—Botanist and Plant Pathologist

CHARLES CARTER NEWMAN, B. S.,  
Horticulturist

ALBERT FREDERICK CONRADI, B. Agr., M. S.,  
Entomologist

THOMAS ELLISON KEITT, B. S.,  
Chemist

RICHMOND LEE SHIELDS, B. S. A.,  
Animal Husbandman

ROBERT OLIVER FEELEY, D. V. S.,  
Consulting Veterinarian

WASHINGTON LAFAYETTE HUTCHINSON, M. S.,  
Associate Agronomist

FRANKLIN JACOB CRIDER, M. S.,  
Associate Horticulturist

ROY CHRISTOPHER FAULWETTER, B. A.,  
Associate Botanist and Plant Pathologist

OLIN MITCHELL CLARK, B. S.,  
Assistant in Agronomy

WILLIAM ANDREW THOMAS, B. S.,  
Assistant Entomologist

AUDLEY HOFFMAN WARD, B. S.,  
Assistant Agronomist

THOMAS ANDREW ROUSE, B. S. A.,  
Assistant in Animal Husbandry

\*\*CHALMERS JACKSON KING, B. S.,  
Assistant in Chemistry

JOEL ANDERSON BERLY, B. S.,  
Assistant Research Entomologist

TILLMAN DICKSON PADGETT, B. S.,  
Assistant in Chemistry

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\* Resigned Jan. 1, 1917.

\*\* Absent on leave.

HENRY EDWIN SHIVER, B. S.,  
Assistant in Chemistry (Temporary)

WILLIAM D. GARRISON, B. S.,  
Supt. of Coast Station, Summerville, S. C.

R. E. CURRIN,  
Supt. of Pee Dee Station, Florence, S. C.

BURNS GILLISON,  
Supt. of Experiment Station Farm

#### MISCELLANEOUS OFFICERS

MARGARET L. SADLER,  
Secretary to the President

ANNE ALLSTON PORCHER,  
Assistant Librarian

MRS. M. E. MIDDLETON,  
Matron

MARGARET E. GASQUE,  
Stenographer to Board of Fertilizer Control

MARGUERITE BONNEAU,  
Stenographer to Engineering Department

ETTA W. CLARKSON,  
Stenographer to Agricultural Department

SARAH N. LEPPARD,  
Stenographer to Experiment Station

JULIA A. HOOK,  
Mailing Clerk for Experiment Station



FLOYD LANDON CARROLL,  
Bookkeeper

EDWARD BERNARD ELMORE,  
Assistant Bookkeeper

SAMUEL CORBETT KENNETT,  
Clerk to the Commandant

AUGUST SCHILLETTER,  
Steward

JAMES PERCIVAL LEWIS,  
Superintendent of Roads

JOSEPH HEWER,  
Superintendent of Construction and Repair

L. BOYD BRANDON, B. S.,  
Foreman of College Farm

HENRY C. GOODMAN,  
College Plumber



**STATE CONTROL OFFICERS**

DR. RICHARD NEWMAN BRACKETT,  
State Chemist

ALBERT FREDERICK CONRADI, M. S.,  
State Entomologist

HENRY WALTER BARRE, B. S., M. A.,  
State Pathologist

WILLIAM ANDREW THOMAS, B. S.,  
Assistant State Entomologist

DR. ROBERT OLIVER FEELEY,  
State Veterinarian

DR. WILLIAM AUGUSTUS BARNETT,  
Assistant State Veterinarian

DR. W. A. BURLEIGH,  
Assistant State Veterinarian

DR. W. K. LEWIS,  
Inspector in Charge of Cattle Tick Eradication, U. S. Dept. of  
Agriculture, in cooperation with Clemson College

**FERTILIZER CONTROL**

RICHARD NEWMAN BRACKETT, Ph.D.,  
Chief Chemist

BENJAMIN F. ROBERTSON, B. S.,  
Chemist (Fertilizer Analysis)

GUY FLEMING LIPSCOMB, Ph.D.,  
Assistant Chemist (Nitrogen Availability)

JOHN TREUTLEN FOY, B. S.,  
First Assistant Chemist (Fertilizer Analysis)

ROBERT EDGAR PENNELL, B. S.,  
Second Assistant Chemist (Fertilizer Analysis)

ROBERT PRESSLEY THORNTON, B. S.,  
Third (Temporary) Assistant Chemist (Fertilizer Analysis)

CHARLES FRIARSON SHEFFIELD,  
Fourth Assistant Chemist (Fertilizer Analysis)

BENJAMIN FREEMAN, B. S.,  
Assistant Chemist (Miscellaneous Analysis)

HUGH MILTON STACKHOUSE,  
Secretary Board of Fertilizer Control

**Fertilizer Inspectors**

J. R. HARRIS,  
 P. J. MIMS,  
 G. G. INMAN,  
 E. B. MARTIN,  
 W. N. WELLS,  
 A. P. BURGESS,  
 M. P. McCALLA,  
 G. A. NETTLES,  
 J. C. GREGORY,  
 H. K. STRICKLAND.

**EXTENSION DIVISION****Cooperating with States Relations Service, U. S. D. A.**

W. W. LONG, Director of Extension, Clemson College, S. C.  
 W. H. BARTON, Asst. State Agent, Simpsonville, S. C.  
 W. P. STEWART, District Agent, Simpsonville, S. C.  
 W. R. ELLIOTT, District Agent, Winnsboro, S. C.  
 C. A. McFADDIN, District Agent, Manning, S. C.  
 L. L. BAKER, Sup. Agent Boys' Club Work, Bishopville, S. C.  
 R. L. SHIELDS, Prof. of Animal Husbandry.  
 L. W. SUMMERS, Livestock Expert, U. S. D. A., Orangeburg, S. C.  
 J. O. WILLIAMS, Livestock Expert, U. S. D. A.  
 W. W. FITZPATRICK, Agent in Dairying, U. S. D. A.  
 H. T. CONVERSE, Asst. Dairy Husbandman, U. S. D. A., Spartan-  
 burg, S. C.  
 D. W. WATKINS, Asst. Dairy Husbandman, U. S. D. A., Green-  
 ville, S. C.  
 E. A. ONSRUD, Asst. Dairy Husbandman, U. S. D. A., Darling-  
 ton, S. C.  
 D. D. ELLIOTT, Asst. Dairy Husbandman, Orangeburg, S. C.  
 J. A. RAITT, Dairy Mfg. Expert.  
 F. C. HARE, Poultry Husbandman.

- C. C. NEWMAN, Prof. of Horticulture.  
 G. P. HOFFMANN, Asst. Horticulturist.  
 W. O. DAVIS, Asst. Horticulturist.  
 F. W. HOFMANN, Agent in Marketing, U. S. D. A.  
 F. G. TARBOX, Jr., Corn Breeding Expert.  
 A. F. CONRADI, Prof. of Entomology.  
 H. W. BARRE, Prof. of Botany.  
 J. L. SEAL, Extension Field Pathologist.  
 E. E. HALL, Cotton Breeding Expert.  
 T. E. KEITT, Prof. of Soils.  
 W. H. MILLS, Special Collaborator in Charge Rural Church Work.  
 W. L. GREEN, Chief Clerk and Accountant.  
 T. M. CATHCART, Jr., Clerk.  
 S. W. EVANS, Treasurer.  
 META A. FAULCONER, Stenographer.  
 J. E. WILSON, Stenographer.

### County Farm Demonstration Agents

Name and Post Office	County	Name and Post Office	County
L. B. Altman, Ridgeland .....	Jasper	Colin McLaurin, Mullins .....	Marion
C. W. Baker, Kingstree .....	Williamsburg	J. W. McLendon, Timmons ville ..	Florence
G. M. Barnett, Westminster .....	Oconee	C. L. McManus, Lancaster .....	Lancaster
J. R. Blair, Sharon .....	York	T. M. Mills, Prosperity .....	Newberry
H. G. Boylston, Blackville .....	Barnwell	P. W. Moore, Laurens .....	Laurens
T. A. Bowen, Pickens .....	Pickens	J. M. Napier, Darlington .....	Darlington
S. M. Byars, Anderson .....	Anderson	C. F. Niven, Charleston .....	Charleston
A. B. Carwile, Union .....	Union	W. T. Patrick, Marion .....	Marion
A. H. Chapman, Greenville .....	Greenville	C. S. Patrick, Saluda .....	Saluda
J. R. Clark, Columbia .....	Richland	S. F. Reid, St. Matthews .....	Calhoun
S. W. Epps, Latta .....	Dillon	J. A. Riley, Chester .....	Chester
S. E. Evans, Bennettsville .....	Marlboro	F. W. Risher, Walterboro .....	Colleton
J. F. Ezell, Spartanburg .....	Spartanburg	P. H. Senn, Manning .....	Clarendon
C. B. Faris, Greenwood .....	Greenwood	J. W. Shealy, Ballentine .....	Lexington
R. E. Grabel, Gaffney .....	Cherokee	Walter Sorrell, Camden .....	Kershaw
J. J. Heard, Bamberg .....	Bamberg	N. G. Thomas, McCormick .....	McCormick
H. S. Johnson, Aiken .....	Aiken	W. J. Tiller, Chesterfield .....	Chesterfield
J. G. Lawton, Garnett .....	Hampton	M. W. Wall, Conway .....	Horry
R. H. Lemmon, Winnsboro .....	Fairfield	S. N. Welsh, Elliott .....	Lee
W. T. J. Lemmon, Blythewood ..	Richland	J. F. Williams, Sumter .....	Sumter
P. N. Lott, Johnston .....	Edgefield	L. S. Wolfe, Orangeburg .....	Orangeburg
D. L. McAlhany, St. George ....	Dorchester	B. M. Hudson, Pinopolis .....	Berkeley
A. A. McKeown, Rock Hill .....	York		

## HISTORICAL SKETCH

Thomas G. Clemson, after whom the College is named, was born in Philadelphia in April, 1807, and died at the Fort Hill home April 6, 1888.

In 1823, then scarcely 16 years old, he ran away from home, and, after spending some time in England, went to Paris, where he took up arms in the revolution of that time. His gallantry brought him recognition and the friendship of prominent men, resulting in his being given a course in the celebrated School of Mines in Paris. In this school he remained four years, graduating with high honors.

While he was in Europe, his father died, leaving nothing to him in his will. Soon after this he returned to America, and establishing himself in Washington, practiced his profession of Mining Engineer, and accumulated a comfortable fortune. It was here that he met Miss Anna Marie, the eldest daughter of John C. Calhoun, and married her. Two children resulted from this union—a daughter, Floride, who afterwards became Mrs. Gideon Lee, of New York, and a son, John Calhoun Clemson.

Mr. Clemson was a strong advocate of the political doctrine of Mr. Calhoun, and when the war broke out, fearing arrest, he and his son escaped by night in a boat, and walking to Richmond, offered their services to President Davis. Mr. Clemson was assigned to the Trans-Mississippi Nitre Mining Department, where he served until the end of the war. His son was appointed a Lieutenant and assigned to active duty.

At the end of the war, Mr. Clemson with his family came to Pendleton and resided with Mrs. John C. Calhoun until her death in 1866.

Mr. Clemson was interested as far back as this date in the establishment of an Agricultural and Industrial College. In November 1886, a Committee was appointed, consisting of Hon. Thomas G. Clemson, Hon. R. F. Simpson and Col. W. A. Hayne, to appeal to their fellow citizens for

“Aid to found an institution for educating our people in the Sciences, to the end that our Agriculture may be improved, our worn and impoverished soils be recuperated, the great natural resources of the South be developed.”

In January 1867, at a meeting of the Pendleton Farmers' Society, Mr. Clemson addressed the body in “an able and most interesting and instructional discourse,” and submitted in the form of a circular the appeal above referred to. The circular was written by Mr. W. H. Trescot, and closes with the words:

“Letters and contributions to be directed to the Hon. Thos. G. Clemson, LL.D., Chairman of the Committee, Pendleton, Anderson District, South Carolina.”

Again in the minutes of the same Society, of which he was elected President in 1868, under date of Oct. 14, 1869, we find the following:

"The President, (Mr. Clemson), entertained the Society for half an hour on the subject of Scientific Agriculture, and the Importance of Scientific Agricultural Education."

These citations indicate an early interest on the part of Mr. Clemson in the great cause to which he later devoted his estate.

Previous to the war Mrs. John C. Calhoun had sold the Fort Hill place and negroes to her son, Col. Andrew P. Calhoun, taking in payment his bond and mortgage for \$40,200.00. At her death, She left a will, deeding to her daughter, Mrs. Clemson, three-fourths of the value of this bond and mortgage, and to her granddaughter, who at the time of Mrs. Calhoun's death was Mrs. Gideon Lee of New York, the remaining one-fourth of the bond and mortgage.

Shortly after Mrs. Calhoun's death, Mrs. Thomas G. Clemson, after considerable costly litigation foreclosed the mortgage on the Fort Hill place, and at the sale of the property in Walhalla in January 1872, Mr. Clemson, as Trustee for his wife and daughter, bid it in for \$15,000,\* and he himself paid out of his private funds about \$8,000 to cover lawyer's fees, court cost, etc.

In 1871, Mr. Clemson's daughter, then Mrs. Gideon Lee, died, and seventeen days later, his only son, John Calhoun Clemson, was killed in a railroad accident at Seneca. Left childless, Mrs. Clemson willed to her husband, Thomas G. Clemosn, all of her estate, "absolutely and in fee simple."†

Mr. Clemson, in his will, left to his granddaughter, Floride Isabella Lee, \$15,000 to free the property, which by the same will was donated to the State, from any claim in equity that the granddaughter might have. This was, of course, in addition to one-fourth of the estate which descended to Miss Lee from her mother.

Neither by intention, nor by donation, nor by any form of hereditary transmission does it anywhere appear that John C. Calhoun had anything to do with the founding of the College which bears Clemson's name.

In 1875 Mrs. Clemson died, and on April 6, 1888, Mr. Clemson followed her to the grave, and was buried in the Episcopal church yard at Pendleton.

Mr. Clemson's will was bitterly contested by the Lee family, but was finally fully sustained by the Supreme Court. After the settlement of the will, the Trustees of the College bought from Miss Floride Isabella Lee her one-fourth of the estate which adjoined the tract given to the State by Mr. Clemson.

The following extracts are made from Mr. Clemson's will‡ in

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\*See Title Book Oconee County, P. 177-f.

†See Judge of Probate's Office, Oconee Co., Apartment 26, Package 287.

‡See Judge of Probate's Office, Oconee Co., Apartment 64, Package 671.

order to show clearly his purpose in offering his property to the State for the founding of the Clemson Agricultural College.

\* \* \* \* "Feeling a great sympathy for the farmers of this State, and the Difficulties with which they have to contend in their efforts to establish the business of agriculture upon a proper basis, and believing that there can be no permanent improvement in agriculture without a knowledge of those sciences which pertain particularly thereto, I have determined to devote the bulk of my property to the establishment of an Agricultural College upon the Fort Hill Place. My purpose is to establish an Agricultural College which will afford useful information to the farmers and mechanics; therefore it should afford thorough instruction in agriculture and the natural sciences connected therewith; it should combine, if practicable, physical with intellectual education, and should be a high seminary of learning in which the graduate of the common schools can commence, pursue and finish a course of studies terminating in thorough theoretic and practical instruction in those sciences and arts which bear directly upon agriculture. But I desire to state plainly, that I wish the Trustees of said institution to have full authority and power to regulate all matters pertaining to said institution, \* \* \* \* but to always bear in mind that the benefits herein sought to be bestowed are intended to benefit agriculture and mechanical industries." \* \* \* \*

"I therefore give \* \* \* \* the aforesaid Fort Hill place where I now reside, formerly the house of my father-in-law, John C. Calhoun, consisting of eight hundred and fourteen acres, more or less, in trust that whenever the State of South Carolina may accept said property as a donation from me, for the purpose of thereupon founding an Agricultural College, in accordance with the views I have hereinbefore expressed, (of which the chief justice of South Carolina shall be the Judge,) then my executor shall execute a deed of the said property to said State and turn over to the same all property hereinafter given as an endowment of said institution, to be held as such by the said State so long as it in good faith devotes said property to the purpose of the donation." \* \* \* \*

"The following named gentlemen, seven in number, shall be seven of the Board of Trustees, to-wit: R. W. Simpson, D. K. Norris, M. L. Donaldson, R. E. Bowen, B. R. Tillman, J. E. Wannaker, and J. E. Bradley; and the State, if it accepts the donation, shall never increase the Board of Trustees to a number greater than thirteen in all, nor shall the duties of the said Board be taken away or conferred upon any other men or body of men. The seven Trustees appointed by me, shall always have the right, and the power is hereby given them and their successors, which right the Legislature shall never take away or abridge, to fill all vacancies which may occur in their number by death, resignation, refusal to act, or otherwise. But the Legislature may provide as it sees proper for the appointment or election of the other six Trustees, if it accepts the donation. \* \* \* The name of this Institution is to be "The Clemson Agricultural College of South Carolina."

In the codicil to his will, Item 12, occurs the following significant statement:

"The desire to establish such a school or college as I have provided for in my said last will and testament, has existed with me for many years past, and many years ago I determined to devote the bulk of my property to the establishment of an Agricultural

School or College. To accomplish this purpose is now the one great desire of my life."

In November 1889, the General Assembly of South Carolina passed the necessary acts authorizing the acceptance of the terms of Mr. Clemson's will, and the establishment of the College. The following extracts are taken from the State laws relating to the College:

Section 1300: "The Honorable Thomas G. Clemson having departed this life on the sixth day of April, A. D. 1888, leaving of force his last will and testament \* \* \* \* wherein he devised and bequeathed the Fort Hill plantation, as well as all his other property, both real and personal, except certain legacies in the said will mentioned and provided for, all in trust to convey to the State of South Carolina when the said State shall accept the same for the purpose of establishing and maintaining an Agricultural and Mechanical College upon the aforesaid Fort Hill plantation upon the terms and conditions of said will, the State of South Carolina hereby expressly declares that it accepts the devise and bequest of Thomas G. Clemson, subject to the terms and conditions set forth in his last will and testament." \* \* \* \*

"Section 1302: The said College shall be under the management and control of a Board of Thirteen Trustees composed of the seven members nominated by said will and their successors and six members to be elected by the Legislature in Joint Assembly."

Section 1304: That it shall require a two-thirds vote of said Board of Trustees to authorize the expenditure of any moneys appropriated to said College by the State, or to authorize the sale or transfer or re-investment of any property or moneys arising from the sale of any property under the provisions of this Act."

"Section 1319: All the privilege tax on fertilizers heretofore required to be paid to the Commissioner of Agriculture shall in the future be paid to the Treasurer of the State, subject to the order of the Board of Trustees of the Clemson Agricultural College of South Carolina; and so much of the money so received as shall be necessary to defray the expenses of the Board in performing the duties now by this Act devolved upon them shall be thus used, and the balance shall go to the said College, for its erection and maintenance."

It will be seen from the above extracts that the State accepted in good faith the terms of Mr. Clemson's will, features of which were the maintenance of the College, the recognition of the self-perpetuating life membership appointed by Mr. Clemson, and the naming of the College after Mr. Clemson.

One of the early official acts of the Board was the passage of a rule that nine votes be required not only to appropriate money, as required by the State Law, but to elect any officer of the College as well. This rule was adopted that there might be no just criticism of domination by the Life Trustees.

## HISTORY OF THE COLLEGE

The College was opened in July 1893, with an enrollment of 446 students. The session extended from the third Thursday in February to the third Thursday in December, with the idea of giving all students in Agriculture an opportunity to be instructed in the practical phases of that subject during the crop-growing season.

On the night of May 22, 1894, the main College building was burned, but the regular work continued, and the building was promptly re-built.

The first graduating exercises were held in December 1896, the graduating class numbering thirty-seven,—fifteen in the Agricultural Courses, and twenty-one in the Engineering Courses. In the fall of 1897, the session was changed to begin the second Wednesday in September and close the second Wednesday in June, as it had been found inadvisable to operate the College through the hot summer months. The exercises of the second commencement, which would normally have occurred in December 1897, were held February 6 to 9, 1898. The under-graduate classes were continued until June. It will be observed that, owing to the change from winter to summer vacation, there was no class graduated in 1897.

Since 1898 the annual commencement exercises have been held regularly in June, but the closing day was afterwards changed to the first Tuesday, instead of second Wednesday, and in the session of 1910-11 to the second Tuesday.

The College has been in continuous operation, and is now in its twenty-fourth session. During this time the average enrollment in the regular courses has been 616, the total 15,134, including 340 in the four-weeks courses, and the total number of graduates, estimating the number for the present session at 112, is 1,347, distributed as follows:

In the Agricultural Courses 605; in the Engineering Courses 586; in the Textile Courses 135; in other Courses 21.

The following table gives accurate information as to the attendance, number of graduates, etc.



Enrollment and Graduates by Courses

Session	Enrollment Regular Courses	4-Weeks Courses	Total Enrollment	Agriculture	Mech. & Elec. Eng.	Civil Engineering	Architectural Eng.	Chemistry & Geol.	Chemistry	Textile Industry	Total Graduates
1893	446		446	0	0	0		0		0	0
1894	635		635	0	0	0		0		0	0
1895	370		370	0	0	0		0		0	0
1896	350		350	15	22	0		0		0	37
'97-'98	449		* 449	15	10	0		0		0	25
'98-'99	446		446	6	7	3		0		0	16
'99-'00	461		461	12	12	0		0		4	28
'00-'01	483		483	9	13	0		0		9	31
'01-'02	500		500	12	28	2		0		17	59
'02-'03	539		539	7	28	5		0		20	60
'03-'04	605		605	4	26	2		0		5	37
'04-'05	637		637	5	21	8		1		5	40
'05-'06	652		652	18	20	15		0		7	60
'06-'07	658		658	28	25	15		0		1	69
'07-'08	687	** 3	690	60	12	12		1		0	85
'08-'09	646	2	648	27	17	8		3		0	55
'09-'10	650	3	653	33	22	19		1		2	77
'10-'11	683	20	703	44	18	8		4		13	87
'11-'12	804	7	811	52	17	9		3		11	92
'12-'13	819	15	834	35	20	9		***		10	74
'13-'14	800	18	818	42	27	5				4	78
'14-'15	819	*	819	61	24	8	2		1	11	107
'15-'16	802	148	950	63	27	11	3		3	11	118
'16-'17	853	124	977	57	32	10	4		4	5	112
Total	14,792	340	15,134	605	428	149	9	13	8	135	1347

By an act of the State Legislature in the session of 1904, and amended in the session of 1907, 165 beneficiary scholarships were established, of the value of \$100 per annum each, and free tuition, apportioned among the counties as are the members of the Senate and House of Representatives. This number has since been increased to 169, by the creation of four new counties.

\*Feb. 8 to July 15, 1897, and Aug. 15, 1897 to June 8, 1898.  
 \*\*Courses started.  
 \*\*\*Course discontinued.

**ORGANIZATION OF THE COLLEGE****1. Agricultural Department**

Agronomy  
Geology and Mineralogy  
Horticulture  
Veterinary Science  
Zoology and Entomology  
Animal Husbandry and Dairying  
Botany and Forestry  
Soils  
Extension and Farm Demonstration Work

**2. Engineering Department**

Mechanical Engineering.  
Electrical Engineering  
Civil Engineering  
Drawing and Architectural Engineering  
Forge and Foundry Work  
Machine Shop Work  
Wood Work

**3. Chemical Department**

Chemistry  
Chemical Analysis (Public State Work)

**4. Textile Department**

Textile Chemistry and Dyeing  
Weaving and Designing  
Carding and Spinning

**5. Academic Department**

English  
History and Political Economy  
Mathematics  
Physics

**6. Military Department**

Military Science and Tactics

**7. Agricultural Experiment Station**

## ORGANIZATION AND MODE OF GOVERNMENT

**Board of Trustees.** This Board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations.

**The President** is the executive head of the College, and has general supervision of all matters within and pertaining to the College, and is charged with executing all rules and regulations passed by the Board of Trustees.

The College is divided into seven departments, namely: Agricultural, Engineering, Chemical, Academic, Textile, Military, and Agricultural Experiment Station. A Director is at the head of each department, and is responsible to the President for its conduct and success. The departments comprise the various divisions indicated on the preceding page. The divisions are in the immediate charge of the professors, associate and assistant professors, and instructors of the respective departments. The President conducts all official business with each department through its Director.

The **General Faculty** shall consist of the President, Commandant, professors, associate and assistant professors.

This Faculty shall meet at least once a month, or whenever called by the President, and shall be an advisory body to the President on such matters connected with the instructional work of the College as may be brought before them.

The **Discipline Committee** shall consist of the President, the Commandant, the Directors of the Agricultural, Engineering, Chemical, and Textile Departments, and six professors nominated by the President and approved by the Board.

This committee shall try students charged with serious offenses, and shall be empowered to award such punishment for serious offenses as in their judgment shall be merited. The Commandant shall present the case to the committee, summon witnesses, and in general act as prosecuting attorney, but shall not vote in the findings.

In order to aid him in his executive duties the President appoints **committees** from the Faculty to which are assigned certain specified lines of work.

The students are allowed wide latitude in carrying on affairs which concern themselves, such as athletic, literary, musical and social organizations. The aim of the Faculty is to assist in every possible way in making these interests helpful to the student body as a whole. In these matters the disposition is to allow a reasonable amount of time for recreation, and to contribute as far as possible towards making the students contented and happy.

## GOVERNMENT OF CADETS

### Military Organization and Mode of Government

The following extracts from the Regulations for the Government of Cadets explain the organization and mode of government of the corps:

"1. The President of the College shall have the general command and government of the institution, watching over its administration, discipline and instruction.

"2. The Commandant of Cadets, under the President of the College, has immediate command and control of the corps of cadets in all that pertains to its organization, drill, military police, discipline and administration. \* \* \*

"3. The organization of the corps of cadets shall, as far as practicable, conform to that of a regiment of infantry of the Regular Army.

"4. The cadet officers and non-commissioned officers shall be appointed by the Commandant of Cadets, subject to the approval of the President of the College. The selection for these positions shall be made from those cadets who have been most studious and soldier-like in the performance of their duties, and most exemplary in their general deportment.

"5. As a rule, the cadet captains and lieutenants shall be selected from the Senior class; the non-commissioned staff and the sergeants from the Junior class; and the corporals from the Sophomore class.

### Leaves of Absence

I. Except in cases of emergency or necessity students will as a rule be granted leaves of absence only on authorized holidays. On such holidays no student will be granted a leave of absence:

(a) Who has recorded against him more than 20 demerits for the term.

(b) Who is not making satisfactory progress in his classes.

(c) Who has any confinements or extras to be served or who is under arrest.

(d) Who has abused any leave of absence previously given.

II. In case of a holiday, release from study hours will be given on the preceding evening, and study hours will be observed on the evening of the holiday. Leaves of absence must not interfere with the study hours.

III. All communications from parents requesting leaves of absence for their sons must be addressed and sent directly to "The Commandant" or to "The President," and must set forth **fully** the reasons for the request. No leave will be granted unless the reasons given are considered satisfactory and sufficient justification for any loss of time or absence from duty involved.

IV. An honorable discharge will be granted to students under age, **only** upon the written request of the parent or guardian, addressed directly to the President of the College. The parent need not give reasons for the request unless he cares to do so.

(The parent's request for an honorable discharge, which means severing the student's connection with the College, must be had in such form as to become a matter of permanent College record. Therefore a letter from a parent to a student expressing willingness for him to get an honorable discharge will not be accepted in lieu of the direct authorization above described. It is very important for the future interests of a student that the circumstances of his withdrawal from the College be made a matter of clear and permanent record.)

V. The President will not consider permits for leaves of absence unless they have first passed through the Commandant's Office.

VI. A student who has been granted leave of absence and who stays over the time allowed, unless for sickness or other good and valid reasons acceptable to the President, will lose his place in the College, and will be required to file a new application for admission, and pay again the matriculation fee of \$5 before being allowed to re-enter. In case he has been sick, a certificate from the attending physician must be submitted, and no such certificate will be accepted unless the President or Commandant has been notified in advance of the date the cadet is due to return.

The President may at his discretion, and in lieu of rematriculation and repayment of fee, punish the offending cadet by arrest, extras, etc., according to the nature and degree of the offence.

### General Regulations

The "Rules and Regulations for the Government of Cadets," a copy of which is furnished each cadet, contains the following:

"Cadets must at all times be respectful in their bearing to professors and other officers of the College.

"Cadets are subject to military discipline at all times, and are required to take part in drill, guard duty and other military exercises.

"All undergraduate students are required to board in the barracks, except those who live with their parents or relatives near enough to attend from their homes. All such students will be required to live in the barracks during the second and third terms of the Freshman or Sophomore years.

"No trunks, bags or boxes will be allowed in the rooms of cadets. Trunk rooms accessible at stated times are provided for storing trunks.

"The practice of hazing is positively forbidden. Any cadet indulging in this practice will be dismissed from the College.

"If any cadet shall consider himself wronged by another, or by any officer of the College, he has the right to complain thereof in writing to the President, who will examine into the complaint and take such measures for redressing the wrong as he may deem proper.

"All combinations of cadets for the purpose of censuring one of their number are prohibited; also all combinations to defeat the purpose of any regulation of the College.

"Cadets are forbidden to keep in their possession any firearms or other weapons not issued by the proper authority.

"The College rules require that all students be vaccinated, and parents are advised to have this done before sending their sons away from home.

"Any cadet who leaves barracks without authority between taps and reveille shall be dismissed.

"Cadets are positively forbidden to use, or have in their possession, intoxicating liquors of any description.

"Profanity and gambling are positively forbidden.

"The smoking of cigarettes is positively forbidden. During the hours from 9:00 A. M., to 1:00 P. M., and from 2:00 P. M., to 4:00 P. M., cadets will not be permitted to smoke on the campus or in the College buildings.

"Cadet 'limits' is defined as all the College lands with certain excepted places. Cadets not otherwise prohibited are permitted during release from quarters to be on the above mentioned grounds without special permission.

"Demerits will be awarded for every unremoved report, the number depending on the nature and the degree of the offense.

"Demerits incurred by cadets for violations of the regulations of the College shall be considered in the class standing. Any cadet receiving 67 demerits during any term, or 121 demerits during a

session, shall be brought before the Discipline Committee and shall be dismissed or less severely punished.

“Cadets who receive no demerits for the period of thirty days will be given a credit of eight demerits, to be applied in removing any demerits that accrue during that term.

“For infraction of rules cadets are punished according to the gravity of the offense.

“Punishment consists of demerits and in addition, confinements (detention of cadet in his room), confinement to barracks or other specified limits, reprimands, extras (walking equipped as sentinel), reduction to ranks (for officers and non-commissioned officers), arrest, close arrest, suspension, and dismissal from College.

“Punishment for ordinary offenses will be awarded by the Commandant of Cadets, and for serious offenses by the President or Discipline Committee, according to the nature of the case.

“The College has authority over students except while at home under the control of their parents. They are regarded as students of the College until dismissed, honorably discharged, graduated, or lose their places by reason of overstaying leaves of absence.

“The Commandant and his officers have the right to inspect anything in a cadet's room.”

## ADMISSION OF STUDENTS

### GENERAL ADMISSION

Candidates for admission into the Freshman Class must be sixteen years of age.

Students desiring to enter College should apply to the Registrar for application blanks, and these, properly filled out, should be returned to the Registrar as early in the summer as possible, and in no case later than August 12th. If later the applicant may be crowded out.

Certificates of good moral character are required of all candidates; and if the candidate comes from another college, this certificate must show that he was honorably discharged.

In the admission of students who have met the requirements of the College, the following will be observed,—

1. Students must undergo a medical examination, and no student will be admitted who is not healthy and free from contagious diseases including tuberculosis.

2. In case the number of applicants exceeds the capacity of the College, students will be apportioned among counties in proportion to representation in the House of Representatives, under the following rules and regulations:

(a) As between applicants of equal preparation, the eldest will have the preference.

(b) Other things being equal, the first applicants will receive first consideration.

(c) When a county has not sent its quota, the places thus left shall be apportioned among the other applicants.

(d) Provided there is room in the barracks after the needs of the State have been met, students from outside the State may be admitted, and when once admitted may continue in College until the completion of their courses.

3. Applicants not entering promptly at the required date will have their rights given to applicants next on the roll.

Students upon arrival at the College at the opening of the session must report at once to the Registrar's office and matriculate before they will be assigned to quarters in the barracks. No student will be admitted to any of the classes or examinations of the College before matriculation and payment of fees.

Matriculation is equivalent to a pledge to conform to the rules of the College.

Beginning with the session of 1917-1918 no application to enter the College will be considered until the applicant has filed the following pledge with the Registrar. This pledge will be sent to old students and new applicants during the summer months, and must be returned promptly.

I, \_\_\_\_\_, hereby make application to enter the Clemson Agricultural College as a student for the session 19\_\_\_\_\_.

In consideration of the advantages consequent thereon, I **solemnly promise on my honor** that, should I become a student of the said College during the said session,

(1) I will not strike, or otherwise inflict pain or injury on any first-year student in said College, or by physical force compel any such student to perform any service or do any act incompatible with the conduct of a cadet and a gentleman.

(2) I will promptly, and of my own initiative, withdraw from said College, should I find myself unable or unwilling to keep the above promise.

Signed in presence of:

**Signed:**

-----  
Parent or Guardian.

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**ADMISSION TO THE FRESHMAN CLASS**

There are three methods of gaining admission to Clemson College—

1. By certificate
2. By examination
3. By certificate and examination combined.

Every applicant must file with the Registrar a certificate of prescribed form showing, (a) the subjects studied by him and the ground covered, (b) the amount of time devoted to each, and (c) the quality of the work. These certificates must be on the prescribed form furnished by the Registrar, and should be returned to the Registrar, Clemson College, S. C., not later than August 12, 1917, or the applicant may be debarred. Applicants for scholarships must return this certificate not later than July 16, 1917. A high school diploma is not acceptable in place of the prescribed certificate.

The right is reserved to give examinations to any applicant at the College.

At least one year's farm experience, obtained since the applicant was ten years old, is required for entrance to the four-year agricultural courses. Students who have not had farm experience will be required to work on the College farm three months during the vacation between the Sophomore and Junior classes, and as many Saturday afternoons during the Junior year as may be necessary. Where this cannot be done, agricultural students will be required to work the whole of two summer vacations on some South Carolina farm approved by the faculty.

Thorough preparation, especially in mathematics, English, and history, is strongly urged. A large number of the failures in the college classes are due to lack of mastery of these important branches.

Applicants having access to a high school are urged to complete it before attempting to enter College.

**1. Admission on Certificate:**

To enter on a certificate the applicant must have at least 12 units to his credit.

For convenience the requirements for admission into the Freshman Class are designated in terms of units. One unit is recitation work given in a subject for five weekly periods of not less than forty minutes each throughout one school session.

A good three-year, or tenth-grade, high school should make 12 units. Entrance into the Freshman Class is based upon the completion of the third year in the high school.

The 12 units may be chosen as follows from the groups below:

AGRICULTURAL COURSES PRESCRIBED UNITS		ENGINEERING AND CHEMISTRY COURSES PRESCRIBED UNITS	
English .....	3	English .....	3
Mathematics .....	3	Mathematics .....	3
History .....	1	History .....	1
Agriculture .....	1		
	8		7
Elective units .....	4	Elective units .....	5
	12		12
Total .....	12	Total .....	12

### Subjects Accepted for Entrance

A detailed description of these subjects follows.

#### Prescribed—

English  
 Mathematics  
 History  
 Agriculture (For Agricultural Students)

#### Elective—

History  
 Agriculture  
 Physiography  
 Physiology  
 Foreign Language  
 Botany  
 Manual Training  
 Drawing  
 Physics  
 Commercial Geography

## 2. Admission on Examination:

Applicants who have not completed the third year's work in their home schools will be required to take entrance examinations in the "prescribed" subjects listed above, and in a sufficient number of "elective" subjects to make the 12 units.

Examinations in all the "prescribed" subjects except History, will be held by the County Superintendents of Education on July 13, 1917. Applicants for admission are advised to stand these examinations on this date, which is prescribed by law as the time for holding competitive examinations for the award of scholarships. In case the applicant for admission fails to pass on all the prescribed examinations, he may be given another opportunity at the College in September. If he is unprepared he will be saved the expense of a trip to Clemson.

Copies of old examination questions will be furnished upon application as long as the supply lasts.

**Schedule of Entrance Examinations at the College:**

Geometry—Wednesday, September 26, 1917—2 P. M.

Composition and Rhetoric—Thursday, September 27, 9 A. M.

Algebra—Thursday, September 27, 1917—2 P. M.

English Grammar—Friday, September 28, 1917, 9 A. M.

Schedules for subjects not listed will be arranged after the applicant reaches the College.

Applicants having any examinations to stand must report to the College on September 25, 1917.

**3. Admission on Certificate and Examination:**

Students coming from high schools not making 12 units and from rural schools will be credited with such subjects as they have completed, provided sufficient time has been given to them. In addition they must take examinations in a sufficient number of subjects to satisfy the Entrance Committee as to their preparation. If applicants of this kind file their certificates with the Registrar at least one week before the second Friday in July, they will then be notified as to the examinations required of them in time to take these examinations under the County Superintendent of Education on July 13, 1917..

**Description of Entrance Subjects**

**English**

- (a) Grammar ----- 1 unit  
Punctuation, sentence and paragraph structure, etc. The work as given in Buehler's Grammar will be sufficient.
- (b) Composition and Rhetoric ----- 1 unit  
Brooks' English Composition, Book I, and Woolley's Handbook of Composition are the texts suggested. Compositions on subjects chosen from the students' reading. The ability to write good English is of the greatest importance.
- (c) Literature ----- 1 unit  
The reading and study of English Literature.

**Mathematics**

- (a) Commercial Arithmetic ----- 1 unit  
A general review of the fundamental principles. Percentage as applied to business methods, etc.
- (b) Algebra—to quadratic equations ----- 1 unit
- (c) Algebra—through quadratic equations, progression, and binomial theorem ----- 1 unit  
Wells' Algebra for Secondary Schools or one of similar grade is recommended.

- (d) Plane Geometry ----- 1 unit  
The course as outlined in Wells' new Plane Geometry, including the proof of original propositions.

### History

- (a) American History and Civics ----- 1 unit  
(b) Ancient History, especially Greek and Roman History - 1 unit  
(c) Mediaeval and Modern History ----- 1 unit  
(d) English History ----- 1 unit  
A knowledge of the State-adopted text books is necessary.

### Foreign Language

- (a) Latin—grammar, vocabular, easy translations ----- 1 unit  
(b) Latin—Caesar's Gallic Wars or equivalent ----- 1 unit  
(c) Latin—Cicero, six orations or equivalent ----- 1 unit  
(d) French or German, elementary ----- 1 unit

### Science

- (a) Physiography ----- 1-2 to 1 unit  
Farr's Geography is recommended as a text for this course.  
(b) Physics ----- 1-2 to 1 unit  
(c) Physiology ----- 1-2 to 1 unit  
(d) Botany ----- 1-2 to 1 unit  
Bailey's Elementary Botany should be followed in this course. Note-book required.

### Agriculture

- (a) Agriculture ----- 1 to 2 units  
Agriculture for School and Farm, Volume II, by J. M. Napier is a text specially suited for South Carolina students. This text is gotten out by the Extension Division, Clemson College. Practical experience on the farm will also be counted toward this credit. If the experience has extended over two full years since the applicant was ten years old, it may be accepted in lieu of the text book requirement.

One year's farm experience since 10 years old is required of all students entering the Agricultural Courses. Student who have had no experience will be required to work on a farm during their college course. See "Admission to the Freshman Class" for details.

### Drawing and Shop Work

- (a) Shop Work ----- 1-2 to 1 unit

To be accepted for entrance the work must have been done in a manual training school or in an adequately equipped shop under a competent foreman. The work may consist of bench and lathe work, forge work, foundry work, or machine shop work.

(b) Drawing ----- 1-2 to 1 unit

Either freehand or mechanical drawing will be accepted.

### ADMISSION TO THE ONE-YEAR AGRICULTURAL COURSE

The requirements for admission are fully described in the write-up of this course.

#### Admission to Advanced Standing

Advanced standing will be given to high school graduates only on examination.

No student will be admitted to the Sophomore Class unless he can present at least 10 hours credit of Sophomore theoretical work. Students desiring advanced standing must present a certificate showing in detail the work they have completed.

Any student entering the Freshman Class from an approved high school will be excused from taking Plane Geometry, provided he passes a satisfactory examination at the College on that subject.

### SCHOLARSHIPS

#### Statement of the State Laws and College Rules Governing the

#### Award of Four-year Scholarships

1. Each county is allowed as many scholarships as it has representatives in the General Assembly. The total number for the State is now one hundred and sixty-nine. The number of vacancies in any particular county can be learned by making inquiry of the Registrar of Clemson College.

2. Scholarship students are required to take one of the Agricultural Courses, except that one scholarship per county is allowed in the Textile Course. Scholarship students are not permitted to take the Engineering Courses.

3. Each scholarship pays \$100.00 per session in cash, and allows free tuition, worth \$40.00 more. The regular scholarship is good for four consecutive years, unless terminated by the student's failure to maintain himself in his class and comply with the rules of the College.

4. A competitive examination is used as a basis for awarding the scholarships. The examinations are conducted by the County Superintendents of Education at the county seats, on the second Friday in July, from 9 A. M. to 4 P. M.

5. All applicants are required to furnish the Registrar of Clemson College not later than July 16, 1917, the prescribed certificates showing financial inability, and the application form showing school preparation. The applicant may not be considered unless the above papers are received within the specified time.

6. The examination questions are prepared and the papers graded by the Clemson Faculty. The names of the applicants who pass the examinations and who are otherwise qualified are forwarded to the State Board of Charities and Corrections together with the certificates of financial inability. The State Board of Charities and Corrections then makes an investigation into the financial standing of the applicant, his parent or his guardian. The said Board reports its findings together with its recommendations to the Clemson College Board of Trustees. This Board makes a recommendation to the State Board of Education based upon the result of the examinations and the findings of the State Board of Charities and Corrections. The State Board of Education makes the final awards and hears appeals, as provided by law.

7. The applicant is tested by competitive examinations in agriculture, English, and mathematics.

8. The College has a right to reject any applicant who in respect to age (16 years at the time of entering), examinations, or in any other respect, fails to meet its requirements for admission.

9. The following are not eligible for scholarship appointments:

- (a) A person who during the current year has won or holds a scholarship at another State institution.
- (b) A person who has been in attendance at Clemson College or "any other institution of higher learning known as a college or university,"—provided however, that this condition shall not apply if there are no other eligible candidates for the scholarship.
- (c) A person who has forfeited a scholarship at Clemson College or any other State institution by failure to maintain himself.

10. No applicant shall be debarred from standing the examinations because he has failed to fill out the necessary certificate of financial inability as required by law. However, this certificate must be in the hands of the Registrar of Clemson College before the applicant can be considered eligible for a scholarship. (The

blank certificate form can be obtained at any time from the Registrar of Clemson College, or from the County Superintendent of Education on the day of the examinations.) It must reach the Registrar not later than noon of July 16th, otherwise the applicant will be eliminated from the competition.

11. If a scholarship vacancy shall occur, and the county to which it belongs has no eligible applicant, the Clemson Faculty may fill the vacancy by awarding the scholarship to some eligible applicant from another county. However, any such appointment shall not last longer than one session.

12. No recommendations for scholarship awards to alternates will be made later than 30 days after the opening of the session.

### Distribution of Scholarships

The one hundred and sixty-nine four-year scholarships provided in this institution by the Legislature are apportioned to the counties of the State according to law as follows:

Abbeville .....	3	Hampton .....	2
Aiken .....	4	Horry .....	3
Anderson .....	7	Jasper .....	2
Bamberg .....	3	Kershaw .....	3
Barnwell .....	4	Lancaster .....	3
Beaufort .....	3	Laurens .....	4
Berkeley .....	3	Lee .....	3
Calhoun .....	2	Lexington .....	4
Charleston .....	9	Marion .....	3
Cherokee .....	3	Marlboro .....	4
Chester .....	3	McCormick .....	2
Chesterfield .....	3	Newberry .....	4
Clarendon .....	4	Oconee .....	3
Colleton .....	3	Orangeburg .....	6
Darlington .....	4	Pickens .....	3
Dillon .....	3	Richland .....	6
Dorchester .....	2	Saluda .....	3
Edgefield .....	3	Spartanburg .....	8
Fairfield .....	3	Sumter .....	4
Florence .....	4	Union .....	3
Georgetown .....	3	Williamsburg .....	4
Greenville .....	7	York .....	5
Greenwood .....	4		

Note.—Scholarship students will make only one deposit of about \$62.61 with the Treasurer at the beginning of the session. This amount varies slightly, depending upon the price of the uniform.

### One-year Agricultural Scholarships

The holders of these scholarships are required to take the One-year Agricultural Course described elsewhere in this catalogue.

No financial certificate is required of applicants for these scholarships. The Act defining them is as follows:

“Sec. 1. **Beneficiary Scholarships for Clemson.**—There are hereby established and created fifty-one beneficiary agricultural scholarships in the Clemson Agricultural College of South Carolina, said

scholarships to be of the value of one hundred dollars (\$100) per annum, and free tuition, and to be awarded so that there shall be one scholarship to each county, and seven scholarships from the State at large.

**“Sec. 2. To Whom Open—Examinations.—**The said scholarships shall be open to any young man a native of South Carolina, eighteen (18) years old or over, who has spent not less than three (3) years in the active practice of farming, consideration being given to the need and worth of the applicant, and to his agricultural knowledge as shown by suitable examinations. All applicants shall stand such examinations as shall be prescribed by the proper authorities of the Clemson Agricultural College, and these examinations shall be held at the same time and in accordance with the general laws governing the examinations for other scholarship students.

**“Sec. 3. Board of Education to Appoint.—**The faculty of the said Clemson Agricultural College, or committee designated by the Board of Trustees for the purpose, shall recommend to the State Board of Education for appointment to the scholarships one of the young men who has successfully passed the examination and is otherwise qualified.

**“Sec. 4. How Scholarships To Be Paid For—Term of Scholarships.—**The said scholarships shall be paid from the income of the said Clemson Agricultural College as now provided by law, and each shall continue for a term not exceeding one year, or for such length of time as the beneficiary shall be able to maintain himself as a student of the college, and the said sum of one hundred dollars (\$100) per annum shall be placed to the credit of each beneficiary and applied to the payment of his board and other necessary expenses.

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Note.—The holders of these scholarships will be required to make one deposit of about \$32.86 with the College Treasurer at the beginning of the session. The exact amount of this deposit is determined by the cost of the uniform. See a full description of the One-year Agricultural Course and the costs as given elsewhere in this publication.



**THE SOUTHERN RAILWAY LOAN FUND****William Wilson Finley Foundation**

The sum of \$1,000.00 has been deposited with the College to be used as a loan fund and is available for young men living in counties traversed by the Southern Railway or the Blue Ridge Railway. The following conditions govern the use of this fund:

(a) That no help be extended to a student during his first year in College.

(b) That after he has been in College for one year, and during that time demonstrated not only his need, but his worth in character, studiousness and promise, the President of the College may at any time during the session loan to such needy student a sum not to exceed seventy-five dollars in any one session, provided the beneficiary is pursuing a regular agricultural course (one-year or four-year course), is a resident of a county traversed by the Southern Railway, or the Blue Ridge Railway, and does not hold a scholarship of any kind.

(c) That the student receiving this financial assistance shall give his note bearing 6 per cent. interest, payable one, two, or three years after completion of course. The loans of the first year shall be payable within one year after completion of the course, and any second and third loans shall be payable two and three years respectively after date of normal completion of the course.

At the discretion of the President the student may be required to furnish at least one endorsement from a financially responsible party, who may be the student's parent or guardian.

(d) The President shall at the close of each fiscal year, June 30, make a statement to the Clemson College Board of Trustees and to the President of the Southern Railway, giving full details as to the use and status of the Fund.

(e) Not more than one-fourth of the Fund shall be loaned in any one fiscal year.

**THE CHERRY LOAN FUND****George Cherry Foundation**

Mrs. Mary Cherry Doyle of Oconee County has donated the sum of \$1000.00 to be used as a loan fund to worthy and needy students from Oconee and that part of Anderson County including Pendleton. The purpose of the fund is to commemorate her father, the late George Cherry, whose old home is near the College.

All the details of the administration of the fund have not yet been decided upon, but they will in general be similar to the conditions governing the Southern Railway Fund.

Further information will be supplied on request.

### FEES AND LIVING EXPENSES

The regular fees and expenses for the session for all courses, except the One-year Agricultural Course, not including tuition, are as follows:

Matriculation and incidental fee -----	\$ 5.00
Breakage fee -----	3.00
Medical fee -----	6.00
Uniforms (3 coats, 2 trousers, 1 cap, 1 overcoat) -----	49.61*
Board (9 months at \$9.00) -----	81.00†
Laundry (9 months at \$1.00) -----	9.00†
Heat, light, and water (9 months at \$1.00) -----	9.00
Total -----	\$162.61

Tuition students pay \$40.00 in addition to the above. Tuition is free only to South Carolina students who have established their inability to pay.

The above charges must be paid quarterly in advance as follows:

September 19, 1917 -----	\$ 76.81
November 26, 1917 -----	36.30
February 2, 1918 -----	24.75
April 11, 1918 -----	24.75
Total -----	\$162.61

Students who pay tuition must add \$10.00 to each of the above quarterly payments.

Tuition students pay \$10.00 per quarter additional. Free tuition is allowed only to South Carolina students.

#### Medical Fee

The medical fee of \$6.00 which is paid by each student upon matriculation is intended to cover all ordinary cases of sickness and the treatment and medicines necessary. It is not intended to cover fees of doctors who may be called into consultation, or for performing operations, or for any medical or surgical attention performed away from the College.

#### Breakage

The breakage fee of \$3.00 is a deposit to cover damage or destruction of College property when individual responsibility can not be located. Any amount remaining to the credit of a student at the end of the session will be refunded. A student will be

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\*If the student takes good care of his uniform, this item is practically cut in half after the first session.

†These figures cannot be guaranteed on account of war conditions.

required to pay directly to the Treasurer for any damage done to College property for which he is personally responsible. The occupants of a room will be held responsible for any damage to property in the room.

### Settlement of College Fees

Remittances should be made in cash, by money order, New York Exchange, or by local check, made payable to S. W. Evans, Treasurer.

**New Students** are required to purchase two mattress covers at \$1.00 each, and two clothes bags at 25c. each. These are regulation articles and can be secured only at the Cadet Exchange. They will last for the entire course of four years and can often be bought second-hand at less than the above figures.

In addition to the above named articles, all cadets are required to provide themselves with the regulation uniforms, 2 pairs of black shoes (high tops, with tips), 12 white standing collars, and 4 pairs of white Berlin gloves. The uniforms can be purchased only through the College on the uniform contract. The shoes, gloves, and collars may be brought from home or purchased locally.

The following list is suggested as being necessary for convenience and comfort of cadets. The sheets, pillow and pillow cases must be brought from home, but the other articles may be purchased from stores in the vicinity of the College or brought from home as the student desires.

1 Comb.	
6 Shirts.	1 Shaving outfit.
1 Pillow	6 Handkerchiefs.
6 Towels	1 Blacking brush.
1 Soap box.	4 Pairs of drawers.
3 Pairs cuffs.	6 Pairs black socks.
1 Hair brush.	3 Nightshirts or pajamas.
1 Tooth brush.	2 Blankets or comforters.
3 Pillow cases.	4 Single-width bed sheets.
1 Cake of soap.	1 Pair rubbers (necessary).
1 Box blacking.	1 Cloth brush or whisk broom.

A fee of \$2.00 is charged for a diploma, payable before graduation.

### Rules Governing Refunds to Students

Refunds will be made to students under the following rules:

1. Out of the amount deposited for a full set of uniforms, refunds will be made for any garments in the possession of the cadet that are acceptable by the Commandant as serviceable. Parents will be notified of the amounts refunded under this rule.

No refunds for uniforms will be guaranteed to students who withdraw from College after having ordered the uniforms. If order cannot be cancelled the uniforms will be sent to the cadet upon receipt of same.

2. The refund for board, laundry, heat, light, and water will be at the rate of \$11.00 per month, but no refund will be made for interruptions of less than one month, or in cases of discharge issued less than one month from the end of the current quarter.

3. A refund of all moneys, except the incidental fee and 50c. per day for board, etc., will be made to any student who leaves College within ten days of the date of his matriculation, provided however that no refund can be guaranteed for uniform if same has been ordered.

4. Any balance of the \$3.00 breakage fee at the end of the session will be sent to parents after the close of the session in June.

5. No refund of medical fee, (\$6.00), or for quarterly tuition payment (\$10.00), will be made unless the student withdraws within ten days after matriculating.

6. In no case will the matriculation fee be refunded to a student who has matriculated.

7. The College will not be liable for articles lost or stolen in the barracks.

8. The College will not be liable for lost or damaged laundry, unless reported within two days after date upon which laundry was due to be delivered, and then for not more than the actual depreciated value of such articles as have been lost or damaged.

### Optional Expenses

For the information of parents the following list of expenses connected with student activities is given. None of these are required by the College.

Subscription to the "Chronicle" -----	\$1.00
Subscription to the "Tiger" -----	1.00
Subscription to the "Annual" -----	2.50
Initiation fee in the literary societies -----	2.00-3.00
Annual membership fee in the literary societies -----	1.00
Lyceum ticket -----	1.00
Membership fee Y. M. C. A. -----	3.00
Season ticket to athletic games -----	3.25

It is not possible to give an estimate of a cadet's expenditures for such amusements as dances, extra entertainments in chapel, moving pictures, etc. This depends largely upon the disposition and the home training of the young man. The College endeavors to reduce to a minimum the temptation to spend money needlessly, but the authorities cannot be responsible for a cadet's private expenditures. This must be a matter between him and his parents.

**List of Text-books and Material Needed by the Freshman Class**

These books may be purchased at a local book-store before the student leaves home. They may be obtained most economically at the Cadet Exchange at the following cost when new. Usually there are also a number of second-hand books which may be purchased much cheaper.

**Engineering Course—First Term**

Elements of Agriculture—Warren -----	\$1.00
Plane and Solid Geometry—Durrell -----	1.20
The Study and Practice of Writing English—Lomer and Ashmun -----	1.00
Woolley's Mechanics of Writing -----	.90
Shorter English Poems—Scudder -----	.30
Academic Dictionary—Webster -----	1.35
South Carolina History—Chapman -----	.70
Commercial Geography—Olin -----	1.00
Engineering Drawing—French -----	1.80
Drawing Board and Supplies -----	4.00
Drawing Instruments -----	12.50 up
Forge Shop Hammer -----	.38
Lefax Loose Leaf Note Book -----	.75 or 1.00

**Second Term**

Essentials of Ancient History—Wolfson -----	1.35
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**Third Term**

Text-book in Algebra—Wells -----	1.25
Essentials in Medieval and Modern History—Harding -----	1.35
I. C. S. Pen Drawing -----	.60

**Agricultural Course—First Term**

Elements of Agriculture—Warren -----	1.00
Plane and Solid Geometry—Durrell -----	1.20
The Study and Practice of Writing English—Lomer and Ashmun -----	1.00
Shorter English Poems—Scudder -----	.30
Woolley's Mechanics of Writing -----	.90
Academic Dictionary—Webster -----	1.35
South Carolina History—Chapman -----	.70
Commercial Geography—Olin -----	1.00
Leavitt's Outlines of Botany -----	1.60
Lefax Loose Leaf Note Book -----	.75 or 1.00
Agricultural Drawing—French and Ives -----	1.25
Drawing Board and Supplies -----	3.50
Drawing Instruments -----	5.00 up
Forge Shop Hammer -----	.38
Rowe's Commercial and Industrial Bookkeeping -----	1.40

**Second Term**

Essentials of Ancient History—Wolfson -----	1.35
---	------

**Third Term**

Text-book in Algebra—Wells -----	1.25
Essentials in Medieval and Modern History—Harding -----	1.35
I. C. S. Pen Drawing -----	.60

Each student is required to have his own text-books, except in the case of brothers in the same class and course rooming together. Engineering students will not be permitted to use second-hand drawing tools.

**FREE TUITION**

Tuition is \$40.00 per session, payable quarterly. Free tuition is granted to residents of South Carolina unable to pay the same, provided they comply with the State laws. All applicants for free tuition must file with the College the prescribed application to the State Board of Charities and Corrections. This blank will be sent to all applicants prior to August 12th, and must be returned properly filled in before the opening of College.

Immediately after the opening of College, the application is forwarded to the State Board of Charities and Corrections, which Board is required by law to investigate the financial standing of the parent or guardian, or the applicant himself if he is of age. This Board reports its findings, together with its recommendations, to the Clemson College Board of Trustees, who may revoke or confirm the recommendations.

Any person required to pay tuition by the Board of Trustees may appeal to the State Board of Education as provided by law.

Applicants filing the prescribed form will be granted free tuition pending investigation by the State Board of Charities and Corrections and action by the Board of Trustees. Applicants for free tuition will be notified of the result of the investigation by about the first of January.

## GRADES, REPORTS, AND EXAMINATIONS

Reports of class standing and discipline are sent to the parents at intervals of approximately one and one-half months throughout the session. During 1917-1918 these reports will be made up for periods ending on the following dates, and will usually be mailed to parents about one week later, November 3rd and December 22nd,\* 1917; February 9th, March 24th,\* May 4th and June 15th,\* 1918.

The term reports sent out just after the dates marked with an asterisk (\*) include the term examination grades combined with the daily class grades. Any failures shown on the term report must be made up either by taking another examination or by taking the subject over. Too many term failures result in a student having to take his class over if permitted to do so.

The half-term reports are sent out about the middle of each term, and are intended to give information as to the progress and discipline of the student. A failure shown on the half-term report may be made up in most cases by diligent study during the remainder of that particular term.

Examinations are held at the close of each term.

The Grading System is as follows:

E—90 to 100.

S—70 to 89.

P—60 to 69.

D—Deficient on work, either class or examination. Deficiency may be removed by examination.

F—Failed on work, either class or examination.

?—Work to be made up on account of absences.

W—Work to make up on account of not completing the required number of exercises in shop or laboratory within the specified time.

## FACULTY RULES

### Rules for Re-examination and Promotion

A re-examination shall not be granted to a student in a subject in which he has a grade of F.

A student shall not be allowed re-examination who makes a grade lower than P on more than three subjects during the session or on more than two subjects for one term, provided that, if three of the failures are in the same subject, he may be allowed re-examination in one additional subject for one term.

A student shall schedule first any work that he is required to take over.

A student who fails to be promoted with his class forfeits his place in College and will be allowed to re-enter only by special permission of the Faculty for good and sufficient reasons.

A student is not permitted to take a term or class more than twice.

A student, who, for any reason, fails to take his re-examination at the scheduled time, shall not be allowed to take the examination except by permission of the Faculty.

All re-examinations, except for Seniors, shall be held during the first five days of the session.

A failure in practical work shall have the same weight as a failure in a theoretical subject.

A student who is granted special privileges to make up work shall report at the next scheduled period after the privilege is granted and shall first make up the subjects in which he is deficient in the lower classes. A list of such delinquents shall be furnished each instructor.

A student taking the class over forfeits all previous records in that class.

A student who has a failure in more than one subject for the preceding year shall not be promoted from one class to another; and a student who is promoted with work behind shall be classed as a conditioned student, and shall be required to schedule first the subjects in which he is deficient.

A student with work to make up shall not be promoted to the Senior Class.

A student who has work to make up in a subject shall not be promoted in that subject.

The Committee on Irregular Students may, with the consent of the directors of departments or heads of divisions in the Academic Department, schedule for students taking over work a less number of hours than is required by the curriculum.

A student shall be required to take over class failures with the class in which the failures occurred.

### **Rules Governing Change of Course**

Students in the three upper classes are allowed one month from the date of their entrance to such class in which to make application for a change in course.

Students in the Freshman Class are allowed thirty days from the date of their entrance and the first ten days of the second term in which to make application for a change in course.

Students who change their course and have work behind are required to make up or take over the work germane to the new course.

### **Rules Governing Irregular Courses**

An application for an irregular course must be accompanied by the written approval of the parent or guardian and of the directors of the departments in which the work is to be taken.



A student who wishes to continue an irregular course shall at the beginning of each College year make a new application to the Faculty for such course.

A student taking an irregular course shall have not less than 26 hours of work per week of which not less than 12 hours shall be theoretical.

A student below the Junior Class shall not be granted an irregular course. For students who have failed in the Junior Class, and who must take two years to graduate, the Junior subjects are regular.

Diplomas are not issued to students in irregular courses, but a certificate of proficiency will be given when the work completed is deemed worthy of it.

### Rules Governing Make-up Work

When for any reason except military duty a student is absent from one-fifth or more of the total number of class periods in any theoretical subject in a half-term, he shall be required to make up the work to the satisfaction of the instructor within thirty days of his return to duty, and the grade obtained shall be entered as the average grade for the period of absence.

A student absent from practical work, except on account of military duty, shall make up the work to the satisfaction of the instructor within thirty days after his return to duty.

A student absent from monthly reviews or examinations shall make up the work missed. If he is absent on account of military duty, he shall make up the work in a regular scheduled hour designated by the instructor.

A student who, for good and sufficient reasons, is absent from all the term examinations of any one term, may take the examinations during the following terms of the session at such times as may be designated by the instructor, provided the times designated do not conflict with regular work.

No grade shall be given for absences except as provided for under "Grading".

A student failing to make up theoretical or practical work at the appointed time shall be reported to the Military Department for punishment.

A student entering the Sophomore or the Freshman Class late shall be given till the end of the following session to make up practical work. A student entering the Sophomore Class in the engineering courses may make up Freshman agriculture by examination at the discretion of the director of the Agricultural Department.

### DEGREES, MEDALS, AND HONORS

The degree of Bachelor of Science (B. S.) will be conferred on any student who satisfactorily completes one of the prescribed four-year courses of study, as tabulated on the following pages, and submits an approved thesis not later than June 1st of his Senior year. The course pursued is indicated on the diploma.

#### Distinguished Students

Students who make an average grade of 90 per cent. or over for any session are designated as distinguished; provided, however, that the minimum grade on any subject shall not be less than 80 per cent.

During the session of 1915-1916 the following were designated as Distinguished Students:

Name	Grade
Banks, D. H. -----	94.9
Haltiwanger, D. -----	94.2
Agnew, E. H. -----	92.9
Waters, R. B. -----	92.9
Webb, R. W. -----	92.6
Parks, F. L. -----	92.4
O'Dell, D. G. -----	92.4
Plexico, R. S. -----	90.5

Students who attain to a certain standard fixed by the Faculty will have their names publicly announced, printed in one or more publications, and notification will be sent to their parents. This standard was as follows for the session of 1915-1916: That a student attaining this standard shall have no failures, no work to make up, and less than twenty demerits at the close of each term during the session. The following students in all classes had attained to this distinction at the close of the session of 1915-1916:

Adams, J. B.	Bodie, D. D.
Agnew, E. H.	Bomar, W. E.
Albrecht, C. H.	Bostick, E. M.
Anderson, F. C.	Bradford, Z. B.
Anderson, S. T.	Brandon, J. D.
Armstrong, F. E.	Brice, M. M.
Atkinson, R. L.	Brogdon, J. A.
Aull, G. H.	Brown, C. J.
Ayers, T. L.	*Bates, W. O.
Bailey, M. B.	Bryant, W. H.
Bankhead, J. B.	Buie, T. S.
Banks, D. H.	Burch, H. L.
Bates, J. M.	Burdette, L. W.
Blackmon, J. F.	Burns, P. M.
Blackwell, W. M.	Caldwell, A. J.
Blair, J. D.	Camp, W. B.
Bledsoe, I. I.	Campbell, C. D.

Campbell, L. O.  
Cannon, L. B.  
Cannon, W. M.  
Cantey, J. S.  
Carwile, A. B.  
Castles, L. J.  
Cheatham, R. J.  
Conyers, J. W.  
Courtney, B. O.  
Cribb, E.  
Crumpler, D.  
Dicks, W. H.  
Dunlap, W. M.  
**Durham, G. H.**  
Elliott, H. M.  
Etheredge, M. P.  
Felder, H. H.  
Finger, B. L.  
Folger, D. F.  
Folk, M. H.  
Freeman, W. T.  
Gaines, H. E.  
Gambrell, S. C.  
Garrison, L. C.  
Gilmore, L. H.  
Goodwin, E.  
Graham, W. C.  
Graves, C. C.  
Gray, J. L.  
Haddon, F. M.  
Haigler, S. W.  
Hall, R. A.  
Haltiwanger, D.  
Harmon, C. C.  
Harper, J. K.  
Harris, C. G.  
Harrison, D.  
Haseldon, J. D.  
Haskell, A. W.  
Hawkins, J. F.  
Heath, J. P.  
Henegan, J. C.  
Herbert, W. C.  
Hester, T. J.  
Hill, G. O.  
Horton, F. B.  
Howell, V. M.  
Howell, W. F.  
Hughes, H. C.  
Hunter, W. E.  
Jackson, J. M.  
Jefferies, W. N.  
Jones, A. C.  
Jones, S. C.  
Kaufman, J. E.  
Kendrick, J. B.  
Kirkpatrick, M. H.  
Kyzer, E. D.  
Laidlaw, R. E.  
Leslie, W. E.  
Lever, A. L.  
Lightsey, O. P.  
Littlejohn, C. E.  
Long, E. W.  
Lyles, N. P.  
Lupo, G. M.  
McConnell, H. S.  
McCord, A. S.  
McCord, M. M.  
McKeown, H. S.  
McLeod, D. R.  
McLeod, W. T.  
**McMeekin, A. H.**  
**McMillan, W. L.**  
Martin, G. H.  
Martin, J. R.  
Matheny, N. W.  
Matthews, G. R.  
Matthews, J. D.  
May, L. A.  
Mays, R. A.  
Mellett, R. R.  
Mixon, A.  
Monroe, D. E.  
Montgomery, H. D.  
Murray, J. J.  
Neil, J. M.  
Nimitz, H. J.  
Norman, A. I.  
Nowell, A. E.  
Nowell, J. L.  
O'Dell, D. G.  
Odom, R. J.  
Oliver, S. N.  
Padgett, T. D.  
Parks, F. L.  
Parler, J. W.  
Patjens, A. A.  
Patrick, W. T.  
Pickens, W. A.  
Poag, L. M.  
Poole, R. F.  
Pressley, J. H.  
Pridmore, R. M.  
Prince, G. E.  
Quattlebaum, H. H.  
Robinson, A. J.  
Rogers, L. F.  
Rush, J. D.  
Sansbury, L. S.  
Scaife, W. M.  
Shaw, W. H.  
Simons, M.  
Simpson, D. M.  
Singley, L. K.  
Sitton, B. G.  
Smith, D. P.  
Sowell, H. E.

Stack, D. A.	West, .T
Steadman, B. K.	West, W. R.
Stribling, J. W.	White, W. T.
Stribling, S. C.	Wieters, A. W.
Sullivan, D. H.	Witherspoon, S. M.
Taylor, R.	Willcox, C. A.
Thompson, J. W.	Williams, W. C
Thornton, S. F.	Williamson, S.
Truette, L. T.	Wilson, B. F.
Truluck, W. E.	Wingo, R. A.
Vincent, C. A.	Woods, E. T.
Wallace, F. M.	Young, E. C.
Wallace, W. H.	Zeigler, L. M.
Washington, W. H.	Zeigler, O. J.
Waters, R. B.	Zobel, J. H.
Webb, R. W.	

A Blue Silk C. A. C. Flag is awarded in June of each year to the best drilled company, and is carried by it during the succeeding year.

**Literary Society Medals.**—It is customary for the three literary societies to award gold medals annually for excellence in debate, oratory, and declamation.

The medals for excellency in debate were won by Campbell, L. O., '16, Calhoun; McCall, P. L., '16, Columbian; Banks, D. H., '16, Palmetto.

In oratory, Waters, R. B., '16, Calhoun; Harris, C. G., '17, Columbian; Stribling, S. C., '16, Palmetto.

In declamation, Wofford, J. W., '18, Calhoun; Sellers, A. R., '17, Columbian; Dick, J. B., '17, Palmetto.

The Clemson representative at the South Carolina Intercollegiate Oratorical Contest was Stribling, S. C., '16.

**The Chronicle Medals.**—The Chronicle, the monthly magazine published by the literary societies, also usually awards three gold medals, for the best story, the best poem, and the best essay contributed by students during the year.

**Trustees' Medal.**—The Board of Trustees has established a gold medal, to be awarded annually to the best speaker among the representatives of the literary societies at Commencement. These representatives are chosen by judges selected by the societies at the annual public exercises in Memorial Hall. The medal is awarded by judges selected by the Faculty. Won in 1916 by Black, E. W., '17.

**R. W. Simpson Medal.**—A gold medal thus designated is awarded annually to the best drilled cadet in the Freshman, Sophomore, or Junior Class. This medal was won in 1916 by Kennedy, P. B., '18.

**Norris Medal.**—The following is from Col. Norris' will and covers the conditions upon which the medal is awarded:

"I give \$500 face value, Norris Cotton Mill stock, to the Trustees of Clemson Agricultural College of South Carolina, on condition the dividend thereon shall be applied annually to the purchase of a gold medal, to be known as the 'Norris Medal,' to be awarded to the student of Clemson meriting the same at graduation, under such rules and conditions as may be prescribed by the said Board of Trustees, and which medal shall have engraved on it 'Honos habet onus' (Honor brings responsibility)."

Year	Name	County
1908	Gee, W. P.	Union
	McLendon, C. A.	Florence
1909	Keitt, G. W.	Newberry
1910	Albergotti, W. M.	Orangeburg
1911	Salley A. M.	Orangeburg
1912	Goldfinch, A. K.	Horry
1913	McLeod, W. G.	Lee
1914	Banks, D. K.	Calhoun
1915	Wannamaker, W. B.	Calhoun
1916	Banks, D. H.	Calhoun

#### Appointments in the Army

Every institution with a military department in charge of a detailed officer of the Army is inspected annually by an officer of the General Staff.

As a result of these inspections, institutions are graded into classes, the designation "M. C." being given to the college in the highest class. This college is rated "M. C."

Ten colleges are rated annually as "Distinguished Colleges" and for each year that a college is so rated the President and Professor of Military Science and Tactics rate one member of the graduating class of that year as an "Honor Graduate," and the President of the United States authorizes the announcement that an appointment as second lieutenant in the Regular Army will be awarded annually to such "Honor Graduate" provided a vacancy exists. This "Honor Graduate" is excused from the mental examination required of ordinary candidates from civil life.

**Farmers' Certificates of Merit,**—Beginning with the session of 1914-1915 certificates of merit have been awarded each session to two farmers in South Carolina who have rendered distinguished services in the agricultural development of the state.

The following have been awarded certificates:

1915—McIver Williamson, Darlington, S. C.; W. G. Hinson, James Island, S. C.

1916—David R. Coker, Hartsville, S. C.; J. C. Stribling, Pendleton, S. C.

Stack, D. A.	West, .T
Steadman, B. K.	West, W. R.
Stribling, J. W.	White, W. T.
Stribling, S. C.	Wieters, A. W.
Sullivan, D. H.	Witherspoon, S. M.
Taylor, R.	Willcox, C. A.
Thompson, J. W.	Williams, W. C
Thornton, S. F.	Williamson, S.
Truette, L. T.	Wilson, B. F.
Truluck, W. E.	Wingo, R. A.
Vincent, C. A.	Woods, E. T.
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## DEGREE COURSES

The College offers the following six regular courses of study, each leading to the degree of Bachelor of Science (B. S.), the course pursued being designated on the diploma.

AGRICULTURE

CHEMISTRY

MECHANICAL AND ELECTRICAL ENGINEERING

CIVIL ENGINEERING

TEXTILE INDUSTRY

ARCHITECTURAL ENGINEERING

In addition to these courses, special shorter courses are offered in the Agricultural, the Engineering, and the Textile Departments, but these do not lead to any degree.

## Course I. Agriculture

The course in Agriculture, supplemented by work in mathematics, English, political economy, history, and the natural sciences, allows no differentiation during the first three years. Its object is to give the student such a broad general knowledge of the subject that he will have a solid foundation for specialization in his Senior year and will be able to choose intelligently at the end of his Junior year which of the various branches he desires to study in more detail.

In the Senior year the student will elect a major and minors, the former requiring five hours per week of recitation work and six hours per week of laboratory each term, and the latter requiring two hours per week of recitation and two of practical or laboratory work the first term, and four hours per week of recitation and six of practical work the second and third terms.

Division A, Agronomy, gives special attention to crops, plant breeding, and farm machinery.

Division B, Botany, prepares the student for experiment station work, investigation, and teaching.

Division C, Chemistry, fits the student for experiment station, fertilizer, and general agricultural chemical work.

Division D, Animal Husbandry, embraces dairying, judging, breeding, feeding, and care of stock.

Division E, Entomology, familiarizes the student with insects, especially those injurious to all kinds of plant life.

Division F, Veterinary Science, instructs in the elements of veterinary medicine and the care of animals.

Division G, Horticulture, teaches gardening, fruit growing, truck raising, and landscape gardening.

Division H, Soils, instructs in the maintenance and improvement of soil fertility and the use of fertilizers.



**AGRICULTURE CURRICULUM**

**Freshman Class**

<b>Theoretical</b>	Hours per Week			<b>Practical</b>	Hours per Week		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Mathematics (620, 621) .....	5	5	5	Forge Work (371) .....	2	2	2
English (600) .....	5	5	5	Wood Work (391) .....	2	2	2
History (610, 611, 612) .....	3	3	3	Freehand Drawing (340) .....	2	2	2
Agriculture (100) .....	2	2	2	Mechanical Drawing (342) .....	2	2	2
				Botany (190, 191, 192) .....	2	2	4
				Bookkeeping (650) .....	2	2	0
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Sophomore Class**

Mathematics (622) .....	2	3	0	Chemical Laboratory (401) .....	3	2	2
English (601) .....	3	3	3	Physical Laboratory (633) .....	0	2	2
Physics (630) .....	3	3	3	Ento. and Zo. (150, 151, 152) ...	4	4	2
Chemistry (400) .....	3	3	3	Botany (195, 196) .....	0	4	4
Civil Engineering (321) .....	3	0	0	Agriculture (101) .....	0	0	2
Ento. and Zo. (150, 151, 152) ...	1	2	3	Civil Engineering (322) .....	3	0	0
Botany (195, 196) .....	0	1	1	Physiography (110) .....	2	0	0
Agriculture (101) .....	0	0	2	Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Junior Class**

English (602) .....	2	2	2	Chemical Laboratory (408) .....	3	3	3
History (613) .....	2	2	2	Agriculture (210, 527) .....	2	2	2
Chemistry (404, 405) .....	2	2	2	Entomology (153) .....	2	0	0
Agriculture (210, 102) .....	2	2	2	Horticulture (120, 121) .....	2	0	2
Vet. Science (140) .....	2	2	2	Animal Husbandry (171) .....	0	0	3
Horticulture (120, 121) .....	2	0	2	Dairying (182) .....	3	3	0
Animal Husbandry (170, 171) ...	0	2	2	Vet. Science (141) .....	0	4	0
Dairying (181) .....	2	2	0	Forestry (194) .....	0	0	2
Mil. Science (660) .....	1	1	1	Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Senior Class**

English (603) .....	2	2	2	Bacteriology (197) .....	4	0	0
Economics (614) .....	2	2	2	Drill (661) .....	3	3	3
Geology (114) .....	2	2	2				
Bacteriology (197) .....	2	0	0				
	<hr/>				<hr/>		
	8	6	6		7	3	3
Major Subjects .....	5	5	5	Major Subjects .....	6	6	6
Minor Subjects .....	2	4	4	Minor Subjects .....	2	6	6
	<hr/>				<hr/>		
	15	15	15		15	15	15

## Course II. Chemistry

This course is intended to prepare the student for engaging in manufacturing operations involving chemistry, or for employment as chemist in commercial or fertilizer inspection laboratories, and in experiment station or U. S. Government service. A student completing this course satisfactorily will also be well equipped to undertake advanced work in chemistry and to teach the subject.

The first year of the course is the same as in Course I., Agriculture, (see pages 54 and 55). Beginning in the Sophomore year, and continuing throughout this course, increasing stress is laid upon chemistry, until in the Senior year all the practical work, with the exception of military drill, is devoted to analytical chemistry. With the above stated end in view the student will be given an opportunity to become familiar with many methods of analysis commonly used in commercial and general laboratory work. He will be permitted and encouraged to undertake as many such methods as he can perform without interfering with that indispensable fundamental instruction necessary to every properly trained analytical chemist.

The student is well grounded in English, German, mathematics, physics, mineralogy, chemical geology, and chemistry, the emphasis being given to chemistry, especially during the last two years. German has been introduced into this course because a reading knowledge of this language is almost indispensable to the student who wishes to undertake advanced work in chemistry, or to stand examinations for positions in the U. S. Government service.

## CHEMISTRY CURRICULUM

## Freshman Class

Theoretical	Hours per Week			Practical	Hours per Week		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Mathematics (620, 621) .....	5	5	5	Forge Work (371) .....	2	2	2
English (600) .....	5	5	5	Wood Work (391) .....	2	2	2
History (610, 611, 612) .....	3	3	3	Freehand Drawing (340) .....	2	2	2
Agriculture (100) .....	2	2	2	Mechanical Drawing (342) .....	2	2	2
				Botany (190, 191, 192) .....	2	2	4
				Bookkeeping (650) .....	2	2	0
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

## Sophomore Class

Mathematics (622, 623, 624) .....	5	5	5	Chemical Laboratory (401) .....	6	0	0
English (601) .....	3	3	3	Chemical Laboratory (402) .....	0	6	6
History (613) .....	3	2	0	Chemical Laboratory (403) .....	2	2	2
Physics (631) .....	2	2	2	Physical Laboratory (634) .....	0	0	2
Chemistry (400) .....	3	3	3	Mechanical Drawing (343) .....	2	2	2
Chemistry (402) .....	0	0	2	Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	16	15	15		13	13	15

## Junior Class

Mathematics (627, 628) .....	4	0	0	Assaying (407) .....	2	0	0
English (602) .....	2	2	2	Chemical Laboratory (409) .....	6	6	6
German (640) .....	0	2	2	Organic Laboratory (410) .....	0	2	4
Physics (632) .....	2	2	2	Physical Laboratory (635) .....	2	2	2
Mineralogy (112) .....	2	2	2	Mineralogy (112) .....	2	2	2
Chemistry (404, 405) .....	2	4	2	Drill (661) .....	3	3	3
Chemistry (406) .....	2	2	2				
Mil. Science (660) .....	1	1	1				
	<hr/>				<hr/>		
	15	15	13		15	15	17

## Senior Class

English (603) .....	2	2	2	Chemical Laboratory (415) .....	6	12	12
German (614) .....	3	3	3	Bacteriology (197) .....	4	0	0
Economics (614) .....	2	2	2	Drill (661) .....	3	3	3
Chemistry (411) .....	2	2	2				
Chemistry (412, 413) .....	2	2	2				
Chemical Geology (115) .....	2	2	2				
Metallurgy (414) .....	2	2	2				
Bacteriology (197) .....	2	0	0				
	<hr/>				<hr/>		
	17	15	15		13	15	15

### Course III. Mechanical and Electrical Engineering

This course is designed to fit young men for positions in the various departments of these professions. It attempts by practical and theoretical instruction to lay a solid scientific foundation upon which the student may build rapidly after graduation. The experience necessary to make a successful engineer can not be acquired in a college course, but the technical graduate usually distances his uneducated competitors in the acquirement of practical knowledge and experience.

Within the department are taught mechanics, and mechanical and electrical engineering. Along with the theoretical instruction in these subjects, practice is given in well equipped laboratories.

Shop instruction is given in carpentry, turning, and pattern-making; in moulding, chipping and filing, and the use of machine tools. The purpose of this instruction is not to turn out skilled artisans, but to train those faculties of mind which can best be reached through the work of the hand.

The work in drawing is made one of the features of the course.

**MECHANICAL AND ELECTRICAL ENGINEERING CURRICULUM**

**Freshman Class**

<b>Theoretical</b>	Hours per Week			<b>Practical</b>	Hours per Week		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Mathematics (620, 621) .....	5	5	5	Forge Work (370) .....	3	3	3
English (600) .....	5	5	5	Wood Work (390) .....	4	4	4
History (610, 611, 612) .....	3	3	3	Freehand Drawing (340) .....	2	2	2
Agriculture (100) .....	2	2	2	Mechanical Drawing (341) .....	3	3	3
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Sophomore Class**

Mathematics (622, 623, 624) .....	5	5	5	Chemical Laboratory (401) .....	2	2	2
English (601) .....	3	3	3	Physical Laboratory (634) .....	0	0	2
History (613) .....	3	2	0	Descriptive Geometry (320) .....	2	2	0
Physics (631) .....	2	2	2	Drawing (343) .....	2	2	2
Chemistry (400) .....	3	3	3	Civil Engineering (324) .....	0	2	2
Civil Engineering (323) .....	0	0	3	Foundry (372) .....	2	2	2
				Wood Work (392) .....	2	2	0
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	16	15	16		13	15	13

**Junior Class**

Mathematics (625, 626) .....	5	3	3	Physical Laboratory (635) .....	2	2	2
English (602) .....	2	2	2	Electrical Laboratory (311) .....	3	3	3
Physics (632) .....	2	2	2	Mechanical Drawing (345) .....	2	2	2
Geology (113) .....	0	2	2	Practical Mechanics (380) .....	1	1	1
Mechanism (300) .....	2	0	0	Machine Shop (381) .....	4	4	4
Mechanics (301) .....	0	3	2	Drill (661) .....	3	3	3
Electrical Eng. (310) .....	3	2	3				
Mil. Science (660) .....	1	1	1				
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Senior Class**

English (603) .....	2	2	2	Mechanical Laboratory (304) .....	4	4	4
Economics (614) .....	2	2	2	Electrical Laboratory (313) .....	4	4	4
Mechanics of Eng. (302) .....	2	2	0	Drawing (347) .....	4	4	4
Mechanical Engineering (303) .....	3	4	5	Drill (661) .....	3	3	3
Electrical Eng. (312) .....	5	5	5				
	<hr/>				<hr/>		
	14	15	14		15	15	15

#### Course IV. Civil Engineering

This course is intended to prepare young men for entrance upon professional practice in some of the many branches of civil engineering, and also to meet the needs of those who, having been engaged in engineering work without a course of instruction, desire to equip themselves for more successful competition with those who have had such instruction.

In connection with the technical studies, liberal training is given in English, history, economics, pure mathematics, and the physical sciences. The course will also be found to embrace about the same amount of drawing, shop work, mechanical engineering, and mechanical laboratory practice as the other engineering courses.

The distinctive work pursued by students in this course includes the study of land surveying and plotting, topographic surveying and mapping; location, construction, and maintenance of roads, railroads, streets, and pavements; strength of materials, masonry construction, foundations on land and in water; analytic and graphic investigations of stresses in girders, roofs, and bridges, and the design of these structures; the principles of hydraulics as applied to dams, reservoirs, canals, municipal water-works, and the development of water power.

CIVIL ENGINEERING CURRICULUM

Freshman Class

	Hours per Week			Hours per Week			
	Theoretical			Practical			
	Terms			Terms			
	1st	2nd	3rd	1st	2nd	3rd	
Mathematics (620, 621) .....	5	5	5	Forge Work (370) .....	3	3	3
English (600) .....	5	5	5	Wood Work (390) .....	4	4	4
History (610, 611, 612) .....	3	3	3	Freehand Drawing (340) .....	2	2	2
Agriculture (100) .....	2	2	2	Mechanical Drawing (341) .....	3	3	3
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

Sophomore Class

Mathematics (622, 623, 624) .....	5	5	5	Chemical Laboratory (401) .....	2	2	2
English (601) .....	3	3	3	Physical Laboratory (634) .....	0	0	2
History (613) .....	3	2	0	Descriptive Geometry (320) .....	2	2	0
Physics (631) .....	2	2	2	Mechanical Drawing (344) .....	2	2	2
Chemistry (400) .....	3	3	3	Civil Engineering (324) .....	0	2	2
Civil Engineering (323) .....	0	0	3	Foundry (372) .....	2	2	2
				Wood Work (392) .....	2	2	0
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	16	15	16		13	15	13

Junior Class

Mathematics (625, 626) .....	5	3	3	Physical Laboratory (635) .....	2	2	2
English (602) .....	2	2	2	Civil Engineering (328) .....	3	3	3
Physics (632) .....	2	2	2	Mech. Drawing (346) .....	2	2	2
Geology (113) .....	0	2	2	Practical Mechanics (380) .....	1	1	1
Mechanism (300) .....	2	0	0	Machine Shop (381) .....	4	4	4
Mechanics (301) .....	0	3	2	Drill (661) .....	3	3	3
Civil Engineering (327) .....	3	2	3				
Mil. Science (660) .....	1	1	1				
	<hr/>				<hr/>		
	15	15	15		15	15	15

Senior Class

English (603) .....	2	2	2	Civil Engineering (330) .....	4	4	4
Economics (614) .....	2	2	2	Mechanical Laboratory (304) .....	4	4	4
Mechanics of Eng. (302) .....	2	0	0	Drawing (348) .....	4	4	4
Mechanical Eng. (303) .....	3	4	5	Drill (661) .....	3	3	3
Electricity (314) .....	0	2	0				
Civil Engineering (329) .....	5	5	5				
	<hr/>				<hr/>		
	15	15	15		14	15	14

### Course V. Textile Industry

The course in Textile Industry is designed to give the student sound training, both theoretical and practical, in the sciences upon which manufacturing processes are based. The curriculum of the course recognizes that in a profession of so many aspects a broad general cultivation, a liberal training in design, and a thorough knowledge of the underlying principles are necessary for its successful practice.

The first two years are taken up with a broad general training along scientific and mechanical lines, while from the beginning of the Junior year the work takes on a distinctly professional character. The practical work is carried on for the purpose of developing in the student habits of accurate observation, and of bringing to his consideration not only methods of fundamental importance, but also questions of economy of time, precision of results, and attention to details.

This course does not presume to fit one for the management of a mill, but the graduate is in possession of such information, and has acquired such experience and knowledge that he may look forward to a successful career as manufacturer, mill architect, or technical chemist, provided he has the necessary energy, application, and tact, and a willingness to begin at the bottom.



**TEXTILE INDUSTRY CURRICULUM****Freshman Class**

Theoretical	Hours per Week			Practical	Hours per Week		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Mathematics (620, 621) .....	5	5	5	Forge Work (370) .....	3	3	3
English (600) .....	5	5	5	Wood Work (390) .....	4	4	4
History (610, 611, 612) .....	3	3	3	Freehand Drawing (340) .....	2	2	2
Agriculture (100) .....	2	2	2	Mechanical Drawing (341) .....	3	3	3
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Sophomore Class**

Mathematics (622, 623, 624) .....	5	5	5	Chemical Laboratory (401) .....	2	2	2
English (601) .....	3	3	3	Physical Laboratory (634) .....	0	0	2
History (613) .....	3	2	0	Descriptive Geometry (320) .....	2	2	0
Physics (631) .....	2	2	2	Mechanical Drawing (343) .....	2	2	2
Chemistry (400) .....	3	3	3	Civil Engineering (324) .....	0	2	2
Civil Engineering (323) .....	0	0	3	Foundry (372) .....	2	2	2
				Wood Work (392) .....	2	2	0
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	16	15	16		13	15	13

**Junior Class**

Mathematics (627, 628) .....	4	0	0	Textile Chemistry (501) .....	3	2	2
English (602) .....	2	2	2	Weaving (512) .....	4	4	4
Physics (632) .....	2	2	2	Card. and Spin. (520, 521, 522)....	2	4	4
Mechanism (300) .....	2	0	0	Practical Mechanics (380) .....	1	1	1
Mechanics (301) .....	0	3	2	Machine Shop (381) .....	2	2	2
Textile Chemistry (500) .....	0	2	3	Drill (661) .....	3	3	3
Designing (510) .....	2	2	2				
Card. & Spin. (520, 521, 522) ....	2	2	2				
Mil. Science (660) .....	1	1	1				
	<hr/>				<hr/>		
	15	14	14		15	16	16

**Senior Class**

English (603) .....	2	2	2	Mech. Laboratory (305) .....	0	3	2
Economics (614) .....	2	2	2	Textile Chemistry (503) .....	4	4	2
Mechanical Engineering (303) ....	3	0	0	Weaving (514) .....	4	4	4
Textile Chemistry (502) .....	2	2	2	Card. & Spin. (523, 524, 525, 526)	4	2	4
Designing (511) .....	2	3	3	Drill (661) .....	3	3	3
Weaving (513) .....	2	2	2				
Card. & Spin. (523, 524, 525, 526)	2	3	2				
Mill Economics (526) .....	0	0	2				
	<hr/>				<hr/>		
	15	14	15		15	16	15

### Course VI. Architectural Engineering

This course is established to comply with an increasing demand in the South for men trained in architectural design, building construction, and allied subjects. The course as planned covers a period of four years' study, of which the first two are devoted to technical subjects similar to the other engineering courses, except that drawing and more especially, descriptive geometry, are strongly emphasized in their special application to architectural drawing and rendering. It is recognized that architecture must be treated as an art, as well as a science, and as drawing and design are the most essential elements in an architect's professional work, the greatest possible amount of time is given to them in the Junior and Senior years. Throughout the entire course special attention is paid to the engineering branch of the architect's profession. A thorough study is made of the materials used in construction. Analytic and graphic investigations of stresses in girders, roofs, etc., are made in detail. The various systems of heating and lighting are also studied.

The successful architect must have not only a thorough knowledge of design and building construction, but also a broad sympathy with all intellectual culture. In order to obtain this, the student is encouraged to read literature, history, and science.

**ARCHITECTURAL ENGINEERING CURRICULUM**

**Freshman Class**

	Hours per Week			Hours per Week			
	Theoretical			Practical			
	Terms			Terms			
	1st	2nd	3rd	1st	2nd	3rd	
Mathematics (620, 621) .....	5	5	5	Forge Work (370) .....	3	3	3
English (600) .....	5	5	5	Wood Work (390) .....	4	4	4
History (610, 611, 612) .....	3	3	3	Freehand Drawing (340) .....	2	2	2
Agriculture (100) .....	2	2	2	Mechanical Drawing (341) .....	3	3	3
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Sophomore Class**

Mathematics (622, 623, 624) .....	5	5	5	Chem. Laboratory (401) .....	2	2	2
English (601) .....	3	3	3	Physical Laboratory (634) .....	0	0	2
History (613) .....	3	2	0	Descriptive Geometry (350) .....	4	3	2
Physics (631) .....	2	2	2	Freehand Drawing (352) .....	2	3	4
Chemistry (400) .....	3	3	3	Arch. Drawing (351) .....	2	2	2
Descriptive Geom. (350) .....	0	0	2	Foundry (372) .....	0	2	0
				Drill (661) .....	3	3	3
	<hr/>				<hr/>		
	16	15	15		13	15	15

**Junior Class**

Mathematics (625, 626) .....	5	3	3	Physical Laboratory (635) .....	2	2	2
English (602) .....	2	2	2	Min. Laboratory (111) .....	0	0	2
Physics (632) .....	2	2	2	Civil Engineering (326) .....	0	3	0
Geology (113) .....	0	2	2	Architectural Des. (354) .....	6	5	8
Mechanics (301) .....	0	3	2	Freehand Drawing (355) .....	4	2	0
Civil Engineering (325) .....	2	0	0	Drill (661) .....	3	3	3
Bldg. Construction (353) .....	3	2	3				
Mil. Science (660) .....	1	1	1				
	<hr/>				<hr/>		
	15	15	15		15	15	15

**Senior Class**

English (603) .....	2	2	2	Architectural Des. (360) .....	8	12	12
Economics (614) .....	2	2	2	Testing Laboratory (306) .....	4	0	0
Mechanics of Eng. (302) .....	2	2	0	Drill (661) .....	3	3	3
History of Arch. (356) .....	2	2	2				
Arch. Engineering (357) .....	3	2	4				
Bldg. Construction (358) .....	2	2	2				
Heat and Sanitation (361) .....	0	2	2				
Illumination (315) .....	1	0	0				
Profes. Prac. (359) .....	1	1	1				
	<hr/>				<hr/>		
	15	15	15		15	15	15

## MAJORS AND MINORS IN AGRICULTURE

## Agronomy Major

Theoretical	Hours per Week			Practical	Hours per Week		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Corn Crops (103) .....	2	0	0	Corn Crops (103) .....	2	0	0
Small Grains (104) .....	0	2	0	Small Grains (104) .....	0	2	0
Cotton (105) .....	0	0	2	Cotton (105) .....	0	0	2
Plant Breeding (106) .....	2	0	0	Farm Motors & Con. Con. (107) .....	4	0	0
Farm Motors & Con. Con. (107) .....	1	0	0	Drainage (108) .....	0	4	0
Drainage (108) .....	0	1	0	Farm Management (109) .....	0	0	4
Farm Management (109) .....	0	2	3				

## Agronomy Minor (a)

Truck Farming (124) .....	2	0	0	Truck Farming (124) .....	2	0	0
Pomology (122) .....	0	2	0	Pomology (122) .....	0	2	0
Feeding Animals (176) .....	0	2	0	Feeding Animals (176) .....	0	2	0
Taxonomy (207) .....	0	0	1	Taxonomy (207) .....	0	0	4
Field Crop Insects (162) .....	0	0	2	Diseases of Field Crops (202) .....	0	0	2
				Poultry Husbandry (187) .....	0	2	0
				Teaching of Agriculture (117) .....	0	0	2

## Agronomy Minor (b)

Diseases of Animals (142) .....	3	3	0	Feeding Animals (176) .....	0	2	0
Feeding Animals (176) .....	0	2	0	Pork Production (178) .....	0	0	2
Pork Production (178) .....	0	0	2	Barn, Silo & Dairy Const. (185) .....	0	0	2
Barn, Silo & Dairy Const. (185) .....	0	0	2	Poultry Husbandry (187) .....	0	2	0
				Teaching of Agriculture (117) .....	0	0	2

## Botany and Forestry Major

Plant Pathology (204) .....	2	0	0	Plant Pathology (204) .....	2	0	0
Ecology (206) .....	2	0	0	Ecology (206) .....	2	0	0
Plant Physiology (205) .....	0	2	0	Plant Physiology (205) .....	0	2	0
Field Crop Diseases (212) .....	0	0	2	Field Crop Diseases (212) .....	0	0	2
Taxonomy (207) .....	2	2	2	Taxonomy (207) .....	6	6	6
Mycology (208) .....	0	2	0	Mycology (208) .....	0	6	0
Histology (209) .....	3	3	3	Histology (209) .....	4	4	4

## Botany and Forestry Minor

Insect Pests (155) .....	2	0	0	Insect Pests (155) .....	2	0	0
Field Crop Insects (162) .....	0	0	2	Field Crop Insects (162) .....	0	0	2
Vegetable Forcing (125) .....	0	2	0	Vegetable Forcing (125) .....	0	2	0
German (640) .....	0	2	2	Organic Chemistry (410) .....	0	4	4

## Chemistry Major

Chemistry (411) .....	2	2	2	Chemical Laboratory (415) .....	6	6	6
Chemistry (412, 413) .....	2	2	2				
Chemistry (415) .....	1	1	1				

## Chemistry Minor

Mineralogy (112) .....	2	2	2	Mineralogy (112) .....	2	2	2
Water Bacteriology (200) .....	0	2	2	Water Bacteriology (200) .....	0	4	4

**Animal Husbandry Major**

	Hours per Week				Hours per Week		
	Theoretical				Practical		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Stock Farm Management (174)	1	0	0	Stock Farm Management (174)....	2	0	0
Principles of Feeding (175) .....	2	2	0	Principles of Feeding (175) .....	2	2	0
Pork Production (178) .....	0	0	2	Pork Production (178) .....	0	0	2
Beef Production (177) .....	0	1	0	Beef Production (177) .....	0	2	0
Feeding Animals (176) .....	0	2	0	Feeding Animals (176) .....	0	2	0
Principles of Breeding (172) .....	0	2	0	Principles of Breeding (172) .....	0	2	0
Animal Breeding (173) .....	0	0	1	Animal Breeding (173) .....	0	0	2
Horse & Mule Production (179)	2	0	0	Horse & Mule Production (179)	2	0	0
Stock Judging (180) .....	0	0	2	Stock Judging (180) .....	0	0	2

**Animal Husbandry Minor**

Farm Crops (104) .....	0	2	0	Farm Crops (104) .....	0	2	0
Poultry Husbandry (187) .....	0	0	2	Poultry Husbandry (187) .....	0	2	2
Barn, Silo & Dairy Const. (185)	0	0	2	Barn, Silo & Dairy Const. (185)	0	0	2
Diseases of Animals (142) .....	3	3	0	Teaching of Agriculture (117) ....	0	0	2

**Dairying Major**

Butter Making (187) .....	1	1	1	Butter Making (187) .....	4	4	4
Milk Hygiene (183) .....	2	0	0	Milk Hygiene (183) .....	2	0	0
Herd Record Work (184) .....	0	2	0	Herd Record Work (184) .....	0	2	0
Barn and Silo Const. (185) .....	0	0	2	Barn and Silo Const. (185) .....	0	0	2
Advance Testing (186) .....	2	2	2				

**Dairying Minor**

Principles of Feeding (175) .....	2	0	0	Principles of Feeding (175) .....	2	0	0
Principles of Breeding (172) .....	0	2	0	Principles of Breeding (172) ....	0	2	0
Feeding Animals (176) .....	0	2	0	Feeding Animals (176) .....	0	2	0
Dairy Bacteriology (199) .....	0	0	2	Dairy Bacteriology (199) .....	0	0	2
Pork Production (178) .....	0	0	2	Pork Production (178) .....	0	0	2

**Zoology and Entomology Major**

Forest Insects (154) .....	2	0	0	Forest Insects (154) .....	2	0	0
Stored Product Insects (155) .....	2	0	0	Stored Product Insects (155) ....	2	0	0
Insect Anatomy (156) .....	1	1	0	Insect Anatomy (156) .....	2	2	0
Disease Carrying Insects (157)....	0	1	0	Disease Carrying Insects (157)....	0	2	0
Field Crop Insects (162) .....	0	0	1	Field Crop Insects (162) .....	0	0	2
Orchard Insects (164) .....	0	0	2	Orchard Insects (164) .....	0	0	2
Truck Insects (163) .....	0	0	2	Truck Insects (163) .....	0	0	2
Fumigation Methods (160) .....	0	1	0	Parasites (158) .....	0	2	0
Quarantine Methods (161) .....	0	1	0				
Current Literature (159) .....	1	1	1				

**Zoology and Entomology Minor**

<b>Theoretical</b>				Hours per Week		<b>Practical</b>				Hours per Week			
				Terms						Terms			
				1st	2nd	3rd					1st	2nd	3rd
Ecology (204) .....				2	0	0	Ecology (204) .....				2	0	0
Field Crop Insects (162) .....				0	0	2	Field Crop Insects (162) .....				0	0	2
Truck Crop Diseases (203) .....				0	2	0	Truck Crop Diseases (203) .....				0	2	0
Field Crop Diseases (202) .....				0	0	2	Field Crop Diseases (202) .....				0	0	2
Floriculture (129) .....				0	0	2	Floriculture (129) .....				0	0	2
Nursery Management (131) .....				0	2	0	Nursery Management (131) .....				0	2	0
							Poultry Husbandry (187) .....				0	2	0
							Teaching of Agriculture (117) ....				0	0	2

**Veterinary Science Major**

Anatomy (144) .....	4	4	4	Anatomy (144) .....	2	2	2
Histology (145) .....	1	1	1	Histology (145) .....	4	4	4
				Clinic (143) .....	2	2	2

**Veterinary Science Minor**

Principles of Feeding (175) .....	2	0	0	Principles of Feeding (175) .....	2	0	0
Principles of Breeding (172) .....	0	2	0	Principles of Breeding (172) .....	0	2	0
Animal Bacteriology (198) .....	0	2	0	Animal Bacteriology (198) .....	0	4	0
Live Stock Judging (180) .....	0	0	2	Live Stock Judging (180) .....	0	0	2
Dairy Bacteriology (199) .....	0	0	2	Dairy Bacteriology (199) .....	0	0	4

**Horticulture Major**

Commercial Pomology (122) .....	2	2	0	Commercial Pomology (122) .....	2	2	0
Systematic Pomology (123) .....	1	1	0	Systematic Pomology (123) .....	2	2	0
Truck Farming (124) .....	2	0	0	Truck Farming (124) .....	2	0	0
Canning (132) .....	2	0	0	Canning (132) .....	2	0	0
Vegetables Forcing (125) .....	0	2	0	Vegetable Forcing (125) .....	0	2	0
Nursery Management (131) .....	0	2	0	Nursery Management (131) .....	0	2	0
Plant Breeding (126) .....	0	0	2	Plant Breeding (126) .....	0	0	2
Green House Management (130) .....	0	0	1	Green House Management (130) .....	0	0	2
Floriculture (129) .....	0	0	2	Floriculture (129) .....	0	0	2
Tree Surgery (128) .....	0	0	1	Tree Surgery (128) .....	0	0	2
Research (133) .....	0	0	1	Research (133) .....	0	0	2

**Horticulture Minor**

Ecology (204) .....	2	0	0	Ecology (204) .....	2	0	0
Diseases of Truck Crops (203)....	0	2	0	Diseases of Truck Crops (203)....	0	2	0
Truck Crop Insects (163) .....	0	0	2	Truck Crop Insects (163) .....	0	0	2
Orchard Insects (164) .....	0	0	2	Orchard Insects (164) .....	0	0	2
Plant Physiology (205) .....	0	2	0	Plant Physiology (205) .....	0	2	0
				Taxonomy (207) .....	0	0	2
				Poultry Husbandry (187) .....	0	2	0

**Soils Major**

Soil Fertility (211) .....	3	3	3	Soil Fertility (211) .....	4	4	4
Soil Mineralogy (116) .....	2	2	2	Soil Mineralogy (116) .....	2	2	2

**Soils Minor**

Ecology (204) .....	2	0	0	Ecology (204) .....	2	0	0
Soil Bacteriology (201) .....	0	2	2	Soil Bacteriology (201) .....	0	4	2
Chemistry (212) .....	0	1	2	Chemistry (415) .....	0	4	4

## SHORT COURSES

### SUMMER SCHOOL

The College usually operates a Summer School for farmers, teachers of agriculture, rural ministers, corn club boys, etc.

For detailed information write to the Registrar, Clemson College, S. C.

This amount is payable as follows:

October 9th, upon matriculation	-----	\$ 52.95*
November 26, 1917	-----	22.50
February 2, 1918	-----	22.50
April 11, 1918	-----	20.00
Total	-----	<u>\$117.95</u>

\* The amounts marked with an asterisk include the prices of uniform and may vary slightly each year due to market fluctuations

## Zoology and Entomology Minor

## ERRATA SHEET

The cost of the One-year Agricultural Course is as follows:

Matriculation and incidental fee -----	\$ 5.00
Breakage fee -----	3.00
Medical fee -----	6.00
Uniforms (2 coats, 2 trousers, 1 cap) -----	30.86
Board (8 months at \$9.00) -----	72.00*
Laundry (8 months at \$1.00) -----	8.00*
Heat, light and water (8 months at \$1.00) -----	8.00
<b>Total -----</b>	<b>\$132.86</b>

Tuition students pay \$40.00 in addition to the above. Tuition is free only to South Carolina students who have established their inability to pay.

The above must be paid quarterly in advance as follows:

October 10, 1917 -----	\$ 62.13
November 26, 1917 -----	24.75
February 2, 1918 -----	24.75
April 11, 1918 -----	21.23
<b>Total -----</b>	<b>\$132.86</b>

Students who pay tuition must add \$10.00 to each of the above quarterly payments.

\* These figures cannot be guaranteed on account of war conditions.

Diseases of Truck Crops (203)....	0	2	0	Diseases of Truck Crops (203)....	0	2	0
Truck Crop Insects (163) .....	0	0	2	Truck Crop Insects (163) .....	0	0	2
Orchard Insects (164) .....	0	0	2	Orchard Insects (164) .....	0	0	2
Plant Physiology (205) .....	0	2	0	Plant Physiology (205) .....	0	2	0
				Taxonomy (207) .....	0	0	2
				Poultry Husbandry (187) .....	0	2	0

## Soils Major

Soil Fertility (211) .....	3	3	3	Soil Fertility (211) .....	4	4	4
Soil Mineralogy (116) .....	2	2	2	Soil Mineralogy (116) .....	2	2	2

## Soils Minor

Ecology (204) .....	2	0	0	Ecology (204) .....	2	0	0
Soil Bacteriology (201) .....	0	2	2	Soil Bacteriology (201) .....	0	4	2
Chemistry (212) .....	0	1	2	Chemistry (415) .....	0	4	4



## SHORT COURSES

### VII. One-year Agricultural Course

The purpose of the course is to teach the simple scientific principles upon which good farming rests. Its purpose is to take a young man already a farmer and make him a better farmer. It is not intended to train men who are without agricultural experience to become farmers, because such a task would be difficult if not impossible to attain in a brief college course.

The One-year Agricultural Course is open to young men eighteen years old or over who, since they were ten years of age, have had at least three years experience on the farm.

The One-year Agricultural Course is not a substitute for the four-year course which is recommended to all who have time and means to take it.

The course will begin October 9th and end June 7th, and a certificate of proficiency will be given those who successfully finish the course and stand the final examinations.

The necessary preparation for the course is an elementary school education, including the subjects usually taught through the seventh grade.

In order to get the benefits of cheap board, short course students must live in barracks, and of necessity be subject to military control. For the sake of economy as well as for military reasons, they will wear the College uniform and in all respects deport themselves as do other cadets.

The cost of the course is as follows:

Board, laundry, heat, etc., at \$10.00 per month -----	\$ 80.00
Incidental fee -----	5.00
Medical fee -----	6.00
Breakage fee -----	3.00
Uniforms—2 coats, 2 pairs trousers and 1 cap -----	23.95*
<b>Total -----</b>	<b>\$117.95</b>

This amount is payable as follows:

October 9th, upon matriculation -----	\$ 52.95*
November 26, 1917 -----	22.50
February 2, 1918 -----	22.50
April 11, 1918 -----	20.00
<b>Total -----</b>	<b>\$117.95</b>

\* The amounts marked with an asterisk include the prices of uniform and may vary slightly each year due to market fluctuations

The preceding amounts are for free tuition students. For those who pay tuition, the amount will be \$10.00 per quarter additional, or \$40 for the session.

Necessary books and supplies will cost about \$15.00 additional for the session.

### One-year Agricultural Curriculum

	Hours per Week				Hours per Week		
	Theoretical				Practical		
	Terms				Terms		
	1st	2nd	3rd		1st	2nd	3rd
Parliamentary Practice (604) ....	3	3	2	Forge Work (373) .....	2	2	2
Bookkeeping (650) .....	0	0	4	Woodwork (393) .....	2	2	2
Horticulture (135) .....	2	0	2	Horticulture (135) .....	2	0	2
Agriculture (100) .....	2	2	2	Agriculture (100) .....	2	2	2
An. Hus. & Da. (180a,188a,181a) 3	3	3	3	Animal Husbandry (180a) .....	2	2	0
Botany (193) .....	2	0	0	Veterinary Science (146) .....	0	2	0
Entomology (168, 169) .....	0	2	2	Botany (193) .....	2	0	2
Farm Science (118) .....	0	2	0	Entomology (169) .....	0	0	2
Farm Arithmetic (629) .....	3	3	0	Cotton Grading (527) .....	0	2	0
	—	—	—	Drill (661) .....	3	3	3
	15	15	15		—	—	—
					15	15	15

A detailed description of the various subjects taught is given elsewhere.

### VIII. Two-year Textile Course

To meet the demands of Southern conditions for a class of young men trained in the finer details of cotton manufacture, a special two-year course has been arranged to accommodate a limited number of students who may not be in a position to take the four-year textile course.

The course includes mathematics, English, freehand and mechanical drawing, carding, spinning, weaving and designing, is thoroughly practical, and allows the greater portion of the student's time to be devoted to the study of textiles in its several branches.

To pursue his course successfully the student must be well grounded in arithmetic, and should be capable of expressing his thoughts clearly in writing. The student seeking admission to this course must present himself at the College during the regular entrance examination period, September 26 to 28, 1917, and satisfy his instructors that he is prepared to undertake the work. No student will be admitted after that time. Students must be at least 18 years of age, and must have had at least one year's experience in some cotton mill. Students who have failed in the regular degree courses will not be allowed to change to this course. No diploma is conferred upon the completion of this work, but the student receives a certificate showing that he has finished the course.

**Two-year Textile Curriculum**

**First Year**

	Hours per Week			Hours per Week			
	Theoretical			Practical			
	Terms			Terms			
	1st	2nd	3rd	1st	2nd	3rd	
Mathematics (662) .....	3	0	0	Freehand Drawing (340) .....	2	2	2
Freshman English (600) .....	5	5	5	Mechanical Drawing (341) .....	3	3	3
Designing (510) .....	3	3	3	Weaving (512) .....	4	4	4
Card. & Spin. (520, 521, 522) ...	2	2	2	Card. & Spin. (520, 521, 522) ...	3	3	3
	—	—	—	Drill (661) .....	3	3	3
	15	15	15		—	—	—
					15	15	15

**Second Year**

Mathematics (662) .....	3	0	0	Chemical Laboratory (401) .....	2	2	2
Sophomore English (601) .....	3	3	3	Weaving (514) .....	4	4	4
Chemistry (400) .....	3	3	3	Carding and Spinning (523, 526) 6	6	6	6
Designing (511) .....	2	4	4	Drill (661) .....	3	3	3
Cloth An. and Jac. Des. (511)..	2	3	3		—	—	—
Carding and Spinning (523, 526) 2	2	2	2		15	15	15
	—	—	—				
	15	15	15				

**Special Courses**

Besides students in the regular undergraduate courses, there may be farmers and others of mature age, including graduates of other institutions, who desire to avail themselves of the special privileges offered by the College. To such persons the opportunity is offered, under the advice of the director of the department in which work is contemplated, to pursue special lines of study or investigation in any of the subjects taught in the College, provided attention can be given to them without detriment to the regular classes. Such special students will be admitted after they have satisfied the director of the department that they are qualified to pursue the work with profit.

Special students are excused from military duty, but are subject to the general regulations of the College requiring good conduct and diligent prosecution of course selected. They are not admitted to barracks, but rooms and board may be secured in the community at reasonable rates. They will be required to pay the usual fees, except the price of uniform and board in barracks.

The following Faculty regulations apply to these courses:

1. The course applied for must be such as to fully and profitably occupy the student's time.

2. The application must be accompanied by the written approval of parent or guardian and of instructors in all subjects included in the course.

3. Diplomas are not issued to students in special courses, but a certificate of proficiency will be given when the work completed is deemed worthy of it.

### Postgraduate Textile Course

This course is, in general, a continuation of the degree course with the addition of such subjects as will lead to a proper understanding of industrial affairs. Frequent discussion of the subjects treated, and wide reading on assigned topics will be special features of the course. The subjects taken up will include combing, mule spinning, mill construction and organization, assembling of machinery, jacquard weaving, building of jacquard harnesses, loom fixing, designing, dyeing, manufacture and technical analysis of chemicals and other products used in the textile industry, and sociology in so far as it touches upon mill life, welfare work, and labor problems.

### Special Course in Electrical Engineering

Students desiring to take a special course in electrical engineering should remember that no one can hope to become an electrical engineer who has not the necessary foundation in mechanical engineering.

No special classes will be formed.

Students desiring to enter the Junior Class will be expected to be prepared on mechanical drawing, physics, chemistry, and mathematics. They will be expected to take with the Junior Class, in addition to their electrical studies, physics, mechanics, mathematics, mechanical drawing, and machine shop work. Without these additional branches the student will not be prepared for the more strictly engineering work of the Senior year.

To enter the Senior Class, a student must be proficient in the work of the Junior year, in which physics and calculus are completed.

In addition to the electrical subjects prescribed for the Senior year, he must take—unless he is proficient along these lines—mechanics, mechanical engineering and laboratory, drawing, and machine design.

Students who are not prepared, or unwilling to take the other subjects necessary to the successful study of electrical engineering, will not be permitted to take the special course.

## RESERVE OFFICERS' TRAINING CORPS

The National Defense Act, approved by President Wilson June 3, 1916, provided for the establishment at the Land Grant Colleges, and certain other institutions, of Reserve Officers' Training Corps (R. O. T. C.). Clemson College has been authorized to establish a Senior division of this corps.

The provisions of the Reserve Officers' Training Corps are explained in General Orders No. 49 (G. O. 49) issued by the War Department:

"The primary object of establishing units of the Reserve Officers' Training Corps is to qualify, by systematic and standard methods of training, students at civil educational institutions for reserve officers. The system of instruction herein prescribed presents to these students a standardized measure of that military training which is necessary in order to prepare them to perform intelligently the duties of commissioned officers in the military forces of the United States, and it enables them to be thus trained with the least practicable interference with their civil careers."

### Requirements

All Freshmen, Sophomores, and short-course students will be required to pursue, as at present, three hours of military training, of which, however, one hour may be in theoretical military instruction. This constitutes the "Basic Course," which will be required by the College of all students as a prerequisite for graduation.

Juniors and Seniors may pursue the "Advanced Course" or continue in the Basic Course as they may elect. Those choosing the "Advanced Course" will be required to take five hours of military instruction in the Junior and Senior years, three of which may be in theoretical military instruction. (In the curricula effective for the session 1917-18, all military work will be included in the total hours required.)

### Summer Camps

Students taking the "Advanced Course" are required to attend two summer camps, each of four weeks duration, under Federal supervision. These camp periods may be put in during any of the three vacations prior to graduation. One only may be deferred until the vacation following graduation.

### Benefits

All students in the Basic Course and in the Advanced Course will be furnished free one complete uniform for drill purposes. When any part of this outfit has been worn out by legitimate use, it will be replaced without cost to the cadet.

### Commutation for Subsistence

A money allowance for subsistence equal to the cost for army ration will be allowed students in the Advanced Course. The present value of this allowance is approximately \$10.00 per month.

### Appointment in Reserve Officers' Corps (R. O. C.)

Upon application, the President of the United States may appoint and commission for six months as a temporary Second Lieutenant, for purposes of further instruction, a graduate from the Advanced Course of the R. O. T. C. During the period of his appointment he will receive \$100.00 per month and the usual allowance of the grade of Second Lieutenant.

### Service in Time of War

An officer of the Reserve Officers' Training Corps if called to the colors would go into service as an officer, not as a private.

### Restrictions as to Advanced Course

No student can enter the Advanced Course—

1. Unless he has satisfactorily completed the Basic Course of the first two years in College.
2. Unless he has the recommendation of the College President and Professor of Military Science and Tactics.
3. Unless he agrees in writing to complete the prescribed course and take the two periods of camp training. (He will be credited with one camp period if served previous to entering Advanced Course.)

### Obligations

(a) A cadet taking only the Basic Course incurs no obligation whatever except to take proper care of the uniform given him. The College assumes the obligation not to graduate him unless he does the military work in a satisfactory manner.

(b) A cadet desiring to take the Advanced Course, in return for the financial benefits received, shall obligate himself in writing to continue in this course during the remainder of his career in College, and to take, unless already taken, the two four-week camp periods prescribed.

### Enlistment After Graduation

No obligation rests upon a graduate from the Advanced Course to enlist in the Reserve Officers' Corps, or to take further part or place in the Military Service of the United States.

If he cares to do so, he may apply for admission to the Reserve Officers' Corps, and the President of the United States may appoint him as an officer in such corps, provided he agrees under oath to serve the United States in the capacity of a reserve officer for ten years. During this period he may be required to report for instruction for a period not to exceed fifteen days in any one year, during which period of instruction he will receive the pay and allowances of his grade and all travelling expenses to and from the place of instruction. During his period of enlistment, he can be called into service only in case of actual or threatened hostilities, and then with a rank not lower than his rank in the R. O. C.

# DETAILED DESCRIPTION OF COURSES

## AGRICULTURAL DEPARTMENT

F. H. H. Calhoun, Director

### AGRONOMY

Professor Hutchinson

Assistant Professor Clark

Assistant Pressley

**100. Agriculture. (Hutchinson, Clark, Pressley)**  
**Freshman Class; All Courses**  
**Course VII.**

This course is outlined to serve not only as an introduction to the regular courses in agriculture, but, also, to give a comprehensive view of the subject to (1) students who will not be at the College longer than one year, (2) students in the Engineering and Textile Departments. The object is to familiarize these students with the simpler principles of plant growth, soils, fertilizers, farm crops, animal production, injurious insects, plant diseases, and farm management.

Text-book: Elements of Agriculture—Warren.

Two periods theoretical per week throughout session.

Course VII: Two periods theoretical and one period practical per week throughout session.

**101. Farm Machinery. (Pressley)**  
**Sophomore Class; Course I.**

The students in this course are made familiar with the principles and uses of tillage, seeding, harvesting, and haying machinery. Much attention is given to the simplicity, efficiency, and durability of the various machines studied.

Text-book: Farm Machinery and Farm Motors—Davidson and Chase.

Two periods theoretical and one period practical per week during third term.

**102. Forage Crops. (Hutchinson and Clark)**  
**Junior Class; Course I.**

A course dealing with the adaptation, growing, harvesting, composition, value, and uses of the various forage crops grown in the United States.

Text-book: Forage Crops and Their Culture—Piper.

Two periods theoretical per week during third term.

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(Practical periods are two hours unless otherwise stated.)

**103. Corn Crops. (Hutchinson and Clark)****Senior Class; Course I. (Elective)**

A course treating of corn, its origin, adaptation, cultivation, handling, value, and uses. Some attention is given to the adaptation, production, and handling of the sorghum grain crops. Also, a course in corn judging is given.

Text-books: The Corn Crops—Montgomery; The Study of Corn—Shoesmith.

Two periods theoretical and one period practical per week during first term.

**104. Small Grains. (Hutchinson and Clark)****Senior Class; Course I. (Elective)**

A course dealing with the origin, adaptation, importance, composition, production, harvesting, and uses of the various small grain crops. A course in small grain judging is given.

Text-book: Small Grains—Carleton.

Two periods theoretical and one period practical per week during second term.

**105. Cotton. (Hutchinson and Clark)****Senior Class; Course I. (Elective)**

A study of cotton, its value, uses, cultivation, and improvement.

Text-book: Southern Field Crops—Duggar.

Two periods theoretical and one period practical per week during third term.

**106. Plant Breeding. (Hutchinson and Clark)****Senior Class; Course I. (Elective)**

This course comprises a study of heredity and the methods used in breeding and improving plants. One term is devoted to the study of each phase of the subject.

Text-book: Genetics—Walter.

Two periods theoretical per week during first term.

**107. Farm Motors and Concrete Construction. (Pressley)****Senior Class; Course I. (Elective)**

A study of farm motors with special attention to gas, oil, and alcohol engines. Concrete construction involving the operations of mixing and placing cement for farm purposes.

Text-books: Farm Machinery and Farm Motors—Davidson and Chase; Concrete and Farm Buildings—Sanders.

Two periods theoretical and one period practical per week during first term.

**108. Farm Drainage. (Pressley)****Senior Class; Course I. (Elective)**

In this course the student makes a detailed study of the various phases of farm drainage as applied to both small and large areas.



Field work is given in the mapping of drainage areas, the construction of terraces and open ditches, and in the laying of tile.

Text-book: *Engineering for Farm Drainage*—Elliott.

Two periods theoretical and one period practical per week during second term.

**109. Farm Management. (Hutchinson and Clark)**

**Senior Class; Course I. (Elective)**

This course is intended to teach the principles of successful agriculture and how to successfully operate an individual farm. Such topics as land, labor, capital, farm buildings, and machinery, choice of a farm, types of farming, marketing farm produce, and co-operation are considered.

Text-book: *Farm Management*—Warren.

Two periods theoretical per week during second term; three periods theoretical and two periods practical per week during third term.

**Division Rooms and Equipment.**—The class room, the laboratory, and the office of the Agronomy Division are located on the first floor of the Agricultural Hall. The laboratory is supplied with the necessary equipment for the study of the various types of farm crops and the testing of seed for purity and germination.

The farm machinery building is well supplied with agricultural machinery and implements, such as the following: Reapers and binders, corn harvesters, mowers, hay rakes, single and double-row corn planters, cotton planters, ensilage cutter, shredder, gasoline engine, various kinds of mold board and disc plows, riding and walking cultivators, harrows and weeders, and fertilizer and grain drills.

## GEOLOGY AND MINERALOGY

Professor Calhoun

**110. Physiography. (Calhoun)**

**Sophomore Class; Course I.**

A laboratory course designed to give the student an adequate conception of the use of the meteorological instruments, weather maps, and the general elementary principles of meteorology and climatology.

One period practical per week during first term.

**111. Elementary Mineralogy. (Calhoun)**

**Junior Class; Course VI.**

This course consists of laboratory study of the common economic and rock-making minerals, the common rocks, and the various natural structural materials. The physical properties of minerals are studied and practice is given in the determination of unknown specimens of both minerals and rocks.

Text-book: *Rocks and Minerals of South Carolina*—Calhoun.

One period practical per week during third term.

**112. Mineralogy. (Calhoun)**

**Junior Class; Course II, and as a minor for those  
who elect major in Chemistry**

A comprehensive course in crystallography, physical and chemical mineralogy, and systematic descriptive and determinative mineralogy. Crystallography is taught by lectures and text-book, with laboratory work based on the collections of models and natural crystals; also physical, optical, and chemical properties of minerals, and descriptive mineralogy, covering the more important mineral species. Much of the laboratory work is devoted to the determination of minerals by means of their physical and chemical properties, by comparison with labeled specimens of the systematic collection, and by the use of unlabeled collections for practice in identifying minerals at sight. This course gives a sufficient knowledge of mineralogy for the geologist, metallurgist, mining engineer, or chemist, and will enable the student to identify readily all but the rarer minerals.

Text-book: Mineralogy—Moses and Parson.

Two periods theoretical and one period practical per week throughout session.

**113. Engineering Geology. (Calhoun)**

**Junior Class; Courses III, IV, VI.**

The course in Engineering Geology lays special emphasis on the recognition of common economic rocks and minerals together with their use and adaptability for engineering purposes. Structural geology is studied with especial reference to that portion which deals with problems of excavation and quarrying. Geological and topographic maps are examined with the needs of the engineer in mind.

Text-book: Geology—Barrow and Blackwelder.

Two periods theoretical per week during second and third terms.

**114. Agricultural Geology. (Calhoun)**

**Senior Class; Course I.**

In this course geology is considered in its practical relation to agriculture. The student becomes familiar with the soil-making rocks and minerals, the influence of the various mineral constituents in rocks on the texture of soil, the natural mineral fertilizers, and the formation of soils from rocks. The question of the relation of underground water to wells, springs and artesian wells, to drainage problems and to soil water is studied. The classes of soils derived from rivers, wind action and glacier deposits are taken up. The principles and methods of making soil maps are explained. Topographic and geological maps are studied chiefly with reference to agricultural problems.

Text-book: Geology—Barrow and Blackwelder.

Two periods theoretical per week throughout session.

**115. Chemical Geology. (Calhoun)****Senior Class; Course II.**

In this course structural geology, the theory of ore deposits, and the economic side of geology are emphasized. Special stress is laid upon the action of underground water in forming ores and veins. The theories of the formation of various classes of rocks are considered and special attention is given to that side of historical geology which enables the chemist to recognize certain horizons which carry minerals and ores of economic importance.

Text-book: Geology—Barrow and Blackwelder.

Two periods theoretical per week throughout session.

**116. Mineralogy and Geology of Soil. (Calhoun)****Senior Class; Course I. (Elective)**

A course for students electing Division H and intending to specialize in soils. The common soil-making minerals and rocks will be studied in detail.

The laboratory work will consist of the determination of minerals and rocks by both chemical and physical tests. The mineral composition of soils will be determined by chemical, physical, and microscopic methods. The relation between topographic geologic, and soil maps will be made an important feature of the laboratory work.

Two periods theoretical and one period practical per week throughout session.

**117. Teaching of Agriculture. (Calhoun)****Senior Class; Course I. (Elective)**

A short practical course designed to give the student a knowledge of the methods used in teaching agricultural subjects in different states and their adaptation to local needs.

One period practical per week during third term.

**118. Farm Science. (Calhoun)****Course VII.**

This course in elementary farm science is designed to teach such simple principles of physics, chemistry, geology, and meteorology as are necessary to a full understanding of the other courses offered. It will also enable the student to have a better comprehension of experiment station and Government bulletins and of many common every day problems of farm life.

Text-book: Elements of Farm Science—Barber.

Two periods theoretical per week during second term.

**Division Rooms and Equipment.**—The Division of Geology and Mineralogy occupies three rooms on the second floor of the Agricultural Building.

The systematic collections contain about 2,500 labelled specimens of rocks, minerals, and fossils. These are exhibited in glass cases

in the laboratory and the museum, and are available to students and the public. A collection of the minerals and rocks of South Carolina is a prominent feature of the exhibit. There is also an unlabeled collections of minerals for practice in identifying species at sight; and unlabeled collections of the most important minerals are provided for determinative work in the laboratory.

The laboratory is supplied with water and gas and all apparatus and reagents necessary for the determination of minerals by means of their chemical and physical properties.

The class room is supplied with large physical wall maps of the world and of all continents, a complete series of topographic contour maps, furnished by the United States Geological Survey, an 18-inch terrestrial globe, a 20-inch relief globe, a set of geological and geographical relief models, and over a thousand lantern slides, stereographs and photographs.

The geographical department of the College library contains the principal standard works of reference in geology and mineralogy, and receives all the publications of the United States Geological Survey as issued, including annual reports, monographs, geologic folios, and bulletins.

## HORTICULTURE

Professor Newman

Associate Professor Crider

### 120. Practical Pomology. (Newman and Crider)

Junior Class; Course I.

A course designed to give students a practical knowledge of fruit growing and at the same time serve as foundation work for those electing to take advanced pomology. It embraces a study of orchard location, the selection of site and soils, choice of varieties, preparing the land, laying off the orchard methods of securing and planting trees, cultivation, fertilizing, pruning, and harvesting. The practical work includes budding and grafting, making of orchard plans, laying out the orchard, planting, pruning and spraying as applied to the leading fruits of South Carolina. The text is supplemented by lectures.

Text-book: Productive Orchardring—Sears.

Reference-book: Principles of Fruit Growing—Bailey.

Two periods theoretical and one period practical per week during first term.

### 121. Vegetable Gardening. (Crider)

Junior Class; Course I.

A course dealing largely with the home garden and serving as an introduction to vegetable growing as a business. The work consists in the principles and practices of variety selection, germina-

tive tests, sowing of seeds, transplanting, cultivation, fertilizing, and handling manures, manipulation of tools, harvesting and storing. A special feature of the course is the assignment of individual plots to each student to be planted and cared for as part of the practical work. The text will be supplemented by lecture.

Text-book: Vegetable Gardening—Watts.

Two periods theoretical and one period practical per week during third term.

### 122. Commercial Pomology. (Crider)

Senior Class; Course I. (Elective)

A course embracing the care of fruit trees, the management of orchards and the handling of fruit as applied to commercial fruit growing. Problems of pruning, spraying, cultivation, inter-cropping, cover crops, frost prevention and fertilizing are studied. Also the most approved methods of harvesting, grading, packing, transportation, marketing, storing and the construction of cold storage plants. All the fruits of commercial importance are considered in this course including pome, stone, bush and small fruits, as well as the brambles, nuts, citrus and other sub-tropical and tropical fruits. As an additional feature of the course, visits are made to commercial orchards in the vicinity of the College, thus bringing the student in touch with actual orchard operations. The text is supplemented by lecture.

Text-books: Fruit Harvesting, Marketing and Storing—Waugh; American Fruit Culturist—Thomas.

References: Bush Fruits—Chard; Small Fruit Culturist—Fuller; Nut Culture—Fuller.

Two periods theoretical and one period practical per week during first and second terms.

### 123. Systematic Pomology. (Crider)

Senior Class; Course I. (Elective)

A study of the history of American horticulture; the origin, evolution and relationship of our cultivated fruits, and the classification, nomenclature and description of the varieties best adapted to the home and commercial orchard. Trees representing the different species of our leading fruits are observed with reference to their characteristic habits of growth and fruit bearing. Practice is given in describing and identifying varieties of fruits and nuts, placing exhibits, and fruit judging. For this study, fruits will be collected from the College orchard and other parts of the State. The text is supplemented by lecture and reference work.

Text-books: Evolution of our Native Fruits—Bailey; Systematic Pomology—Waugh.

References: Cyclopedia of Horticulture—Bailey; Apples of New York—Beach; Plums and Grapes of New York—Hedrick.

One period theoretical and one period practical per week during first and second terms.

**124. Truck Farming and Market Gardening. (Newman)****Senior Class; Course I. (Elective)**

A course dealing with the principles and practices of commercial vegetable growing on large areas and the methods employed in more intensive culture. Special attention is paid to the trucking industry of South Carolina and the possibilities embodied in its further development. The problems of capital, labor, methods of selling, manuring, irrigation, tools, and shipping facilities are fully treated. Attention is also given to the history and botanical relationship of varieties relative to their commercial value. Practice in harvesting, grading, and packing vegetables for market is an additional feature of the course. The text is supplemented by lecture and reference.

Text-book: Garden Farming—Corbett.

Reference: Principles of Vegetable Gardening—Bailey; Up-to-date Truck Growing in the South—Davis.

Two periods theoretical and one period practical per week during first term.

**125. Vegetable Forcing. (Crider)****Senior Class; Course I. (Elective)**

A course treating of the principles and practice of forcing vegetables in the greenhouse, hotbed and cold frame with the aim of getting them on the market early and increasing the winter supply for home use. Practice is given in the construction of hot beds and cold frames, glazing, making of paper pots, seed-sowing, transplanting, and the care of growing plants. A special study is made of the vegetables adapted to forcing and the advantages of growing them with protection. The text is supplemented by lecture.

Text-book: Forcing Book—Bailey.

Two periods theoretical and one period practical per week during second term.

**126. Plant Breeding. (Crider)****Senior Class; Course I. (Elective)**

A study of the application of the principles of breeding to the improvement of fruits, vegetables and ornamental plants. Special attention is given to breeding for quality and disease resistance. The discussion of the methods of breeding is accompanied by practical work in the orchard, garden and greenhouse where experiments are made in cross pollination, hybridizing, and tests of the self-sterility of varieties. The theoretical work is given by lecture.

Reference: "Plant Breeding"—Davenport; "Plant Breeding"—Bailey and Gilbert.

Two periods theoretical and one period practical per week during third term.

**127. Landscape Gardening. (Crider)****Senior Class; Course I. (Elective)**

A course which treats of the fundamental principles of landscape art with reference to the improvement and beautifying of country

places, school and public grounds. A study is made of the characters and habits of ornamental trees, shrubs, and herbaceous perennials and their adaptation to landscape design. Practice consists in mapping, designing plans and specifications, laying out of drives and walks, designating areas for planting, preparing and planting flower beds, making lawns and planting ornamental trees and shrubs.

Text-book: "Landscape Gardening"—Kemp, revised by F. A. Waugh.

Reference: "Landscape Gardening"—Waugh; "Landscape Gardening"—Parsons.

Two periods theoretical and one period practical per week during third term.

### **128. Tree Surgery. (Crider)**

**Senior Class; Course I. (Elective)**

A course embodying the study and practice of the most approved methods of caring for trees and shrubs. It includes the technical details of pruning and the treatment of fungus diseases affecting the body and branches of trees. Practice is given in the treatment of wounds and decaying parts of trees and in the means of preventing tree injury. Theoretical work is given by lecture.

Reference: "The Tree Doctor"—Davey.

One period theoretical and one period practical per week during third term.

### **129. Floriculture. (Newman)**

**Senior Class; Course I. (Elective)**

A course dealing with the culture of flowers for cutting and for greenhouse and outdoor planting. It includes the preparation and mixing of soils, seed sowing, making and rooting cuttings, potting of young plants, and the handling of bulbs. In addition, methods of pruning and re-potting old plants, execution of simple designs and the arrangement of cut flowers and foliage plants in building decoration are treated. The text is supplemented by lecture.

Text-book: "Principles of Floriculture"—White.

Two periods theoretical and one period practical per week during third term.

### **130. Greenhouse Management. (Newman)**

**Senior Class; Course I. (Elective)**

A course which embraces the study of the location, arrangement, heating, different forms of construction and the general care required in the management of greenhouses. The student is instructed in the practical operations of bench construction, glazing, watering, ventilation, care of furnaces, fumigation, and other methods of controlling disease and insects that affect greenhouse plants.

Text-book: "Greenhouse Management"—Taft.

Reference: "Greenhouse Construction"—Taft.

One period theoretical and one period practical per week during third term.

**131. Nursery Management. (Newman)****Senior Class; Course I. (Elective)**

A course in the establishment and maintenance of nurseries. The different methods of propagation are compared with reference to commercial adaptation. Successful methods of planting, labelling, treatment of young growing trees, and the management of nursery lands are carefully studied. Also the storing of trees and the construction of storage cellars. Practice is given in the planting out of nursery stock, heeling in, grading, and packing trees for shipment.

The theoretical work will be given by lecture.

Reference: "The Nursery Book"—Bailey.

Two periods theoretical and one period practical per week during second term.

**132. Canning and Handling of By-products. (Crider)****Senior Class; Course I. (Elective)**

A course in the establishment, operation, and management of canneries, including a study of horticultural by-products and the fruits and vegetables especially adapted to canning. The different methods of canning, evaporating, drying, and manufacture of vinegar and fruit juices are studied, together with the buildings, machinery, and apparatus necessary for successful work. Practice is given in the preparation of fruits and vegetables for canning and the details of operating a commercial cannery. The theoretical work is given by lecture.

Two periods theoretical and one period practical per week during first term.

**133. Research and Experiment Station Practice. (Newman)****Senior Class; Course I. (Elective)**

A course offered for those Seniors who contemplate following college, station, or Government work, or for those students desiring training in research technique. A study is made of experiment station methods, and problems are assigned which will give the students experience in the laboratory, greenhouse, field, and library. The theoretical work is given by lecture.

One period theoretical and one period practical per week during third term.

**134. Thesis.****Senior Class; Course I.**

Each student electing horticulture as a major is required to select some specific line or research in this subject and submit the same to the head of the division by October first. The results must be written up for a thesis.



**135. Fruit and Vegetable Growing. (Newman)  
Course VII.**

A course intended to familiarize the student with practical methods of successful fruit and vegetable growing for home use. The first term is devoted to the study of fruit culture, including budding and grafting, selection of orchard sites, choice of varieties, laying off, planting, cultivating, fertilizing, pruning, and spraying orchard. In the third term vegetable gardening is taken up and work is given in variety selection, seed testing, preparation of the land, seed sowing, transplanting, cultivation, rotation, handling of tools, fertilizing, and any special treatment necessary for the leading vegetables. Each student is required to plant and cultivate a plot of ground according to the most approved methods of handling the home vegetable garden.

Text-books: "How to Make a Fruit Garden"—Fletcher; "Practical Gardener's Manual"—Newman.

Two periods theoretical and one period practical per week during first and third terms.

**Division Rooms and Equipment.**—The facilities of instruction in horticulture include lecture rooms, reading room, laboratory, seed and implement house, and practical work room; orchards of all the leading fruits; plantings of vegetables, small fruits, and ornamental plants; a nursery of fruit and ornamental trees; greenhouses, hot beds, cold frames, and a commercial cannery. The division is also well equipped with tools, implements, and apparatus for giving practical work.

The main office of the division is located in the Agricultural Hall; the other offices, lecture room, laboratory, and reading room are in the Dairy Building. The work room is on the basement floor of the Agricultural Hall. One greenhouse is located on the campus and the other in the Horticultural Grounds, where also are the seed and implement house, hot beds, cold frames, and cannery.

The laboratory and work room are supplied with packing tables, work benches, and other equipment for instructional work. They are used for practice in all manner of propagation of plants; the study of buds and twigs of fruit and ornamental plants; the study of vegetables, fruits, and nuts; the design of greenhouse structures; landscape plans and specifications; seed testing; and the sorting, grading, and packing of horticultural products.

The greenhouses are both large structures well arranged and equipped for work in floriculture and vegetable forcing, for which purpose they are largely used. They contain more than two thousand large pot plants of various kinds and several thousand small plants used for outdoor planting. The hot beds and cold frames are of various types for home use and commercial purposes, and serve to give instruction in vegetable forcing.

The cannery is well equipped with apparatus for commercial

canning, is used for instructional purposes and for canning fruits and vegetables for the College dining hall.

The horticultural reading room contains all the leading magazines, journals, and reference works pertaining to horticulture, as well as the station and United States Government publications. It is intended for use by students specializing in horticulture to give them a broader view of the subject and to enable them to keep in touch with current horticultural information.

## VETERINARY SCIENCE

Professor Feeley

Assistants Barnett and Burleigh

### 140. Veterinary Anatomy and Physiology. (Feeley)

Junior Class; Course I.

This course consists of a series of lectures on anatomy, followed by the study of physiology.

The course in anatomy, which is arranged as an introduction to the study of physiology and stock judging, includes the study of skeletons, and the principal articulations, muscles of locomotion, and the organs of the circulatory, respiratory, digestive, generative and urinary apparatus. Skeletons, models, charts, and dissected specimens are used in this course.

The course in physiology treats of the functions of the various organs of the bodies of domestic animals.

Text-book: "Veterinary Physiology"—F. Smith.

Two periods per week throughout session.

### 141. Physiological Laboratory. (Barnett)

Junior Class; Course I.

A laboratory course in physiology.

Text-book: "Exercises in Physiology"—A. Fish.

Two periods per week during second term.

### 142. Diseases of Animals. (Feeley)

Senior Class; Course I. (Elective)

This course consists of a series of lectures on contagious and non-contagious diseases of animals. The first half of the term is devoted to the study of the non-contagious diseases, special attention being given to cause and prevention. The free clinic given each week gives opportunity for students to study many of these diseased conditions.

Three periods theoretical per week during first and second terms.

### 143. Veterinary Clinics. (Feeley, Barnett, and Burleigh)

Senior Class; Course I. (Elective)

A free clinic is held at the Veterinary Hospital every Monday afternoon of the session. These clinics are liberally patronized by the stockmen of the surrounding country, and the material thus

secured affords practical work in the surgery and the treatment of diseases. Many patients are kept in the hospital for treatment.

One period practical per week throughout session.

**144. Veterinary Anatomy. (Barnett)**

**Senior Class; Course I. (Elective)**

This course is supplementary to the work given in the Junior year and is intended for students who desire to attend a veterinary college after graduation, and for those interested in the study of anatomy.

Text-book: "Anatomy"—Scisson.

Four periods theoretical and one period practical per week throughout session.

**145. Histology. (Barnett)**

**Senior Class; Course I. (Elective)**

In this course students are required to secure tissues from animals and to cut, stain, and mount preparations. The study of simple tissues is followed by the study of all the important organs of the animal body.

One period theoretical and two periods practical per week throughout session.

**146. Veterinary Science. (Feeley)**

**Course VII.**

This is a short practical course taking up the simple diseases of animals and the methods of treatment.

One period practical per week during second term.

**Division Rooms and Equipment.**—The Veterinary Hospital is described in the account of "Grounds and Buildings" at another place in the catalogue.

The class room, laboratories, and the office of the Veterinary Division are located in the Veterinary Hospital. The laboratories are supplied with microscopes, incubators, sterilizers, chemicals, skeletons, anatomical specimens, plaster casts, and other equipment for class work.

## ZOOLOGY AND ENTOMOLOGY

**Professor Conradi**

**Assistant Professor Thomas**

**150. General Zoology. (Thomas)**

**Sophomore Class; Course I.**

This course consists of a study of the fundamental principles of life, including structure, habits, and life history of the invertebrate animals. Special emphasis is given the economic aspect, lectures and laboratory dissections of type forms.

Text-book: "Zoology"—Daugherty.

One period theoretical and two periods practical per week during first term.

**151. Vertebrate Zoology. (Thomas)****Sophomore Class; Course I.**

A continuation of the work of the preceding term. In this the student becomes familiar with the general anatomy, physiology, and ecology of typical vertebrate types, together with a general knowledge of the laws of development.

Text-book: "Zoology"—Daugherty.

Two periods theoretical and two periods practical per week during second term.

**152. General Entomology. (Thomas)****Sophomore Class; Course I.**

An introduction to entomology. This course embraces the elementary principles of entomology including theoretical and laboratory work on the structure and relationship of insects.

Text-book: "Entomology"—Sanderson and Jackson.

Three periods theoretical and one period practical per week during third term.

**153. Economic Entomology. (Conradi)****Junior Class; Course I.**

A practical study of field crop insects and the methods of controlling them. This is mainly a field course and considers principally the effect of fall plowing, cleaning of terraces, and cleansing and cover crops. The student is shown why these various operations are recommended.

One period practical per week during first term.

**154. Forest Entomology. (Conradi)****Senior Class; Course I. (Elective)**

A consideration of the insects attacking forest and shade trees. In this course the life histories, habits, and methods of work are studied, together with the parasites and the control methods employed.

Two periods theoretical and one period practical per week during first term.

**155. Insects Affecting Stored Products. (Conradi)****Senior Class; Course I. (Elective)**

A consideration of the life history, habits, and parasites of the insects affecting stored products. In this course the methods of storing are carefully studied and practical demonstrations are given in the fumigation of cribs.

Two periods theoretical and one period practical per week during first term.

**156. Insect Anatomy and Histology. (Conradi)****Senior Class; Course I. (Elective)**

**(Open only to students taking their major in Entomology)**

This course consists of the dissecting of specimens together with methods of staining in section.

One period practical during first and second terms.

**157. Disease-carrying Insects. (Conradi)**

Senior Class; Course I. (Elective)

A consideration of the insects known to carry diseases as well as those that are suspected. It consists of lectures and laboratory periods on the life history, habits, and natural enemies, together with demonstrations for practical control.

Text-book: "Injurious Insects to the Household"—Herrick.

One period theoretical and one period practical per week during second term.

**159. Current Literature. (Conradi)**

Senior Class; Course I. (Elective)

(A required course open only to students taking their major in Entomology).

This course consists of review of current entomological literature, comprising the magazines, journals and station bulletins, and the United States Government publications.

One period theoretical per week throughout session.

**160. Fumigation Methods. (Conradi)**

Senior Class; Course I. (Elective)

This course deals especially with the fumigation methods employed in the nursery, greenhouse, and orchard. The laboratory is equipped with apparatus for practical demonstration.

One period theoretical per week during second term.

**161. Quarantine Methods. (Conradi)**

Senior Class; Course I. (Elective)

A consideration of the various laws now in force in the several states together with the methods employed for preventing the dissemination of injurious insects.

One period theoretical per week during second term.

**162. Field Crop Insects. (Conradi)**

Senior Class; Course I. (Elective)

This is a practical course considering the insects attacking field crops outdoors. The work consists mainly of investigations in the field upon the work of certain insects assigned to the students. Careful consideration is given to culture and farm management as applied to the control of field insects.

Text-book: "Injurious Insects to the Household"—Herrick.

One (major) period or two (minor) periods theoretical and one period practical per week during third term.

**163. Truck Crop Insects. (Conradi)**

Senior Class; Course I. (Elective)

This course considers the various insects affecting vegetable crops. The lectures are supplemented by laboratory periods as well as field practice upon typical insects assigned to the students. The work is supplemented by demonstrations in the field of control

methods, especially the application of insecticides and the manipulation of spray machinery.

Text-book: "Insects Injurious to Vegetables"—Chittenden.

Two periods theoretical and one period practical per week during third term.

**164. Orchard Insects. (Conradi)**

Senior Class; Course I. (Elective)

A thorough consideration of the insects affecting the apple, pear, and stone fruits. The student is given thorough practice in the laboratory in reference to the structure of spraying apparatus, and each student is required to carry out a complete program in the orchard for the control of the various insects destroying the tree and the fruit.

Text-book: "Manual of Fruit Insects"—Slingerland & Crosby.

Two periods theoretical and one period practical per week during third term.

**165. Economic Ornithology. (Conradi)**

Senior Class; Course I. (Elective)

A study of the relation of birds to insects.

One period practical per week during third term.

**166. Field Methods. (Conradi)**

Senior Class; Course I. (Elective)

(Open to majors only).

A study of insects under field conditions for the purpose of devising control methods.

One period practical per week during first and third terms.

**167. Insectary Methods. (Conradi)**

Senior Class; Course I. (Elective)

(Open to majors only).

The adaptation of breeding apparatus to life history studies and preliminary laboratory control methods.

One period practical per week throughout session.

**168. Entomology. (Conradi)**

Course VII.

In this course the student considers such elementary insect structure and insect habits as will enable him to understand the work that follows. This course includes the study of spraying, dusting, and fumigating apparatus. Field work is given on the winter habits of field insects together with practical work in controlling insects which destroy stored products.

Two periods theoretical per week during second term.

**169. Orchard and Garden Insects. (Conradi)****Course VII.**

In this course the principal orchard and garden insects are studied. Careful attention is given to the life history and control of these insects. The practical work of this course gives thorough and detailed instruction on the application of sprays for controlling insects. It includes a comparative study of the essential parts of the spray pumps and accessories. Each student is required to work out a practical problem using an orchard, garden, or shade tree grove within this State.

Text-book: "Manual of Fruit Insects"—Slingerland and Crosby.

Two periods theoretical and one period practical during third term.

**Division Rooms and Equipment**

**General Laboratory.**—This laboratory is located on the second floor of Agricultural Hall, and is equipped with simple and compound microscopes, dissecting instruments, lantern slides, models, and charts. A new locker system has been installed and the laboratory is also provided with the most modern laboratory tables. The laboratory chairs are all adjustable in order to provide comfort to the student. This feature of the laboratory prevents physical unrest during long laboratory periods.

**Insectary.**—The insectary is located on the ground floor of Agricultural Hall, and is equipped with the various types of ordinary breeding cages; also the various types of root, parasite, and ant cages, several types of Berlese collecting apparatus are provided as well as a system of temperature and moisture control for biological purposes. A complete system of spray and fumigating apparatus is housed in the insectary.

**Field Laboratories.**—Two field laboratories are in operation and the student has access to the methods employed in these laboratories as well as the current records.

**Office and Research Laboratory.**—The main office and research laboratory of this division is located on the second floor of Agricultural Hall. The office is equipped with modern record systems for operating laboratory, office, and field work. The laboratory is equipped with compound microscopes, photographic outfit, microtome, binocular, dark ground illuminator, and incubators. The entomological collections are kept on this floor. The economic forms, arranged according to food plants, are kept in the museum while the systematic and research collections are kept in standard Schmitt boxes in the laboratory.

A carefully selected entomological library is kept in the main office.

**ANIMAL HUSBANDRY AND DAIRYING**

Professor Shields

Associate Professor Burgess

Poultry Husbandman Hare

Assistant Rouse

Assistant Raitt

**170. Types and Breeds of Horses, Mules, and Beef Cattle. (Rouse)**  
Junior Class; Course I.

Origin and characteristics of types and breeds of horses, mules, and beef cattle.

Text-book: "Types and Breeds of Farm Animals"—Plumb.

Two periods theoretical per week during second term.

**171. Types and Breeds of Dairy Cattle, Sheep, and Swine. (Rouse)**  
Junior Class; Course I.

Origin and characteristics of types and breeds of sheep and swine. Practical work in judging live stock by use of score card and comparison of individuals.

Text-book: "Types and Breeds of Farm Animals"—Plumb.

Two periods theoretical and one three-hour period practical per week during third term.

**172. Principles of Breeding. (Rouse)**  
Senior Class; Course I. (Elective)

General principles of breeding and application to the breeding of farm animals. Practical work in pedigree construction.

Text-book: "Breeding Farm Animals"—Marshall.

Two periods theoretical and one period practical per week during second term.

**173. Animal Breeding. (Shields and Rouse)**  
Senior Class; Course I. (Elective)

This course is an advanced study in breeding, and includes practical problems in heredity that are applicable to the breeding of farm animals.

Text-book: "Principles of Breeding"—Davenport.

One period theoretical and one period practical per week during third term.

**174. Stock Farm Management. (Rouse)**  
Senior Class; Course I. (Elective)

Live stock management and its relation to soil fertility.

One period theoretical and one period practical per week during first term.



**175. Principles of Feeding. (Shields and Rouse)****Senior Class; Course I. (Elective)**

A study of the laws of nutrition and the character and composition of feeding stuffs. Laboratory work consists in computing rations and in judging live stock.

Text-books: "Feeds and Feeding"—Henry and Morrison; "Principles of Feeding"—Bull.

Two periods theoretical and one period practical per week during first and seconds terms.

**176. Feeding Animals. (Rouse)****Senior Class; Course I. (Elective)**

This is an advanced study of feeds and feeding, in which practical experiments with the different kinds of live stock are carefully considered.

Text-book: "Feeds and Feeding"—Henry and Morrison.

Two periods theoretical and one period practical per week during second term.

**177. Beef Production. (Shields)****Senior Class; Course I. (Elective)**

General principles of production, systems of management, handling and feeding of beef animals. Text supplemented by discussion and analysis of literature on subjects from station bulletins.

Text-book: "Beef Production"—Mumford. Station bulletins.

One period theoretical and one period practical per week during second term.

**178. Pork Production. (Shields)****Senior Class; Course I. (Elective)**

Management, breeding, and feeding of hogs for the production of pork. Theoretical study supplemented by discussion and analysis of station publications dealing with various experiments on the subject.

Text-book: "Productive Swine Husbandry"—Gay.

Two periods theoretical and one period practical per week during third term.

**179. Horse and Mule Production. (Shields)****Senior Class; Course I. (Elective)**

Productive horse and mule husbandry, care and management being emphasized. Text and lecture supplemented by discussion and careful analysis of available literature on the subject.

Text-book: "Productive Horse Husbandry"—Gay.

Two periods theoretical and one period practical per week during first term.

**180. Animal Conformation and Stock Judging. (Shields and Rouse)**  
**Senior Class; Course I. (Elective)**

A careful study of type and breed conformation and comparative judging. This course is offered only to students who have taken the preceding courses in which live stock judging is considered.

Text-book: "Principles and Practice of Judging Live Stock"—Gay.

Two periods theoretical and one period practical per week during third term.

**180a. Elementary Principles of Animal Husbandry. (Shields)**  
**Course VII.**

A practical study of types and breeds of live stock and the judging of same; also a study of the principles of feeding and breeding of live stock.

Text-book: "Beginnings in Animal Husbandry"—Plumb.

Three periods theoretical and one period practical per week during first term.

One period theoretical and one period practical per week during second term.

**181. Milk and its Products. (Burgess)**  
**Junior Class; Course I.**

The object of this course is to give the student a thorough knowledge of the sanitary conditions necessary in the production and handling of milk, pasteurization, milk testing, dairy machinery, manufacture of butter, cheese, and ice cream, and marketing same.

Text-book: "Creamery Butter Making"—Michels.

Two periods theoretical per week during first and second terms.

**181a. Elementary Principles of Dairying. (Burgess)**  
**Course VII.**

This course in dairying embraces practical work in the use of cream separators, the manufacture of butter, and the use of the Babcock Test in testing milk and its products. The essentials of successful dairy farm management are carefully considered.

Text-book: "Dairy Farming"—Michels.

One three-hour period per week during third term.

**182. Practical Work in Creamery. (Burgess)**  
**Junior Class; Course I.**

Cream separation and ripening, pasteurization of milk and cream, bottling milk, butter and cheese making, milk testing, butter and cheese scoring.

One three-hour period practical per week during first and second terms.

**183. Milk Hygiene. (Burgess)****Senior Class; Course I. (Elective)**

Relation of milk to disease. A study of city milk laws.

Two periods theoretical and one period practical per week during first term.

**184. Herd Record Work and Dairy Farm Management. (Burgess)****Senior Class; Course I. (Elective)**

A study of dairy herds based on milk and feeding records, dairy farming and its relation to soil fertility, selection of breeding stock, raising of calves.

Text-book: "Dairy Cattle and Milk Production"—Eckles.

Two periods theoretical and one period practical per week during second term.

**185. Barn, Silo, and Dairy Construction. (Burgess)****Senior Class; Course I. (Elective)**

A study of practical dairy farm equipment; methods and cost of construction; crops for silage.

Two periods theoretical and one period practical per week during third term.

**186. Advanced Testing. (Raitt)****Senior Class; Course I. (Elective)**

Butter, cheese, and other milk products tested; determinations made of preservatives of milk.

One period practical per week throughout session.

**187. Creamery Butter Making. (Raitt)****Senior Class; Course I. (Elective)**

This course is a practical study of butter making emphasizing the commercial creamery. Creamery accounting and the marketing of dairy products will also be studied.

One period theoretical and two periods practical per week throughout session.

**188. Poultry Husbandry. (Hare)****Senior Class; Course I. (Elective)**

This course deals with the fundamental principles of poultry husbandry. The classes, types, and breeds of standard poultry are studied for their utility value as producers of marketable eggs and poultry. The selection, breeding, and feeding of fowls for heavy egg production, and the hatching and rearing of chicks are taught in a practical way.

One period practical per week during second term.

**188a. Elementary Principles of Poultry Husbandry. (Hare)****Course VII.**

This course includes a practical study of types and breeds and the feeding and general management of poultry.

Two one-hour periods per week during second term.

**189. Poultry Husbandry. (Hare)****Senior Class; Course I. (Elective)**

This course goes more into the details of the subjects covered in Course 188, and in addition a practical study will be made of the milk-feeding of broilers and roasters in crates; the grading, shipping and marketing of eggs; the killing, chilling, packing and shipping of poultry; the cause and treatment of disease; and the eradication of poultry vermin.

Two periods theoretical and one period practical per week during third term.

**Division Rooms and Equipment.**—The live stock equipment available for studying types and breed characters, comparative judging, etc., consists of a large herd of pure-bred and high grade Jerseys, about forty head of high grade Holstein-Friesians, two pure-bred Holstein-Fresian bulls of excellent merit, and several good specimens of pure bred Ayrshire, Hereford, and Aberdeen-Angus cattle; an excellent herd of Berkshires and Duroc-Jerseys, and a few specimens of other popular breeds of swine; also a few horses of the following breeds: Percheron, German Coach, and Standard-Bred; one American Bred jack, and a varying number of mules from mares of different types.

The dairy laboratories are well equipped for milk testing, butter making, etc. The Clemson College Creamery has all modern equipment and offers exceptional advantages to students interested in farm dairying and commercial creamery work.

**BOTANY AND FORESTRY****Professor Barre****Assistant Professor Aull****Assistant Professor Rosenkrans\*****Instructor Diehl****190. Elementary Phanerogamic Botany. (Diehl)****Freshman Class; Courses I, II.**

A preliminary practical course in phanerogamic botany consisting of the morphological study of angiosperms from flowers through the entire growth of the plant to the production of flowers. The student's knowledge is made his own through laboratory work and simple investigations. The students have access to a very full line of fresh and preserved botanical material when the course demands its use.

Text-book: "Outlines of Botany with Flora"—Leavitt.

One period practical per week during first term.

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\* Absent on leave.

**191. Elementary Cryptogamic Botany. (Diehl)****Freshman Class; Courses I, II.**

A course in the study of algae, fungi, bryophytes, pteridophytes, and gymnosperms. The broad principles of nutrition, reproduction, growth, sex, adaptation, and evolution are illustrated. The students will secure some material from the field for study, although much will be furnished in the laboratory and class room.

Text-book: "Outlines of Botany with Flora"—Leavitt.

One period practical per week during second term.

**192. Systematic Botany. (Diehl)****Freshman Class; Courses I, II.**

A course in the taxonomic and ecological features of this region with a laboratory and field study of the main types of angiosperms. Plants are identified and classified and special emphasis is laid upon the distinguishing characteristics of the principal families of the plant kingdom.

Text-book: "Outlines of Botany with Flora"—Leavitt.

Two periods practical per week during third term.

**193. Botany. (Diehl)****Course VII.**

This course is intended to give a working knowledge of plants and their requirements for life and reproduction, with special reference to their improvement by cross breeding.

Some time will be devoted to the study of the diseases of farm crops, and methods for control and prevention will be considered; this includes directions for the preparation and application of the more common spray mixtures. Members of the class will be supplied with material, both fresh and preserved, for study.

Text-book: "Beginners' Botany"—Bailey.

Two periods theoretical and one period practical per week during first term; one period practical per week during third term.

**194. Elements of Forestry. (Barre)****Junior Class; Course I.**

A lecture, field, and laboratory course dealing with the general principles of forestry, together with the practical methods applied in lumbering, forest propagation, and conservation.

Lectures and Government bulletins.

One period practical per week during third term.

**195. Plant Pathology. (Aull and Rosenkrans)****Sophomore Class; Course I.**

A systematic study of fungi with special reference to species causing diseases of economic plants. The students are taught to recognize the more common diseases, particularly in the early stages, and the whole question of prevention and practicable remedies is fully discussed. Methods of isolating, artificially cultivating,

and inoculating with disease-causing organisms will be considered.  
Lectures.

One period theoretical and two periods practical per week during second term.

**196. Plant Physiology. (Barre)**

**Sophomore Class; Course I.**

A study of the structure and functions of plants, the object being to teach the student how plants live and grow and why they are dependent on certain physical factors as light, water, air, etc.

Text-book: Duggar's "Plant Physiology."

One period theoretical and two periods practical per week during third term.

**197. General Bacteriology. (Aull)**

**Senior Class; Course I.**

Required of all Agricultural Seniors.

This course is designed to give the student a clear working knowledge of the bacteria, yeasts, and molds. A detailed study is made of the morphology and physiology of bacteria in relation to man and animals, and to the arts and sciences. The principal bacterial diseases of man are studied and means of control discussed.

In the laboratory bacteria are studied in their relation to food, heat, light, and disinfectants, and their relation and importance to agriculture is stressed. Several forms are studied in detail. This study consists of isolating, growing them upon the various media, staining and determining the organism. Particular attention is paid to types found in water, soil, and milk.

Text-book: Buchanan's "Household Bacteriology", supplemented by lectures.

Two periods theoretical and two periods practical per week during first term.

**198. Animal Bacteriology. (Aull)**

**Senior Class; Course I. (Elective)**

This course is for those students who major in Veterinary Science. The pathogenic bacteria are treated more in detail. The principal bacterial diseases of animals are studied, and preventive measures suggested. A detailed study of Infection and Immunity is made in its application to disease. In the laboratory the work consists of the preparation of the various media and the study of one or more pathogenic types as far as time will allow.

Text-book: Buchanan's "Veterinary Bacteriology."

Two periods theoretical and two periods practical per week during second term.

**199. Dairy Bacteriology. (Aull)****Senior Class; Course I. (Elective)**

This course is for those students who major in Dairying. The bacteria concerned in the production of milk are emphasized. In the laboratory a careful study of the conditions around the barn and dairy is carried out. Analyses are made of milk, cream, butter, and ice cream. As far as possible, all the various bacteria found in milk products are isolated and studied in detail. The students prepare their own culture media and stains, and are thus enabled to get a good foundation for future work in bacteriology.

Text-book: Conn's "Practical Dairy Bacteriology."

Two periods theoretical and two periods practical per week during the third term.

**200. Sanitary Bacteriology. (Aull)****Senior Class; Course II. (Elective)**

This course is designed to meet the needs of those students who specialize in chemistry. A study is made of the location and protection of water supplies, the purification of water, the disposal and purification of sewage, and the isolation of bacteria, particularly pathogenic forms in water.

In the laboratory the students prepare their own media and stains. Bacteriological examinations of water and sewage are made and a detailed study of the forms found in water and sewage carried out. A careful study is also made of various disinfectants in water purification.

Text-books: Prescott and Winslow's "Elements of Water Bacteriology," and Hazen's "Clean Water and How to Get It," supplemented by lectures and technical papers.

Two periods theoretical and two periods practical per week during the second and third terms.

**201. Soil Bacteriology. (Aull)****Senior Class; Course I. (Elective)**

This course is for those students who specialize in soils and soil fertility. The laboratory course is designed to give the student a thorough knowledge of the soil bacteria in relation to agriculture. Experiments are carried out on the number of micro-organisms in soil, the relation of micro-organisms to the nitrogen, carbon, sulphur and iron cycles, and the relation of micro-organisms to the physical properties of soils.

Text-book: "Bacteria in Relation to Country Life," supplemented by lectures and technical papers.

Laboratory Manual: Fred's "Laboratory Manual of Soil Bacteriology."

Two periods theoretical and two periods practical during the second term, and two periods practical, supplemented by lectures and papers during the third term.

**202. Diseases of Field Crops. (Barre)**

Senior Class; Course I. (Elective)

A detail study of the common and destructive diseases of cotton, corn, and other field crops.

Lectures.

Two periods theoretical and one period practical per week during third term.

**203. Diseases of Truck Crops and Ornamental Plants. (Barre)**

Senior Class; Course I. (Elective)

A detail study of the diseases of garden and truck crops and ornamental plants. Designed for those students who specialize in horticulture.

Text-book: Duggar's "Fungus Diseases of Plants."

Two periods theoretical and one period practical per week during second term.

**204. Advanced Plant Pathology. (Barre)**

Senior Class; Course I. (Elective)

A study of special diseases and of methods of investigation in vogue in plant pathology.

Lectures.

Two periods theoretical and one period practical per week during first term.

**205. Plant Physiology. (Barre)**

Senior Class; Course I. (Elective)

A greenhouse and laboratory course in the study of plant behaviour under controlled conditions.

Lectures.

Two periods theoretical and one period practical per week during second term.

**206. Ecology. (Barre)**

Senior Class; Course I. (Elective)

A study of the relation of the plant to its habitat.

Lectures.

Two periods theoretical and one period practical, or three periods theoretical per week during first term.

**207. Taxonomy. (Barre)**

Senior Class; Course I. (Elective)

A systematic study of the seed plants of this region.

Lectures.

Two periods theoretical and three periods practical per week throughout session, or one period practical per week during third term, or one period theoretical and two periods practical per week during third term.



**208. Mycology. (Barre)****Senior Class; Course I. (Elective)**

A systematic study of fungi. This course is given for those students who wish to specialize in plant pathology.

Lectures.

Two periods theoretical and three periods practical per week during second term.

**209. Histology. (Barre)****Senior Class; Course I. (Elective)**

A course in histology given for those students who major in botany with a view of giving them opportunity to learn something of the methods of preserving, sectioning, staining, and studying cells, tissues, etc.

Text-book: Chamberlain's "Methods in Histology," third edition.

Two periods theoretical and three periods practical during first term.

**Division Rooms and Equipment.**—The laboratories and classrooms are located on the first floor of the Agricultural Hall. They contain a good equipment for satisfactory work in botany, forestry, and bacteriology, including twenty-five dissecting microscopes, forty-two compound microscopes, microscope slides, lantern slides and charts, Zimmerman and Minot rotary microtomes, embedding baths, balances, incubator, Arnold and Kock sterilizers, autoclaves, dry ovens, anaerobic apparatus. The students have access to a small botanical and bacteriological library.

A creditable beginning has been made in collecting a herbarium. The herbarium has been installed in new insect-proof cases on the museum balcony. The general collection includes the Anderson herbarium of 2,500 mounted specimens, about 700 mounted specimens of American violets, and 1,000 mounted specimens of flowering plants of Central New York, as well as a set of the F. V. Coville plants of New York state. The South Carolina herbarium contains over 1,200 mounted specimens, representing the South Carolina flora, and is kept separate from the general herbarium.

Some material has been collected and placed in the museum for exhibition purposes, but as soon as these collections are completed they will be used as demonstration material for classwork.

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**SOILS****Professor Keitt****Instructor King\*****Instructor Padgett****210. Soils. (Keitt and Padgett)****Junior Class; Course I.**

This course is a scientific study of the soil, not from one point of view, but in all of its relations to plant production, developing the inter-dependence of geological, chemical, bacteriological, and physical relationships. It deals with the soil as a reservoir for water, as a medium for root development, as a source of nutrients, as a home of organisms, in its relation to heat, air, and, lastly, man's relation to the soil.

A laboratory course is also given, being confined almost exclusively to the physical properties of the soil.

Text-books: "Soils"—Lyon and Fippin; "The Physical Properties of Soils"—McCall.

Two periods theoretical and one period practical per week during first and second terms.

**211. Soil Fertility. (Keitt)****Senior Class; Course I. (Elective)**

The purpose of this course is to study the systems of permanent agriculture and the conditions under which plant foods can be conserved, whether in the form of soil compounds, barnyard manures, or commercial fertilizers, and at the same time used with the greatest efficiency and economy in the production of crops. The results of field tests at the different experiment stations are included in the study.

Text-book: "Soils, Fertility, and Permanent Agriculture"—Hopkins.

Three periods theoretical and one four hour period practical per week throughout session.

**212. Fertilizers and Fertilizing. (Keitt)****Senior Class; Course I. (Elective)**

Studies of sources of plant foods and experimental results.

One period theoretical per week during second term and two periods theoretical per week during third term.

**Division Rooms and Equipment.**—The Soil Physics laboratory is located on the ground floor of the Agricultural Hall and is provided with apparatus for the determination of water contents, absorptive capacity, water holding power, and other physical properties of soils and for performing experiments in evaporation, percolation, capillarity, and for making mechanical analysis.

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\* Absent on leave.

## ENGINEERING DEPARTMENT

S. B. Earle, Director

### MECHANICAL ENGINEERING

Professor Earle

Associate Professor Rhodes

Associate Professor Howard

#### 300. Mechanism. (Howard)

Junior Class; Courses III, IV, V.

Relative velocities; link motions; quick returns; spur and bevel gearing; cams; ratchet motions; straight line motions; belting.

Text-book: Keown's "Mechanism."

Two periods per week during first term.

#### 301. Mechanics. (Howard and Eaton)

Junior Class; Courses III, IV, V, VI.

Composition and resolution of forces; moments; couples; statical friction; center of gravity; levers; wheel and axle; pulleys; graphic statics.

Text-book: Martin's "Mechanics."

Three periods per week during second term, and two periods per week during third term.

#### 302. Mechanics. (Earle)

Senior Class; Courses III, IV, VI.

Two hours per week during the first two terms are given to the study of pure mechanics, center of gravity, moments of inertia, work, energy, power, elasticity, resilience, strength of engineering materials, and hydraulics.

Text-book: Boyd's "Strength of Materials."

Two periods per week during first and second terms.

Note:—Two hours practical Electrical Engineering is given to Civil Seniors in place of second term Mechanics.

#### 303. Mechanical Engineering. (Earle)

Senior Class; Courses III, IV, V.

Study of the design and construction of steam boilers, heaters, pumps, and injectors; theory of simple, compound, and triple expansion steam engines; steam turbines, gas and gasoline engines; hot air engines; air compressors and motors; ice and refrigerating machinery; transmission of power; specifications and the law of contracts; theory of the strength of engineering materials; graphical and analytical solution of problems.

Text-books: Ripper's "Steam Engine"; Kimball and Barr's "Ele-

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(Practical periods are two hours unless otherwise stated.)

ments of Machine Design"; Roe's "Steam Turbines" or "Steam Turbines" by Thomas; Poole's "Gas Engine."

Three periods per week during first term; four periods per week during second term; five periods per week during third term.

Course V.: Three periods per week during first term only.

### **304. Mechanical Laboratory. (Earle and Rhodes)**

#### **Senior Class; Courses III, IV.**

Study, use, and calibration of water-meters, weirs, steam gauges, indicators, dynamometers, calorimeters; tests of fuel and lubricants; tests of building materials, as iron, wood, brick, cement, etc.; setting the valves of the plain slide-valve and automatic cut-off steam engines; indicator practice; horsepower and efficiency tests of steam, gasoline, and hot-air engines, steam turbines, air-compressors and motors, and centrifugal pumps; efficiency trials of steam boilers; superheaters; duty trial of steam pumps and of College pumping engines; test of refrigerating plant.

Reference-books: Carpenter's "Experimental Engineering"; Smallwood's "Mechanical Laboratory Methods"; Moyer's "Power Plant Testing."

One period of one hour and one period of three hours per week throughout session.

### **305. Mechanical Laboratory. (Rhodes)**

#### **Senior Class; Course V.**

Study, use, and calibration of steam gauges, indicators, calorimeters; tests of building material, as iron, wood, brick, cement; setting the valves of plain and slide valve and automatic cut-off engines. Practice in running and testing water motors, steam engines, steam turbines, gasoline engines, pumps; firing and testing steam boilers.

Reference-books: Carpenter's "Experimental Engineering"; Smallwood's "Mechanical Laboratory Methods"; Moyer's "Power Plant Testing."

One period per week during second and third terms.

### **306. Testing Laboratory. (Earle)**

#### **Senior Class; Course VI.**

Testing strength of materials in tension, compression, bending, etc. The above includes cast and wrought iron, wood, cement, reinforced concrete, stone, etc. So far as possible, the standard methods of making these tests are followed.

Text-book: "Testing Materials"—Hott and Scofield.

One period of one hour and one period of three hours per week during first term.

#### **Division Rooms and Equipment**

The laboratory is situated on the ground floor of the Engineering Building, and occupies a room 52 by 60 feet, and contains the following equipment:

**For Steam Engineering.**—One 15 H. P. horizontal, locomotive type boiler; one 6-H. P. Erie, plain slide valve steam engine, throttling governor; one 5-H. P. vertical engine built by students; one 15-H. P. Payne high speed automatic cut-off engine; one Corliss cross compound engine, arranged to run either condensing or non-condensing and with either or both cylinders with high pressure steam; one 7-K. W. Curtis steam turbine non-condensing, direct connected to a two-pole interpole direct current compounded generator, with necessary switchboard and instruments; one Wheeler surface condenser, with combined air and circulating pumps; one set steam gauge testing apparatus; one Carpenter's separating calorimeter; two Carpenter's throttling calorimeters; six steam engine indicators of various makes; four injectors; two draft gauges; seven steam gauges.

**For Hydraulic Engineering.**—One power triplex pump; one Pelton water motor; two hydraulic rams; three duplex pumps of different makes; a centrifugal pump; two weirs; one hook gauge; one altitude gauge.

**For compressed Air.**—One Clayton air compressor, water jacketed; one improved air motor.

**For Fuel and Lubricants.**—One Carpenter's coal calorimeter with scales, balances and oxygen generating device; one standard viscosimeter; one Thurston friction tester.

**For Testing Materials.**—One 100,000-pound Olsen automatic vertical testing machine driven by 5-H. P. Westinghouse electric motor, and fitted for either tension or compression; one Fairbank's cement testing machine; one Vicat needle with proper sieves and moulds; one graduated flask for determining specific gravity; one moist closet for storage; one 3,000-pound transverse testing machine.

The laboratory also contains a 5-H. P. Otto gasoline engine; one Ericsson hot air engine; one 50-H. P. Packard auto-engine; one 3-H. P. Mietz & Weiss kerosene engine; one 2-H. P. Detroit gasoline-kerosene engine; one 7-H. P. Alamo gasoline engine; one 4-H. P. International Harvester Co. kerosene engine; one 2-H. P. motor boat engine; a 6-H. P. transmission dynamometer, graduated to read horse-power direct and built by students; four platform scales; four spring balances; seven mercury thermometers; one electrical resistance thermometer; two Bristol thermo-couples for reading temperature to 2,000 and 2,900 degrees respectively. All apparatus is so arranged that it may be used for separate or combined tests. Besides the apparatus in this room, the apparatus in the Power Station, the pumping stations and refrigerating plant are available for instruction and tests. For list of equipment see "Grounds and Buildings."

**ELECTRICAL ENGINEERING**

Professor Dargan

Associate Professor Rhodes

Mr. Morrison

**310. Electricity and Magnetism. (Dargan)****Junior Class; Course III.**

Fundamental laws of electricity and magnetism as applied to the electric circuit and to the magnetic circuit, including application to instruments, dynamos, lines, etc.

Two periods per week throughout session, and one period per week during first and third terms with 311.

**311. Electrical Laboratory. (Rhodes and Morrison)****Junior Class; Course III.**

Experimental verification of the fundamental laws of electricity and magnetism, including tests and calibration of instruments; measurement of current, resistance, electromotive force, permeability, inductance, and capacity, and the study of the effects of these upon the electric and magnetic circuits. The student is required to study the theory as well as the manipulation of the experiments and to express his complete study of each experiment in a carefully prepared written report.

Text-book: "Electrical Laboratory Experiments."

One three hour period per week throughout session. (See 310.)

**312. Electrical Engineering. (Dargan)****Senior Class; Course III.**

First term:—Continuation of the study of direct current apparatus, including direct current dynamo design. Second and third terms: Study of alternating current machinery and apparatus, with applications to light and power. The design of a dynamo with a full set of drawings, or the equivalent in some other problem is required as part of this course and 347 in Mechanical Drawing.

Text-books: Christie's "Electrical Engineering"; Gray's "Electrical Machine Design"; "Standard Handbook for Electrical Engineers"; Mimeographed Notes.

Five periods per week throughout session.

**313. Electrical Laboratory. (Dargan and Morrison)****Senior Class; Course III.**

Care, operation, and testing of direct and alternating current dynamos and apparatus. In addition to the laboratory apparatus, tests are made on the Power Plant and other electrical equipment of the College each year.

Text-book: "Electrical Engineering Experiments."

One theoretical and one practical period per week throughout session.

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(Use of the slide rule is required in courses 310 to 314 inclusive.)

**314. Electricity. (Rhodes)****Senior Class; Course IV.**

Fundamental principles of electrical engineering as applied to civil engineering given during the second term to civil engineering students.

Text-book: Gray's "Principles of Electrical Engineering."

Two periods per week during second term.

**315. Illumination. (Dargan)****Senior Class; Course VI.**

The study of illumination as applied to buildings.

Text-book: Mimeographed Notes.

One period per week during first term.

**Division Rooms and Equipment**

This division occupies two single-story brick buildings.

**Electrical Instrument Laboratory.**—This is a separate building, especially designed for delicate instrument work. Its equipment contains the following instruments and apparatus: Leeds and Northrup potentiometer with certified standard resistance for measuring both current and potential; Kelvin deka balance; Weston laboratory standard voltmeter with multipliers; Becker analytical balance and weights; two 1-6-H. P. Crocker Wheeler motors; sixteen galvanometers; nine standard resistance sets; three standard resistance and Wheatstone bridge sets; dial decade standard test set; four meter-wire bridges; one magnetometer; two standard condensers; commercial condensers; Weston and Carhart-Clark standard cells; ammeters; voltmeters; rheostats; keys; switches; storage cells; primary cells, and other miscellaneous apparatus; also a quantity of special apparatus made in the College shops and laboratories.

The instruments in the above equipment are from such makers as Elliott Brothers, Nalder Brothers, Leeds and Northrup, Queen and Company, Weston Electrical Instrument Company, etc.

**Dynamo Laboratory.**—This building is 37 by 80 feet, with basement. The main floor is divided into a lecture room 35 by 25 feet, and a laboratory 35 by 53 feet. The basement contains a supply room and a large dark room.

The lecture room has raised seats, and is equipped with instruments, illustration models and other demonstration apparatus.

The dynamo laboratory equipment contains the following instruments:

**Voltmeters.**—Six Weston, six General Electric Co. Thomson, one Jewell, one Whitney, one Ayrton and Perry, one Hoyt, one Kelvin electrostatic, one Cardew.

**Ammeters.**—Three Weston, five Weston millivoltmeters with current shunts, twelve General Electric Co. Thomson, one General Electric Co. hot wire, one Westinghouse portable, one Siemens Electro-dynamometer, one Jewell.

**Wattmeters.**—Four Weston indicating, two General Electric Co Thomson indicating, two General Electric Co. Thomson recording, one General Electric Co., and one Fort Wayne watt-hour meter.

**Miscellaneous Instruments.**—Tachometers, speed counters, stop watches, current and potential transformers for instruments, frequency meter, etc.

**Direct Current Dynamos.**—17-K. W. Lundell, 15-K. W. Mather, 2 1-2-K. W. Crocker-Wheeler, three 2-K. W. Kester, 15-H. P. Kester, 10-H. P. Kester.

**Alternating Current Apparatus.**—15-K. W. General Electric Company, single, two, three and six phase revolving field generator, complete with marble switch board and full set of indicating instruments. 7 1-2-K. W. General Electric Company single, two and three phase rotary converter, 7-K. W. three phase converter built by students. General Electric Company single, two and three phase induction motors, three 3-K. W. and three 5-K. W. constant potential transformers. General Electric Company condensers, assortment of coils, models, etc.

**Miscellaneous.**—50-H. P. high speed McEwen automatic engine, 3-ton portable crane, prony brake, rheostats, circuit breakers, switches, fuse testing apparatus, lightning arresters, etc.

The machinery in the dynamo laboratory is driven by the 50-H. P. engine and by motors. Steam and electric power for these is furnished by the central Power Plant, described on another page. Students have access to this plant, and to other electrical equipment of the College.

## CIVIL ENGINEERING

Professor Houston

Assistant Professor Eaton

### 320. Descriptive Geometry. (Eaton)

Sophomore Class; Courses III, IV, V.

Study of the representation of points, lines, planes, surfaces and solids, and of their relations; tangencies, intersections and developments; numerous original exercises.

Text-book: \*Low's Practical Solid or Descriptive Geometry, Parts I and II.

Two periods per week during first and second terms.

### 321. Plane Surveying. (Eaton)

Sophomore Class; Course I.

This course includes the general principles and fundamental operations of surveying with compass, level and transit.

Text-book: Breed and Hosmer's Principles and Practice of Surveying, Vol. I.

Three periods per week during first term.

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\* A change of text-book is contemplated.



**322. Plane Surveying. (Eaton)****Sophomore Class; Course I.**

Field practice is given in actual surveys of tracts of land, the area computed and plats drawn. Practice is given in laying out and dividing up land, and in locating irregular boundaries, differential and profile leveling, and the running of contours.

One three hour period per week during first term.

**323. Plane Surveying. (Eaton)****Sophomore Class; Courses III, IV, V.**

This course includes the general principles and fundamental operations of surveying with compass, level and transit.

Text-book: Breed and Hosmer's Principles and Practice of Surveying, Vol. I.

Three periods per week during third term.

**324. Plane Surveying. (Eaton)****Sophomore Class; Courses III, IV, V.**

Field practice is given in actual surveys of tracts of land, the area computed and plats drawn. Practice is given in laying out and dividing up land, and in locating irregular boundaries, differential and profile leveling, and the running of contours.

One period per week during second and third terms.

**325. Plane Surveying. (Houston)****Junior Class; Course VI.**

This course includes the general principles and fundamental operations of surveying, special attention being drawn to the subjects bearing directly on the work of the architect.

Text-book: Breed and Hosmer's Principles and Practice of Surveying, Vol. I.

Two periods per week during first term.

**326. Practical Surveying. (Houston)****Junior Class; Course VI.**

Field practice is given with the compass, transit, and level. Contour maps made, volumes of earth computed, building sites staked out, batter boards set, elevations given, etc.

One three hour period per week during second term.

**327. Higher Surveying. (Houston)****Junior Class; Course IV.**

In the first term the fundamentals are reviewed; the theory of the stadia, plane table, solar transit, and other instruments taken up. City, hydraulic, and photographic surveying. In the second and third terms railway engineering is studied.

Text-books: Breed and Hosmer's Principles and Practice of Surveying, Vol. I.; Webb's Railway Construction.

Three periods per week during first and third terms, and two periods per week during second term.

**328. Higher Surveying. (Houston)****Junior Class; Course IV.**

Practical exercises are given with the transit, plane table, planimeter, sextant and other instruments, and the student is taught to adjust the same.

In the railway engineering, practice is given in laying out simple and compound curves, curves approached by a spiral, setting of slope stakes, with the computation of volume of earth, actual location from a paper location on contour map, etc.

One three hour period per week throughout session.

**329. General Civil Engineering. (Houston and Eaton)****Senior Class; Course IV.**

This course includes a study of building material, mechanics of construction, derivation of practical formulas, masonry construction, foundations on land and in water, stability of walls and arches, analytical investigation of stresses in various forms of roof trusses and bridges, the field and office work in railroad construction, location and construction of country roads and city pavements, hydrostatics, motion of water in pipes and channels, determinations of discharge of streams by current meter and weirs, water power developments, water supply and the disposal of sewage. In addition, the student is required to hand in a thesis on some engineering work. This necessitates additional field work and outside study. The College Library furnishes valuable books of reference.

Text-books: \*Fieberger's "Civil Engineering"; Merriman and Jacoby's "Roofs and Bridges," Vol. I.; Work on Hydraulics (Text not selected); Field Note Book.

Five periods per week throughout session.

**330. General Civil Engineering. (Houston)****Senior Class; Course IV.**

Practical problems bearing on the theoretical work are given, with additional work in careful mapping, river gaugeing, railway computations, etc.

One four-hour period per week throughout session.

**Division Rooms and Equipment**

The collection of field instruments contains the following:

Two complete transits with solar attachments; three engineer's transits; four railroad compasses; two six-inch vernier compasses; one precise level; three twenty-inch wye levels; one dumpy level; two architect's levels; one convertible architect's level; one drainage level; one Locke hand level; one binocular hand level; one binocular hand level; two stadia hand levels, with a supply of self-reading and target rods. One complete plane table; a Price current meter, with steel boat and truck; sextant; aneroid barometer; flag poles; tapes; chains and all necessary accessories.

The office equipment includes planimeter, slide rules, drafting instruments, and a universal drafting machine.

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\* A change of text-book is contemplated.

# DRAWING AND ARCHITECTURAL ENGINEERING

Professor Lee

Associate Professor Klugh

Instructor Birch

Instructor Harris

Instructor Wolcott

## 840. Freehand Drawing. (Klugh and Harris)

Freshman Class; All Courses

Short lectures on the principles and processes of freehand drawing, with individual criticism. Required exercises in sketching from geometrical figures, singly and in groups, both in pencil outline and pencil rendering; pencil rendering from casts; grade exercises in pen and ink rendering, drill in line drawing, composition and proportion, comparative measurements, principles of perspective.

Text-book: Plates from International Correspondence School in third term.

One period per week throughout session.

## 341. Mechanical Drawing. (Birch and Harris)

Freshman Class; Courses III, IV, V, VI.

Exercises in the use of instruments, lettering, geometrical drawing, conventional representation of metals and materials, orthographic projection; shop drawings from text made to scale; conventional use of lines; standard conventions for threads, details of standards (threads, bolts, rivets, pipe, gear teeth, etc.). Dimensioning to reduced scale, working drawings from sketches, detail (shop) drawings from actual engine parts; assembly drawings from details of above; designing, tracing and blueprinting.

Text-book: French's "Engineering Drawing."

One three hour period per week throughout session.

## 342. Mechanical Drawing. (Birch and Harris)

Freshman Class; Courses I, II.

Exercises teaching the uses of instruments. freehand lettering such as used more frequently, most important geometrical problems, exercises explaining third angle projection, plans and elevations of farm buildings, tracing and blueprinting.

Text-book: Anthony's "Mechanical Drawing."

One three hour period per week throughout session.

## 343. Mechanical Drawing. (Klugh)

Sophomore Class; Courses II, III, V.

Continuation of course No. 341; intersection and development of surfaces, isometric drawing, linear perspective, working drawing of

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(Practical periods are two hours unless otherwise stated.)

machines or parts of machines from model, instruction in drafting room practice, construction of screw threads, proportions of bolts and nuts, elementary machine design, tracing and blueprinting.

Text-book: French's "Engineering Drawing."

One period per week throughout session.

**344. Mechanical Drawing. (Klugh)**

**Sophomore Class; Course IV.**

First and second term's work identical with course No. 343, working drawings of machines, topographical drawing, tracing and blueprinting.

Text-book: French's "Engineering Drawing."

One period per week throughout session.

**345. Mechanical Drawing. (Klugh)**

**Junior Class; Course III.**

Applied principles of mechanism; practical problems involving link motion, quick return motions, cams, gearing, couplings, etc.; working drawings, tracing and blueprinting.

Text-books: Keown's "Mechanism"; French's "Engineering Drawing."

One period per week throughout session.

**346. Mechanical Drawing. (Klugh)**

**Junior Class; Course IV.**

First and second term's work the same as No. 345; titles platting, topographical drawings, map drawing, structural drawing, tracing and blueprinting.

Text-books: Keown's "Mechanism"; French's "Engineering Drawing."

One period per week throughout session.

**347. Mechanical Drawing. (Lee)**

**Senior Class; Course III.**

Design of various parts of machines; details of steam engines, gas engines, and electrical machinery; drawings for current work in shops. Design drawings required in graduation thesis.

No text-book. Reference books on machine design, and instructor's notes.

Two periods per week throughout session.

**348. Mechanical Drawing. (Lee)**

**Senior Class; Course IV.**

Railroad and map drawing, plans and details of buildings, trusses, bridges, etc. Design drawing required in graduation thesis.

No text-book. Reference books and instructor's notes.

Two periods per week throughout session.

**350. Descriptive Geometry. (Wolcott)****Sophomore Class; Course VI.**

The work for architectural students is divided into three parts; descriptive geometry in theory, shades and shadows of architectural forms, and perspective. Theory and practice are combined in the draughting room. The work in descriptive geometry proper develops the usual problems relating to points, lines, and planes, conical and cylindrical surfaces, and intersection of solids, all treated in such a way as to give a good theoretical base upon which to develop the more practical later work in shades and shadows and perspective.

Text-books: Faunce's "Descriptive Geometry," Parts I and II; McGoodwin's "Shades and Shadows"; Lubschez's "Perspective."

Two two-hour periods per week during first term; one three-hour period per week during second term; one two-hour period per week during third term.

**351. Architectural Drawing. (Wolcott)****Sophomore Class; Course VI.**

A continuation of the study of classic proportions and design. Application of "The Orders" and rendering.

Text-book: "The Five Orders of Architecture from the System of Vignola."

One period per week throughout session.

**352. Freehand Drawing. (Wolcott)****Sophomore Class; Course VI.**

Pencil drawing; pencil and charcoal rendering from grouped casts and architectural fragments; sketching of campus buildings, etc.

One two-hour period per week during first term; one three-hour period per week during second term; two two-hour periods per week during third term.

**353. Building Construction. (Lee)****Junior Class; Course VI.**

Study of building materials, their uses and forms; masons', carpenters', plasterers', and painters' work. Estimates and specifications.

Text-books: Kidder's "Building Construction and Superintendence," Parts I and II, and "Architects' and Builders' Pocket Book."

Three periods per week during first and third terms; two periods per week during second term.

**354. Architectural Design. (Wolcott)****Junior Class; Course VI.**

A series of problems in design, developing in the student a knowledge of architectural forms and an ability to design parts of large and important buildings.

Floor plans, elevations, and sections of complete buildings rendered in water colors.

Criticism.

Two three-hour periods per week during first term; one three-hour period and one two-hour period per week during second term; four two-hour periods per week during third term.

**355. Freehand Drawing. (Wolcott)**

**Junior Class; Course VI.**

Advanced work in cast drawing and studies from life. Work may be done in almost any medium in which the student is particularly interested—charcoal, conte, pastel, water color, pen and ink, etc.

Two periods per week during first term; one period per week during second term.

**356. History of Architecture. (Wolcott)**

**Senior Class; Course VI.**

Study of historic styles and monuments of architecture, ancient, medieval, and modern. This course is given by illustrated lectures and text book. The student is required to do research work in the library.

Text-book: Hamlin's "History of Architecture."

Two periods per week throughout session.

**357. Architectural Engineering. (Lee)**

**Senior Class; Course VI.**

Strength of materials in tension, compression, and shearing. Strength of beams, stiffness, deflection, best cross-sections, built up sections; columns of wood, cast iron, steel, etc.; riveted joints; arches; foundations; walls; footings; plain and reinforced concrete, fire-proofing of buildings.

Text-book: Frietag's "Architectural Engineering."

Three periods per week during first term; two periods per week during second term; four periods per week during third term.

**358. Building Construction. (Lee)**

**Senior Class; Course VI.**

Continuation of No. 353. Estimates and specifications, superintendence, etc.

Text-books: Kidder's "Building Construction and Superintendence," Parts I and II; Kidder's "Architects' and Builders' Pocket Book."

Two periods per week throughout session.

**359. Professional Practice. (Lee)**

**Senior Class; Course VI.**

Lectures and discussions on professional ethics, competitions, contracts, laws, etc.; the study of the specific requirements of certain classes of buildings, such as school houses, churches, libraries, and hospitals.

One period per week throughout session.

**360. Architectural Design. (Lee and Wolcott)**  
**Senior Class; Course VI.**

Advanced problems in architectural design, composition and planning, rendered in water color or other mediums. Working drawings and details.

Criticisms.

Four two-hour periods per week throughout first term; four two-hour periods and one four-hour period per week during second and third terms.

**361. Heat and Sanitation. (Lee)**  
**Senior Class; Course VI.**

Study of the various systems of heating and ventilating buildings, together with the apparatus used in each, such as boilers, fans, etc. Plumbing of buildings, including water and sewerage.

Text-book: Hoffman's "Handbook on Heating and Ventilating."

Two periods per week during second and third terms.

**Division Rooms and Equipment**

This division occupies seven rooms on the second floor of the Engineering Building, and temporarily occupies two rooms in the Textile Building and one in the Fertilizer Building. The Freshman freehand drawing is done in the two rooms in the Textile Building, which are well equipped with tables, shades, wood and plaster models and casts. One room in the Fertilizer Building and one in the Engineering Building are used by the Agricultural and Mechanical Freshmen in mechanical drawing; and of the rooms in the Engineering Building, one is used by the Sophomore and Junior Classes in mechanical drawing, one by the Senior Class in mechanical drawing, two by the students in architectural drawing, one as a class room and one as an office for the head of the Drawing Division and College Architect.

In the above class room is maintained quite an extensive exhibit of building materials for the use of the architectural students and others. In one of the drawing rooms used by these students is a library containing a large number of books on architecture and a complete file of all important architectural magazines. From time to time exhibits of students' work from the leading architectural schools are held.

Adjoining the above rooms are two others, well equipped with frames and apparatus for blueprinting by electricity and sunlight.

The drafting rooms are suitable for their purposes and are of good size, well lighted, and equipped with individual lockers for about 500 students, and with drafting tables for from 20 to 30 students at a time in each room.

All of the rooms contain a large number of parts of various machines which are used as models. Several automobile firms have recently loaned or donated entire engines or automobile parts, complete or in sections, and blueprints, which are invaluable to

the student in his work. The best student work is displayed on the walls of the rooms.

Each student is required to own a complete outfit of drawing tools, such as set of instruments, board, T-square, and other material. This outfit must be first-class in every respect, and must be approved by the instructor in charge, and no second-hand or inferior tools will be permitted to be used by an Engineering student; the Agricultural Freshmen, however, may use the cheaper instruments. Students are incapable of judging drawing instruments and make a mistake in buying low-priced instruments which appear to be of good quality, but are inferior and will not give good service, soon necessitating the purchase of another set. Students are advised to buy these tools at the Cadet Exchange where they can see samples and make selections. On account of the large number of sets of instruments bought by the College each year, a very large discount is obtained which is given to the student. The more expensive and less used instruments are kept in the office for the use of students needing them.

## FORGE AND FOUNDRY

Associate Professor Gantt

Instructor Sylvester

### 370. Forge Work. (Gantt and Sylvester)

Freshman Class; Courses III, IV, V, VI.

This course embraces all the fundamental principles of forging, such as reducing, upsetting, bending, shouldering, squaring, punching, welding, chamfering, and assembling. The third term is devoted to tempering, annealing, and forging steel. During the first term each exercise is explained and demonstrated by the instructor. Each student is supplied with a working drawing of each exercise.

One three-hour period per week throughout session.

### 371. Forge Work. (Sylvester)

Freshman Class; Courses I, II.

This course is identical with No. 370 for the first two terms. During the third term, work more directly related to the upkeep of a farm is given, such as open fire brazing, plow sharpening, horse shoeing, riveting, tempering and annealing steel.

One period per week throughout session.

### 372. Foundry Work. (Gantt)

Sophomore Class; Courses III, IV, V, VI.

This course is designed to give the student a comprehensive idea of the underlying principles in foundry practice, such as the uses of moulders tools, tempering sand, making facings, dry sand core making, mixing iron, charging and operating a cupola. A variety



of patterns are furnished for cape and drag, and pit moulding. During the second term one month is given to brass casting and brazing by the Ferro-fix process.

The practical instruction is supplemented by text.

Text-book: Richard's "Elementary Foundry Practice."

One period per week throughout session.

Course VI.—One period per week during second term.

### **373. Forge Work. (Gantt and Sylvester)**

#### **Course VII.**

During the first two terms this course consists in a carefully graded system of 14 exercises, embracing the fundamental principles of forging. The third term is devoted entirely to the practical problems that are encountered in the upkeep of a farm. During this term work is given in annealing and tempering steel, riveting, brazing in the open fire, sharpening plows, and horse shoeing.

A number of demonstrative lectures are given on the physiology of the hoof, factors that influence the form and style of going, fitting the shoe and the correcting of faulty gaited animals. An exhibit of all the different kinds of shoes manufactured is on hand and used in this course; also a complete and thoroughly modern equipment is used.

One period per week throughout session.

#### **Division Rooms and Equipment**

The Forge Shop is located in a wing of the Engineering Building, and occupies a room 37 by 98 feet. The equipment is installed under two separate systems. One system consists of 18 Buffalo down-draft forges; 18 eagle anvils equipped with all necessary small tools; a 60-inch exhaust fan; a No. 4 direct-connected pressure blower; a drill press; an emery grinder; a bending cone; a Buffalo iron shear; two swage blocks; a vise and work bench. The other system consists of 18 Sturtevant down-draft forges; 18 Eagle anvils thoroughly equipped with small tools; a 60-inch exhaust fan, direct-connected; a No. 4 pressure blower, direct-connected; and a blackboard for special drawings.

The Foundry occupies a space of 43 by 76 feet, and is free from posts and other obstructions. It is equipped with a 26-inch Victor Colliau's cupola; a No. 7 pressure blower; a Millett core oven; a large Paxon brick core oven; a two-ton post crane; eight molders' benches with tools for eighteen students; also, a case of special tools, a full equipment of hand, bull, and truck ladles.

The brass foundry is equipped with an 18-inch furnace; a drying stove; clamps, flasks, tongs, and graphite crucibles for making and pouring moulds. Also one Ferro-fix brazing machine with full equipment for doing diversified castiron brazing.

**MACHINE SHOP**

Associate Professor Howard

**380. Practical Mechanics. (Howard)**

Junior Class; Courses III, IV, V.

A course of lectures composed largely of detailed explanations of the manufacture of tools and machines, their use and care, and also discussions of fundamental shop operations.

One period per week throughout session.

**381. Machine Shop. (Howard)**

Junior Class; Courses III, IV, V.

The object of the course is to give to the student a knowledge of the elementary principles of machine shop work, and as much skill as may be acquired in the time available.

Very close measurements are required all the way through the course, and the shop is equipped with suitable measuring apparatus for giving this practice.

Bench work is done first. Demonstration of proper methods of preparing and using tools is given by the instructor, and the students follow with work in chipping, filing, scraping, and polishing, under close supervision of the instructor in charge.

Bench work is followed by full explanations of the engine lathe, and demonstrations of the operations involved in doing simple turning.

The student passes from simple turning on the engine lathe to the more difficult operations, thence to the drilling machine, shaper, planer, milling machine, and grinding machine.

Some machinist tools are made toward the end of the year, such as hammers, punches, plumb bobs, surface gages, etc.

Courses III and IV: Two periods per week throughout session.

Course V: One period per week throughout session.

**Division Rooms and Equipment**

The Machine Shop occupies the ground floor and part of the basement of the southwest wing of the Engineering Building, the main floor being 45 by 100 feet, lighted from one end and both sides, and steam heated.

The equipment is as follows: suitable benches and vises for chipping, filing, etc., and for assembling machines; one 18-inch 12-foot engine lathe; one 18-inch 8-foot engine lathe; eleven 14-inch 6-foot engine lathes; one 10-inch 4-foot turner's lathe; one 15-inch 8-foot speed lathe; two universal milling machines; two 18-inch vertical drilling machines; one 28-inch vertical drilling machine; one 22-inch 6-foot planer; one universal tool and cutter grinder; one 10-inch by 32-inch universal grinding machine; one 14-inch shaping machine; one 10-inch slotting machine; one 22-inch wet emery tool grinder; one twist drill grinder; one dry

emery grinder; one 36-inch grindstone; one power hack saw; one fan blower; forge, anvil, and set of smith's tools.

Twelve sets of tools in portable cases are provided for the use of the students, each set containing an assortment of the most commonly used machinist tools.

A tool room is located in one end of the shop, in which is kept an assortment of special tools and fixtures not included in the student sets.

A supply of steel and brass, screws, bolts, nuts, etc., are kept in stock.

All of the machines are driven from one line shaft, running the full length of the shop, and driven by a 15-horse power electric motor.

A small shop for the use of the instructor and the machinist is located in the tool room and driven by a 3-H. P. electric motor.

## WOOD WORK

**Assistant Professor Routten**

**Instructor Funke**

### **390. Wood Work. (Routten and Funke)**

**Freshman Class; Courses III, IV, V, VI.**

A course including both bench and lathe work. The course consists of a series of graded exercises designed to give the student a thorough knowledge of the principles involved in woodwork; to teach the use of planes, saws, chisels, etc.; to teach the command of the more commonly used tools and turning operations of lathe work, including face plate and chucking work.

Advanced exercises in cabinet and furniture making are introduced in this course, which involve exercises in dove-tailing, tenon and mortise joints, including polishing, finishing, etc. The third term is devoted to the construction of elementary exercises in pattern making, which is the preparatory course to No. 392.

Two periods per week throughout session.

### **391. Wood Work. (Routten and Funke)**

**Freshman Class; Courses I and II.**

This course is very similar to No. 390, except that after the completion of the several graded exercises the student is given such work as would be of interest to Agricultural students.

One period per week throughout session.

### **392. Pattern Making. (Routten)**

**Sophomore Class; Courses III, IV, V.**

This course consists of exercises in pattern making with special reference to the principles involved. The student is required to work entirely from machine drawings and to make the necessary allowances for finish, shrinkage, and draft. The latter part of the

course involves the construction of large and more complicated patterns, and lectures on commercial shop methods and practices.

One period per week during first and second terms.

### **393. Wood Work. (Routten)**

#### **Course VII.**

Practice in the use of hand tools, such as planes, saws, chisels, etc., a series of exercises in bench work calculated to show the construction of mortices, dove-tails and joints, followed by a demonstration of all the machines in the planing shop. Instruction will be given, illustrated by black-board diagrams, upon proper methods of the various farm constructions, such as gates, and buildings, with special reference to roofs and their supporting frame work.

It will not be the aim of this course to turn out finished carpenters, but to give each man elementary practice, and to teach him the fundamental principles of woodwork such as are used in construction and repairs on the farm.

One period per week throughout session.

#### **Division Rooms and Equipment**

The **Woodwork Division** consists of two shops, both on the ground floor. The first, 37 by 100 feet, is divided into two class rooms, both of which are supplied from one well equipped tool room.

The Freshman classroom contains eight turning lathes, and fifteen work benches, each supplied with a full set of tools.

The Sophomore classroom is equipped with eight turning lathes with tools, eighteen work benches, and ninety sets of bench tools, a separate set for each student. This room also contains a large pattern lathe, one 30-inch band saw, one jig saw, two grindstones, and one universal trimmer.

The other shop is equipped with planing mill machinery, consisting of a double-roll planer, one rip saw, one cross cut table saw, one swinging cut-off saw, one lathe with 12-foot bed, one jointer, one moulding machine, one tenoning machine, one doubleheaded shaper, one single spindle carver and shaper, one mortising and boring machine, one re-saw, one swinging arm sand papering machine, and an assortment of benches, clamps, glue pots, etc.

This shop is 40 by 100 feet, and is driven by a 20-H. P. electric motor. Each classroom also has its individual motor drive. A lumber shed and steam dry kiln adjoins.

**CHEMICAL DEPARTMENT**

**R. N. Brackett, Director**

**CHEMISTRY**

**Professor Brackett**

**Associate Professor Henry**

**Assistant Professor Lipscomb**

**Assistant Professor Mitchell**

**Instructor Inman**

**Assistant Freeman**

**400. General Chemistry. (Brackett and Henry)**

**Sophomore Class; All Courses**

Text-book: Newell's General Chemistry, Part II., Experiments,  
Three periods per week throughout session.

**401. Chemical Laboratory. (Inman)**

**Sophomore Class; All Courses**

Introductory work and qualitative analysis.

Text-book: Newell's General Chemistry, Part II.; Experiments.

Course I: One period (first term, three hours) per week  
throughout session.

Course II: Three periods per week during first term.

Courses III, IV, V, VI: One period per week throughout session.

**402. Chemical Laboratory. (Inman)**

**Sophomore Class; Course II.**

Qualitative analysis.

Text-book: Noyes and Smith's Elements of Qualitative Analysis.

Two periods theoretical per week during third term; three pe-  
riods practical per week during second and third terms.

**403. Chemical Laboratory. (Mitchell)**

**Sophomore Class; Course II.**

Inorganic preparations.

Text-book: Blanchard's Synthetic Inorganic Chemistry.

One period per week throughout session.

**404. Organic Chemistry. (Brackett)**

**Junior Class; Courses I, II.**

Text-book: Moore's Outlines of Organic Chemistry.

Course I: Two periods per week during first and second terms.

Course II: Two periods per week during first term; four periods  
per week during second term.

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(Practical periods are two hours unless otherwise stated.)

**405. Agricultural Chemistry. (Brackett)**

Junior Class; Courses I, II.

Text-book: Hart & Tottingham's "Agricultural Chemistry."  
Two periods per week during third term.

**406. Physical Chemistry. (Mitchell)**

Junior Class; Course II.

Text-book: Jones' Introduction to Physical Chemistry.  
Two periods per week throughout session.

**407. Chemical Laboratory—Assaying. (Mitchell)**

Junior Class; Course II.

Text-book: Notes on Assaying.  
One period per week during first term.

**408. Chemical Laboratory. (Mitchell)**

Junior Class; Course I.

Quantitative analysis.

Text-books: Lincoln and Walton's Quantitative Analysis; Methods of Association of Official Agricultural Chemists (Bulletin).  
One three hour period per week throughout session.

**409. Chemical Laboratory. (Mitchell)**

Junior Class; Course II.

Quantitative analysis.

Text-book: Lincoln and Walton's Quantitative Analysis.  
Two three hour periods per week throughout session.

**410. Chemical Laboratory. (Mitchell and Lipscomb)**

Senior Class; Course I. (Elective)

Junior Class; Course II.

Organic preparations.

Text-book: Moore's Experiments in Organic Chemistry.

Course I: Two periods per week during second and third terms.

Course II: One period per week during second term and two periods per week during third term.

**411. Industrial Chemistry. (Brackett)**

Senior Class; Course I. (Elective), Course II.

Text-book: Thorp's Outlines of Industrial Chemistry.  
Two periods per week throughout session.

**412. History of Chemistry. (Brackett)**

Senior Class; Course I. (Elective), Course II.

Text-book: Bauer's History of Chemistry.

Two periods per week during first and second terms.

**413. Stoichiometry. (Brackett)**

Senior Class; Course I. (Elective), Course II.

Text-book: Ashley's "General Calculations."

Two periods per week during third term.

**414. Metallurgy. (Brackett)**

Senior Class; Course II.

Text-books: Wysor's Metallurgy; Hiorn's Mixed Metals; Notes on Alloys.

Two periods per week throughout session.

**415. Chemical Laboratory. (Lipscomb)**

Senior Class; Course I. (Elective)

Senior Class; Course II.

Miscellaneous quantitative analysis.

Text-books: Methods of Association of Official Agricultural Chemists; standard reference books on quantitative analysis.

Course I (Chemistry Major): Three periods per week throughout session.

Course I (Soils Minor): Two periods per week during second and third terms.

Course II: Three periods per week during first term; six periods per week during second and third terms.

**Division Rooms and Equipment**

Two substantial brick buildings, of about the same dimensions, each consisting of two stories and a basement, and connected on the first and second floors by glass covered passages, are devoted to the work of this Department. Both buildings are well ventilated, heated by steam and lighted by electricity.

The entire south building is devoted to academic work. On the first floor of this building there are six rooms:—one is used as class room; one as a balance room for students; one is a stock distributing room, in which a small amount of stock is kept, and communicates by a stairway with the main stock room in the basement below; the remaining three rooms are employed as laboratories for Seniors, Juniors and postgraduates. These laboratories can accommodate 64 students, 33 at a time, and are suitably equipped with the necessary work tables, hoods, water and gas. On the second floor of this building are three rooms:—one is used as a laboratory for Sophomores, first year students in General Chemistry; one for Junior students in analytical chemistry; and the third small room as a balance room for Juniors. Like the laboratories on the first floor, these laboratories are suitably equipped for chemical laboratory work. The basement of this building contains three rooms:—one a stock room; one a store room for boxes, etc.; in the third room is installed the air pump and mixer of the gas machine which supplies this building.

The north building serves partly for academic work and partly for the analytical work of the Chemical Analysis Division of the Public State Work of the College. The first floor of this building is all given up to the latter work. There are nine rooms on this floor:—one is used as a director's office; one as a laboratory for water analysis and miscellaneous analytical work; one for the nitrogen availability work in connection with the fertilizer inspection

analysis, and adjoining this laboratory is a balance room; the five rooms on the other side of the wide hall extending the full length of the building are devoted to the analysis of fertilizers, three of them being equipped as laboratories for the determination of phosphoric acid, potash and ammonia, one being used as a balance room and the last as store room for fertilizer samples. The laboratories for fertilizer analysis, including the nitrogen availability work, are well equipped for carrying on efficiently a large amount of work simultaneously. The phosphoric acid room has, in addition to the usual equipment, a stirring machine run by a motor for use in volumetric determinations. The potash laboratory contains an electric drying oven. The ammonia room has facilities for carrying on twenty-two digestions and distillations at the same time. The nitrogen availability laboratory also has a duplicate of this equipment for digestions and distillations. On the second floor of this building there are six rooms:—two are used as lecture rooms, one of which can accommodate 170 students and the other 49; two rooms are used as preparation rooms in connection with lecture experiments; one as a library, and one as a reading room. The library contains several hundred volumes of standard books on chemistry, a dozen journals, and many valuable pamphlets and bulletins, and is open to students as well as to members of the Department and of the College Faculty.

In addition to the usual equipment of apparatus and chemicals, a beginning has been made in procuring apparatus necessary for work in physical chemistry. The present equipment for physical work includes:—a thermostat, fitted with mercury regulator and heating coils, keeping a constant temperature within 0.01 degree C; a rotating machine for work on solubilities; and apparatus for conductivity measurements, vapor density and molecular weight determinations.

## TEXTILE DEPARTMENT

C. S. Doggett, Director

### TEXTILE CHEMISTRY AND DYEING

Professor Doggett

#### 500. Textile Chemistry—I. (Doggett)

Junior Class; Course V.

This course includes the study of the manufacture, properties and technical analysis of the most important inorganic chemicals used in the textile industry; organic chemistry, aliphatic series.

Text-book: Cohen's Organic Chemistry.

Two periods per week during second term, and three periods per week during third term.

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(Practical periods are two hours unless otherwise stated.)



**501. Textile Chemistry—II. (Doggett)****Junior Class; Course V.**

Preparation of chemical products, inorganic and organic, the processes used being based, so far as possible, upon the methods used on the large scale; technical analysis.

One period (first term, three hours) per week throughout session.

**502. Textile Chemistry—III. (Doggett)****Senior Class; Course V.**

Organic chemistry, carbocyclic series; general principles of organic synthesis; enzymic chemistry; bleaching; dyestuffs, their manufacture, properties, application and identification; mechanical equipment of bleaching, dyeing and finishing establishments.

Text-books: Cohen's "Theoretical Organic Chemistry"; Wahl's "Organic Dyestuffs."

Two periods per week throughout session.

**503. Textile Chemistry—IV. (Doggett)****Senior Class; Course V.**

Preparation and study of the reactions of a typical set of aliphatic and aromatic compounds, including several dyestuffs and complex bodies; bleaching, dyeing, calico printing; color matching; assay of dyestuffs and materials used in sizing and finishing.

Text-book: Collins & Co.'s Record Book.

Reference books: Schulz and Julius's Organic Coloring Matters; Allen's Commercial Organic Analysis; Georgievic's Chemical Technology of Textile Fabrics; Knecht, Rawson and Rosenthal's Manual of Dyeing; Cain and Thorp's Synthetic Dyestuffs; Lafar's Technical Mycology.

Two periods per week during first and second terms, and one period per week during third term.

**Division Rooms and Equipment**

The work in the textile chemistry and dyeing is carried on in an experimental laboratory and a practical dyehouse. These are equipped with the necessary apparatus and chemicals for instruction in organic chemistry, scouring, bleaching, dyeing, mercerizing, printing, etc.

The experimental laboratory is fitted with appropriate worktables, furnishing accommodations for 64 students, working by detachments. Each table is supplied with the necessary arrangements for gas and water, and drawers and lockers in which may be stored apparatus and unfinished experiments.

The dye house contains nine dye vats, four fitted with copper heating coils, one for peroxide bleaching, one Schaum & Uhlinger self-balancing hydro-extractor; one model vacuum dyeing machine with steam engine attached; one Birch sample dyeing machine with electric motor attached; one calico printing machine; one mercerizing machine for yarn; one steaming and ageing box; one Butterworth jigger; three jacketed copper kettles; one Psarski dyeing machine.

**WEAVING AND DESIGNING****Associate Professor McSwain****510. Designing—I. (McSwain)****Junior Class; Course V.**

A study of the foundation and derivative weaves used in making cloth, and the shedding mechanisms required to make them. The maximum number of ends per inch to be used with a given size yarn and a certain weave. Shrinkage of yarns in weaving with any sley, picks per inch, weave and yarn number. Method of making combination dobby weaves, and the drawing in and chain drafts for same. Calculations for harness eyes, in warp, and reed number for any construction and width. This work is supplemented by the analysis of numerous samples of cloth of domestic and foreign manufacture.

Two periods per week throughout session.

**511. Designing—II. (McSwain)****Senior Class; Course V.**

A study of color designing. A study of different commercial fabrics, with special reference to the machines required to manufacture same. Plain and fancy gauze and leno, with attachments used in making same. Broken, skip, entwining, corkscrew, fancy and pointed twills. Honeycombs, granites, crepe, extra warp and extra filling. Double cloth, pile fabrics, swivel, lappet and numerous special weaves. Jacquard designing and tie-ups.

Two periods per week during first term, and three periods per week during second and third terms.

**512. Weaving—I. (McSwain)****Junior Class; Course V.**

Practical instruction is given in loom fixing, and the operation of different looms in the weave room. Special attention is given to the best settings to be obtained for an economical amount of power consumed by each loom together with tests showing the maximum speeds for different width looms on different patterns.

Two periods per week throughout session.

**513. Weaving—II. (McSwain)****Senior Class; Course V.**

With the aid of drawings, charts and actual loom attachments a study is made of the different looms such as two, three, four and five harness cam looms; dobby shedding mechanisms; jacquards; drop box looms; loose reed motions; extra selvage motions, plain, tape, and center; take-up and let-off motions; automatic looms and special attachments for special weaves.

A study is also made of warp preparation for grey and colored goods, which includes a detailed study of beam and ball warping and slashing.

Two periods per week throughout session.

**514. Weaving—III. (McSwain)****Senior Class; Course V.**

Actual production of patterns from original designs and samples on dobbies, box looms and jacquards. The students are required to make up their own designs, make calculations for reed widths and numbers, ends in warps, dressing of patterns, building pattern chains, cutting and lacing jacquard cards and to set the machines to produce same.

Text and Reference Books: Fox's Mechanism of Weaving; Holmes' Cotton Cloth Designing; Ivey's Loom Fixing; Posselt's Technology of Textile Design; Posselt's Jacquard Machine Analyzed and Explained.

Two periods per week throughout session.

**Equipment**

**Winding.**—One W. W. Altemus & Son, bobbin winder; one Atwood-Morrison Company, bobbin winder; one Geo. W. Payne & Co. skein winder; one Steele 2 drum ribbon loom quiller; one four-spindle, Leeson winding machine, Universal Winding Co.

**Braiding.**—One New England-Butt Co. 16 bobbin circular braider; one New England-Butt Co. bobbin flat braider.

**Dressing.**—One Davis and Furber dresser; one Davis and Furber jack spooler.

**Slashing.**—One Lowell Machine Shop single cylinder slasher.

**Warping.**—One Draper Co. beam warper; one Draper Co. ball warper.

**Beaming.**—One Entwistle beamer.

**Jacquard Card Cutting.**—One John Royle, French index, foot piano cutter.

**Hand Looms.**—Seventeen 14 inch hand looms with 4 by 4 box motions and 30 harness shedding engines, arranged for 4 beam work.

**Power Looms.**—One 40 inch Northrop loom with 16 harness Stafford dobby; one 28 inch Northrop loom with steel harness warp stop motion; one 36 inch Mason gingham loom with 4 by 1 box motion; one Mason 44 inch loom with 20 harness dobby; one Mason cam loom arranged for 2, 3, 4, and 5 harness; one Crompton and Knowles 30 inch loom with 20 harness dobby, leno attachment and arranged for 3 beam work; one Crompton and Knowles 30 inch loom with Halton 624 hook, double lift, single cylinder jacquard; one Crompton and Knowles 40 inch "gem" loom with 30 harness dobby and 4 by 4 box motion; one Crompton and Knowles 26 inch terry towel loom with 16 harness dobby and 3 by 1 box motion; one Crompton and Knowles 64 inch loom, 4 by 1 box motion, 624 hook, double lift, single cylinder jacquard; one Whitin cam loom arranged for 2, 3, 4 and 5 harness; one Whitin duck loom; one Crompton and Knowles 30 inch loom with 16 harness dobby and 2 by 2 box motion; two Kilburn and Lincoln

36 inch cam looms; one Crompton and Knowles 30 inch loom with 416 hook, single lift, swing cylinder jacquard; one E model Draper loom, 28 inch, with steel harness warp stop motion; one 28 inch E model Draper loom with "string" warp stop motion; one 28 inch E model Draper loom with lacy top rig, tape selvage motion, arranged for 2, 3, 4 and 5 harness; one K model Draper loom with 20 harness dobby, double filling fork, feeler, single thread warp stop motion, arranged for two beam work; one Crompton and Knowles 4 bank, 4 shuttle ribbon loom, mounted with 416 hook, double lift, single cylinder jacquard; one Stafford "Ideal" 40 inch loom.

This division is equipped with a limited supply of slasher combs, loom reeds, harness frames, heddles, cotton harness, pick gears, 4 drawing-in frames and numerous samples of domestic and foreign manufactured cloth.

## CARDING AND SPINNING

Assistant Professor Blair

### 520. Cotton Grading, Opening and Mixing, Pickers. (Blair) Junior Class; Course V.

A study of the physical properties of cotton to ascertain the grade, color, length of staple, and general spinning qualities. Mixing and the reasons therefor. The effect of blending on the resultant yarn. The machines and processes in the picker room, including the arrangement of machinery, construction of the machines, settings, speed, drafts, production, and calculations.

Two periods theoretical and one practical per week during first term.

### 521. Cards, Railway Heads and Drawing Frames. (Blair) Junior Class; Course V.

A study of the purpose of carding, construction of cards, setting, draft, speed of parts, production and calculations. The use of railway heads, and when this machine is a desirable one. The purpose of drawing, settings, weighting, production and calculations. A comparison of the merits of common and metallic rolls.

Two periods theoretical and one practical per week during second term.

### 522. Fly Frames. (Blair)

Junior Class; Course V.

Purpose of this class of machines. Construction, care and operation. Distinction between slubbers, intermediates, fine roving and jack frames. Calculations for draft, twist, lay and tension gears. The construction of cones. Hanks and numbers.

Text-book: Possett's "Cotton Manufacturing."

Two periods theoretical and two practical per week during third term.

**523. Combers. (Blair)****Senior Class; Course V.**

Sliver lap machine; ribbon lapper; comber. The purpose of the process; construction, operation and care of machines. Adjusting and timing. Calculations.

Two periods theoretical and two practical per week during first term.

**524-525. Yarn Manufacture. (Blair)****Senior Class; Course V.**

Construction, comparison and operation of the leading makes of ring spinning frames. Size of rings, size of travelers, speed of spindles and of front rolls. Calculations.

Mule spinning: its desirability compared with ring spinning. A study of the construction and practice in the operation of the mule.

Spooling, reeling, twisting and beaming. The making of special yarns. Fancy yarns. Schedules of machinery for mill equipment for various classes of product. Arrangement of machines, and a study of mill plans.

Text-book: International Correspondence School series, Vol. 77, and Parker's Cotton Mill Calculations.

Three periods theoretical and one practical per week during second term.

**526. Mill Economics. (Doggett, McSwain, Blair)****Senior Class; Course V.**

Production vs. quality. Cost systems in spinning, weaving and finishing departments. Labor, power, superintendence and fixed charges. Utilization of waste. Business management.

Two periods theoretical and two practical per week during third term.

**527. Cotton Grading. (Blair)****Junior Class; Course I.****Course VII.**

A course designed to give a practical knowledge of cotton classing and marketing. The students are taught to readily recognize the factors that determine the standard grades and their irregularities; also the relative values of the different grades and irregularities.

Course I: One period practical per week during third term.

Course VII: One period practical per week during second term.

**Division Rooms and Equipment**

**Picker Rooms.—Pickers—**One Atherton automatic feeder; one Atherton breaker lapper; one Atherton finisher lapper. Pickers are equipped with Brown-St. Onge patent adjustable grid bars.

**Card Room.—Cards—**One Mason 40-inch revolving top flat card.

**Double Carding Process.—**One Saco & Pettee 40-inch breaker card; one Saco & Pettee 20-inch improved lap winder; one Saco & Pettee 40-inch finisher card.

**Combing.**—One Mason sliver lapper; one Mason, six head, ribbon lapper; one Mason, six head, comber.

One Whitin sliver lapper; one Whitin four head, ribbon lapper; one eight head, Whitin high speed comber.

**Railway Heads.**—One Saco & Pettee railway head, with evener motion, stop motion and metallic rolls; one Mason railway head, with evener motion, stop motion and metallic rolls.

**Drawing Frames.**—Two Saco & Pettee drawing frames four deliveries, stop motions, metallic rolls; one Mason draw frame, four deliveries, stop motions and metallic rolls.

**Fly Frames.**—One Saco & Pettee 12 by 6 inch, 40-spindle slubber, with latest differential motion; one Saco & Pettee 6 by 3 inch, 80-spindle, fine roving frame, with latest differential motion; one Woonsocket 6 by 2 1-2 inch, 96-spindle jack roving frame, with Daly's improved differential motion.

**Ring Spinning.**—One Saco & Pettee combination warp and filling ring spinning frame, 128 spindles; one Mason combination warp and filling ring spinning frame, 112 spindles; two Fales & Jenks combination warp and filling ring spinning frames, 80 spindles each, designed for spinning fine counts, two Whitin combination warp and filling ring spinning frames, 80 spindles each.

**Mule Spinning.**—One Mason self-acting spinning mule, 120 spindles, 1 3-4 inch gauge, with all latest improvements.

**Spooling.**—Two Draper spoolers 40 spindles each; one Saco & Pettee spooler, 72 spindles; one Barber-Coleman automatic knotter, one Byrd automatic knotter.

**Twisting.**—One Draper combination wet and dry twister, 48 spindles; two Fales & Jenks wet twisters, combination filling and taper top wind; 70 spindles each.

**Winding.**—One universal cone and tube winder.

**Reeling.**—One D. A. Tompkins adjustable reel, 50 spindles; one Draper 54-inch reel, 50 spindles.

**Miscellaneous Equipment.**—Fairbanks scales; model of Daly's differential motion (complete); models of Campbell's ball bearing rolls; Brown & Sharpe roving reel; Brown & Sharpe yarn reel; Brown & Sharpe scales and weights; Charlotte Supply Co's. skein tester; model of "Eagle" cotton gin; Fred B. Howe twist counter.

#### Department Library

For the use of students and instructors, a reading room in the Textile building has been fitted up and is furnished with some of the more important books of reference relating to the textile industry, and also with the leading periodicals relating to the subject. All journals and periodicals are contributed. There is also in this room an exhibit of the work done by the students in the different divisions of the department, and an equipment of old machinery, illustrating the methods used before the introduction of power machinery. The room is open every week-day throughout the session.

**ACADEMIC DEPARTMENT**

**T. G. Poats, Acting Director**

**ENGLISH**

**Professor Daniel**

**Associate Professor Bryan**

**Assistant Professors Bradley and Sease**

**Instructors Crum and McDaniel**

**600. English. (Bradley, Sease, Crum, and McDaniel)  
Freshman Class; All Courses**

This course, while it presupposes a knowledge of grammar, nevertheless embraces a review of the subject. In addition to this, there is given a course in composition and rhetoric, embracing the sentence, diction, reproduction, and letter writing. Students are taught the use of dictionaries, encyclopedias, and other books of reference. From the dictionary there is also a specific study of prefixes and suffixes together with their derivatives. A full course of supplementary reading is required, and practice is given in the writing of abstracts of the books read. Original theme work is begun as soon as the student has had sufficient experience in the various kinds of reproduction to be able to express his own thoughts in a manner measurably clear. Written exercises are required weekly.

Text-books: The Study and Practice of Writing English—Lomer and Ashmun; Wooley's Mechanics of Writing; Selected Short Stories; Shorter English Poems—Scudder; Webster's Academic Dictionary, Webster's Secondary School Dictionary, or a book of higher grade, and twelve or more English classics as may be assigned.

Five periods per week throughout session.

**601. Composition-Rhetoric and American Literature. (Bryan and Bradley)**

**Sophomore Class; All Courses**

The study of composition and rhetoric is pursued throughout the session, two hours a week being devoted to the subject. The work of the first term comprises a study of the whole composition, the development of the paragraph, a review of punctuation, and a careful study of the grammatical and rhetorical construction of sentences. The work of the second term takes up the consideration of the kinds of writing, attention being given to narration and de-

scription. Some work in versification is also given in this term to enable the students the better to study and enjoy poetry. The third term is given chiefly to exposition, and argumentation and public speaking. During all three terms themes are required weekly or oftener, and the themes are rewritten after criticism by the instructor. This theme work aims, not merely at correctness of expression, but also at practical effectiveness in expression. Many of the themes are discussed in class, and consultations are held with students for individual discussion.

One hour a week during the entire session is given to the study of American literature. The historical development of the literature, the influences that gave distinctive characteristics to the literature of each period, the lives of the chief writers, a critical study of selections from each, and a class-room reading of many other selections make up the principal work of the literature course. A supplementary reading course embracing some of the best works of the leading American authors and a few English authors is required, and written reports upon these are made by the students. Every effort is made to inspire the students with a love for good literature, and special inducements are offered to those who do reading in addition to that required of all.

Text-books: Scott & Denney's *New Composition-Rhetoric*; Lewis' *Specimens of the Forms of Discourse*; Painter's *American Literature*; and ten or more such classics as may be assigned.

Three periods per week throughout session.

**602. English Literature. (Daniel and Bryan)**  
**Junior Class; All Courses**

The work in English in the Junior year comprises a general historical survey of English literature from the Anglo-Saxon period to the Victorian age. A careful class-room study is made of one or more selections from representative authors of each period, and parallel reading from other writers is required. The selections—made from ballads, different forms of poetry, the drama, prose fiction, and the essay—illustrate the stages of growth, the development of the literature. A few lectures are given on the development of the kinds of literature, but most of the time is spent in an appreciative study and interpretation of the selections—the interpretation seeking to show how the author's creation reveals his own life and thought, and reflects the spirit of his age. Parallel readings are required, on which both oral and written reports are made.

Composition work is kept up throughout the year. Short exercises are frequently written in the class period, and essays of considerable length are required once a month.

Text-books: "Twelve Centuries of English Poetry and Prose" by Newcomer and Andrews; Long's *English Literature*.

Two periods per week throughout session.



**603. Studies in Shakespeare, Tennyson, and Browning. (Daniel)**  
**Senior Class; All Courses**

The first and second terms of the Senior year are given to studies in Shakespeare. Lectures are given on the development of the drama and on the life of Shakespeare. Four plays—"Julius Caesar," "Hamlet," "Macbeth," and "Othello"—are studied closely in the class period. The class discussions deal with the notes and textual criticism only so far as these are necessary to a clear understanding and a genuine appreciation of the play. The thought content, the delineation of character, and the style are stressed. Fine passages are committed to memory and quoted in class. Other plays are given for parallel reading.

In the third term a few representative poems of Tennyson, Browning, and Arnold are studied, and essays by Carlyle and Macauley are read. Parallel readings are also required. Lectures are given on the nature and the kinds of poetry.

Monthly essays are required from all Seniors throughout all three terms. Instruction is given to individuals and to groups in the art of debate and public speaking. Personal conferences are held with a view to directing special reading.

The course in English is strengthened by the excellent work of the six literary societies, which have the hearty support of the English faculty.

Text-books: "Twelve Centuries of English Poetry and Prose," by Newcomer and Andrews; the Arden texts of the plays studied in class.

Two periods per week throughout session.

**604. Parliamentary Practice. (Daniel)**  
**Course VII.**

A course intended to aid the student in the writing of business letters and in the proper use of the English language both written and spoken. A portion of the time will be devoted to a course in parliamentary practice for the purpose of equipping the student for effective leadership in public meetings, farmer's institutes, church and Sunday School work, social gatherings, and committee service. The training is intensely practical. The students issue calls for meetings, organize, and transact business under the supervision and direction of the instructor, who criticises and corrects and points out ways of facilitating the work of the meeting. Students preside in turn over the meetings and thus learn by practice the rules of parliamentary procedure. Practice is given in writing resolutions, committee reports, motions, petitions, and in the keeping of minutes. Simple questions are discussed briefly with the view of assisting the student in gaining the power of thinking clearly and speaking forcefully while on his feet.

Three periods per week during first and second terms and two periods per week during third term.

**HISTORY AND POLITICAL ECONOMY****Professor Morrison****Assistant Professor Holmes****610. South Carolina History. (Morrison and Holmes)****Freshman Class; All Courses**

Text-book: Chapman's History of South Carolina.

Three periods per week during first half of first term.

**611. Commercial Geography. (Morrison and Holmes)**

Text-book: Olin's Commercial Geography.

Three periods per week during second half of first term.

**612. General History. (Morrison and Holmes)****Freshman Class; All Courses**

Text-books: Wolfson's Essentials in Ancient History; Harding's Essentials in Medieval and Modern History.

Three periods per week during second and third terms.

**613. (a) United States History; (b) Civics. (Morrison and Holmes)****Sophomore Class; Courses II, III, IV, V, VI.****Junior Class; Course I.**

(a) Text-book: Hart's Essentials in American History.

(b) Text-book: Smith's Training for Citizenship.

Sophomore—Three periods per week during first, and two periods per week during second term.

Junior—Two periods per week throughout session.

**614. Political Economy and Sociology. (Morrison)****Senior Class; All Courses**

Text-books: Text in Political Economy to be selected; Ellwood's Sociology and Modern Social Problems (Revised).

Two periods per week throughout session.

**MATHEMATICS****Professor Martin****Associate Professor Shanklin****Assistant Professors Hunter, Johnstone, Bramlett****Instructor Wells****620. Geometry. (Shanklin, Hunter, Johnstone, Bramlett, Wells)****Freshman Class; All Courses**

Rectilinear figures; circles; similar figures; comparison and measurement of surfaces of polygons; regular polygons and circles; plane and solid angles; polyhedrons; cylinders and cones; spheres; spherical polygons and pyramids; volume.

Special attention is given to the formation, on the part of the

student, of the habit of clear and accurate reasoning and concise expression. Considerable time is given to solution of exercises.

Text-book: Durell's Plane and Solid Geometry.

Five periods per week during first and second terms.

**621. Algebra. (Shanklin, Hunter, Johnstone, Bramlett, Wells)**

**Freshman Class; All Courses**

Review of involution, evolution, theory of exponents and quadratics; theory of quadratic equations, simultaneous quadratic equations, indeterminate equations, ratio, proportion and variation.

This course presupposes a thorough knowledge of arithmetic and algebra through elementary quadratics (see requirements for admission).

Text-book: Wells' Text-book in Algebra.

Five periods per week during third term.

**622. Trigonometry. (Martin, Shanklin, Hunter, Johnstone, and Bramlett)**

**Sophomore Class; All Courses**

Measurements of angles; trigonometric functions; solution of the right triangle; general formulae; solution of oblique triangles; miscellaneous problems; spherical right triangles; formulae for spherical oblique triangles.

Text-book: Rothrock's Plane and Spherical Trigonometry.

Course I: Two periods per week during first and three periods per week during second term.

Courses II, III, IV, V, VI: Five periods per week during first term.

**623. Analytic Geometry. (Martin, Shanklin, Hunter, Johnstone, and Bramlett)**

**Sophomore Class; Courses II, III, IV, V, VI.**

Cartesian and polar systems of co-ordinates; discussion and construction of loci; the straight line; transformation of co-ordinates; circle; parabola; ellipse; hyperbola; general equation of the second degree involving two variables; higher plane curves; solid analytic geometry; systems of co-ordinates; equation of the plane; the straight line in space; surfaces of the second order.

Text-book: "Analytic Geometry"—Wilson and Tracy.

Five periods per week during second and third terms.

**624. Higher Algebra. (Martin, Shanklin, Hunter, Johnstone, and Bramlett)**

**Junior Class; Courses III, IV, VI.**

Progressions; binomial theorem; theory of limits; convergency; divergency; and summation of series; undetermined coefficients; continued fractions; determinants; theory of equations.

Text-book: Wells' Text-book in Algebra.

Five periods per week during first half of first term.

**625. Differential Calculus. (Martin and Hunter)****Junior Class; Courses III, IV, VI.**

Differentiation of algebraic functions; transcendental functions; successive differentiation and development of functions; functions of two variables; tangents and asymptotes; envelopes.

Text-book: Snyder and Hutchinson's Calculus (Revised Edition).

Five periods per week during second half of first term.

**626. Integral Calculus. (Martin and Hunter)****Junior Class; Courses III, IV, VI.**

Elementary forms of integration; rational fractions; integration of irrational fractions; successive reduction; integration of functions of two variables; geometrical applications; rectification of curves; cubature of volumes.

Text-book: Snyder and Hutchinson's Calculus (Revised Edition).

Three periods per week during second and third terms.

**627. Differential Calculus. (Bramlett)****Junior Class; Courses II, V.**

Differentiation of algebraic functions; transcendental functions; successive differentiation and elementary applications of derivatives.

Text-book: Townsend & Goodenough's Essentials of Calculus.

Four periods per week during first half of first term.

**628. Integral Calculus. (Bramlett)****Junior Class; Courses II, V.**

Elementary forms of integration with applications of integration to geometry and mechanics.

Text-book: Townsend & Goodenough's Essentials of Calculus.

Four periods per week during last half of first term.

**629. Farm Arithmetic. (Wells)****Course VII.**

An endeavor is made to give the One-year Agricultural students a practical knowledge of arithmetic. Many topics treated in the ordinary arithmetics are now regarded as useless. All such topics are omitted in this class, and practical problems based on facts with which a farmer must deal are given. The text-book is freely supplemented by problems based on data taken from bulletins of the United States Department of Agriculture, and from bulletins of various experiment stations.

Text-book: Stratton and Remick's "Agricultural Arithmetic."

Three periods per week during first and second terms.

## PHYSICS

Professor Poats

Instructor Speas

Mr. Quattlebaum

### 630. Principles of Physics. (Poats)

Sophomore Class; Course I.

A complete course in the principles of physics. This course is designed to meet the needs of Agricultural students more particularly, though it covers all the subjects of a general course as well.

Text-book: Carhart's College Physics.

Three periods per week throughout the session.

### 631. General Physics. (Poats)

Sophomore Class; Courses II, III, IV, V, VI.

Vector quantities, motions, general and special properties of matter, waves, heat, etc.

Text-book: Crew's General Physics.

Two periods per week throughout the session.

### 632. General Physics. (Poats)

Junior Class; Courses II, III, IV, V, VI.

Electricity and magnetism, sound, and light.

Text-book: Crew's General Physics.

Two periods per week throughout session.

### 633. Physical Laboratory. (Speas and Quattlebaum)

Sophomore Class; Course I.

Experimental verification of the principles of theoretical physics taught in course 630. Careful quantitative experiments are required, and a neat record of the work is kept in every case.

One period per week during second and third terms.

### 634. Physical Laboratory. (Speas and Quattlebaum)

Sophomore Class; Courses II, III, IV, V, VI.

A course of experiments paralleling the work of theoretical course 631.

One period per week during third term.

### 635. Physical Laboratory. (Speas and Quattlebaum)

Junior Class; Courses II, III, IV, VI.

This course covers electricity and magnetism, sound and light. It completes the series of experiments following those of 634. The grade of the work is somewhat more advanced, and the student is put upon his own resources to a greater extent.

One period per week throughout session.

### Division Rooms and Equipment

The Physics Division is located in the Academic Building, and occupies four connecting rooms. The lecture room is 33 by 33 feet and seats a class of sixty. The three laboratory rooms are 27 by 33 feet, 24 by 33 feet, and 21 by 27 feet, the latter being a basement room. Provision is made for gas, water, light and power in all these rooms. The Division is further provided with a great variety of apparatus for both lecture and laboratory purposes.

A wireless telegraphy station is in operation in a room of the tower where messages are received from other land stations and from ships at sea.

### GERMAN

Professor Doggett

#### 640. German I. (Doggett)

Senior Class; Course I. (Elective)

Junior Class; Course II.

The essentials of German grammar, collateral reading, German prose composition.

Two periods per week during second and third terms.

#### 641. German II. (Doggett)

Senior Class; Course II.

Study of German words and idioms; German-English cognates; translation of literary and scientific German.

Text-book: Paul V. Bacon's German Grammar for Beginners; Hasting's Studies in German Words; Bacon's Im Vaterland; Bacon's German Composition; Goethe's Die neue Melusine; Manley-Carl Schurz Lebenserinnerungen, or other text of equal difficulty; Wallentin's Grundzuege der Naturlehre.

Reference books: Bellow's German Dictionary; Eberhard-Lyon's Synonymisches Handwoerterbuch.

Three periods per week throughout session.

### BOOKKEEPING

Instructor Wells

#### 650. Bookkeeping. (Wells)

Freshman Class; Courses I, II.

Course VII.

Farming is a business and the successful farmer is a business man. The aim of the instruction in bookkeeping is to give the

agricultural students a practical knowledge of the fundamental principles of accounts. Topics: Journalizing, ledger accounts, business papers, transactions with a bank, and the making of statements in order to show gain or loss.

Text-book: Sadler and Rowe's "Commercial and Industrial Bookkeeping."

Courses I and II: One period per week during first and second terms.

Course VII: Two periods per week during third term.

### MILITARY DEPARTMENT

Capt. R. A. Jones, U. S. Army, Director

### MILITARY SCIENCE AND TACTICS

Captain Jones, Professor

#### 660. Military Science and Tactics. (Jones)

Junior Class; All Courses

Infantry drill regulations; school of the soldier, school of the squad, school of the company, school of the battalion.

Field service regulations; the services of information orders, the service of security, marches and convoys, shelter, combat.

Small arms regulations; instruction preliminary to gallery and range practice.

Lectures on company administration, camp sanitation.

Lectures on and exercises in map reading.

One period per week throughout the session.

#### 661. Practical Military Science. (Jones)

All Classes; All Courses.

Infantry drill, close and extended order; advance and rear guards and outposts; marches; patrolling; attack and defense of positions; ceremonies; guard duty; intrenchments; gallery practice.

The Senior Class, in addition to the foregoing, is given practice in company administration, military engineering features, tactical walks, range practice.

Three periods per week throughout session.

### GROUNDS AND BUILDINGS

**Location.**—The College is located on the Fort Hill homestead of John C. Calhoun, on the dividing line between Oconee and Pickens counties, in the picturesque foothills of the Blue Ridge. It has an elevation of 800 feet above sea level, and commands an excellent view of the mountains to the north and west, some of which attain an altitude of nearly five thousand feet. The climate is invigorating and healthful, and the surroundings are in every way favorable to the highest physical and mental development.

The College is one mile from Calhoun, a station on the main line of the Southern Railway, and two miles from Cherrys, on the Blue Ridge Railroad. By means of these roads and their connections, the College is easily accessible from all parts of the State. It is connected by telegraph and long-distance telephone with all parts of the country. The post office is conveniently situated on the campus, and receives eight daily mails.

**Grounds.**—The College grounds comprise about 1544 acres, including the campus, the farm, and the Experiment Station grounds. The campus, including about 200 acres, is laid out in walks, drives, and lawns, and is shaded by a beautiful grove of native forest trees.

“Bowman Field,” lying just in front of the Academic, Textile, and Y. M. C. A. Buildings, provides for part of the military drill.

“Riggs Field,” a ten-acre athletic field, the largest and best arranged of its kind in the South, is located to the west of the Y. M. C. A. Building, and provides for baseball, football, track, tennis, military drill and dress parade.

### ACADEMIC BUILDING

The Academic Building is a three-story brick structure, 100 by 132 feet, trimmed with gray sandstone. It contains 36 rooms, including recitation rooms, library and reading rooms, literary society halls, physical laboratory, and the offices of the President, the Registrar, the Commandant, the Treasurer, and a reception room. Adjoining this building is Memorial Hall, the College Chapel, which has a seating capacity of about one thousand. It is used for religious services and as an assembly room. The entire building is provided with steam heat and electric lights. In the tower of this building there is a tower clock and a wireless telegraph station. The public **Telegraph and Telephone Office** is on the ground floor of this building.

**Library.**—In the Academic Building is a series of rooms especially constructed for the use of the library. There are now upon the shelves 17,557 volumes, classified under the various heads of literature, history, biography, science and reference books. In addition to these in the general library, there are 1,493 volumes



in the Experiment Station and department libraries of the College. There are also 8,000 Government publications and 300 reference books, together with about 15,000 pamphlets. The library is supported by an annual appropriation, and the number of books is added to each year.

In connection with the library there is a reading room in which the students have access to 120 of the leading monthly and weekly periodicals, 25 agricultural papers, 7 daily papers, and many of the county papers.

**The Clemson Relics.**—A collection of thirty-seven oil paintings, collected by Mr. Clemson, chiefly in Holland, together with a number of additional portraits, may be seen in the reception room of the Academic Building.

### CALHOUN MANSION

The former residence of John C. Calhoun, is kept in honor of his memory, in accordance with the provisions of Mr. Clemson's will.

**The Calhoun Relics.**—Several pieces of furniture and other interesting relics, formerly the property of Mr. Calhoun, are carefully preserved in the Calhoun Mansion, where they may be seen by visitors to the College.

### Y. M. C. A. BUILDING

This building is in the Italian Renaissance style of architecture, of light grey brick with colored tile inserts, terra cotta trimmings, and red tile roof. The interior finish is of stained yellow pine. It contains four floors—basement, mezzanine, first floor, and dormitory floor, giving a total of thirty-six thousand square feet of floor space. It is lighted by the indirect system, and has steam heat and modern water facilities.

The basement contains a basket-ball room, kitchen, quick lunch room, private dining room, general confectionary store and soda fountain, two bowling alleys, swimming-pool, shower and locker rooms, and general toilet.

The mezzanine floor is given over principally to committee rooms, retiring rooms, and balconies.

On the first floor are the general offices, reading, game, and lounging rooms, a ladies' club room, and an auditorium. The dormitory floor has thirteen living rooms, a literary society hall, a masonic lodge room, and motion picture machine facilities.

The building is handsomely furnished and equipped to make a large contribution to the religious, social, and physical life of the student body and the community.

### CLEMSON CLUB HOTEL

The Hotel, a frame building with two eight-room annexes, situated on a hill overlooking the campus, is operated by the College. In addition to furnishing a home for many officers and teachers, it is open the entire year to a limited number of transients.

### RESIDENCES

Ten two-story brick buildings, nine six-room cottages, and thirty-five smaller houses, all situated on the campus, furnish residences for professors and other officers of the College.

### BARRACKS

The cadet barracks comprise three large brick buildings. One is four stories high and contains 197 rooms for students. In the basement of this building is the dining hall 134 by 44 feet and the kitchen 50 by 37 feet.

The second building is 199 by 42 feet, and contains 104 rooms. The third building is 45 by 190 feet and contains 111 rooms. These buildings are heated by steam and lighted by electricity, and have an abundant supply of pure water. The rooms in the barracks are furnished with single-width iron cots and other necessary appointments. The dining hall is well supplied with table linen, silverware, and china, and the kitchen is furnished with modern culinary appliances.

The bathrooms and closets are located in brick buildings apart from the barracks and connected with them by covered gangways.

**Refrigerating Plant.**—In connection with the commissary there is a refrigerating plant consisting of the following: One 6-ton Frick double-cylinder compressor supplied with gauges, etc.; one double-pipe condenser; one triple-pipe brine cooler; 25 cans of 50 pounds capacity each, and a brine reservoir for use in ice-making or refrigeration. The following rooms are cooled by the plant; One room 12 by 13 feet for general storage, one 6 by 8 feet for milk and butter, one 6 by 8 feet for fruit and vegetables, one 6 by 12 feet for meat, and two rooms 6 by 6 feet each, in charge of Chef, and used for storage of supplies in transit to dining hall.

### POWER STATION

The central power and heating plant contains two 150-H. P. Stirling water-tube boilers, and two 100-H. P. Lombard return tubular boilers, with the necessary pumps, feed water heaters, and other auxiliary apparatus.

The power equipment consists of one 114-H. P. Fleming side-crank engine, direct connected to 70-K. W., 2,300-volt, three-phase

alternator with direct connected exciter, and one 122-H. P. Fleming four-valve engine, direct connected to a three-wire 75-K. W. direct-current generator.

A 75-K. W. rotary converter is used to convert from one kind of service to another.

The switchboard equipment consists of three standard blue Vermont panels, and three black enameled slate panels, all equipped with the latest and best electrical instruments and appliances. The alternator is connected to the rotary converter through three 25-K. W. transformers. All the machinery is of the General Electric Company make.

The building is 40 by 80 feet, is a single story of brick and cement blocks, with metal roof.

The plant complete cost about \$25,000, and is in every way modern and up-to-date. It furnishes steam heat for the barracks and other College buildings, and electric lights and power to every department of the College and the residences of the community. Two pumping stations, situated about one-half mile distant, are electrically operated from this plant. These pumping plants have both steam and electric pumps and an aggregate capacity of 1,200 gallons per minute.

### HOSPITAL

The Hospital, located about a quarter of a mile from the barracks, is a wooden building, especially designed for the purpose. It is lighted by electricity, and has a thorough sewerage system. It is in the immediate charge of the Surgeon, who is assisted by an experienced matron and nurse, thus insuring the best personal attention to each patient.

### LAUNDRY

This is a brick-building especially constructed and fitted with the improved machinery of a modern steam laundry, and is operated exclusively for the students.

### AGRICULTURAL HALL

The Agricultural Hall is a building 146 by 94 feet, in colonial style, and constructed of red side-cut brick, with columns and trimmings in oolitic limestone. It is furnished with a complete system of electric lights, water and sewer connection, and steam heat; provides class rooms and laboratories for instruction in agriculture, horticulture, soil physics, botany and bacteriology, zoology and entomology, geology and mineralogy, and offices and laboratories for the Experiment Station. It also contains the museum and gymnasium hall.

**The Museum.**—On the first floor of the Agricultural Hall is the Museum of Natural History. It is furnished with large cases containing the collections of the geologist, the entomologist, the botanist, the agriculturist, the agronomist, and the horticulturist. These exhibits are of especial interest to people of the State because they embrace the minerals and rocks of South Carolina; birds of South Carolina, insects common to the State, especially those injurious to vegetable life; fungus diseases of plants; and grains and fruits of the State. There are also objects of historical interest on account of their association with John C. Calhoun and Thomas G. Clemson.

**The Gymnasium.**—A large room in the basement of the Agricultural Hall has been set aside for a gymnasium. The room is equipped with carefully selected apparatus including horizontal bars, parallel bars, spring boards, traveling rings, flying rings, climbing rope, horse buck, low parallels, trapezes, pulleys, weights, floor mats and take-off board.

The gymnasium is to give year-round training to those students interested in athletics, so that they will keep in good condition for work on the athletic teams. It is also designed for students who do not take other forms of exercise, but depend on the gymnasium for their only means of physical development. The work is not required but is enjoyed by a large number of students. A member of the Faculty superintends the work and directs the exercises.

### DAIRY BUILDING

The Dairy Building is built of red brick, and is one of the most modern and best equipped buildings of its kind to be found anywhere in the country. It contains the offices of the Animal Husbandry and Dairy Division, the Extension Division, and a number of large, well lighted, properly ventilated class rooms and laboratories together with a large assembly room for farmers' meetings and Short Course work. It is splendidly equipped with the latest modern machinery for manufacturing dairy products, separating, testing, and marketing milk, experimental work, and for teaching modern methods of dairying.

### DAIRY BARN

The Dairy Barn will accommodate both the Experiment Station and College herds. It is large enough to hold 120 cows with separate box stalls for bulls and young stock, and all the feed required for these animals.

There are also four large cement silos conveniently located for feeding. The floors are of cement with cork brick for the cattle to lie on. The lighting, ventilation, sanitation, stanchions, stalls, and the equipment for cleaning and feeding and handling the milk are the most modern to be found in the country.

**VETERINARY HOSPITAL**

The Veterinary Hospital is a two-story frame building 48 by 65 feet, with basement 18 by 30 feet. It is furnished with electric lights, hot and cold water, and is heated by means of stoves. The basement contains a store room. The class room, office, pharmacy, and a well-equipped clinic and operating room are on the first floor. A laboratory for class work, a private laboratory and a store room for supplies are on the second floor.

A laboratory for the preparation of anti-hog-cholera serum, buildings for hogs, feed, etc., are on land adjacent to, but at a safe distance from, the Veterinary Hospital.

**Farm Buildings.**—The College farm is provided with commodious barns and other farm buildings of modern design, which are described more fully in connection with the equipment for instruction in agronomy.

The Cannery, a building 25 by 35 feet, is also situated in the Horticultural Grounds. It is equipped for canning fruits and vegetables of all kinds.

**Greenhouses.**—The old greenhouse, 21 by 140 feet, and containing one thousand large pot-plants of various kinds and six thousand small pot-plants, is situated in the Horticultural Grounds.

The new greenhouse, containing a central room 30 by 30 feet, and two wings, each 20 by 30 feet, occupies a prominent place in the center of the campus.

Both are used for experiment work and class instruction in horticulture, botany, etc.

The Horticultural Grounds are situated south-east of the campus and embrace an area of twenty acres. With the exception of that portion occupied by buildings and park, the entire area is devoted to experiments with apples, peaches, grapes, pecans, small fruits, vegetables, ornamental trees, shrubs, flowers, and a nursery.

**ENGINEERING BUILDING**

The Mechanical Engineering Building is a substantial brick structure containing about 35,000 square feet of floor space. On the first floor are mechanical laboratory, machine shop, wood shops, forge shop, and foundry. On the second floor are the offices and the drawing and designing rooms. The third floor is devoted to class rooms and to the Division of Civil Engineering.

**ELECTRICAL LABORATORY**

The Electrical Instrument Laboratory is a brick building of special design, arranged especially for delicate instrument work.

### DYNAMO LABORATORY

The dynamo Laboratory is a modern brick structure 37 by 80 feet. Besides containing the dynamo electric machinery for instrumental use it also contains the electrical engineering lecture room.

### TEXTILE BUILDING

This building is a brick structure of modern cotton mill design, 168 by 75 feet. It is of the slow-burning type, built according to fire insurance regulations, after plans of an experienced mill engineer. The building, although designed for educational and experimental purposes, containing office, lecture rooms and laboratories, retains the more prominent features of a typical Southern cotton mill. This affords the student an opportunity of gaining many points of valuable information in connection with mill construction, along with the manipulation of cotton fibres and the study of cotton mill processes and operations.

The first floor is occupied by the picking, carding and spinning machinery, a lecture-room, the main office, an exhibit room and the departmental library. The machinery on this floor is driven by two electric motors, one a 30-H. P., 220-volt, direct-current Westinghouse motor, driving the carding machinery, and a 20-H. P., 220-volt, direct-current General Electric Company motor, driving the spinning machinery.

The second floor is occupied by two weave rooms, three lecture-rooms, laboratory for organic chemistry, an office and two store rooms. The power looms on this floor are driven by a 20-H. P., 220-volt, direct-current General Electric Company motor.

The basement, which is situated under the north end of the building, is occupied by the dye-house and laboratory for industrial chemistry.

The building is equipped with a system of "Vortex" humidifiers from the American Moistening Company; steam-heating system and automatic fire-sprinklers from the D. A. Tompkins Company; shafting, pulleys and hangars from Jones & Laughlin, Ltd., and from T. B. Wood's Sons.

The Printery, which is located in the north basement of the Textile building, is equipped as follows: One Miehle two-revolution printing press, 30 by 42-inch bed; two Chandler & Price job presses; one Chandler & Price cutter; one Morrison stitcher; two perforators; one letter folder; two Hammond cabinets; two imposing stones; one No. 5 model linotype machine with supply of matrices for same; a supply of type, furniture, etc. All the machines are driven by individual motors. The College reports, bulletins and miscellaneous stationery are printed here.

### CHEMICAL BUILDINGS

Two substantial brick buildings of about the same dimensions, each consisting of two stories and a basement, and connected on the first and second floors by glass-covered passageways, are devoted to chemical work. The north building serves partly for academic work and partly for the analytical work of the Chemical Analysis Division of the Public State Work of the College. The entire south building is devoted to academic work. Both buildings are well ventilated, heated by steam, and lighted by electricity.

### FERTILIZER BUILDING

This is a three-story brick building, situated near the south chemical building, and containing the offices of the Secretary of the Board of Fertilizer Control, fertilizer tag rooms, etc.

The Clemson College Post Office occupies the ground floor of this building.

### PUBLIC UTILITIES

The General Water Supply is collected from springs and surface streams, and pumped from two stations into a stand-pipe one hundred feet high, having a capacity of 130,000 gallons. From this it is distributed through mains to the various College buildings and to all parts of the campus. This water is used for fire protection, sewerage, etc.

The Drinking Water Supply is pumped from a bold spring through the barracks, in a continuous stream. It is thus furnished fresh, pure and cold. This and all sources of water supply are kept under constant and strict surveillance, and the waters are frequently analyzed as a precaution against contamination.

The Sewer System.—All of the larger buildings and most of the residences are connected with an adequate sewer system, which empties into the Seneca River more than half a mile from the campus.

Light and Heat.—All of the College buildings and most of the residences on the campus are lighted by electricity furnished from the central power station. The nine principal College buildings are heated by steam.

## COLLEGE INSTITUTIONS

### YOUNG MEN'S CHRISTIAN ASSOCIATION

The Young Men's Christian Association has supervision of the voluntary student religious activities, and endeavors to serve the religious, social, and physical life of the College community, in keeping with the general policies of the International Organization. It is a democratic student society, advised by a board of faculty and business men, and administered by General and Assistant Secretaries who have no official connection with the College as disciplinarians or instructors.

There are ten divisions of its work, as follows: Bible Study, Mission Study, Community Service, Membership, Conference, Social, Religious Meetings, Music, and Publicity. Each of these divisions is in charge of a student committee, and the genius of the organization lies in keeping these men active in behalf of the best interests and standards of the College and community. The chairmen of these several committees constitute the cabinet, which meets from time to time for consultation and plans. Details of the work accomplished can best be had from the Annual Report of the Clemson Association, which is printed in booklet form and distributed free at the close of the collegiate year.

The annual membership fee does not approximate the value received from the Association. Through its various programs and conveniences, every student in College is directly benefitted, and its regular members receive many times the worth of their investment. It is hoped that no student will deny himself the opportunity for personal improvement which active membership affords.

**Sunday School.**—Sunday Schools, at which attendance is voluntary, meet every Sunday morning, and students are encouraged and urged to attend.

**Chapel Service.**—There is preaching every Sunday morning in the various churches or in the College chapel by ministers of the different denominations, and morning prayer services are conducted during the week by a resident minister or a member of the Faculty. All students are required to attend these exercises unless specially excused.

Students must attend the churches of which they are members, or with which they have been affiliated at home. However, special permission can be obtained for any particular Sunday to attend elsewhere.

### CARE OF THE SICK

The Surgeon is one of the regular officers of the College, and his special duty is to look after the health of the students. He also has charge of the Hospital, and supervises all matters pertaining to the sanitation of barracks.



At a regular appointed time every day, students who so desire may consult the Surgeon, and those who are sick are cared for by experienced nurses in the College Hospital. In case of necessity students are allowed to consult the Surgeon at any time, or send for him, as may be required.

The Surgeon cannot undertake to notify parents every time a student reports to the Hospital for medicine, or for rest on account of some slight complaint. However, they may rest assured that they will be promptly notified of sickness of any consequence. In case of serious illness the Surgeon will telegraph them.

### STUDENT EMPLOYMENT

The question is often asked if a student cannot help pay his way through College by obtaining employment. At Clemson College a student is kept so busy with his classes and military duties that little time remains for paid labor. Since the College is not located in a city, the opportunities for getting employment are practically limited to waiting on the tables in the dining hall. From thirty to forty young men are utilized in this work, which requires ten minutes before each meal, and which does not interfere with any regular College work. The price paid is from three to four dollars per month. These positions are within the authority of the Steward, and do not usually go to new students. Occasional opportunities for work are furnished in the various Departments, but not in sufficient number to materially help a cadet to defray his expenses.

A student is not advised to attempt any large amount of work, even if it could be obtained, because his time at College is too valuable for him to spend it in trying to work his way through, unless that is absolutely necessary. It would be better policy for him to borrow the money that is necessary to supplement what he has, rather than seek to earn it, because by such a policy he would have time to devote to reading and to the various student activities, all of which have great educational value.

### LITERARY SOCIETIES

Six literary societies, the Calhoun, the Columbian, the Palmetto, the Carolina, the Hayne, and the Wade Hampton furnish a valuable supplement to the work of the College. These societies afford facilities for practice in debate, oratory, declamation, and essay writing, and their members acquire valuable knowledge of parliamentary law and usage. The meetings are held weekly, on Friday evenings. An annual contest is also held by each society, at which there are debates, orations, and declamations by the students.

On these occasions a representative is chosen from each society to enter the contest for the Trustees' Medal at commencement. The societies themselves also award medals annually to the best debater, orator, and declaimer.

The societies occupy halls in the Academic Building, which are

furnished with carpets and opera chairs, and are maintained entirely by the students. A small initiation fee is charged, and small yearly dues to meet running expenses. All students are advised to join one of these societies.

**State Oratorical Contest.**—The societies also send a representative to the annual contests of the South Carolina Intercollegiate Oratorical Association, which includes the following institutions: Furman University, Wofford College, Clemson Agricultural College, Presbyterian College of South Carolina, Erskine College, Newberry College, South Carolina Military Academy, and University of South Carolina.

### LYCEUM COURSE

A Lyceum Course, comprising about ten numbers, and employing some of the best talent on the American platform, is offered as a means of entertainment to students and others.

### STUDENT PUBLICATIONS

**The Clemson College Chronicle**, a monthly magazine designed to encourage literary work among the students, is published jointly by the literary societies during the College session.

There is also **The Tiger**, published weekly, which is devoted largely to athletics, and **The Agricultural Journal**, published quarterly by the Agricultural Seniors.

**The Annual**, an illustrated volume, is published under the auspices of the Senior Class.

### CLEMSON COLLEGE BRANCH OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

This is composed of instructors and students belonging to this national institution. This branch is maintained with the aim of acquainting the students with current engineering practice and problems.

### ATHLETICS

It is the policy of the College to sanction and encourage athletics so long as they do not interfere with studies and other duties. Football, baseball, and track are the most popular sports, and it is assumed that parents are willing for their sons to participate in these games unless the President is definitely notified to the contrary. The athletic teams are permitted to take a few trips each season, usually on Saturday, to play intercollegiate games. The College is a member of the Southern Intercollegiate Athletic Association (S. I. A. A.), and of the South Carolina Intercollegiate Athletic Association (S. C. I. A. A.).

**Athletic Council.**—The Southern Intercollegiate Athletic Association has placed the athletic interests at each college under the supervision of an athletic council, consisting of members of the Faculty and the student body. This council consists of nine mem-

bers—two members of the Faculty, the president and the secretary-treasurer of the local athletic association, elected by the students, and three members of the Faculty chosen by the Faculty, and four class presidents.

**Intercollegiate Athletics.**—For the regulation of intercollegiate athletics, the Faculty has adopted the following rules:

1. No student who has a class mark lower than P in more than eight hours of work in any one term shall be allowed during the ensuing term to take part in any intercollegiate contest. Demerits shall be considered in the record, and more than forty demerits shall count as a failure in two hours of class work. Changing from one course to another, or from a regular to an irregular course, shall not interfere with the operation of this rule.

2. No graduate student shall participate in intercollegiate athletics unless he is taking at least twenty hours of work per week of as high grade as the graduate work given in other institutions of similar rank.

3. The football team shall be allowed a maximum of ten days absence from the campus during the session for games away from the College; the baseball team shall be allowed a maximum of ten days; the track team and basket ball team six days; the tennis team or any other organization hereafter sanctioned shall be allowed a maximum of four days absence during each session. Saturday afternoons, Sundays, and holidays shall not count as days.

4. No one contestant or representative shall be allowed to leave the campus for more than twenty days during the session.

5. No member of an athletic team shall be eligible for a managerial position in any other branch of sport.

6. No team shall be allowed to leave the College grounds to participate in any match games unless accompanied by a member of the Faculty, who shall be responsible to the Faculty for the conduct of the players and coaches while away from the College. Such representative shall be appointed by the chairman of the Faculty Athletic Committee, and his expenses shall be included in the expenses of the trip, provided that when any team, except the football and the baseball team, leaves the College grounds, the chairman, at his discretion, may appoint a player or a manager in place of a member of the Faculty.

7. No student shall be eligible to participate in an intercollegiate contest who is away from the College without proper authority, or without having complied with all the rules or orders issued by the Commandant regarding such matters.

8. It shall be the duty of the Faculty Athletic Committee to see that the foregoing rules and regulations are strictly enforced.

#### CADET EXCHANGE

The College maintains a book and supply store known as the Cadet Exchange, where students may purchase text-books, drawing instruments and other student supplies at reduced prices.

## THE SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION

The Agricultural Experiment Station of South Carolina is a department of Clemson College. The experiment station at present consists of the main station, which is located at Clemson, and two sub-stations, one in the coast region, located at Summerville, and one in the Pee Dee section, located at Florence. The main offices and laboratories of the station occupy the second floor of the Agricultural Hall, while the station experiment farm, consisting of about 200 acres, is east of and adjoining the College campus. The investigations dealing with the fundamental principles of agricultural sciences and with the application of such principles to practical agricultural operations are carried on in the laboratories and on the experiment station farm at Clemson. The experiments looking to the adaptation of such scientific data accumulated here and elsewhere to the conditions peculiar to certain sections of the State are carried on at the sub-stations and at branch laboratories established in certain sections of the State for this purpose.

It is the aim of the experiment station to carry on research work on problems which have a direct practical bearing on the agriculture of the State. With this end in view elaborate experiments relative to the best methods of procedure under various conditions with the principal plants and animals have been undertaken. As progress is made with such experiments the results obtained are given out to farmers in the form of bulletins, circulars and personal letters. Since the establishment of the station 186 such bulletins and 28 circulars have been published and sent free to farmers in the State who desired them.

Aside from the research work and the publication of results obtained from such research the experiment station performs various other duties. Among these might be mentioned the entomological and pathological inspection work which aims to protect the farms, orchards and gardens of the State against the introduction of injurious insects and diseases; the biological and soil survey of the State; and the cooperative experimental work carried on with hundreds of farmers in the State. The technically trained experts of the station staff are regarded as authorities in their several specialties and they are constantly giving out information relating to the various lines of agricultural endeavor. More than fourteen thousand personal and circular letters are written annually to residents of the State giving technical information to individuals on special subjects. The station staff also aids in disseminating agricultural knowledge by cooperating with the Extension Division of the College in holding farmers' institutes and by meeting with the farm demonstration agents and giving to them technical information which they in turn carry through the demonstration work direct to the farmers.

Close cooperation is maintained with the various research bureaus of the National Department of Agriculture and with the departments of the College. The laboratories are always open to the inspection of the students and other people of the State. The same is true of the experiment station farm. There is always opportunity for a limited number of students to secure work in the various divisions of the station and to assist in the research work carried on by the members of the station staff.

All publications of the experiment station are sent free upon request to any resident of the State. Requests for these should be addressed to H. W. Barre, Director, Clemson College, S. C.

### PUBLIC SERVICE

In addition to the usual teaching work, Clemson College expended in 1915-16 \$85,700 for public service along the following lines:

**Fertilizer Inspection and Analysis.**—The work of fertilizer inspection and analysis is under the supervision of the Board of Control consisting of Governor Richard I. Manning, chairman; S. T. McKeown of Cornwell, and J. E. Wannamaker of St. Matthews. The work of inspection is under the immediate supervision of H. M. Stackhouse, Secretary of the Board of Control.

There are ten inspectors to look after this feature of the work in different parts of the State.

The work of analysis is carried on in the Chemical Analysis Division of the Chemical Department and is under the supervision and direction of Dr. R. N. Brackett, Chief Chemist.

The work consists of the analysis of commercial fertilizers, as provided for by the Fertilizer Law of the State. This Division also undertakes the analysis of waters, ores, minerals, and other naturally occurring materials, except soils (which are analysed by the Experiment Station), portions of human bodies in cases of suspected poisoning, as provided for by law, and the analysis of home-mixed fertilizers. All the work of this Division is done free of charge.

The annual cost of the fertilizer inspection and analysis is about \$25,400.

**Agricultural and Textile Scholarships.**—The College maintains 168 four-year agricultural and textile scholarships, and fifty-one one-year agricultural scholarships. Each scholarship is worth \$100 and free tuition. The cost of these scholarships is paid out of the fertilizer tax, as the State makes no appropriation therefor.

The annual cost of these scholarships, including advertising, expense of holding examinations, etc., is about \$21,000.

**Veterinary Inspection and Tick Eradication.**—This interest is under the supervision of a committee of the Board of Trustees composed of A. F. Lever and B. H. Rawl, of Washington, D. C., and R. H. Timmerman, of Batesburg.

The work of veterinary inspection is carried on by the Veterinary Division of the Agricultural Department. Dr. R. O. Feeley, head of the division, is State Veterinarian. The work includes the control of contagious diseases, eradication of the cattle tick which transmits Texas fever, and the supervision of shipments of live stock into the State. Much of this work is required by legislative enactment, but the cost comes out of the regular income of the College, and amounts to nearly \$4,300 a year.

The tick eradication is under the supervision of Dr. W. K. Lewis, with headquarters at Columbia, S. C. The Legislature makes an annual appropriation of \$30,000 for this work, and the Bureau of Animal Husbandry, U. S. Department of Agriculture, duplicates this amount.

**Entomological and Pathological Inspection.**—This work is carried on under the direction of the State Crop Pest Commission. This commission consists of Dr. R. H. Timmerman, Batesburg, Chairman; S. T. McKeown, Cornwell, and A. F. Lever, Washington, D. C.

The State Entomologist is Prof. A. F. Conradi, head of the Division of Entomology, and the State Pathologist is Prof. H. W. Barre, head of the Division of Botany and Forestry.

The work of these officers consists in the control of contagious plant diseases and insect pests. The State Entomologist has also supervision of all nursery stock sold within the State.

The cost of these lines of work is approximately \$2,000.

**Demonstration and Extension Work.**—This work is conducted jointly by the U. S. Department of Agriculture and the College under the supervision of Mr. W. W. Long.

The extension Work includes farmers' institutes, press bulletins, spraying, orchard demonstration, etc.

For the Demonstration Work the State is divided into three districts, each presided over by a District Agent, and in practically every county there is a local agent who looks after the crop demonstrations. Under the direction of the local agents, farmers are induced to plant certain acreage and cultivate in accordance with expert directions.

The local agents also assist the College in its various other lines of public service.

The College contributes \$20,000 annually to carrying on the demonstration and extension work in South Carolina.

**The Boys' Corn Club Work.**—This is also carried on jointly by the U. S. Department of Agriculture and the College as a feature of the demonstration work. Mr. L. L. Baker is in charge of this particular line of work, under the general supervision of Mr. W. W. Long.

**Cooperative Experimental Work.**—This work is carried on under the supervision of the Director of the Experiment Station. About 200 farmers are enrolled in this important line, which includes a

repetition of many of the experiments conducted at the parent experiment station located at the College. Cooperative experimental work is intended to verify new facts and laws under the various soil and climate conditions in South Carolina.

The cost of conducting this work is approximately \$1,300 per annum.

**Branch Experiment Stations.**—In order to reinforce the main experiment station located at the College, two additional branch stations have already been established, one at Drainland in the coastal plain, and another near Florence, in the Pee Dee section. It is planned to locate a third station in the Sand Hill section of the State as soon as the College has funds for this extension.

These stations are devoted primarily to experiment work. They will also form centers of dissemination for the information which the College has to give to the people.

**Miscellaneous.**—In addition to the above regular lines of activity, the College manufactures at cost the **South Carolina flag** in a number of different sizes, makes annually an exhibit at the State Fair, and expends a small amount for textile instruction in some of the neighboring mill villages. The total cost of these activities is about \$2,000.

## ALUMNI ORGANIZATION

### CLEMSON COLLEGE ALUMNI ASSOCIATION

President—H. W. Barre, '05, Clemson College.

1st Vice-President—T. E. Keitt, '06, Clemson College.

2nd Vice-President—B. H. Rawl, '00, Washington, D. C.

3rd Vice-President—J. M. Napier, '08, Darlington, S. C.

Secretary—J. C. Littlejohn, '08, Clemson College.

Treasurer—J. E. Hunter, '96, Clemson College.

Orator for 1917—W. D. Barnett, '10, Columbia, S. C.

Alumni Representative on the Athletic Council—H. C. Tillman,  
'03, Greenwood, S. C.

There are Alumni Chapters in the following places:

Atlanta, Ga.

New York, N. Y.

Pittsburgh, Pa.

Washington, D. C.

Schenectady, N. Y.

Greenville, S. C.

Columbia, S. C.

Charleston, S. C.

Pittsfield, Mass.

Florence, S. C.

Darlington, S. C.

Anderson, S. C.

A register of graduates is published as a separate bulletin and will be revised from time to time. Graduates and friends are requested to keep this record as nearly accurate as possible. The following information is desired:

Name, address, year of graduation, and occupation. This information should be sent to the Secretary of the Alumni Association, Clemson College, S. C.



## REGIMENTAL ORGANIZATION

1916-'17

COLONEL R. A. JONES

(Captain of Infantry, U. S. A.)

### REGIMENTAL STAFF

S. Littlejohn ----- Captain and Adjutant  
J. E. Hunter ----- Captain and Quartermaster  
J. J. Murray ----- Captain and Commissary

### NON-COMMISSIONED STAFF

W. B. Nichols ----- Sergeant Major  
A. M. McNair ----- Quartermaster Sergeant  
T. A. Folger ----- Commissary Sergeant  
B. O. Williams ----- Color Sergeant  
F. W. Hardee ----- Color Sergeant

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### CADET BAND

A. R. Sellers ----- 1st Lieutenant and Chief Musician  
G. C. McDermid ----- 2nd Lieutenant and Principal Musician  
H. L. Quattlebaum ----- Drum Major  
J. G. Gee ----- Sergeant and Chief Trumpeter  
R. W. Webb ----- Sergeant  
S. C. Gambrell ----- Sergeant  
F. L. Parks ----- Sergeant  
P. L. Tollison ----- Corporal  
J. W. Conyers ----- Corporal  
A. H. Edens ----- Corporal

**FIRST BATTALION**

MAJOR O. P. LIGHTSEY

E. K. Moore ----- 1st Lieutenant and Battalion Adjutant  
 L. C. Fletcher ----- 2nd Lieutenant and Battalion  
 Quartermaster and Commissary  
 E. M. Bostick ----- Sergeant Major

**Co. A.                      Co. B.                      Co. C.                      Co. D.**

**CAPTAINS**

C. L. Baxter              J. P. Derham              L. C. Ellis              J. D. Blair

**LIEUTENANTS**

G. H. Durham              D. Crumpler              J. M. Hutchings              G. H. Reaves  
 W. Schirmer              H. K. Patjens              E. H. Garrison              W. E. Hunter

**1st SERGEANTS**

J. G. Duckett              J. W. Wofford              H. L. Burch              C. M. McCue

**SERGEANTS**

J. P. Marvin              C. C. Harman              W. H. Parks              I. P. Montgomery  
 A. H. Johnson              J. M. McGougan              J. E. Kaufman              R. H. Taylor  
 M. M. McCord              H. W. Brown              W. F. Howell              T. J. Hester  
 H. W. Beisley              M. P. Etheredge              B. L. Finger              D. H. Sullivan

**CORPORALS**

G. G. Thrower              J. H. Derham              D. P. Smith              G. H. Martin  
 C. H. Ellis              C. A. Willcox              H. M. Kinsey              H. M. Elliott  
 R. C. Hicks              L. M. Poag              W. M. Blackwell              N. W. Matheny  
 J. M. McIntyre              J. M. Walker              B. Marvin              W. M. Dunlap  
 C. T. McDonald              W. J. Kennerly              R. Marvin              T. A. Campbell  
 R. G. Gaines              J. B. Bankhead              J. L. Nowell              H. D. Montgomery

## SECOND BATTALION

MAJOR S. W. GRAHAM

W. M. Hutson	-----	1st Lieutenant and Battalion Adjutant	
E. L. Rivers	-----	2nd Lieutenant and Battalion	
		Quartermaster and Commissary	
W. H. Bryant	-----	Sergeant Major	

Co. E.

Co. F.

Co. G.

Co. H.

### CAPTAINS

W. H. Garrison	F. Grant	J. W. Fulmer	E. W. Black
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### LIEUTENANTS

W. A. Shearer	T. S. Buie	T. M. Jervey	A. J. Caskey
K. O. Hobbs	W. N. Jefferies	H. H. Willis	T. B. Robertson

### 1st SERGEANTS

W. C. Graham	R. Aldrich	W. G. Vardell	H. E. Gaines
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### SERGEANTS

J. E. Herbert	D. T. Mathis	L. W. Burdette	L. H. Gilmore
A. H. Young	J. W. Thompson	J. B. Harley	R. R. Shedd
J. L. Baskin	C. B. Glover	W. M. Scaife	F. E. Mackin
W. H. Lawton	A. J. Robinson	H. B. West	E. P. Sanders

### CORPORALS

D. Haltiwanger	I. W. Duggan	J. D. Rush	H. H. Jessen
J. S. Watkins	S. A. Bannister	J. M. Lowman	W. H. Washington
D. D. Bodie	J. H. Zobel	E. L. Hillhouse	L. C. Garrison
C. C. Graves	E. R. Roberts	C. F. Chapman	W. L. Austin
S. P. Clemons	F. H. Leslie	T. J. Kittles	D. M. Altman
J. L. King	J. J. Wolfe	W. L. Hart	E. T. Brown

### THIRD BATTALION

MAJOR J. B. DICK

**H. C. Bruce** ----- 1st Lieutenant and Battalion Adjutant  
**A. S. McCord** ----- 2nd Lieutenant and Battalion  
 Quartermaster and Commissary  
**B. H. Stribling** ----- Sergeant Major

**Co. I.**

**Co. K.**

**Co. L.**

**Co. M.**

CAPTAINS

**W. T. Freeman**

**D. E. Monroe**

**A. I. Norman**

**L. R. Warriner**

LIEUTENANTS

**E. W. Long**

**H. Walker**

**W. T. White**

**B. Breland**

**H. C. Worthy**

**W. A. Meares**

**L. F. Price**

**H. R. Chapman**

1st SERGEANTS

**J. W. Burgess**

**M. S. Covin**

**R. E. Bass**

**T. M. Jordan**

SERGEANTS

**● J. Zeigler**

**T. L. Ayers**

**R. A. Hall**

**C. W. Sanders**

**J. E. Vernon**

**G. M. Croft**

**W. M. Cannon**

**G. D. Padgett**

**J. F. Marscher**

**L. F. Moore**

**E. Goodwin**

**C. H. Stender**

**T. R. Hagood**

**R. S. Blake**

**M. B. Bailey**

**C. L. Williams**

CORPORALS

**J. M. Bates**

**T. West**

**W. H. Wallace**

**H. W. Johnson**

**F. M. Wallace**

**J. C. Metts**

**R. S. Plexico**

**U. X. Cullum**

**T. S. Jackson**

**G. M. Lupo**

**J. C. Miller**

**L. H. Farmer**

**J. E. Jones**

**L. R. Kay**

**H. H. Strong**

**C. M. Kuykendal**

**L. M. Dantzler**

**C. J. Sessions**

**W. H. Mays**

**C. S. Watkins**

**E. L. Parrott**

**v. M. Quattlebaum**

**M. O. Carter**

**W. A. Carver**

## GRADUATES

June, 1916

Name and Course	County	Residence
Acker, E. G. (aA)	Anderson	1039 Main St.
Adams, H. M. (T)	Edgefield	Meriwether
Agnew, E. H. (dA)		Canon, Ga.
Albrecht, C. H. (T)	Orangeburg	Orangeburg
Amme, D. A. (ME)	Charleston	443 King St.
Anderson, C. S. (ME)	Barnwell	Donora
s Anderson, F. C. (aA)	Abbeville	Antreville
s Armstrong, F. E. (aA)	Laurens	R. 2, Owings
Banks, D. H. (ME)	Calhoun	St. Matthews
Barre, M. L. (ME)	Lexington	Lexington
Berry, F. O. (ME)	Greenville	211 Lawton Ave.
s Blackmon, J. F. (T)	Lancaster	Lancaster
Boggs, L. A. (ME)	Pickens	Liberty
Boyd, P. O. (ME)	York	Fort Mill
Brackett, N. C. (aA)	Oconee	Clemson College
s Brown, H. F. (cA)	Cherokee	Gaffney
Burch, W. E. (dA)		Dublin, Ga.
s Byers, W. V. (T)	Orangeburg	Orangeburg
s Byrd, D. E. (T)	Darlington	R. 1, Society Hill
s Camp, W. B. (aA)	Cherokee	R. 3, Gaffney
Campbell, L. O. (ME)	Dorchester	Summerville
Campsen, G. E. (CE)	Charleston	2 Glebe St.
s Cannon, L. B. (dA)	Anderson	R. 1, Honea Path
s Carwile, A. B. (hA)	Abbeville	R. 5, Abbeville
s Chatham, F. W. (gA)	Greenwood	R. 2, Ninety-Six
s Cheatham, R. J. (T)	Richland	R. 1, Eastover
Clark, J. D. (C)	Lee	Lynchburg
Cox, M. E. (ME)	Laurens	R. 2, Gray Court
Dibble, A. C. (gA)	Orangeburg	Orangeburg
Dicks, W. H. (ME)	Barnwell	Dunbarton
s Dickson, A. M. (fA)	Darlington	R. 2, Darlington
Duncan, D. T. (CE)	Greenwood	Ninety-Six
s Eleazer, J. M. (aA)	Richland	R. 3, Chapin
Flournoy, J. E. (aA)		R. 1, Macon, Ga.
Folger, D. F. (ME)	Pickens	Central
s Garris, J. M. (aA)	Colleton	R. 1, Round
s Green, M. C. (eA)	Greenville	Box 228, Greenville
s Haddon, F. M. (gA)	Greenwood	R. 3, Hodges
Haigler, S. W. (fA)	Calhoun	R. 1, Cameron
s Hamlin, J. C. (eA)	Anderson	228 W. Franklin St.
Harrall, J. P. (ME)	Chesterfield	Market St., Cheraw
Harris, G. G. (eA)	Anderson	Belton
s Heiss, G. K. (cA)	Marlboro	Clio
Heldman, J. M. (T)	Spartanburg	381 Pine St.
Henderson, J. R. (dA)	Charleston	14 Broad St.
Howell, V. M. (aA)	Dorchester	St. George
Jackson, J. M. (CE)	Marlboro	Bennettsville
Jenkins, W. H. (aA)	Charleston	North Charleston

Note.—s Indicates scholarship student.

County and city are the same if street address only is given.

	Name and Course	County	Residence
	Jeter, J. P. (T)	Union	Santuc
	Johnson, M. T. (T)	Union	R. 5, Union
s	Kendrick, J. B. (bA)	York	R. 2, Clover
s	Kyzer, E. D. (dA)	Lexington	R. 2, Lexington
	Laidlaw, R. E. (hA)		Marion, N. C.
.	Latimer, J. R. (CE)	Anderson	R. 4, Honea Path
	Leslie, W. E. (aA)	Abbeville	Star R., Abbeville
s	Littlejohn, C. E. (eA)	Union	Jonesville
s	Lyles, N. P. (aA)	Lexington	R. 1, Steedman
	McCall, P. L. (T)	Darlington	Hartsville
	McConnell, H. S. (eA)	Anderson	R. 1, Anderson
s	McConnell, R. M. (aA)	Williamsburg	Kingstree
	McKeown, H. S. (dA)	Chester	Cornwell
.	McMillan, W. L. (dA)	Abbeville	Abbeville
s	Major, C. S. (aA)	Anderson	R. 6, Anderson
	Mallory, W. W. (aA)		425 Bull St., Savannah, Ga.
	Mather, E. W. (aA)	Richland	1704 Green St., Columbia
	May, L. A. (CE)	Richland	1313 Sumter St., Columbia
s	Mellett, R. R. (aA)	Sumter	R. 2, Sumter
	Morrison, E. C. (ME)	Aiken	Sally
	Morrison, W. A. (eA)	Oconee	Clemson College
s	Myers, F. O. (eA)	Orangeburg	Orangeburg
	Neil, W. H. (ME)	Beaufort	Chisholm
s	O'Dell, D. G. (eA)	Pickens	R. 3, Liberty
	Odom, R. J. (ME)	Marlboro	McCull
	Oliver, R. S. (ME)	Dillon	Hamer
s	O'Neal, R. M. (dA)	Anderson	R. 4, Pendleton
s	Padgett, T. D. (hA)	Greenville	G. W. C., Greenville
s	Patriek, W. T. (hA)	Orangeburg	R. 4, Bowman
	Pickens, W. A. (dA)	Anderson	R. 4, Easley
.. s	Poole, R. F. (bA)	Laurens	R. 3, Gray Court
	Prince, G. E. (gA)	Pickens	Easley
	Quattlebaum, H. H. (CE)	Aiken	Aiken
	Rhoad, J. S. C. (CE)	Bamberg	R. 2, Branchville
	Rothell, C. (aA)		Lexington, Ga.
	Segars, E. H. (ME)	Darlington	R. 2, Hartsville
	Sheppard, G. J. (CE)	Edgefield	R. 2, McCormick
	Shiver, H. E. (C)	Oconee	Clemson College
	Siddall, T. H. (ME)	Sumter	Sumter
s	Simpson, D. M. (aA)		Oxford, N. C.
	Simpson, J. W. (ME)	Anderson	223 W. Church St.
	Sitton, J. J. (CE)	Anderson	Pendleton
	Smith, G. W. (aA)	Anderson	Townville
	Smith, P. N. (ME)	Anderson	R. 2, Pendleton
	Sowell, H. E. (dA)	Lancaster	Lancaster
s	Stribling, J. W. (T)	Oconee	Seneca
	Stribling, S. C. (aA)	Oconee	Richland
	Suggs, H. L. (ME)	York	R. 8, York
	Tate, T. H. (ME)		R. 2, Union Mills, N. C.
	Taylor, W. A. (AE)	Greenwood	Greenwood
s	Thornton, S. F. (eA)	Laurens	Mountville
	Thrower, J. R. (AE)	Chesterfield	Cheraw
	Townsend, W. B. (ME)	Marlboro	Bennettsville
	Trott, H. R. (AE)	Charleston	Mt. Pleasant
	Verner, L. W. (aA)	Oconee	Seneca
	Vincent, C. A. (gA)		Shinston, W. Va.
	Wallace, D. R. (CE)	Newberry	R. 1, Kinards

Name and Course	County	Residence
Wannamaker, H. C. (ME)	Orangeburg	Orangeburg
Ward, C. W. (aA)	Florence	R. 4, Timmonsville
Waters, R. B. (aA)	York	Rock Hill
West, C. T. (cA)	Richland	129 Walker St., Columbia
Williams, K. A. (C)	York	York
Williamson, S. (CE)	Lancaster	R. 4, Lancaster
Winters, E. S. (fA)	Darlington	Society Hill
s Wise, J. R. (aA)	Saluda	Saluda
s Witherspoon, S. M. (fA)	Clarendon	R. 2, Mayesville
Woods, E. T. (ME)	Lexington	R. 3, Lexington
Wright, R. F. (ME)	Newberry	Newberry
Wright, W. F. (ME)	Laurens	R. 3, Laurens
s Young, E. C. (bA)	Laurens	R. 2, Clinton

## SENIOR CLASS

Name and Course	County	Residence
s Adams, J. P. (cA)	Aiken	416 West Ave., N. Augusta
s Alford, J. L. (aA)	Dillon	R. 1, Latta
Allison, H. (ME)		R. 2, Brevard, N. C.
Anderson, V. T. (A)	Spartanburg	214 Spring St.
Arthur, H. T. (CE)		1608 Hanover Ave., Richmond, Va.
Atkinson, F. W. (dA)	Aiken	R. 3, Augusta, Ga.
Barron, A. A. (CE)	York	York
Baxter, C. L. (gA)	Hampton	Garnett
Berry, J. F. (ME)	Greenville	Lawton Ave.
Black, E. W. (hA)	Barnwell	Williston
Blair, J. D. (aA)	Fairfield	R. 1, Strother
s Bonner, W. C. (cA)	Spartanburg	Chesnee
Bowen, R. A. (gA)		P. O. Box 646, Macon, Ga.
s Brandon, J. D. (aA)	York	R. 1, McConnellsville
Brandon, T. B. (aA)	York	R. 1, McConnellsville
s Breland, B. (dA)	Colleton	R. 2, Ruffin
s Brice, M. M. (aA)	Sumter	Wedgfield
s Britt, J. A. (dA)	McCormick	McCormick
s Brown, J. M. (T)	Richland	R. 1, Bookman
s Bruce, E. C. (aA)	Bamberg	Bamberg
s Buie, T. S. (hA)	Chesterfield	Patrick
Cain, D. J. (dA)	Sumter	R. 2, Sumter
Campbell, A. (ME)	Dorchester	Summerville
s Caskey, A. J.	Lancaster	R. 3, Lancaster
Cathcart, J. L. (dA)	Fairfield	Winnsboro
Chapman, H. R. (AE)	Pickens	Liberty
Craig, J. M. (aA)	Anderson	R. 2, Pendleton
Crumpler, D. (ME)	Dillon	Latta
Culp, W. C. (ME)	Lancaster	R. 4, Lancaster
Davis, G. H. (dA)	Laurens	142 Todd Ave.
s Derham, J. P. (dA)	Horry	Green Sea
Dick, J. B. (aA)	Darlington	Hartsville
Dugar, F. W. (ME)	Charleston	23 Archdale St.
Durham, G. H. (ME)	Greenville	R. 5, Honea Path
Ellis, L. C. (AE)		Grover, N. C.
Fain, P. (ME)		Murphy, N. C.

Note.—s Indicates scholarship student.

County and city are the same if street address only is given.

Name and Course	County	Residence
Fletcher, L. C. (ME)	Marlboro	R. 2, McColl
s Floyd, F. E. (aA)	Horry	R. 2, Tabor, N. C.
s Freeman, W. T. (dA)	Charleston	381 N. Rutledge Ave.
Fulmer, J. W. (CE)	Lexington	R. 1, Chapin
Garrett, C. S. (ME)	Laurens	Laurens
s Garrison, E. B. (aA)	York	R. 3, York
Garrison, E. H. (aA)	York	R. 4, Rock Hill
Garrison, W. H. (gA)	Anderson	R. 3, Pendleton
s Gee, J. G. (hA)	Richland	R. 3, Columbia
s Graham, S. W. (T)	Florence	Coward
Grant, F. (gA)	Abbeville	Abbeville
Hardin, L. G. (ME)	Chester	Chester
Harmon, H. M. (ME)	Berkeley	R. 2, Summerville
s Harris, C. G. (dA)	Spartanburg	R. 3, Spartanburg
Harris, H. S. (aA)	Union	Union
Hay, W. S. (CE)	York	Rock Hill
Henderson, E. P. (ME)	Aiken	Bath
Herron, W. C. (dA)	Anderson	R. 1, Starr
Hobbs, K. O. (ME)	Cherokee	Blacksburg
Hunter, J. E. (AE)	Richland	1228 Hampton St., Columbia
Hunter, W. E. (bA)	Newberry	R. 2, Prosperity
Hutchings, J. M. (ME)	Pickens	Liberty
Hutchins, W. D. (C)	Pickens	Liberty
s Hutson, W. M. (cA)	Aiken	Aiken
Jefferies, W. N. (aA)	Cherokee	R. 1, Pacolet
Jenkins, J. H. (ME)	Jasper	R. 1, Ridgeland
Jervay, T. M. (ME)	Charleston	7 Pitt St.
Johnson, W. B. (ME)	Pickens	Easley
Kenney, F. M. (ME)	Edgefield	Johnston
Leland, A. M. (aA)	Charleston	McClellansville
s Lemmon, W. T. (cA)	Lee	R. 1, Elliott
s Lightsey, O. P. a(A)	Hampton	R. 1, Brunson
Littlejohn, S. (ME)	Union	Jonesville
s Long, E. W. (dA)	Newberry	R. 3, Prosperity
McCord, A. S. (aA)	Greenwood	Hodges
McDermid, G. C. (gA)	Charleston	218 Rutledge St.
McHugh, F. (ME)	Greenville	119 Richardson St.
Matthews, W. A. (ME)	York	Clover
Meares, W. A. (ME)	Oconee	R. 1, Westminster
Monroe, D. E. (dA)	Marion	Marion
Moore, E. K. (C)		Saluda, N. C.
s Moore, J. H. (aA)	Florence	Star Route, Florence
Murray, J. J. (C)	Charleston	R. 1, Edisto Island
s Nimitz, H. J. (cA)	Charleston	66 Charlotte St.
Norman, A. I. (CE)		24 Tribune St., Concord, N. C.
Nowell, A. E. (ME)	Charleston	324 Meeting St.
Parker, J. E. (gA)	Aiken	Graniteville
Patjens, A. A. (CE)	Charleston	Mt. Pleasant
Patjens, H. K. (ME)	Charleston	Mt. Pleasant
Preece, L. F. (ME)	Darlington	Harstville
Pruitt, V. O. (C)	Anderson	Starr
Reaves, G. H. (aA)	Marion	R. 2, Mullins
Reeves, F. M. (CE)	Fairfield	R. 1, Ridgeway
s Richards, A. J. (aA)	Kershaw	Liberty Hill
Rivers, E. L. (dA)	Charleston	R. 1, Charleston
s Robertson, T. B. (dA)	Spartanburg	Finch Hotel
s Rowell, S. T. (T)	Bamberg	Bamberg



Name and Course	County	Residence
s Sanders, H. L. (T)	Sumter	Hagood
Schirmer, W. (cA)	Charleston	104 Bull St.
Sellers, A. R. (ME)	Charleston	101 Meeting St.
Shearer, W. A. (CE)	Anderson	508 Marshall Ave.
Singley, L. K. (ME)	Newberry	R. 6. Prosperity
Sloan, E. D. (CE)	Fairfield	Winnsboro
s Sowell, L. C. (dA)	Lancaster	Lancaster
Spratt, T. (CE)	Chester	Chesetr
Steadman, B. K. (cA)	Oconee	Clemson College
Tyler, G. R. (AE)	Aiken	Windsor
s Walker, H. (dA)	Beaufort	Beaufort
Warriner, L. R. (gA)	Darlington	Society Hill
West, W. R. (ME)	Greenville	505 Perry Ave.
s White, W. T. (aA)	Marion	Centenary
Wiehl, E. A. (ME)	Aiken	Aiken
Witsell, F. L. (ME)	Charleston	South Bay St.
s Williams, W. C. (gA)	Orangeburg	Eutawville
s Willis, H. H. (T)	Spartanburg	R. 1, Clifton
Wood, J. B. (dA)	Laurens	Princeton
Worthy, H. C. (ME)	Chester	R. 5, Union

JUNIOR CLASS

Name and Course	County	Residence
Aldrich, R. (CE)	Greenwood	Greenwood
Allen, O. B. (ME)	Darlington	Darlington
Alverson, R. O. (ME)	Spartanburg	323 South Converse St.
Anderson, S .A. (ME)	Chester	Chester
s Ayers, T. L. (A)	Horry	R. 2, Tabor, N. C.
Bailey, M. B. (ME)	Spartanburg	Cowpens
Banks, B. C. (A)	Calhoun	St. Matthews
Barker, C. E. (A)	Oconee	R. 2, Mt. Rest
Baskin, J. L. (A)	Abbeville	R. 2, Lowndesville
Bass, R. E. (A)	York	Rock Hill
Beisley, H. W. (ME)	Charleston	18 Bee St.
Blake, R. S. (A)	Greenwood	Ninety-Six
s Bostick, E. M. (A)	Beaufort	Beaufort
Brown, H. W. (ME)	Fairfield	Winnsboro
Brown, S. R. (CE)	Greenville	R. 3, Piedmont
s Bryan, G. (A)	Greenville	768 N. Main St.
Bryant, W. H. (ME)	Greenville	728 E. Washington St.
Burch, H. L. (ME)		Dublin, Ga.
Burdette, L. W. (ME)	Laurens	Clinton
s Burgess, J. W. (A)	Clarendon	Manning
Burgess, T. H. (A)	Oconee	Seneca
Burnett, D. E. (A)	Greenwood	R. 4, Greenwood
Burns, P. M. (A)	Anderson	R. 4, Anderson
Caldwell, A. J. (A)	Spartanburg	Campobello
s Cannon, W. M. (A)	Anderson	R. 1, Honea Path
Covin, M. S. (A)	McCormick	Willington
Croft, G. M. (ME)	Aiken	Aiken
Douglass, J. R. (A)	Sumter	Dalzell
Duckett, J. G. (A)	Greenville	Fountain Inn

Note.—s Indicates scholarship student.

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Name and Course	County	Residence
Ellison, R. J. (A)	Pickens	Easley
Etheredge, M. P. (A)	Saluda	R. 4, Saluda
Faust, J. B. (C)	Bamberg	Denmark
Felder, H. H. (ME)	Orangeburg	R. 2, Vance
Fellers, H. L. (A)	Newberry	R. 1, Prosperity
Ferguson, J. R. (AE)	Charleston	135 Ashley Ave.
Finger, B. L. (A)	Spartanburg	R. 1, Fingerville
Finley, S. R. (ME)	York	York
Folger, T. A. (T)	Pickens	Central
Free, C. B. (ME)	Barnwell	Blackville
Freeman, G. E. (A)	Laurens	R. 4, Honea Path
Fridy, T. A. (ME)	Fairfield	Wallaceville
Furman, J. C. (A)	Oconee	Clemson College
Gaines, H. E. (A)	Anderson	Honea Path
Gambrell, S. C. (A)	Anderson	R. 3, Pendleton
Gilmore, L. H. (ME)	Orangeburg	Holly Hill
Glover, C. B. (ME)	Aiken	R. 3, Augusta, Ga.
Goodwin, E. (A)	Greenville	R. 3, Travelers Rest
Graham, W. C. (A)	Florence	R. 1, Coward
Grier, R. L. (ME)	Sumter	Mayesville
Hagood, T. R. (ME)	Spartanburg	420 N. Church St.
Hall, R. A. (A)	Spartanburg	Fairforest
Hall, S. W. (ME)	Anderson	R. 1, Pendleton
Hardee, F. W. (A)	Horry	R. 1, Conway
Hardin, A. (A)	Abbeville	R. 1, Lowndesville
Harley, J. B. (CE)	Aiken	Ellenton
Harmon, C. C. (A)	Lexington	Lexington
Haskell, A. W. (C)	Abbeville	Abbeville
Hayden, O. L. (A)	Orangeburg	R. 2, Cope
Haynsworth, J. D. (ME)	Darlington	Darlington
Heiss, M. W. (T)	Marlboro	Clio
Henegan, J. C. (ME)	Dillon	R. 1, Dillon
Herbert, J. E. (T)	Newberry	R. 4, Newberry
Herbert, W. C. (ME)	Orangeburg	Orangeburg
Herring, J. W. (A)	Spartanburg	157 Hampton Ave.
Hester, T. J. (CE)	Cherokee	Gaffney
Hofer, F. S. (ME)	Richland	311 Main St., Columbia
Howell, W. F. (A)	York	R. 4, Rock Hill
James, L. C. (C)	Greenville	Clarendon Ave.
Johnson, A. H. (ME)	Charleston	42 Coming St.
Jordan, T. M. (CE)	Fairfield	Winnboro
Kaufman, J. E. (ME)	Lexington	Lexington
Klenke, J. H. F. (ME)	Charleston	45 Columbus St.
Kuykendal, F. R. (A)	York	Rock Hill
Lawton, W. H. (ME)	Hampton	Garnett
Lay, J. F. (T)	Anderson	Pendleton
Lever, F. M. (A)	Lexington	R. 2, Chapin
Lide, F. P. (A)	Clarendon	Alcolu
Lieberman, E. S. (AE)	Charleston	1-B Mill St.
Link, J. C. (A)	Abbeville	R. 4, Abbeville
Lunden, A. F. (ME)	Charleston	Mt. Pleasant
McArr, T. A. (ME)	Chesterfield	Cheraw
McCord, M. M. (A)	Greenwood	Hodges
McCue, C. M. (ME)	Anderson	230 Bleekley St.
McGougan, J. M. (ME)		Tabor, N. C.
Mackin, F. E. (A)	Fairfield	Rion
McKenzie, D. W. (CE)	Florence	R. 1, Lake City
McMeekin, A. H. (ME)	Fairfield	Monticello

Name and Course	County	Residence
McMillan, N. A. (A)	Dillon	Latta
McNair, A. M. (A)	Darlington	Hartsville
Madden, A. A. (ME)	Richland	1408 Hampton Ave., Columbia
Marscher, J. F. (A)	Beaufort	Beaufort
Martin, J. R. (A)	Anderson	R. 4, Anderson
Marvin, J. P. (A)	Colleton	R. 1, White Hall
s Mathis, D. T. (A)	Edgefield	Colliers
Mays, R. A. (A)	Anderson	R. 3, Pendleton
Middleton, J. A. (A)	Laurens	Clinton
s Mikell, P. H. (A)	Charleston	R. 1, Edisto Island
Montgomery, I. P. (A)	Clarendon	R. 2, Mayesville
Moore, L. F. (CE)	Cherokee	Blacksburg
Nichols, W. B. (ME)	York	R. 4, Rock Hill
Padgett, G. D. (A)	Colleton	Walterboro
Parks, F. L. (ME)	Anderson	184 North Ave.
Parks, W. H. (ME)	McCormick	Parksville
Peters, S. G. (ME)	Pickens	Clemson College
Philpot, L. A. (T)	Laurens	Laurens
Pitts, R. C. (A)	Saluda	Saluda
Pressley, J. H. (A)	Chester	R. 3, Chester
Purdy, W. H. (A)	Sumter	Sumter
Quattlebaum, H. L. (A)	Newberry	Prosperity
Reynolds, H. L. (A)	Greenwood	R. 3, Greenwood
Rivera, R. E. (CE)		Mayaguez, P. R.
Robinson, A. J. (ME)	Orangeburg	R. 1, Rowesville
Robinson, J. H. (A)	Sumter	R. 1 Oswego
Sams, R. H. (A)	Spartanburg	338 Spring St.
Sanders, C. W. (ME)	Newberry	R. 2, Silver Street
Sanders, E. P. (A)	Sumter	R. 1, Dalzell
Sanders, W. H. (A)	Calhoun	St. Matthews
Scaife, W. M. (CE)	Laurens	Clinton
Shedd, R. R. (ME)	Fairfield	Monticello
Sitton, B. G. (A)	Anderson	Pendleton
Snellgrove, W. K. (A)	Anderson	R. 7, Anderson
Stender, C. H. (ME)	Charleston	96 Columbus St.
Stevens, J. G. (CE)	Berkeley	R. 1, Moncks Corner
s Still, K. M. (T)	Barnwell	Blackville
Stribling, B. H. (A)	Oconee	Richland
Suggs, G. W. (A)	York	Rock Hill
Sullivan, D. H. (CE)	Laurens	Laurens
s Tallevast, W. D. (A)	Darlington	Darlington
Tarbox, J. G. (ME)		Juiz de Fora, Minas, Brazil
s Taylor, R. H. (T)	Laurens	R. 1, Laurens
Tenhet, J. N. (A)	Marion	Marion
s Thompson, J. W. (A)	Jasper	Ridgeland
Thomson, W. E. (CE)	Union	R. 2, Union
Truluck, W. E. (A)	Sumter	Motbridge
Vardell, W. G. (ME)	Berkeley	Oakley Depot
Varn, W. C. (T)	Hampton	Varnville
Vernon, J. E. (CE)	Spartanburg	120 Wheeler St.
Ward, W. C. (ME)	Charleston	McClellanville
Way, J. W. (A)	Orangeburg	R. 6, Orangeburg
Webb, R. W. (A)	Anderson	Anderson
West, H. B. (ME)	Spartanburg	185 Park Ave.
Wieters, A. W. (ME)	Charleston	119 Calhoun St.
Wilkins, R. T. (ME)	Cherokee	Gaffney

Name and Course	County	Residence
Williams, B. O. (A)	Pickens	R. 6, Easley
s Williams, C. L. (C)	Kershaw	Camden
Williams, L. J. (CE)	Aiken	614 Caro Ave., N. Augusta
Wingo, R. A. (A)	Greenville	Campobello
Wofford, J. W. (A)	Laurens	R. 4, Laurens
Worley, S. (A)	Horry	R. 2, Tabor, N. C.
Young, G. F. (ME)	Sumter	R. 1, Rembert
s Zeigler, O. J. (A)	Bamberg	Bamberg
Zimmerman, M. L. (T)	Spartanburg	380 Magnolia Ave.

### SOPHOMORE CLASS

Name and Course	County	Residence
Adams, J. R. (A)	Edgefield	R. 1, Colliers
Allen, R. G. (AE)	Abbeville	Lowndesville
Allison, W. A. (A)	Greenville	929 Buncombe St.
Altman, D. M. (A)	Horry	R. 1, Galivants
Anderson, J. R. (A)	Florence	R. 3, Timmons ville
Askew, W. F. (E)	Union	Mt. Tabor
s Atkinson, R. L. (A)	Chester	R. 1, Lowryville
s Aull, G. H. (A)	Newberry	Pomaria
Austin, W. L. (A)	Oconee	Seneca
s Bankhead, J. B. (A)	Chester	106 Hemphill Ave.
Bannister, S. A. (A)	Anderson	Starr
Barnes, W. M. (E)	Spartanburg	766 East Main St.
Bates, J. M. (A)	Richland	Wateree
Berley, R. H. (A)	Newberry	Pomaria
Bingham, I. W. (E)	Marlboro	McColl
s Blackwell, W. M. (E)	Marion	Marion
s Bodie, D. D. (A)	Saluda	R. 2, Batesburg
Boggs, O. B. (E)	Pickens	Pickens
s Bomar, W. E. (A)	Greenville	R. 3, Greer
s Bradford, Z. B. (A)	Greenwood	136 Hackett St.
Bradley, W. W. (AE)	Abbeville	Abbeville
Brown, E. T. (E)	Charleston	6 St. Philip St.
Bruce, J. M. (A)		R. 1, Avalon, Ga.
Burgess, R. L. (A)	Clarendon	Manning
Campbell, C. D. (E)	Spartanburg	F. 3, Inman
Campbell, T. A. (A)	York	Tirzah
Cantey, J. S. (A)	Clarendon	Summerton
Carpenter, J. B. (A)	Spartanburg	Landrum
s Carter, M. O. (E)	Colleton	R. 2, Smoaks
s Carver, W. A. (A)	Spartanburg	R. 1, Wellford
Cash, C. B. (E)	Cherokee	Gaffney
Chainbliss, P. B. (E)	Oconee	Clemson College
Chapman, C. F. (A)	Greenville	R. 3, Pelzer
Chapman, R. C. (A)	Greenville	R. 4, Pelzer
Clement, D. T. (E)	Spartanburg	Inman
s Clemons, S. P. (A)	Williamsburg	Greeleyville
Cole, W. P. (A)	Florence	Ebenezer
Conyers, J. W. (E)	Florence	Timmons ville
Cook, W. S. (E)	Florence	Timmons ville
s Coreoran, A. C. (E)	Charleston	53 Bull St.

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Name and Course	County	Residence
Cordes, H. D. (E)	Dorchester	Summerville
Cornwell, M. M. (AE)	Chester	Chester
s Coward, C. C. (A)	Chesterfield	Cheraw
s Cox, G. (A)	Spartanburg	R. 5, Woodruff
Craig, J. W. (E)	Lancaster	R. 1, Lancaster
Cullum, U. X. (E)	Lexington	Batesburg
Dantzler, L. M. (E)	Orangeburg	Holly Hill
s Davis, W. M. (A)	Laurens	R. 4, Honea Path
Derham, J. H. (A)	Horry	Green Sea
Dial, J. C. (A)	Laurens	Laurens
Duggan, I. W. (A)		Clayton, Ga.
Dunlap, W. M. (C)	Fairfield	Winnsboro
Dwight, F. M. (A)	Richland	Eastover
Edens, A. H. (E)	Pickens	Pickens
s Elliott, H. M. (A)	Fairfield	Winnsboro
Ellis, C. H. (A)	Darlington	Hartsville
Eskew, W. T. (E)	Anderson	R. 3, Anderson
Fairey, J. K. (A)	Calhoun	St. Matthews
s Folk, M. H. (A)	Newberry	Pomaria
Gaines, R. G. (E)	Pickens	Central
Gallegly, J. M. (C)	Aiken	Ellenton
Gamble, J. P. (E)	Williamsburg	Greeleyville
Garrison, L. C. (E)	Anderson	R. 3, Pendleton
Givner, S. (E)	Charleston	342 King St.
s Glenn, H. Y. (E)	Fairfield	Wallaceville
Glenn, W. T. (E)	Fairfield	Jenkinsville
Gordon, W. W. (A)	Oconee	Clemson College
Graham, N. T. (AE)	York	Rock Hill
Graves, C. C. (E)	Abbeville	Abbeville
s Graves, H. E. (A)	Abbeville	R. 3, Abbeville
Gray, J. L. (E)	Spartanburg	Woodruff
Hall, J. B. (E)	Anderson	804 Ella St.
Haltiwanger, D. (A)	Richland	1229 Elmwood Ave., Columbia
Hamrick, L. A. (E)	Cherokee	Gaffney
Harper, J. K. (A)	Abbeville	Lowndesville
Harrall, H. C. (E)	Chesterfield	Cheraw
Herring, L. C. (A)	Marion	Gresham
Hicks, R. C. (E)	Darlington	Hartsville
Hill, G. O. (A)	Florence	R. 3, Timmonsville
Hillhouse, E. L. (E)	Anderson	722 Elizabeth
Hoffmeyer, H. G. G. (A)	Darlington	R. 2, Florence
Hollifield, J. F. (A)	Cherokee	R. 1, Cherokee
Hubster, E. G. (E)	Colleton	Walterboro
Hudson, R. A. (A)		R. 3, Waxhaw, N. C.
Hunter, J. (A)	Anderson	Pendleton
Hutchinson, G. I. (E)	Dorchester	Summerville
Jackson, T. S. (E)		Thomaston, Ga.
Jessen, H. H. (E)	Charleston	29 George St.
Johnson, H. W. (A)	Spartanburg	285 N. Fairview Ave.
Jones, D. R. (E)	Greenwood	R. 1, Greenwood
Jones, J. E. (E)	Union	Union
s Jones, S. C. (A)	Pickens	R. 6, Easley
Kay, L. R. (A)	Pickens	R. 2, Easley
Kelley, S. C. (E)	Pickens	Central
s Kennerly, W. J. (A)	Greenwood	Greenwood
King, J. L. (E)	Anderson	314 Society St.
s Kinsey, H. M. (A)	Colleton	R. 2, Smoaks

	Name and Course	County	Residence
s	Kirkpatrick, M. H. (A)	York	R. 2, Sharon
	Kittles, T. J. (A)	Hampton	R. 1, Garnett
	Kuykendal, C. M. (AE)	York	Rock Hill
	Lawton, B. E. (A)	Hampton	Garnett
	Lee, W. D. (E)		Juiz de Fora, Minas, Brazil
	Leppard, B. T. (A)	Laurens	Gray Court
	Leslie, F. H. (A)	Abbeville	Star R., Abbeville
	Lowman, J. M. (E)	Richland	R. 1, Ballentine
	Lupo, G. M. (E)	Horry	Star R., Green Sea
	McArn, D. H. (E)	Chesterfield	Cheraw
s	McCown, M. T. (E)	Florence	Florence
	McDermid, J. A. (E)	Charleston	218 Rutledge
s	McDonald, C. T. (A)	Dillon	R. 1, Lake View
	McEachern, D. M. (A)	Fairfield	Longtown
	McEachern, J. J. (A)	Fairfield	Longtown
	McHugh, M. L. (A)	Pickens	Clemson College
	McInnes, J. A. (E)	Darlington	R. 5, Darlington
	McIntyre, J. M. (A)	Marlboro	R. 2, Clio
	McMahan, D. J. (A)	Oconee	Richland
s	Martin, G. H. (A)	Anderson	R. 4, Anderson
	Marvin, B. (E)	Colleton	White Hall
	Marvin, R. (AE)	Colleton	White Hall
	Matheny, N. W. (E)	Orangeburg	Holly Hill
	Matthews, J. D. (E)	Florence	R. 1, Coward
	Mays, W. H. (A)	Edgefield	R. 2, Edgefield
	Metts, J. C. (C)	Greenwood	Phoenix
s	Miller, J. C. (A)	Lexington	Lexington
	Montgomery, H. D. (AE)	Marion	Marion
	Morris, C. C. (A)	Bamberg	Olar
	Muckenfuss, A. A. (E)	Dorchester	R. 2, Ridgeville
s	Neil, J. M. (E)	Beaufort	Chisolm
	Nowell, J. L. (E)	Charleston	324 Meeting St.
s	Parler, J. W. (A)	Lexington	Batesburg
s	Parrott, E. L. (A)	Darlington	Darlington
	Pegues, V. R. (E)	Marlboro	R. 1, Kollock
	Pepper, E. F. (A)	Anderson	R. 5, Easley
s	Plexico, R. S. (A)	York	Rock Hill
	Poag, L. M. (E)	York	Rock Hill
	Poole, W. R. (A)	Union	Union
	Porcher, P. R. (A)	Berkeley	Pinopolis
s	Price, G. W. (A)	Richland	1717 Adams St., Columbia
	Pridmore, R. M. (E)	Cherokee	Gaffney
	Pyatt, E. N. (A)	Georgetown	Georgetown
	Quattlebaum, W. M. (E)	Richland	2321 Main St., Columbia
	Ravenel, D. (E)	Spartanburg	474 E. Main St.
	Reeves, E. E. (A)	Fairfield	Longtown
	Richardson, L. P. (E)	Anderson	127 W. River St.
	Roberts, E. R. (E)	Fairfield	Monticello
s	Robertson, J. H. (E)	Greenville	703 E. North St.
	Rodgers, W. S. (E)	Richland	2230 Lincoln St., Columbia
	Rogers, J. P. (A)	Marlboro	R. 2, Bennettsville
	Rogers, W. B. (A)	Marion	R. 1, Mullins
	Rosa, W. E. S. (E)	Georgetown	617 Prince
s	Rush, J. D. (A)	Kershaw	R. 4, Camden
s	Salter, H. D. (E)	Edgefield	R. 2, Trenton
s	Sansbury, L. S. (A)	Florence	Bannockburn
	Sawyer, W. S. (A)	Aiken	R. 1, Monetta

Name and Course	County	Residence
Scurry, R. L. (C)	Laurens	R. 1, Chappells
Sessions, C. J. (E)	Horry	Conway
s Sherrill, C. I. (A)	Marlboro	R. 5, Bennettsville
Shields, H. L. B. (A)	Spartanburg	R. 1, Cherokee
Short, W. J. (C)		Buena Vista, Ga.
Shuler, J. H. (A)	Aiken	Aiken
s Singleton, G. H. (A)	Oconee	R. 3, Westminster
s Singleton, J. M. (A)	Oconee	Westminster
s Smith, D. P. (A)	Berkeley	R. 1, Ridgeville
Smith, E. R. (E)	Anderson	Iva
Smith, R. E. (E)	Colleton	Walterboro
Stender, B. (A)	Charleston	54 Hasell
Stone, W. L. (E)	McCormick	Parksville
Strong, H. H. (A)	Williamsburg	R. 1, Kingstree
Suber, F. L. (E)	Newberry	R. 1, Whitmire
s Thrower, G. G. (A)	Chesterfield	Cheraw
Tollison, P. L. (E)	Anderson	Belton
s Truett, L. T. (A)	Florence	R. 3, Timmonsville
Varn, R. L. (A)	Beaufort	Beaufort
s Walker, J. M. (A)	Barnwell	Blackville
Wallace, F. M. (C)	Union	Union
s Wallace, W. H. (A)	Union	Union
Walter, E. R. (E)	Orangeburg	R. 1, Cope
s Washington, W. H. (A)	Laurens	R. 1, Ware Shoals
s Watkins, C. S. (A)	Anderson	R. 3, Belton
s Watkins, J. S. (A)	Richland	1229 Blanding St., Columbia
s Welsh, E. A. (A)	Lee	Elliott
West, T. (E)	Kershaw	R. 4, Camden
Wilbanks, W. C. (A)	Oconee	Clemson College
Wilcox, C. A. (A)	Georgetown	Murrells Inlet
Wingard, H. H. (AE)	Lexington	R. 1, Lexington
Wingo, J. W. (A)	Spartanburg	255 N. Church St.
Wolfe, J. J. (A)	Orangeburg	North
Wright, W. E. (A)	Darlington	Hartsville
s Young, E. B. (E)	York	Rock Hill
Zobel, J. H. (E)	Richland	R. 1, Columbia

FRESHMAN CLASS

Name and Course	Last School	County	Residence
Abrams, W. H. (E)	Connie Maxwell Or.	Newberry	R. 1, Newberry
Agnew, H. G. (A)	Canon H. S.		Canon, Ga.
s Allen, F. M. (A)	Greenwood H. S.	Greenwood	120 Cambridge St.
s Allison, J. W. (E)	Examination	Cherokee	Blacksburg
Allston, J. N., Jr. (A)	Examination	McCormick	McCormick
Altman, V. H. (A)	Marion H. S.	Horry	Galivant's Ferry
s Amick, J. C. (A)	Examination	Richland	R. 1, Irmo
Anderson, E. T. (A)	Examination	Chester	Lowryville
Armstrong, F. E. (E)	Laurens H. S.	Laurens	Laurens
Ashe, J. N. (A)	McConnellsville H.S.	York	McConnellsville
Atkinson, C. N. (E)	Blenheim G. S.	Marlboro	Blenheim
s Atkinson, L. A. (A)	Examination	Chester	R. 1, Lowryville
s Bailey, R. W. (A)	Examination	Georgetown	219 Orange St.
Baker, O. E. (A)	Lake View G. S.	Marion	R. 1, Nichols

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	Name and Course	Last School	County	Residence
	Baker, W. H. (E)	Rowland H. S.	Dillon	R. 3, Rowland, N. C.
s	Ballard, R. E. (A)	Examination	Anderson	B. 3, Pendleton
	Ballenger, A. R. (E)	Spartan. Academy	Spartanburg	Wellford
	Banks, W. D. (E)	Dillon H. S.	Dillon	Dillon
	Barnette, R. M. (A)	Examination	York	B. 4, Rock Hill
	Bartles, J. H., Jr. (E)	Bailey M. I.	Union	Union
s	Bell, J. C. (A)	Examination	Anderson	222 E. Market St.
	Bell, R. (E)	Hartsville H. S.	Darlington	Hartsville
	Bellotte, T. R. (E)	Clemson	Greenville	628 Buncombe St.
	Biggerstaff, C. C. (E)	Examination	Orangeburg	Rowesville
	Billings, A. K. (E)	Abbeville H. S.	Abbeville	Abbeville
s	Bishop, R. T. (A)	Examination	Union	R. 2, Sedalia
	Bishop, W. G. (A)	Inman G. S.	Spartanburg	R. 4, Inman
	Black, H. M. (A)	Williston H. S.	Barnwell	Williston
	Black, J. C. (A)	Examination	Cherokee	R. 6, Gaffney
s	Black, J. M. (A)	Examination	Anderson	597 Boulevard
	Black, M. J. (A)	Anderson H. S.	Anderson	597 Boulevard
	Blackmon, C. A. (E)	Bailey M. I.	Lancaster	Lancaster
s	Blackmon, L. A. (A)	Examination	Lancaster	R. 1, Heath Springs
	Blanchett, L. M. (A)	Clemson	Abbeville	Star Route Abbeville
	Bodie, H. D. (A)	Providence H. S.	Saluda	R. 3, Batesburg
	Bolt, J. B. (E)	Anderson H. S.	Anderson	429 W. Market St.
	Bolt, M. (E)	Green Pond G. S.	Anderson	R. 4, Anderson
	Bolt, W. H. (E)	Clemson	Anderson	R. 4, Anderson
	Boozer, T. B. (A)	Silverstreet H. S.	Newberry	R. 1, Silverstreet
	Bowden, J. H. (A)	Denver G. S.	Anderson	Sandy Springs
	Bowlan, T. G. (A)	Frazer Fitting S.	Anderson	230 E. Church St.
	Boylston, C. L. (A)	Charleston H. S.	Charleston	235 Rutledge Ave.
	Brailsford, A. P. (A)	Clemson	Clarendon	Summerton
	Bratton, R. B. (E)	York H. S.	York	McConnellsville
	Brogdon, S. J. (A)	Manning H. S.	Clarendon	R. 2, Alcolu
	Brown, C. C. (A)	Clemson	Spartanburg	R. 5, Woodruff
	Brown, C. W. (E)	Fruitland Institute	Darlington	Hartsville
	Brown, J. O. (E)	Marion H. S.	Marion	R. 4, Marion
	Brown, L. W.		Anderson	527 Tribble St.
s	Bunch, E. T. (A)	Examination	Charleston	58 Radcliffe St.
	Burley, M. M. (E)	Walhalla H. S.	Oconee	Walhalla
	Butler, G. R. (A)	Dothan H. S.	Horry	R. 2, Loris
s	Byrnes, T. H. (A)	Examination	Darlington	Hartsville
	Calvert, L. F. (E)	Jonesville H. S.	Union	Jonesville
	Campbell, E. U. (E)	Clemson	Anderson	R. 4, Anderson
s	Campbell, R. C. (A)	Examination	Anderson	R. 3, Anderson
	Cannon, P. B. (E)	Clemson	Colleton	White Hall
	Carpenter, L. P. (A)	Anderson H. S.	Anderson	807 S. McDuffie St.
	Carson, J. A. (A)	Clemson	Spartanburg	283 S. Church St.
	Carson, W. O. (A)	Saluda H. S.	Saluda	R. 2, Saluda
	Cary, J. L. (E)	Seneca H. S.	Oconee	Seneca
	Cathcart, R. S. (A)	Mt. Zion Ins.	Fairfield	Winnsboro
	Cato, W. L. (E)	Monetta G. S.	Aiken	R. 1, Batesburg
	Chapman, A. B. (A)	Examination	Saluda	R. 1, Ward
	Clardy, W. C. (A)	Wampee G. S.	Horry	Wampee
	Clark, J. R. (E)	Examination	Anderson	431 Tribble St.
	Clement, E. E., Jr. (E)	Inman H. S.	Spartanburg	Inman
	Clinkscales, Ralph (A)	Ridge G. S.	Abbeville	R. 1, Lowndesville
	Clinkscales, Ray (A)	Ridge G. S.	Abbeville	R. 1, Lowndesville
	Clinkscales, S. M. (A)	Clemson	Greenwood	321 Hampton Ave.



Name and Course	Last School	County	Residence
Coble, C. M. (A)	Greenville H. S.	Greenville	1211 Buncombe St.
Cogswell, V. (A)	Clemson	Charleston	69 Ashley Ave.
Colbert, W. C. (A)	Ardmore H. S.		Ardmore, Okla.
s Coleman, J. O. (A)	Examination	Fairfield	R. 2, Blairs
Coleman, J. W. (E)	Greenwood H. S.	Greenwood	315 Magnolia St.
Cooper, J. L. (E)	Clemson	Greenville	R. 4, Greenville
Copeland, G. E. (A)	Wofford F. S.	Laurens	Renno
Copeland, I. B. (A)	Examination	Laurens	R. 1, Renno
Copeland, T. J. (E)	Clinton H. S.	Laurens	Clinton
Corbitt, J. D. (E)	St. Matthews H. S.	Calhoun	St. Matthews
Cork, J. C. (E)	Rock Hill H. S.	York	Rock Hill
Coskrey, E. C. (A)	Manning H. S.	Clarendon	Wilson
Cothran, E. (A)	Greenwood H. S.	Greenwood	154 W. Camb'dge St.
Covington, O. F. (E)	Clio H. S.	Marlboro	Clio
Crisp, W. R. (A)	Laurens G. S.	Laurens	Laurens
Crosland, T. M. (E)	Bennettsville H. S.	Marlboro	Bennettsville
Curtis, C. H. (E)	Pickens H. S.	Pickens	Pickens
Davis, G. E. R. (E)	Porter M. A.	Charleston	135 Coming St.
Day, R. E. (E)	Pendleton H. S.	Anderson	Pendleton
Dean, A. E. (A)	Frazer F. S.	Anderson	R. 1, Starr
Di Yorio, J. J. (E)	Charleston H. S.	Charleston	320 Meeting St.
Dukes, L. T. (A)	Examination	Orangeburg	Rowesville
Dula, A. H. (E)	Converse St. H. S.	Spartanburg	237 L. Liberty St.
Dunbar, J. Y. (E)	Converse St. H. S.	Spartanburg	Pine St.
s Dunlap, M. T. (E)	Examination	Darlington	Hartsville
Dunlap, R. T. (E)	Laurens H. S.	Laurens	Laurens
s DuRant, A. L. (A)	Examination	Colleton	Cottageville
s Dwight, F. M. (A)	Examination	Sumter	Wedgfield
Edwins, R. C. (A)	Orangeburg H. S.	Orangeburg	R. 2, Orangeburg
Eleazer, L. H. (A)	Examination	Richland	R. 1, Chapin
England, W. L. (A)	Westminster H. S.	Oconee	Westminster
Epps, J. L. (E)	Wofford F. S.	Spartanburg	S. Church St.
s Fant, G. W. (A)	Examination	Oconee	Walhalla
s Farmer, E. F. (A)	Examination	Anderson	Conneross Y. Mill
Feemster, R. S. (E)	Clemson	York	R. 1, Sharon
Fitzgerald, J. B. (E)	Converse St. H. S.	Spartanburg	398 S. Church St.
Fitzsimmons, R. C. (E)	Charleston H. S.	Charleston	65 Legare St.
Ford, C. R. (E)	Columbia H. S.	Richland	1511 Gregg St., Col'a
Franks, C. H. (E)	Furman F. S.	Laurens	Laurens
s Fraser, H. E. (A)	Examination	Charleston	Mt. Pleasant
Freeman, W. W. (A)	Examination	Charleston	381 N. Rutledge Av.
s Frew, W. L. (A)	Examination	York	Rock Hill
Gable, J. O. (E)	Antreville H. S.	Abbeville	R. 2, Iva
Gandy, J. M. (E)	Hartsville H. S.	Darlington	R. 1, Hartsville
Garbade, G., Jr. (E)	Ridgeland H. S.	Jasper	Ridgeland
Garner, R. E., Jr. (E)	Cochran H. S.		Cochran, Ga.
Garraux, J. H. (E)	Greenville H. S.	Greenville	514 N. Main St.
Garrison, F. B. (A)	York H. S.	York	York
Garrison, P. B. (A)	Examination	York	Rock Hill
s Garvin, J. E., Jr. (E)	Examination	Anderson	Pendleton
Geiger, H. W. (A)	Frazer Fitting S.	Anderson	705 W. Market St.
Gelzer, J. W. (A)	Orangeburg H. S.	Orangeburg	77 Sellers Ave.
Gilliam, J. L. (A)	Union H. S.	Union	Union
Gillis, J. C. (E)	Rembert H. S.	Sumter	Rembert
Gilmer, G. G. (A)	Private S.	Greenville	1203 Buncombe St.

	Name and Course	Last School	County	Residence
	Glenn, B. F. (E)	Clemson	Anderson	R. 3, Anderson
	Going, O. F. (E)	Greenville H. S.	Greenville	729 Rowely St.
	Gowan, W. G. (E)	Clemson	Spartanburg	Inman
	Gower, A. G. (E)	Greenville H. S.	Greenville	230 Perry Ave.
	Graves, F. H. (E)	Abbeville H. S.	Abbeville	Abbeville
	Green, J. B. (A)	Marlboro H. S.	Marlboro	R. 4, Bennettsville
	Ham, M. A. (A)	Bailey M. I.	Florence	R. 3, Timmons ville
	Hamilton, L. A. (A)	Central H. S.	Fairfield	R. 1, Roekton
	Hammond, J. A. (E)	Wedgefield G. S.	Sumter	R. 3, Sumter
s	Hanckel, A. S. (E)	Examination	Charleston	60 Tradd St.
	Hardin, C. (A)	Lowndesville H. S.	Abbeville	R. 1, Lowndesville
s	Harmon, G. E. (A)	Examination	Lexington	Lexington
	Harper, G. P. (A)	Lowndesville H. S.	Abbeville	Lowndesville
	Harris, L. D. (A)	Belton H. S.	Anderson	Belton
	Havird, H. M. (E)	Silverstreet G. S.	Newberry	Silverstreet
	Henderson, J. E. (E)	Hartsville H. S.	Darlington	Hartsville
	Henderson, S. A. (A)	Examination	Oconee	Clemson College
	Hendricks, D. (A)	Easley H. S.	Pickens	R. 1, Easley
s	Henry, J. A. (A)	Examination	Barnwell	Barnwell
	Hewitt, W. L. (E)	Marion H. S.	Marion	Marion
	Hiers, L. H. (E)	Beaufort H. S.	Beaufort	Beaufort
	Hill, J. R. (A)	Abbeville H. S.	Abbeville	R. 5, Abbeville
	Hinnant, E. D. (A)	Central H. S.	Richland	R. 1, Bookman
	Hodges, K. B. (A)	Bailey M. I.	Marlboro	Brownsville
	Hoffmeyer, H. F. L. (E)	Clemson	Darlington	R. 2, Florence
	Holley, A. F. (E)	Jefferson H. S.	Kershaw	R. 2, Jefferson
	Holley, H. M. (A)	Aiken Institute	Aiken	Aiken
	Holley, R. (A)	Aiken Institute	Aiken	Aiken
	Hollingsworth, D. F. (A)	Edgefield H. S.	Edgefield	Edgefield
	Hollingsworth, W. S. (A)	Edgefield H. S.	Edgefield	Edgefield
	Holman, R. H. (E)	St. Matthews H. S.	Calhoun	R. 2, St. Matthews
	Horton, J. H. (A)	Hurricane H. S.	Laurens	R. 2, Clinton
	Hough, J. T. (A)	Clemson	Lancaster	Lancaster
	Hough, S. E. (A)	Bailey M. I.	Lancaster	Lancaster
	Huggins, C. (A)	Timmons ville H. S.	Florence	Timmons ville
s	Huggins, C. B. (A)	Examination	Cherokee	R. 6, Gaffney
	Huggins, E. (A)	Timmons ville H. S.	Florence	Timmons ville
	Huiet, B. T. (A)	Examination	Edgefield	Johnston
	Hunter, J. T. (E)	Marion H. S.	Marion	Marion
s	Inabinet, N. O. (E)	Examination	Calhoun	R. 1, Jamison
	Jantzen, J. H. (E)	Examination	Charleston	3 Minority St.
	Jeter, M. C. (A)	Santuc G. S.	Union	Santuc
	Johnson, D. W. (A)	Clemson	Laurens	Clinton
s	Jones, J. D. (A)	Examination	Pickens	Liberty
s	Keller, H. L. (A)	Examination	Calhoun	St. Mattheus
	Kellett, J. P. (A)	Fountain Inn G. S.	Greenville	Fountain Inn
	Kelly, H. C. (A)	Examination	Richland	R. 1, Congaree
	Kempson, J. M. (E)	Higgins Ferry S.	Saluda	R. 1, Silverstreet
s	Kendrick, C. T. (A)	Examination	Greenville	Taylor
	Keyserling, H. H. (A)	Beaufort H. S.	Beaufort	Beaufort
s	King, R. F. (A)	Examination	Anderson	R. 1, Anderson
s	Kolb, R. F. (A)	Examination	Sumter	R. 2, Sumter
	LaFar, W. H., Jr. (E)	Charleston H. S.	Charleston	111 Rutledge Ave.
	Langston, L. P. (E)	Frazer Fitting S.	Anderson	418 N. Main St.
	Lawhon, W. B. (A)	Timmons ville H. S.	Florence	R. 6, Timmons ville
	Leach, P. J. (A)	Abbeville H. S.	Abbeville	Abbeville

	Name and Course	Last School	County	Residence
	Leland, H. G. (E)	McClellanville H. S.	Charleston	McClellanville
s	Leland, J. M. (A)	Examination	Charleston	McClellanville
	Leslie, A. E. (E)	Edgewood R. S.	Abbeville	Star Route, Abbeville
	Leslie, A. H. (A)	Edgewood R. S.	Abbeville	Star Route, Abbeville
	Lightsey, L. M. (A)	Examination	Hampton	R. 1, Brunson
	Liston, J. W. (E)	St. George H. S.	Colleton	R. 1, Sinoaks
s	Lomas, J. S., Jr. (A)	Examination	Richland	R. 3, Columbia
	Lynch, G. B. (A)	Clemson	Oconee	R. 1, Walhalla
	McCants, C. Y. H. (A)	Orangeburg H. S.	Orangeburg	R. 2, Cameron
	McCants, J. O. (E)	Examination	Berkeley	R. 1, Moncks Corner
	McCarter, J. L. (A)	Aiken Institute	Aiken	Aiken
	McClure, J. B. (E)	Green Pond S.	Anderson	R. 4, Anderson
s	McDaniel, G. E. (A)	Examination	Laurens	R. 4, Laurens
	McDavid, J. E., Jr. (E)	Columbia H. S.	Richland	2327 Lee St., Col'a
	McDermon, D. (E)	Florence H. S.	Florence	Florence
	McFall, R. E. (A)	Clemson	Anderson	R. 2, Anderson
	McFall, W. T. (A)	Examination	Darlington	Hartsville
	McGee, C. P. (E)	Due West H. S.	Abbeville	Due West
	McGee, G. W. (A)	Examination	Greenville	Pelzer
	McGee, R. F. (E)	Starr H. S.	Anderson	R. 2, Anderson
	McGee, S. A. (A)	Starr H. S.	Anderson	R. 2, Anderson
	McHugh, J. F. (E)	Greenville H. S.	Greenville	119 Richardson St.
	McIntosh, L. E. (E)	Darlington H. S.	Darlington	R. 3, Darlington
	McKenzie, M. A. (A)	Olanta H. S.	Florence	R. 1, Lake City
	McKenzie, W. J. (A)	Hartsville H. S.	Lee	R. 6, Bishopville
s	McKnight, L. (A)	Examination	Williamsburg	R. 2, W. Andrews
	McLees, G. T. (A)	Examination	Anderson	R. 6, Anderson
	McLeod, H. H. (A)	Hartsville H. S.	Darlington	Hartsville
	McMillan, D. G. (A)	Marion H. S.	Marion	Marion
	Manuel, J. L. (A)	Clemson	Jasper	Gillisonville
	Manigault, E. L. (E)	Summerville H. S.	Dorchester	Summerville
	Mars, J. D. (A)	Abbeville H. S.	Abbeville	Abbeville
s	Martin, G. C. (A)	Examination	Greenwood	Star R., Ninety Six
	Martin, J. B. (A)	Central H. S.	Anderson	R. 2, Liberty
	Maybry, W. L. (A)	Clemson	Spartanburg	Campobello
	Mayer, W. T. (E)	Wofford F. S.	Newberry	Newberry
	Miller, J. N. (E)	Rock Hill H. S.	York	Rock Hill
	Milling, J. W. (E)	Rock Hill H. S.	York	Rock Hill
	Mills, C. S. (A)	Prosperity H. S.	Newberry	R. 1, Prosperity
s	Mitchell, C. A. (A)	Examination	Charleston	R. 1, Edisto Island
s	Moore, W. D. (E)	Examination	Oconee	R. 2, Seneca
	Moseley, C. W. (E)	Davis H. S.	Richland	815 Mulberry St., Col'a
	Murphy, W. G. (A)	Rich Hill H. S.	Spartanburg	White Stone
	Murray, G. L. (A)	Citadel	Aiken	Aiken
	Nance, D. L. (A)	Examination	Newberry	R. 2, Newberry
	Neeley, J. E. (A)	Olar H. S.	Bamberg	R. 1, Olar
s	Nicholson, S. W. (A)	Examination	Fairfield	Woodward
s	O'Dell, J. H., Jr. (A)	Examination	Spartanburg	330 Union St.
	Oswald, R. D. (A)	Examination	Charleston	R. 1, Charleston
	Owen, C. L. (A)	Bailey M. I.	Anderson	R. 1, Pendleton
	Owens, J. C. (A)	Gray Court G. S.	Laurens	Laurens
	Paget, F. M. (E)	Anderson H. S.	Anderson	803 N. Main St.
	Parkins, D. F. (A)	Liberty H. S.	Pickens	Liberty
s	Parks, T. W. (E)	Examination	Spartanburg	R. 5, Woodruff
	Parler, S. B. (A)	Elloree H. S.	Orangeburg	Elloree
s	Patterson, C. E. (A)	Examination	Lancaster	R. 3, Fort Mill
s	Patrick, G. B. (A)	Examination	Orangeburg	R. 4, Bowman

	Name and Course	Last School	County	Residence
	Payne, H. D. (A)	Fellowship S.	Greenwood	Ninety Six
	Perritt, L. G. (A)	Newman Swamp S.	Darlington	Lamar
	Pitts, J. H. (A)	Examination	Saluda	Saluda
	Pitts, L. A. (A)	Sumter H. S.	Sumter	R. 3, Sumter
s	Poole, J. C. (A)	Examination	Greenville	R. 2, Travelers Rest
	Porcher, F. C. (A)	Clemson	Charleston	Mt. Pleasant
s	Potts, R. C. (A)	Examination	Lancaster	R. 3, Fort Mill
	Powell, J. H. (E)	Bethlehem	Saluda	R. 1, Johnston
	Power, R. M. (E)	Anderson H. S.	Anderson	504 S. McDuffie St.
s	Procter, W. G. (A)	Examination	Greenwood	R. 1, Ninety Six
	Puckhaber, J. H. (E)	Examination	Charleston	195 Rutledge Ave.
	Ramsey, W. A. (E)	Examination	Anderson	553 Calhoun St.
	Rawl, J. H. (A)	Clemson	Richland	916 Richardson, Col'a
	Reid, D. C. (A)	Clemson	Chester	Richburg
	Rentz, N. G. (E)	Varnville H. S.	Hampton	Varnville
	Reynolds, E. H. (A)	Greenwood H. S.	Greenwood	R. 3, Greenwood
	Rice, S. M. (E)	Columbia H. S.	Richland	1020 Henderson, Col'a
	Richbourg, E. B. (A)	Liberty H. S.	Pickens	Liberty
	Richbourg, S. E. (E)	Clinton H. S.	Laurens	Clinton
	Rivers, J. D. (E)	Examination	Charleston	R. 1, Charleston
s	Rogers, E. L. (A)	Examination	Laurens	Gray Court
	Rogers, J. W. (A)	Union H. S.	Dillon	Hamer
	Roper, C. P. (E)	Laurens H. S.	Laurens	Laurens
	Roper, T. H. (E)	Laurens H. S.	Laurens	Laurens
	Rowell, J. B. (A)	Marion H. S.	Marion	R. 4, Marion
s	Sanders, D. A. (A)	Examination	Chester	R. 2, Richburg
s	Schneider, G. F. (A)	Examination	Lexington	R. 2, Lexington
	Schwettmann, F. W. (A)	Examination	Charleston	127 Ashley Ave.
	Seal, J. H. (A)	Clemson	Greenwood	R. 3, Greenwood
	Shanklin, J. A. (A)	Anderson H. S.	Anderson	303 Bleckley St.
	Sharp, J. C. (E)	Woodruff H. S.	Spartanburg	Woodruff
	Shelton, F. L. (A)	Clemson G. S.	Oconee	Clemson College
	Sheriff, L. D. (A)	Orangeburg H. S.	Orangeburg	186 N. Railroad Av.
	Shiver, N. C. (A)	Private Instructor	Oconee	Clemson College
	Shuler, C. L. (E)	Bull's Creek Acad.	Berkeley	St. Stephens
	Smarr, F. L. (A)	Bullock Creek S.	York	R. 1, Bullock Creek
	Smith, A. G. (A)	Mullins H. S.	Marion	R. 1, Mullins
s	Smith, D. C. (A)	Examination	Colleton	Walterboro
	Smith, F. L. (A)	Clemson	Anderson	Starr
	Smith, J. H. (E)	Connie Maxwell Or.	Union	R. 2, Union
	Smith, J. L. (A)	Anderson H. S.	Anderson	R. 2, Anderson
	Smith, R. M. (A)	Pendleton H. S.	Anderson	Pendleton
s	Smoak, L. A. (A)	Examination	Dorchester	Ridgeville
	Smoak, W. W. (E)	Rich Hill S.	Spartanburg	White Stone
	Snow, J. J., Jr., (A)	Clemson	Williamsburg	Henry
	Spearman, J. H. (E)	Examination	Edgefield	R. 1, Trenton
	Spoon, R. P. (E)	Baird's Boys' School	1001 Central Av.,	Charlotte, N. C.
s	Stanford, Harvey (A)	Examination	Saluda	R. 2, Leesville
	Stanford, Hugh (E)	Examination	Saluda	R. 2, Leesville
	Stanley, G. A. (A)	Florence H. S.	Florence	Star Route, Claussen
s	Stevenson, W. B. (A)	Examination	Chester	R. 1, Richburg
	Stork, R. C. (E)	Heathwood H. S.	Richland	1331 Main St., Col'a
	Stuckey, J. M. (A)	Wofford F. S.	Lee	R. 1, Bishopville
	Summers, S. J., Jr., (A)	Cameron H. S.	Calhoun	Cameron
	Sylvester, J. C. (E)	Clemson	Oconee	Clemson College
	Tarbox, W. K. (A)			Rio de Janeiro, Brazil
	Thackston, L. P. (A)	Orangeburg H. S.	Orangeburg	61 Whitman St.

Name and Course	Last School	County	Residence
Thomas, R. H. (E)	Examination	Chester	R. 4, Chester
§ Thomason, J. F. (A)	Examination	Laurens	R. 4, Gray Court
§ Thompson, F. M. (A)	Examination	Barnwell	Williston
Thomson, L. R. (A)	Abbeville H. S.	Abbeville	Abbeville
Thornton, R. F. (E)	Ga. Military Acad.	Abbeville	Abbeville
Thrower, W. H. (A)	Examination	Chesterfield	Cheraw
Timmerman, N. D. (A)	Edgefield H. S.	Edgefield	Edgefield
Tomlinson, E. I. (A)	Furman University	Florence	Olanta
Tompkins, J. G., Jr. (E)	Edgefield H. S.	Edgefield	Edgefield
Townsend, A. S. (E)	Bennettsville H. S.	Marlboro	Bennettsville
Tripp, H. B. (A)	Clemson	Anderson	R. 4, Easley
Trott, J. R. (E)	Pri. Insturctor	Charleston	Mt. Pleasant
Truluck, T. D. (A)	Sardis H. S.	Sumter	Lynchburg
Voight, J. P. (E)	Summerville H. S.	Dorchester	Summerville
Wade, J. L. (E)	Greenwood H. S.	Greenwood	Greenwood
Walker, A. R. (E)	Seneca H. S.	Oconee	R. 3, Seneca
Walker, H. C. (E)	Columbia H. S.	Spartanburg	455 S. Church St.
Walters, R. F. (E)	Clemson	Dorchester	Reevesville
Watson, E. P. (A)	Examination	Lexington	R. 3, Batesburg
Watson, R. G. (E)	Clemson	Anderson	R. 3, Anderson
Weatherly, H. L. (E)	Bishopville H. S.	Lee	Bishopville
Welborn, M. (E)	Lebanon H. S.	Anderson	R. 2, Pendleton
§ Welborne, R. H. (E)	Examination	Anderson	R. 1, Anderson
West, L. E. (A)	Rich Hill S.	Spartanburg	White Stone
Wheeler, G. C. (A)	Saluda H. S.	Saluda	Saluda
Whetsone, W. L. (E)	North H. S.	Orangeburg	North
Whetstone, E. D. (E)	St. Matthews . S.	Calhoun	St. Matthews
Whisenhunt, H. L. (A)	Pine Hill S.	Orangeburg	R. 3, Orangeburg
Whisenhunt, L. (A)	Clemson	Orangeburg	R. 3, Orangeburg
§ Whitaker, W. L. (E)	Examination	Orangeburg	94 Amelia St.
Wilkes, E. H. (E)	Laurens H. S.	Laurens	Laurens
Williams, J. B. (A)	Examination	Laurens	R. 3, Clinton
Williams, M. H. (E)	McKinley M. T. S.	3113-11 St. N. W.	Wash'gton, D.C.
§ Wingo, W. P. (A)	Examination	Spartanburg	R. 3, Campobello
Wise, G. S. (A)	Prosperity H. S.	Newberry	Prosperity
Wolfe, C. E. (A)	Orangeburg H. S.	Orangeburg	198 N. Railroad Av.
§ Wolfe, F. U. (A)	Examination	Orangeburg	North
§ Woodward, M. B. (A)	Examination	Aiken	R. 1, Aiken
Wright, T. W. (E)	Clemson	Orangeburg	Branchville
Yarborough, J. H., Jr. (A)	Examination	Chester	R. 1, Lowryville
§ Young, J. L. (E)	Examination	Union	Union
Zimmerman, J. H. (E)	Examination	Oconee	Westminster

**SPECIAL AND IRREGULAR STUDENTS**

Name	County	Residence
Ballentine, J. R. (A)	Anderson	R. 8, Anderson
Brown, C. B. (ME)	York	713 College Ave., Rock Hill
Chapman, F. A. (A)	Saluda	R. 2, Ward
Farmer, L. H. (ME)	Anderson	643 North Avenue
Gentry, L. M. (A)	Spartanburg	Landrum
Gibson, A. T. (ME)	Marlboro	McColl
Hart, W. L. (A)		1410 Euclid St., Washington, D. C.
Jeffords, J. E. (CE)	Florence	Florence
LaBruce, J. L. (A)	Georgetown	Waverly Mills

Name	County	Residence
Lea, J. L. (C)	Charleston	28 Charlotte St.
McCord, W. L. (ME)	Spartanburg	118 St. John St.
s McCullough, J. A. (A)	Williamsburg	R. 1, Kingstree
McNair, M. P. (A)	Aiken	Aiken
Major, C. S. (A)	Anderson	R. 6, Anderson
Marshall, J. L. (A)	Greenwood	Greenwood
Morecock, E. M. (ME)		Phoebus, Va.
Palmer, G. D., Jr. (C)		805 Walnut St., Helena Arkansas
Pittmon, W. A. (AE)	Greenville	Greenville
Poole, R. F. (A)	Laurens	R. 3, Gray Court
Robbins, W. H., Jr. (A)		Raleigh, N. C.
Rode, N. F. (ME)		R. 1, Hampton, Va.
Sanders, H. C. (A)		Simsboro, La.
Timmerman, P. N., Jr. (A)	Richland	1700 Senate St., Columbia
Young, A. H., Jr. (ME)		121 Mt. Vernon Ave., Port Norfolk, Va.

### ONE-YEAR COURSE IN AGRICULTURE

Name	County	Residence
s Adams, F. E.	Colleton	R. 2, Walterboro
s Bachman, C. A.	Lexington	R. 3, Swansea
s Bedenbaugh, D. A.	Newberry	R. 4, Prosperity
Bookout, H. C.	York	R. 1, Rock Hill
s Cain, W. C.	Aiken	R. 1, Aiken
s DeShields, T. A. R.	Laurens	R. 1, Lanford
Fairey, F. W., Jr.	Orangeburg	R. 1, Rowesville
s Ferguson, L. B.	York	R. 1, Leslie
s Hentz, H. M.	Newberry	R. 3, Pomaria
Hiott, V. C.	Greenville	R. 3, Fountain Inn
s Lewis, M. J.	Lexington	R. 1, Steadman
s Ligon, H. Y.	Chester	R. 3, Blackstock
s McClanahan, P.	Pickens	R. 4, Liberty
s Maner, H. K.	Barnwell	Allendale
s Palmer, W. K.	Anderson	R. 3, Pendleton
s Park, G. R.	Fairfield	R. 1, Winnsboro
s Peden, E. C.	Greenville	R. 3, Fountain Inn
Philips, E. L.	York	York
Pickens, W. C.	Anderson	R. 4, Easley
s Player, C. B.	Lee	R. 1, Elliott
Risher, P. W., Jr.	Colleton	R. 1, Smoaks
s Roberts, R. J.	Cherokee	R. 1, Kings Creek
s Robertson, J. M.	Edgefield	R. 2, Edgefield
s Rowell, E. M.	Marion	Marion
Sally, J. D.	Aiken	R. 1, Salley
s Salter, T. P.	Edgefield	R. 2, Trenton
s Skinner, T. B.	Spartanburg	R. 3, Woodruff
s Smith, C. B.	McCormick	Clarks Hill
s Smith, M. B., Jr.	Spartanburg	R. 4, Spartanburg
s Stalvey, D. I.	Horry	R. 1, Myrtle Beach
s Thomas, H. L.	Chester	R. 2, Edgmoor
Timmerman, F. E.	Aiken	R. 2, Trenton

**TWO-YEAR TEXTILE COURSE**

<b>Name</b>	<b>County</b>	<b>Residence</b>
Dorn, A. M. ....	Oconee .....	Westminster
Douglass, F. K. ....	Newberry .....	Whitmire
Hunter, J. W. ....	Pickens .....	Liberty
Richbourg, L. L. ....	Pickens .....	Liberty

**FARMERS' SUMMER COURSE**

<b>Name</b>	<b>County</b>	<b>Residence</b>
Boyd, Dr. H. K. ....	Newberry .....	Whitmire
Camp, S. O. ....	Cherokee .....	R. 3, Gaffney
Douglas, A. G. ....	Fairfield .....	Avon
Geiger, H. C. ....	Calhoun .....	R. 3, St. Matthews
Green, E. M. ....	Cherokee .....	R. 4, Gaffney
Humphries, J. E. ....	Cherokee .....	R. 3, Gaffney
Johnson, F. F. ....	Bamberg .....	Bamberg
Johnson, W. W. ....	Union .....	Union
LaMotte, A. Gamewell .....	Richland .....	Kubeck Farms, R. 3, Columbia
Lyon, Alf .....	Abbeville .....	Church St.
McArthur, E. C. ....	Cherokee .....	Gaffney
McIntosh, Jas., Jr. ....	Darlington .....	R. 1, Dovesville
Marvin, W. R. ....	Colleton .....	White Hall
Phillips, Ed. ....	Cherokee .....	R. 3, Gaffney
Rivers, H. E. ....	Union .....	84 Main St., Union
Simpson, G. R. ....	Laurens .....	R. 2, Clinton
Smith, W. Fletcher .....	Cherokee .....	Gaffney
Sparks, W. S. ....	Cherokee .....	Gaffney
Thomson, W. C. ....	York .....	R. 1, Bullock Creek

**CORN CLUB BOYS' COURSE**

<b>Name</b>	<b>County</b>	<b>Residence</b>
Abbott, Enis .....	Oconee .....	Walhalla
Altman, Heyward .....	Jasper .....	R. 1, Tillman
Anderson, Harry .....	Florence .....	R. 1, Coward
Ayers, Lawrence .....	Orangeburg .....	R. 1, Bowman
Bailey, C. B. ....	Colleton .....	Weeks
Bannister, Hoyt .....	Greenwood .....	R. 2, Troy
Bell, R. B. ....	Greenwood .....	R. 2, Callison
Bishop, W. E. ....	Union .....	R. 2, Union
Boyd, Clarence .....	York .....	Rock Hill
Brooks, Ernest .....	Newberry .....	R. 1, Prosperity
Brown, Roy W. ....	Cherokee .....	R. 4, Box 83, Gaffney
Browning, Wilbur .....	Union .....	R. 2, Union
Burns, W. J. ....	Oconee .....	R. 3, Westminster
Carroll, Sidney .....	York .....	R. 1, Filbert
Clarke, J. David .....	Williamsburg .....	R. 1, Cades
Derrick, Clarence .....	Lexington .....	R. 1, Chapin
Dominick, Geo. K. ....	Newberry .....	R. 1, Prosperity
Drennan, Laurin M. ....	Abbeville .....	Lowndesville
Eleazer, L. Hans .....	Lexington .....	R. 3, Chapin
Evans, Willie .....	Clarendon .....	R. 1, New Zion

Name	County	Residence
Fail, J. Frank	Bamberg	R. 1, Govan
Flowers, Clarence	Darlington	Syracuse
Folk, Alfred	Marlboro	R. 6, Bennettsville
Fripp, M. Horry, Jr.	Jasper	R. 1, Ridgeland
Funderburk, Roy B.	Chesterfield	R. 2, Pageland
Gore, Harry	Horry	R. 1, Allsbrook
Grant, Newton	Marlboro	R. 1, Kollock
Greene, Everett	Saluda	Saluda
Griffith, Chas. B.	Greenville	R. 2, Greenville
Gulledge, Walter D.	Chesterfield	R. 2, Ruby
Gunter, Jerrald	Saluda	R. 1, Ridge Spring
Gunter, Lester	Aiken	R. 1, Earle
Hatfield, James	Sumter	R. 5, Sumter
Hegler, Clyde C.	Lancaster	R. 2, Lancaster
Henderson, Miles R., Jr.	Greenville	R. 3, Fountain Inn
Hoats, Johnnie	Colleton	R. 1, Walterboro
Hodge, J. Elbert	Clarendon	R. 1, Manning
Hodge, Neal B.	Clarendon	R. 1, Manning
Howell, Purvis	Darlington	R. 1, Hartsville
Jackson, Jas. Arthur	Abbeville	R. 4, Abbeville
Jackson, Ferris	Spartanburg	R. 2, Wellford
Jones, Lloyd	Pickens	R. 6, Easley
Keefe, Obie L.	Hampton	Gifford
Kinard, Mack	Barnwell	Ulmers
King, Chester B.	Horry	R. 1, Myrtle Beach
Lawton, Albert	Hampton	Garnett
McCaskill, Robert B.	Kershaw	R. 3, Bethune
McCaskill, Boykin M.	Kershaw	R. 1, Camden
McCoy, Eugene	Lee	R. 1, St. Charles
McDowell, J. J.	Chester	R. 5, Chester
McKenzie, Cary	Dillon	R. 3, Hamer
McLaughlin, B. W.	Florence	R. 1, Bannockburn
McNaull, Thad	Fairfield	R. 3, Winnsboro
Malphus, Willouck	Jasper	R. 1, Tillman
Martin, Johnnie	Pickens	R. 5, Easley
Mathis, Mason	Lee	R. 1, St. Charles
Mitchell, Furman	Barnwell	Williston
Murph, Jesse	Spartanburg	White Stone
Neely, John Edward	Bamberg	R. 1, Olar
Norton, John W.	Dillon	R. 1, Little Rock
Pepper, Enoch	Pickens	R. 5, Easley
Poston, Dabon	Florence	Hannah
Prescott, Wilbur	Sumter	R. 1, Box 113, Sumter
Risher, Watson	Dorchester	St. George
Robbins, W. Swann	Chester	R. 2, Lowryville
Rodgers, Olin	Greenwood	R. 1, Epworth
Smith, Willie R.	Lexington	R. 1, Chapin
Stacey, Vaud	Cherokee	R. 3, Gaffney
Wallace, Carroll	Laurens	R. 1, Gray Court
Wallace, Harold	Laurens	R. 1, Gray Court
Williams, Ned	Pickens	R. 6, Easley
Wolf, Freddie	Orangeburg	R. 5, Orangeburg



## COTTON GRADING COURSE

Name	County	Residence
Anderson, B. M.	Spartanburg	R. 1, Switzer
Anderson, D. B.	Spartanburg	Moore
Aycock, A. E.	Sumter	Wedgefield
Bachman, L. K.	Lexington	Swansea
Baggott, H. S.	Aiken	Berlin
Bates, W. C., Jr.	Orangeburg	302 E. Russell St.
Christman, W. F.	Spartanburg	354 N. Church St.
Cureton, E. B.	Union	Union
Dunlap, R. S.	Laurens	R. 1, Mountville
Durst, Thos. N.	Greenwood	210 Magnolia St.
Earle, W. T.	Pickens	R. 1, Central
Ellis, R. S.	Abbeville	Abbeville
Gentry, John Landrum	Spartanburg	Fairforest
Gore, H. J.	Chester	Chester
Gunter, E. B., Jr.	Aiken	Wagener
Hellams, Mark W.	Laurens	R. 1, Laurens
Henderson, R. H.	Spartanburg	Landrum
Jackson, Quitman B.	Lexington	R. 2, Swansea
Jones, W. F.	Abbeville	Abbeville
Kee, Richard L.	Chester	R. 2, Richburg
McEachern, G. C.	Greenville	745 N. Main St.
McMaster, Miss Helen G.	Richland	1429 Laurel St., Columbia
Marsh, J. Fleming	Edgefield	Johnston
Owens, Lenwood	Aiken	917 S. Boundary Ave.
Owens, M. W.	Aiken	917 S. Boundary Ave.
Rucker, R. W.	Lexington	R. 1, Swansea
Smith, N. J.	Dorchester	Ridgeville
Stephens, Jas. F.	Newberry	R. 4, Newberry
Taylor, Chas.	Lancaster	R. 7, Lancaster
Walker, J. R.	Clarendon	Manning
Watson, L. N.	Saluda	Ridge Spring
Williams, J. R.	Greenwood	Oakhaven Court, Greenwood
Yeargin, L. T.	Laurens	Gray Court

## SUMMARY OF STUDENTS IN SUMMER SCHOOL

Farmers' Course	19
Corn Club Boys' Course	72
Cotton Grading Course	33
Total	124

## TOTAL ENROLLMENT

Regular College Classes	853
Summer School	124
TOTAL	977

## GENERAL SUMMARY OF STUDENTS

### BY CLASSES AND COURSES

Class	Agriculture	Mech. & Elec. Eng.	Civil Eng.	Arch. Eng.	Total Eng.	Textile Industry	Chemistry	Grand Totals
Senior -----	57	32	10	4	46	5	4	112
Junior -----	75	48	14	2	64	9	4	152
Sophomore -----	101	75*		8	83		6	190
Freshman -----	200				138			338
One-year Agric. --	32							32
Spec. and Irreg.**	14	7	1	1	9	4	2	29
<b>Totals -----</b>	<b>479</b>				<b>340</b>	<b>18</b>	<b>16</b>	<b>853</b>

\* Includes Textile.

\*\* Includes Postgraduates.

### BY COUNTIES IN SOUTH CAROLINA

Abbeville .....	33	Hampton .....	10
Aiken .....	30	Horry .....	15
Anderson .....	78	Jasper .....	7
Bainberg .....	9	Kershaw .....	7
Barnwell .....	10	Lancaster .....	12
Beaufort .....	7	Laurens .....	43
Berkeley .....	7	Lee .....	8
Calhoun .....	10	Lexington .....	19
Charleston .....	52	Marion .....	16
Cherokee .....	23	Marlboro .....	16
Chester .....	21	McCormick .....	5
Chesterfield .....	9	Newberry .....	25
Clarendon .....	12	Oconee .....	28
Colleton .....	18	Orangeburg .....	21
Darlington .....	26	Pickens .....	28
Dillon .....	10	Richland .....	27
Dorchester .....	10	Saluda .....	16
Edgefield .....	15	Spartanburg .....	59
Fairfield .....	22	Sumter .....	19
Florence .....	25	Union .....	20
Georgetown .....	5	Williamsburg .....	7
Greenville .....	34	York .....	38
Greenwood .....	26		
		Total South Carolina .....	948

### BY STATES AND FOREIGN COUNTRIES

South Carolina .....	948	North Carolina .....	9
Georgia .....	7	Virginia .....	4
Brazil .....	3	Porto Rico .....	1
Oklahoma .....	1	Arkansas .....	1
District of Columbia .....	2		
Louisiana .....	1	Total Enrollment .....	977

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