

SEVENTH ANNUAL CATALOGUE

OF THE

NORTH CAROLINA COLLEGE

OF

AGRICULTURE AND MECHANIC ARTS,

RALEIGH.

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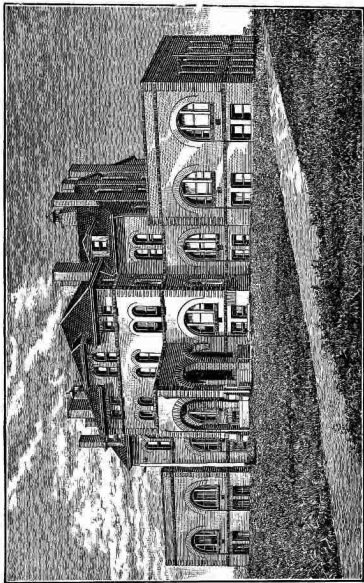
1895-1896.

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FALL TERM BEGINS THURSDAY, SEPTEMBER 3d, 1896.

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RALEIGH;  
EDWARDS & BROUGHTON, PRINTERS.  
1896.



NORTH CAROLINA COLLEGE OF AGRICULTURE AND MECHANIC ARTS. (MAIN BUILDING.)

## TRUSTEES OF THE COLLEGE.

### MEMBERS OF THE BOARD OF AGRICULTURE.

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1887	H. E. FRIES, Salem, . . . . .	Eighth District.
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1893	DR. J. R. McLELLAND, Mooresville,	Seventh District.
1895	FRANK WOOD, Edenton, . . . . .	State-at-Large.
1895	J. L. NELSON, Lenoir, . . . . .	State-at-Large.
1895	H. E. KING, Peanut, . . . . .	Third District.
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1895	DR. CYRUS THOMPSON, Richlands, .	<i>Ex officio.</i>
	President Farmers' State Alliance.	

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### FINANCE COMMITTEE.

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Studied at Univ. of Va. and Univ. of Berlin; President of Stonewall Jackson Institute, Va., 1881-'84; President and Professor of English, Florida Agricultural College, 1884-'89.

W. F. MASSEY, C. E., *Professor of Horticulture, Arboriculture and Botany.*

C. E. 1869, Union College, N. Y.; studied also at Washington College, Md., and Dickinson College, Pa.; Examiner Public Schools, Kent county, Md., 1868-'75; Director Department of Agriculture, Miller Manual Training School, Va., 1885-'89.

W. A. WITHERS, A. M., *Professor of Pure and Agricultural Chemistry, and Secretary.*

A. B. 1883, and A. M. 1885, Davidson College; post-graduate student Cornell University, N. Y., 1888-'90 (Fellow 1889-'90); Assistant Chemist N. C. Agricultural Experiment Station, 1884-'88; Fellow American Association for Advancement of Science.

D. H. HILL, A. M., *Professor of English.*

B. IRBY, M. S., *Professor of Agriculture.*

B. S. 1884, and M. S. 1887, Miss. Agricultural College; Professor of Agriculture, Miss. Agricultural College, 1887-'88; Manager Cycloneta Experiment Farm of Georgia Southern & Florida Railroad, 1888-'92; Fellow American Association for Advancement of Science.

W. C. RIDDICK, A. B., C. E., *Professor of Civil Engineering and Mathematics.*

A. B. 1885, University of North Carolina; C. E. 1890, Lehigh University, Pa.; recently with Roanoke Navigation and Water Power Company.

NATHANIEL R. CRAIGHILL, S. B., *Professor of Mechanical Engineering.*

S. B. 1883 in Mechanical Engineering, and 1894 in Electrical Engineering, Mass. Institute of Technology; recently with Victoria Cotton Mills, Newburyport, Mass., and Bell Telephone Co. of Philadelphia.

NATHAN HALE BARNES, A. M., Ph. D., *Professor of Physics and Elect. Eng., and of Military Science and Tactics.*

A. M. and Ph. D., Illinois College; Graduate U. S. Naval Academy and of U. S. Naval Torpedo School; Lieutenant-Colonel Florida State Military Institute; formerly Instructor in Military and Natural Sciences, Illinois College, and in Florida State Military Institute.

R. E. L. YATES, A. M., *Adjunct Professor of Mathematics.*

FRANK E. EMERY, M. S., *Assistant Professor of Agriculture.*

B. S. 1883, and M. S. 1893, Maine State College; recently Farm Superintendent of Houghton Farm, N. Y., and of N. Y. Agricultural Experiment Station; Agriculturist N. C. Agricultural Experiment Station.

*Seventh Annual Catalogue*

CHARLES M. PRITCHETT, B. S., M. E., *Instructor in Drawing and Shop Work.*

B. S. 1891, Georgia School of Technology; M. E. 1895, N. C. College of Agriculture and Mechanic Arts.

CHARLES B. PARK, *Superintendent of Shops.*

Recently with Allen & Cram, founders, Raleigh, N. C., and machine shops of Seaboard Air Line Railroad.

B. S. SKINNER, *Assistant in Farm Practice, and Farm Superintendent.*

Recently of Perquimans county.

F. P. WILLIAMSON, D. V. S., *Instructor in Veterinary Science.*

D. V. S. 1893, American Veterinary College, N. Y.; studied also at Wake Forest College; consulting Veterinarian N. C. Agricultural Experiment Station.

J. A. BIZZELL, B. S., *Assistant in Chemistry.*

B. S. 1895, N. C. College of Agriculture and Mechanic Arts.

W. K. DAVIS, JR., B. E., *Assistant in Physics.*

B. E. 1895, N. C. College of Agriculture and Mechanic Arts.

DAVID CLARK, B. E., *Assistant in Drawing and Shops.*

B. E. 1895, N. C. College of Agriculture and Mechanic Arts.

G. S. FRAPS, *Assistant in Chemistry.*

Class of 1896, N. C. College of Agriculture and Mechanic Arts.

A. H. PRINCE, B. S., *Assistant in Dairying.*

B. S. 1895, N. C. College of Agriculture and Mechanic Arts.

A. A. WILSON, *Tutor of Sub-Freshman Class.*

Class of 1897, N. C. College of Agriculture and Mechanic Arts.

MRS. SUE C. CARROLL, *Matron.*

Recently of Sampson county.

JAS. R. ROGERS, M. D., *Physician.*

A. B. 1882, Wake Forest College; M. D. 1886, College of Physicians and Surgeons Baltimore, Md.

# STUDENTS (193.)

## POST-GRADUATES (16).

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>	<i>Major Course.</i>
SAMUEL ERSON ASBURY.....	Gastonia.....	Gaston.....	Chemistry, B. S. '93, N. C. College of Agriculture and Mechanic Arts.
THOMAS MARTIN ASHE.....	Raleigh.....	Wake.....	Mech. Eng. B. E. '95, N. C. College of Agriculture and Mechanic Arts.
JAMES ADRIAN BIZZELL.....	Dunn.....	Harnett.....	Chemistry, B. S. '93, N. C. College of Agriculture and Mechanic Arts.
JOHN ISHAM BLOUNT.....	Faison.....	Sampson.....	Chemistry, B. E. '95, N. C. College of Agriculture and Mechanic Arts.
WALTER AUSTIN BULLOCK.....	Williamsboro, Vance.....		Agriculture, B. S. '95, N. C. College of Agriculture and Mechanic Arts.
DAVID CLARK.....	Raleigh.....	Wake.....	Mech. Eng. B. E. '95, N. C. College of Agriculture and Mechanic Arts.
WM. KEARNEY DAVIS, JR.....	Louisburg.....	Franklin.....	Mech. Eng. B. E. '95, N. C. College of Agriculture and Mechanic Arts.
CHARLES DUFFY FRANKS.....	Richlands.....	Onslow.....	English, B. E. '93, N. C. College of Agriculture and Mechanic Arts.
WILLIAM HENRY HARRISS.....	Warrenton.....	Warren.....	Mech. Eng. B. E. '95, N. C. College of Agriculture and Mechanic Arts.
CHARLES BOLLING HOLLADAY.....	Raleigh.....	Wake.....	Civil Eng. B. E. '93, N. C. College of Agriculture and Mechanic Arts.
CHARLES PEARSON.....	Saluda.....	Polk.....	Civil Eng. B. E. '94, N. C. College of Agriculture and Mechanic Arts.
ABRAM HINMAN PRINCE.....	Henderson.....	Vance.....	Agriculture, B. S. '95, N. C. College of Agriculture and Mechanic Arts.
CHAS. MARCELLUS PRITCHETT.....	Cartersville, Ga.....		Civil Eng. B. S. '91, Georgia School of Technology.
			M. E. '95, N. C. College of Agriculture and Mechanic Arts.
CHAS. BURGESS WILLIAMS.....	Indiantown.....	Camden.....	Chemistry, B. S. '93, N. C. College of Agriculture and Mechanic Arts.
CHAS. GARRETT YARBROUGH.....	Locust Hill.....	Caswell.....	Elec. Eng. B. E. '95, N. C. College of Agriculture and Mechanic Arts.
LOUIS THOMAS YARBROUGH.....	Semora.....	Caswell.....	Civil Eng. B. E. '93, N. C. College of Agriculture and Mechanic Arts.

## CLASS OF 1896—SENIORS (10).

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
DANIEL ALLEN.....	Raleigh.....	Wake.
GEORGE STRONACH FRAPS.....	Raleigh.....	Wake.
MARION JACKSON GREEN.....	Bostic.....	Rutherford.
JOHN HOWARD.....	Tarboro.....	Edgecombe.
WILLIAM COLBERT JACKSON.....	Winterville.....	Pitt.

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
ROBERT GRAHAM MEWBORNE .....	Kinston .....	Lenoir.
MARK RODGERS VICK .....	Margarettsville .....	Northampton.
LEVI ROMULUS WHITTED .....	Stainback .....	Alamance.
HENRY LLOYD WILLIAMS .....	Willeyton .....	Gates.

## IRREGULAR. {

THOMAS JEHU SMITHWICK .....	Sans Souci .....	Bertie.
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## CLASS OF 1897—JUNIORS (30). 26

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
WILLIAM MANLY BAKER .....	Tarboro .....	Edgecombe.
JOSEPH SAMUEL BUFFALOE .....	Rand's Mills .....	Wake.
JOHN WILLIAM CARROLL .....	West Raleigh .....	Wake.
CHARLES EDWARD CLARK .....	Charlotte .....	Mecklenburg.
WM. ALEXANDER GRAHAM CLARK .....	Raleigh .....	Wake.
NICHOLAS LOUIS GIBBON .....	Derita .....	Mecklenburg.
JAMES HARPER .....	Patterson .....	Caldwell.
CEBERN DODD HARRIS .....	Raleigh .....	Wake.
JERE EUSTIS HIGHSMITH .....	Parkersburg .....	Sampson.
JOSEPH PEACE JENKINS .....	Franklinton .....	Granville.
THADDEUS OTIS JOYNER .....	Pendleton .....	Northampton.
CLYDE BENNETT KENDALL .....	Polkton .....	Anson.
SIDNEY GUSTAVUS KENNEDY .....	Coahoma .....	Lenoir.
JOSEPH LAWRENCE KNIGHT .....	Mildred .....	Edgecombe.
WALTER JONES MCLONDON .....	Wadesboro .....	Anson.
REPTON HALL MERRITT .....	Wilmington .....	New Hanover.
ALBERT HICKS OLIVER .....	Mount Olive .....	Wayne.
WILLIAM BURT PHILIPS .....	Battleboro .....	Nash.
HUGH WILLIAMS PRIMROSE .....	Raleigh .....	Wake.
WILLIS HUNTER SANDERS .....	Dunn .....	Harnett.
JAMES ALEXANDER SINCLAIR .....	Marion .....	McDowell.
LAWRENCE BUTNER THOMAS .....	Thomasville .....	Davidson.
LEA WATSON .....	Raleigh .....	Wake.
WILLIAM FOWLE WELBORN .....	Lexington .....	Davidson.
BRADLEY JEWETT WOOTTEN .....	Wilmington .....	New Hanover.
GEORGE ARLINGTON WRIGHT .....	Maxton .....	Robeson.

## IRREGULARS. 4

SAMUEL ANDREW GRIER .....	Harrisburg .....	Cabarrus.
CLARENCE HAYWOOD JOYNER .....	Pendleton .....	Northampton.
GEORGE FREDERICK SYME .....	Raleigh .....	Wake.
AMME ANEROL WILSON .....	Mount Holly .....	Gaston.

CLASS OF 1898—SOPHOMORES (38). *34*

<i>Names.</i>	<i>Post Office.</i>	<i>County.</i>
CLEMENT BRUCE ADAMS .....	Monroe .....	Union.
SYDENHAM BREVARD ALEXANDER, JR. ....	Charlotte .....	Mecklenburg.
THOMAS WINSLOW ALEXANDER .....	Charlotte .....	Mecklenburg.
ESLEY OFFILT ANDERSON .....	Statesville .....	Iredell.
DORSEY FROST ASBURY .....	Gastonia .....	Gaston.
ROBERT MARRIOTT BATTLE .....	Rocky Mount .....	Edgecombe.
SIDNEY HAMILTON BECK .....	Table Rock .....	Burke.
CLARENCE BROWN .....	Kenansville .....	Duplin.
HUGH CLEMENT .....	Mocksville .....	Davie.
WHITFIELD COBB .....	Raleigh .....	Wake.
ANSON ELIKEM COHOON .....	Elizabeth City .....	Pasquotank.
HUGH MCCOLLUM CURRAN .....	Westboro. ....	Massachusetts.
FRED. CHARLES DOYLE .....	Raleigh .....	Wake.
BENJAMIN CAREY FENNRILL .....	Raleigh .....	Wake.
JOSEPH GRAHAM .....	Hillsboro .....	Orange.
JOHN MADISON HODGE .....	Raleigh .....	Wake.
HARVEY JOSEPH JOHNSON .....	Raleigh .....	Wake.
KIMBROUGH JONES, JR. ....	Raleigh .....	Wake.
ALPHEUS ROUNTREE KENNEDY .....	Coahoma .....	Lenoir.
THORNTON BUTLER MATHEWS .....	Asheville .....	Buncombe.
SIDNEY FRANKLIN MAUNEY .....	Gold Hill .....	Rowan.
JOHN HOWARD MILLER .....	Sing Sing .....	New York.
FERNANDO ZOLLIE MORRIS .....	Hendersonville .....	Henderson.
EDWIN BENTLEY OWEN .....	Michael .....	Davidson.
MOORE PARKER .....	Raleigh .....	Wake.
JOHN ERNEST RAMSAY .....	Salisbury .....	Rowan.
VERNON BADHAM RAMSEUR .....	Hendersonville .....	Henderson.
ROBERT PERCEVAL READE .....	Mount Tirzah .....	Person.
JOHN ROBERT ROBINSON .....	Pittsburgh .....	Pennsylvania.
HENRY HOLLAND SPRINGS .....	Lexington .....	Davidson.
NUMA REID STANSELL .....	Allenton .....	Robeson.
TEISAKU SUGISHITA .....	Kokufu .....	Japan.
SAMUEL JULIUS TURNER .....	Goodman .....	Anson.
DALMA OZARK UZZLE .....	Wilson's Mills .....	Johnston.

IRREGULARS. *4*

ROBERT GUY HODGES .....	Kinston .....	Lenoir.
BAXTER JOHNSON HUNTER .....	Derita .....	Mecklenburg.
CHARLES WILLIAM LEWIS .....	Grantsboro .....	Pamlico.
HOLLIS TAYLOR WINSTON .....	Chapel Hill .....	Orange.



## CLASS OF 1899—FRESHMEN (74).

71

<i>Names.</i>	<i>Post Office,</i>	<i>County.</i>
JAMES OSCAR ABERNATHY .....	Mount Holly .....	Gaston.
CHARLES LEE ALLEN .....	Rogers' Store .....	Wake.
CHARLES SKINNER ALLEN, JR. ....	Raleigh .....	Wake.
JOHN HENDERSON BIRDSONG .....	Raleigh .....	Wake.
SAMUEL PERRY BODDIE .....	Laurel .....	Franklin.
MANLY WINGATE BOUSHALL .....	Belcross .....	Camden.
OSCAR LAWRENCE BRINKLEY .....	Raleigh .....	Wake.
JUNIOUS LONG CAPEHART .....	Kittrells .....	Vance.
MAX HENRY CARTER .....	Asheville .....	Buncombe.
ULYSSES CEPHAS COMBS .....	Douglas .....	Rockingham.
ROBERT ALLEN DARDEN .....	Willow Greene .....	Greene.
ALPHONSO MORTON DUNLAP .....	Cedar Hill .....	Anson.
EDWARD WINSLOW EMERY .....	Westboro .....	Massachusetts.
SIMON JUSTUS EVERETT .....	Palmyra .....	Martin.
JOHN FENNELL .....	Raleigh .....	Wake.
FRANCIS MARION FOY .....	Scott's Hill .....	Pender.
JAMES CLARENCE FREEMAN .....	Burlington .....	Alamance.
DANIEL E. GATEWOOD .....	Wadesboro .....	Anson.
JESSE WESTON GILL .....	Raleigh .....	Wake.
WILLIAM BRADLEY HANFF .....	Newbern .....	Craven.
IRA MAY HARDY .....	Goldsboro .....	Wayne.
LOFTEN BOYKIN HARGROVE .....	Williams' Mills .....	Chatham.
CHARLES JAY HARRIS .....	Mebane .....	Alamance.
ALLAN SHERWOOD HIGGS .....	Raleigh .....	Wake.
JAMES ATLAS HOOD .....	Granthams .....	Wayne.
PETER CLAYWELL JURNEY .....	Olin .....	Iredell.
GERALD O'KEEFE KENDRICK .....	Raleigh .....	Wake.
FRANK BANKS KUYKENDAL .....	Davenport .....	Mecklenburg.
FLOY LAMBE .....	Durham .....	Durham.
WALTER DUNN LAROCHE, JR. ....	Kinston .....	Lenoir.
FRED. HENRY LEMLY .....	Salem .....	Forsyth.
GEORGE LUTHER LYERLY, JR. ....	Salisbury .....	Rowan.
ALBERT SIDNEY LYON .....	Wilton .....	Granville.
EDWARD HERBERT MADDREY .....	Seaboard .....	Northampton.
CARROLL LAMB MANN .....	Engelhard .....	Hyde.
WILLIAM HENRY MASON .....	Edenton .....	Chowan.
JOHN CHANDLER MINTS .....	Shallotte .....	Brunswick.
JAMES MCNAIR MOORE .....	Greenville .....	Pitt.
GEORGE WASHINGTON MORDECAI .....	Raleigh .....	Wake.
NICHOLAS NEWBERN .....	Powell's Point .....	Currituck.
EUGENE LEROY PARKER .....	Raleigh .....	Wake.

<i>Names.</i>	<i>Post Office.</i>	<i>County.</i>
JACOB RANKIN PARKS, JR .....	Cape .....	Randolph.
DAVID EMSLEY PATTERSON .....	Durham .....	Orange.
ROBERT JAMES PEARSON .....	Pittsburgh .....	Pennsylvania.
EUGENE GRAY PERSON .....	Louisburg .....	Franklin.
WILLIAM MONTGOMERY PERSON .....	Kittrells .....	Vance.
ARCHIE WILLIE RILEY .....	Lotta .....	Hertford.
JAMES MORRISON REINHARDT .....	Reinhardt .....	Lincoln.
SAMUEL ELI RICHARDSON .....	Waxhaw .....	Union.
DAVID GILLESPIE ROBESON .....	West Brook .....	Bladen.
EDWARD COKER ROGERS .....	Society Hill .....	South Carolina.
CHARLES SHORER SIEWERS .....	Salem .....	Forsyth.
THOMAS SKINNER SIMPSON .....	Raleigh .....	Wake.
PAUL MOORE SPRUILL .....	Columbia .....	Tyrrell.
JOHN LEWELLEN STEELMAN .....	Oakwoods .....	Wilkes.
WILLIAM ASHLEY STEVENSON .....	Raleigh .....	Wake.
JAMES ROGERS STOKES .....	Hertford .....	Perquimans.
WILLIAM CASWELL SUGG .....	Old Sparta .....	Edgecombe.
HERMAN SUTTON .....	Kinston .....	Lenoir.
JOHN LEAVY SWINDELL .....	Raleigh .....	Wake.
RALPH BINGHAM SYKES .....	Rock Spring .....	Orange.
THOMAS FULLER TERRELL .....	Raleigh .....	Wake.
IRVING BURCHARD TUCKER .....	Fair Bluff .....	Columbus.
JOSEPH MCKEEHAN TULL .....	Morganton .....	Burke.
GEORGE CLIFFORD UZZLE .....	Wilson's Mills .....	Johnston.
DARIUS SAMUEL WAITT .....	Raleigh .....	Wake.
HUGH WARE .....	King's Mountain .....	Cleveland.
CHARLES WHITAKER .....	Littleton .....	Warren.
JOSEPH D. WOODLEY .....	Creswell .....	Washington.
EDGAR CALVIN YARBROUGH .....	Semora .....	Caswell.
HUBERT BURNETTE YOUNG .....	Raleigh .....	Wake.

IRREGULARS. 3

CHARLES EVERETT CONWELL .....	Aulander .....	Bertie.
DANIEL MARK O'BRIEN .....	West Troy .....	New York.
WILLIAM NATHAN HAROLD SMITH .....	Raleigh .....	Wake.

SUB-FRESHMAN CLASS (25).

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
CHARLES MARVIN CULLENS .....	Harrellsville .....	Hertford.
WILLIAM HENRY DAMERON .....	Inez .....	Warren.
LEE GOODE .....	Connelly Springs .....	Burke.
GEORGE HENDRIX .....	Randleman .....	Randolph.
ROSS IRIE HILL .....	Pittsboro .....	Chatham.

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
ALBERT BOYD HOMESLEY .....	Charlotte .....	Mecklenburg.
JOHN WILSON JENNINGS .....	Weeksville .....	Pasquotank.
HUGH KENDRICK .....	Raleigh .....	Wake.
JOSEPH WATSON KILPATRICK .....	Closs .....	Lenoir.
CLYDE MCGEE KIRKLAND .....	Raleigh .....	Wake.
WALTER MOORE LEWIS .....	Morehead City .....	Carteret.
ROBERT LEE LUMSDEN .....	Raleigh .....	Wake.
FRED. EARL MITCHELL .....	Raleigh .....	Wake.
GEORGE ALEXANDER MOORE .....	Jackson .....	Northampton.
WILLIAM LATNEY OSBORNE .....	Charlotte .....	Mecklenburg.
GEORGE WILLIAM BAXTER PARISH .....	Concord .....	Cabarrus.
JOHN LARMOUR PARROTT .....	Kinston .....	Lenoir.
WILLIAM MCGEE RHYNE .....	Lodo .....	Mecklenburg.
WILLIAM HART STONE, JR. ....	Shallotte .....	Brunswick.
ROBERT LEACH TAYLOR .....	Leachburg .....	Johnston.
WADE HAMPTON WEST .....	Closs .....	Lenoir.
DAVID EVANS WHARTON .....	Washington .....	Beaufort.
LEWIS WILLIAMS .....	Panther Creek .....	Yadkin.
HENRY ELIAS WYATT .....	Raleigh .....	Wake.
ADOLPHUS HILL YEARBY .....	Durham .....	Durham.



## COMMENCEMENT 1895.

### ANNUAL ORATION

... BY ...

CAPT. CHARLES E. VAWTER, SUPERINTENDENT MILLER  
MANUAL TRAINING SCHOOL, VA.

### GRADUATING CLASS.

<i>Name and Degree.</i>	<i>Post Office.</i>	<i>County.</i>
THOMAS MARTIN ASHE, B. E.	Raleigh	Wake.
*JAMES ADRIAN BIZZELL, B. S.	Dunn	Harnett.
JOHN ISHAM BLOUNT, B. E.	Faison	Sampson.
JAMES WASHINGTON BRAWLEY, B.S., Granite Hill		Iredell.
†WALTER AUSTIN BULLOCK, B. S.	Williamsboro	Vance.
DAVID CLARK, B. E.	Raleigh	Wake.
GEO. WASHINGTON CORBETT, JR., B.E., Keith		Pender.
EDWIN SPEIGHT DARDEN, B. S.	Speight's Bridge	Greene.
WM. KEARNEY DAVIS, JR., B. E.	Louisburg	Franklin.
JOSEPH CHARLES DEY, B. S.	Currituck	Currituck.
LEE BORDEN ENNETT, B. S.	Cedar Point	Carteret.
ISAAC HENRY FAUST, B. E.	Planters	Randolph.
CHARLES WYLLIS GOLD, B. S.	Wilson	Wilson.
WILLIAM HENRY HARRISS, B. E.	Warrenton	Warren.
CHRISTOPHER MILLER HUGHES, B.E., Raleigh		Wake.
MALCOLM BEALL HUNTER, B. E.	Charlotte	Mecklenburg.
†SAM'L CHRISTOPHER McKEOWN, B. E.	Cornwell	South Carolina.
MANN CABE PATTERSON, B. E.	Durham	Orange.
ABRAM HINMAN PRINCE, B. S.	Henderson	Vance.
VICTOR VASHTI PRIVOTT, B. E.	Rocky Hock	Chowan.
*HOWARD WISWALL, JR., B. E.	Winsteadville	Beaufort.
CHAS. GARRETT YARBOROUGH, B. E.	Locust Hill	Caswell.
CHAS. MARCELLUS PRITCHETT, M. E.	Cartersville	Georgia.
B. S. 1891, Georgia School of Technology.		
Major Course, Mechanical Engineering.		

\* With first distinction in course.

† With second distinction in course.

*HONOR ROLL, 1894-'95.**SENIOR CLASS.*

<i>Names.</i>	<i>Post Office.</i>	<i>County.</i>
JAMES ADRIAN BIZZELL.....	Dunn .....	Harnett.
WALTER AUSTIN BULLOCK.....	Williamsboro.....	Vance.
HOWARD WISWALL, JR.....	Winsteadville .....	Beaufort.
LEE BORDEN ENNETT .....	Cedar Point.....	Carteret.
ABRAM HINMAN PRINCE .....	Henderson .....	Vance.

*JUNIOR CLASS.*

GEORGE STRONACH FRAPS.....	Raleigh .....	Wake.
ROBERT GRAHAM MEWBORNE.....	Kinston .....	Lenoir.

*FRESHMAN CLASS.*

NUMA REID STANSELL .....	Allenton .....	Robeson.
JOSEPH FREDERICK HUNTER.....	Brinkleyville .....	Halifax.

*FRESHMAN PRIZES IN AGRICULTURE.**MEDAL.*

<i>Names.</i>	<i>Post Office.</i>	<i>County.</i>
PAUL BLAIR PARKS.....	Pioneer Mills.....	Cabarrus.

*TEN-DOLLAR PRIZE.*

SIDNEY HAMILTON BECK.....	Table Rock.....	Burke.
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*FIVE-DOLLAR PRIZE.*

ALPHEUS ROUNTREE KENNEDY.....	Coahoma .....	Lenoir.
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## ORGANIZATION AND AIMS OF THE COLLEGE.

This College was founded under Act of the General Assembly of March, 1887, and was first opened for students October 2, 1889. Since that time its growth, both in number of its faculty and in number of its students, has been steady, and its work has been thorough and devoted entirely to technical education.

The establishment of a technical college in this State was due to the growth of the conviction that educated men are necessary—not only for the furtherance of the purely intellectual phases of a State's life, but that they are equally necessary for the development of the material resources of a State. It was felt that any State as rich in agriculture and mechanical resources as North Carolina is could not longer afford to fail to train men competent to get the best return from varied soils, or to direct the mechanical industries necessary to use up soil or mineral products. It was believed that the increasing sharpness of competition demanded a more intelligent body of truckers and farmers and better methods of farming.

It was also believed that it was poor economy in a State to have to send from without its borders for skilled artisans, for architects, for builders, for superintendents of machinery, for agricultural, analytical and industrial chemists, for civil, for mechanical, for electrical engineers, when it could educate its own sons for these useful and remunerative employments.

The mission of the College then is, so far as it may be able, to supply to the State these men—men so prepared that they may become leaders in the industrial and scientific life of the Commonwealth. The agricultural department will graduate men who have made a careful study of agricultural and horticultural methods, of soils, of plant food and growth, of fertilizers, of dairying and stock-raising, of drainage, of vineyard and orchard culture—in short, the

department will try to send out, not agricultural theorists nor so-called "book-farmers," but young men who have, by practice in best methods and with best machinery and by study under experienced teachers, attempted to prepare themselves for intelligent and successful farming.

The mechanical, electrical and engineering departments will endeavor to give students a general knowledge of mechanism, of building, of bridge-building, of designing, of dynamos and dynamo running—in fact, of all the work expected of the civil and mechanical graduates of first-class technical institutions.

The College, however, does not intend to make mere machines of its matriculates, but its aim is to make educated men at the same time that it makes educated specialists. To this end general courses of study, similar to those taken in other Colleges, complement the technical work. These include mathematics, book-keeping, history, physics, chemistry, botany, logic, English language and literature, and all students are required to take these studies.

### INCOME.

While the State makes the College an annual appropriation, its main support is derived from the Treasury of the United States in the shape of funds arising from the sale of public lands, thus inflicting no burden of taxation on any citizen. These Acts were passed July 2, 1862, and August 30, 1890, and require the funds granted by them to each State to be applied to the "endowment, support and maintenance of at least one College, where the leading object shall be, without excluding other scientific and classic studies, *and including military tactics*, to teach such branches of learning as are related to agriculture and the mechanic arts in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

## COURSES OF INSTRUCTION.

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The three general courses of study offered in this institution are in Agriculture, in Engineering and Mechanics, and in Applied Science.

In the Freshman year, the work of all students in these courses is the same, and consists of Mathematics, English History, Physics, Chemistry, Physiology, Botany and Agriculture in the class-room, and practice work in the field, green-house, carpenter shop, drawing-room, and physical laboratory. At the beginning of the Sophomore year the courses begin to specialize, and the student selects the one best fitted to his needs. With each of the higher classes, more time is given to the technical studies of the course.

### THE COURSE IN AGRICULTURE.

The technical work of this course includes work in the departments of Agriculture, Horticulture and Chemistry.

Students can make their graduating thesis in any one of the three departments.

Inasmuch as this is not a manual labor training school, we do not propose to educate a young man to be *simply* a farm laborer, but try to give him, in addition to his practical work, a higher training that will fit him for a life of more extended usefulness.

Of course they are imbued with the idea that the man, after all, dignifies the labor, and that the honor of doing anything consists in doing it well.

The manual labor required is termed *practice work*, and is given in connection with the class-room work. In the lecture-room they learn the *why*, and in the field they learn the *how*.

It is the endeavor at all times to teach the students to use their brains as well as their hands, and that unless the muscle is directed by an educated brain, it cannot accomplish the greatest good possible.



**THE COURSE IN ENGINEERING AND MECHANICS.**

The aim of this course is to equip the student with such training in pure and applied mathematics as is necessary to enable him to deal with engineering problems from the most favorable standpoint, and also to make of him a good draughtsman and mechanic. It attempts by instruction, both theoretical and practical, to familiarize him with the best engineering and shop practice. The more strictly professional work begins with the second year, and is continued throughout the course.

The technical work is included in the departments of Mechanical and Civil Engineering, and Physics, in any of which the student may take his thesis for graduation.

An examination of the schedule of topics, at the end of the Catalogue, will give a clear idea of the subjects taught and the methods employed.

**THE COURSE IN APPLIED SCIENCE.**

The work of this course, outside the general studies which are required, is largely elective. The subjects are included under the departments of Entomology, Zoology, Botany, Agricultural and Analytical Chemistry, Physics, Electrical Engineering, Applied Mathematics, etc., and the course is intended for those wishing to become specialists in any of these departments. The thesis is to be made in the department in which the student elects most of his studies. The full time given to practice work in the other courses is required in this.

**POST-GRADUATE COURSES.**

Post-graduate courses have been established, leading to the degrees of Master of Science (M. S.), Mechanical Engineer (M. E.), and Civil Engineer (C. E.)

Candidates for the Master's degree may take their major subject in the departments of Agriculture, Horticulture,

Chemistry or Physics. Minor courses are offered in Agricultural Analysis, Organic Synthesis, Theoretical Chemistry, Vertebrate Zoology, Veterinary Science, Cryptogamic Botany, Invertebrate Zoology, and Electrical Engineering, two of which must be taken.

For the degrees of M. E. and C. E., the courses are prescribed, and further information will be found under these departments and at the end of the Catalogue.

A thesis embodying the results of some original investigation, must be submitted and accepted before the final examinations are taken.

The studies will be carefully adapted to the expansion and development of the special lines of work selected by graduate students for a professional calling.

#### IRREGULAR WORK.

Students, otherwise qualified, may be allowed to elect certain studies from the regular courses already provided in the College, if no inconvenience result to the members of the regular classes.

#### SUB-FRESHMAN CLASS.

A Sub-Freshman Class has been organized, to give special preparation to such young men as are unable to enter the Freshman Class, and who nevertheless desire a technical education. No county will be allowed to have more representatives in this class than it has in the House of Representatives of the General Assembly.

## DEPARTMENTS OF INSTRUCTION.

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### DEPARTMENT OF AGRICULTURE.

PROF. IRBY.

ASST. PROF. EMERY.      MR. SKINNER.

DR. WILLIAMSON.

In this department we try to qualify the student so that, when he returns home, he will be capable of managing his own farm, or acting as superintendent, dairyman or stockman for someone else, in addition to being able to perform in person the various kinds of work on a farm. We teach that it is of prime importance to know the reason for every thing that is done, and that every *effect* has a *cause*.

#### COURSE OF STUDY.

##### FRESHMAN YEAR.

Fall Term—Three months in Gulley's "First Lessons in Agriculture."

Winter Term—Three months in "Lincoln's Physiology."

These subjects are amplified by charts, practical illustrations and lectures.

##### SOPHOMORE YEAR.

Fall Term—Lectures on Hygiene of the Farm, Drainage, Description and Use of Farm Implements, Cultivation and Harvesting of Farm Crops.

Winter Term—Advanced course in Brand's "Physiology and Anatomy."

Spring Term—Curtis' "Breeds of Live Stock," including horses, cattle, sheep and hogs.

Practice work the entire year.

JUNIOR YEAR.

Fall Term—Dairying, which includes lectures on Selection of Dairy Herds, Development of Cows, Calculation of Feed Rations, Milking, Ripening of Cream, Use of Separator, Churning, etc., Keeping Records and Test of Cattle, Calculation of Milk Values from Tests, Location of Permanent Pastures, and Crops Best Suited to our State for Dairy Herds.

Winter Term—Nicholson's "Zoology and Veterinary Science."

Spring Term—Lectures in Dairying, continued

Practice work through the year is confined to care and handling of stock, and practical dairy work.

SENIOR YEAR.

Fall Term—Davis' "Meteorology," completed; and French's "Tile Drainage," commenced.

Winter Term—"Tile Drainage," completed; and stock breeding, introduced.

Spring Term—Lectures on farm topics that are specially important are given, such as Farm Economy, Plan of Work, Growing Supplies at Home, Organizing a Farm, Arrangement of Buildings, Location of Fields, Care of Stock, Science as Applied in Feeding, Nutritive and Manurial Values of Feed Stuffs, Care and Use of Manures, Improvement of Exhausted Soils by Rotation of Crops and by Growing Renovating Crops.

The class has general practice work the entire year; this, with a graduating thesis for commencement, completes the regular four year's course.

Owing to the fact that many young men in the State have not the time or money to enable them to take the full course, and yet desire instruction, we encourage them to come and take a short course in Agriculture during the months of January and February. In this course they would not take any other College studies, unless desired.

A Post-Graduate course has been provided, and students

taking the same are given special instruction in studies pertaining to Agriculture, in addition to practical work.

The *practice* work given during the four year's course is not paid for, as it is considered a part of the instruction; but work done voluntarily by the students is paid for, at the rate of seven cents per hour. They are encouraged to work whenever it can be given; and, as the work is done under the supervision of the Professor of Agriculture and the Superintendent of the Farm, it is instructive as well as remunerative. Thus many of them are enabled to pay a part of their expenses with their labor. Those who work well generally stand well in their classes.

The Experiment Station is near by, and as it is always open for inspection, is another source of practical information for the thoughtful student.

The equipment of the farm is as follows: Large basement barn, 50 x 72 feet, three stories; first floor occupied by cattle; second story, by horses, machinery, tools, grain-bins, etc.; third story, by hay, which is elevated by a Ricker & Montgomery hay carrier. Just outside the barn are two seventy-ton circular silos. These are connected with a No. 18 Ohio Standard Feed and Ensilage Cutter. The power for cutting is supplied by an eight-horse power Skinner engine. The dairy building is large and commodious, having three rooms and a cellar, besides a large room above used, as an Agricultural Society hall, in which the Society meets every Saturday night. The dairy is supplied with a De Laval Separator, Babcock Tester, rectangular churn, butter maker, good, cheap heating apparatus, etc. The cellar is cemented, and has a cemented aqueduct on one side, through which flows water from a spring situated above the dairy. This is for ripening cream, and water supply.

The live stock consists of two Percheron mares and colts, two mules, pure-bred Jerseys, Holsteins, Devons, Brown Swiss, Shorthorns, and high-grades. Poland-China hogs are raised to utilize the waste from mess-hall and dairy.

Field crops are corn, cotton, ensilage, peas, potatoes, hay, clover, oats, crimson clover, rye, soja beans, grasses, etc.

Instead of visionary theorists, we hope to turn out practical farmers, who will adopt the more improved methods of farming, thus aiding in advancing the cause in their several communities.

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## DEPARTMENT OF HORTICULTURE, ABORICULTURE AND BOTANY.

PROFESSOR MASSEY.

A thorough knowledge of the anatomy of plants and their physiological functions being the basis of all accurate knowledge of Horticulture, special effort will be made to give thorough instruction in these branches. Botany will be mainly studied as a branch of Biology, but Systematic Botany will also receive due attention. It will not be taught by the mere memorizing of dry definitions, but by a practical study of the characteristics of plants upon which classification is founded.

Those who complete the whole course will receive instruction in all the branches needed by a professional Horticulturist, including greenhouse propagation, forcing of plants, flowers and vegetables under glass, landscape gardening, farm surveying, road working, the construction of horticultural buildings, and forest improvement.

### COURSE OF STUDY.

#### FRESHMAN YEAR.

Spring Term—Elementary study of plant structure with text-book and explanatory lectures on plant life, and study of natural forms.

#### SOPHOMORE YEAR.

Practical study in Pomology, with field lectures and practice in budding, pruning, grafting and propagating in open

ground ; Invertebrate Zoology and Entomology ; Systematic Botany in Spring Term.

#### JUNIOR YEAR.

Vegetable Histology with compound microscope, lectures on Physiological Botany, Forestry and Palæontology ; laboratory study of Cryptogams in Spring Term.

#### SENIOR YEAR.

Lectures on Landscape Art, Road-making, Horticultural Construction, and Commercial Culture of Vegetables and Flowers in Open Ground and Under Glass ; practice in greenhouse management and cross-fertilization. Thesis.

In the Junior year each student will be furnished with a compound microscope, and must make a deposit at the beginning of each year, of three dollars, for materials and reagents used, any unexpended balance of which will be refunded at the end of the year. Instruments furnished by the College, but loss and breakage must be made good by student.

In the Freshman and Sophomore years, a deposit of fifty cents is required for use of hand magnifier, to be refunded when the glass is returned in good order. Students intending to make Horticulture their profession, will be given special opportunities in the Senior year to become experts in greenhouse work and propagation. The College and Station Greenhouses and Exotic Grapery give particular advantages for this.

#### POST-GRADUATE COURSE.

The major study for the Master's degree will be Practical Horticulture in all its branches, with a course of reading, under direction of Professor ; Minors, Invertebrate Biology and Cryptogamic Botany.

COURSE IN SCIENCE.

Students in the Scientific course will follow the exact line of work as those in the Agricultural course to the end of the Junior year. The Senior year in this course will be devoted to general Biology and Bacteriology. The laboratory deposit for this year will be \$5.

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DEPARTMENT OF CHEMISTRY.

PROFESSOR WITHERS.

MR. BIZZELL.

MR. FRAPS.

The Chemical Laboratories are supplied with fume closets, evaporating baths, drying chambers, blast lamps and extra tile-covered tables. The tables are of yellow-heart pine, with oak tops. Each student is provided with one large and two small drawers, and one cupboard, for keeping apparatus. Each working space is provided with gas, distilled water, reagents, and a sink. The Laboratory of Quantitative Analysis will accommodate thirty-two students, sixteen of whom may work simultaneously; and the Laboratory of General Chemistry will accommodate fifty-six students, twenty-eight of whom may work simultaneously.

The Chemical Library contains a carefully-selected list of standard reference books and chemical journals, which the more advanced students are expected to use very freely.

While the ultimate aim of the work is towards the application of the science to Agriculture and Technology, and the preparation of the student for a career as a Chemist, yet the fact is fully appreciated that this is most successfully realized when the work is based on a broad knowledge of the pure science.

The work of the Freshman and Sophomore years is required of all students. The work for subsequent years depends on the course in which the student is enrolled.



The Freshman class has for its work a brief introduction to General Chemistry, and its relation to the air, soil, plant and animal, following the order of Roscoe's Primer and Lup-ton's Scientific Agriculture.

The Sophomore class has Inorganic Chemistry (Storer & Lindsay). The common elements and their principal compounds are studied, with some of the fundamental principles of the science. Due attention is given to Stoichiometry. The class-room work consists of lectures, accompanied by full experiments, and the exhibition of specimens, to which reference is made. Daily recitations are held on the matter of the previous lecture. In the Laboratory, the student repeats for himself, under the eye of the instructor, the experiments performed in the lecture-room, and records the results and his explanation of the changes that have taken place. Cooley's Guide is followed. The latter part of the year is devoted to Qualitative Analysis (Caldwell).

The lectures in Agricultural Chemistry follow Mayer. Attention is given to a consideration of the atmosphere as a plant-feeder; the mineral and organic constituents of the plant, and their functions; the soil, and its relation to the plant; means of improving the soil; the preparation of manures and composts; green manuring; the composition of fodder, and the different means of curing and preserving; animal chemistry; stock feeding; chemistry of butter, of milk, etc.

Analytical Chemistry is continued by completing Qualitative Analysis, and an introductory course in Quantitative Analysis (Caldwell). At this time the student can adapt his laboratory work to his wishes, devoting his time to the agricultural, industrial or general branch of the subject. Attention is given to a discussion of Quantitative methods.

In the Laboratory courses, the student is required to be able not only to make correct separations, but to know the reasons for the changes, reactions involved, etc., and to test this knowledge, frequent recitations are held.

Industrial Chemistry is taught, attention being given to the more common industries, as sulphuric acid making, bleaching, dyeing, fertilizer making, paints, oils, etc. Visits with the class are made to plants in the vicinity. The metallurgy of iron and other useful metals is considered.

The Organic Chemistry follows Remsen's Text-book and Orndorff's Manual for Laboratory work. The Theoretical Chemistry follows Meyer, and the Historical Chemistry Von Meyer.

For Post-Graduate and other advanced students, courses of reading are assigned, and the student required to submit papers on the same. The Laboratory work is continued, forming a large part of the course, and concludes with some original investigation, which is to be the basis of a thesis for graduation.

The Berzelius Society meets fortnightly for the discussion of the chemical journals and other chemical work.

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## DEPARTMENT OF PHYSICS AND ELECTRICAL ENGINEERING.

PROFESSOR BARNES.

The value of thorough instruction in Elementary Physics to a practical man, in the different walks of life, cannot be overestimated; and a knowledge of the varied application of the subtle force of electricity is becoming a necessity, as it is more and more in every way coming into daily use. The importance of this department is fully recognized, and it is the intention of this College to make instruction and practical work in it as beneficial as possible to the student. To this end a commodious and well-lighted Laboratory has been equipped with apparatus to illustrate the principles of physical science, and for instruction and practice in physical and electrical experiments, measurements and testing. We have the most approved forms of electric batteries, a magneto electric machine, a dynamo which provides electric

illumination of the College buildings, galvanometers and testing apparatus of considerable variety and the best types. With these the students are familiarized, by both instruction and practical adjustment and manipulation. Upon finishing their course, students should be as well able to measure the efficiency and output of an electric plant, as to weigh groceries or measure a wood-pile, and they have had sufficient instruction and experience to install, maintain and operate such a plant.

The College is illuminated with incandescent electric lights, run by a four-pole, direct-current dynamo. During the past year a new building has been installed with seventy lamps. From the beginning, the whole work of installation, operation, maintenance and repair of the light plant has been done by students, as a part of their regular instruction.

In different courses, the work of this department extends through all the Collegiate and Post-Graduate classes, and is apportioned as follows :

In the Freshman class, all students are instructed in Elementary Physics. Recitations are illustrated by experiments, and followed by practical work in the Laboratory. The class is thus led to the acquirement of knowledge by study, by observation, and by doing the things taught. The text-books with this class are Gage's "Elements of Physics," and Gage's "Laboratory Manual." In all classes, the text-books are supplemented with lectures.

The Sophomore class of the Scientific Course takes a more advanced course in Physics, paying more particular attention to electricity, in which these students have no later instruction. The text-book, Avery's "Physics," is supplemented with experiments by the instructor in the class-room, and by the pupils.

The Junior Class of the Mechanical Course is instructed in electricity and magnetism during the entire year, with recitations, experiments, and practical work. The text-books used are Thompson's "Elementary Lessons in Electricity

and Magnetism," and Day's "Electric Light Arithmetic." Included in the practical work is the installation and operation of the electric-light plant.

The Senior class of the Mechanical Course is instructed in Electrical Engineering, including electrical testing in the Laboratory, electro metallurgy, electric installation, and the designing and construction of electric generators and motors. The text-books used are Thompson's "Dynamo Electric Machinery," and Kempe's "Electrical Testing," with lectures and practical work. The students of this class have charge of the dynamo, and each in turn, assisted by a Junior, operates the electric-light plant.

The Mechanical Post-Graduates, with Kempe's "Electrical Testing" and Stewart and Gee's "Physics" as reference books, continue the course in Electrical Engineering, including the calibrating of instruments, electrical testing, and the construction and repair of physical apparatus.

The department has a reference library of valuable books, to which the best publications will be added as they appear.

## DEPARTMENT OF MECHANICAL ENGINEERING.

PROFESSOR CRAIGHILL,  
MR. PRITCHETT. MR. PARK.  
MR. CLARK.

The object of this department is to give such theoretical and practical instruction as will prepare the student for the work of either an engineer or mechanic. The time is about equally divided between recitation room work and manual training, the latter consisting of drawing and shop work.

A commodious building is used for instruction, on the first floor of which are a recitation room, engineering laboratory, machine shop, forge shop, wood-turning shop, and carpenter shop, all fully equipped. On the second floor are two drawing rooms, a blue-print room, recitation room and a library, in which various scientific and technical journals are kept on file.

## COURSES OF INSTRUCTION.

*Shopwork.*—The instruction in this department is given with a two-fold object in view: First, to make the student a first-class mechanic; and second, to make him familiar with the nature of woods and metals and with the typical operations that have to be performed upon them to make them of commercial value. All work is made from blue-prints, so that the student may learn how to read and interpret drawings made by others. The work shops are provided with the more important hand and machine tools, and the student has an opportunity to become familiar with them and to learn what can be accomplished by their use. In the last half of the fourth year, the students make some machine that will add to the equipment of the department.

The shops are equipped as follows: The carpenter shop contains thirty carpenter's benches and all the necessary tools for each bench. The wood-turning shop contains ten 12-inch swing lathes, a saw and dado machine, a 20-inch planer, a mortising and boring machine, a 30-inch band saw, a 6-inch sticker, a mitering machine, a grindstone, a steam glue pot, and six benches equipped with iron vises and all the tools necessary for pattern-making. Each lathe is fully equipped with turning tools. The forge shop contains twenty-three forges, each of which is provided with an anvil and forging tools, besides which there is a full equipment of tools for general use in the shop. The machine shop contains two engine lathes, a universal milling machine with spiral and gear-cutting attachments, a planer, an upright drill, an emery wheel, and six vise benches arranged for instruction in vise work, and a fully equipped tool room. The power for the shops is furnished by a 25 horsepower Woodbury engine. When the shops are running, one of the students has charge of the engine and another of the boilers.

*Drawing.*—The object of the course in drawing is to enable the student to express his ideas clearly on paper. With this in view, he is first taught to use drawing instruments;

next, to make working drawings of objects that exist, and then to put his own designs on paper in such a way that they will be intelligible to others. This course goes hand in hand with the theoretical and practical part of the instruction in engineering. In the lecture room, the student is taught to shape his ideas into practicable forms; in the drawing room, to put them on paper, and in the shops, to make them into material forms.

The first term of the first year is devoted to freehand sketching, and the remainder to practice in the use of drawing instruments. The instruction in the second year consists of a course of orthographic projections, and making working drawings of a casting or of some simple form of machine. In the third year, the work consists of the solution of various problems of mechanism, such as gearing, valves for the steam engine, and the like, and making a complete set of working drawings of some machine. In the fourth year, the drawing is entirely design. During the first term, the time is devoted to cam work, belting, and mechanical problems; the rest of the year, to the design of an engine, a boiler, a fly-wheel, a shaft-coupling, or, some other problem that will illustrate the main principles of design. Each student is taught the blue-print process.

*Steam.*—This course includes a study of the properties of steam, the steam-engine, pumps, valve gears, indicator cards, boilers and chimneys, with a view to giving thorough instruction in the best modern practice in steam engineering.

*Engineering Laboratory.*—The objects to be accomplished in the Laboratory are as follows: First, to give the student practice in such experimental work as an engineer in the pursuit of his profession may be called upon to perform—such as valve-setting, engine and boiler testing, or measuring the flow of water; and second, to afford some practice in original research on engineering subjects.

The equipment of the Laboratory consists of a two-horse power engine, a ten-horse power engine (both of which were

built by the students), a hot-air pumping engine, a small water-motor, a Worthington water-meter, friction brakes, weirs, and an indicator, planimeter, thermometers, tanks, and scales for making tests.

In addition to the Laboratory, there is a boiler-house equipped with three thirty-horse power boilers, several pumps, a Worthington receiver, and a jet condenser, all of which are available for experimental purposes.

*Mechanism.*—The student is taught the principles of the ordinary mechanisms met with in practice. He learns the methods of transmitting motion from one point to another, how to find the value of trains of wheels, and to arrange pulleys and design cam work.

*Mechanism of Cotton Machinery.*—The principles and object of the various machines used in the manufacture of cotton are explained, and suggestions made as to the best methods of running them to obtain the best results.

*Mechanics.*—During the first term of the third year, the general principles of Mechanics are studied. Throughout the fourth year, the principles already learned are applied to the calculation of the strength of materials, and the strength and stability of structures. Also, a study is made of such reliable tests as have been made to determine the strength of the materials most commonly used in practice, with a view to becoming familiar with the proper constants to be used in engineering work.

*Mill Engineering.*—A study is made of the best modern mill practice, the cotton mill being taken as an example. The student learns to proportion and arrange the machines and buildings so that there shall be a minimum loss from stoppage, and the mill shall be well balanced. He learns to arrange and lay out the shafting, and to find the power necessary to drive the machinery. Visits are made to the mills and manufacturing establishments in the neighborhood to see machinery in operation.

*Heating and Ventilation.*—The object of this course is to teach the student to warm and ventilate buildings in the most approved manner. The principles of the different systems in use are fully explained. The student makes calculations and drawings for heating and ventilating some building, which is taken for an example. A study is made of the extensive system in operation at the College.

POST-GRADUATE WORK IN MECHANICAL ENGINEERING.

Facilities are offered for one or two years of post-graduate work in this department, leading to the degree of Mechanical Engineer.

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DEPARTMENT OF CIVIL ENGINEERING.

PROFESSOR RIDDICK.

Instruction is given in the following subjects:

SOPHOMORE CLASS.

*Architecture and Building.*—This includes lectures on buildings and building materials, as well as Architectural Drawing. The student is taught to draw plans, write specifications, and make out bills of materials, and also the methods of constructing houses and the uses of the various materials of construction. He studies the subject from the standpoints of both architect and contractor.

JUNIOR CLASS.

*Graphic Statics.*—This consists of the graphical determination of "bending moment," "vertical shears," and the stresses in frame structures and machine parts.

*Surveying.*—The student is taught land and topographical surveying and the rudiments of railroad and municipal en-



gineering, including lectures on road-making. The Winter Term is devoted to the study of the theory of surveying and engineering, and the Spring Term to field work, each student being required to work up and plot his field notes. The College owns a transit, Y-level, compass, tapes, chains, rods, etc.

Text-book: Wentworth's Surveying.

#### SENIOR CLASS.

*Roofs and Bridges.*—This consists in the application of analytical methods to the determination of stresses in roof and bridge trusses and other frame structures. It includes, also, the design and construction of arches, domes, retaining walls, and masonry dams.

Text-book: Lanza's Applied Mechanics.

*Hydraulics.*—The students are taught the methods of measuring the flow of streams; the laws governing the flow of water in pipes and conduits; the determination of water power in streams, and the testing of hydraulic motors.

Text-book: Merriman's Hydraulics.

#### FIFTH, OR GRADUATE YEAR.

This department offers facilities for one year of post-graduate work in civil engineering, leading to the degree of C. E. The work of this course is given in table of studies on last pages of this book.

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### DEPARTMENT OF MATHEMATICS.

PROFESSOR RIDDICK.

ADJUNCT—PROFESSOR YATES.

It will be the aim of this department to give the young men a thorough and practical knowledge of Pure Mathematics. All students are required to do as much supplementary work as the time will permit, for no principle is well learned by a pupil and thoroughly fixed in his mind till he can use it.

The course in Mathematics begins in the Freshman year, and is completed by the students in the Mechanical Course at the close of the Winter Term of the Senior year. Agricultural students drop the study of Mathematics after having finished Trigonometry.

FRESHMAN CLASS.

During this year it is our purpose to complete Arithmetic and Algebra to higher equations. The young men are required to solve the problems by neat and intelligent methods, and are kept free from set rules and formulas.

To enter this class the student must have a thorough knowledge of Arithmetic through fractions.

Text-books: Milne's Arithmetic, Wells' Higher Algebra.

SOPHOMORE CLASS.

This class completes Algebra during the Fall Term. The remainder of the session is devoted to plane and solid Geometry, with numerous exercises for original solution.

Every effort is directed to lead students to pursue these studies without feeling that they are characterized by arbitrary laws and mysterious processes; in other words, to work by reason, and not by rules and memory.

During the latter part of the year the class has, in addition two recitations a week in Trigonometry.

Text-books: Wentworth's Geometry, Wentworth's Trigonometry.

JUNIOR CLASS.

The first part of the year is spent in the completion of Trigonometry, with practical applications. The remainder of the session is devoted to Analytical Geometry.

Much exercise work will be done, since it is only by solving problems which require some degree of original thought that any real mastery of the study can be gained.

Text-book: Nichol's Analytical Geometry.

## SENIOR CLASS.

This class will begin Calculus at the beginning of the session and complete the same by the end of the Winter Term.

Text-book: Taylor's Calculus.

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ENGLISH DEPARTMENT.

## PROFESSOR HILL.

It will be the endeavor of this department to give to each student such a practical familiarity with the English language that he will speak and write his mother tongue with accuracy and with ease, and be an intelligent and appreciative interpreter of its literature. In addition to the regular text-books, standard prose and poetic writers will be critically read and discussed through the whole course.

The department is gradually adding a reference library that will be at all times accessible to students.

The course in English begins in the Freshman year, and continues through the whole four years, and is required of both Agricultural and Mechanical students.

## FRESHMAN CLASS.

*Four Recitations a Week.*

The first part of the year is spent upon a review and drill on the forms and syntactical laws of the language. This work is made as practical as possible. The second half of the year is devoted to the fundamental principles of composition and their application. Constant exercises are required, but, in this year, the student is assisted in his accumulation of material for these exercises, so that his attention may be given almost entirely to correctness of expression.

Text books: Lockwood's Lessons in English; Strang's Exercises. Critical Readings for 1896-7: Thurber's Addison's Essays.

SOPHOMORE CLASS.

*Three Recitations a Week.*

The work for this year begins with the History and Development of the English Language. This will be followed by a course in the elements of Rhetoric. In this course in Rhetoric special attention will be paid to the analysis of themes and their subsequent elaboration, step by step. Much of this work will be done in the lecture-room, and no pains will be spared in the attempt to develop the student's imaginative and constructive powers.

Text-books: Lounsbury's English Language, Genung's Outlines of Rhetoric. Critical Readings for 1896-7: Leach's DeQuincey, Gray Lyrics.

JUNIOR CLASS.

*Three Times a Week.*

The first part of this year will be spent upon Logic and Logical Praxis. Afterwards the class will take up Higher Rhetoric, Rhetoric as it has to do with Invention. In order to make this study of Invention more fruitful, an analysis of the methods of some of our best writers will be carried along with it.

Text-books: Jevon's Logic, Gregory's Practical Logic, Genung's Rhetoric and Rhetorical Analysis, Lectures. Critical Readings for 1896-7: Two of Webster's Speeches, Milton Lyrics, Garnett's English Prose.

SENIOR CLASS.

*Three Times a Week.*

Literature, English and American, will occupy the year. Historical periods will first be studied, and then the literature of the periods. Some parts of the year's work will be done topically. The Elizabethan Drama is taken up critically. Parallel for 1896-7: Thayer's Select Plays will be used in class-work.

Text-books: Fiske's *Taine's Literature*, Hawthorne and Lemmon's *American Literature*, *Lectures on Poetry*, Gannett's and Thayer's *Selections*, Browne's *Versification*, Hudson's or Rolfe's editions of *Shakespeare*.

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## DEPARTMENT OF BOOKKEEPING.

ADJUNCT—PROFESSOR YATES.

All students in the Sophomore Class will be required to take single-entry bookkeeping during the Spring Term.

The work in the text-books will be supplemented by numerous original examples and sets for practice.

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## DEPARTMENT OF HISTORY.

PRESIDENT HOLLADAY.

In this course students are given a familiar knowledge of the history of their own country and State, and an outline of general history, both ancient and modern. They are taught, as far as possible, to note the progress of civilization, the development of constitutions and tendency of political systems rather than to memorize isolated facts—in other words, the chief effort is directed towards teaching students how to read and to think, rather than to recite.

Instructions will be partly by lectures and partly by standard text-books, such as Moore, Stephens, Swinton, Myers and Green.

Students will also be encouraged and guided in outside readings on special subjects, for which the College Library will afford ample conveniences.

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS.

LIEUTENANT-COLONEL NATHAN HALE BARNES, F. S. M. I.  
LIEUTENANT U. S. N., RETIRED.

All students are required to drill three hours a week—Monday, Wednesday and Friday, from 4 to 5 P. M.

The instruction is in the U. S. Army Infantry Drill Regulations, closed and extended order, including the School of the Soldier, the School of the Company, and the School of the Battalion, with target practice and lectures on Military Science.

The Battalion is organized as infantry, in three companies. The uniform is of cadet gray, with white gloves. Each Collegiate student is required to have one uniform, costing about seventeen dollars, and to wear it when on drill and when performing any military duty, such as Officer-of-the-Day. When uniform is worn, it must be complete—not mixed with civilian's dress—and the coat must be fully buttoned. Preparatory students will take part in all drills, and may wear the uniform, but with them the latter is not compulsory.

Each cadet officer will, in turn, perform duty as Officer-of-the-Day, when he will be excused from all other duties. He will make a daily inspection of quarters, accompany the Military Instructor on his rounds of inspection, visit the room of each instructor each study or practice period, obtain a list of absentees from each, and see that all absentees are properly absent or send them to their duty. He will make in duplicate a daily report of all absentees from any duty, and all infractions of discipline that may come to his knowledge.

## CADET OFFICERS OF THE BATTALION.1

COMPANY A.	COMPANY B.	COMPANY C.
Captain Howard. 1st Lieut. Smithwick. 2d Lieut. Jackson. 1st Sergt. Clark, G. 2d Sergt. Harris. 3d Sergt. McLendon. 4th Sergt. Syme.	Captain Williams. 1st Lieut. Fraps. 2d Lieut. Knight. 1st Sergt. Buffaloe. 2d Sergt. Clark, C. 3d Sergt. Highsmith. 4th Sergt. Primrose.	Captain Whitted. 1st Lieut. Mewborne. 2d Lieut. Wootten. 1st Sergt. Kendall. 2d Sergt. Gibbon. 3d Sergt. Carroll. 4th Sergt. Oliver.
1st Lieut. and Adjutant Allen. 1st Lieut. and Quartermaster Green. Music Corporals Birdsong and Waitt.		Sergeant-Major Harper. Color-Sergeant Merritt.

## LOCATION.

The original college site and farm, in all comprising a tract of about sixty-two acres, were donated by Mr. R. S. Pullen, of Raleigh, to the State of North Carolina for the purpose of industrial education. The gift is a noble one, and the name of the donor will be linked with the history of the College.

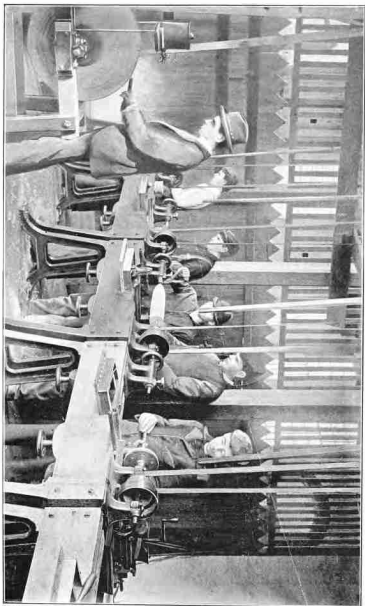
Situate on a commanding eminence on the Hillsboro road, one of the principal highways into Raleigh, at a distance of three-fourths of a mile from the corporate limits, the site is, in all respects, a suitable one. The ground slopes from the buildings in every direction, giving almost perfect drainage, as well as handsome views of the College buildings from every direction.

The water is unusually good and the supply abundant.

A healthy location is one of the absolutely essential pre-requisites for such an institution, and the Trustees feel assured that this is secured in the site given by Mr. Pullen.

Indeed, it is a matter of history that Raleigh, N. C., and Aiken, S. C., were chosen by a commission of eminent medical experts during the late war as perhaps the most suitable places for sanitariums in the South.

The farm has been carefully cultivated for about six years, and the land is being brought up mainly by judicious vege-



LATHE ROOM.



table manuring. Eighteen acres adjoining the College on the west have been purchased, in addition to the original tract, and still more land would be desirable, but cannot at present be purchased, owing to the pressing need of more buildings.

#### BUILDINGS.

##### MAIN BUILDING.

This is of brick, with brownstone trimmings, and is 170 by 60 feet; part four stories in height, and the remainder two.

The two lower floors contain the offices of the President, Secretary of the Faculty and Bursar; the library; recitation rooms; chemical, physical and biological laboratories; the chapel and the armory.

The two upper stories are occupied by students.

In this, as in all other buildings, every precaution has been taken to secure good sanitation. The rooms are all well lighted, well ventilated and conveniently arranged.

##### SHOP.

This a plain, but substantial, roomy and carefully-planned brick building, two stories high, and having a total floor space of about 12,500 square feet. It contains the various shops, the Engineering and Mechanical Laboratory, drawing-rooms and recitation-rooms.

##### DORMITORIES.

The College has four brick dormitories, containing, in all, fifty-four students' rooms.

##### WATAUGA HALL.

This is a handsome three-story brick building, and is named in honor of the Watauga Club, which was largely instrumental in securing the establishment of the College. The first floor contains a kitchen, a dining-room, and a cloak-room, while the two upper stories are occupied by students.

**BOILER-HOUSE.**

This is a single-story brick building, containing boilers, fire-pump, and all the machinery connected with the steam-heating plant.

**BARN, DAIRY, GREENHOUSE.**

These are all frame buildings, of modern design, and carefully planned for the purposes to which they are devoted. The barn is 50 by 72 feet, and three stories high; the dairy is 20 by 40 feet, and two stories high—the upper story being used as the Agricultural Society hall; the greenhouse is 20 by 50 feet.

**HEAT AND LIGHT.**

All the buildings are heated with steam, and are lighted with incandescent electric lamps.

**DIVISION OF SESSION.**

The session is divided into three terms, designated as the Fall, the Winter and the Spring Term.

Although students will be admitted at any time, the best time to enter College is at the beginning of the scholastic year, with the Fall Term. Students desiring to enter as late as the Spring Term, will find it impossible to pass the necessary examination, unless they have already attended similar colleges, and had best wait till the beginning of another session.

Any student desiring to enter the Sophomore or other higher class, omitting the earlier classes, will be required to stand an examination which will show ample preparation for the class he may wish to enter.

**REPORTS.**

Reports of deportment and absence from College duties are sent at the end of every month, and attention is called to any lack of diligence on the part of the student.

Reports of scholarship and deportment are also sent at the end of each term. In the grading 100 is the maximum, 90 or over is considered excellent, 80 or over creditable. To pass, the student must make 60. In calculating the average for the term each subject counts equally.

#### HONORS.

The Punctuality Roll contains the names of students who have not been absent from a single exercise during the year.

The Honor Roll contains the names of those whose average in all studies for the year is 90 or more.

Special Mention is made at graduation to any student whose average in any study during his Junior and Senior years was above 90.

First Distinction is given in each course to the member of the graduating class who makes the highest average for the course—provided such average for the whole course is above 90.

The students attaining first distinction in the courses will be given a place on the Commencement stage, together with two others selected by the Faculty.

#### DEGREES.

One Baccalaureate degree will be conferred. Upon those who have successfully passed all the examinations in the various studies of the course in Agriculture, the course in Applied Science, or the course in Engineering and Mechanics, the degree of Bachelor of Science (B. S.) will be conferred.

To graduates in the course in Agriculture or in Applied Science who have successfully passed examinations, after a supplementary year's work under direction of the Faculty, the degree of Master of Science will be given. Similarly, the degree of M. E., for work in Mechanical Engineering, and C. E. for work in Civil Engineering. The fee for the Baccalaureate Diploma is \$3, and for M. E., C. E. or M. S., \$5.

## YOUNG MEN'S CHRISTIAN ASSOCIATION.

The various Christian denominations are well represented in the student body, and all unite in a Young Men's Christian Association, which meets with regularity and exerts a beneficial influence throughout the College.

## LITERARY SOCIETIES.

There are two literary societies in the College—the Pullen and the Leazar—and both are sustained with energy and spirit. They afford abundant opportunity for improvement in declamation, debate, parliamentary law and composition, and students will find in either congenial associations.

## TECHNICAL SOCIETIES.

The Agricultural Society, Mechanical Society, and Berzelius (Chemical) Society have been organized by the students taking most interest in these special departments of study. Their work consists in reviews of the various technical journals, and in original papers.

## ALUMNI ASSOCIATION.

This Association of the College graduates meets annually, during Commencement week, and aids in refreshing the pleasant memories of college days, as well as keeping its members in active touch with their *Alma Mater*.

President, C. D. Francks, '93, Raleigh, N. C.

Vice-President, Chas. Pearson, '94, Raleigh, N. C.

Sec.-Treas., E. S. Darden, '95, Speight's Bridge, N. C.

## LIBRARY.

The Library, like the College itself, is in its infancy, containing about nineteen hundred volumes. It will be steadily increased by the purchase of standard works and, subject to necessary regulations, students will have free use of the books for general reading and for purposes of reference.

Reference libraries for the use of students have also been placed in the Departments of Agriculture, Horticulture, Chemistry, Physics, English, Mechanical and Civil Engineering.

#### LABOR.

On the farm and about the College certain work can be performed by the students. For all such labor, not instructive and a part of the College course, students who perform it will be paid *seven* cents per hour.

#### PRIZES.

A gold medal of the value of ten dollars will be given to the Freshman student who most distinguishes himself in the agricultural work, and a second medal (or the money value thereof, ten dollars) to the student who, in addition to his class-work, earns most money by his skill in agricultural labor outside, and a third medal (or the money value thereof, five dollars) to the student who, in addition to his class-work, earns the next most money by his skill in agricultural labor outside.

#### DISCIPLINE.

There must be order and family decorum throughout the College, though the methods of securing both will appeal to the self-respect of the student, rather than to the dread of penalties.

For minor deficiencies or irregularities proportional demerit marks will be noted on the report sent to parents or guardians at the end of each term, and it is hoped that parents will inquire into the cause of such evidences of demerit and hold their sons to strict account for them, since if a student is thoroughly in earnest, it is quite possible for him to pass through his course without incurring one deficiency mark. Some of our students have so passed through four entire sessions.

Students who persist in grave misconduct will not be permitted to remain in the College.

The indolent and vicious are not wanted, will not be tolerated, and had best not attempt to enter where a student must work or leave, as there is no room in our system for idlers.

#### STUDENTS.

##### AGE AND QUALIFICATIONS OF APPLICANTS.

Applicants for the Freshman Class must be at least fifteen years of age; must furnish evidence of good moral character and physical development; must understand the forms and laws of their own language fairly well, and must be familiar with arithmetic, including the practical rules of the same, through fractions, and have a fair knowledge of geography and State history. Applicants for the Sophomore class must pass, in addition, an examination on the studies of the Freshman year.

##### COUNTY AND PAY STUDENTS.

The law provides for two kinds of students—county and pay. Each county is entitled to as many county students as it has members in the House of Representatives. This class of students is entitled to free tuition and lodging in College dormitories. There is no limit to the number of pay students, and these students will be allowed to lodge in College buildings. The expenses of a pay student are only \$30 a year more than those of a county student. Young men desiring to enter as county students must apply to the Board of County Commissioners, who alone have authority to make such appointments; the College authorities cannot make them.

#### ADMISSION.

The county examiners are usually willing, for a small fee, to conduct the examination of all applicants for admission. This examination will be held at the county-seats on the first Saturday in August, printed copies being furnished for the examiners by the College.

All young men, however, wishing to enter, can be examined at the College on the day before its opening, if they did not pass the examination at the county-seats. These will be held at the following hours: English, 9 A. M.; Mathematics, 11 A. M.; Geography, 2 P. M.; History, 3:30 P. M. Examinations for conditional students and for applicants for advanced classes will be held also on these days.

Students, after arriving in Raleigh, must report at once to the President of the College, for a permit for examination or for registration.

Students who have passed the examinations for admission, or for advancement to a higher class, will report to the Secretary of the Faculty for registration.

#### GENERAL RULES.

Every young man, on becoming a member of the College, thereby pledges his obedience to the rules, a printed copy of which will be furnished him, and to a diligent performance of his duties.

Students are expected at all times to demean themselves in a quiet, gentlemanly manner, and no student will be allowed to remain in the institution who, by misconduct or indolence, shows himself unworthy of its benefits.

All students will be required to attend morning prayer in the chapel.

On the Sabbath, students must attend the churches in Raleigh, subject to regulation of the President and Faculty.

Each occupant of a dormitory will be expected to keep his room, or section of room, in good order and ready for inspection at any time.

#### CLOTHING, ETC.

Each student is required to have one gray uniform suit, costing \$16.85; and one pair of blue cotton overalls, costing about \$1.50. Each student should bring a hair-brush and comb.

## TUITION.

The cost of tuition will be \$20 per scholastic year, except to county appointees, who are entitled to tuition and lodging *free of cost*, and to post-graduates, who are excused from tuition fees.

## BOARD AND LODGING.

Board and lodging will be furnished all county students at \$8 per month. To all other students who may desire it, and to the extent of our accommodations, board will be furnished at \$8 per month, and lodging as below stated.

Board is payable monthly, in advance, and where any student fails to pay promptly on the 1st, notice will be sent to his parent or guardian; and in case payment is not made by the 10th, the student will be dropped from College.

*Each student living in the College must bring with him a change of sheets and pillow-cases, four towels and two counterpanes, plainly marked.*

## COLLEGE CHARGES PER SESSION.

## I. COUNTY STUDENTS.

1. Tuition free.	
2. Board, at \$8 per month, per session of $9\frac{1}{2}$ months.	\$ 76 00
3. Fuel, lights and medical attendance, but not medicine, for entire session	15 00
Total	\$ 91 00

## II. FOR OTHER STUDENTS.

1. Tuition, per session	\$ 20 00
2. Board, at \$8 per month, $9\frac{1}{2}$ months	76 00
3. Fuel, lights and medical attendance, but not medicine, for entire session	15 00
4. For lodging in College building, room, furniture, bedding, etc.	10 00
Total	\$121 00



Of these charges, \$13.75 and \$16.85 for uniform must be paid upon entering College, and the remainder *in monthly installments, in advance.*

Each student must also deposit, on entering, a contingent fee of \$1, of which all not needed to pay for unnecessary damage to property will be returned.

Each student in Chemistry must make good all apparatus etc., he breaks, and for this purpose must make a deposit at the beginning of the year. These breakages are seldom over fifty cents per year for each hour per week spent in the laboratory.

For deposit in Horticultural laboratory, see that department.

All students must furnish their own oil, lamp chimneys, books, stationery, drawing-pencils, thumb-tacks, and medicines, and arrangements will be made for them to get these at lowest cost.

## TABLE OF STUDIES.

### FRESHMAN CLASS—FOR ALL COURSES.

	<i>Fall.</i>	<i>Winter.</i>	<i>Spring.</i>
Agriculture and Physiology .....	2	2	2
Botany .....	2	..	1
Botanical Laboratory .....	..	..	2
Introductory Chemistry .....	..	2	..
Physics .....	2	2	2
Physical Laboratory .....	2	2	2
Algebra .....	7	5	5
English .....	4	4	4
History .....	1	1	1
Carpenter Shop .....	4	4	4
Frechand and Mechanical Drawing .....	3	3	3

## COURSE IN AGRICULTURE.

## SOPHOMORE CLASS.

	<i>Fall.</i>	<i>Winter.</i>	<i>Spring.</i>
Agriculture.....	--	2	2
Agricultural Practice .....	2	4	4
Botany .....	4	2	--
Botanical Laboratory.....	4	4	4
General Chemistry.....	3	3	3
Chemical Laboratory.....	4	4	4
Geometry and Trigonometry.....	5	5	7
English .....	3	3	3
History .....	1	1	1
Drawing.....	5	2	--

## JUNIOR CLASS.

Agriculture .....	3	3	3
Dairy Practice .....	4	4	--
Horticulture .....	2	3	3
Horticultural Practice.....	4	4	--
Agricultural Chemistry.....	3	3	3
Qualitative and Quantitative Analysis.....	6	6	6
Surveying .....	--	2	2
Field Practice in Surveying.....	--	--	9
English .....	3	3	3
History .....	1	1	1

## SENIOR CLASS.

Agriculture .....	5	5	5
†Agricultural Practice.....	2	2	2
Horticulture .....	4	4	4
†Horticultural Practice.....	4	4	4
*Organic and Theoretical Chemistry.....	3	3	3
Agricultural Chemical Analysis.....	8	8	8
English .....	3	3	3
History .....	1	1	1

† Agricultural Chemical Analysis may be substituted.

\* Agricultural and Horticultural Practice may be substituted.

COURSE IN ENGINEERING AND MECHANICS.

SOPHOMORE CLASS.

	<i>Fall.</i>	<i>Winter.</i>	<i>Spring.</i>
Architecture .....	3	2	..
Mechanical and Architectural Drawing .....	5	5	5
General Chemistry .....	3	3	3
Chemical Laboratory .....	4	4	4
Geometry and Trigonometry .....	5	5	7
English .....	3	3	3
History .....	1	1	1
Shopwork (Wook-turning and Pattern-making),	6	6	6

JUNIOR CLASS.

Mechanics and Graphic Statics .....	2	2	2
Drawing .....	5	5	5
Industrial Chemistry .....	1	1	1
Steam, Valve Gears, Boilers .....	4	..	..
Engineering Laboratory .....	..	..	1
Elements of Mechanism .....	..	1	..
Mechanism of Cotton Machinery .....	..	..	2
Electricity and Magnetism .....	1	1	1
Analytical Geometry .....	4	3	3
Surveying and Field Practice .....	..	2	11
English .....	3	3	3
History .....	1	1	1
Shopwork (Forging) .....	..	9	..

SENIOR CLASS.

Applied Mechanics .....	2	5	2
Roofs and Bridges .....	3	..	..
Hydraulics .....	..	..	2
Mill Engineering .....	..	..	2
Drawing (Machine Design) .....	5	5	5
Heating and Ventilation .....	..	..	1
Engineering Laboratory .....	..	..	1
Electrical Engineering .....	1	1	1
Electrical Testing .....	2	2	2
Calculus .....	4	4	..
English .....	3	3	3
History .....	1	1	1
Shopwork (Chipping, Filing and Machine W'k),	9	9	9
Thesis .....	..	..	1

## COURSE IN APPLIED SCIENCE.

## SOPHOMORE CLASS.

	<i>Fall.</i>	<i>Winter.</i>	<i>Spring.</i>
Botany .....	4	2	..
Botanical Laboratory .....	4	4	4
General Chemistry .....	3	3	3
Chemical Laboratory .....	4	4	4
Mathematics .....	5	5	7
English .....	3	3	3
History .....	1	1	1
Drawing .....	5	5	5

## JUNIOR CLASS.

Elective .....	7	8	8
Mathematics .....	4	3	3
English .....	3	3	3
History .....	1	1	1
Elective practice work .....	15	15	15

## SENIOR CLASS.

Elective .....	11	11	11
English .....	3	3	3
History .....	1	1	1
Elective practice work .....	15	15	15

POST-GRADUATE COURSE IN MECHANICAL ENGINEERING.

	<i>Fall.</i>	<i>Winter.</i>	<i>Spring.</i>
Steam Engineering.....	3	3	3
Heat.....	1	--	--
Physical Laboratory.....	4	4	4
Metallurgy.....	1	1	1
Boilers.....	--	--	1
Shop Visits.....	1	1	1
Hydraulics and Hydraulic Motors.....	1	1	1
Machine Design.....	4	4	4
Engineering Laboratory.....	2	2	2
Advanced Applied Mechanics.....	3	3	3
Mill Engineering.....	2	2	2
Least Squares.....	2	--	--
Differential Equations.....	--	1	--
Precision of Measurements.....	--	--	1
English.....	2	2	2
Thesis.....	5	5	5

POST-GRADUATE COURSE IN CIVIL ENGINEERING.

	<i>Fall.</i>	<i>Winter.</i>	<i>Spring.</i>
Mechanics.....	4	--	--
Mechanics of Machinery.....	--	2	2
Topographical Surveying.....	--	2	4
Construction.....	--	4	4
R. R. Surveying.....	4	--	--
Sanitary Engineering.....	3	3	3
Astronomy.....	3	3	--
Bridge Design.....	6	6	--
Hydraulics.....	--	--	4
English.....	2	2	2
Mill Engineering.....	2	2	2
Physical Laboratory.....	1	1	1
Least Squares.....	2	--	--
Applied Mechanics.....	3	3	--
Geodetic Surveying.....	--	--	3
Road Making.....	--	--	3
Thesis.....	--	5	5

**CALENDAR.**

1896.

Thursday, January 2, Winter Term begins.

Saturday, February 15, Announcement of subjects for Theses.

Friday, March 20, Winter Term ends.

Tuesday, March 24, Spring Term begins.

Saturday, May 23, Last day for submitting Theses.

Friday, May 29, Senior examinations end.

Friday, June 5, Examinations end.

Wednesday, June 10, Commencement Day.

August 1,                    } Examinations for admission at county-  
First Saturday,        } seats by county examiners

Wednesday, September 2, Examinations for admission.

Thursday, September 3, Fall Term begins; Registration Day.

Friday, September 4, Recitations begin.

Thursday, November 26, Thanksgiving Day.

Wednesday, December 23, Fall Term ends.

1897.

Tuesday, January 5, Winter Term begins; Registration Day.

Monday, February 15, Announcement of Subjects for Theses.

Friday, March 19, Winter Term ends.

Tuesday, March 23, Spring Term begins; Registration Day.

Friday, May 21, Last day for submitting Theses.

Friday, May 28, Senior examinations end.

Friday, June 4, Examinations end.

Sunday, June 6, Baccalaureate Sermon.

Tuesday, June 8, Annual Oration.

Wednesday, June 9, Commencement Day.