

CATALOGUE

OF THE

OFFICERS, STUDIES, AND STUDENTS

OF THE

STATE COLLEGE OF KENTUCKY,

LEXINGTON,

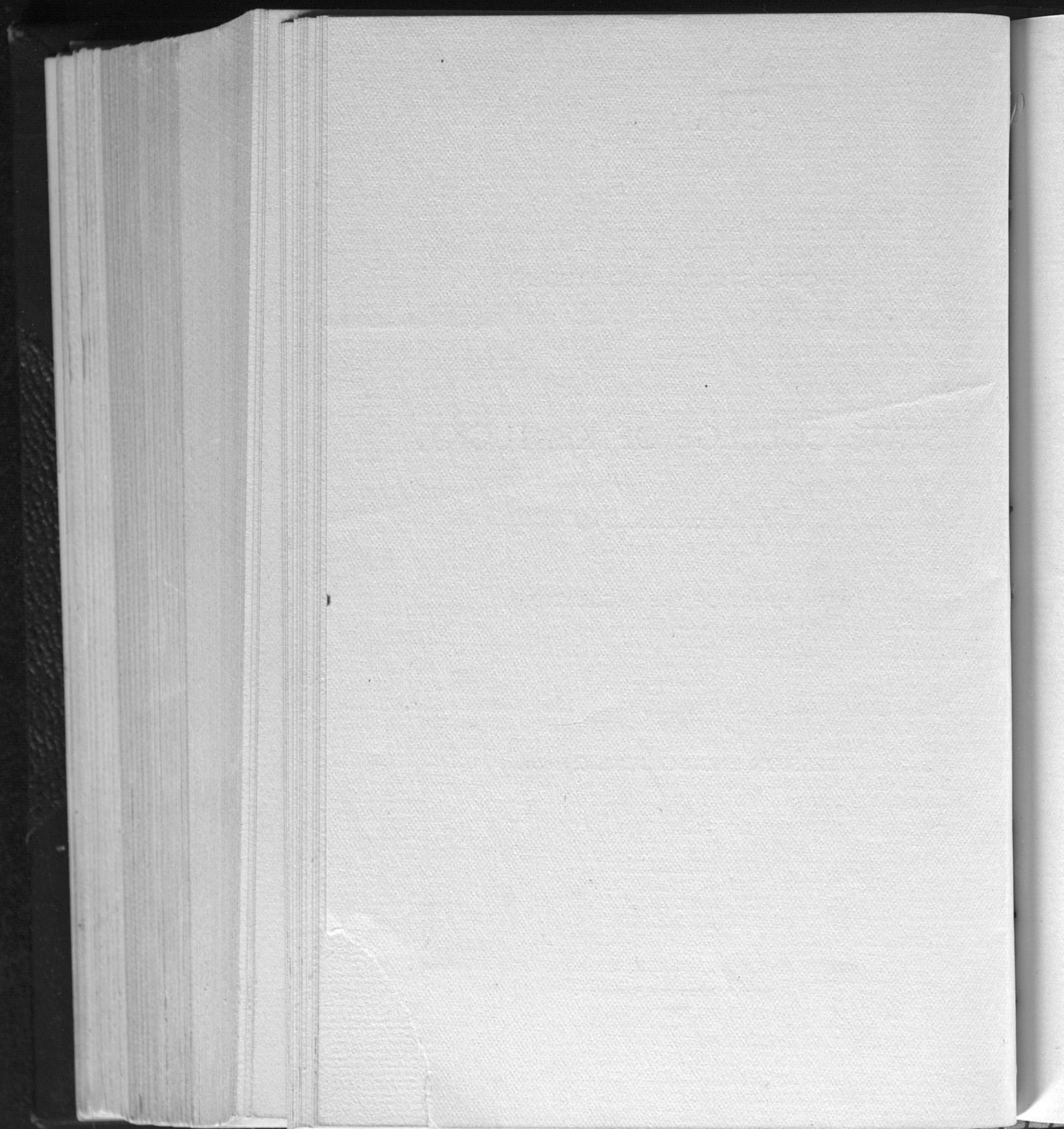
WITH A PART OF THE REGULATIONS,

FOR THE

SESSION ENDING JUNE 6, 1901.

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THE STATE COLLEGE OF KENTUCKY.

HISTORY.

AGRICULTURAL and Mechanical Colleges in the United States owe their origin to an act of Congress, entitled "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts," approved July 2, 1862. The amount of land donated was 30,000 acres for each representative in the National Congress. Under this allotment Kentucky received 330,000 acres. Several years elapsed before the Commonwealth established an Agricultural and Mechanical College under the act. When established it was not placed upon an independent basis, but was made one of the Colleges of Kentucky University, to which institution the annual interest of the proceeds of the Congressional land grant was to be given for the purpose of carrying on its operations. The land-scrip had meanwhile been sold for fifty cents per acre, and the amount received—\$165,000—invested in six per cent Kentucky State bonds, of which the State became custodian in trust for the College.

The connection with Kentucky University continued till 1878, when the act of 1865, making it one of the Colleges of said University, was repealed, and a Commission was appointed to recommend to the Legislature of 1879-80 a plan of organization for an institution, including an Agricultural and Mechanical Colleges, such as the necessities of the Commonwealth required. The city of Lexington offered to the Commission (which was also authorized to recommend to the General Assembly the place which, all things considered, offered the best and greatest inducements for the future and permanent location of the College), the City Park, containing fifty-two acres of land, within the limits of this city, and thirty thousand dollars in city bonds for the erection of buildings. This offer the county of Fayette supplemented by twenty thousand dollars in county bonds, to be used either for the erection of buildings or for the purchase of land. The offers of the city of Lexington and of the county of Fayette were accepted by the General Assembly.

By the act of incorporation, and the amendments thereto, constituting the charter of the Agricultural and Mechanical College of Kentucky, liberal provision is made for educating, free of tuition, the energetic young men of the Commonwealth whose means are limited. The Normal Department, for which provision is also made, is intended to aid in building up the Common School system by furnishing properly qualified teachers. This College, with the additional departments which will, from time to time, be opened as the means placed at the disposal of the Trustees allow, will, it is hoped, in the not distant future, do a

great work in advancing the educational interest of Kentucky. Being entirely undenominational in its character, it will appeal with confidence to the people of all creeds and of no creed, and will endeavor, in strict conformity with the requirements of its organic law, to afford equal advantages to all, exclusive advantages to none. The liberality of the Commonwealth in supplementing the inadequate annual income arising from the proceeds of the land-scrip invested in State bonds, will, it is believed, enable the Trustees to begin and carry on, upon a scale commensurate with the wants of our people, the operations of the institution whose management and oversight have been committed to them by the General Assembly of Kentucky.

SCOPE OF STUDIES.

In the act of Congress making provision for the class of colleges to which the State College partly belongs, it is declared "that their leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." To the two departments of agriculture and the mechanic arts, contemplated in the act, a Normal School has been added by the State and an Experimental Station by the United States, while liberal provision has been made for instruction in all branches of science and in the classics, so that this institution is far more than an agricultural and mechanical colleges, embracing, as it does, not merely the two original departments, but six others.

THE NORMAL SCHOOL.

The Normal Department of the State College exists under the authority of acts of the General Assembly approved April 23 and April 29, 1880. Section 7 of the first act briefly defines the object for which the Department was established, "a Normal Department or course of instruction for irregular periods, designed more particularly, but not exclusively, to qualify teachers for common and other schools, shall be established in connection with the College." The second act provides the necessary endowment to make the Department effective.

The number of students annually enrolled in the Normal School has exceeded expectation. As they come from all parts of the State, and many of them return well prepared for the profession of teaching, they must greatly promote the efficiency of our common schools generally, and demonstrate the wisdom of the General Assembly in providing an inexpensive Normal School, centrally located and easy of access, to keep the State always supplied with well-trained teachers.

THE KENTUCKY EXPERIMENT STATION.

This Department of the State College originated in a resolution of the Executive Committee of the Board of Trustees, adopted in Septem-

ber, 1885, when the Department was organized and a Director appointed. In 1886 the Station was recognized and named by the General Assembly, and in 1887 it and a similar Station in every other State were each endowed by Congress with an annual appropriation of \$15,000.

The work of the Station is directed to two objects: 1. To a constant succession of experiments made by specialists, in order to learn what applications of science will insure the best returns from the farm, the garden, the orchard, the vineyard, the stockyard, and the dairy. 2. To the publication of bulletins announcing such results of the experiments as are found to be valuable to those of the people of Kentucky who seek profit from either of those prime sources of wealth — the soil, the flock, or the herd.

Results of experiments have been published in ten annual reports and ninety bulletins, and general appreciation of their utility is shown in the fact that, while no bulletin is sent except upon application for it, the mailing list of the Station contains more than 8,000 names, and is ever increasing.

With an ample endowment, a large and commodious building planned for the purpose, adequate apparatus, a good experimental farm conveniently situated, and seven capable scientists always employed and in correspondence with other stations, the Kentucky Experiment Station is not only an important adjunct of the College in the education of students for the leading industrial pursuits, but, directly or indirectly, through the wide and continual diffusion of knowledge for the benefit of so large a proportion of our population, it is bound to be extremely useful to the Commonwealth at large.

LOCATION.

The State College of Kentucky is established in the old City Park, just within the southern boundary of Lexington and near the Cincinnati Southern Railway. The site is elevated and commands a good view of much of the city and of the surrounding country.

Lexington, now a growing city of thirty-odd thousand inhabitants, is in the heart of the far-famed Bluegrass Region, a region distinguished for fertility and healthfulness, wealth and beauty. Numerous schools and churches, an intelligent and refined population, well-paved streets, handsome buildings, extensive water-works, and an unsurpassed system of street electric railways make Lexington attractive as a seat of learning and place of residence, while the splendid stock farms scattered over the large body of fertile country around it afford advantages hardly equalled elsewhere for the student who desires to become familiar with the best breeds of horses, cattle, sheep, and swine in America. Moreover, Lexington is the railroad center of Kentucky, and in immediate connection with Louisville, Cincinnati, Maysville, and Chattanooga, and with more than seventy counties of the Commonwealth.

GROUND.

The campus of the College consists of fifty-two acres of land, located within the corporate limits of Lexington. The South Limestone Street electric car line extends along the greater part of its western border, giving opportunity to reach in a few minutes any part of the city. The campus is laid out in walks, drives, and lawns, and is planted with a choice variety of native and exotic trees and shrubs, to which additions are constantly being made. A portion of the land has recently been reserved for a botanical garden, in which will be grown the most desirable native plants, with a view to testing their adaptability to cultivation, and to give increased facilities to students taking agricultural and biological courses. Two and a half acres, forming the northeast portion of the campus, inclosed and provided with a grand stand, is devoted to the field sports of students.

About three quarters of a mile south of the campus, on the Nicholasville pike, an extension of South Limestone Street, is the Experiment Station Farm, consisting of two hundred and three acres, to which sixty-four and a half acres have been added by recent purchase. Here the field experiments of the Station are conducted, and students have opportunities to witness tests of varieties of field crops, dairy tests, fertilizer tests, fruit-spraying tests, in short, all the scientific experimentation of a thoroughly equipped and organized Station. The front of the farm is pasture and orchard. The back portion is divided off into two hundred one-tenth acre plots, for convenience in making crop tests.

BUILDINGS.

The main college building is a structure of stone and brick, 140 feet long and 68 feet in width. It contains the office of the President and of the Business Agent, and on the third floor, counting the basement floor as one, is the chapel, in which each day the students and Faculty meet, and in which are held public gatherings and such other meetings as bring together the entire student body. The remaining space in this building is occupied by recitation rooms and by the society rooms of the students.

The Station building is a handsome structure, well planned for the object for which it was made. It is seventy feet in length by fifty-four feet in width, with a tower projection in front, and an octagonal projection eighteen by eighteen on the north side. The building is two stories high, and a basement eleven feet from floor to ceiling. The main entrance is on the first floor, on the west side of the building, through an archway fifteen feet wide. The basement is occupied in part by the Station and in part by the College. The next floor above is devoted to office and laboratory work of the Station, while the upper floor accommodates the College work in Chemistry.

The building devoted to Mechanical Engineering covers altogether an area of about 20,000 feet, is constructed of stone and pressed brick,

and is well furnished with modern conveniences for work in this branch of engineering.

Two large brick dormitories on the campus afford boarding conveniences for the students who wish to lessen expense in this direction. Other buildings on the campus are a brick dwelling for the President and a cottage occupied by the Commandant.

Science Hall, built during the year 1897 for the departments of Natural Science, is 96 x 97 feet, of pressed brick trimmed with Bowling Green limestone. The wide halls, the numerous and spacious lecture-rooms, laboratories and offices in its three stories are conveniently arranged, well lighted, and the rooms well furnished.

On the Experiment Farm are a brick dwelling occupied by the Director of the Station, and the usual farm buildings for the care of tools, the protection of stock, and the like.

A brick building, 157 feet long and 100 wide, with the central part three stories high and the wings two, is to be built just north of the main building and completed by the 15th of August, at a cost of \$25,000. The central part will be appropriated to the College societies and the Y. M. C. A.; the wings will contain the Drill Hall and the Gymnasium.

A site of three and a half acres, on Limestone Street and a fourth of a mile south of the College, has been purchased for the Young Women's Dormitory. The building is to cost \$20,000 and be completed by the beginning of the next session.

DEVELOPMENT.

The growth of the College from year to year is shown in the following summary:

1862. To establish and endow a college, chiefly for instruction in agriculture and the mechanic arts, an act of Congress apportioned to each State, for each of its Senators and Representatives in Congress, 30,000 acres of the public land.

1865. The General Assembly of Kentucky having accepted the State's portion under the conditions prescribed, established the Agricultural and Mechanical College, making it one of the colleges of Kentucky University, then recently united with Transylvania University and located at Lexington, citizens of Lexington and its vicinity donating \$110,000 to the Curators of the University to buy a site for the College. The General Assembly having authorized the Commissioners of the Sinking Fund to sell the 330,000 acres apportioned to Kentucky, by the mismanagement of the Commissioners' agent the State realized for its land only \$165,000.

1866. The College opened with a President, four Professors, and a Commandant.

1878. Dissatisfied with the management of the College by the Curators, who were engaged in a long factional strife, the General Assembly severed the connection with the University, and appointed a commission to re-locate the College, to provide for its continuance in operation till re-located, and to prepare "a plan for a first-class University." Kentucky University claiming and retaining the former site of the College, the sole property left the latter after the severance was an income of \$9,900 derived from the land grant.

1880. The City of Lexington offering the City Park of fifty-two acres as a new site for the College, and also \$30,000 in bonds, and the County of Fayette offering \$20,000 besides,

the General Assembly ratified the selection of a site made by a majority of the commission, and located the College permanently in Lexington.

1880. To provide teachers for the Common Schools of the State and for other schools, the General Assembly added to the College a Normal Department, which should admit, besides other students, one from each representative district every year free of tuition.

1880. Further to endow the College and to enable it to purchase apparatus, machinery, implements, and a library; to maintain the Normal Department, and to defray other necessary expenses, the General Assembly imposed a tax of one-half cent on each hundred dollars of the assessed value of all property in the State liable to taxation for State revenue and belonging to its white inhabitants.

1880. The Classical and Normal Departments and the Academy added.

1882. The College Building, the First Dormitory, and the President's House completed.

1885. The Commandant's House reconstructed.

1887. To enlarge by experiments and to diffuse the knowledge of agriculture, an act of Congress established, under the direction of the Agricultural and Mechanical College in each State, an Agricultural Experiment Station, appropriating for its support \$15,000 per annum.

1887. The Department of Civil Engineering established, an experimental farm of forty-eight acres purchased, and the College greenhouse built.

1889. The Experiment Station Building completed.

1890. The Second Dormitory completed.

1890. For "the more complete endowment" of Agricultural and Mechanical Colleges, an act of Congress appropriated to each State \$15,000 for the year ending June 30, 1890, and the same sum with an increase of \$1,000 per annum for ten years, after which the maximum of \$25,000 should continue without change. Of the amount thus annually appropriated, the College receives 85 per cent. and the school of the colored people at Frankfort 15 per cent.

1891. The Department of Mechanical Engineering established.

1892. The Mechanical Building and Workshops completed.

1894. Greenhouses for the Experiment Station built.

1895. The Annex to the Mechanical Building and the Insectarium for the Station built.

1897. The Department of Electrical Engineering established. Additions made to the Greenhouses and Insectarium.

1898. The Building for Natural Science completed.

1898. Sixty-four and a half acres added to the Experimental Farm, making 113 in all.

1900. Sixty thousand dollars appropriated by the General Assembly for a Dormitory for Young Women, for a Gynasium and Drill Room, and a Hall for the Y. M. C. A.

1901. Ninety acres added to the Experimental Farm, making 203 in all. The Building erected containing the Gymnasium, the Drill Room, and Halls for the Societies and the Y. M. C. A. The Young Women's Dormitory built.

Increase of Property—The property of the College is estimated to be worth \$600,000 more than it was in 1880.

Increase of Teachers—Before 1880 the College had six Professors; it now has sixteen Professors and sixteen Assistants.

Increase of Courses—Before 1880 the College offered a single course of study leading to a degree; it now offers eight.

Increase of Students—The number enrolled during the session of 1898-99 was about 480, considerably the largest till then in the history of the College; last session the number was 563; this session it is 614.

Increase of Graduates—No fact more distinctly marks the growth of the College than the increase in the number of its graduates. More students were graduated in 1897 than were graduated in the first seventeen years, and the number of those graduated during the last seven is greater than that of the first thirty.

BOARD OF TRUSTEES.

HIS EXCELLENCY THE GOVERNOR OF KENTUCKY,
CHAIRMAN EX-OFFICIO.

PRESIDENT JAMES K. PATTERSON,
MEMBER EX-OFFICIO.

TERM EXPIRES JANUARY, 1902.

GEN. E. H. HOBSON.....Greensburg.
JOHN B. KENNEDY, Esq.....Paris.
JUDGE GEORGE B. KINKEAD.....Lexington.
WILLIAM R. RAMSEY, Esq.....London.
CAPT. THOMAS TODD.....Shelbyville.

TERM EXPIRES JANUARY, 1904.

W. T. FOWLER, Esq.....Hopkinsville.
D. F. FRAZEE, Esq.....Lexington.
L. N. LINDSEY, Esq.....Frankfort.
J. B. MARCUM, Esq.....Jackson.
R. C. STOLL, Esq.....Lexington.

TERM EXPIRES JANUARY, 1906.

HON. B. W. BRADBURN.....Bowling Green.
JUDGE HENRY S. BARKER.....Louisville.
HON. McDOWELL FERGUSON.....Paducah.
HON. J. F. HAGER.....Ashland.
HON. R. W. NELSON.....Newport.

EXECUTIVE COMMITTEE.

D. F. FRAZEE,
Chairman.
G. B. KINKEAD,
R. W. NELSON,
J. K. PATTERSON,
R. C. STOLL.

VICTOR E. MUNCY,
Secretary of the Board and of the Committee.

FACULTY.

(In the order of appointment.)

JAMES KENNEDY PATTERSON, PH. D., LL. D., F. S. A., *President,*
Professor of History, Political Economy, and Metaphysics.

JAMES GARRARD WHITE, A. M.,
Professor of Mathematics and Astronomy.

JOHN HENRY NEVILLE, A. M., LL. D., *Vice-President,*
Professor of Greek and Latin.

WALTER KENNEDY PATTERSON, A. M.,
Principal of the Academy.

JOSEPH HOEING KASTLE, PH. D.,
Professor of Chemistry.

RURIC NEVILLE ROARK, PH. D.,
Principal of the Normal School.

JOSEPH WILLIAM PRYOR, M. D.,
Professor of Anatomy and Physiology.

FREDERIC PAUL ANDERSON, M. E.,
Professor of Mechanical Engineering.

CLARENCE WENTWORTH MATHEWS, B. S.,
Professor of Botany, Horticulture, and Agriculture.

ARTHUR MCQUISTON MILLER, A. M.,
Professor of Geology and Zoölogy.

MERRY LEWIS PENCE, M. S.,
Professor of Physics.

PAUL WERNICKE,
Professor of Modern Languages.

JOHN PASCAL BROOKS, M. S.,
Professor of Civil Engineering.

ALEXANDER ST. CLAIR MACKENZIE, M. A.,
Professor of English and Logic.

WILLIAM THOMAS CARPENTER, B. M. E.,
Commandant and Professor of Military Science.

ASSISTANTS.

JOHN LEWIS LOGAN, A. B.,
Assistant Professor in the Academy.

ROBERT LEE BLANTON, M. LIT.,
Assistant Professor of Greek and Latin.

JOSEPH MORTON DAVIS, A. B., B. S.,
Assistant in the Academy.

JAMES RICHARD JOHNSON, B. M. E.,
Assistant in Mathematics.

CHARLES RALPH STURDEVANT, M. E.,
Assistant Professor of Electrical Engineering.

JOHN THEODORE FAIG, M. E.,
Assistant Professor of Mechanical Engineering.

SAMUEL CARRUTHERS DEBOW, B. M. E.,
Laboratory Assistant in Experimental Engineering.

MILFORD WHITE, B. C. E.,
Assistant in the Normal School.

JAMES EDWARD WINSTON, M. A.,
Assistant in the Academy.

LEON KAUFMAN FRANKEL, B. M. E.,
Assistant in Shopwork and Drawing.

JOSEPH DICKER,
Assistant in Blacksmith Shop and Foundry.

MISS MIRIAM GRATZ CLAY,
Assistant in Drawing.

JOHN ALBERTUS SHARON,
Assistant in English and Mathematics.

ELIJAH ALEXANDER WALDEN,
Engineer and Assistant in Wood Shop.

LECTURE ASSISTANTS.

MARIUS EARLY JOHNSON, B. S.,
Fellow in Chemistry.

JOHN TEVIS GUNN, A. B.,
Fellow in German.

OTHER OFFICERS.

MRS. LUCY BERRY BLACKBURN,
Monitress.

JOSEPH WILLIAM PRYOR, M. D.,
Surgeon of the Battalion.

MISS MARY HODGES,
Stenographer.

VICTOR EMANUEL MUNCY,
Business Manager and Secretary of the Faculty.

THE KENTUCKY EXPERIMENT STATION.

BOARD OF CONTROL.

J. B. MARCUM, Esq., *Chairman* Jackson.
D. F. FRAZEE, Esq. Lexington.
J. B. KENNEDY, Esq. Paris.
CAPT. THOMAS TODD Shelbyville.
PRESIDENT JAMES K. PATTERSON, *Ex-officio* Lexington.
DIRECTOR M. A. SCOVELL, *Ex-officio* Lexington.

OFFICERS OF THE STATION.

MELVILLE AMASA SCOVELL,
Director.

ALFRED MEREDITH PETER,
Chemist.

HENRY ERNEST CURTIS,
Chemist.

HARRISON GARMAN,
Entomologist and Botanist.

CLARENCE WENTWORTH MATHEWS,
Horticulturist.

ROBERT MCDOWELL ALLEN,
Clerk.

JOB DARBIN TURNER, B. PED.,
Secretary to the Director.

JOSEPH NELSON HARPER,
Superintendent of Field Experiments and Dairyman.

LEON OLIVER BEATTY, M. S.,
Assistant in Chemistry.

WILLIAM HENRY SCHERFFIUS, B. S.,
Assistant in Chemistry.

JAMES OSCAR LA BACH,
Chemist in Pure Food Department.

HUMBOLDT LUGGER,
Assistant in Entomology and Botany.

U. S. WEATHER BUREAU.

OBSERVER, R. Q. GRANT.

There has been established at the College by the U. S. Department of Agriculture a Station of the Weather Bureau, with first-class instrumental equipment, and working in close connection with the College and the Experiment Station. Students who are interested in the study of meteorology and kindred sciences will find at this station of the Bureau a rare chance for special investigation, and they are welcome to such benefits as the Station affords.

ADMISSION.

A student is admitted to The State College in one of five ways:

- I. By examination.
- II. By certificate from an accredited school.
- III. By certificate from the College Academy.
- IV. By transfer of credits from a college or university.
- V. As a special student.

I. ADMISSION BY EXAMINATION.

I. IN ENGLISH.—(a) On Advanced Grammar. Selections for analysis and parsing are arranged to test the candidate's knowledge of the structure of the language. (b) On Rhetoric and Composition. The candidate is required to write two essays of not less than two hundred words each, one on a subject taken from a prescribed work of some standard author, the other on a subject chosen by the candidate. The books from which subjects will be taken are: 1902—Burke's *Speech on Conciliation with the Colonies*; Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comas* and *Lycidas*; Macaulay's essays on *Milton* and *Addison*. 1903, 1904, 1905—Shakespeare's *Merchant of*

Venice and *Julius Cæsar*; Addison's *Sir Roger de Coverley Papers*; Goldsmith's *Vicar of Wakefield*; Coleridge's *Ancient Mariner*; Scott's *Ivanhoe*; Carlyle's essay on *Burns*; Tennyson's *Princess*; Lowell's *Vision of Sir Launfal*; George Eliot's *Silas Marner*; and also the books prescribed for 1902.

For a connected account of these books and of their authors Halleck's *History of English Literature* is recommended. The candidate must be familiar with the plots, incidents, and characters of each work, and be prepared to show his ability to write correct English. No candidate will be admitted whose work is notably deficient in a knowledge of spelling, punctuation, paragraphing, and syntax.

2. IN HISTORY.—(a) On Eggleston's *History of the United States*, or an equivalent. (b) On General History, in amount equivalent to Anderson's *General History*.

3. IN GEOGRAPHY.—(a) On Advanced Descriptive, Mathematical, and Political Geography, as presented in Butler's *Complete*, or The *Natural Advanced Geography*. (b) On Physical Geography, as presented by Tarr or Davis.

4. IN MATHEMATICS.—(a) On Arithmetic. A thorough knowledge of the subject is required. (b) On Algebra. The student must show a thorough knowledge of the subject as presented in Wentworth's *Higher Algebra*, including factors, common divisors and multiples, fractions, involution, embracing the binomial theorem for positive integral exponents, evolution, theory of exponents, radicals, imaginary quantities, inequalities, equations of the first and second degrees involving one or more unknown quantities, equations solved like quadratics, simple indeterminate equations, and equations involving radicals. The student is expected to state and explain the reason for every step in his work. (c) On Geometry. The student must exhibit a knowledge of the subject as treated in books I., II., III. of Beman and Smith's *Geometry*, including the larger part of the matter relating to triangles, parallels and parallelograms, polygons and circles, as presented in the best American text-books. The student should be able to apply the principles of Geometry to practical examples, to construct diagrams quickly and accurately. In proving a theorem or solving a problem he should be able to prove every statement made, by going back, step by step, till he rests upon primary definitions and axioms.

Beginning with September, 1903, a knowledge of all of Plane Geometry will be required for admission to the Freshman Class.

5. IN LATIN.—On genders, declensions, conjugations, syntax, and idioms as they are treated in Smiley and Storke's *Beginner's Latin Book*; Viri Romæ; ten lives of Nepos; five books of Cæsar; Daniell's *New Latin Composition*; Creighton's *History of Rome*; Guerber's *Myths of Greece and Rome*.

Strict attention must be paid to quantity and accent.

6. IN GREEK.—On genders, declensions, conjugations, accents, syntax, and idioms as they are treated in White's *Beginner's Greek*

Book; Moss' Greek Reader; five books of Xenophon's Anabasis; Pearson's Greek Prose Composition; Oman's History of Greece.

Equivalents are accepted in both Latin and Greek.

Candidates for admission to the courses in Science, Agriculture, Mechanical and Civil Engineering will be examined on 1, 2, 3, and 4.

Candidates for admission to the course in Pedagogy will be examined on 1, 2 (a), 3 (a), 4, and 5.

Candidates for admission to the course in Classics will be examined on 1, 2 (a), 3 (a), 4, 5, and 6. If French and German be substituted for Greek, 6 will be omitted.

II. ADMISSION FROM AN ACCREDITED SCHOOL.

An applicant for admission to a class in the College, who presents from the Principal or Superintendent of an accredited school a certificate that he has duly completed the courses of study prescribed for admission to the class, will receive from the President of the College a permit entitling him to admission thereto without further examination.

The list of accredited schools is given on page 102.

III. ADMISSION FROM THE COLLEGE ACADEMY.

A student who presents from the Principal of the Academy a certificate that he has properly completed either course of study set forth in the curriculum of the Academy, will be admitted to the Freshman Class of the corresponding course in the College without further examination.

IV. ADMISSION FROM A COLLEGE OR UNIVERSITY.

An applicant for admission who has been a student of another college or of a university of respectable standing, upon presenting a certificate of his honorable dismissal therefrom, may be admitted *ad eundem gradum* in this College, provided that he shall satisfy the appropriate professors that he has duly completed a course of study equivalent to that completed by the class which he proposes to enter.

V. ADMISSION AS SPECIAL STUDENT.

A graduate of another college or of a university may enter this College at any age in order to pursue a special line of work and study, but all others must be at least twenty-four years of age, the limit below which appointments of beneficiaries under the law must be made.

DEPARTMENTS.

The studies of the State College are distributed into seventeen Departments, each in charge of a responsible head, the heads constituting the Faculty. Arranged in chronological order the Departments are :

- I. History, Political Economy, and Metaphysics.
- II. Botany, Horticulture, and Agriculture.
- III. The English Language and Literature.
- IV. Military Science.
- V. Chemistry.
- VI. Mathematics and Astronomy.
- VII. Modern Languages.
- VIII. Greek and Latin.
- IX. The Academy.
- X. Pedagogy, or the Normal School.
- XI. Civil Engineering.
- XII. Mechanical and Electrical Engineering.
- XIII. Anatomy and Physiology.
- XIV. Geology.
- XV. Zoölogy.
- XVI. Physics.
- XVII. Entomology.

COURSES OF STUDY.

I. DEPARTMENT OF HISTORY, POLITICAL ECONOMY, AND METAPHYSICS.

PRESIDENT PATTERSON.

The course of instruction in this Department includes an outline of Ancient, Mediæval, and Modern History. Attention is given to the various forms of government, their characteristic features and points of difference, to the progress of civilization, the origin and development of parliamentary government, the rights and duties of citizenship.

In the period covered, Modern History and the History of England and of the United States occupy the most prominent place.

Walker's Science of Wealth is made the basis of instruction in Political Economy. Students are, however, made familiar with the principles upon which rest the rival doctrines of Protection and Free Trade.

The study of Mental and Moral Philosophy extends through one year. Sir William Hamilton is used as the basis of instruction in Metaphysics, and Mackenzie in Ethics. Concurrently with recitations from these authorities, the pupil is made familiar with the principles upon which rival systems of philosophy and morals are based and the arguments by which they are maintained. Ancient and modern systems are thus brought under review, and the necessary data furnished upon which to ground intelligent opinions.

II. DEPARTMENT OF BOTANY, HORTICULTURE, AND AGRICULTURE.

PROFESSOR MATHEWS.

This Department occupies rooms on the first floor of the Natural Science Building, including a general laboratory, a lecture room and advanced laboratory, and an instructor's office.

Each laboratory is suitably furnished with tables, water and gas fixtures, charts, etc., and the lecture room with opera chairs, a stereopticon, etc. The further equipment, both for elementary work and for the use of advanced students, is new and of the best quality, and includes an ample supply of compound and dissecting microscopes for the individual use of each student, several first-class microtomes, ovens, and sterilizing apparatus, together with delicate balances and other apparatus for the study of plant physiology.

Among other facilities for study, the Department possesses a greenhouse (85 x 20 feet), giving an opportunity for the continuous study of

living plants throughout the winter months and for experiment work in plant physiology.

The herbarium contains a nearly complete representation of the flora of Kentucky, with a considerable number of foreign exchanges. It is due primarily to the efforts of the late Dr. Robert Peter, who made a quite extensive collection of Kentucky plants about sixty years ago, and also exchanged specimens with the prominent botanists of that day, thus forming the nucleus of the present collection, which therefore possesses considerable historical value. Constant additions are now being made to the herbarium by collecting excursions over the state and by exchanges with other institutions.

The Department Library is receiving constant accessions of carefully selected books, and already contains the most important botanical and horticultural works of reference, and these, as well as the best current literature upon these subjects, are freely available to students during college hours.

For the study of horticulture and agriculture, many of the appliances already mentioned are again utilized, and in addition the very complete equipment of the Experiment Station incidentally affords superior opportunities for the instruction of students.

The Horticultural Department of the Station (which is also under the charge of the Professor of Botany and Horticulture) has an excellent forcing and greenhouse plant upon the college grounds, consisting of four glass houses of the most approved methods of construction, containing 4,000 feet of glass, in addition to hot-beds and cold frames outside. These houses are run to their full capacity through the winter months in the conduct of experiments upon the culture of lettuce, radishes, tomatoes, cauliflower, and other vegetables, and upon the various methods of plant propagation.

The extensive list of varieties of vegetables and fruits growing upon the Experiment Farm gives an opportunity for a comparative study of varieties rarely, if ever, found upon the ordinary farm.

The College campus contains a large number of ornamental trees and shrubs, and numerous varieties of annual and perennial flowering plants, and, with other public grounds in Lexington, affords ample facilities for the study of ornamental or landscape horticulture.

In the distinctively agricultural studies the operations of the farm department of the Experiment Station furnish an excellent opportunity for the study of the effects of various fertilizers, varieties of wheat, corn, and other field crops, and the many problems of dairying.

In order to give special attention to dairy experiments a building has recently been erected upon the Station Farm, and fully equipped with the most modern appliances for the care of milk and the manufacture of butter and cheese.

All these facilities for the experiment work of the Station, while primarily designed for that purpose, can not fail to be of the greatest value as object lessons in connection with the studies of pupils in agriculture.

The general subjects comprised within the scope of this department are subdivided as follows :

I. ELEMENTARY BOTANY.

Required of all students of the Scientific, Normal, and Agricultural courses who have not completed a corresponding course in some preparatory school.

SPRING TERM—This course consists of a study of the elements of structural botany and plant physiology, with determination of a considerable number of species of the flowering plants. It corresponds to the work done in most of the high schools of the state, and if satisfactory evidence is presented, by examination or otherwise, that such a course has been completed before entering the College, a student will be admitted directly to the general botany of the Sophomore Class.

Text-books and books of reference: Gray's Lessons and Manual of Botany; Bailey's Lessons with Plants; Bergen's Elements of Botany.

II. GENERAL BOTANY.

Required of all Sophomores in the Scientific, Normal, and Agricultural courses.

FALL AND WINTER TERMS—The work of the course comprises a general survey of the morphology and physiology of plants, and it is designed to give the student who goes no further with the subject a comprehensive view of the entire vegetable kingdom, while for the student who will continue his botanical study it is intended to afford a substantial basis for more exhaustive special studies. While it is accompanied with lectures and recitations, the laboratory method is the form of instruction principally used, and from the very beginning of his work the pupil is directed to the study of plants themselves, using the text-book as an aid to correct his mistakes and to enlarge his field of view. He is early instructed in the use of the compound and dissecting microscopes, and with their aid he begins in the Fall Term the study of the vegetable cell and its various modifications; and this study is followed by a series of lectures with demonstrations upon plant physiology, and later by a critical study of typical representatives of each branch of the vegetable kingdom.

Text-books: Bessey's Botany, supplemented by directions in the laboratory, and by numerous standard works of reference.

III. SYSTEMATIC BOTANY.

Required of Sophomores who elect Geology, Zoölogy, Botany or Agriculture as major study.

SPRING TERM—The principal feature of this course is the taxonomy and classification of the ferns and flowering plants, with special reference to the more difficult groups of Compositæ, Gramineæ, Cyperaceæ,

etc. During the following summer vacation the student will be required to make a collection of specimens of flowering plants and ferns for the herbarium, a part of which will be utilized in his studies of the Junior year.

IV. ECONOMIC BOTANY AND PLANT HISTOLOGY.

Required of Juniors who elect Botany or Agriculture as major study.

FALL TERM—In Economic Botany, which is assigned for Tuesdays and Thursdays, a thorough study is made of selected families of plants, with regard to their characteristics, distribution, habitat, economic importance, etc. In Histology the student is given instruction and training in collodion, paraffine, and other methods of preparing vegetable tissues for microscopic study, accompanied and followed by a study of the slides so prepared.

V. ALGAE AND FUNGI.

Required of Juniors who elect Botany or Agriculture.

SPRING TERM—The course comprises lectures and laboratory work, the students in Agriculture giving especial attention to injurious fungi. Each student is expected to collect a considerable amount of material during the next summer vacation.

VI. THESIS.

The first term of the Senior year is devoted to the study of some special subject, selected with reference to the taste and abilities of the student, as a preliminary to the preparation, during the winter and spring terms, of a Thesis for graduation.

VII. HORTICULTURE.

Required in the Agricultural Course. The work in this subject begins in January of the Junior year and extends through two terms. The time allotted to the subject is divided between lectures, recitations, and actual practice in horticultural operations, special prominence being given to the latter feature of the course.

In the lectures are discussed the principles underlying horticultural practices; the propagation of plants; the physiological considerations upon which are based the operations of budding, grafting, pruning, training, etc.; greenhouses, their construction, heating, and management; and vegetable, fruit, and landscape gardening. In connection with the lectures the work in the greenhouses and upon the college and experimental grounds is freely used for illustrative purposes, and occasional visits are made to the greenhouses, nurseries, market and fruit gardens, and the canning factory, all of which are well represented in or near Lexington.

In the practical part of his studies the pupil is not only taught the best methods of doing his work, but is encouraged to seek for the principles that make such methods best. He performs for himself the

various operations of seed testing and seed sowing; propagation by cutting, layering, division, etc.; budding, grafting, crossing, hybridizing, and other forms of horticultural practice.

In order to make this work of the highest value to the student, he is required throughout the course to make accurate observations and careful notes upon his progress, and upon the results of all these processes.

VIII. GENERAL AGRICULTURE.

Required of Juniors in the Agricultural Course.

The subject is taught by means of text-books and lectures, and illustrated by the work of the farm, garden, and greenhouse, all of which are fully equipped. It involves a discussion of soils, their origin, character, and cultivation; draining and irrigation, fertilizers, farm economy, etc. The second term is occupied with the subject of breeds of stock, the principles of breeding and feeding, and milk, as to its production, and the manufacture of the various dairy products.

For the study of stock-breeding and kindred subjects the location of the College is exceptionally favorable, being situated in the center of the far-famed Bluegrass region of Kentucky, with its numerous herds of high-bred cattle and horses. In the entire work of this course material aid is rendered the student by the important experiments of the State Experiment Station, which are at all times available for observation and study.

THE COURSE IN AGRICULTURE.

The distinctive feature of this course is the instruction in those branches of study which bear the most direct and practical relation to agricultural pursuits. It includes as subjects of primary importance the study of General and Agricultural Chemistry, General Zoölogy and Entomology, Botany, Horticulture, Geology, and General Agriculture.

In addition to these subjects, the student devotes considerable time to the work of other departments, including a year each in English and Mathematics, courses in Drawing, French and German, Physiology, Physics, and Political Economy.

To meet the needs of young men who can not for any reason hope to complete a four years' course in Agriculture, a special course of two years has been arranged.

This course includes all of the more distinctively agricultural subjects of the full course, but does not lead to a degree. A certificate of proficiency will, however, be issued to those students who complete the studies of the entire course in a satisfactory manner.

The schedule of studies for this course will be found on another page.

THE SHORT (WINTER) COURSE IN AGRICULTURE.

In this course an opportunity has recently been provided for young men, who desire to excel in their chosen occupation of farming, to secure an elementary knowledge of those scientific principles which lie

at the foundation of all success in agriculture. In order that such a course of study may not interfere with the work of the busy season upon Kentucky farms, it will begin in January immediately after the Christmas recess, and will continue for ten weeks. Its aim is to give to ambitious young farmers accurate and practical information on such important topics as manures and commercial fertilizers; agricultural chemistry; soils, and their origin; plant life on the farm; vegetable and fruit growing; diseases of plants; injurious insects; the principles of veterinary science, and the treatment of the simpler ailments of farm animals; care and feeding of live stock; the dairy cow; milk, and the manufacture of butter and cheese.

In such subjects as will permit it actual practice will be given in the manipulation of material and appliances of study, such as the care of milk; practical butter-making; spraying plants for injurious insects and diseases; and, in horticulture, the practices of seed-sowing, pruning and training, grafting, etc.

This course affords to young men on farms, whose time and means are limited, an opportunity to utilize the winter months to the highest possible advantage by fitting themselves more thoroughly for their life-work.

No examinations are required for admission to this course, the only requirements being that the applicant must be of good moral character, must have had a good common school education, and be at least sixteen years of age, or preferably somewhat older, to fully profit by this course.

To residents of Kentucky instruction in this course will be free, the only expenses being the cost of a few books and other necessary incidentals, together with board and room and other personal expenses. Board and a room can be secured at prices varying from three to five dollars per week; so that the total expenses of a student during his entire eight weeks' stay need not exceed from thirty-five to fifty dollars.

Further information regarding this course may be obtained by addressing President Patterson or Professor Mathews at the College.

III. DEPARTMENT OF ENGLISH.

PROFESSOR MACKENZIE.

The intention is to make the course in English as thorough and comprehensive as that of any college in the United States. Several collateral questions are embodied, because a knowledge of them is essential to a liberal education, and if neglected in the English Course, they fall less appropriately into the routine of any other college department. In spite of certain necessary restrictions, abundant scope is given for individuality, and the ambitious student is offered every encouragement. In view of the fact that over 80,000 books are issued annually by the more cultured nations of the old world and the new, of which only 13,000 are published in Britain and America, it becomes imperative that the student should have a bird's-eye view of the vast

non-English literature. A course in comparative literature has therefore been instituted, suggestive rather than exhaustive. Practically all the writings under review have appeared in English dress. Comparative Philology is almost the youngest as it is certainly one of the most important of the sciences. Philology divides human speech by noting differences, classifying it into tongues and nations; Comparative Philology sorts out and recombines the elements into their great families. For the student who aims at a scholarly knowledge of English, the study of Gothic, the oldest of the tongues with which English is cognate, is more than a luxury. "Anglo-Saxon and Gothic ought long ago to have made part of the education of our youth." (Horne Tooke.)

FRESHMAN YEAR.

FIRST TERM—American Literature, its genesis and genius. Students are expected to read the masterpieces of the various authors reviewed in the class-room; Lloyd Mifflin, the greatest of American sonneteers, is considered; due recognition is given to the literary workers of Kentucky.

SECOND TERM—A careful study of Emerson's essays. Emerson is compared with the leading European essayists, and lectures are delivered on the popular essay, the short technical essay, the monograph, the editorial article, and the book review. In order to develop the critical faculty, current American literature, as it appears in magazine or book form, is examined at intervals.

THIRD TERM—Shakespeare's *Much Ado About Nothing* (Clarendon Press, Oxford). Lectures on the miracle plays, moral plays, and interludes, followed by a comparison of the ancient Greek and the modern English drama.

Throughout the session training is given in the writing and criticism of essays, which are frequent rather than long. Stress is laid upon the cultivation of a style in composition that shall be at once accurate, strong, and graceful.

SOPHOMORE YEAR.

English literature from the Elizabethan to the Victorian period, including Shakespeare, Bacon, Milton, Addison, Burns, Scott, Macaulay, Dickens, Thackeray, George Eliot, Tennyson, and Kipling. In addition to the "gay science," the Shakespeare-Bacon and Ossianic controversies claim attention. Notice is taken of the rise of the newspaper, the growth of the novel, and the influence of the sciences and arts on literature. Theme-writing and etymology are not neglected.

JUNIOR YEAR.

FIRST TERM—English literature from Chaucer to Marlowe, including Langland, Malory, Dunbar, Douglas, More, Surrey, Wyatt, Lyndsay, Udall, Sackville, Ascham, Lyly, and Spenser. Lectures are given on Middle English grammar, and selections are read from

Chaucer or one of his contemporaries. The pedigree of words is traced by finding out either the language from which they are derived or the languages with which they are cognate. The invention and the progress of printing are reviewed.

SECOND TERM—Introduction to Comparative Literature. The aim of this short series of studies is to trace the evolution of literature and to find out whether English literature can be explained by English causes alone. The more notable figures in other literatures are estimated.

THIRD TERM—History of the English language; lectures on the origin of the English language, its Celtic, Teutonic, and classical elements, and its inflexions, with a glance at the way in which some words are raised to the peerage, while others fall into disrepute. The psychology of persuasion is explained, and the distinction is drawn between the English of the newspaper, the novel, the pulpit, the bar, and the public platform. The principles of versification are illustrated.

Students who elect Anglo-Saxon receive instruction in the parts of speech and in syntax, after which selections are read from Bede's History, King Alfred's Translations from Boethius and Orosius, and from the verse of Beowulf. The close relationship of Anglo-Saxon to our current speech is constantly kept in view, and Grimm's Law, with Verner's modification, is explained. Original research and independence of thought are fostered.

SENIOR YEAR.

Anglo-Saxon—Advanced students take up and study with some thoroughness Cynewulf's Christ. Lectures review the entire literature before the Conquest, and the Celtic literatures of Britain are not left in oblivion.

Comparative Philology—During the Second and Third Terms the great linguistic families are sketched, and the problems still unsolved are indicated. The more essential results of the labors of Bopp, Grimm, Curtius, and Max Müller are summarized. Attention is called to the theories that relate to the Gypsy or Romany language and people.

Oriental Studies—For the special benefit of students of Comparative Philology, a course in elementary Sanskrit or elementary Hebrew is offered. In the one case stress will be laid upon Aryan philology, and in the other upon Semitic.

Electives—In the course of studies leading to the degree of A. B. (major study, English), Junior students may elect Greek, Latin, Mathematics, or Anglo-Saxon (any two of them); Senior students may elect Anglo-Saxon, Sanskrit, or Hebrew in place of French or Natural Science.

Prize—The works of some standard author, open for competition to all regular Junior and Senior students, are offered for the best critique of the poets of Kentucky.

Senior students, who take the A. B. course (major study, English), are required to write a thesis on a topic approved by the Professor of English. It must display considerable research, and be untainted by plagiarism. An original poem of at least fifty lines in either English or Latin may be offered as an alternative.

Logic.

The Science of Logic; lectures on Pure Logic, in which Stoicheiology and Methodology are explained and illustrated; explanations and illustrations of the analytics of Aristotle and the New Analytic of Sir William Hamilton; exercises in Figure, Mood, and Reduction; lectures on Fallacies and the Sources of Error; lectures on Inductive and Analogical Reasoning; lectures on Evidence.

POST-GRADUATE STUDY.

1. Gothic language and literature. 2. The origin and literary history of the Arthurian legends and romances. 3. Early Scottish literature from Barbour (1375) to George Buchanan (1582), including Dunbar, Gavin Douglas, and Lyndsay; or, 4. Such a topic as may obtain the sanction of the Professor of English, any one as a minor study. Candidates for the degree of A. M. (major study, English) are advised to take Gothic and any other study they may choose from the foregoing list. Without a previous knowledge of Anglo-Saxon, the study of Gothic is not recommended.

Gothic—When a thorough study has been made of the phonology and the inflexions of the Gothic grammar (based on Braune's *Gotische Grammatik*), selections from *Ulfilas* (*Wulfila*) are read critically and philologically. The student is shown the relation of *Mæso-Gothic* to Anglo-Saxon, Frisian, and Icelandic (Old Norse), and is initiated into some of the mysteries of the Anglo-Saxon, Norse, and Gothic runes.

IV. DEPARTMENT OF MILITARY SCIENCE.

MAJOR CARPENTER.

Instruction in this Department is both practical and theoretical.

The practical course embraces the U. S. Drill Regulation for Infantry, including the schools of the soldier, company, and battalion in close and extended order; ceremonies; so much of the Artillery Drill Regulations as pertains to the manual of the piece and mechanical maneuvers; signaling with flag and heliograph; guard duty and minor tactics.

Theoretical instruction embraces recitations in U. S. Drill Regulations for Infantry and Artillery; instruction in the preparation of reports and returns pertaining to a company; lectures on the organization and administration of the United States Army, and general principles governing in the Art of War.

All students are required to take this course, and proficiency in it is as requisite for graduation as in any other Department.

Students must provide themselves with the regulation uniform of cadet gray cloth, which can be purchased for about fifteen dollars. No other outer dress, excepting an overcoat, shall be worn on any occasion. From this rule students may, however, be exempt when laboring in the field or in the shops.

V. DEPARTMENT OF CHEMISTRY.

PROFESSOR KASTLE.

The Chemical Department dates from the establishment of the institution. For many years it was under the direction of Dr. Robert Peter, who by his labors in analytical chemistry has probably done more than any other man to develop the abundant mineral resources of the State. The Department remained in the hands of Dr. Peter until 1887, when he resigned. Dr. E. A. Von Schweinitz was then appointed to the vacancy. He held the position during the collegiate year 1887-1888, whereupon the present incumbent was appointed. For many years the chemical laboratories and lecture-room occupied the eastern part of the main College building. In September, 1880, however, the Experiment Station building having been completed, the apparatus and equipment were moved from the laboratories in the main building to more suitable and beautiful rooms on the second floor of the Experiment Station building. The lecture-room and the laboratories, qualitative and quantitative, of the Chemical Department are exceedingly well adapted to their purpose, and are among the best constructed and most handsomely furnished of the rooms in the College. The qualitative laboratory contains three very large working tables, each of which can easily accommodate ten students. The quantitative laboratory is also well equipped with tables, hoods, water, gas, electricity, etc., and has desk room for at least fourteen students in all. The lecture-room is well lighted and heated and beautifully furnished and commodious, having a seating capacity of about seventy-five. Besides the laboratories and lecture-room, there are several other small rooms on the same floor set aside for the use of the Chemical Department:—an instructor's office, a balance-room, and a store-room.

APPARATUS.

The Department is well supplied with the commoner forms of chemical apparatus and chemicals. In addition to these it owns several of the more expensive pieces of apparatus, such as several exceedingly delicate balances for analytical work; a grand model Bunsen & Kirchoff spectroscope; platinum apparatus; a complete outfit for electro-plating; vapor density apparatus; a glass model ice-machine, etc. These of course will be added to from time to time as the needs of the Department demand and the resources of the institution permit; as it is now, however, the equipment is such as readily to enable the student to obtain at first hand a good working knowledge of chemical science.

COURSE IN CHEMISTRY.

The Chemical Course is one of several scientific courses offered by the College. It was first offered in 1894 with the view of preparing the student for life work in Chemistry, and also with the view of fitting him

for the study of medicine and kindred professions. To the accomplishment of this purpose the following course of study, extending over a period of four years, has been adopted.

STUDIES REQUIRED.

The first year is devoted to the study of English, German, Physiology, Free Hand Drawing, and Mathematics, including Plane Geometry, Trigonometry, and Algebra. The second year to German, Physics, Botany, Chemistry, and Mathematics, including Solid and Analytical Geometry and Calculus. The third year to Theoretical Chemistry, English, Calculus, French, and laboratory work on the Chemistry of the metals and on Qualitative Analysis. The fourth year to Quantitative Analysis, Organic Chemistry, Chemical Reading on advanced topics, and to Chemical Research, History and Political Economy, Logic and Mental Philosophy.

For further information as to requirements, the Schedule may be consulted, page 53.

THE TRAINING IN CHEMISTRY PROPER.

The study of Chemistry proper, as outlined in the above, is sufficient in its scope to bring the student into close contact with the great fundamental truths of the Science, and to make him enthusiastic and capable in his profession.

The course in General Chemistry, extending through the second and third terms of the second year, consists of lectures and recitations five times weekly on the non-metals and their compounds and the simpler laws of chemical change. The lectures are abundantly illustrated by suitable and instructive experiments; the laboratory work is carefully directed, and the student receives every possible encouragement to do excellent work.

In the third year the study of Chemistry is resumed with laboratory work and Theoretical Chemistry. The study of Theoretical Chemistry, consisting of lectures, recitations, and readings five times weekly throughout the year, is intended to acquaint the student with the greatest generalizations and theories of modern chemistry and their historical development. In this connection about fifty lectures are delivered annually upon the following general topics: Ten upon the Atomic Theory, its development, and the methods at present used in the determination of atomic weights; fifteen upon the Compounds of Carbon, Isomerism and Structural Formulæ; ten upon the History of Chemistry; five upon the Periodic Law; five upon the Spectroscope, Spectrum Analysis, and the Chemistry of the Heavenly Bodies; five upon the more important current chemical investigations.

By way of supplementing the work of the lecturer, students pursuing this course will be required to do a certain, rather liberal, amount of general reading upon the matter treated of in the lectures or upon such other topics as may be assigned by the instructor. For

this purpose the nucleus of a chemical library has been formed, which may be freely consulted by any or all students in the College, and the leading chemical journals of this and other countries will there be kept on file. The broadening influences of such a course of study can scarcely be overestimated, and students who complete it satisfactorily will find themselves, in some measure at least, abreast of the highest and best chemical thought of our time.

The laboratory work during the first term of the third year is devoted to the study of the metals, and their more important compounds, and to qualitative analysis. This work is intended to supplement the work of the first year upon the non-metals, and also to familiarize the student more fully with the commoner methods of chemical manipulation and practice. The laboratory work of the first term will be followed up during the second and third with laboratory work in quantitative analysis, by means of which the student learns the value of precise and accurate work, and the constancy and definite character of chemical reactions. The chemical work of the last year will consist of such special work as the student may elect to pursue, together with the preparation of a thesis embodying the results of this special work. The object of such an arrangement is to perfect him in that particular branch of the science for which he shows a liking or a particular talent. In this connection it may be well to state that facilities are offered for special work along the following lines: Theoretical and Physical Chemistry, Organic Chemistry, Agricultural Chemistry, Physiological Chemistry, general analytical work, and special analytical work on fertilizers, iron and steel and fuels.

CHEMISTRY REQUIRED IN OTHER COURSES.

Instruction in chemistry in other courses of study, such as the Scientific, Classical, etc., is designed to meet the special needs of the student in these several directions.

In the Classical Course the study of this science extends over five months, five times weekly, and is intended simply to introduce the student to the subject by way of general education.

In the Scientific Course the work extends over ten months. A portion of this time is devoted to the study of the metals and qualitative analysis by means of laboratory work. In the course of Mechanical Engineering the instruction is adapted as completely as possible to the needs of students in this department. Instruction in chemistry in this course extends over a period of two terms, five months of which are devoted to the study of the non-metals and their compounds; five to the chemistry of the metals with special reference to the properties which render them useful to the mechanical engineer, and also with reference to their mode of occurrence in nature and the methods of obtaining them from the ores.

For students in Civil Engineering a course in chemistry has been provided as follows: General chemistry, one term; laboratory work on the metals, one term; and quantitative analysis, one term.

For the benefit of students of Agriculture a special course in Agricultural Chemistry has been arranged, the general aim of which is to acquaint the student with the chemistry of those elements which enter into the composition of plants, and which are essential to their life and growth. A study of the composition of the soil, air, and water, and their several relations to the plant as sources of plant food, forms a large and important part of this work. Also the chemistry of tillage, irrigation, and rotation of crops, and the composition and value of commercial fertilizers and manures.

The instruction in Chemistry is also adapted as fully as possible to the needs of students in Biology. Instruction in this branch extends over two terms, five times weekly. The first half of the time is devoted to the study of Elementary Chemistry; this is followed by laboratory work in the afternoon upon those elements which are regarded as essential to living things, animal and vegetable.

VI. DEPARTMENT OF MATHEMATICS AND ASTRONOMY.

PROFESSOR WHITE.

A thorough knowledge of Arithmetic, of Algebra through quadratic equations as presented in Wentworth's Higher Algebra, and of Plane Geometry as presented in books first and second of Beman and Smith's Geometry, is required for admission to the Freshman Class in Mathematics.

FRESHMAN CLASS.

FIRST TERM—Beman and Smith's Geometry, Books III, IV, V.

SECOND TERM—Wentworth's Plane Trigonometry.

THIRD TERM—Wentworth's Higher Algebra, from Chap. XXII.

SOPHOMORE CLASS.

FIRST TERM—Beman's and Smith's Solid Geometry.

SECOND TERM—Nichol's Analytical Geometry begun; Woolf's Descriptive Geometry begun.

THIRD TERM—Nichol's Analytical Geometry completed. Woolf's Descriptive Geometry completed. Osborne's Calculus begun.

JUNIOR CLASS.

FIRST TERM—Osborne's Calculus continued.

SECOND TERM—Osborne's Calculus completed.

SENIOR CLASS.

FIRST TERM—Spherical Trigonometry and Astronomy.

SECOND TERM—Young's Astronomy begun.

THIRD TERM—Young's Astronomy completed.

VII. DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR WERNICKE.

German.

The courses offered in German are :

G₁ : Three consecutive terms in elementary German.

G_s : An introduction to scientific prose (one term).

G₂ : Continuation of G₁, involving an introduction to German literature, and practice in composition (two terms).

G₃ : Advanced composition. Introduction to various styles.

G_h : History of German literature based on the national history.

G_c : Advanced conversational exercises (one term).

G_l : Study of some author or branch of literature (Schiller, Lessing, etc.).

G_{ph} : Introduction to the philology of Germanic languages.

All classical and scientific students take G₁, G_s, and G₂, which are given annually. Candidates for the Master's degree, if German be one of their minor studies, will be assigned G₃, G_h or G_c; if German be their only minor study, additional work may be required. Candidates for the Master's degree who select German as their major study will take two of the courses G₃, G_h, G_c, G_l, and G_{ph}; and present a thesis written in German (about 4,000 words). Courses G_l and G_{ph} are primarily designed for this class of students, and will consist of lectures and weekly reports on individual work.

Romanic Languages.

This Department offers :

F₁ : Three consecutive terms in elementary French, taking the student through the main irregular verbs, and leading to a fair reading knowledge. Prerequisite : Some experience in the study of languages, such as is acquired in G₁ *plus* G₂, or in a two or three years' course in Latin.

F₂ : Introduction to French literature. Syntax and Composition (three terms).

F₃ : Advanced Composition (one term).

F_h : History of French literature, consisting of lectures and weekly reports on collateral reading (two terms).

F_c : Advanced conversational exercises (one term).

S₁ : Elementary Spanish (two terms).

S₂ : Advanced Spanish (one term).

I₁ : Elementary Italian.

I₂ : Advanced Italian.

All classical and scientific students take F₁, the former also F₂. Candidates for the degree of M. S., if French be one of their minor studies, will be assigned F₂; if French be their only minor study, further

work may be required. Candidates for the degree of M. A. will take Fh if French be one of their minor studies; F₃ *plus* Fh if it be their only minor. In addition thereto, those who select French as their major study will take either Fc, or S₁ *plus* S₂, or I₁, and will present a thesis written in French (about 4,000 words).

The text-books in this department are frequently changed, and a large portion of the instruction in all classes is independent of the manual adopted. Texts recently used are:

- G₁: Harris' German Lessons; Super's and Harris' Readers; Joynes-Meissner's Grammar.
 G_s: Hodges' Scientific German; Gore's Science Reader.
 G₂: Hoffmann's Historische Erzählungen; Freytag's Luther; Schiller's Tell, Maria Stuart, etc.; Scheffel's Trompeter; Freytag's Soll und Haben; Harris' Composition.
 G₃: Lessing's Nathan, Minna von Barnhelm, Laokoon, etc.
 Gh: Bernhardt's Litteraturgeschichte.
 Gl: Klenze's Gedichte.
 Gph: Paul's Mittel-hochd. Grammatik; Wackernagel, Edelsteine.
 Fr: Chardenal's Complete Course; Edgren's Grammar; Verne's Michael Strogoff; Tour du Monde; Van Daell's Introduction to French Authors; Fontane's Napoléon.
 F₂: Loti's Pêcheur d'Islande; Lacombe's Petite Histoire; Rostand's Cyrano de Bergerac; Whitney's Grammar, part II; Grandgent's Composition; Luquiens' Places and Peoples; Herdler's Scientific French Reader.
 Fh: Demogeot's and Aubert's Littérature Française.
 S₁: Edgren's Grammar; Matzke's Reader.
 S₂: Same, Knapp's Readings; Alarcon's El Capitan Veneno.
 I₁: Grandgent's Grammar; Bowen's Reader.
 I₂: Goldoni's Comedies; Pellico's Prigioni.

VIII. DEPARTMENT OF GREEK AND LATIN.

PROFESSOR NEVILLE, ASSISTANT PROFESSOR BLANTON.

Latin.

PREPARATORY.

First Session—Smiley and Storke's Beginner's Latin Book, the study involving a daily exercise in inflexion and in translation from and into Latin on the blackboard; Viri Romæ.

Second Session—Ten lives of Nepos; five books of Cæsar; Daniell's New Latin Composition; Creighton's History of Rome; Guerber's Myths of Greece and Rome.

FRESHMAN CLASS.

Six orations of Cicero; selections from Ovid, with instruction in scanning; the first and twenty-first books of Livy.

SOPHOMORE CLASS.

Six books of Virgil; Cicero De Senectute; the Captives of Plantus or the Phormio of Terence; Sallust's Conspiracy of Catiline.

JUNIOR CLASS.

Horace (except a part of the Epodes and most of the Satires), with the scanning of the more common metres; letters of Cicero and of Pliny; the first half of Bradley's Arnold's Latin Prose Composition.

SENIOR CLASS.

Tacitus—the Germania and the Agricola; the third, seventh, eighth, and tenth Satires of Juvenal; or, instead of the seventh and eighth, an essay of Seneca's; poems of Catullus; the second half of Arnold's Composition; Wilkins' Sketch of Latin Literature.

Greek.**PREPARATORY CLASS.**

First Session—White's Beginner's Greek Book, with a daily exercise in inflexion and in translation from and into Greek on the blackboard (all Greek to be written with the accents).

Second Session—Moss' Greek Reader; five books of Xenophon's Anabasis; Oman's History of Greece.

FRESHMAN CLASS.

Six books of the Iliad; selections from Herodotus; Plato's Apology and Crito; exercises in Greek syntax.

SOPHOMORE CLASS.

Four orations of Lysias; four of Demosthenes; dialogues of Lucian; exercises in syntax and prose composition.

JUNIOR CLASS.

Two books of Thucydides; poems of Theocritus, Bion, and Moschus.

SENIOR CLASS.

Three dramas (Prometheus, Medea, Ædipus Rex); Jebb's Sketch of Greek Literature.

The Professors of this Department offer courses of study equal to those of the best colleges, as long and as varied as the grade of their students and other limitations allow. In offering them they announce that their method of instruction, so far as it is distinctive, rests on the assumption that ability to write a language well is the infallible test of a real knowledge of it. Unusual attention is therefore given to Greek and Latin composition, the first session being devoted almost entirely to the writing of exercises. This leads directly to an accurate knowledge of the forms and meanings of words, of the rules of syntax, and of the idioms. Every student of the classes in grammar is required daily to translate on the blackboard an exercise from Greek or Latin into English, and another from English into Greek or Latin, and then to write out declensions and conjugations, with careful attention to the length of syllables and to accentuation. His work is then rapidly corrected by the teacher, who in making his corrections supplements the lesson of the text-book with instruction on the order of the words, on synonyms, on the derivation of English words suggested by the words of the exercise, and on other pertinent matters. This process involves great labor for the student and drudgery for the teacher, but it leads to a mastery of the grammar and to much more.

The second session is spent mostly in reading the easy Latin of Viri Romæ, Nepos, and Cæsar, or the easy Greek of the Reader and Xenophon, considerable attention being still directed to exercise writing. The student is encouraged in the habit of first reading the sentences in the Greek or Latin order of the words, and of then translating them in the English order and idiom. The translations are partly oral, partly written.

During the remainder of the courses the bright and diligent student proceeds from the easier authors to the more difficult, enlarging his vocabulary, extending and sharpening his knowledge of forms, syntax, and idioms, incidentally directing his attention to metres, geography, history, mythology, and antiquities, and perpetually and supremely to the effort to find the best English expression for the Greek or Latin thought; for, while more than a third, and that too unspeakably the most difficult third, of our own magnificent language is derived from Greek and Latin, and while the study of these tongues is therefore intensely practical to those who speak English, and indispensable to all who would thoroughly acquire it, yet it is in the intellectual training to be had from the proper translation of the Greek and Latin authors that the advocates of classical learning find their amplest justification and defense, their most cogent plea. The ceaseless quest for the clearness, force, and beauty of the best English, in order to find an equivalent for the best Greek or Latin, calls into play every faculty of the mind and gives to classical studies an educational value which, we insist, no substitute can equal.

The Germans are admitted to be the leading educators of the world. In the nine years' curriculum of their 439 gymnasia, which are their best secondary schools (corresponding to our colleges, but with fewer studies far better taught), they assign to the study of Greek and of Latin a higher educational value than to any other study.* In the 277 Prussian gymnasia, for example, Latin, by the time devoted to it, is valued at 62, Greek at 36, and mathematics, the next highest study, at 34. In the other parts of Germany the difference is greater still. In the Saxon gymnasia, Latin is valued at 72, Greek at 41, mathematics at 33; in those of Württemberg, Latin at 81, Greek at 40, mathematics at 33. Similarly, in the great public schools of England, including Oxford and Cambridge (with a higher estimate of mathematics, however), as well as in the Lycées, the leading secondary schools of France, the utility of the study of the Latin language as a medium of intellectual training and culture is everywhere recognized as supreme. And the results have justified the estimate. A system of education by which a host of great men, from Bacon to Gladstone, have been fitted for their splendid careers, is assuredly not a bad one, and in that system Greek and Latin have always held the first place.

The National Commissioner of Education reports that in the secondary schools of the United States there were, in 1889-90, 100,144 students of Latin; in 1897-98, 274,293, an increase of 174 per cent, and greater than in any other study; that in the same nine years the students of Greek increased from 12,869 to 24,994, an increase of 94 per cent; and that in 1897-98, 49.44 per cent, almost exactly one half of all the students of secondary schools, were studying Latin. When the immense number of classical students in the 450 colleges and universities of the United States is added to the 300,000 and more now in our secondary schools, it will be plain that there is no decline in the demand for classical learning.

While no wise man will seek to disparage or unduly to exalt any branch of knowledge, it is not invidious to say that though the vast expansion of science during the peerless century just closed has contributed enormously to the comfort and the glory of man, yet an immense majority in the civilized nations will continue to feel more interest in man and his doings than in matter and its properties, more in literature than in science, and more in the applications of science than in its principles and processes.

* "The classical literature is, and will continue to be, the source of all our culture. It must remain, therefore, not only an indispensable but by far the most important study in our higher schools."—Frederic Gedike. And yet the German language owes little to Greek and Latin, while the English owes to them nearly half of its words. The inference of course is, that the study of Greek and Latin is far more useful to an American or an Englishman than it can be to a German, for the German derives culture from the study and the American or Englishman both culture and a knowledge of his language.

IX. THE ACADEMY.

This is described after the Collegiate Department. (See page 72.)

X. THE NORMAL SCHOOL.

PROFESSOR ROARK.

Although organized as a Department of the College co-ordinate with the other departments, yet the Department of Pedagogy is more properly a school in itself, made so by the necessities of the Public School system of the State. Therefore, in addition to offering full work in Pedagogy (Educational Psychology and its applications in School Economy and Educational Methods), this Department, in compliance with the charter of the College, also provides academic instruction for teachers who desire to fit themselves for their work. In administering the Department, the real needs and limitations of the average Public School teacher are kept constantly in view, and the elevation of the common schools of the State is the basic principle of the work.

The teacher must be possessed of three things in addition to an upright and sterling character and a healthy body. These three things are: (1) An adequate knowledge of what he proposes to teach; (2) skill in teaching—knowledge of how to teach; (3) some broad and liberal culture wherewith to illuminate his work and increase its value. These three things it is the business of the Teacher's Training School to give.

1. *An adequate knowledge of the branches to be taught.*—The giving of this knowledge is academic work primarily. But this academic instruction should be given with the fact constantly in view that "The student will teach as he is taught, rather than as he is taught to teach." The instruction in Arithmetic, Physiology, Grammar, etc., is designed to illustrate to the teacher-pupils in the various classes the latest and best methods of teaching these subjects.

2. *Skill in teaching—the knowledge how to teach.*—This can be acquired best by successful practice, but there is a science as well as an art of teaching. Teaching must not be wholly empirical. There are fundamental principles upon which all true teaching rests, and the purpose here is to fix these principles in the minds of the pupils. It is the carrying out of these principles, their successful and practical application, that lifts the work of the teacher to the dignity of a profession. It is the direct inculcation of these principles and the practical drill in their application that distinguish the Teacher's Training School from all other schools. The Teacher's Training School should work in the faith that teaching is the highest profession, and the atmosphere of such a school should be filled with the professional spirit.

Since the principles of the science of education rest on the activities and processes of the growing mind, special attention is given to Educational Psychology. A study of this subject is followed by a thorough

drill in School Management and the most rational and effective Educational Methods. The principles of management and methods are constantly presented in their relations to the principles of Psychology. Finally, the student is introduced to the history of his profession abroad and at home. The course in Pedagogy proper, then, consists of Educational Psychology, Management in Education, Method in Education, and the History of Education.

3. *Some broad and liberal culture.*—He who knows only the subjects he has to teach, and something of how to teach them, is not yet a teacher. He must know as much more as he can; must have some knowledge of subjects higher than the branches he will be called on to teach, and different from them. Human knowledge is so interrelated that otherwise he can not have the copiousness of illustration necessary to make the simplest and commonest facts as clear as they should be. The *relations* of facts must be taught—hence the growing need of liberal culture, a widened horizon for the teacher.

The courses offered in this department are believed to be such as will meet the requirements above set forth, and also satisfy the practical needs of the educational system of the State.

COURSES IN PEDAGOGY.

The *Professional Course* (see page 63) leading to the degree of B. Ped. (Bachelor of Pedagogy) is intended to cultivate the professional spirit, to give a general education, and to equip fully those who complete it for teaching successfully in any grade of public school, or in any academy or college.

The *State Certificate Course* (see page 64) is open to those who have the legal qualifications of age (21 years), and experience (2 years), and who hold first class, or high grade second class, county certificates, or are otherwise prepared to undertake the work of this course. The aim is to fit such students to take successfully the examination for State certificate. The time required is five months, *beginning in mid-winter*.

The *County Certificate Course* (see page 64) is designed to prepare teachers for the county schools of the State. Preparation for properly passing the county examination may be made in one year or in five months, according to the previous preparation of the matriculate.

Though the subject is not mentioned in the schedule, page 64, *Drill Work in Forensics*, i. e., in essay writing, speaking, and debating, is an important feature of the Normal School. Ability to express fluently and correctly is of the utmost value to the teacher, and can be gained only by constant practice. The Forensic Drills will occur once a week, with special exercises once or twice each term.

The *Pedagogy Drill* will occur daily throughout the year, and is intended to give valuable training in the Science of Teaching.

The *Preparatory Course* is provided for in the Academy, and fits the student to enter the full Professional Course of the Normal Department.

Text-books: In the Professional Course the text-books are those used in the same branches in the other four years' courses of the College. In the work in Pedagogy the books used are Roark's Psychology in Education, Roark's Method in Education, White's and Baldwin's School Management, and Seeley's History of Education. In the County Certificate Course the books used are Beman and Smith's Arithmetic, Peterman's Civil Government, Chittenden's Elements of English Composition, Natural Advanced Geography, Holbrook's Complete Grammar, Montgomery's History of the United States, Kinkead's History of Kentucky, Martin's Human Body (smaller edition), Roberts' Rules of Order, and Roark's General Outline of Pedagogy. In the State Diploma and State Certificate courses, besides these books, Wentworth's Higher Algebra, Johnson's History of English and American Literature, and Blaisdell's First Steps with English and American Authors also are used.

APPOINTMENTS.

Each legislative district of the State is entitled to send to sub-freshman courses of the Normal School every year four properly appointed students, of either sex. Appointments are made by the County Superintendents (see page 129, Sections 14, 15, and 16, School Law of 1900), between the first day of July and the thirty-first day of December. Appointments should be certified to the President of the State College as soon as they are made. Appointees secure all the advantages indicated on page 101. They do *not* receive mileage unless they remain in school the *full collegiate year*.

Appointments to the sub-freshman courses of the Normal School are good for *one* year. Those who are ready to enter the Freshman Class of the full four years' Professional Course should see that their appointments are made for the *College* and not for the Normal School. Appointments made for that course as a college course are good for four years.

CALENDAR.

The First Term opens September 9, 1901.

The Second Term opens January 2, 1902.

The Third Term opens March 17, 1902.

Students should enter as early in the term as possible.

XI. DEPARTMENT OF CIVIL ENGINEERING.

PROFESSOR BROOKS.

The course in Civil Engineering is so planned as to acquaint the students with those subjects the knowledge of which is necessary to enable the civil engineer to develop himself into a skilled practitioner of his profession in any of its several branches. So far as is possible, the importance of each subject taught is illustrated by its application to some work similar to that which is met with in actual practice. An effort is made to render the course valuable, not only for its professional

uses, but also from an educational standpoint; therefore, while the student is learning each subject both theoretically and practically, the training of his mind as well as the needs of his profession is kept in view. In addition to the purely technical matters included in the course, provision is made for the study of English, History, and Political Economy.

EQUIPMENT.

The Department of Civil Engineering occupies the second floor of Mechanical Hall, which contains an office and recitation and drawing-rooms for the accommodation of classes of twenty-five students. The drawing-room is equipped with tables, boards, T-squares, drawing paper, and all the larger and more expensive drawing instruments, which are at the disposal of all students. Every one that takes this course has access to, and is required to work in, the various shops described under the head of Mechanical Engineering. The surveying instruments belonging to this Department are of the highest grades of the various makers, and among them are included five transits—one each by Buff & Berger, Heller & Brightly, Keuffel & Esser, Mahn, and Ware; three levels, by Gurley, Brandis, and Seelig & Kandler; a compass by Gurley; a plane-table by Keuffel & Esser, and a solar instrument by Saegmüller, together with level and stadia rods, tapes, and other minor accessories. The library for the use of students in engineering contains a well-selected supply of standard literature and periodicals pertaining especially to Civil Engineering.

The technical studies in the Course of Civil Engineering fall under the heads of Shop-Work, Drawing, Surveying, Construction, Applied Mechanics, Bridge and Machine Design, and Sanitary Engineering.

LABORATORIES.

Instruction is given in the Physical Laboratory during the first term of the Sophomore year, and in the Chemical Laboratory during the second terms of the Junior and Senior years.

DRAWING.

The work in drawing is begun in the first term of the Freshman year, and consists of freehand sketching from models, engineering structures, and from drawings, and in practice in the use of drafting instruments. In the Sophomore year the time is occupied in mapping, with exercises in topography, and especial attention is given to the rapid and accurate formation of Roman and other appropriate styles of letters. In the second term, four hours a week are devoted to the solution of problems in Descriptive Geometry. During the winter of the Junior year a topographic map is plotted from notes of a survey made by the class during the autumn. Such a map made by the present Junior class

embraces the whole of the College campus of about fifty-two acres, and was plotted on a scale of sixty feet to an inch. A topographic map of railroad location, with cross sections and profile, is completed in the second term, and graphic analyses of frame structures are made during the year. In the Senior year the work in drawing consists of problems in stereotomy and of construction details.

Text-books: Woolf's Elementary Course in Descriptive Geometry; Sherman's Theory and Practice of Lettering; Siebert and Biggin's Stone Cutting.

SURVEYING.

The course in Surveying is begun in the second term of the Sophomore year, with the study of text-book on the theory of plane surveying, supplemented by ample practice in the solution of numerical examples. This is followed by daily field practice in the use and adjustment of surveying instruments, with exercises in leveling, determination of inaccessible distances, and in farm surveys. In the first term of the Junior year, a topographic survey of a tract of land adjacent to the College property is made, based on a system of accurate triangulation. In the second term the theory of railroad surveying is studied, especial attention being given to spirals and other modern features of railroad practice. A line of railroad is run and cross-sectioned, and an estimate made of the cost of construction. The study of Geodesy is taken up in the Senior year, embracing the theory of adjustment of a system of triangulation and the methods of determining latitude, longitude, and azimuth. The State College system of triangulation has been begun and will be yearly perfected and extended by the Senior classes.

Text-books: Merriman and Brooks' Hand-book for Surveyors; Brooks' Street Railway Location; Godwin's Railroad Engineer's Field Book; Merriman's Geodetic Surveying.

CONSTRUCTION.

The methods of Construction are taught by lectures on limes, cements, wood, steel, and other building material; on principles of foundations on land and under water; on masonry walls and dams; on roads, railroads, and street paving; on the theory and erection of arches; on tunnelling, and on the construction of high steel buildings. The lectures include descriptions and sketches of notable existing structures, and short excursions will be arranged for the class as often as possible. The latest methods of conducting tests of cement, iron, steel, wood, brick, and other material are practiced by each student in the well-equipped laboratory belonging to the College.

APPLIED MECHANICS.

The work in applied mechanics extends over the Junior and Senior years, and includes the theory of the strength and elasticity of beams, columns, and shafts; of stresses in framed structures and arches; of the

theory of dynamos and steam engines and its application to pumping and hoisting machinery, and to locomotives.

Text-books: Merriman's *Mechanics of Materials*; Unwin's *Elements of Machine Design*; Merriman & Jacoby's *Roofs and Bridges*, Parts I. and II.; Holmes' *Steam Engine*; Houston & Konnelly's *Electro-Dynamic Machinery*; Barr's *Pumping Machinery*; Bowser's *Analytical Mechanics*.

BRIDGE DESIGN.

The course in *Roofs and Bridges* is begun in the first term of the Junior year and continues through two years. The theory of computation of stresses by both analytical and graphic methods is thoroughly taught from the text-book and by numerous numerical examples. At the beginning of the Senior year the design of bridges is begun, and the method of instruction is to proceed from the simple to the complex. The outline and details of existing structures are examined, and the student becomes familiar with drafting-office methods by constant reference to working drawings.

Text-book: Merriman & Jacoby's *Roofs and Bridges*, Part III.

SANITARY ENGINEERING.

The work in *Hydraulics* includes the study of the flow of water through orifices, pipes, and large channels; the theory and tests of water motors and the measurement of power. In *Sanitary Engineering* the course comprises the consideration of the separate and combined systems of sewerage, the methods of sewage disposal, and the collection, purification, and distribution of a system of water supply.

Text-books: Merriman's *Hydraulics*; Folwell's *Sewerage*.

XII. DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.

PROFESSOR ANDERSON, ASSISTANTS STURDEVANT AND FAIG.

EQUIPMENT AND FACILITIES.

This department was organized August, 1891, and is now one of the most completely equipped in the College. Mechanical Hall contains a floor area of about 20,000 square feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in Mechanical and Electrical Engineering. The building contains three recitation-rooms, two drawing-rooms, three offices, a wood and pattern shop, two boiler-rooms, wash-room, tool-room, engine-room, two machine-shops, blacksmith shop, foundry, and two large rooms devoted to experimental engineering. A two-story brick building is well equipped for work in photometry and magnetic measurements. The building is isolated, so that absolute work may be carried on. A first-class technical library is at the disposal of all students in Engineering. The equipment of the different rooms is briefly described below :

The drawing-rooms contain drawing-tables, drawing-boards, curves, scales, T-squares, and other special drawing apparatus, to accommodate one hundred students.

The engine-room contains a 10-inch by 24-inch Hamilton-Corliss non-condensing engine, which supplies the motive power for all the work-shops.

The wood-shop contains twenty benches, each with a complete set of wood-working tools, twenty-three wood-turning lathes, each with a complete set of turning chisels, band-sawing machine, universal wood-worker, wood-trimmer, hand-mortiser, fret saw, double circular saw, and grindstone.

The foundry contains a 30-inch cupola furnace, with a capacity of a ton of metal per hour, a brass furnace, twelve complete sets of moulders' tools, twelve benches; also ladles, clamps, core-room, core-oven, pattern-rack, and the tools used in a practical foundry.

The blacksmith shop is equipped with eighteen forges. The down draft system is used. Each forge is furnished with an excellent set of blacksmith tools. A power hammer is available for heavy iron or steel forging.

The forge shop represents the best modern practice.

The machine-shop contains six lathes, one milling machine, one self-feed drill, one hand-feed drill, one planer, one shaper, one tool-grinder, one dry emery grinder, one wet emery grinder, one universal grinding machine, two sensitive drills, and twelve iron vises and benches for vise work in metal, an air compressor and pneumatic tools.

The tool-room is equipped with a fine assortment of superior tools for work in iron, steel, brass, and wood, and contains such stock and supplies as may be used in constructions in the mechanical laboratories named above.

The wash-room contains lockers for one hundred students, and is supplied with marble basins.

The boiler-houses contain, respectively, a fifty-one horse-power Babcock and Wilcox water-tube boiler, a Dean Bros.' No. 3 steam pump, and a fifty-five horse-power tubular boiler, and a Davidson No. 3 steam pump.

The Experimental Laboratory is the best equipped in the South, and besides being well supplied with steam engine indicators, planimeters, steam gauges, pyrometers, reducing motions, scales for measuring, micrometer, and vernier calipers, thermometers, calorimeters, sieves, cement samplers, scales for weighing, extensometers, water-meters, etc., it contains a thirty-five horse-power Westinghouse compound engine, a forty horse-power Houston, Stanwood & Gamble cross compound throttling engine, a twenty-five horse-power automatic cut-off engine, a ten horse-power Corliss engine, a thirty-five horse-power Buffalo automatic cut-off engine, a ten kilo-watt Crocker-Wheeler dynamo, an eight and a half kilo-watt Edison dynamo, a nine kilo-watt General Electric Company multipolar dynamo, a three and a half kilo-watt electric motor,

a three-fourths kilo-watt electric motor, a Bracket-cradle dynamometer, portable voltmeters and ammeters for continuous and alternating currents, wattmeters, photometers, galvanometers, instruments for absolute measurement of E. M. F. resistance and current, a Wood thirty-three kilo-watt alternator, a switchboard equipped with the most modern instruments, resistance boxes, and many instruments for refined investigation.

The laboratory also contains a number of friction brakes, a Flather hydraulic dynamometer, a 1,000-pound United States standard cement testing machine, and a 100,000-pound Riehle testing machine.

A double engine of fifty horse-power and an automatic cut-off engine (Atlas) have recently been added.

The equipment of the laboratory is such that many problems relative to Steam and Electrical Engineering may be discussed very comprehensively.

COURSE OF STUDY.

The training given in this course, both practical and theoretical, is intended to prepare young men for positions of responsibility and trust in mechanical engineering work. The practical work extends over a period of two years, and includes the most important principles and operations in bench-work in wood, wood-turning, pattern-making, foundry work, iron and steel forging, and hand and machine work in metal.

The theoretical work during the first two years consists of a thorough training in English, Chemistry, Mathematics, Physics, and Drawing, and during the last two years the fundamental principles of boiler, machine, dynamo, and engine design are taken up. By a careful solution of practical problems the student becomes familiar with the process carried on by the operators and designers of successful machine building plants.

The course in Mechanical Engineering involves three separate lines of work.

1. *Mechanical Engineering*, the object of which is to give that training necessary to fit men to be operators and designers of steam machinery and manufacturing plants.

2. *Chemical Engineering*, intended especially to give the knowledge requisite for the successful operation of iron and steel plants and the analysis of iron, steel, coals, and refractory substances.

3. *Electrical Engineering*, in which the theory, design, building, and operation of dynamos and motors are predominant.

Particular attention is paid to the construction of power and lighting stations.

The course of study in Mechanical and Electrical Engineering, extending over a period of four years, leads to the degree B. M. E. (Bachelor of Mechanical Engineering). The advanced degree of Mechanical Engineer may be obtained by resident students in one year after taking the degree of B. M. E. from the State College of Kentucky, or any other institution of equal requirements, they having successfully

carried on the work laid down, passed a satisfactory examination, and presented an acceptable thesis. The advanced degree may also be taken in three years after obtaining the degree of B. M. E., provided the student has been engaged during the period of three years in practical engineering work, passes a satisfactory examination at the College, and presents an acceptable thesis.

At least two years' notice must be given to the Faculty that post-graduate work is being done, and the work must be approved by the Faculty.

FRESHMAN YEAR.

Technical Instruction—Twenty-six weeks, three hours per week. (a) Recitations on the forms of wood-working tools, and the cutting and peculiarities of timber. (b) Lectures on the operation of the various forms of wood-working machinery. (c) Lectures on pattern-making, moulding, and casting.

Mechanical and Free-Hand Drawing—Twenty-six weeks, six hours per week, and ten weeks, ten hours per week. (a) This drawing includes free-hand sketches, drawing from copies and models, using parts of machines in the Mechanical Laboratories as models. (b) Free-hand lettering. (c) Exercises in tinting and shading. (d) Tracing.

Shop-work—Thirty-six weeks, twelve hours per week. (a) Bench work in wood, including exercises in the following operations: Planing, sawing, rabbeting, planing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and the general use of carpenters' tools. (b) Wood-turning, involving the various principles of lathe-work in wood. (c) Pattern-making, which gives the student discipline in the construction of patterns for foundry work. (d) Foundry work, including the various operations of moulding, core-making, and the melting of iron and brass.

English—Thirty-six weeks, five hours per week.

Algebra—Twelve weeks, five hours per week.

Geometry—Seventeen weeks, five hours per week.

Trigonometry—Nineteen weeks, five hours per week.

Physics—Twenty weeks, five hours per week.

SOPHOMORE YEAR.

Technical Instruction—Sixteen weeks, one hour per week. (a) Lectures on the handling of iron and steel in forging, and the methods of tempering and annealing steel. (b) Lectures on modern machine-shop practice.

Mechanical Drawing—Sixteen weeks, four hours per week; thirty-six weeks, five hours per week. (a) Drawing the parts of machines and complete machines to scale. (b) Geometric and Descriptive Geometry problems. (c) Design of machine details.

Shop-work—Thirty-six weeks, twelve hours per week. (a) Exercises in iron and steel forging. (b) Exercises in vise-work in metal. (c) General machine work, including screw-cutting, drilling, planing, and the milling of iron, brass, and steel.

Descriptive Geometry—Nineteen weeks, five hours per week.

Physical Laboratory—Seventeen weeks, five hours per week.

Solid Geometry—Seventeen weeks, five hours per week.

Analytical Geometry—Nineteen weeks, five hours per week.

Chemistry—Nineteen weeks, five hours per week.

Surveying—Nineteen weeks, three hours per week.

Metallurgy—Twelve weeks, six hours per week. The above includes the study of fuel and refractory substances, and the process employed in puddling iron and making steel.

Calculus—Ten weeks, five hours per week.

JUNIOR YEAR.

Kinematics—Fifteen weeks, five hours per week. Under this head are studied the velocity ratios in various motions, construction of gears, cams, quick-return motions, and the manner of designing trains of mechanism.

Mechanical Drawing—Thirty-six weeks, six hours per week. The work done during the year consists in the design of machines to do certain specific work, and the making of detail drawings of machines used in actual construction in the laboratories.

Chemical Laboratory—Fifteen weeks, six hours per week.

Analytical Mechanics—Nineteen weeks, five hours per week.

Strength of Materials—Fifteen weeks, five hours per week.

Heat—Ten weeks, five hours per week.

Experimental Engineering Laboratory—Fifteen weeks, six hours per week.

Magnetism and Electricity—Fifteen weeks, five hours per week.

Graphic Statics—Ten weeks, five hours per week.

Calculus—Fifteen weeks, five hours per week.

Electrodynamic Machinery—Ten weeks, five hours per week.

Theory of Machine Design—Ten weeks, five hours per week.

Dynamo and Motor Design—Ten weeks, five hours per week.

Electrical Laboratory and Design—Ten weeks, five hours per week.

Electrical Appliances—Ten weeks, five hours per week.

SENIOR YEAR.

Thermodynamics—Fifteen weeks, three hours per week. This work consists of a study of the laws of thermodynamics, thermal capacities, and the application of thermodynamics to the steam engine.

Steam Boilers—Ten weeks, five hours per week. A study of the various commercial steam boilers, consumption of fuel, incrustation, determining the horse-power of boilers, boiler tests, the design of boilers for efficiency and economy, and the methods of power transmission.

Valve Gearing—Fifteen weeks, five hours per week. The study of various forms of standard engine valves and methods of designing.

Hydraulics—Fifteen weeks, two hours per week.

Alternating Currents—Seventeen weeks, five hours per week.

Mechanical Drawing—Seventeen weeks, ten hours per week. This consists in working out valve gear problems.

Engine and Machine Designing—Fifteen weeks, five hours per week. A study of the modern methods of designing engines, boilers, and machines.

Experimental Engineering—Fifteen weeks, ten hours per week. Includes a study of the steam-engine indicator, making engine, boiler, and materials for construction tests.

Political Economy—Ten weeks, five hours per week.

Theory and Practice of Photography—Ten weeks, five hours per week.

Continuous Current Dynamos and Motors—Nineteen weeks, five hours per week.

History—Twenty weeks, five hours per week.

Dynamometers and Measurement of Power—Twelve weeks, five hours per week.

Thesis Work—Nineteen weeks, twelve hours per week.

Every student, before he attains the degree of B. M. E., must present a satisfactory thesis on some new design of a machine, or an original investigation.

The greater part of the second and third terms of the Senior year is given to the preparation of this thesis. The subjects for theses are assigned to students by the Dean of Mechanical and Electrical Engineering Faculty, and the completed theses are kept on file with the college records, that they may serve as a reference for future investigators.

ELECTRICAL ENGINEERING.

The special work in electrical engineering is closely associated with steam engineering and machine design, but opportunity is offered for carrying on research work. The thesis of any candidate for B. M. E. may be along electrical lines.

The instruction is carried on with special reference to the needs of the practical electrical engineer. This work comprises the study of Central Station design and construction, of prime movers, the design and construction of electrodynamic machinery, the study of the problems involved in the distribution of the electric light and the electric transmission of power, besides practice in electrical measurements, computation and testing as applied to the construction and maintenance of electric lighting, and power plants, and to the purposes of investigation.

XIII. DEPARTMENT OF ANATOMY AND PHYSIOLOGY.

PROFESSOR PRYOR.

The Department of Anatomy and Physiology occupies one half of the second floor of the Natural Science Building. The space assigned to this Department includes a large lecture and general recitation room, an office and a laboratory.

The laboratory is provided with a Colt's Criterion Stereopticon with a microscopic attachment. Arrangements are made to darken the room for the use of the lantern. This method of giving illustrated lectures is extensively used. A large number of lantern slides has been purchased or made. These include all kinds of anatomical, physiological, histological, and pathological subjects, and they have been selected in order to show not only human anatomy but sufficient comparative anatomy to illustrate the development and evolution of the organ or system.

This method of instruction is quite popular with students. It affords a detail not to be obtained from models or charts or from subjects for dissection.

The office contains the nucleus of a library. It is the purpose of the head of this Department to provide students with the latest and best books on Anatomy, Physiology, Hygiene, Histology, and Bacteriology.

The lecture and general recitation room is perhaps the best equipped room for its purpose to be found in any institution of the South. It is well lighted and ventilated, is provided with the best opera chairs with arm rests, affording every convenience and facility for both student and lecturer.

The Department is supplied with all kinds of models, such as an Auzoux papier maché manikin, Auzoux's models of the eye in full and in section, models of the ear, larynx, side of the face, hand, etc.; skeletons in full and in section; complete disarticulated skeletons for the individual use of students; a spaced skull; a Thoma-Zeiss Hæmacytometer; a Marey's Sphygmograph; charts of all kinds, microscopes, etc. Microscopic slides are exhibited, showing the process of karyokinesis.

The method of instruction is by lectures, demonstrations, and recitations. Drawings are made on the blackboard in chalk by the instructor, and the student is required to copy them. They include drawings of the heart and of the great blood-vessels in colors; sections of the eye showing the connection of the cornea and sclerotic coat at the origin of the ciliary muscle; one turn of the cochlea giving the organ of Corti in full; the membranous labyrinth; a cross-section of the spinal cord; a scheme illustrating the system of neurones, central and peripheral, both motor and sensory.

The student is required to take notes from lectures, to copy and preserve them for study and reference. The note-books are inspected at intervals, correct spelling and neatness in preparing them being insisted on.

All students who take the course leading to the degree of B. S. are required to attend lectures three terms of thirty-six weeks, five hours per week, during the Freshman year. The same amount of work is required of candidates for the degrees of B. Ped. and B. Agr. Candidates for the degree of A. B. are required to attend during the first term of the Sophomore year. Two classes for ten weeks are organized at the beginning of the second term for the benefit of Normal students who take the studies leading to the County Certificate.

The studies in this Department, in connection with those in other branches of Biology, Chemistry, etc., serve as an admirable preparation for students who intend to enter upon a professional life. This applies with special force to those who are to devote themselves to the study of medicine, for students who complete any of these courses will be credited with one year's work at any of the medical colleges that are members of the American Association of Medical Colleges, and with few exceptions all reputable colleges belong to this Association. To prospective students of medicine, therefore, this Department offers inducements seldom afforded in educational institutions.

Text-books: Huxley and Youmans' Physiology and Hygiene, Martin's Human Body (Briefer Course).

Books of Reference: Gray's Anatomy, Hall's Physiology, Kirke's Handbook of Physiology, Shafer's Essentials of Histology.

XIV., XV. DEPARTMENTS OF GEOLOGY AND ZÖOLOGY.

PROFESSOR MILLER.

Geology.

EQUIPMENT AND FACILITIES.

This Department occupies one half of the second floor of the Natural History Building.

The Geological Laboratory is fitted up with tables and chairs, and contains the study collection of fossils and minerals.

The Mineralogical Laboratory is arranged in its furnishings with special reference to its use as a mineral testing laboratory.

The Geological Lecture Room, furnished with folding lecture-room seats, table, lantern stand, sliding blackboard, wall screen, and means for quickly darkening the room, is admirably adapted for recitation and lecture uses.

The collections in Mineralogy and Palæontology are arranged and classified with special reference to their use in class instruction.

The Museum, occupying the entire third floor of the building, now contains the State Geological Survey Collection, a valuable addition to the instruction facilities of this department.

As additional equipment may be mentioned the department library of geological literature, consisting of Reports, both State and National, maps, charts, models, lantern slides, and photographic illustrations.

In addition to the facilities afforded by the in-door equipment, the situation of the College itself happens to be peculiarly favorable from a geological standpoint. Located, as it is, in the center of the Blue Grass Region at the Base of the Geological Series of the State, it affords logically the best starting point for the student of Kentucky geology who would gain a clear comprehension of how the rock foundations of his State have been laid. Both for this reason, therefore, and because geology is preëminently an out-door study, the "Excursion" is

made a prominent feature of the instruction in this Department. It is by the field work these excursions afford that the student's ability to apply in-door knowledge previously acquired is put to the test, and his powers of making generalizations in the open air are exercised.

BRANCHES OF STUDY.

The general order of succession in the geological studies is as follows: 1. Palæontology, 2. Mineralogy, 3. Advanced Geology. Besides these, in which what follows is intimately based upon what precedes, are two self-contained studies: 4. A Shorter Course in Geology, and 5. Economic Geology.

I. PALAEONTOLOGY.

SECOND TERM—Required of Juniors who elect as their major study Geology, Botany, Zoölogy, or Pedagogy.

Lectures on the nature and zoölogical positions of different fossil groups are given, and the student is expected to become familiar with the fossils themselves by actual examination. Special attention is paid to fossils common in Kentucky. The collections of the department are well suited for this purpose. The instruction is entirely by lectures and laboratory work.

II. MINERALOGY.

THIRD TERM—This study follows Palæontology, and is required of the same students, with the addition of those who elect Agriculture as their major.

The object of the study is to render the students familiar with the composition and physical characters of those common minerals and rocks likely to be met with both in the course of every-day observation and in geological pursuits. The instruction involves both laboratory and text-book work. Crosby's Tables for Determination and his Common Minerals and Rocks are the books used.

III. ADVANCED GEOLOGY.

FIRST TERM—Required of students who elect as their major study Geology, Botany, Zoölogy, or Pedagogy.

It is meant to be the culmination for those who have availed themselves of all the opportunities for the study of Geology offered in this Department. It is to be hoped that some of these students may be induced to go further, and either in their home localities or elsewhere make a beginning at doing original work. Kentucky, with its large amount of territory practically unexplored geologically, offers an especially fine field to young geologists.

Text-book: Scott's Introduction to the Study of Geology.

IV. SHORTER COURSE IN GEOLOGY.

FIRST TERM—Required of Seniors who are candidates for the degree of A. B. The only prerequisite for this course is the second term Zoölogy.

Text-book: Tarr's Elementary Geology.

V. ECONOMIC GEOLOGY.

SECOND AND THIRD TERMS (Tuesdays and Thursdays)—Required of students who elect as their major study, Geology, Agriculture, Chemistry, Physics, or Civil Engineering.

As the name indicates, it is the practical or inorganic rather than the organic side of Geology that is here made prominent. Historical Geology is studied briefly and in outline. Fossils are considered important in so far as they serve to determine rocks, whereas in General or Biological Geology the reverse may be considered true. Structural Geology becomes relatively important, and Mineralogy and Lithology occupy a leading place. Some of the topics of economic importance treated are: Common Rocks and Vein-forming Minerals; Origin of Ore Deposits; Mining Terms and Methods; Coal; Petroleum; Natural Gas, and Asphaltums; Building Stone, Clay, and Cement; Geological Fertilizers; Relation of Geology to Agriculture; Relation of Geology to Engineering.

Text-book: Tarr's Economic Geology, supplemented by lectures.

In addition to the above, a course of about seven lectures on the Relation of Geology to Agriculture is given in connection with the Short Course in Agriculture.

Zoölogy.

EQUIPMENT AND FACILITIES.

The Department of Zoölogy occupies two rooms on the first floor of the Natural History Building. These rooms are provided with tables and a special set of apparatus, including compound microscopes, for each student. Besides this there is a complete general equipment for all lines of zoölogical work, such as: a full set of zoölogical charts imported from Germany for use in the study of systematic Zoölogy; microtomes and paraffine baths for work in microscopy; a selection of type skeletons to illustrate osteology; alcoholic specimens of both marine and inland forms to illustrate general zoölogy, with duplicates for class dissections; and finally the Department is equipped with a library of standard zoölogical literature, including the leading periodicals devoted to the interests of biological science. Moreover, opportunities for collecting zoölogical material, as well as for studying the habits of living animals, are afforded by the "Excursions" mentioned above.

BRANCHES OF STUDY.

These are six, enumerated as follows: 1. Systematic Zoölogy, 2. Laboratory Zoölogy, 3. Osteology, 4. Embryology, 5. Physiological Psychology, 6. Economic Entomology.

I. SYSTEMATIC ZOÖLOGY.

FIRST TERM—Required of students who elect as their major study, Geology, Zoölogy, Botany, Agriculture, Chemistry, Pedagogy, or Physics.

A general presentation of the subject is here attempted. The general principles governing Taxonomy are laid down and the different subkingdoms taken up and studied in detail. The practical work is limited to that which can be satisfactorily accomplished in daily exercises of one hour each. Much of it consists of demonstrations by the instructor of the chief external features of the animal as well as of such internal features as can be presented in this brief space of time. Accompanying this instruction, which is given chiefly by lectures and demonstrations, the student is expected to gain facility in the determination of species through the use of natural and artificial "keys," as, for instance: Jordan's Manual of the Vertebrates of the United States, and Miss Warner's Butterflies of Kentucky. A copy of each of these is loaned to the student as a part of the laboratory equipment.

II. LABORATORY ZOÖLOGY.

SECOND AND THIRD TERMS—The Second Term's work is a Text-book and Laboratory study required of those who elect as their major, Zoölogy, Geology, Botany, Pedagogy, or Agriculture. The text-book part of the work is taken by classical students also. This book, Arthur Thompson's Animal Life, is used to present to the class in a form suitable for discussion such interesting topics of Biology as Interrelation of Plants and Animals, the Struggle for Existence, Coloration of Animals, Social Life of Animals, Protoplasm, Origin of Life, Physiological Division of Labor, Animal Psychology, Principles of Embryology, the Past History of Animals, the Doctrine of Evolution, Heredity, Animal Life and Ours.

The Second Term laboratory work consists chiefly of a course in "Animal Histology." To each student is assigned a table equipped with a full line of apparatus and reagents. For this no charge is made other than that for use of a case of dissecting instruments and for breakage. The main object of this part of the course is the acquisition by the student of skill in microscopical manipulation and technique. Students are taught how to harden, stain, imbed, cut, and mount tissues for microscopical examination, and how to draw and interpret these sections.

The Third Term is devoted to laboratory work exclusively, and consists of a thorough study of the anatomy and development of some vertebrate, as the frog.

III. OSTEOLOGY.

FIRST TERM—Required of Juniors who elect as their major study, Zoölogy or Geology.

Five hours a week are given to the comparative study of the vertebrate skeleton—chiefly that of the Mammalia.

Text-book: Flower's Osteology of the Mammalia.

IV. EMBRYOLOGY.

THIRD TERM—Required of Juniors who elect as their major study, Zoölogy or Agriculture.

Five hours a week are assigned for this study. Instruction consists of lectures upon the general facts and principles of Embryology, accompanied by practical work on the embryonic development of such vertebrates as the frog and chick.

Text-book: Balfour's Elements of Embryology.

V. EXPERIMENTAL PSYCHOLOGY.

SECOND TERM—Required of Juniors who elect as their major study, Pedagogy, Zoölogy, Botany, or Agriculture. This is a combined text-book and laboratory course under the joint supervision of the Departments of Pedagogy and Zoölogy.

The laboratory practice pertaining to the latter Department consists of two exercises per week, and involves a practical examination into the comparative anatomy and physiology of the nervous system.

XVI. DEPARTMENT OF PHYSICS.

PROFESSOR PENCE.

EQUIPMENT AND FACILITIES.

The Department of Physics occupies two adjacent rooms on the east side, and in the basement, of the Main College Building. The lecture-room is eighteen feet by forty-four feet, and will comfortably seat fifty or more students. It has the necessary lecture-table, with gas, water, and drainage; and is arranged to be used at pleasure as a dark-room. The laboratory is twenty-four feet by thirty feet. It is well furnished with instruments for use in experimentation, cases for apparatus, tables, water; and has twenty-four spaces at the tables for individual work, each with gas and drawers. This department is well equipped with apparatus, nearly all of which is new.

COURSE IN PHYSICS.

The course in Physics is offered to those who may find in its schedule of studies on page 57 lines of work which pursued may enable them to enter successfully on some life profession. It is intended for those

whose natural tastes and abilities lead them to pursue such studies, as well as for those who wish to teach Physics or to do work in Physical Science. In the present highly scientific age, the greatest developments have been in Physical Science, and those who are best able to utilize physical resources are those who are best able to recognize physical laws and accurately interpret physical phenomena.

The course is not technical. It is as broadly scientific as the conditions under which it exists will allow. As seen from the schedule of studies, three years are devoted to Theoretical and Experimental Physics, three and one half to Mathematics and Astronomy, two to English, two to German, and one each is given to Chemistry, Physiology, Botany, and French. One year is also given to History and Political Economy, and one to Logic, Mental and Moral Philosophy. Five months are assigned to Zoölogy and five to Geology.

The work proper in Physics begins in the Sophomore year, during the first term of which there are lectures, fully illustrated by experiments, with recitations, one hour daily. This work embraces the subjects of Molar, Molecular, and Ether Dynamics, treating of the General Properties of Matter, Sound, Heat, Light, Electricity, and Magnetism; and is intended to give the student a general knowledge of physical phenomena and of physical laws, and to prepare him for the practical work that follows.

Laboratory practice, one and one-half hours daily, follows, and continues during the remainder of this year. Experimental work is done in the Mechanics of Solids, Liquids, and Gases, and in Heat, during the second term; and in Electricity and Magnetism, Sound, and Light, the third term.

Text-books: Gage's Elements of Physics, and Gage's Physical Experiments.

The work of the Junior year is specialized. There are illustrated lectures and recitations one hour daily throughout the year. Electricity and Magnetism is studied during the first term; Heat, the second term; and Light, the third. Some of the subjects considered in the first term are Frictional Electricity, Magnetism, Current Electricity, Electro-statics, Electro-Magnetics, Measurements of Currents, Thermo-Electricity, Heat and Power and Light from Electric Currents, Inductance, Dynamos, Motors, Transformers, Electro-Chemistry, Telegraphy, Telephony, Electric Waves. In Heat the principal subjects are Thermometry, Expansion of Solids and Liquids and Gases, Thermal Units, Calorimetry, Mechanical Equivalent of Heat, Fusion and Vaporization, Laws of Vapors, Hygrometry, Thermo-Chemistry, Dynamical Theory of Gases, Radiation, Convection, Conduction, Thermo-Dynamics, Steam Engine. In Light the subjects are Visible Radiant Energy, Velocity of Light, Reflection and Refraction, Lenses, Optical Instruments, Aids to Vision, the Spectrum, etc.

Advanced experimental work in the laboratory extends through the second and third terms of the Junior year, one and one-half hours daily,

and consists of Physical Measurements in Mechanics, Sound, Heat, Light, Electricity, and Magnetism.

Text-books: S. P. Thompson's Electricity and Magnetism, Cumming's Heat, Glazebrook's Light, Sabine's Laboratory Course in Physical Measurements.

Much importance is attached to all work in the laboratory. Each student is furnished with the necessary apparatus, and he must keep a systematic record of all his experiments, giving data and results of each.

The amount of Physics required in each of the groups of courses leading to a degree is to be seen in the respective schedules of studies.

XVII. DEPARTMENT OF ENTOMOLOGY.

PROFESSOR GARMAN,
of the Experiment Station.

In the Agricultural Course and in the Scientific Courses, in which Botany and Zoölogy are major studies, instruction in Entomology begins with the second term of the Senior year, students in these courses meeting the first hour of Tuesdays and Thursdays.

Occasional inquiries for entomologists to fill positions in other institutions have lately been received at the College, and have suggested the desirability of a special course of study in Entomology that will fit those who pursue it for the work required in Agricultural Colleges and other institutions. The Scientific course with Entomology as major study is intended to meet this want. It is estimated by our best entomologists and statisticians that we lose annually in this country from the depredations of injurious insects not less than \$100,000,000. If this be so, it is highly important that a knowledge of insects and their habits should be disseminated among the people, and it is especially important in Kentucky, where the leading industry is agriculture. It has been urged that a reduction of a crop to the extent of one fourth or one half of its value by insects should be regarded as a tax of twenty-five or fifty per cent on its full value. Such a tax is collected year after year, often without any attempt at resistance. It is the purpose of the Entomological work at the College to place in the hands of the students who expect to make farming their occupation such means of defense against loss as are known to those who have given the matter study. The Department is especially well provided for in this direction, having the benefit of the work done at the Experimental Station, and having access to the collections, apparatus, and library accumulated for Station work. The collection now contains examples of most of the injurious insects which are found in the United States, and is constantly being enlarged. The Station is well supplied with breeding cages for use in studying the habits and life histories of insects, so that students who wish to do so have an opportunity to observe for themselves the various stages presented by a developing insect, and may see it in many cases actually engaged in its destructive work. An insectarium recently added to our facilities gives us increased opportunity in this field of investigation.

DEGREES.

The State College confers the degrees of—

Bachelor of Science (B. S.),
Bachelor of Arts (A. B.),
Bachelor of Agriculture (B. Agr.),
Bachelor of Civil Engineering (B. C. E.),
Bachelor of Mechanical Engineering (B. M. E.),
Bachelor of Pedagogy (B. Ped.),
Master of Science (M. S.),
Master of Arts (A. M.),
Master of Agriculture (M. Agr.),
Master of Civil Engineering (C. E.),
Master of Mechanical Engineering (M. E.).

CONDITIONS OF GRADUATION.

To attain the Bachelor's degree, the applicant must have been a student of the College at least one session, and he must have passed the examination on all the courses of study leading to the desired degree.

To attain the Master's degree, the applicant must have attained the Bachelor's; he must have pursued, for at least one session in this College or two sessions elsewhere, a major study selected by himself and one or two minor studies assigned him by the Faculty; and finally he must, at least thirty days before the end of the session, have satisfied the Faculty that he is duly proficient in his studies, and have presented to the College an acceptable thesis on his major study or on some part thereof.

If the applicant be an alumnus of another institution of learning, he must satisfy the Faculty that he has completed a course of study for his first degree equivalent to that prescribed in this College for the same degree; and he must matriculate and study under the direction of the Faculty at least one session.

Students who complete a part of the courses in a satisfactory manner may, in attestation of the fact, receive Certificates of Proficiency.

GROUPING OF COURSES FOR DEGREES.

I. COURSES FOR THE DEGREE OF B. S.

History, Political Economy, and Metaphysics, . .	President Patterson.
Botany,	Professor Mathews.
The English Language and Literature,	Professor Mackenzie.
Military Science,	Major Carpenter.
Chemistry,	Professor Kastle.
Mathematics and Astronomy,	Professor White, Dean.
The French and German Languages,	Professor Wernicke.
Anatomy and Physiology,	Professor Pryor.
Geology and Zoölogy,	Professor Miller.
Physics,	Professor Pence.
Drawing,	Ass't Professor Faig.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minor studies will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English, History, Political Economy, Metaphysics, French, and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (MAJOR, CHEMISTRY.)

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geom.	German.	Physiology.	Drill.	Drawing.
	2	English.	Trigonometry.	German.	Physiology.	Drill.	Drawing.
	3	English.	Algebra.	German.	Physiology.	Drill.	Botany (Entr.)
SOPHOMORE.	1	Solid Geom.	German.	Physics.		Drill.	Botany.
	2	Anal. Geom.	German.	Botany.	Chemistry.	Drill.	Physics.
	3	Anal. Geom.	German.	Calculus.	Chemistry.	Drill.	Physics.
JUNIOR.	1	Theor. Chemistry.	English.	Calculus.	French.	Drill.	Chemistry.
	2	Theor. Chemistry.	English.	Calculus.	French.	Drill.	Chemistry.
	3	Theor. Chemistry.	English.	Theor. Chem.	French.	Drill.	Quant. Analysis.
SENIOR.	1	Zoölogy.	History.	Logic.	Chem. Reading.	Drill.	Organ. Chemistry.
	2	Quant. Analysis.	History.	Metaphysics.	Econ. Geology.	Drill.	Chem. Research
	3	Quant. Analysis.	Polit. Economy.	Mor. Philos.	Econ. Geology.	Drill.	Chem. Research Thesis.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (MAJOR, ZOÖLOGY.)

YEAR. TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geom.	German.	Physiology.	Drill.
	2	English.	Trigonometry.	German.	Physiology.	Drill.
	3	English.	Algebra.	German.	Physiology.	Ent. Botany.
SOPHOMORE.	1	Solid Geom.	German.	Physics.		Drill.
	2	Analyt. Geom.	German.	Botany.	Chemistry.	Botany.
	3	Analyt. Geom.	German.	Syst. Botany.	Chemistry.	Physics (Lab.)
JUNIOR.	1	Syst. Zoölogy.	Osteology.		French.	Chemistry (Lab.)
	2	Palæontology.		Exp. Psychology.	French.	Zoölogy (Lab.)
	3	Mineralogy.		Embryology.	French.	Zoölogy (Lab.)
SENIOR.	1		History.	Logic.		Drill.
	2	Entomology.	History.	Metaphysics.	Astronomy.	Geology (Lab.)
	3	Entomology.	Polit. Economy.	Mor. Philosophy.	Astronomy.	Thesis.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (MAJOR, GEOLOGY.)

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geom.	German.	Physiology.	Drill.	Drawing.
	2	English.	Trigonometry.	German.	Physiology.	Drill.	Drawing.
	3	English.	Algebra.	German.	Physiology.	Drill.	Ent. Botany.
SOPHOMORE.	1	Solid Geom.	German.	Physics.		Drill.	Botany.
	2	Analyt. Geom.	German.	Botany.	Chemistry.	Drill.	Lab. Physics.
	3	Analyt. Geom.	German.	Syst. Botany.	Chemistry.	Drill.	
JUNIOR.	1	Syst. Zoölogy.	Osteology.		French.	Drill.	Lab. Chem.
	2	Palæontology.		Mech. Drawing.	French.	Drill.	Surveying.
	3	Mineralogy.		Mech. Drawing.	French.	Drill.	Surveying.
SENIOR.	1		History.	Logic.		Drill.	Gen. Geol.
	2		History.	Metaphysics.	Astron. Geol.	Drill.	Thesis.
	3		Polit. Econ.	Moral Philos.	Astron. Geol.	Drill.	Thesis.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (MAJOR, BOTANY.)

YEAR.	TERM	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geometry.	German.	Physiology.	Drill.	Drawing.
	2	English.	Plane Trigonom.	German.	Physiology.	Drill.	Drawing.
	3	English.	Algebra.	German.	Physiology.	Drill.	Entrance Bot.
SOPHOMORE.	1	Solid Geom.	German.	Physics.		Drill.	Gen. Botany.
	2	Analyt. Geom.	German.	Gen. Botany.	Chemistry.	Drill.	Lab. Physics.
	3	Analyt. Geom.	German.	Syst. Botany.	Chemistry.	Drill.	Syst. Botany.
JUNIOR.	1	Zoölogy.	Plant Histology.	Econom. Botany.	French.	Drill.	Lab. Chemistry
	2	Palæontology.		Phys. Psychology.	French.	Drill.	Lab. Zoölogy.
	3	Mineralogy.	Botany. Algæ.	Bot. Alg. Fungi.	French.	Drill.	Lab. Zoölogy.
SENIOR.	1		History.	Logic.	Thesis.	Drill.	Geology.
	2	Entomology.	History.	Metaphysics.	Astronomy.	Drill.	Thesis.
	3	Entomology.	Polit. Economy.	Mor. Philosophy.	Astronomy.	Drill.	Thes. Photog.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (MAJOR, PHYSICS.)

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geom.	German.	Physiology.	Drill.	Drawing.
	2	English.	Plane Trigonom.	German.	Physiology.	Drill.	Drawing.
	3	English.	Algebra.	German.	Physiology.	Drill.	Botany.
SOPHOMORE.	1	Solid Geom.	German.	Physics.		Drill.	Botany.
	2	Analyt. Geom.	German.	Botany.	Chemistry.	Drill.	Physics.
	3	Analyt. Geom.	German.	Calculus.	Chemistry.	Drill.	Physics.
JUNIOR.	1	Electricity. Magnetism.	English.	Calculus.	French.	Drill.	Chemistry.
	2	Heat.	English.	Calculus.	French.	Drill.	Physics.
	3	Light.	English.		French.	Drill.	Physics.
SENIOR.	1	Zoölogy.	History.	Logic.	Spher. Trigon. Astronomy.	Drill.	Reading.
	2		History.	Metaphysics.	Astronomy. Geology.	Drill.	Thesis.
	3		Polit. Economy.	Moral Philosophy.	Astronomy. Geology.	Drill.	Thesis.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (MAJOR, ENTOMOLOGY.)

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geom.	German.	Physiology.	Drill.	Drawing.
	2	English.	Plane Trigonometry.	German.	Elem. Entomology.	Drill.	Drawing.
	3	English.	Algebra.	German.	Elem. Entomology.	Drill.	Ent. Botany.
SOPHOMORE.	1	Solid Geom.	German.	Physics.		Drill.	Lab. Botany.
	2	Analyt. Geom.	German.	Gen. Botany.	Chemistry.	Drill.	Lab. Physics.
	3	Analyt. Geom.	German.	Syst. Botany.	Chemistry.	Drill.	Syst. Botany.
JUNIOR	1	Zoölogy.	Adv. Entomology.	Adv. Entomology.	French.	Drill.	Lab. Chemistry.
	2	Palæontology.	Adv. Entomology.	Adv. Entomology.	French.	Drill.	Lab. Chemistry.
	3	Mineralogy.	Syst. Entomology.	Syst. Entomology.	French.	Drill.	Lab. Chemistry.
SENIOR.	1	Econ. Entomology.	History.	Logic.	Thesis.	Drill.	Geology.
	2	Econ. Entomology.	History.	Ment. Philosophy.	Astronomy.	Drill.	Thesis.
	3	Econ. Entomology.	Polit. Economy.	Moral Philosophy.	Astronomy.	Drill.	Thesis. Photog.

SCHEDULE OF STUDIES FOR THE DEGREE OF A. B. (MAJOR, ENGLISH.)

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	<i>English.</i>	Plane Geom.	Greek. German.	Latin.	Drill.	
	2	<i>English.</i>	Plane Trigonom.	Greek. German.	Latin.	Drill.	
	3	<i>English.</i>	Algebra.	Greek. German.	Latin.	Drill.	
SOPHOMORE.	1	Latin.	Greek. German.	Physiology.	<i>English.</i>	Drill.	
	2	Latin.	Greek. German.	Physics.	Chemistry.	Drill.	
	3	Latin.	Greek. German.	Physics.	Chemistry.	Drill.	Botany.
JUNIOR.	1	Solid Geom.	<i>English.</i>	Greek. Latin.	French.	Drill.	<i>Anglo-Saxon.</i>
	2	Analyt. Geom.	<i>English.</i>	Greek. Latin.	French.	Drill.	Zoölogy.
	3	Analyt. Geom.	<i>English.</i>	Greek. Latin.	French.	Drill.	<i>Anglo-Saxon.</i>
SENIOR.	1	Hebrew. French.	History.	Logic.	Geology.	Drill.	<i>Anglo-Saxon.</i>
	2	Hebrew. French.	History.	Metaphysics.	<i>Comp. Philol.</i>	Drill.	<i>Anglo-Saxon.</i>
	3	Hebrew. French.	Polit. Econ.	Moral Philos.	<i>Comp. Philol.</i>	Drill.	Thesis.

III. COURSES FOR THE DEGREE OF B. PED.

History, Political Economy, and Metaphysics, . . .	President Patterson.
Botany and Horticulture,	Professor Mathews.
The English Language and Literature,	Professor Mackenzie.
Military Science,	Major Carpenter.
Chemistry,	Professor Kastle.
Mathematics and Astronomy,	Professor White.
The Greek and Latin Languages,	Professor Neville.
German,	Professor Wernicke.
Pedagogy,	Professor Roark, Dean. Ass't Professor White.
Anatomy and Physiology,	Professor Pryor.
Geology and Zoölogy,	Professor Miller.
Physics,	Professor Pence.

In case the student is prepared, on entering, to read Cicero, he must take German, First Year, third hour, and Second Year, second hour. Otherwise he must take Latin the First Year, and English the Second Year.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. PED.

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FRESHMAN.	1	English.	Plane Geom.	German or Latin.	Physiology.	Drill.	Drawing.
	2	English.	Plane Trigonom.	German or Latin.	Physiology.	Drill.	Drawing.
	3	English.	Algebra.	German or Latin.	Physiology.	Drill.	Botany.
SOPHOMORE.	1	Solid Geom.	German or English.	Physics.		Drill.	Botany.
	2	Analyt. Geom.	German or English.	Botany.	Chemistry.	Drill.	Physics.
	3	Analyt. Geom.	German or English.	Gen. Pedagogy.	Chemistry.	Drill.	Physics.
JUNIOR.	1	Zoölogy.	Educat. Psychol.	Logic.	Cicero.	Drill.	Chemistry.
	2	Palæontology.		Adv. Psychology.	Livy.	Drill.	Zoölogy.
	3	Mineralogy.	Educat. Economy.	Calculus (Elective)	Livy.	Drill.	Professional Reading.
SENIOR.	1	Virgil.	History.	Calculus (Elective)	Educational Method.	Drill.	Gen. Geol.
	2	Virgil.	History.	Metaphysics.	Astronomy. Hist. Educat.	Drill.	Obs. Work in Pedagogy.
	3	Cicero. Terence.	Polit. Economy.	Mor. Philos.	Astronomy. Hist. Educat.	Drill.	Thesis.

SCHEDULE OF STUDIES FOR THE STATE CERTIFICATE.

TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.
2	Literature.	Pedagogy.	Arithmetic.	Algebra.
3	Literature.	Psychology.	Arithmetic.	Algebra.

SCHEDULE OF STUDIES FOR THE COUNTY CERTIFICATE.

TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.
1	Grammar or Algebra.	Arithmetic.	U. S. History or Physiology.	Geography or Algebra.
2	Grammar or Algebra.	Arithmetic.	U. S. History or Physiology.	Civics or Composition.
3	Grammar or Algebra.	Arithmetic or Composition or Geography.	Civics or Physiology or Pedagogy.	Algebra or U. S. History or Composition.

IV. COURSES FOR THE DEGREE OF B. M. E.

History and Political Economy,	President Patterson.
The English Language and Literature,	Professor Mackenzie.
Military Science,	Major Carpenter.
Chemistry,	Professor Kastle.
Mathematics,	Professor White.
	Assistant Johnson.
Mechanical Engineering,	Professor Anderson, Dean.
	Ass't Professor Faig.
Electrical Engineering,	Ass't Prof. Sturdevant.
Physics,	Professor Pence.
Shopwork and Drawing,	Instructor Frankel.
Experimental Engineering,	Professor Anderson.
	Assistant De Bow.
Surveying and Graphic Statics,	Professor Brooks.

For the Degree of M. E., either Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, or Machine Designing may be selected as major study; and minor studies will be assigned from Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, Machine Designing, Mechanical Laboratory Work, Mathematics, Physics, Chemistry, Mental Science, Political Science, English and Modern Languages.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. M. E.

YEAR.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.	SATURDAY.
FRESHMAN.	English.	Plane Geom.	Model and Object Draw'g.	Woodwork Mach. Design.	Drill.	Shop Woodwork, Bench, Lathe.	Shop Woodwork, Bench, Lathe.
	English.	Plane Trigon.	Physics.	Pattern-Making Foundry Drawing.	Drill.	Patt'rn-Making Foundry.	Patt'rn-Making Foundry.
	English.	Algebra.	Physics.	Mech. Draw'g.	Drill.	Patt'rn-Making Foundry.	Patt'rn-Making Foundry.
SOPHOMORE.	Solid Geom. Algebra.	Chemistry.	Design.	Phys. Laboratory.	Drill.	Iron and Steel Forging.	Mech. Drawing. Elem. Mach. Des.
	Analyt. Geom.	Surveying.	Metallurgy.	Descr. Geom.	Drill.	Machine Work.	Mech. Drawing. Des. Descr. Geom.
	Analyt. Geom.	Elem't. Design.	Calculus.	Descr. Geom.	Drill.	Machine Work Surveying.	Draw'g Design Descr. Geom.
	Magnetism. Electricity.	Kinematics.	Calculus.	Strength of Materials.	Drill.	Chem. Lab. Mach. Design.	Kinematics.
JUNIOR.	Heat.	Analytical Mechanics.	Calculus.	Electro-dynam. Machinery.	Drill.	Steam and Electric Lab. Mach. Des.	Mach. Design.
	Dynamo and Motor Design.	Graph. Statics	Analytic Mechanics.	Electrical Appliances.	Drill.	Steam and Electric Lab. Mach. Des.	Electric. Des.
	Thermodynamics Hydraulics.	History.	Valve Gears. Steam Boilers.	Altern. Currents. Dynam. Mot. Des.	Drill.	Valve and Mach. Design.	Electric. Des.
	Altern. Currents. Power Plants.	History.	Steam Engine Design.	Dynamometers, Meas. Pow'r. Pumps	Drill.	Valve and Mach. Design.	Electric. Des.
SENIOR.	Thesis.	Polit. Economy.	Photography.	Thesis.	Drill.	Thesis.	Thesis.

V. COURSES FOR THE DEGREE OF B. C. E.

History and Political Economy,	President Patterson.
The English Language and Literature,	Professor Mackenzie.
Military Science,	Major Carpenter.
Mathematics and Astronomy,	Professor White.
Chemistry,	Professor Kastle.
Civil Engineering,	Professor Brooks, Dean.
Steam Engine,	Professor Anderson.
Photography,	Professor Mathews.
Geology,	Professor Miller.
Physics,	Professor Pence.
Analytical Mechanics,	Ass't Professor Faig.
Electrical Engineering,	Ass't Prof. Sturdevant.
Descriptive Geometry and Shopwork,	Ass't Professor Johnson.

For the Degree of C. E., either Railways, Structures, Water Power, Municipal or Mining Engineering, Sanitation, Topographical, Geodetic, or Architectural Engineering may be selected as major study; and minors will be assigned from Mathematics, Astronomy, Mechanical Engineering, Geology, Chemistry, Physics, Political Economy, English, French, and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. C. E.

YEAR.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.	SATURDAY.
FRESHMAN.	English.	Plane Geom.	Drawing.	Mech. Drawing.	Drill.	Drawing.	Drawing.
	English.	Plane Trigon.	Physics.	Mech. Drawing.	Drill.	Drawing.	Drawing.
	English.	Algebra.	Physics.	Mech. Drawing.	Drill.	Drawing.	Drawing.
SOPHOMORE.	Solid Geom.	Chemistry.	Physics.	Phys. Laborat.	Drill.	Drawing.	Drawing.
	Analyt. Geom.	Surveying.	Metallurgy.	Descr. Geom.	Drill.	Drawing.	Descr. Geom.
	Analyt. Geom.	Elem. Design.	Calculus.	Descr. Geom.	Drill.	Surveying, Mapping.	Surveying, Mapping.
JUNIOR.	Electricity. Magnetism.	Strength of Materials.	Calculus.	Elec. Dyn. Mach. Roofs, Bridges.	Drill.	Topog. Survey. Mapping.	Topog. Mapping.
	Roofs. Bridges.	Analytical Mechanics.	Calculus.	Drawing.	Drill.	Chem. Lab.	Drawing.
	Roofs. Bridges.	Graph. Statics.	Anal. Mechan.	R. R. Survey.	Drill.	R. R. Survey.	R. R. Survey.
SENIOR.	Hydraulics. Steam Engine.	History.	Bridge Design.	Construction. Geod. Survey.	Drill.	Geod. Survey. Cement Tests.	Surveying.
	Roofs, Bridges, Power Plants.	History.	Sanitary Engineering.	Astronomy. Econom. Geol.	Drill.	Chem. Lab.	Design.
	Drawing.	Polit. Econ.	Design.	Astronomy. Econom. Geol.	Drill.	Thesis.	Thesis.

VI. COURSES FOR THE DEGREE OF B. AGR.

History, Political Economy, and Metaphysics,	President Patterson.
Agriculture, Horticulture, and Botany,	Professor Mathews, Dean.
The English Language and Literature,	Professor Mackenzie.
Military Science,	Major Carpenter.
Chemistry,	Professor Kastle.
Mathematics and Astronomy,	Professor White.
The French and German Languages,	Professor Wernicke.
Entomology,	Professor Garman.
Anatomy and Physiology,	Professor Pryor.
Geology and Zoölogy,	Professor Miller.
Mechanical Engineering,	Professor Anderson.
Physics,	Professor Pence.
Drawing,	Ass't Professor Faig.

For the Degree of M. Agr., either Agricultural Chemistry, Horticulture, Entomology, or Economic Botany may be selected as major study; and minors will be assigned from Agricultural Chemistry, Horticulture, Entomology, Zoölogy, Geology, and Botany.

SCHEDULE OF STUDIES FOR THE TWO YEARS' COURSE IN AGRICULTURE.

YEAR.	TERM.	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR.	AFTERNOON.
FIRST YEAR.	1	English.	Plane Geometry.		Physiology.	Drill.	Gen. Botany.
	2	English.	Plane Trigonometry.	Gen. Botany.	Chemistry.	Drill.	Zoölogy.
	3	English.		System. Bot.	Chemistry.	Drill.	Zoölogy.
SECOND YEAR.	1	Zoölogy.	Plant Histology.	Econom. Bot.		Drill.	Agricultural Chemistry.
	2	Horticulture. Entomology.	Agriculture.	Fertilizers. Dairy.	Economic Geology.	Drill.	Horticulture. Field Work. Dairy.
	3	Horticulture. Entomology.	Botany. Algæ.	Botany. Algæ. Fungi.	Economic Geology.	Drill.	

THE ACADEMY.

WALTER KENNEDY PATTERSON,
PRINCIPAL.

JOHN LEWIS LOGAN,
JOSEPH MORTON DAVIS,
JAMES EDWARD WINSTON,
ASSISTANTS.

COURSES OF STUDY.

I. SCIENTIFIC, AGRICULTURAL, AND ENGINEERING COURSE.

FIRST YEAR—Arithmetic, Wentworth's Practical; Algebra, Wentworth's Higher, to Chapter XI.; Political and Descriptive Geography, Butler's Complete; History of the United States, Eggleston; English Grammar, Patterson's Advanced.

SECOND YEAR—Beman and Smith's Higher Arithmetic; Algebra, Wentworth's Higher, to Chapter XXII.; Plane Geometry, Beman and Smith, Books I., II., III.; Physical Geography, Tarr; General History, Anderson; Rhetoric, Williams; Synonyms, Graham.

II. CLASSICAL AND NORMAL COURSE.

FIRST YEAR—Latin Grammar, Smiley and Storke's; Viri Romæ or Scudder's Gradatim or D'Ooge's Easy Latin; White's Beginner's Greek Book; Arithmetic, Wentworth's Practical; Algebra, Wentworth's Higher, to Chapter XI.; English Grammar, Patterson's Advanced.

SECOND YEAR—Latin Grammar continued; Nepos, Cæsar; Daniell's New Latin Composition; Greek Grammar continued; Jacobs' Greek Reader; Xenophon's Anabasis, Kelsey; Beman and Smith's Higher Arithmetic; Algebra, Wentworth's Higher, to Chapter XXII.; Plane Geometry, Beman and Smith, Books I., II., III.; Rhetoric, Williams; Synonyms, Graham.

Burke's *Speech on Conciliation with the Colonies*; Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comas* and *Lycidas*; and Macaulay's essays on *Milton* and *Addison*.

Candidates for admission to the Freshman Class will be examined on these selections, and familiarity with them will be required, though they will not be taught in the class-room.

SCHEDULE OF STUDIES IN THE ACADEMY.

SCIENTIFIC, AGRICULTURAL, AND ENGINEERING.					
	FIRST HOUR.	SECOND HOUR.	THIRD HOUR.	FOURTH HOUR.	FIFTH HOUR. AFTERNOON.
FIRST YEAR.	English Grammar.	Arithmetic.	Algebra.	History, Geography.	Drill.
	English Grammar.	Arithmetic.	Algebra.	History, Geography.	Drill.
SECOND YEAR.	Rhetoric.	Physical Geography.	Arithmetic.	Algebra.	Drill.
	Rhetoric, Synonyms.	History.	Geometry.	Algebra.	Drill.
CLASSICAL AND NORMAL.					
FIRST YEAR.	English Grammar. Greek Grammar.	Arithmetic.	Algebra.	Latin Grammar.	Drill.
	English Grammar. Greek Grammar.	Arithmetic.	Algebra.	Latin Grammar.	Drill.
SECOND YEAR.	Rhetoric.	Viri Romæ. Nepos.	Arithmetic.	Algebra.	Drill. Greek Reader.
	Rhetoric, Synonyms.	Cæsar. Latin Composition	Geometry.	Algebra.	Drill. Anabasis.

The Academy is under the immediate direction and management of a Principal and three Assistants, all of whom are experienced professional teachers.

The pupils are subject to the same rules and regulations as the students of the College. Their attendance at the College is required only during the hours of recitation and other prescribed College exercises, such as chapel, drill, etc., the preparation of their lessons being made elsewhere.

The courses of instruction in the Academy are provided for those who enter directly from the common schools, and are intended to supply the necessary training intermediate between the course of study prescribed by the State Board of Education for the common schools and the Freshman Class of the College.

Every applicant, to be admitted to the Academy, is required to pass a satisfactory examination in Spelling, Reading, Writing, Geography, History of the United States, English Grammar, and Arithmetic.

County appointees must present Certificates of Appointment, made on actual examination held in pursuance of *law* by a County Board of Examiners, duly appointed for that purpose by the County Superintendent.

Applicants from the public schools of Lexington must present certificates from the School Board setting forth that they have completed the eighth grade studies.

Other applicants must present certificates from their County Superintendent or from the Principal of their High School, setting forth that they have completed the common school course prescribed by the State Board of Education.

Those who enter at any other time than at the beginning of the year will be required to pass a satisfactory examination on the work already gone over by the classes which they propose to enter.

Students matriculating in the Academy will be required to pursue one of its prescribed courses of study, and will not be permitted to take any work outside of this course, except on the recommendation of the Principal.

ENTRANCE EXAMINATION.

For the benefit of those, other than county appointees, who desire to know the character of the examination which applicants for admission will be required to pass, the following examination papers are submitted as a sample. It is not to be understood that these are the questions on which the pupils will be examined, but that they indicate the attainments necessary to enter the Academy of the College. Those who expect to enter more advanced classes will be required to pass an examination on all that the class which they propose to enter has passed over :

I. ARITHMETIC.

Find the greatest common divisor and the least common multiple of 899 and 961.

$$\text{Simplify } 2\frac{1}{4} \times \frac{10\frac{3}{4} - 4\frac{1}{2}}{6\frac{3}{16} \times 7\frac{2}{3}} \div \frac{3\frac{5}{11}}{1\frac{2}{5} + 9\frac{1}{11}}$$

Find the number of bushels that will fill a bin 8.5 feet long, 4.5 feet wide, 3.5 feet deep.

The longitude of Rome is $12^{\circ} 27' 14''$ east; the longitude of Chicago is $87^{\circ} 35'$ west; find the difference in time between the two places.

What will be the cost of plastering the walls and ceiling of a room 24 feet 4 inches long, 20 feet wide, and 12 feet 6 inches high, at 27 cents per square yard, if 20 square yards be deducted for doors, windows, and base-board?

If a train at the rate of $\frac{5}{13}$ of a mile per minute takes $3\frac{1}{4}$ hours to reach a station, how long will it take at the rate of $\frac{7}{15}$ of a mile per minute?

A and B can do a piece of work in $2\frac{1}{2}$ days, A and C in $3\frac{1}{3}$ days, B and C in $4\frac{1}{4}$ days. Required the time in which all three working together can do the work, and in which each can do the work alone.

A farmer sowed 5 bushels, 1 peck, 1 quart of seed, and harvested from it 103 bushels, 3 pecks, 5 quarts. How much did he raise from a bushel of seed?

Reduce 9 square chains, 11.25 square rods, to the decimal of an acre.

If a bar of iron $3\frac{1}{8}$ feet long, 3 inches wide, $2\frac{3}{4}$ inches thick weighs 93 pounds, what will be the weight of a bar $3\frac{3}{8}$ feet long, 4 inches wide, and $2\frac{1}{2}$ inches thick?

II. ENGLISH GRAMMAR.

Name, define, and give examples of all the parts of speech.

Define a phrase, a clause, and give examples of each.

What are the only verbs that can be in the passive voice? Why?

Write a complex sentence containing a noun clause; one containing an adjective clause; one containing an adverbial clause.

Analyze the following sentence, and parse all the words in full:

"The soldiers of the tenth legion, wearied by their long march, and exhausted from want of food, were unable to resist the onset of the enemy."

III. GEOGRAPHY.

What are the circles of the earth?

What are the meridians?

Define latitude and longitude.

What two meridians bound the hemispheres?

Define the two principal forms of government.

Bound North America and describe its political divisions.

Why is the climate of Western Europe different from that of America in same latitudes?

Describe the mountains, principal rivers, and lakes of Asia.

Describe the natural routes of commerce.

IV. HISTORY.

What section of the United States was first explored by the Spanish? the French? the English?

Give a concise description of the settlement of Plymouth, Jamestown, New York City, and their distinctive characteristics.

Define Charter, Proprietary, and Royal government as applied to the colonies, and name the colonies that were under each of these forms of government.

Name the three principal causes of the Revolutionary War.

What was the main cause of the War of 1812?

What caused the Mexican War?

Give the leading political differences between the North and the South at the opening of the Civil War.

Name the three departments of the Government under the Constitution, and define the duties of each.

ASSOCIATIONS.

THE UNION LITERARY SOCIETY.

This, the oldest of the four literary associations connected with the State College, was formed in 1872 by the consolidation of the Yost Club and the Ashland Institute, and operates under a charter from the Legislature. It occupies a commodious and well-furnished hall in the main building, and is supplied with a library due in part to an appropriation from the State. Besides the weekly meetings devoted to declamations, essays, and debates, the Society holds on the 22d of February an annual contest in oratory, and awards to the successful competitor a gold medal provided by the alumni.

THE PATTERSON LITERARY SOCIETY.

This Society, formed in 1887, and, at the suggestion of Gov. Knott, named in honor of the President of the College, was chartered in 1888. It is provided with a handsome room and a good library. The annual oratorical contest is held on the 26th of March, the birthday of the President, who presents the first prize, a gold medal. The second, also a gold medal, is the gift of Mr. George W. Crum, of Louisville.

THE PHILOSOPHIAN SOCIETY.

The Philosopher Society, formed by the young women of the College in 1882 for literary improvement and social pleasure, offers, besides the usual weekly meetings, a public entertainment consisting of declamations, essays, criticisms, and orations.

THE ENGINEERING SOCIETY.

This body, composed of matriculates in either course of engineering, meets on the third Friday of each month. The exercises consist of a paper read by a member on some pertinent topic, followed by a general discussion. During the year the Society is occasionally favored with lectures by experienced engineers not connected with the College.

ATHLETICS.

Opportunity for physical exercise and legitimate outdoor sport is afforded by the spacious Athletic Field and Parade Ground. The management of athletics by the students is vested in an Athletic Association formed by the union of the Foot-ball, the Base-ball, and Track-athletic Societies. The officers of these three sub-organizations constitute the managing board of the Athletic Association. The control of athletics by the faculty is secured through their Committee on Athletics, acting under a set of regulations adopted by the Faculty and approved by the Trustees.

ALUMNI.

1869.
MUNSON, WILLIAM BENJAMIN, B. S., Denison, Texas.
1870.
MUNSON, THOMAS VOLNEY, B. S., Denison, Texas.
1871.
HARDING, ENOCH, B. S., Fort Worth, Texas.
1874.
CARSWELL, ROBERT EMMETT, B. S., Decatur, Texas.
DEAN, JOHN ALLEN, B. S., Owensboro.
HARDIN, THOMAS ROLLINS, B. S., Ruston, La.
SMITH, EDWARD EVERETT, B. S., Chicago, Ill.
1875.
BROWN, EDGAR THOMAS, B. S., Wichita, Kansas.
1877.
FLOETE, FRANKLIN, B. S., Spencer, Iowa.
WARD, BALLARD PRESTON, B. S., Speedwell, Va.
1878.
COLE, MOSES SALVADOR, B. S., Rivas, Nicaragua.
*MACKIE, MAHLON, B. S., Mt. Sterling.
1879.
BLAKELY, CHARLES GRAHAM, B. S., Topeka, Kansas.
HAYS, NAPOLEON BONAPARTE, B. S., Pineville.
PERRY, CALEB SYKES, B. S., Indianapolis, Ind.
WRIGHT, HENRY MOSES, B. S., Rome, Ga.
1880.
CRAWFORD, JAMES, B. S., Lexie, Tennessee.
PETER, ALFRED MEREDITH, B. S., Lexington.
WELLER, NICHOLAS JOHN, B. S., Pineville.
WHATLEY, GEORGE CROGHAN, B. S., Birmingham, Ala.
1881.
PENCE, MERRY LEWIS, B. S., Lexington.
1882.
BERRY, GEORGE G., B. S., Lexington.
DE ROODE, LOUIS KUINDERS, A. B., Louisville.
PATTERSON, JOHN LETCHER, A. B., Louisville.
RODGERS, EDWARD LEE, A. B., Cincinnati, Ohio.
SHACKLEFORD, JOHN ARMSTRONG, A. B., Tacoma, Wash.
STOLL, JOHN WILLIAM, A. B., Lexington.
1883.
*KING, WILLIAM ELIJAH, B. S., Nelson County.
TAYLOR, JAMES W., A. B., St. Louis, Mo.
1884.
EUBANKS, BURTON PENDERGAST, B. S., Dallas, Texas.
GRAVES, CLARENCE SCOTT, B. S., Lexington.
*JONES, HENRY CLAY, B. S., Lexington.

*Deceased.

KASTLE, JOSEPH HOEING, B. S., Lexington.
 RAMSEY, RUSSELL THOMAS, B. S., London.
 RILEY, OTIS VIOLETTE, B. S., Pineville.

1885.

DE ROODE, RUDOLPH JOHN JULIUS, B. S., Glen's Falls, N. Y.
 GESS, GEORGE THOMAS, B. S., Lexington.
 GORDON, J. CRITTENDEN, B. S., Pleasureville.
 LAMBUTH, WILLIAM DAVID, A. B., Seattle, Washington.
 SCOTT, JAMES RUSSELL, B. S., Lexington.
 THORNBURY, WILLIAM GARLAND, B. S., Brooklyn, N. Y.

1886.

MORGAN, THOMAS HUNT, B. S., Bryn Mawr, Pa.
 PREWITT, ROBERT LEE, A. B., Walnut Hill.
 PREWITT, WILLIAM C., A. B., Fort Worth, Texas.

1887.

HIFNER, KEARNEY LEE, B. S., Pinkard.
 SHACKLEFORD, THOMAS WHEATLEY, A. B., Superior, Wis.

1888.

BARTLETT, FREDERICK VINCENT, B. S., Lexington.
 BRYAN, GEORGE GIST, B. S., Lexington.
 CURTIS, HENRY ERNEST, B. S., Lexington.
 GUNN, BELLE CLEMENT, B. S., Springfield, Ohio.
 PAYNE, ROBERT TREAT, B. S., Athens.

1889.

ELLERSHAW, EDWARD, A. B., Digby, Nova Scotia.
 FRAZER, HUGH MILLER, B. S., Lexington.
 *PATTERSON, WILLIAM ANDREW, B. S., Lexington.
 PREWITT, ANNIE GIST, B. S., Lexington.
 WALKER, ROBERT BERNIE, B. S., Lexington.

1890.

ANDERSON, RICHARD THOMAS, JR., B. S., Lexington.
 BAKER, ANNIE JANE, B. S., Lexington.
 BROCK, CHARLES ROBERT, B. S., London.
 FORSTON, KEENE RICHARDS, B. S., Indianapolis.
 GUNN, JOHN WESLEY, C. E., Lexington.
 HOEING, CHARLES, A. B., Rochester, N. Y.
 WILSON, MARGARET AGNES, B. S., Chicago, Ill.
 YATES, JAMES ANDERSON, B. S., Ottawa, Kansas.

1891.

BERRY, HENRY SKILLMAN, B. S., Lexington.
 CLARDY, U. L., B. S., Newstead.
 MUNCY, VICTOR EMANUEL, B. S., Lexington.
 WALLACE, WILLIAM RUSSELL, C. E., Sessions, Miss.
 WARNER, B. CALLIE, B. S., Lexington.

1892.

COX, ARTHUR MELVILLE, A. B., Cynthiana.
 ELKIN, FIELDING CLAY, B. S., Lexington.

*Deceased.

HUNT, IRENE LEONORA, B. S., Lexington.
 MAXEY, JOHN GEE, A. B., Louisville.
 PAGE, WILLIAM SEABURY, C. E., Tacoma, Wash.
 POTTINGER, SAMUEL LANCASTER, A. B., Louisville.
 *REYNOLDS, FRANK CRAIG, C. E., Lexington.
 SCOVELL, FRANK ELMER, C. E., Rosehill, Ill.
 SHAW, HIRAM, JR., B. S., Chicago, Ill.
 SHELBY, ISAAC PRATHER, C. E., Lexington.
 SOUTHGATE, BUTLER TURPIN, A. B., Lexington.

1893.

ADAMS, KATHERINE INNES, A. B., Albuquerque, N. Mex.
 BRYAN, JOHN IRWIN, B. S., B. M. E., '95, San Francisco, Cal.
 COURTNEY, EDMUND, B. Ped., Louisville.
 GUNN, HENRY MARTIN, B. S., Lexington.
 HOBODY, WILLIAM COTT, B. S., Delaware City.
 JOHNSON, JAMES RICHARD, B. M. E., Lexington.
 MCFARLIN, JOHN WILLIAM, B. S., Franklin.
 RILEY, MORTON SANDERS, C. E., Washington, D. C.
 ROBERTS, DANIEL STILLWELL, B. Ped., Ekron.
 SMITH, DENNY PERRYMAN, B. S., Cadiz.
 SPEYER, ROSA, B. S., Lexington.
 WARE, CORA E., B. Ped., Pineville, La.
 WHITE, MILFORD, C. E., Lexington.
 WILLIS, BENJAMIN GRANT, B. S., Lexington.

1894.

AULICK, EDWIN CHESTERFIELD, A. B., Morgan.
 BRADSHAW, GEORGE DICKIE, B. Ped., Winchester.
 BRAND, EDWARD, A. B., East Lake, Ala.
 CURTIS, CARLTON COLEMAN, B. S., Lexington.
 FAIG, JOHN THEODORE, B. M. E., Lexington.
 GARRED, ULYSSES ANDERSON, B. M. E., Chicago, Ill.
 GRIFFING, EMMA ROSETTA, B. S., Lexington.
 HAYS, JAMES MORRISON, A. B., Pineville.
 HUGHES, LEONARD SAMUEL, B. S., Louisville.
 JONES, MATTISON BOYD, A. B., Lexington.
 KEISER, BENJAMIN CHRISTOPHER, B. S., St. Louis, Mo.
 KROESING, LILLIE, B. S., Lexington.
 NEWTON, NATHAN ALEXANDER, B. M. E., Oil City, Pa.
 NORMAN, ALBERT CLIFT, B. M. E., Washington, D. C.
 OOTS, NINA PEARL, B. S., Lexington.
 SHELBY, KATHERINE, B. S., Lexington.
 SLEDD, DORA, B. Ped., Lexington.
 TRIGG, WILLIAM CLAY, C. E., New Columbus.
 WARNER, HATTIE HOCKER, B. S., Delaware City.

1895.

ATKINS, MARY LYONS, B. S., Lexington.
 BARBER, LANIS SPURGEON, Kiddville.

*Deceased.

BUSH, HENRY SKILLMAN, B. S., Lexington.
 DIDLAKE, MARY LEGRAND, B. S., Lexington.
 DOWNING, JOSEPH MILTON, B. M. E., Lexington.
 FAULKNER, JOHN VICK, C. E., Simon, Ind. Ter.
 FITZHUGH, LUCY STUART, A. B., A. M., '96, Bradford, Pa.
 FOSTER, NETTIE BELLE, B. S., Lexington.
 KING, ELIZABETH WHITTINGTON, A. B., A. M., '96, . Lexington.
 LEWIS, THOMAS STONE, A. B., Lexington.
 MCCONATHY, JAMES ASA, B. S., Kirklevington.
 MCCAUGHLIFFE, MARY CATHERINE, B. S., Lexington.
 MURRILL, PAUL INGOLD, B. S., Ann Arbor, Mich.
 NEWMAN, ROBERTA, B. S., Muir.
 REYNOLDS, NELLIE ANNA, B. S., Lexington.
 STOLL, RICHARD CHARLES, A. B., Lexington.
 WEAVER, RUFUS LEE, B. S., New York.
 WILMOTT, JOHN WEBB, A. B., Lexington.
 WOODS, JOHN JOSEPH, A. B., Lexington.

1896.

ALFORD, SMITH EDISON, A. B., Lexington.
 CARNAHAN, JAMES WILLIAM, A. B., London.
 CASE, DANIEL MORRIS, B. M. E., Williamstown.
 DAVIDSON, HARRY ADOLPH, C. E., Louisville.
 DEAN, THOMAS ROLAND, A. B., Ann Arbor, Mich.
 DUCK, ALICE, B. S., Lexington.
 DUNLAP, JOHN JENNINGS, A. B., Independence.
 KERRICK, FELIX, A. B., Hardinsburg.
 LYLE, JOEL IRVIN, B. M. E., Ludlow.
 MCDOWELL, EDWARD CAMPBELL, B. M. E., Covington.
 ORMAN, HENRY, B. M. E., Danville.
 TRIGG, JOHN HENRY, B. S., New Columbus.
 WOODS, JOHN WESLEY, A. B., Webbville.

1897.

ALLEN, WILLIAM RAYMOND, A. B., Cincinnati, Ohio.
 ANDERSON, HENRY CLAY, B. M. E., Chattanooga, Tenn.
 *ATKINS, ANTOINETTE THORNTON, B. S., Lexington.
 BLESSING, GEORGE FREDERICK, B. M. E., Indianapolis, Ind.
 BULLOCK, SAMUEL ARCHIBALD, B. M. E., Louisville.
 CASSIDY, ELIZABETH, B. S., Ellerslie.
 CLARKE, MARY EVA, B. S., Lexington.
 COLLIER, WILLIAM HENRY, B. M. E., Lexington.
 DEBOW, SAMUEL CARRUTHERS, B. M. E., Lexington.
 DOWNING, GEORGE CRUTCHER, B. Ped., Frankfort.
 DUCK, BERKLEY WILSON, B. M. E., Indianapolis, Ind.
 DUNCAN, WILLIAM ADOLPHUS, B. M. E., Franklin.
 FRAZER, JOSEPH CHRISTIE, B. S., Baltimore, Md.
 GEARY, JOHN THOMAS, B. S., U. S. Army.

*Deceased.

GORDON, ROBERT LEE, A. B., A. M., '98, Pewee.
 GUNN, CLARA BROOKE, B. S., Lexington.
 *HALEY, JOHN THOMAS, B. S., Fayette County.
 HENDREN, JAMES HARRY, B. S., Richmond.
 HICKS, ARTHUR LEE, A. B., Denton.
 KELLY, THOMAS CONWAY, B. M. E., Cincinnati, Ohio.
 MCHARGUE, BARBARA SUSAN, B. S., Boreing.
 MORGAN, GEORGE MATT, B. S., Pineville.
 POPE, ROBERT LEE, A. B., Williamsburg.
 SCOTT, JOHN, A. B., Lexington.
 SEARCY, LULU, B. Ped., Lexington.
 SIMRALL, JAMES ORLANDO HARRISON, A. B., Lexington.
 WARNER, LOGAN HOCKER, B. S., LaFollette, Tenn.
 WHITE, MARTHA RIPPERDAN, B. S., Lexington.

1898.

BROCK, GEORGE GREEN, A. B., Bush.
 BROCK, LAFAYETTE BRECKINRIDGE, B. S., Lexington.
 CAHILL, WILLIAM JAMES DAVID, B. M. E., Lexington.
 CAMPBELL, THOMAS LUTHER, A. B., Clinton.
 CARPENTER, WILLIAM THOMAS, B. M. E., Lexington.
 FARLEY, FRANK PRESTON, A. B., Flatlick.
 HAMMOCK, DAVID WILLIAM, B. S., Cane Creek.
 HAMILTON, THOMAS SMITH, B. M. E., Lexington.
 JOHNSON, JACK STUBBLEFIELD, A. B., Muir.
 KING, MARGARET ISADORE, A. B., Lexington.
 LOEVENHART, ARTHUR SOLOMON, B. S., Lexington.
 LOEVENHART, EDGAR CHARLES, B. M. E., Lexington.
 LUCAS, IDA WEST, A. B., Lexington.
 STRAUS, CHARLES LOUIS, B. M. E., Lexington.
 TERRY, LILA BEATRICE, A. B., Paris.
 TROSPER, HENDERSON TAYLOR, A. B., London.
 WARD, PAUL STERLING, B. M. E., Cincinnati, Ohio.
 WILSON, HENRY CLAY, A. B., Mt. Olivet.

1899.

ALLEN, LEONARD BARNES, C. E., Lexington.
 BROCK, WALTER LUCAS, A. B., London.
 BRONAUGH, WILL LOGAN, B. M. E., Lexington.
 BULLOCK, FREDERICK DABNEY, B. S., Lexington.
 BULLOCK, JOSEPH HUNT, B. S., Lexington.
 BUTLER, FRANCES VICTOR, A. B., Paris.
 COPLAND, ALEXANDER CHISHOLM, C. E., Lexington.
 COX, JANE BRAMBLETT, A. B., Mt. Sterling.
 DAVIDSON, JOSEPH ERNEST, C. E., Louisville.
 GRAVES, LILLA MAY, B. S., Lexington.
 GRINSTEAD, WRENN JONES, A. B., Salem, Neb.
 HORTON, MINNIE LEIGH, A. B., Camargo.
 HUGHES, JAMES WILLIAM, B. M. E., Corydon.

*Deceased.

JETT, CARTER COLEMAN, B. M. E.,	Jett.
JOHNSTON, PHILIP PRESTON, B. M. E.,	Lexington.
MADDOCKS, ROYDON KEITH, C. E.,	Carrollton.
MARKS, SAMUEL BLACKBURN, B. S.,	Versailles.
MORROW, JOSEPH, B. Ped.,	Rankin.
ROBERTS, GEORGE, B. Ped.,	Burnside.
SCHERFFIUS, WILLIAM HENRY, B. S.,	Lynnville.
SCHOLTZ, THEODORE WALTER, B. M. E.,	Louisville.
SIMPSON, EUGENE IRWIN, A. B.,	Lexington.
SMITH, SIDNEY ALLAN, A. B.,	Lexington.
VANCE, ARTHUR JOHN, B. M. E.,	Springfield.
WARREN, RICHARD EVANS, A. B.,	Donerail.
WILLMOTT, JENNIE WALKER, B. S.,	Lexington.
YOUNG, BRADLEY WOODRUFF, B. S.,	Cincinnati, Ohio.

1900.

ALLEN, ROBERT McDOWELL, A. B.,	Faywood.
BOWDEN, MARY WILLA, A. B.,	Paris.
BRADLEY, CHARLES WALTER, B. M. E.,	Lexington.
BROCK, DAVID MORRIS, C. E.,	Elkhorn.
CORNETT, CHARLES GEORGE, B. Ped.,	Bush.
COX, LULA MAY, B. S.,	Lexington.
DARLING, LEWIS ANDREW, B. M. E.,	Carrollton.
FRANKEL, LEON KAUFMAN, B. M. E.,	Louisville.
GRAHAM, JAMES HIRAM, C. E.,	Louisville.
GRAVES, JAMES MADISON, B. M. E.,	Lexington.
GUNN, JOHN TEVIS, A. B.,	Lexington.
HARDIN, CALVIN EVANS, B. S.,	Ruston, La.
HESTAND, JOHN EMERSON, B. S.,	Edmonton.
HUNDLEY, LESLIE, B. S.,	Rome.
JOHNSTON, JOHN PELHAM, B. M. E.,	Lexington.
JOHNSTON, MARIUS EARLY, B. S.,	Lexington.
JONES, THOMAS ALMON, A. B.,	Creelsboro.
LESTER, ARTHUR VANCE, C. E.,	Williamsburg.
LYLE, ERNEST THORNTON, B. M. E.,	Lexington.
MCCARTY, WILLIAM CARPENTER, B. S.,	Louisville.
MUSSELMAN, JOSEPH FRANKLIN, B. M. E.,	Lexington.
NEAL, MARY ELIZA, A. B.,	Paris.
NICHOLS, T. A., B. M. E.,	Lexington.
PEYTON, NELLIE EVANS, B. S.,	Lexington.
RAGAN, LEONIDAS, A. B.,	Shearer Valley.
REED, JEWETT VILLEROY, B. S.,	Louisville.
RIESER, EUGENE FRIST, B. M. E.,	Louisville.
SCRUGHAM, JAMES GRAVES, B. M. E.,	Lexington.
SMITH, ALBERT ELIAS, B. S.,	Owensboro.
SMITH, JOSHUA SOULE, B. M. E.,	Lexington.
SPEARS, MIRANDA LOUISE, B. S.,	Muir.
WILSON, JAMES BUCKLEY, B. M. E.,	Louisville.

MILITARY DEPARTMENT.

ROSTER.

W. T. CARPENTER. B. M. E., 2D LIEUT. 2D U. S. V. ENGINEERS, SPANISH-AMERICAN WAR,
Commandant.

CADET BATTALION.

STAFF.

G. L. BARCLAY, FIRST LIEUT. AND ADJT.	S. G. McDONALD, HOSP. STEWARD.
W. A. PENNINGTON, FIRST LT. AND QR. MAST.	C. A. SPENCER, CHIEF MUSICIAN.
J. W. CALDWELL, SERGT. MAJ.	C. M. SMITH, CHIEF TRUMPETER.
E. E. GILLILAND, QR. MAST. SERGT.	G. W. RICE, DRUM MAJ.

INFANTRY.

A COMPANY.	B COMPANY.	C COMPANY.	D COMPANY.	E COMPANY.
CAPTAIN.	CAPTAIN.	CAPTAIN.	CAPTAIN.	CAPTAIN.
W. S. WEBB.	G. W. EWELL.	J. W. GILBERT.	C. A. BLESSING.	T. L. RICHMOND.
FIRST LIEUT.	FIRST LIEUT.	FIRST LIEUT.	FIRST LIEUT.	FIRST LIEUT.
C. L. HUMPHREY.	J. L. VOGT.	W. H. PERKINS.	L. W. MARTIN.	A. S. DABNEY.
SECOND LIEUT.	SECOND LIEUT.	SECOND LIEUT.	SECOND LIEUT.	SECOND LIEUT.
G. H. HAILEY.	F. C. CUTLER.	T. E. WARNOCK.	C. TREAS.	P. WEST.
SERGEANTS.	SERGEANTS.	SERGEANTS.	SERGEANTS.	SERGEANTS.
H. A. HOEING.	W. LYNE.	J. C. BERRY.	T. J. BARR.	A. F. CRIDER.
N. H. ELLIS.	E. L. GLAZE.	C. D. LEWIS.	E. C. ELLIOTT.	B. R. HART.
P. DAUGHERTY.	O. M. SHEDD.	L. D. THRELKELD.	D. C. DONAN.	D. C. MADDOX.
H. W. ALEXANDER.	J. L. STONER.	A. D. STONE.	J. H. JACKSON.	H. V. BASTIN.
J. C. FINNERAN.	C. R. LYLE.	S. B. BUCHANAN.	D. W. ARNETT.	W. G. CAMPBELL.
	J. P. MILLER.			
CORPORALS.	CORPORALS.	CORPORALS.	CORPORALS.	CORPORALS.
M. W. HANCOCK.	S. F. COX.	P. L. KAUFMAN.	C. A. GRADY.	E. C. WURTELE.
B. F. SCHERFFIUS.	B. BULLOCK.	F. JOHNSTON.	G. F. MASON.	F. C. TAYLOR.
A. M. SWOPE.	W. S. GRIFFING.	A. E. TANNIEN.	S. C. VAUGHN.	C. L. WILLIAMS.
W. M. SCHOB.	H. W. BUSSY.	D. W. LUTEN.	C. T. HOWARD.	B. R. CAMPBELL.
W. H. WARDER.	U. G. HATFIELD.	S. T. DODSON.	H. N. WOOD.	R. R. TALIAFERRO.
C. H. CHAMBERS.	R. HAYNES.	T. J. MILLER.	F. S. SMITH.	J. R. LANCASTER.
C. S. ADAMS.	H. L. HUMPHREY.	J. M. BROOKS.	W. P. EUBANKS.	J. S. TURNER.
W. HOEING.	C. A. GALLOWAY.	J. S. HELM.	R. W. ELLIS.	B. E. EVANS.
C. R. GILMORE.				H. SUMNER.

ARTILLERY.

CAPTAIN.	FIRST LIEUT.
R. N. WILSON.	J. H. KEHOE.
SERGEANTS.	CORPORALS.
C. C. CLARK.	R. HUNT.
F. W. MILBOURN.	M. M. CLAY.

SIGNAL CORPS.

FIRST SERGEANT.
J. B. RILEY.
SECOND SERGEANT.
H. BEWLAY.

DETACHMENT OF SMALL BOYS.

CORPORALS.	CORPORALS.
C. J. CLARKSON.	E. T. HOULIHAN.
L. J. PRYSE.	F. J. MONTGOMERY.

POST-GRADUATES.

Allen, Robert McDowell, A. B . . .	Classical . . .	Faywood.
Graham, James Hiram, B. C. E . . .	Civ. Eng. . . .	Louisville.
Graves, James Madison, B. M. E . .	Mech. Eng. . . .	Lexington.
Gunn, John Tevis, A. B . . .	Classical . . .	Lexington.
Johnston, John Pelham, B. M. E . .	Mech. Eng. . . .	Lexington.
Johnston, Marius Early, B. S . . .	Scientific . . .	Lexington.
Roberts, George, B. Ped . . .	Scientific . . .	Burnside.

UNDERGRADUATES.

SENIORS.

Bassett, Harry Preston . . .	Scientific . . .	Cynthiana.
Bewlay, Harry . . .	Mech. Eng. . . .	Lexington.
Blessing, Charles Albert . . .	Mech. Eng. . . .	Carrollton.
Bliss, Charlotte Miriam . . .	Classical . . .	Louisville.
Bradley, Charles Walter . . .	Mech. Eng. . . .	Lexington.
Butler, Nannie Etta . . .	Scientific . . .	Lexington.
Craig, William James . . .	Classical . . .	Ensor.
Cutler, Frank Garfield . . .	Mech. Eng. . . .	Louisville.
Dabney, Albert Smith . . .	Classical . . .	Cadiz.
✓ Daugherty, Frank . . .	Mech. Eng. . . .	Paris.
Ellis, Nicholas Henry . . .	Normal . . .	Peachgrove.
✓ Ewell, George Watkins . . .	Classical . . .	London.
Gilbert, John Whittington . . .	Scientific . . .	Lawrenceburg.
Gordon, Mary Logan . . .	Classical . . .	Lexington.
Hailey, George Hereford . . .	Civ. Eng. . . .	Paducah.
Humphrey, Claude Loacher . . .	Mech. Eng. . . .	Lexington.
✓ Hunt, Robert Bruce . . .	Mech. Eng. . . .	Paris.
Johnson, William Piatt . . .	Normal . . .	Cayce.
Jones, Leila Eleanor . . .	Normal . . .	Eminence.
Kaufman, Philip Levy . . .	Mech. Eng. . . .	Lexington.
Kehoe, John Hickey . . .	Mech. Eng. . . .	Cynthiana.
Klein, Garnet Rosel . . .	Mech. Eng. . . .	Louisville.
Lary, Alleen Pettitt . . .	Scientific . . .	Lexington.
Lewis, Charles Dickens . . .	Normal . . .	Eubanks.
Luten, Drew William . . .	Classical . . .	Cayce.
McDonald, Samuel Gilbert . . .	Agricultural . . .	New Castle.
Marshall, Albert Ross . . .	Scientific . . .	Ossipee.
Milburn, Frank William . . .	Mech. Eng. . . .	Doneraile.
Moore, Thomas Brent . . .	Classical . . .	Lexington.
Offutt, Jimmie Morrison . . .	Scientific . . .	Lexington.
Pennington, William Lee . . .	Normal . . .	Sandyhook.
Perkins, Wade Hampton . . .	Civ. Eng. . . .	Crab Orchard.
Rankin, Flora Emma . . .	Classical . . .	Rankin.
Rice, Guy Wickliffe . . .	Civ. Eng. . . .	Paintsville.
Richmond, Thomas Logan . . .	Agricultural . . .	Germantown, Tenn.
Seibert, Frank Thomas . . .	Mech. Eng. . . .	Louisville.
Sharon, John Albertus . . .	Normal . . .	Mt. Auburn.
Shedd, Oliver March . . .	Scientific . . .	Lexington.

Smith, Orville Francis	Civ. Eng.	Shadynook.
Taylor, Gibson Walker	Classical	Maceo.
Treas, Charles	Civ. Eng.	Benton.
Uppington, George Paul	Mech. Eng.	Lexington.
Vogt, John Leon	Mech. Eng.	Louisville.
Webb, William Snyder	Scientific	Greendale.
West, Perry	Mech. Eng.	Louisville.
Williams, Ella Campbell	Scientific	Chilesburg.
Wilson, Richard Napoleon	Mech. Eng.	Cynthiana.

JUNIORS.

Arnett, David William	Mech. Eng.	Troy.
Barclay, George Larue	Mech. Eng.	Stevensport.
Barr, Thomas James	Mech. Eng.	Lebanon.
Bastin, Henley Vedder	Mech. Eng.	Lancaster.
Berry, Jesse	Normal	Whitesville.
Boulware, Lemuel Ford	Classical	Campbellsburg.
Bowling, Willet Lee	Mech. Eng.	Adairville.
Caldwell, James Shipp	Civ. Eng.	Paducah.
Clay, Matthew Martin	Civ. Eng.	Lexington.
Cox, Spencer Foster	Mech. Eng.	Cynthiana.
Donan, David Cummings	Normal	Three Springs.
Doyle, Chester Lawrence	Mech. Eng.	Louisville.
Dunn, Oswald Thorpe	Civ. Eng.	Louisville.
Elliott, Edward Cronley	Classical	Lexington.
Evans, Edwin Clinton	Mech. Eng.	Louisville.
Finneran, Thomas Francis	Civ. Eng.	Midway.
Frazee, George Burbridge	Mech. Eng.	Louisville.
Gaither, Morton William	Mech. Eng.	Harrodsburg.
Gary, William Edward	Scientific	Pembroke.
Grady, Clyde	Classical	Smith's Mills.
Hancock, Mason Wallace	Classical	Columbia.
Hart, William Frederick	Civ. Eng.	Louisville.
Hatfield, Ulysses Grant	Normal	Jabez.
Haynes, Robert	Normal	Robards.
Hoeing, Howard Aubrey	Mech. Eng.	Lexington.
Hoeing, Wallace	Mech. Eng.	Lexington.
Hughes, William Neal	Civ. Eng.	Louisville.
Humphrey, Hubert Lee	Mech. Eng.	Bloomfield.
Jackson, John Hunt	Normal	New Columbus.
Jett, Charles Mills	Mech. Eng.	Jett.
Jones, John Craig	Scientific	Tuttle.
Jones, Theophilus Tolman	Classical	Manchester.
Lawhorn, Jesse Sherman	Normal	Yosemite.
Lyne, William	Mech. Eng.	Brannon.
Martin, Lewis Wynne	Mech. Eng.	Lexington.
Mason, Glenn Frank	Scientific	Lexington.
Moorman, Robert Emmett	Civ. Eng.	Glendene.
Murphey, Ernest James	Classical	Pembroke.
Naive, Miriam Wynter	Scientific	Lexington.
Pulverman, William Edward	Mech. Eng.	Louisville.
Richardson, John Breckinridge	Scientific	Mt. Sterling.
Scott, Wellington Friend	Classical	Lexington.
Shepherd, Charles Chowning	Civ. Eng.	Carrollton.
Simpson, Eugene Erwin	Mech. Eng.	Lexington.

Smedley, John William	Classical	Fort Spring.
Smith, Chester Martin	Mech. Eng.	Elizabethtown.
Stone, Albert Dickey	Civ. Eng.	Little Rock.
Stoner, John Lee	Civ. Eng.	Bardstown.
Sumner, Herman	Mech. Eng.	Greenville.
Tandy, Clarke Howell	Classical	Hopkinsville.
Taylor, Flemen Coffee	Mech. Eng.	Beaver Dam.
Thomas, Smith Riley	Mech. Eng.	New Castle.
Warnock, Thomas Edwin	Mech. Eng.	Chilesburg.
Whitfield, Nellie Herbert	Scientific	Lexington.

SOPHOMORES.

Adams, Clarence Samuel	Classical	Salverville.
Akin, John Allison	Scientific	Princeton.
Alexander, Holly Witherspoon	Normal	Canby.
Atkins, Bessie Ryland	Normal	Lexington.
Atkinson, Charles Wright	Civ. Eng.	Louisville.
Austin, Lillian	Classical	Paris.
Austin, Mary Wickliffe	Classical	Paris.
Brooks, Robert Craighead	Scientific	Middlesboro.
Brown, John Edwin	Classical	Shelbyville.
Buckner, Charlotte Forsythe	Classical	Lexington.
Bullock, Barry	Classical	Lexington.
Campbell, Bruce Robinson	Civ. Eng.	Lexington.
Campbell, Walter Gilbert	Classical	Flat Lick.
Chorn, Sarah Marshall	Classical	Lexington.
Clo, Harry	Scientific	Science Hill.
Crider, Albert Foster	Classical	Marion.
Cropper, Frank Marion	Mech. Eng.	Lexington.
Crume, Wallace William	Scientific	Lebanon.
Crutchfield, William Bolden	Classical	Lexington.
Ditto, Leola	Normal	Pleasureville.
Dowling, Edward Thomas	Mech. Eng.	Lexington.
Ellis, Richard Washington	Mech. Eng.	New Castle.
Elvove, Elias	Scientific	Lexington.
Eubank, Walter Pendleton	Civ. Eng.	Glasgow.
Finneran, James Cornelius	Mech. Eng.	Midway.
Fisk, Clarence Beauchamp	Normal	Biddle.
Freeman, Jesse Knox	Civ. Eng.	Central City.
Gaither, Edgar Basil	Mech. Eng.	Harrodsburg.
Galloway, Clarence Albert	Classical	Mains.
Gilliland, Eugene	Mech. Eng.	Preston.
Glaze, Earl Lee	Mech. Eng.	Chilesburg.
Gleason, Howard Sherman	Mech. Eng.	Louisville.
Graves, George Thomas	Civ. Eng.	Lexington.
Hamilton, Henry Armstrong	Mech. Eng.	Lexington.
Hamilton, Loyd Logan	Mech. Eng.	Uniontown.
Hart, Benjamin Robert	Scientific	Pisgah.
Headley, George William	Classical	Lexington.
Higgins, Lucy Joseph	Classical	Louisville.
Hisle, Willis Minor	Mech. Eng.	East Hickman.
Hogan, Ellie	Mech. Eng.	Williamstown.
Horine, Roscoe Emma	Classical	Nicholasville.
Howard, Styles Trenton	Mech. Eng.	Rockvale.
Hudson, Lynn Walter	Mech. Eng.	Danville.
Hunter, Theodore Alexander	Civ. Eng.	Greensburg.

Johnson, Ennis Esten	Civ. Eng.	Fern Creek.
Johnson, Mabel Beasley	Classical	Lexington.
Johnston, Hampton Wallace	Mech. Eng.	Lebanon.
Kelly, Edward Owen Guerrant	Scientific	Fulton.
Kelly, Herndon Browning	Civ. Eng.	Lebanon.
Kevil, Rosa Rhee	Classical	Marion.
Kreutzer, Edward Clarence	Civ. Eng.	Louisville.
Lancaster, John Ralph	Mech. Eng.	Lebanon.
Land, Edgar Poe	Mech. Eng.	Lexington.
Lyle, Cornelius Railey	Mech. Eng.	Lexington.
McCauley, James Simeon	Mech. Eng.	Versailles.
McConnell, John Russell	Civ. Eng.	Rabbit Hash.
McConnell, Samuel Calvert	Mech. Eng.	Rabbit Hash.
McKee, Neal Trimble	Mech. Eng.	Mt. Sterling.
McKee, Walter Reid	Mech. Eng.	Mt. Sterling.
McLaughlin, Marguerite	Classical	Lexington.
Maddox, David Campbell	Classical	State Line.
Mann, Harry Seligman	Scientific	Henderson.
Marshall, Isabella West	Classical	Lexington.
Marks, William Mathews	Mech. Eng.	Versailles.
Matthews, John Eve	Mech. Eng.	Barbourville.
May, Elizabeth Woodward	Classical	Lexington.
Miller, John Paul	Classical	Lancaster.
Miller, Mina Garrard	Normal	Elkton.
Munson, Bessie Lee	Normal	Shadynook.
Nicholas, James Stonestreet	Mech. Eng.	Lexington.
Parker, Samuel Fletcher	Scientific	Parker's Lake.
Peckinpugh, Charles Leon	Civ. Eng.	Louisville.
Pence, Alice Courtney	Scientific	Louisville.
Perrine, Charles Duke	Mech. Eng.	Moranburg.
Phelps, Alonzo	Mech. Eng.	Bealerton.
Porch, Madison	Scientific	Somerset.
Railey, Lawrence Amsden	Classical	Versailles.
Ramey, Emerson Everett	Mech. Eng.	Carlisle.
Rand, Edward	Mech. Eng.	Edward.
Rentz, Gertrude	Scientific	Sturgis.
Reubelt, John Warren	Mech. Eng.	Paris.
Rice, Heber Holbrook	Scientific	Paintsville.
Roche, Thomas Francis	Classical	Paris.
Rodes, Nettie Falconer	Classical	Lexington.
Shannon, Bernadetta	Classical	Lexington.
Smith, Bessie Raine	Scientific	Lexington.
Spencer, Charles Abram	Civ. Eng.	Lexington.
Spencer, Howard Mason	Civ. Eng.	Pinegrove.
Sprake, Eleanor Hedges	Classical	Paris.
Sweeney, Oliver Smith	Classical	Lancaster.
Taylor, Elizabeth	Classical	Oakland.
Taylor, Lewis Nelson	Scientific	Science Hill.
Taylor, Wade Hampton	Normal	Trimble.
Threlkeld, Lal Duncan	Classical	Salem.
Walker, Algernon Sidney	Classical	Franklin.
Warder, William Henry	Civ. Eng.	Glasgow.
Whittinghill, Jackson Pate	Scientific	Lewisport.
Whittinghill, Roscoe Timoleon	Normal	Fordville.
Williams, Cora	Normal	Lexington.
Willmott, Hattie Belle	Classical	Lexington.
Wurtele, Edward Conrad	Classical	Louisville.

FRESHMEN.

Andrus, Leander Elwood	Classical	Farmington.
Arnett, Richard Hord	Normal	Troy.
Arnsperger, Charles Johnson	Mech. Eng.	Lexington.
Ball, Clarence Emerson	Mech. Eng.	Millersburg.
Baine, Marie Laura	Classical	Lexington.
Barrickman, William Marion	Classical	Harrods Creek.
Beaumont, Campbell Eton	Classical	Mayfield.
Bodkin, Ida Elizabeth	Classical	McWharther.
Botts, Augustus Ecton	Scientific	Bethel.
Boyd, Anna Morris	Classical	Lexington.
Brooks, Basil Murphy	Classical	Slaughtersville.
Brooks, John McMillin	Mech. Eng.	Middlesboro.
Buckner, Woodford	Classical	Paris.
Burgess, George Revil	Classical	Louisa.
Butner, Robert Clark	Mech. Eng.	Lexington.
Caldwell, Duke Dickenson	Mech. Eng.	Paducah.
Cartwright, Coleman Clyde	Mech. Eng.	Fern Creek.
Castillo, Luda Cowan	Normal	Monticello.
Cates, Frederick Mann	Mech. Eng.	Madisonville.
Chambers, Charles Howard	Normal	Cedar Grove.
Cheek, Albert Karsner	Classical	Lexington.
Chipp, Henry Daley	Agricultural	Bayou.
Clark, Clarence Cornell	Civ. Eng.	North Pleasureville
Clasby, Mary Louise	Normal	Lexington.
Clothier, Albert Lee	Mech. Eng.	Somerset.
Coleman, Harry Raymond	Normal	Towers.
Collis, Virgil Gibney	Mech. Eng.	Lexington.
Conn, Charles Rufus	Civ. Eng.	Lexington.
Cravens, John Thomas	Civ. Eng.	New Castle.
Daugherty, Garrard	Mech. Eng.	Paris.
Dawson, Charles Irving	Classical	Oakville.
Denny, Samuel Alfred	Scientific	Madisonville.
Dietrichs, Karl Lander	Mech. Eng.	Hopkinsville.
Dodson, Marcus Alvin	Normal	Monticello.
Dodds, Charles Richey	Scientific	Crider.
Downing, Irene Theodosia	Classical	Lexington.
Doyle, Martin Augustus	Mech. Eng.	Paris.
Durham, William Humphrey	Normal	Humphrey.
Dyer, Orville	Mech. Eng.	DeKoven.
Evans, Fredrick Huston	Mech. Eng.	Poplar Plains.
Ferguson, Edgar	Classical	Benton.
Floyd, Oliver Emerson	Normal	Trimble.
Fry, Henry Skillman	Mech. Eng.	Lexington.
Gardner, James Henry	Scientific	Sonora.
Geary, Robert Aloysius	Mech. Eng.	Lexington.
Gilmore, Charles Robert	Scientific	Valley Oak.
Goodloe, Green Clay	Mech. Eng.	Lexington.
Gordon, Amos Alvin	Civ. Eng.	Owensboro.
Gough, Achilles Calloway	Mech. Eng.	Benton.
Grady, William Henry	Classical	Trenton.
Griffing, William Stevens	Scientific	Lexington.
Gullion, Carroll Hanks	Mech. Eng.	Carrollton.
Hare, Starkey Sharp	Civ. Eng.	Lexington.
Harn, Wilson Winslow	Scientific	Poplar Plains.

Hart, Margaret Rebecca	Classical	Pisgah.
Harting, Joseph Edward	Classical	Lexington.
Hedges, Fleming Dillard	Classical	Walton.
Helm, Joseph Sparks	Mech. Eng.	Lexington.
Hibler, Annie Croxton	Scientific	Paris.
Hillenmeyer, Raymond Joseph	Scientific	Lexington.
Hord, Parker Abner	Classical	Widonia.
Howell, James Richard	Classical	Matt.
Hubbard, Isaac Madison	Normal	Waco.
Hume, Benjamin Talbutt	Civ. Eng.	Lexington.
Hunter, Patrick Owen	Mech. Eng.	Glendean.
Ireland, Emra Hobbs	Classical	Skillman.
Jaeger, Helen Louise	Classical	Lexington.
Jenkins, Alexander Louis	Mech. Eng.	Bloomfield.
Johnson, Lena Olivia	Normal	Muir.
Johnson, Roger Longhead	Mech. Eng.	Frankfort.
Jolly, Robert Morris	Mech. Eng.	Irvington.
Kelly, Walter Pearson	Scientific	Hickory Flat.
Kingman, William Albert	Classical	Dayton.
Kleiser, Roy Hagan	Mech. Eng.	Eminence.
*Laird, Henry Robert	Mech. Eng.	Millersburg.
Layson, William George	Mech. Eng.	Millersburg.
Lewis, James Graham	Civ. Eng.	Oakland.
Lilly, John Appleton	Mech. Eng.	Lexington.
Longsdorf, Leona	Classical	Lexington.
Lyne, Mary	Scientific	Lexington.
Lytle, Frank	Mech. Eng.	Danville.
McCann, Susan	Scientific	Lexington.
McCaw, Eloise Chesley Hance	Scientific	Fort Spring.
McCaw, William Robert	Civ. Eng.	Fort Spring.
McChord, Hugh Phillips	Mech. Eng.	Lebanon.
McGinniss, James Brown	Mech. Eng.	Bardstown.
McHargue, Robert Maurice	Mech. Eng.	Lexington.
McIntire, Bettie	Normal	Myers.
Madara, Helen Glenn	Classical	Lexington.
Maguire, Mary Josephine	Scientific	Lexington.
Marcum, Morris Lafayette	Civ. Eng.	Pulaski.
Mathews, James Thomas	Scientific	Farmington.
May, Lida Vickery	Classical	Somerset.
Matlack, Charles Aloysius	Mech. Eng.	Lexington.
Montgomery, Francis Joseph	Classical	Lexington.
Montgomery, Roy Buckner	Civ. Eng.	Lebanon.
Moore, Katherine Coleman	Classical	Marion.
Murrell, Artemus Dabney	Mech. Eng.	Merrimac.
Nelson, William Newell	Classical	Maysville.
Newgent, Aubrey Malachi	Classical	Fulton.
Norman, Carlisle Dickerson	Classical	Frankfort.
O'Laughlin, Thomas Leo	Mech. Eng.	North Fork.
Parsley, Myrtle May	Normal	London.
Payne, Remus	Mech. Eng.	Lexington.
Peratt, Charles Oscar	Classical	Hill Top.
Phillipps, George Alfred	Classical	Lexington.
Pierce, Claude Stone	Classical	Bronston.
Pride, James Thomas	Classical	Bordley.
Pryse, Llewellyn Jones	Mech. Eng.	Beattyville.
Ratliff, Alvin Burns	Mech. Eng.	Bethel.

* Deceased.

Richmond, Leonidas Renshaw	Agricultural	Germantown, Tenn.
Ricketts, Thomas McClure	Mech. Eng.	Camargo.
Ripy, Forest	Scientific	Lawrenceburg.
Saunders, Charles Winston	Normal	Hickman.
Schnetter, Frederick Louis	Civ. Eng.	Hikes.
Scholtz, Herman Frederick	Mech. Eng.	Louisville.
Schultz, Elmer Wilkerson	Classical	Lexington.
Sellers, Clint Burnett	Scientific	Fulton.
Sides, Walter William	Mech. Eng.	Corydon.
Shearer, Charles Armstrong	Normal	Hidalgo.
Shearer, Thomas Madison	Normal	Hidalgo.
Shearin, John Wesley	Normal	Wickliffe.
Shelby, John Craig	Classical	Lexington.
Smedley, Sarah Cleveland	Classical	Fort Spring.
Smith, Claude Robert	Civ. Eng.	Elizabethtown.
Smith, Thomas Marshall	Scientific	Hooktown.
Slack, Julius Aylmer	Classical	Fryars Point, Miss.
Slaton, Frank Kefanyer	Scientific	Leitchfield.
Spanton, William Alfred	Classical	Pruett.
Spencer, Bruce Nelson	Mech. Eng.	Pine Grove.
Spiers, Willie Wilkerson	Classical	Lexington.
Stackhouse, Clifton Carr	Mech. Eng.	Lexington.
Staples, James Henry	Mech. Eng.	Lexington.
Stecker, Max Welkie	Mech. Eng.	Lexington.
Stokeley, Thomas Smith	Classical	Versailles.
Swope, Armisted Milner	Scientific	East Hickman.
Taylor, Herman Wesley	Normal	Masonville.
Taylor, Jewell Sampson	Classical	Mayfield.
Thompson, Butler Fauntleroy	Classical	Lexington.
Thompson, John James	Mech. Eng.	Fern Leaf.
Totten, Lawrence Allen	Mech. Eng.	Lexington.
Totten, Robert Lyle	Mech. Eng.	Lexington.
Tribble, Mattie Kate	Normal	Lexington.
Troy, Emma Winburne	Scientific	Jackson.
Tucker, Frederick Harrig	Normal	Madisonville.
Tucker, Nannie Susan	Classical	Washington.
Vaughn, Earle Cleveland	Classical	Smithville.
Weathers, Martha Blanche	Classical	Lexington.
Webb, Elzie	Normal	Toms.
West, Timothy Elmer	Mech. Eng.	Jacksonville, Ill.
Wilkie, Margaret Donald Erskine	Scientific	Lexington.
Wilson, George Hancock	Scientific	Lexington.
Wimp, William Horner	Normal	Irvington.
Wood, Hugh Nelson	Civ. Eng.	Hopkinsville.
Wood, John Trigg	Mech. Eng.	Collins.
Worthington, Harvey Rice	Mech. Eng.	Germantown.
Wurtele, Henry Joseph	Civ. Eng.	Louisville.
Wyatt, Albert Henry	Classical	Crawford.
Young, Roscoe Conkling	Normal	Cherokee.

UNCLASSIFIED.

Barrow, Asa Carrington	Agricultural	Hedges.
Cravens, Anna Laura	Classical	Lexington.
Mahoney, Jeremiah	Mech. Eng.	Butte City, Mont.
Shobe, William Meritt	Agricultural	Oakland.

NORMAL STUDENTS.

FOR THE STATE CERTIFICATE.

✓ Baldwin, Joseph Cansby	McWharter.
✓ Benton, Paris Monroe	Caney.
✓ Black, William Harm	McWharter.
✓ Combs, Fernando Roark	Sassafras.
✓ Cornelison, Rex Platt	Symsonia.
✓ Elliott, John Samuel Lucien	Watervalley.
✓ Eversole, William Sherman	Hyden.
✓ Gibson, Sophia	Walnut Hill.
Gilbert, Rhoda Maria	Speedwell.
Grady, William	Smiths Mills.
Hibbs, Wade Francis	Lenore.
Horton, Emmett Washington	Poplar Plains.
Hutchison, Francis Marion	Henderson.
Kephart, Albert	North Pleasureville
Lackey, Ashton Cash	Canton.
Mitchell, Alma	Argolite.
Palmore, Ewing Lamb	Persimon.
✓ Patrick, Jackson Trumbo	Swampton.
✓ Patrick, Wellington	Salyersville.
Render, Carlisle Davis	Logansport.
Semones, Ida	Harvieland.
Simpson, Georgella	Harrisburg.
Smith, Ella	Hooktown.
Valentine, Harry	Confluence.
Warren, Bradford	Estesburg.
Warren, William Wilford	Etna.
Yeager, William Archer	Flat Lick.

FOR THE COUNTY CERTIFICATE.

✓ Adams, Balla	Eubanks.
✓ Allen, Farris Leonard	Danleyton.
✓ Allphin, Albert Seabury	Holbrook.
Anderson, Ellen Olivia	Jasper, Tenn.
Arnett, George Cleveland	Hendricks.
Bales, Grover Cleveland	McWharter.
Barlow, Nannie Ellen	Booker.
Bates, John Edward	Newburg.
Beckner, Ernest Jones	Rufus.
Bogard, Carl	Goldenpond.
Bargo, Erie	Flat Lick.
Brock, Hiram Montgomery	Hyden.
Bush, Mattie Lewis	Waco.
✓ Carpenter, Kinney	Jackson.
Cartwright, Loeta Catherine	Albany.
Caudill, Walter Hampton	Barbourville.
Clo, Nelson Lewis	Science Hill.
Cockrill, Thomas Clifton	Jackson.

Crute, Madison Taylor	Goldenpond.
Cubbage, Benjamin Woolly	Fallis.
Cunliff, William Gilbert	Somerset.
Davis, Ira Allen	Cynthiana.
Davis, Martha Ricketts	Lexington.
Denton, Ada	Science Hill.
Denton, Alexander Tunstal	Somerset.
Denton, Lucy	Science Hill.
Denton, Nannie	Science Hill.
Early, Whit Biscoe	Glencoe.
Eastham, Thomas Wesley	Faubush.
Elliott, Lester Green	Humphrey.
Elsey, Vernie Anne	Chilesburg.
Eversole, James Garfield	Hyden.
Farris, Viola Picket	Pleasant Valley.
Fernholtz, Nannie Bowling	Becknerville.
Floyd, Hettie May	Ansel.
Fortner, Garvey	Lawrence.
Fryer, Richard	Madisonville.
Fulkerson, George Howell	Louisa.
Gibson, Eva Ruth	Walnut Hill.
Gilbert, Ellen Christine	Speedwell.
Gilmore, Henry Steel	Ringos Mill.
Graves, Hattie	Polsgrove.
Hardin, Robert Tandy	Bethlehem.
Harmon, George Lewis	Purdy.
Harmon, Carrie Bright	Purdy.
Hart, John Fayette	Trimble.
Hays, Mamie Gertrude	Okolona.
Higgason, Edgar Lee	Holbrook.
Holt, Webb	Busseyville.
Hood, Dixie Anna	Kingston.
Hoskins, Leander	Hoskinston.
Howard, Charles Thomas	Salyersville.
Hubbard, Henry Mitchell	Waco.
Hubbard, Willis	Portwood.
Hughes, Lula	Somerset.
Huguely, Katherine Barr	Redhouse.
Ireland, Everett Eugene	Okolona.
Johnson, Euis	Fordsville.
Johnson, Maggie Cassine	Tolesboro.
Jones, Harvey	Barbourville.
Judd, Melvin Hays	Columbia.
Laney, John Plummer	Franklin.
Lisle, Della Schultz	Winchester.
Loomis, Americus Everett	Heekin.
Madden, Isaac Fielding	Lowder.
Marcum, Ada Lee	Pulaski.
Martin, Joseph Hooker	Portwood.
Maxey, Clys Nelson	Yocum.
Mayfield, Nannie Blaine	Pulaski.
Mills, William Vernon	Staffordsburg.
Moore, Otis Addison	Pembroke.
Moore, Wesa	Saunders.
Murray, Mary Helena	Lorodale.
Neal, Alice	Cropper.

Neal, Hallie Belle	Cropper.
Newgent, Mary Edna	Fulton.
Norfleet, Carl	Nancy.
O'Leary, Margaret Lilly	Wakefield.
Page, Logan	Mason.
Perkins, Preston	Cobb.
Perry, Walter Eugene	Morgansville.
Racener, Amples Law	Niagara.
Rankin, David Pierce	Bronston.
Remy, Paris Daniel	Brushart.
Rhoads, Even Johnson	Ironton.
Riley, Hattie Lee.	Crescent.
Robinson, Julia May	Lexington.
Rodgers, Elizabeth Katie	Frankfort.
Seebold, Jesse Emanuel	Fern Creek.
Shackleton, George Howard	Paradise.
Shoene, William Jay	Henderson.
Smith, Festus Steely	Dishman.
Standiford, James Byron	Fern Creek.
Starnes, Dudley	Holbrook.
Stephenson, James Thomas	Hallam.
Stevens, Harold Edwin	Pruett.
Stevenson, Nancy Seay	Hedges.
Sweeney, John Edward	Sinai.
Taylor, Hugh Wilbur	Lewisport.
Thixton, Ida Elizabeth	Fern Creek.
Thomas, James Robert	Yelvington.
Thompson, Sara	Ford.
Turner, Joseph Samuel	Burksville.
Wallace, William Rankin	Pleasant Home.
Weaver, Samuel William	Bronston.
Whitlock, Eddie	Kirksville.
Wood, Frank Thomas	Elmburg.

THE ACADEMY.

SECOND YEAR STUDENTS.

Bentley, William Otho	Pikeville.
Brents, Wiley Macey	Munfordville.
Browning, Grigsby Parker	Neave.
Buchanan, Samuel Bryant	Paynes Depot.
Bussey, Henry Webb	Busseyville.
Campbell, Robert Alexander	Louisville.
Clarkson, Charles James	Lexington.
Cole, Robert Willis	Fern Creek.
Crenshaw, Robert Logan	Lexington.
D'Anna, Victor Emanuel	Lexington.
Davis, Robert Wilson	Lexington.
Dempsey, Walter Joseph	Paris.
Dodson, Samuel Thomas	North Fork.
Durham, Puryear Beazley	Lexington.
Duvall, Louis Eugene	Bowling Green.
Duvalle, Rankin Powers	Stamping Ground.
Gentry, William Lee	Slaughterville.
Harting, Joseph Edward	Lexington.
Hibbs, Karl William	Madisonville.
Hindman, Leslie LaFayette	Water Valley.
Huber, Harold Eugene	Hikes.
Johnson, Fayette	Lexington.
†Kelly, Jesse	Yelvington.
Kroell, Oscar Robert	Anchorage.
Lancaster, Joseph Woolfolk	Lexington.
McClure, Ulysses Garred	Gallup.
McKenney, John Ferguson	Brighton.
†Madara, John Glenn	Lexington.
Meek, Grover Cleveland	Louisa.
Moore, John Edgar Littleton	Lewisport.
Nunnelley, James Robert	Lexington.
Owens, Charles Beland	Germantown.
†Sandefur, James Franklin	Henderson.
Scherffius, Benjamin Franklin	Lynnville.
Sealey, Percy Thwaites	Cincinnati, O.
Soper, Ira Collins	Little Rock.
Stallard, Benjamin West	Fairfield.
Taliaferro, Robert Ryland	Tappahannock, Va.
Tannian, Eugene Albert	Vanceburg.
Vaughan, Sterling Clark	Sapp.
Vaughn, George William	Lexington.
Wallis, Charles Rees	South Elkhorn.
Wellman, William Thomas	Masonville.
Wesley, Fisk	Ansel.
Wesley, John Bliss	Ansel.
Williams, Charles Louis	Chilesburg.

† Had two classes in the College.

FIRST YEAR STUDENTS.

Bogard, Frank	Goldenpond.
Burkhart, George Earl	Fern Creek.
Bush, Frank	Smithland.
Cosby, Mary Overton	Long Creek, Va.
Crim, Thomas Haley	Avon.
Darnaby, Kate Berry	Avon.
Davis, Ernest	Hinton.
Davis, John Andrew Berry	Lexington.
Downing, William Franklin	Lexington.
Dragoo, James Pickett	Lexington.
Dragoo, Robert Estill	Lexington.
Farney, Rachel Anne	Chilesburg.
Farney, Robert Creed	Chilesburg.
Giblin, Thomas Francis	Lexington.
Gilchrist, Mary Rhodes	Lexington.
Golden, William Lawrence	Carson.
Green, William Claude	Texas.
Hale, Garland Bradford	Lexington.
Haley, William Kelly	Clintonville.
Hardin, Roscoe Conkling	Bloomfield.
Hayman, Edward James	Newport.
Hillenmeyer, Louis Edward	Lexington.
Houlihan, Edward Thomas	Lexington.
Houlihan, Francis	Lexington.
Jacobs, Walter	Louisville.
Johnson, Anderson	Chavies.
Karsner, Albert Sharkey	Lexington.
Kelly, Edward Patrick	Hawesville.
Kimberlin, John	Texas.
Krauss, Louis Buschman	Lexington.
Land, Leroy Mathews	Walnut Hill.
LaRue, Charles McGarvey	Hebbardsville.
Leaming, Thomas Corwin	Lexington.
McDowell, Omar	Mt. Olivet.
McKenney, Cora Cornelia	Brighton.
Miller, James Lee	Lexington.
Miller, Thomas Jefferson	New Hope.
Morton, Ellen Lee	Athens.
Neale, Ernest Ransom	Hinton.
Newman, James Cleveland	Lexington.
Nunnelley, Eva May	Lexington.
Oldham, Bessie Lee	Nealton.
*Patterson, Joseph Henry	Germantown.
Prentiss, John Luther	Versailles.
Riley, James Bertram	Owensboro.
Roe, John George	Lexington.
Ross, Marion Drake	Lexington.
Salyer, Bruce	Jeffersonville.
Salyer, Glenn Wendell	West Liberty.
Smith, William Granville	Muir.
Swope, William Morgan	East Hickman.
Terrell, Robert Craig	Mount Pleasant.

*Deceased.

Thomas, Dillar	Lexington.
Uttinger, Addie	Kirklevington.
Viley, John Rodes	Lexington.
Waller, Robb	Morganfield.
Waller, Roy	Morganfield.
Watts, Arthur Ethelbert	Milburn.
Webb, John	Greendale.
Wheatley, Richard Percy	North Fork.
Williams, Jennie Belle	Chilesburg.
Worthington, Samuel Matthew	Fern Leaf.
Yankey, Rena Belle	Springfield.

SUMMARY.

Collegiate Students.	Class.	Sci.	Civ. Eng.	Mech. Eng.	Norm.	Agr.	Total.
Post-Graduates,	2	2	1	2	. .	. .	7
Seniors,	9	9	5	16	6	2	47
Juniors,	9	5	10	23	6	. .	53
Sophomores,	32	16	14	30	9	. .	101
Freshmen,	47	23	14	51	22	2	159
Total,	99	55	44	122	43	4	367

Students not regularly classified	4
Normal students for the State Certificate	27
Normal students for the County Certificate	107
Students of the Academy	109
Total of non-Collegiate students	247
Total of Collegiate students	367
Whole number,	614

REGULATIONS.

TRAVELING EXPENSES OF STUDENTS.

By the terms of the recent legislation upon the Agricultural and Mechanical College of Kentucky, a county appointee is entitled to have his traveling expenses from home to the College and return paid by the College, on the following conditions:

1st. He must be appointed according to law, a copy of which is in the hands of each County Superintendent of Schools.

2d. He must travel from home to the College by the shortest, least expensive, and most expeditious route, and take receipts for all necessary expenses of travel, depositing the same, upon arrival, with the President of the College.

3d. He must present himself for matriculation within one week after the beginning of the fall term of the collegiate year.

4th. He must bring a certificate of good moral character, signed by two or more well-known and responsible citizens of his county.

5th. He must pass creditably the entrance examination required for admission.

6th. He must remain a student of the College for ten consecutive months, or one collegiate year.

7th. He must maintain during the collegiate year a good moral character, and such class standing as will enable him to pass all final examinations.

8th. He must sign a declaration at the end of the collegiate year that he has not knowingly violated any of the regulations, involving his moral character as a student, nor been a party directly or indirectly to the injury of property on the College grounds or in the College buildings.

If at the end of the collegiate year the foregoing conditions have been complied with, the President of the College shall certify the fact to the Treasurer of the College, who, upon said certificates as vouchers, shall pay to the appointee the amount shown by the receipts aforesaid, and in addition thereto the sum for discharging the necessary expenses to be incurred in returning home.

COLLEGE EXPENSES.

The necessary expenses of a student while at College need not exceed the following estimates. As a rule the less pocket-money allowed by parents or guardians the better it is for the pupil. When supplies of pocket-money are kept short the opportunity for contracting vicious habits is correspondingly diminished. Students should not be allowed by their parents to create any debts. All moneys intended for the use of the students should be deposited with the Commandant.

For a county appointee, occupying a room in the dormitory and boarding in the common mess, the necessary expenses are as follows :

Tuition free,	\$000 00
Matriculation free,	000 00
Room rent free,	000 00
Use of furniture in room,	2 50
Washing, about,	10 00
Uniform,	19 00
Board, 38 weeks, at \$2.25 per week,	85 00
Books, about,	8 00
Total,	\$124 50

Each room must be provided by each occupant thereof, *at his own expense*, with a good mattress, three comforts or blankets, one pillow, three pillow-slips, four sheets, looking-glass, blacking-brush, hair-brush, clothes-broom or brush. Some of these articles may be brought from home by the student.

For students who are not supplied with appointments from the Legislative Representative Districts of the Commonwealth, and who board in private families, the necessary expenses will be as follows :

Tuition fee	\$15 00
Matriculation fee,	5 00
Board and lodging, 38 weeks, at \$3.50 to \$4 per week,	133 00 to \$152 00
Washing,	10 00
Uniform,	19 00
Books and stationery,	10 00
Total,	\$192 00 to \$201 00

Those who occupy rooms in the dormitory pay \$6.50 each (yearly) for the use of a room and its furniture. A standing deposit of \$5 is required from each student, which deposit is refunded when his connection with the College is terminated, less the amount which may be assessed against him for damages done to the buildings, furniture, or premises. All damages, injuries, defacements, etc., which rooms and furniture in the dormitory sustain during occupancy will be charged to the occupant thereof. All injuries, damages, defacements, etc., which the halls and dining-room sustain will, unless specifically traced, be charged to the occupants of the respective sections collectively.

BOARDING.

For the accommodation of students sent as beneficiaries of Legislative Representative Districts of the State, rooms for one hundred and forty students are provided in the dormitories. To these good, substantial board is furnished at \$2.25 per week, payable weekly in advance ; but no student under seventeen years of age will be permitted to room in the dormitories unless all of his classes shall be in one of the regular collegiate courses. Good boarding, with fuel, lights, and furnished room, can be obtained in private families at rates varying from \$3.50 to \$4 per week.

The students who board in the dormitories are, for business purposes, organized at the beginning of the collegiate year under a Chairman and Secretary of their own choice, whose successors are elected on the first Tuesday of each term, and who serve for one term. At the business meeting, held on Tuesday night of each week, the weekly dues, \$2.25, are paid. The boarding department is managed by a Board elected by the members of the club, acting under the supervision of a Committee of the Faculty. It will thus be seen that the boarding department has no official connection with the College authorities. The College, as such, does not board the students, and is in no sense responsible for any debts created by the boarding department. Three members of the Faculty, in their individual capacity, assist in the management of its funds.

No provision is made for women in the dormitories.

FREE TUITION, BENEFICIARIES.

Each Legislative Representative District is allowed to send, on competitive examination, *one properly prepared student* each year, to this College, free of charge for tuition.

[A statement for the guidance of County Superintendents: 1. If the county forms one or more than one Legislative Representative District, each district is entitled to keep four students in the College and four in the Normal School free of tuition.

2. If a Legislative Representative District embraces more than one county, each county is entitled to keep four students in the College and four in the Normal School free of tuition.]

Beneficiaries are appointed on competitive examination. A Board of Examiners is appointed for this purpose by the County Superintendent of common schools. The results of examination are reported to the Superintendent, who, from the data thus furnished, selects the appointee. Examinations are made upon subjects transmitted to the County Superintendent by the Faculty of the College. One appointment is made each year.

Appointments are made by the County Superintendent between the first day of June and the first day of August of each year. Appointments when made should be immediately certified to the President of the College.

Appointments for the College proper, viz., the Agricultural, Mechanical Engineering, Civil Engineering, Scientific, Classical, and Normal Collegiate courses, are all valid for the term of years necessary to complete the course of study in which the appointee matriculates. This includes the course in the Academy.

It follows from the above that a county which makes its appointments regularly according to law will have for the session of 1893-4 one appointment in the College, for the session of 1894-5 two appointees,

for the session of 1895-6 three appointees, for the session of 1896-7 four appointees. When the first appointee completes his course, or ceases to be a student, another appointee takes his place. When the quota of a county is full it will have at least four appointees in regular attendance.

Each appointee is required to pass an entrance examination at the College on the subjects comprising all that is embraced in Arithmetic, English Grammar, Geography, and United States History in the Common School Course.

All persons are eligible between the ages of fourteen and twenty-four who have completed the Common School Course—preference being given to young men or women whose means are limited, to aid whom this provision is especially intended.

Any person not an appointee may enter the College on payment of fees, but no one who is not an appointee receives traveling expenses or is exempt from payment of fees.

APPOINTEES TO THE NORMAL COURSE.

The law makes provision for the appointment of four teachers, or persons preparing to teach, each year. Appointments may be made and certified to the President of the College between the first day of July and the thirty-first day of December of each year.

Appointments to the Normal School are tenable for one year.

Applicants for appointments are examined by a Board of Examiners appointed by the County Superintendent on subjects transmitted by the Faculty, viz., upon Arithmetic, English Grammar, United States History, and Geography. They should not be less than seventeen years of age. They are also required to pass an entrance examination at the College. They must likewise bring certificates of good moral character.

Matriculates of the Normal Department will be required to sign an obligation to teach in the Common Schools of Kentucky for as many months as they receive free tuition.

SPECIAL COURSES OF STUDY.

Special courses of study are not provided for in the Academy, the Normal School or the College proper; provided, however, that persons who have passed the age of twenty-four years, the limit below which appointments as beneficiaries under the law must be made, may under certain conditions be allowed to pursue selected studies without matriculating in one of the regular courses of the College.

CHANGE OF CLASSIFICATION.

No change of classification is allowed during the session.

ACCREDITED SCHOOLS.

Schools, whether public or private, may be accredited in accordance with a resolution of the Faculty providing that graduates of these may be exempted from entrance examinations to the College where the heads of these schools have complied with certain conditions.

Further, the Board of Trustees have made an annual award of a free scholarship to the pupil in each accredited school who has completed the certified course with the highest class standing. This scholarship entitles the recipient to free tuition. If, in addition, the holder of a scholarship obtains the "County Appointment," he is entitled to free room in one of the dormitories and free traveling expenses.

A revised list of these schools is appended :

PUBLIC HIGH SCHOOLS.

Ashland, J. G. Crabbe, Superintendent.
Augusta, J. R. Sterrett, Superintendent.
Bellevue, J. M. Downes, Superintendent.
Carlisle, W. F. Ramey, Superintendent.
Carrollton, B. F. Gabby, Superintendent.
Catlettsburg, J. B. Leech, Superintendent.
Corydon, A. C. Burton, Superintendent.
Covington, John Morris, Superintendent.
Cynthiana, C. A. Leonard, Superintendent.
Dayton, F. S. Alley, Superintendent.
Elizabethtown, E. E. Olcott, Superintendent.
Elkton, Henry L. Trimble, Superintendent.
Eminence, E. A. Scott, Principal.
Falmouth, E. B. Buffington, Superintendent.
Flemingsburg, T. A. Luman, Superintendent.
Ft. Smith, Ark., Man. Train. Course, J. G. Scrugham, Teacher.
Frankfort, S. L. Frogge, Superintendent.
Harrodsburg, C. W. Bell, Superintendent.
Henderson High School, W. W. Agnew, Principal.
Hickman, J. C. Check, Superintendent.
Hopkinsville, Livingston McCartney, Superintendent.
Lancaster, J. H. Patterson, Superintendent.
Lawrenceburg, H. V. Bell, Superintendent.
Lexington, Rogers Clay, Superintendent.
 Johnson High School, E. B. Bradley, Principal.
 Dudley High School, Col. Graves, Principal.
Louisville, E. H. Marks, Superintendent.
 Female High School, W. H. Bartholomew, Principal.
 Male High School, R. P. Halleck, Principal.
 Manual Training High School, H. G. Brownell, Principal.
Ludlow, Frank Apple, Superintendent.
Marion, Charles Evans, Superintendent.
Maysville Male High School, G. E. Hutchins, Principal.
Maysville, Female High School, Miss Fannie L. Gordon, Principal.
Middlesboro, J. B. Taylor, Superintendent.
Midway, W. E. Williams, Superintendent.
Morganfield, Frank Cheek, Superintendent.
Mt. Sterling, H. M. Gunn, Superintendent.
Newport, John Burke, Superintendent.

Nicholasville, R. G. Lowry, Superintendent.
 Owensboro, McHenry Rhoads, Superintendent.
 Paducah, Chas. B. Hatfield, Superintendent.
 Paintsville, J. F. Bailey, Principal.
 Paris, A. O. Reubelt, Superintendent.
 Somerset, Alfred Livingston, Superintendent.
 Warsaw, ———, Superintendent.
 Versailles, W. F. Pate, Superintendent.
 Williamstown, Chas. W. Strother, Superintendent.
 Winchester, R. M. Shipp, Superintendent.
 Wingo, W. H. Sugg, Principal.

PRIVATE ACADEMIES, COLLEGIATE INSTITUTES, ETC.

Bardstown, Nelson Normal High School, E. H. Crawford, Principal.
 Cynthiana, Smith's Classical School, N. F. Smith, Principal.
 Fulton, Carr Institute, T. N. Wells, Principal.
 Hardinsburg, Breckinridge Normal College, D. S. Roberts, Principal.
 Leitchfield Normal College and Business Institute, J. C. Cardwell, Principal.
 Lexington, Private School, Misses Williams and McElhinny, Principals.
 Lexington, Private School, Miss Lucy S. Collier, Principal.
 Lexington, Allegan Academy, A. N. Gordon, Principal.
 Louisville, St. Xavier's College, Bro. James, Principal.
 Mt. Sterling, Goodwin's High School, M. J. Goodwin, Principal.
 Nicholasville, Jessamine Institute, Mrs. N. S. W. Vineyard, Principal.
 Owenton, Owenton High School, J. W. Douglass, Principal.
 Paris, Boys' School, Prof. William Yerkes, Principal.
 Stanford, Stanford Male Academy, E. L. Grubbs, Principal.
 Versailles, Rose Hill Seminary, Miss Gillie Crenshaw, Principal.
 Williamsburg, Williamsburg Institute, Dr. E. E. Wood, President.
 Williamsburg, Williamsburg Academy, Prof. Herbert Hayne, Principal.
 Educational Department Y. M. C. A., George B. Hodge, Secretary.

A revision of the requirements for admission to the College makes it necessary to revise the list of accredited schools.

Printed forms will be sent to superintendents and principals, and upon the information obtained through the filling out of these a new list will be made out, and published in next year's catalogue.

Upon application, these printed forms will be sent to the heads of other schools who may desire to place them in the list of the accredited.

Only pupils from duly accredited schools will be admitted to the College without examination, and *they* must present a certificate from their superintendent or principal and bearing the signature of the President of the State College.

Every pupil who completes an accredited course is entitled to a certificate attesting the fact, and heads of schools in the foregoing list will oblige the College Committee on Accredited Schools by sending them promptly their recommendations for certificates and scholarships.

MANUAL LABOR.

The work necessary for carrying on the agricultural and horticultural operations of the College is done by the students, and is paid for at rates varying from six to ten cents per hour. Its design is two-fold: to put in practice the instruction received in the class-room, and to assist students who are in need of money. The experience of this College is that of Agricultural Colleges generally—that compensated labor is not remunerative to the College.

The College assumes no obligation to furnish students an opportunity to labor for compensation.

Students are paid monthly for the service rendered, and apply the money as they see proper.

No student, however, should come to this College expecting to maintain himself exclusively by compensated labor. At least seventy-five dollars per annum, exclusive of his earnings while here, should be at the command of every student who wishes to avail himself of the advantages of the system of compensated labor.

CERTIFICATES OF CHARACTER.

All applicants for admission into any class of the College or Academy must bring satisfactory testimonials of good moral character.

THE MONITRESS.

The young women who attend the College have assigned for their exclusive use a large and well-appointed study-room. Here, while they are not engaged in the class-rooms or in the chapel, they are under the constant and strict supervision of the Monitress, Mrs. Blackburn, who has been long connected with the College and is well qualified for her duties.

ENLISTMENT OF CADETS.

By a resolution of the Faculty, approved by the Trustees, no cadet of the State College is allowed to enlist in the State Guards.

CALENDAR.

1901.

Entrance Examinations begin.....Monday, Sept. 9th.
First Term begins.....Thursday, Sept. 12th.
Thanksgiving.....Thursday, Nov. 28th.
Board of Trustees meet.....Tuesday, Dec. 10th.
Christmas Holidays begin.....Friday, Dec. 20th.

1902.

Second Term begins.....Thursday, Jan. 2d.
Second Term of Academy begins.....Monday, Jan. 20th.
Washington's Birthday.....Saturday, Feb. 22d.
Union Society Contest.....Saturday, Feb. 22d.
Third Term begins.....Monday, March 17th.
Patterson Society Contest.....Wednesday, March 26th.
Senior Examinations begin.....Monday, May 5th.
General Examinations begin.....Monday, May 12th.
Board of Trustees meet.....Tuesday, June 3d.
Class Day.....Wednesday, June 4th.
Alumni Banquet.....Wednesday, June 4th.
Commencement.....Thursday, June 5th.

COLLEGE DIRECTORY.

RESIDENCES.

COLLEGE QUARTERS.

ANDERSON, F. PAUL,	69 Kentucky Avenue,	Mechanical Hall.
AUBREY, THOMAS,	343 S. Limestone,	College Boiler Room.
BLACKBURN, MRS. LUCY B.,	Central Avenue,	No. 14, First Floor, College.
BLANTON, ROBERT L.,	Hotel Reed,	No. 13, First Floor, College.
BROOKS, JOHN P.,	22 East High,	Second Floor, Mechanical Hall.
CURTIS, HENEY E.,	126 S. Upper,	Chemical Laboratory, Station.
DAVIS, JOSEPH M.,	20 Park Place,	No. 1, Basement, College.
DEBOW, S. C.,	196 E. High,	Mechanical Hall.
DICKER, JOSEPH,	26 Virginia Avenue,	Mechanical Hall.
FAIG, JOHN T.,	178 W. Main,	Mechanical Hall.
FRANKEL, L. K.,	176 S. Limestone,	Woodshop, Mechanical Hall.
GARMAN, HARRISON,	424 S. Limestone,	Basement, Station.
GRANT, R. Q.,	Le Land Hotel,	U. S. Weather Bureau.
HARPER, JOSEPH N.,	Rose Street,	New Experiment Farm.
HODGES, MISS MARY,	111 Market,	No. 10, First Floor, College.
JOHNSON, JAMES R.,	Second and Upper,	Woodshop, Mechanical Hall.
KASTLE, JOSEPH H.,	411 S. Limestone,	Chemical Laboratory, Station.
LOGAN, J. LEWIS,	132 S. Broadway,	No. 2, Basement, College.
MACKENZIE, A. S.,	162 S. Broadway,	No. 19, Second Floor, College.
MATHEWS, C. W.,	430 S. Limestone,	First Floor, Science Hall.
MILLER, ARTHUR M.,	411 S. Limestone,	1st and 2d Floors, Science Hall.
MILLIGAN, R. A.,	492 S. Limestone,	Mechanical Hall.
MUNCY, V. E.,	116 E. Maxwell,	No. 10, First Floor, College.
MURRAY, JAMES,	428 S. Limestone,	College Observatory.
NEVILLE, JOHN H.,	218 W. Main,	No. 21, Third Floor, College.
PATTERSON, JAMES K.,	President's House,	No. 12, First Floor, College.
PATTERSON, WALTER K.,	President's House,	No. 17, Second Floor, College.
PENCE, M. L.,	108 Merino,	Nos. 5 and 7, Basement, College.
PETER, ALFRED M.,	236 E. Maxwell,	Chemical Laboratory, Station.
PRYOR, JOSEPH W.,	133 N. Broadway,	Second Floor, Science Hall.
ROARK, RURIC N.,	420 S. Limestone,	No. 11, First Floor, College.
SCOVELL, M. A.,	Experiment Farm,	Office, Station.
SHARON, J. A.,	410 S. Limestone,	No. 7, College Basement.
STURDEVANT, CHARLES R.,	High and Rose,	Mechanical Hall.
TURNER, J. D.,	176 S. Limestone,	Office, Station.
WERNICKE, PAUL,	411 S. Limestone,	First Floor, Science Hall.
WHITE, JAMES G.,	140 E. Maxwell,	No. 15, First Floor, College.
WHITE, MILFORD,	3 Washington Avenue,	No. 9, First Floor, College.
WINSTON, J. E.,	122 S. Limestone,	No. 16, College.

APPENDIX.

Om nibus qui has sint literas lecturi

PRAESES ET PROFESSORES

COLLEGII CIVITATIS KENTUCKIENSIS Salutem.

Sciant omnes, quorum intersit, consulentes Collegii nostri Curatores,
nominante Praeside ac suadente,

Virum honoratum, JACOBUM WILSON, Civem Jovensem,
Agriculturae Ministrum

in intimo Praesidis Civitatum foederatarum Concilio,
ne debitum pro tantis erga homines beneficiis desit praemium,
ob magnam ejus atque variam rerum rusticarum scientiam
in populum ex agris locupletandum feliciter impensam,
summo honore academico dignum judicasse.

Nos igitur pro his meritis LEGUM DOCTOREM ex auctoritate Curatorum
eum declaramus, honoresque, quotquot ad doctoris gradum
et dignitatem pertinent, ei per has literas tribuimus.

Cujus rei majori sint testimonio sigillum Collegii nominaque subscripta.

Dat. Lexingtoniae Kentuckiensium, Kal. Jun. an. salutis humanae MDCCC.



J. C. W. Beckham, Governator,
PRAESES CURATORUM.

Jacobus Kennedy Patterson, Ph. D., LL. D.,
PRAESES COLLEGII.