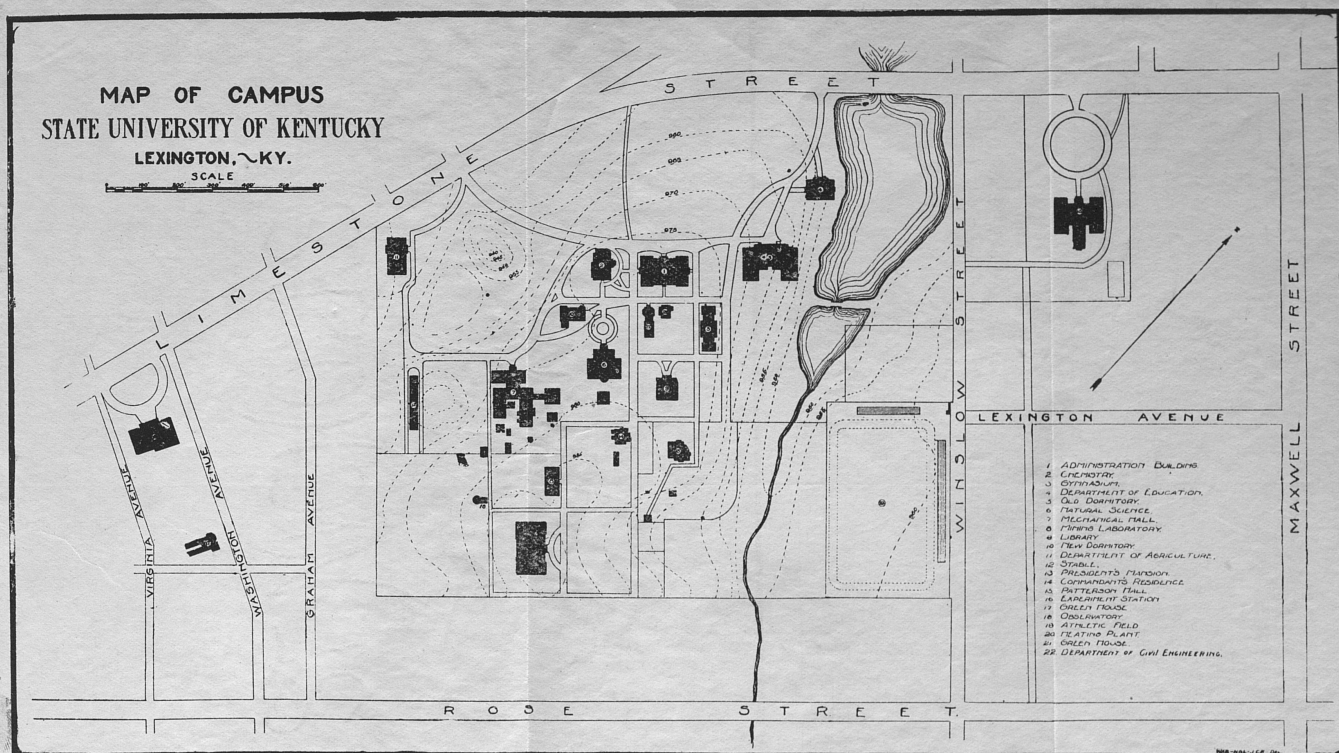


MAP OF CAMPUS  
STATE UNIVERSITY OF KENTUCKY  
LEXINGTON, KY.

SCALE





Kentucky University

# CATALOGUE

OF THE

OFFICERS, STUDIES, AND STUDENTS

OF THE

## STATE UNIVERSITY,

LEXINGTON, KENTUCKY.

WITH A PART OF THE REGULATIONS,

FOR THE

SESSION ENDING JUNE 4, 1908.

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## THE STATE UNIVERSITY.

### History.

**A**GRICULTURAL 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 this 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Kentucky University continued till 1878, when the act of 1865, making it one of the Colleges of said University, was repealed; and a commission was appointed to recommend to the Legislature of 1879-80 a plan of organization for an institution, including an Agricultural and Mechanical college, such as the necessities of the Commonwealth required.

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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 the city, and thirty thousand dollars of 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 Lexington and 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 and women of the Commonwealth whose means are limited. The present General Assembly of Kentucky passed an act, which was approved March 16, 1908, changing the style and title of the institution from "Agricultural and Mechanical College" to that of "State University," the official designation by which it will hereafter be known. The University, with the additional departments which shall, 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 interests 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 privileges 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, has enabled 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 institutions to which The State University 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 of life." To the three departments of agriculture, the mechanic arts, and military



science, contemplated in the act as indispensable, an Experiment Station has been added 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 college, embracing, as it does, not merely the three original departments, but eighteen others.

#### **Department of Education.**

In 1893 the college authorities, in response to a demand for advanced instruction for teachers, organized a full collegiate course leading to the degree of Bachelor of Pedagogy. In 1906 two full collegiate courses, each with Education as a major, were substituted for the course established in 1893. One leads to the degree of Bachelor of Arts in Education and the other to Bachelor of Science in Education. Students are admitted to the Freshman Class of either of these courses upon the completion of the course in Arts and Science in the Academy, or an equivalent course in an Accredited School.

#### **The Kentucky Experiment Station.**

The Agricultural Experiment Station of the State University was established by the Executive Committee of the Board of Trustees in September 1885, when the Department was organized and a Director appointed. In 1886 the Station was recognized and named by the General Assembly of Kentucky. In 1887 it became the beneficiary of the first annual appropriation of \$15,000, under the Hatch Act providing for the establishment of Agricultural Experiment Stations for the States and Territories. In 1906 "for the more complete endowment" of Agricultural Experiment Stations, an act of Congress, known as the Adams Act, appropriated to each State and Territory \$5,000 for the year ending June 30, 1906, and the same sum with an increase of \$2,000 per annum for five years, after which the maximum of \$15,000 shall continue without change.

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 the people of Kentucky who seek profit from any one of those prime sources of wealth—the soil, the flock, and the herd.

Results of experiments have been published in eighteen annual reports and one hundred and thirty-three bulletins, and general appreciation of their utility is shown in the fact that, while no bulle-

tin is sent except upon application for it, the mailing list of the Station contains about 13,000 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 a staff of 17 scientists engaged in 7 divisions of research and in correspondence with other stations, the Kentucky Experiment Station is not only an important adjunct to the University in the education of students for the leading industrial pursuits, but, directly or indirectly, through the 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.

#### **Location.**

The State University is located in the former City Park, in the southern part of the city 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 forty 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 equaled elsewhere for the student who desires to become familiar with the best breeds of horses, cattle, sheep, and swine in America. Moreover, with railroads diverging in seven directions, Lexington is the railroad center in Kentucky, and in direct connection with Louisville, Cincinnati, Maysville, Huntington, and Chattanooga, and with more than seventy counties of the Commonwealth. And when to the electric railways now in operation to Georgetown, Paris, Versailles, and Frankfort, those projected to Winchester, Richmond, and Nicholasville shall be added, the hourly trains of these roads will enable students residing near them to attend the University conveniently from their homes.

#### **Grounds.**

The campus of the University consists of fifty-two acres of land, located within the corporate limits of Lexington. The South Limestone electric car line extends along the western border of the campus, affording 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. Two and a half acres, forming the north-east portion of the campus, inclosed and provided with a grand-stand, are devoted to the field sports of the students.

About three-quarters of a mile south of the campus, on the Nicholasville pike, is the Experiment Station Farm, consisting of two hundred and forty-three acres. 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 organized Station. The front of the farm is pasture and orchard. The rear portion is divided off into two hundred one-tenth acre plots, for convenience in making crop tests.

### Buildings.

*Main Building.*—This is a structure of stone and brick, 140 by 68 feet. It contains the offices of the President, the Registrar and the Business Agent, as well as the chapel, in which each day the students and the Faculty meet for worship, 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.

*Chemical Building.*—This handsome structure is well planned for the object for which it was built. It is seventy feet in length and fifty-four feet in width, with a tower projection in front, and an octagonal projection 18 x 18 on the north side. The building is two stories high, upon a basement eleven feet from floor to ceiling.

*Mechanical Hall.*—This building covers altogether an area of about 20,000 square feet, is constructed of stone and pressed brick, and is furnished with all appliances for work in Mechanical Engineering.

*Science Hall.*—This building, erected during the year 1897 for the departments of natural science, is three stories in height, 96 x 97 feet in size, of pressed brick and trimmed with Bowling Green stone. The first and second stories are occupied with offices, laboratories and lecture rooms, the latter being equipped with opera chairs, projection lanterns and other suitable furnishings. The third floor is used for the offices and museum of the State Geological Survey.

*Gymnasium.*—This imposing structure of pressed brick and Bedford stone, 100 x 157 feet, with the central part three stories high, the right wing one and the left two, stands 150 feet north of the Main Building and cost \$30,000.

The first floor of the central portion contains the Armory, lockers for women, and the offices of the Commandant and the Physical Director. The second floor is occupied by the Y. M. C. A. Hall, the Trustees' room, a society hall and the office of the Physical Director

for women. The third floor is divided into two literary-society halls and the Alumni Hall. All these rooms are commodious and finely adapted to their purpose. The right wing, which is 48 x 95 feet, is used as a drill room during bad weather. The basement of the left wing is set apart for baths, lockers for men, wash stands, closets, and a swimming pool. The second floor, the gymnasium proper, is equipped with the best apparatus that could be procured.

*Education Building.*—This building, one of the handsomest on the campus, erected for the use of the Departments of Education and Domestic Science, has been occupied by these Departments since September 1907. The construction is of pressed brick and Bedford stone, and the design follows the most approved style of modern school architecture. The building contains ten class-rooms, a study-room for young women, and one for young men, a department library-room, two offices and a very large room for the Department of Education Literary Society. The completion of this building supplies a long-felt need of the Department of Education and it marks the most important step in the twenty-seven years of its history.

*Library.*—This building, which is due to the munificence of that prince of benefactors, Andrew Carnegie, was begun in 1907. It is located on the court between the Main Building and the President's House, is 56 feet square, two stories high, including the tall basement of range-ashlar, is built of pressed brick, trimmed with terra cotta, and will cost \$27,500. It will be completed by Sept. 1908.

*Agricultural Hall.*—This building, for the erection of which provision was made by the Board of Trustees at their meeting in December 1906, has just been completed at a cost of \$35,000 and was first occupied in the early summer of 1908. Designed to be a wing of the larger structure which it is expected the College of Agriculture will eventually require, it is three stories in height, 45 x 100 feet in size, and constructed of pressed brick and Bedford stone.

The basement contains large rooms arranged for farm machinery, general farm mechanics, potting and propagating, and for the heating plant. On the first floor are the office of the Dean, the general and advanced plant laboratories, the Horticultural lecture-room and Horticultural laboratory. On the second floor are the offices for the Professor of Animal Husbandry and the Professor of Agronomy, and an attractive reading room and society hall. The third floor affords space for an Agricultural Museum, a commodious assembly room for the Grange and other agricultural society meetings and exhibitions, and a photographic laboratory with dark rooms, both for student use and for department work.



A modern iron-frame laboratory greenhouse for the study of living plants and for experiments is to be added to the rear.

*Experiment Station Building.*—This handsome structure is located on South Limestone street, one-fourth of a mile from the campus, and was completed in the winter of 1904.

The building is of two stories and a basement, constructed of pressed brick with oolitic limestone trimmings. The foundation is of Kentucky gray limestone faced with broken ashlar oolitic limestone, the balustrade of terra cotta. A large portico, with columns extending from the first floor line to the pediment on a level with the cornice, forms an attractive feature of the building. The cornice is massive, with large brackets.

The general design of the building, which is 114 x 60 feet, is colonial, adhering mainly to classic proportion and combinations.

*Mining Building.*—A large and commodious laboratory for Mining Engineering has been recently provided and is now in use.

*Observatory.*—An Observatory for the use of a splendid telescope with the necessary appliances for making it available, is among the recent additions to the educational equipment of the University.

Other buildings on the campus are a brick dwelling for the President and a cottage occupied by the Commandant.

*Dormitories.*—The two large dormitories on the campus afford lodgings for the students who wish to lessen expense in this direction.

*Farm Buildings.*—On the farm is a brick dwelling occupied by the Director of the Station, and the usual buildings for the care of tools, the protection of stock, and the like.

*Patterson Hall.*—This building, the residence of the women students of the University, is a large and handsome three-story brick structure of a hundred and fifty feet front, built on a fine site of about three acres fronting two hundred and ten feet on South Limestone street and a line of the City Electric Railway. Within a quarter of a mile of the University on the South, a half mile of the Court House, the Phoenix Hotel and the Post-office on the North, and distant not more than ten minutes by electric railway from the principal Churches of the City, Patterson Hall is, for all purposes, admirably located. The building is heated by steam, lighted by electricity, and supplied with hydrant and cistern water. It has a front veranda of 14 by 68 feet, wide halls, a wardrobe in every bedroom, and thirteen bath-rooms. With walks, drives and numerous old forest trees, the spacious front lawn, one of the most beautiful in Lexington, is

an inviting place for exercise, for which ample provision has also been made in the rear lawn, with tennis court and croquet grounds, as well as in the large gymnasium.

Section 4 of the act approved March 21, 1900, appropriating money for the purchase of the grounds and the erection thereon of this building, provides:

"The Board of Trustees shall appoint three prudent, discreet, intelligent women; members in good standing of one of the religious organizations recognized by the laws of the United States, who shall constitute a board of supervision or control to manage and superintend, under the direction of the Board of Trustees, the dormitory for young women."

The Hall is under the immediate direction and management of an experienced and competent Matron, appointed by the Board of Supervision. It contains sixty-eight commodious and well furnished rooms, affording accommodation for one hundred and twenty-four persons, for whom excellent board and lodging are furnished at three dollars (\$3) per week, the occupants furnishing their own napkins, towels, and bedding, except mattresses and pillows, and paying for their own laundry.

Built durably of stone, brick, wood and iron, and practically fire-proof; with adequate provision for safety, heat, light, ventilation, bathing and exercise, this Hall offers all the comforts and conveniences of a well-appointed home.

County appointees are first supplied with rooms, and these, by act of the Legislature, are assigned by lot.

The ground, building and equipment cost \$60,000, and the Hall has been occupied since January 1904. Probably no educational institution in the South affords a more attractive home for young women. Those who are favored with a county appointment, the mode for obtaining which is set forth elsewhere in this catalogue, will find that residence at the State University is brought within the means of any young woman who earnestly desires to fit herself for a life of usefulness.

#### **Development.**

The growth of the University from year to year is shown as follows: 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 committee to re-locate the College, to provide for its continuance in operation until 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 of 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 the 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.

1891. The Department of Anatomy and Physiology established.

1892. The Mechanical Building and Workshops completed.

1894. Greenhouses for the Experiment Station built.

1894. The Department of Physics established.

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 Collegiate Home for Young Women, for a Gymnasium 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 Gymnasium, the Drill Room, the Halls for the Societies and the Y. M. C. A. completed.

1901. The Department of Mining Engineering added.

1902. The Department of Physical Education added.

1902. Thirty thousand dollars additional appropriated by the General Assembly for the Young Women's College Home, making \$60,000 in all.



1904. Patterson Hall, the Young Women's College Home, completed.

1904. Fifteen thousand dollars per annum appropriated by the General Assembly to defray the expenses of the College.

1905. The New Experiment Station completed.

1906. The Department of Household Economy added.

1907. The building for the Department of Education erected. The erection of the Carnegie Library Building and of Agricultural Hall begun. The Academic (preparatory) Course extended to three years. Forty acres added to the Experiment Farm, making 243 acres in all. The Mining Laboratory and the Observatory erected.

1908. Name changed from Agricultural and Mechanical College to State University. The College of Law established. Two hundred thousand dollars appropriated by the General Assembly for buildings and twenty thousand dollars for additional annual income. Library and Agricultural Hall completed.

*Increase of Property.*—The property of the University is estimated to be worth \$800,000 more than it was in 1880.

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

*Increase of Teachers.*—Before 1880 the University had six Professors; it now has seventeen Professors and thirty-seven assistants.

*Increase of Students.*—The number in 1898-99 was 480, the largest till then in the history of the University; in 1903-1904 it was 732; in 1906-1907 it was 901.

*Increase of Graduates.*—No fact more distinctly marks the growth of the University than the increase in the number of its graduates. More students have been graduated during the last three years than were graduated during the first thirty.

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### BOARD OF TRUSTEES.

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**Physical Directors.**

- MRS. FLORENCE OFFUTT STOUT, Versailles.
- W. WALTER H. MUSTAINE, B. S., 341 South Limestone Street.

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**Lecturer.**

- MISS ELIZABETH SHELBY KINKEAD,  
 243 West Second Street.

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\*Deceased.



**Assistant Professors.**

JOSEPH MORTON DAVIS, A. B., B. S.  
*Assistant Professor of Mathematics,*  
390 Park Place.

ASHER GRAHAM SPILLMAN,  
*Assistant Inspector of Mines.*  
244 Rodes Avenue.

\*THEODORE TOLMAN JONES, A. M.  
*Assistant Professor of Latin and Greek,*

JOHN JULIAN HOOPER, B. S.  
*Assistant Professor of Animal Husbandry and Assistant in  
Agriculture,*

609 South Limestone Street.  
WILLIAM SNYDER WEBB, M. S.  
*Assistant Professor of Physics,*

Greendale.  
MISS ISABELLA WEST MARSHALL, A. B.  
*Instructor in Domestic Science,*  
600 Rose Street.

JAMES THOMAS COTTON NOE, A. M.  
*Assistant Professor in the Normal School,*  
321 Linden Walk.

A., RALPH NELSON MAXSON, PH. D.  
*Assistant Professor of Chemistry,*  
522 Rose Street.

pus. WILLIAM JOSEPH CARREL, B. S.  
*Assistant Professor of Civil Engineering,*  
395 Linden Walk.

ana. COLUMBUS RUDOLPH MELCHER, A. M., LL. B.  
*Assistant Professor of French and German,*  
351 Linden Walk.

illes. FREDERIC WILLIAM MILLER, A. B., B. PED.  
*Assistant Professor of English,*  
308 South Broadway.

reet. CLARENCE WILLIAM LEAPHART, A. M.  
*Substitute for Assistant Professor Jones, Session 1907-08,*  
248 East Maxwell Street.

\*On leave of absence, session 1907-08.

**Assistants.**

- MISS MARTHA RIPPERDAN WHITE, M. S.  
*Assistant in Mathematics,*  
 158 East Maxwell Street
- LOUIS EDWARD NOLLAU, B. M. E.  
*Assistant in Drawing and Shop Work,*  
 341 South Limestone Street.
- ALBERT NEWLON WHITLOCK, A. B.  
*Assistant in the Academy,*  
 343 South Upper Street.
- KNOX JAMISON, A. B.  
*Assistant in the Academy,*  
 390 South Upper Street.
- JOHN LESLIE PURDOM, A. B.  
*Assistant in the Academy,*  
 Y. M. C. A. Building.
- ALFRED GAY MCGREGOR, A. B.  
*Assistant in the Academy,*  
 439 Clifton Avenue.
- ALFRED HOLLEY GILBERT, B. S.  
*Assistant in Botany,*  
 609 South Limestone Street.
- MISS SUE DOBYNS McCANN, M. S.  
*Instructor in Zoology and Entomology,*  
 137 East High Street.
- ARTHUR CARY FLESHMAN, A. M.  
*Assistant in the Normal School,*  
 394 Linden Walk.
- EZRA L. GILLIS, A. B.  
*Assistant in the Normal School,*  
 124 Hagerman Court.
- HENRY DRAPER EASTON, B. S.  
*Assistant in Mining Engineering and Metallurgy,*  
 234 Kentucky Avenue.
- HARRY ESSEX, A. B.  
*Assistant in Chemistry,*  
 609 South Limestone Street.
- JOSEPH DICKER,  
*Assistant in Blacksmith Shop and Foundry,*  
 169 Virginia Avenue.
- JOHN BOON DICKER,  
*Assistant in Machine Shop,*  
 169 Virginia Avenue.



LEO LOGAN LEWIS, B. M. E.,  
*Assistant in Wood Shop,*  
 142 East Fourth Street.

CHARLES EDGAR SCHOENE, B. M. E.,  
*Assistant in Mechanical Engineering,*

GEORGE MCINTYRE HOWARD,  
*Assistant in Experimental Laboratory,*

LOUIS STERLING BOGGESS, B. C. E.,  
*Fellow Assistant in Civil Engineering,*

ELIJAH LATHAM REES, B. C. E.,  
*Fellow Assistant in Mathematics and Civil Engineering,*  
 143 Walton Avenue.

ARTHUR BISHOP BEAUMONT,  
*Student Assistant in Freehand Drawing,*

WELLINGTON PATRICK,  
*Student Assistant in the Normal School,*

GARRETT DAVIS BUCKNER,  
*Student Assistant in Chemistry,*

THOMPSON RIPLEY BRYANT,  
*Student Assistant in Botany,*

THOMAS JAMES ORR,  
*Student Assistant in Mathematics.*

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**Other Officers.**

MRS. LUCY BERRY BLACKBURN,  
*Monitress,*  
 630 Central Avenue.

JOSEPH WILLIAM PRYOR, M. D.,  
*Surgeon of the Battalion,*  
 261 North Broadway.

WILLIAM T. LAFFERTY,  
*Comptroller,*  
 Cynthiana.

MISS MARGARET ISADORA KING, A. B.,  
*Registrar,*  
 225 South Limestone Street.

DAVID C. FRAZEE,  
*Business Agent,*  
 401 West Maxwell Street.

CLARENCE W. MATHEWS,  
*Secretary of the Faculty,*  
 660 South Limestone Street.

MRS. CAROLINE EMBRY WALLIS,  
*Matron of Patterson Hall,*  
 Patterson Hall.

JOHN H. NEVILLE,  
*Editor of the Catalogue,*  
 722 West Main Street.

## THE KENTUCKY EXPERIMENT STATION.

### Board of Control.

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|-------------------------------------------------------|-----------|
| DAVID F. FRAZEE, ESQ., <i>Chairman</i> ,.....         | Lexington |
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| DIRECTOR M. A. SCOVELL, <i>ex-officio</i> .....       | Lexington |
| HON. CLAUDE B. TERRELL, .....                         | Bedford   |

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|----------------------------------------------------------------------------------------------------------------------------------|--|
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| HENRY ERNEST CURTIS, M. S.,<br><i>Head of Fertilizer Division</i> ,<br>355 Linden Walk.                                          |  |
| HARRISON GARMAN,<br><i>Head of Division of Entomology and Botany</i> ,<br>638 South Limestone Street.                            |  |
| WILLIAM HENRY SCHERFFIUS, M. S.,<br><i>Agriculturist, Tobacco Expert, U. S. Dept. of Agriculture</i> ,<br>149 Washington Avenue. |  |
| ROBERT McDOWELL ALLEN, A. B.,<br><i>Head of Division of State Food Inspection</i> ,<br>609 South Limestone Street.               |  |
| JOB DARBIN TURNER, B. PED.,<br><i>Secretary of the Station</i> ,<br>120 East Maxwell Street.                                     |  |
| JAMES OSCAR LABACH, M. S.,<br><i>Chief Chemist, Division of State Food Inspection</i> ,<br>Y. M. C. A. Building.                 |  |
| MISS MARY LEGRAND DIDLAKE, M. S.,<br><i>Assistant in Entomology and Botany</i> ,<br>481 East Main Street.                        |  |
| SAXE DABNEY AVERITT, M. S.,<br><i>Assistant Chemist</i> ,<br>420 South Broadway.                                                 |  |
| OLIVER MARCH SHEDD, B. S.,<br><i>Assistant Chemist</i> ,<br>348 Linden Walk.                                                     |  |



OFFICERS.

19

- MISS LILLIE LISTON,  
*Stenographer,*  
270 South Limestone Street.
- EARL CLEVELAND VAUGHN, A. B.,  
*Assistant Seed Inspector,*  
304 South Limestone Street.
- GEORGE ROBERTS, B. PED., M. S.,  
*Assistant Chemist,*  
618 South Limestone Street.
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*Head of Division Animal Husbandry,*  
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- JOHN WILLIAM NUTTER,  
*Assistant in Dairying,*  
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- MISS OLIVA LOUISE GINOCHIO,  
*Stenographer,*  
240 Lexington Avenue.
- HOWEL DAVIS SPEARS, B. S.,  
*Assistant Chemist,*  
Cor. Washington Avenue and Rose Street.
- MISS ANNA WALLIS, A. B.,  
*Stenographer,*  
Patterson Hall.
- ELMER FRANCIS WORTHINGTON,  
*Farm Superintendent,*  
Experiment Station Farm.
- MISS KATHERINE TEMPLE HOBSON, A. B.,  
*Stenographer,*  
642 Central Avenue.

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U. S. WEATHER BUREAU.

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- GEORGE HAROLD NOYES, A. B.,  
*Forecaster,*  
332 Harrison Avenue.
- HOMER WILLIAM BALL,  
*Assistant Observer,*  
464 Rose Street.

### ADMISSION.

A student may be admitted to the University in one of four ways:

- (a) By examination.
- (b) By certificate from an accredited school.
- (c) By transfer of credits from some other College or University.
- (d) As a special student.

#### Admission by Examination.

Examinations for admission will be held at the University on September 3, 4, 5, 1908.

All persons who wish to enter the University for the Fall Term's work, except those whose entrance credits have been accepted by the Committee on Entrance, must take these examinations. They should present themselves at the office of the Committee on Entrance at 8:30 A. M. of Thursday, September third. They will then receive directions concerning the hours and places at which the examinations will be held.

#### Admission from Accredited Schools, Colleges or other Universities.

Persons who desire to enter the University by credits instead of by examination must have these credits certified to by the proper official of the school in which they were secured. Blank forms for such certificates will be furnished by the Registrar of the University on application. These certificates should be sent as soon as possible (by June 15 from accredited schools), to the Committee on Entrance. This committee will then notify the student that his credits are approved or that he must take entrance examinations in subjects for which his credits are not satisfactory.

#### Admission as a Special Student.

A graduate of another University, or of a College, may enter the University to pursue any special work. County appointees are required by the terms of appointment to do full work in a regular course of study. Other persons will be admitted as special students under the following conditions:

- (a) They must be at least 21 years of age.
- (b) They must show good reason for not taking a regular course.
- (c) They must demonstrate their ability to do the proposed work.



### Requirements for Admission to the Freshman Class.

1. Fifteen units, each requiring the pursuit of a subject for five hours a week for one school year of not less than thirty-four weeks, are required for admission to the Freshman Class in any College of the University.

2. Ten of these units must be as follows:

|                                |    |
|--------------------------------|----|
| English                        | 3  |
| One Ancient or Modern Language | 2  |
| Algebra                        | 1½ |
| Plane Geometry                 | 1  |
| Solid Geometry                 | ½  |
| General or English History     | 1  |
| Physics                        | 1  |

3. The remaining five units must be selected from the following:

|                             |   |
|-----------------------------|---|
| Ancient or modern Languages | 3 |
| Chemistry                   | 1 |
| American History            | ½ |
| Astronomy                   | ½ |
| Botany                      | ½ |
| Geology                     | ½ |
| Zoology                     | ½ |
| Physiology                  | ½ |
| Plane Trigonometry          | ½ |
| Physical Geography          | ½ |
| Civics                      | ½ |
| Manual Training             | ½ |
| Drawing                     | ½ |

Candidates for the degree of Bachelor of Arts must present five credits in Foreign Language, three of which must be in Latin.

4. No subject offered as an entrance requirement can be counted again in the total credits required for the completion of a college course.

### Definition of Units in the Several Subjects.

#### English.

The three units that must be offered in English are these:

- Advanced Grammar. First Year.* One unit.
- Rhetoric and Composition. Second Year.* One unit.
- Reading and Practice. Third Year.* One-half unit. In 1908 and 1909 the books prescribed are these: Shakespeare's *The Merchant of Venice* and *Macbeth*; Addison's *Sir Roger de Coverley* papers; Irving's *Life of Goldsmith*; Coleridge's *Ancient Mariner*;

Scott's *Ivanhoe* and *Lady of the Lake*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, the *Passing of Arthur*; Lowell's *Vision of Sir Launfal*; George Eliot's *Silas Marner*.

d. *Study and Practice. Third Year.* One-half unit. Preparation includes the thorough study of each of the works named below; a knowledge of the subject matter, form and structure. In addition, the candidate may be required to answer questions involving the essentials of English grammar, and questions on the leading facts in those periods of English history to which the prescribed works belong. For 1908-9 the books set for this part of the work are these: Shakespeare's *Julius Caesar*; Milton's *Lycidas*, *Comus*, *L'Allegro* and *Il Penseroso*; Burke's *Speech on Conciliation with the Colonies*; Macaulay's *Essay on Addison and Life of Johnson*.

Unless pupils have had daily or weekly exercises in Composition and Theme-writing throughout the three or four years of their High School curriculum, their work in Grammar, Rhetoric, and Literature will not be accepted as equal to three units in English.

#### Mathematics.

The three units which MUST be offered in Mathematics are as follows:

*Algebra*—One and one-half units. The work in Algebra to be acceptable MUST COVER A FULL YEAR in some good elementary text, such as Slaughter and Lennis, Stone-Millis, Wentworth, Wells or Milne; and a FULL HALF YEAR in some more advanced text such as Wentworth's Higher, Fisher and Schwatt's Higher, Wells's Advanced, Hawke's Advanced, Milne's Advanced or Fine's College. Preference should be given to the newer books which contain work on graphs. The student must show a good knowledge of factoring, common divisors and multiples, fractions, involution, embracing the binomial theorem for positive integral exponents, radicals, imaginary quantities, equations of the first and second degree involving one or more unknown quantities, equations solved like quadratics, simple indeterminate equations, equations involving radicals, ratio and proportion, arithmetical and geometrical progressions. The student is expected to be able to state and to explain the reason for every step in his work.

*Geometry (Plane)*—One unit. The work in Plane Geometry to be acceptable MUST COVER A FULL YEAR in such a text as Beman and Smith, Wentworth, Milne, or Durell.

It is recommended that a part of the year be spent upon the applications of Algebra to Geometry and of Geometry to Algebra. The



student should be able to apply the principles of Geometry to practical problems, to construct diagrams quickly and accurately. In proving a theorem or in solving a problem he should be able to prove every statement made by going back step by step till he rests on primary definitions and axioms.

*Geometry (Solid)*.—One-half unit. The work in Solid Geometry to be acceptable MUST COVER A FULL HALF YEAR. It is recommended that text-book work be accompanied by work of a semi-laboratory character, including the making of models of pasteboard or clay and experimental verification of the theorems by measuring, weighing, etc. Such laboratory methods will prove interesting and very helpful to the student.

In accordance with the preceding paragraphs numbered three and four, Plane Trigonometry MAY be offered as an entrance credit.

*Plane Trigonometry*.—One-half unit. The work in Plane Trigonometry to be acceptable MUST COVER AT LEAST A FULL HALF YEAR in such a text as Crockett, Murray or Wentworth. The student must be familiar with and be able to use all the principal formulas, to find natural and logarithmic functions of angles of any magnitude, to construct triangles and other figures accurately and quickly. The daily use of inexpensive drawing instruments is recommended for students taking Geometry and Trigonometry.

Neatness in all work should be required.

### History.

*General History*.—An amount equivalent to Anderson's or Myer's General History.

### Languages.

*Latin*.—Persons who expect to be candidates for the degree of Bachelor of Arts must offer at entrance three units of Latin, as follows:

(a) *First Year*. One unit. Moore's Grammar or its equivalent with a daily exercise in inflection and in translation from and into Latin on the blackboard; easy Latin readings.

(b) *Second Year*. One unit. Twelve lines of Nepos and four books of Cæsar, or Second Year Latin; Daniell's New Latin Composition or its equivalent.

(c) *Third Year*. One unit. 2,500 lines of Ovid, with scanning; seven orations of Cicero.

(a) and (b) may be offered as the two units of a foreign language required to enter courses in the University other than those leading

to the degree of Bachelor of Arts.

*Greek.*—To offer two units in Greek, applicant must have completed:

(a) *First Year.* One unit. White's Beginner's Greek Book (or its equivalent), involving quantity, accentuation, declensions, genders, conjugations, syntax and idioms.

(b) *Second Year.* One unit. Four books of Xenophon's Anabasis; six books of the Iliad, and Gleason's exercises in Greek prose composition.

*German.*—In order that a two years' course in German should be accepted for two units it should comprise:

(a) A thorough drill in and an elementary knowledge of the gender of nouns and declension of nouns and adjectives; the demonstrative, relative and interrogative pronouns; the normal, inverted and transposed order; the ability to write German script legibly and readily under dictation; to translate with comparative ease elementary German into English, and *vice versa*; familiarity with the strong and weak conjugations of the commonest verbs.

(b) Advanced German Grammar; composition; the reading of about 200 pages of German prose of medium difficulty; the reading of some of the easier German lyrics.

*French.*—A two years' course in French, equivalent to the two years' course in German just outlined, will be accepted in lieu of the latter.

### Science.

*Physics.*—The one unit required in this subject involves the completion of some text-book in High School Physics of a grade not lower than Gage's Elements. The time of study should extend through one school year. It is recommended that the student shall also have done about forty or more experiments of a quantitative character.

*Chemistry.*—To be accepted as one unit, Chemistry must have been studied for one school year, and should have rendered the student familiar with the following topics in non-metallic chemistry: Properties of the principal acid-forming elements and their compounds; simple problems on relations by weight; relations between gas volumes and the weights of chemically related solids; acids, bases and salts; valence; series of oxy-acids and their salts; oxidation and reduction; acid anhydrides; hydrated and poly-acids.

To be accepted as possessing one half-unit value, each of the following subjects must have been pursued for at least one half of



the school year. In Science new facts are being discovered almost daily. New text-books on these subjects should be up-to-date.

*Physical Geography.*—As covered by Dryer, Brigham and Gilbert, Davis, or Tarr.

*Geology.*—As covered by Brigham's text or LeConte's Compend.

*Astronomy.*—As covered by Moulton's Introduction, Young's Elements or Todd's Astronomy.

*Physiology.*—As covered by Martin's *Human Body*. (Briefer Course.)

*Botany.*—Should involve a knowledge of the Structure and Elementary Physiology of the Seed Plants as presented in Bergen's Elements, chapters one to twenty-two inclusive; Bailey's Elementary Text-book of Botany, chapters one to twenty-four inclusive, and twenty-six to thirty inclusive, or their equivalent. The laboratory method of instruction, as suggested by these works, should be emphasized. It is not required or expected that the student should have studied the minute anatomy of these plants farther than it can be done with the simple magnifier, although it is highly desirable that the teacher should have a compound microscope available for purposes of demonstration to the class, of cell structure, stomata, etc., etc. It is important that a student should have some acquaintance with the principles of classification, and desirable, though not indispensable, that he should have some knowledge of the determination of species.

*Zoology.*—Should be such as would render the student familiar with the salient characteristics of each of the animal sub-kingdoms. This can only be accomplished by a laboratory study of at least one type animal under each sub-kingdom.

#### Miscellaneous.

*Civics.*—A course in Civil Government or Political Economy, as is usually given in high schools.

*American History.*—Montgomery's or its equivalent.

*Plane Trigonometry.*—Murray's Plane, or its equivalent. See Plane Trig. under "Mathematics".

*Manual Training.*—As covered by Goss's Bench Work in Wood and Golden's Wood Turning.

*Drawing.*—Proficiency in Free-hand Drawing.

#### Advanced Standing.

After being admitted to the University, a student may secure advanced standing:

- (a) By examination on each subject for which he desires credit.
- (b) By transfer, from a college or university, of credits satisfactory to the Professors concerned.

No student will under any circumstances be accredited beyond the Junior year.

### Accredited Schools.

Schools, whether public or private, may be accredited in whole or in part. To be fully accredited, a school must present to the University Committee on Accredited Schools satisfactory evidence that the course of study in that school furnishes thorough preparation in all of the subjects embraced in the entrance requirements to the University. A school giving thorough, but less extensive, preparation may be accredited in special subjects.

The Board of Trustees of the University has authorized the President to make an annual award of a free scholarship to the pupil in each fully accredited school, who has completed, with the highest grade, the full course in that school. This scholarship entitles the recipient to free tuition. If, in addition, the holder of the scholarship obtains a county appointment, he is entitled to a room in one of the dormitories and to his traveling expenses.

The Committee on Accredited Schools will, at an early date, revise the list of accredited schools. Printed forms will, on application, be sent to the heads of schools who may desire to have their institutions placed on the list of accredited schools. These forms must be filled out and, with an announcement of the course of study given in the school, be mailed to the Committee on Accredited Schools at the State University.

The schools which were accredited, before the requirements for entrance to the Freshman Class in the University were advanced, are as follows:

### Public High Schools.

| <i>School.</i>    | <i>Superintendent or Principal.</i> | <i>School.</i>            | <i>Superintendent or Principal.</i> |
|-------------------|-------------------------------------|---------------------------|-------------------------------------|
| Ashland.....      | W. C. Campbell.                     | Lexington.....            | M. A. Cassidy.                      |
| Augusta.....      | J. R. Sterrett.                     | Little Rock, Ark.,        | D. W. Torreyson,                    |
| Bellevue.....     | H. L. Eby.                          | Louisville, M. H. S.      | R. P. Halleck,                      |
| Brookville.....   | Walter Stuart.                      | Louisville, F. H. S.      | W. H. Bartholomew.                  |
| Carlisle.....     | R. H. Shipp.                        | Louisville, Man. T. H. S. | E. P. Chapin.                       |
| Carrollton.....   | J. W. Taylor.                       | Ludlow.....               | C. D. Walden.                       |
| Catlettsburg..... | J. B. Leech.                        | Marion.....               | John P. King.                       |
| Cloverport.....   | Edmund Wroe.                        | Maysville.....            | D. S. Clinger.                      |
| Corydon.....      | E. S. Clark.                        | Middlesboro.....          | M. O. Winfrey.                      |



|                      |                     |                    |                       |
|----------------------|---------------------|--------------------|-----------------------|
| Covington.....       | H. O. Sluss.        | Midway.....        |                       |
| Cynthiana.....       | C. A. Leonard.      | Morganfield.....   | M. L. Girton.         |
| Dayton.....          | James McGinnis.     | Mt. Sterling.....  | H. M. Gunn.           |
| Dixon.....           | S. G. Boyd.         | New Castle.....    | I. C. Rubelt.         |
| Elizabethtown.....   | E. E. Olcott.       | Newport.....       | Ellsworth Regenstein. |
| Elkton.....          | E. B. Weathers, Jr. | Nicholasville..... | R. G. Lowrey.         |
| Eminence.....        | J. C. Gordon.       | Orange, N. J.....  |                       |
| Falmouth.....        | J. Arthur Mitchell. | Owensboro.....     | McHenry Rhoads.       |
| Finchville.....      | John Case.          | Owenton.....       | S. S. Robinson.       |
| Flemingsburg.....    | W. G. Hart.         | Paducah.....       | J. A. Carnagey.       |
| Frankfort.....       | H. C. McKee.        | Paris.....         | G. W. Chapman.        |
| Fulton.....          | J. C. Cheek.        | Pembroke.....      | C. E. Dudley.         |
| Greenville.....      | V. M. Mosely.       | Princeton.....     | C. W. Richards.       |
| Harrodsburg.....     | W. E. Robinson.     | Richmond.....      | T. J. Coates.         |
| Henderson.....       | L. McCartney.       | Shelbyville.....   | G. L. Sampson.        |
| Hickman.....         | B. F. Gabby.        | Somerset.....      | J. P. W. Brouse.      |
| Hodgenville.....     | Thos. E. Mason.     | Stanford.....      | J. W. Ireland.        |
| Hopkinsville.....    | B. Hamlet.          | Uniontown.....     | H. O. Wilson.         |
| Horsecave.....       |                     | Versailles.....    | T. A. Hendricks.      |
| Kenilworth, Ill..... |                     | Walton.....        | H. C. Wayman.         |
| Lancaster.....       | D. W. Bridges.      | Williamstown.....  | Henry Newton.         |
| Lawrenceburg.....    | H. V. Bell.         | Winchester.....    | R. M. Shipp.          |

### Private Institutions.

Those marked \* are believed to be correct.

- Alton, Private School, Miss M. E. Fidler.
- \*Auburn, Seminary, W. L. Harris.
- \*Bardstown, Nelson Normal High School, E. N. Fulton.
- \*Campbellsburg, High School, J. W. Percy.
- Clinton, Marvin College, W. F. Robinson.
- Covington, Rugby School, K. J. Morris.
- Cynthiana, Smith's Classical School, W. E. Selin.
- Danville, (Va.) Military Institute, Campbell and Snyder.
- Elkton, Vanderbilt Training School, J. H. Harrison.
- Franklin, Preparatory School, Luna and Perry.
- Fulton, Carr Institute, T. N. Wells.
- \*Harrodsburg, Academy, W. W. Ensminger.
- Hartford, College and Business Institute, L. N. Gray.
- Hazel Green, Academy,
- Hodgenville, Kenyon College,
- \*Hopkinsville, S. Ky. College, A. C. Kuykendall.
- Jetts, Academy, Mrs. Mary Crutcher.
- Knoxville, (Tenn.), Baker-Himil School, C. M. Himil.
- Lawrenceburg, Kavanaugh Academy, Mrs. Rhoda Kavanaugh.
- Leitchfield, High School, W. G. Losey.
- \*Lexington, Private School, Miss Ella Williams.
- \*Lexington, Private School, Miss Lucy Collier.
- \*Lexington, Private School, Miss Linda Neville.
- \*Lexington, Campbell-Hagerman College, B. C. Hagerman.
- \*Lexington, Sayre Institute, J. M. Spencer.
- \*London, Sue Bennett Memorial School, J. C. Lewis.

Louisville, St. Xavier's College, Bro. James.  
Louisville, Boys' School,  
Louisville, Semple Collegiate Institute, Miss Anna Hamilton.  
Maysville, Private School, Miss Fannie Gordon.  
\*Millersburg, Military Institute, C. M. Best.  
Middleburg, Normal College, J. S. Lawhorn.  
Morehead, Normal School, F. C. Button.  
Murray, Male and Female Institute.  
Newport, Academy Notre Dame of Providence, Mother Maria.  
Nicholasville, School for Boys, T. B. Threlkeld.  
\*North Middletown, Class. and Business College, E. B. Buffington.  
Richmond, Madison Female Institute. A. P. Simmons.  
Russell Springs, Academy, U. G. Hatfield.  
Stanford, Male and Female Academy.  
\*Taylorsville, Yoder-Poignard High School, G. P. Creal.  
Versailles, Training School for Boys, W. O. Vaught.  
Versailles, Rose Hill Academy, M. G. Jesse,  
Versailles, Margaret Hall, Miss E. C. Hogeboom.  
\*Williamsburg, Institute, E. E. Wood

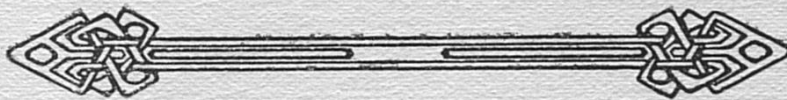
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# ORGANIZATION



THE STATE UNIVERSITY, as at  
present organized, comprises three  
Colleges and three Schools:



1. THE COLLEGE OF AGRICULTURE.
2. THE COLLEGE OF ARTS AND  
SCIENCE.
3. THE COLLEGE OF LAW.
4. THE SCHOOL OF CIVIL ENGI-  
NEERING.
5. THE SCHOOL OF MECHANICAL  
AND ELECTRICAL ENGINEERING.
6. THE SCHOOL OF MINING ENGI-  
NEERING.

## THE COLLEGE OF AGRICULTURE.

### Faculty and Other Officers.

JAMES KENNEDY PATTERSON, PH. D. LL. D.,  
*President.*

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

ALEXANDER ST. CLAIR MACKENZIE, M. A., F. R. S. L.,  
*Professor of English and Logic.*

PHILIP W. CORBUSIER,  
*First Lieutenant, U. S. A., Commandant.*

FRANKLIN ELLIOTT TUTTLE, PH. D.,  
*Professor of Chemistry.*

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

ALFRED CHARLES ZEMBROD, A. M.,  
*Professor of French and German.*

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

ARTHUR McQUISTON MILLER, A. M.,  
*Professor of Geology and Zoology.*

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

WALTER ELLSWORTH ROWE, C. E.,  
*Professor of Civil Engineering.*

JOHN JULIAN HOOPER, M. S. A.,  
*Assistant Professor of Animal Husbandry and Agriculture.*

ALFRED HOLLEY GILBERT, B. S.,  
*Assistant Professor of Botany and Horticulture.*

MISS SUE DOBYNS McCANN, M. S.,  
*Instructor in Entomology.*

ALONZO D. MOORE,  
*Curator of Greenhouses.*

### The College of Agriculture.

Through an enactment of the Legislature of Kentucky, the Department of Agriculture of this institution



now becomes the College of Agriculture and occupies, in the early summer of 1908, the new Agricultural Building.

The erection of this building, which has cost about \$35,000, was authorized by the Board of Trustees at its meeting in December 1906, and work was begun in the spring of 1907. The present structure, which is 45x100 feet in size, is designed as the wing of a much larger building, which the growing interest in Agricultural education will probably necessitate within a few years' time. It is located upon the southwest corner of the college campus within five minutes' walk of the Experiment Station building and the nearer portions of the college farm.

The construction is of the most thorough and substantial character, the materials being native limestone for the foundation, Maysville pressed brick, Bedford stone, numerous steel girders to provide for large and unobstructed floor-areas, and a roof-covering of red tiles. The roomy basement, which is floored throughout with cement, contains large rooms for farm mechanics, farm machinery, a potting and propagating room, seed-room, a compartment for the heating plant and a commodious lavatory for men. Upon the first floor near the main entrance is the office of the Dean, which is attractively finished in hardwood with a massive brick mantel and other appropriate furnishings. Adjoining this is a private laboratory, and nearby are the Horticultural lecture-room, Horticultural laboratory and the Botanical laboratories. Upon the second floor are the office of the professor of Agronomy and the professor of Animal Husbandry, a lecture-room for Animal Husbandry, and laboratories for Soil Physics and for Agronomy. A feature of special interest upon this floor is a beautiful room provided with fireplace and attractive

mission furniture, which serves as a reading room and a meeting place for the student organizations. A large number of the best agricultural and other periodicals are kept there on file at the service of the students of the College.

Upon the third floor a commodious room is provided for the meetings of the Grange and other farmers' organizations or college assemblies. This floor also contains an advanced laboratory, the agricultural museum and a photographic laboratory, with dark rooms both for students' and instructors' use. This laboratory has a superior equipment for giving instruction to advanced students, and for the preparation of lantern slides and enlargements for the use of the various departments, and for the illustration of theses and other studies prosecuted in the College of Agriculture.

The lecture rooms in the building are provided with opera chairs, electric projection lanterns, and other appliances for illustrative and demonstration purposes.

The laboratories for Agronomy and Horticulture are large and abundantly lighted and suitably equipped with gas, water, and electric current for carrying on the work of the department. The botanical laboratories are provided with individual tables, with the most approved forms of microscopes, microtomes, ovens and sterilizing apparatus, balances, charts, etc., in accordance with their several requirements.

All the rooms are exceptionally well lighted with large windows, and by night with both gas and electric lamps. Every room is also provided with ventilating shafts for ensuring a constant change of air during class exercises.

Provision has been made for erecting in the rear of this building a laboratory greenhouse 24x50 ft. in size for the use of the classes in Botany, Horticulture and



other studies involving experimental work with living plants. The main greenhouses upon another portion of the University grounds also provide abundant material for the use of classes.

For botanical instruction there is also an extensive herbarium which contains a nearly complete representation of the flora of Kentucky, with a considerable number of foreign exchanges. This is due primarily to the efforts of the late Dr. Robert Peter who made an 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 historic value. The herbarium is constantly growing by means of collections and exchanges.

A small frame building upon another part of the grounds is well equipped with facilities for instruction in farm dairying.

Among the additional facilities for agricultural instruction, there is installed in the basement of the news building a growing collection of the best farm implements and machinery, most of which has been lent or donated by the manufacturers.

In many features of the college instruction, the extensive equipment of the Experiment Station farm, a few minutes' walk from the college campus, incidentally affords unusual opportunity for supplementary and illustrative instruction. A large herd of Jersey cattle, housed in a commodious and well-equipped dairy barn; extensive and varied plots of field, forage and garden crops, with numerous other experiment studies in progress all the time, afford stimulating and interesting subjects for inquiry throughout a student's curriculum.

The extensive live-stock and other agricultural

interests of the unrivalled Bluegrass country immediately surrounding Lexington may fairly be considered a vastly enlarged field of laboratory inquiry for all students of agriculture. Frequent visits are made to the various farms in this vicinity, and their owners and managers have manifested a most cordial hospitality and a willing co-operation in promoting the cause of agricultural education in our institution.

In order to meet the varied needs and educational requirements of young men desiring an agricultural education, the college has arranged three distinct courses in agriculture, involving different grades of work and requirements of admission and different periods of residence at the college. These include a regular four-year course of full collegiate rank, leading to a University degree; a two-year course for young men who from lack of time and opportunity for a high-school education are unable to take a four-year course; and lastly, the short winter course of ten weeks, for young and mature men directly from the farm, designed to apply in its teachings the results of scientific investigation and the ripest farm experience to the practical business of farming.

#### **The Four Year Course.**

The regular course in the College of Agriculture requires four years and is of the same rank as that of other college courses. It leads to the degree of Bachelor of Science in Agriculture.

The requirements for admission and the rates for tuition and other fees are identical with those of the candidate for the degree of B. S. in the college of Arts and Science, as are also the conditions for securing the minimum of 64 credits (exclusive of those in Military Science and Physical Education) required for graduation.

The course is designed for those who desire to take a thorough college training, combining liberal culture with specialization in those branches of study directly related to agricultural pursuits. It is arranged primarily to meet the needs of the young man who is familiar with the common operations usually shared in by one who has been



reared upon the farm. Such men constitute a large percentage of those who matriculate in Agriculture, and the time of classes, therefore, is not consumed in training undergraduates in the commoner manual operations of farm life.

The young man from the city, who expects to engage in agricultural pursuits, is therefore advised to supplement his college course as fully as possible by practical experience upon one or more well managed farms. This can often be advantageously done during the summer vacations.

It should not be understood, however, that the practical operations of the farm are ignored. On the contrary, great care and considerable time are devoted to giving instruction in many highly important operations, which involve special knowledge or a high degree of skill. Thus the student is taught to take levels, test the draft of implements and vehicles, take apart and reassemble farm machines and engines; perform the operations of grafting, pruning, spraying, and hybridizing; test milk, to make high class butter; and is given practice in judging a variety of animals.

Provision is made for the selection by the student of a major subject for the latter part of his course, thus permitting him, within certain limits, a choice of studies during the Junior and Senior years. Even in these years, however, a considerable number of subjects are required of all.

While including a certain minimum of each of the following named subjects during these four years, he may take in his later years advanced lines of instruction in one or two of them, to the exclusion in part of the remaining subjects.

At present the student may select his major study in Agronomy, Animal Husbandry, Horticulture, Economic Entomology, Economic Botany, or Agricultural Chemistry. As these branches of instruction are further subdivided, and others are added to the curriculum in later years, the range of selection will doubtless be increased.

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### The Regular Four Year Course in Agriculture.

Unless otherwise indicated, subjects given 3 hours per week are upon Monday, Wednesday, and Friday, and those given 2 hours per week are upon Tuesday and Thursday.

| FRESHMAN YEAR.               | Hours,<br>Fall term. | Hours,<br>Winter term. | Hours,<br>Spring. |
|------------------------------|----------------------|------------------------|-------------------|
| English                      | 3                    | 3                      | 3                 |
| Mathematics                  | 5                    | 5                      | 5                 |
| German                       | 3                    | 2 W. F.                | 2 W. F.           |
| Chemistry Lectures           | -                    | 4 M. T. W. F.          | 3                 |
| Chemistry Laboratory         | -                    | 3 M. F. S.             | 3 M. F. S.        |
| Freehand Drawing             | 2                    | 2                      | -                 |
| Elementary Botany            | -                    | -                      | 3 T. W. Th.       |
| Physiology                   | 3                    | -                      | -                 |
| Total                        | 16                   | 19                     | 19                |
| SOPHOMORE.                   | Fall                 | Winter                 | Spring.           |
| Zoology                      | 2                    | 2                      | -                 |
| Zoology Laboratory           | 3                    | 3                      | -                 |
| Embryology                   | -                    | -                      | 3 M. T. Th.       |
| Physics                      | 3                    | 2                      | 2                 |
| Botany Lectures              | 1                    | 2                      | 2                 |
| Botany Laboratory            | 3                    | 3                      | 2                 |
| Soil Physics                 | 3                    | -                      | -                 |
| Geology                      | 2                    | 2                      | -                 |
| Agronomy-Cereals             | -                    | 3                      | -                 |
| Plant Culture                | -                    | 2                      | -                 |
| Fruit Culture                | -                    | -                      | 2                 |
| Agronomy-Forage Crops        | -                    | -                      | 2 W. Th.          |
| Surveying                    | -                    | -                      | 2 W. F.           |
| Total                        | 17                   | 19                     | 15                |
| JUNIOR.                      | Fall.                | Winter.                | Spring.           |
| Study of Breeds              | 3                    | 2                      | -                 |
| Do. Laboratory               | 1                    | -                      | -                 |
| Animal Nutrition             | -                    | 3                      | 3                 |
| Farm Equipment               | 3                    | -                      | -                 |
| Farm Equipment, Lab.         | 1                    | -                      | -                 |
| Farm Crops. (Advanced)       | -                    | -                      | 2                 |
| Veterinary Science           | -                    | 4                      | -                 |
| Plant Histology              | 3                    | -                      | -                 |
| Plant Physiology & Pathology | -                    | -                      | 4                 |
| Entomology                   | 2                    | 3                      | 2                 |
| Pomology                     | 2                    | -                      | -                 |
| History                      | 2                    | 2                      | 2                 |
| Economics                    | 2                    | 2                      | 2                 |
| Dairying                     | -                    | -                      | 3                 |
| Total                        | 19                   | 16                     | 18                |
| SENIOR.                      |                      |                        |                   |
| Principles of Breeding       | 2                    | -                      | -                 |
| Do. Laboratory               | 1                    | -                      | -                 |
| Logic                        | 3                    | -                      | -                 |
| Metaphysics                  | -                    | 3                      | -                 |
| Ethics                       | -                    | -                      | -                 |



The remainder of the senior hours are elective and are arranged at the beginning of the year by conference with the Dean and with the Professor under whom the student takes his major study. Such elective studies must be so chosen as to comply with the minimum requirement of 14 hours, work per week and the maximum of 20 hours per week during any term.

A graduate of the College of Agriculture may become a candidate for the degree of Master of Science in Agriculture by a year of post-graduate study in residence or by two years of study while non-resident. For this purpose he may select any one of the major subjects of his undergraduate course as his major study, and will be assigned one or more minors from collateral courses by the Faculty.

### General Outline of Courses.

In addition to the distinctly agricultural subjects which are briefly described below, the student in Agriculture takes a large proportion of his work, particularly in his earlier years, in the subjects included under the College of Arts and Science, many of which are common to several of the colleges of the University.

#### Agronomy.

PROFESSOR HOOPER AND ASSISTANT PROFESSOR ———.

#### SOILS.

1. Fall term required of Sophomores. Lectures M. W. 8. Laboratory F. 8. Three credits.

An elementary course covering the nature, origin, function and waste of soils, with special reference to their management in crop production; the chemical, mineral, and physical properties of soil; the influence of air and moisture upon soils; and the objects and methods of tillage.

The principles and practice of farm drainage are considered at some length, and in a less degree, the subject of irrigation.

Text and Reference Book: King's *Physics of Agriculture*.

#### ADVANCED SOILS.

2. Elective for Juniors or Seniors. Lectures and Collateral reading by appointment. Two credits. Laboratory by appointment. Two credits.

Treats of the physical properties and mechanical analysis of soil; retention and movement of soil moisture.

## FARM CROPS, CEREALS.

3. Winter Term. Sophomore. Lectures M. W. 8. Laboratory F. 8. Three credits.

A comprehensive study is made of the cereals, with reference to varieties, fertilization, culture, harvesting, uses and marketing. During the laboratory periods considerable attention is given to the judging of corn, and others of the more prominent species.

Text-book: Hunt's *The Cereals in America*.

## FARM CROPS.

4. Spring Term. Junior. Lectures 11:30. Three credits.

An advanced course covering investigations upon the best methods of crop production, including the study of experimental results with those important Kentucky crops not discussed in course 3.

## FARM CROPS, GRASSES AND FORAGE CROPS.

5. Spring term. Sophomore. Lectures W. F. 8. Two credits.

In this course the various grasses best adapted to Kentucky conditions are considered with reference to their habit of growth, methods and cost of seeding, effect upon the soil, adaptability to different sections of the state, feeding value, etc. The grass plots upon the Experiment Station farm are among the most complete in this country, and afford valuable illustrative material for this course.

Text-book: Hunt's *Forage Crops*.

## FARM EQUIPMENT AND MANAGEMENT.

6. Fall Term. Junior. Lectures M. W. F. 11:30. Laboratory W. 1:30. Four credits.

Lectures and practical exercises on the selection and equipment of the farm, the arrangement and plans of farm buildings, and the study of sources of power; of farm engines; farm machinery; water supply, etc.

Text-books and Reference books: Hunt's *Choosing a Farm*. Card's *Farm Management*.

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**Animal Husbandry.**

PROFESSOR HOOPER.

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STUDY OF BREEDS AND LIVE-STOCK JUDGING.

1. Fall Term. Junior. Lectures M. W. F. 8. Laboratory T. 11:30. Four credits. Winter Term. T. Th. 8. Two credits.

In beginning this course the student is made familiar with the



various market-types of horses, cattle, sheep, and swine. Different points of excellence of the perfect animal are considered. Following this each breed of live stock is discussed with reference to its origin, history, and development, introduction to America and adaptability to Kentucky conditions. Live stock representing the different market and breed types are brought before the class, and this work is supplemented by the use of lantern-slides in connection with lectures. Visits are frequently made to the famous stock farms near Lexington, and in December the class visits the International Live-Stock Exposition at Chicago, and during the visit trips are also made to some of the foremost stock farms of Illinois, Indiana, and Ohio. During the course occasional demonstrations are provided for the purpose of studying the different cuts of meat.

Text-book; Craig's *Judging Live Stock*.

#### PRINCIPLES OF BREEDING.

2. Fall Term. Senior. Lectures T. Th. 8. Laboratory Th. 1:30. Three credits.

The course embraces the study of the principles of breeding, including selection, heredity, atavism, variation with a presentation of the methods of breeding, in-and-in breeding, cross-breeding, etc., and a historical study of their results. The latter part of the term is devoted to the study of animal pedigrees of the best individuals in the more popular breeds of horse, cattle, sheep and swine. The student tabulates the result by means of the registry books of the various breeders' associations.

Reference Works; Davenport's *Breeds and Breeding*, and numerous registry books.

#### VETERINARY SCIENCE, AND HORSE-SHOEING.

3. Winter Term. Lectures M. W. F. 11:30. Four Credits.

A general course in which the student is made acquainted with the fundamental principles of animal anatomy and physiology, followed by a discussion of the causes, treatment, and methods of preventing the common diseases of horses, cattle, sheep and swine, including also a discussion of veterinary obstetrics. This course is concluded by a thorough discussion of the proper method of shoeing horses, and the treatment of the different ailments of horses' feet. Some time is spent at a local farrier's shop in the study of the proper manner of trimming and shoeing different shaped feet and the use of pads, leather soles, etc.

Text-book: Reynold's *Veterinary Studies*.

## ANIMAL NUTRITION.

4. Winter Term. Junior. Lectures M. W. F. 9. Spring Term 11:30.

A comprehensive study is made of the various food-stuffs offered in the local and general markets of the country, and the students are given training in compounding rations for the different animals of the farm. Valuable observations are made in this subject on the farms visited by the students, and the varied experiments in progress on the Experiment Station farm also afford facilities for illustrative purposes.

Text-book: Henry's *Feeds and Feeding*.

## LIVE STOCK MANAGEMENT.

5. Spring Term. Junior. M. W. F. 8. Three credits. Fall Term. Senior. T. Th. 9. Two credits.

This course includes a discussion of the proper methods of housing, feeding, and management of the different types of farm animals, the relation of crop rotation and management to the care and profitable handling of live stock, and the different methods of managing animals for specific purposes.

## DAIRYING.

6. Spring Term. Junior. Lectures and laboratory M. W. F. 1:30. Three credits.

A study of the production, composition and testing of milk, cream separation, pasteurizing and marketing. This is followed by the study of cream ripening and the manufacture of butter and cheese. A study is made of butter and cheese factory construction. The class-room work is supplemented by practical work in the Dairy laboratory.

Text-books: Wing's *Milk and its Products*.

McKay and Larsen's *Principles of Butter Making*.

## ADVANCED DAIRYING.

7. Fall Term. Senior. Lectures T. Th. 11:30.

The course provides for senior students who desire to specialize along dairy lines. The course consists of lectures, supplemented by collateral reading in the Experiment Station and other literature, together with practical laboratory work suggested by the student's readings and his personal interests.

## EXPERIMENT-STATION LITERATURE.

8. Spring Term. Senior. Hours by appointment. Three credits.



This course offers instruction in the proper methods of interpreting results secured at the various Experiment Stations, in relation to the training and managing of the various domestic animals as reported in their bulletins. Students will be assigned subjects of this character for investigation of Experiment-Station results and will make reports to the class upon them.

#### RURAL ARCHITECTURE.

9. Spring Term. Senior. Th. 11:30. Two credits.

The course includes a discussion of the arrangement, location, construction, and equipment of farm buildings, particularly of stock barns, silos and other structures concerned in the feeding and management of live stock. The numerous fine barns in the vicinity of Lexington afford excellent illustrative material for this work.

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#### Horticulture.

PROFESSOR MATHEWS AND ASSISTANT PROFESSOR GILBERT.

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#### PRINCIPLES OF PLANT CULTURE.

1. Winter Term. Sophomore. Lectures W. 10:30. Laboratory F. 10:30. Two credits.

A review of the fundamental activities of plant life with special reference to the growth of farm and garden crops,—the plant as influenced by normal and abnormal temperatures; by its supply of water, light, food, etc.; and the effect of parasites, soil conditions, etc. A further study is made of such practical details as propagation, seed selection, transplanting and pruning.

Text and Reference books: Goff's *Plant Culture*; Bailey's *Lessons with Plants*; Bailey's *Nursery Book*; Percival's *Agricultural Botany*.

#### PRINCIPLES OF FRUIT GROWING.

2. Spring Term. Sophomore. Lect. T. 8. Laboratory Th. 8. Two credits.

A study of the principles and practice of home and commercial fruit-growing. It includes a consideration of the principles involved in location, climatic conditions, orchard plans, planting and management, harvesting, transportation, marketing, cold storage, etc.

Lectures. Text-books: Bailey's *Principle of Fruit Growing*; Goff's *Lessons in Fruit Growing*; Waugh's *Fruit Harvesting, Storing and Marketing*; together with numerous reference books.

## GENERAL POMOLOGY.

3. Fall Term. Junior. Lectures T. Th. 9. Two credits. Laboratory elective. Hours by appointment. One or two credits.

A study of the origin, history, characteristics, adaptation to Kentucky conditions, and management of orchard and garden fruits. Further consideration is given to harvesting, marketing, cold storage, etc.

Judging and scoring of apples, pears, nuts, and other available fruits.

## OLERICULTURE OR VEGETABLE GARDENING.

4. Spring Term. Lectures T. Th. 10:30. Laboratory by appointment. 1:30. Three or four credits.

A study of the principles of vegetable-growing for home and market, considered with reference to culture in the field, and forcing under glass.

Lectures. Text-books: Bailey's *Principles of Vegetable Gardening*; Green's *Vegetable Gardening*. Numerous books and pamphlets for reference.

## THE HOME GROUNDS.

5. Spring Term. Senior. Lectures F. 11:30. Laboratory and Field Trips, 1:30 by appointment. Two credits.

A discussion, largely illustrated by lantern slides, of the arrangement, planting and care of ornamental trees, shrubs and other flowering plants for the adornment of the grounds about the home.

## WEATHER FORECASTING.

6. The Observer of the U. S. Weather Bureau located at the State University, Mr. G. Harold Noyes, annually gives a number of lectures by appointment to the classes in Agronomy and Horticulture upon the principles underlying weather forecasting, and its utility to the farmer and fruit or truck grower.

## ELEMENTARY PHOTOGRAPHY.

7. Spring Term. Senior. Lecture and Laboratory hours by appointment. Two credits.

Designed to give a brief survey of the principles involved in photography, and some practice in the manipulation of the camera and other photographic accessories, particularly in connection with scientific studies. Arranged primarily to aid Senior agricultural students in the illustration of their theses, when such illustration is desirable.



**Botany.**

PROFESSOR MATHEWS AND ASSISTANT PROFESSOR GILBERT.

## ELEMENTARY BOTANY.

1. Spring Term. Freshman. Lectures and Laboratory practice. M. W. F. 1:30. Three credits.

This course is the equivalent of the usual high-school botany and is required of all students of the Scientific and Agricultural courses who have not completed a corresponding course in some preparatory school. It consists of a study of the elements of structural botany and plant physiology, with determination of a number of species of the flowering plants. If satisfactory evidence is presented, by examination or otherwise, that such a course has been completed before entering the College, the student will be admitted directly to the general botany of the Sophomore Class.

During the course participation in one or more trips to neighboring points of botanical interest will be required. Expense 75c. to \$1.00 each.

Text-books; Bergen and Davis' *Principles of Botany and Laboratory Manual*. Reference books: Gray's *Manual of Botany* and Bailey's *Lessons with Plants*.

## GENERAL BOTANY.

2. Fall Term. Sophomore. Lectures T. 11:30. Laboratory M. T. Th. or by appointment, 1:30. Four credits.

Winter Term. Lectures T. Th. 11:30. Lab. by app. Five credits.

The work of the course comprises a general survey of the morphology and physiology of plants, and 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.

Text-books: Bergen and Davis' *Principles of Botany and Laboratory Manual*. Reference Works: Campbell's *Evolution of Plants*. Campbell's *Text-book of Botany*. Strasburger's *Text-book of Botany*.

## SYSTEMATIC BOTANY.

3. Spring Term. Sophomore. Lectures T. Th. 11:30. Laboratory M. W. 10:30 to 12:30. Four credits.

This course involves practice in the description and identification of the ferns and flowering plants, with special reference to those groups which are of economic importance, as in course 1, one or more field excursions may be required.

Reference-books: Bergen and Davis' *Principles of Botany*. Gray's *Manual of Botany* and Gray's *Field, Forest and Garden Botany*.

#### PLANT HISTOLOGY.

4. Fall Term. Lectures and Laboratory M. W. F. 9 to 11:30. Three credits.

The student is given instruction and training in collodion, paraffin and other methods of preparing vegetable tissues for microscopic study. This is accompanied and followed by a study of the slides so prepared.

Text-book: Chamberlain's *Methods in Plant Histology*.

#### PLANT PHYSIOLOGY AND PATHOLOGY.

5. Spring Term. Lectures and Laboratory work M. W. F. 9 to 11:30. Three credits.

This course is designed to present the main facts and principles of plant physiology, and to take up briefly by the aid of collected specimens and greenhouse materials, a study of some of the more important diseases of plants, with a discussion of remedies.

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### Agricultural Chemistry.

PROF. TUTTLE AND ASSISTANT PROF. MAXSON.

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#### AGRICULTURAL ANALYSIS.

1. Winter Term. By appointment. Eight or more laboratory hours per week, allowing four or more credits. Elective. Junior or Senior.

This course in quantitative analysis is arranged primarily for students of Agriculture. The elements of quantitative analysis are studied with special reference to the constituents of soils, fertilizers and agricultural products.

PREREQUISITE: Elementary inorganic chemistry of the Freshman year and the qualitative analysis of the first term Sophomore. See courses in Chemistry in College of Arts and Science.



**Entomology.**

MISS McCANN.

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GENERAL ENTOMOLOGY.

1. Fall Term. T. Th. Two credits.

An elementary course comprising a study of the characteristics of the orders, sub-orders, and important families of Insects.

ECONOMIC ENTOMOLOGY.

2. Winter Term. M. W. F. 8. Three credits. Spring Term. T. Th. 8. Two credits.

A course designed to familiarize the agricultural student with the more important noxious insects and with the methods of combating them.

Advanced courses III (Advanced Economic Entomology), IV (Life-histories), VI (Systematic Entomology), in the department of Entomology in the College of Arts and Science, are open as electives to Agricultural students who have taken I and II.

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**Rural Engineering.**

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LAND SURVEYING.

1. Spring Term. Sophomore. W. F. Laboratory 1:30. Two credits.

An elementary course in land surveying methods and the use of surveying instruments, with recitations, lectures and field work. The field work affords practice in the use of chain, tape, compass, transit and level.

ROADS.

2. Spring Term. Junior or Senior. Lectures 9:10 T. Th. Two credits.

Highways and highway construction. Road Material, Macadam Roads, Sand Clay Roads, Gravel Roads. Specifications for roads. Recitations, assigned readings and report.

Other courses in the School of Civil Engineering are offered elsewhere in this catalogue.

### The Two Year Course in Agriculture.

While it is felt that the four year course in Agriculture is none too long a course of preparation for those who expect to engage in agricultural pursuits, it is clearly recognized that there are many young men whose circumstances make it impossible for them to devote to their education as large an amount of time or money as is involved in the completion of a full college course.

It is believed that an earnest young man who desires to excel in his chosen occupation of farming may be greatly benefited by a less extended training in the Agricultural College.

Applicants for admission to this course must be at least eighteen years of age, and unless more than twenty-one years of age, must pass an examination in Arithmetic, Geography, Grammar, and United States History, or bring High School or other satisfactory certificates for these branches.

Applicants who are over twenty-one, are admitted without examination, on trial, provided they can write a creditable letter, can carry on ordinary arithmetical operations, and give evidence by their credentials and personal bearing, of having a serious purpose in entering the course.

It should be clearly understood that this shorter course does not lead to a degree, and no study taken in pursuing this course will be afterwards credited toward the full course leading to a degree, except with the approval of the College Faculty.

The two year course is of necessity a somewhat flexible one, varying with the preparation of the individual student, but the following schedule is given to show approximately what will be assigned to the average student.

The conditions relating to matriculation, fees, military drill, gymnasium practice, and other college privileges and duties are the same as those pertaining to full course students.

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**Two Year Agricultural Course.**

| FIRST YEAR.            | Fall | Winter | Spring |
|------------------------|------|--------|--------|
| Agronomy, Soils        | 3    | -      | -      |
| Zoology                | 2    | 2      | -      |
| English                | 3    | 3      | 3      |
| Drawing                | 2    | -      | -      |
| Farm Equipment         | 4    | -      | -      |
| Physiology             | 3    | -      | -      |
| Agronomy, Cereals      | -    | 3      | -      |
| Chemistry              | -    | 7      | 6      |
| Plant Culture          | -    | 2      | -      |
| Agronomy, Forage Crops | -    | -      | 2      |
| Fruit Culture          | -    | -      | 2      |
| Botany                 | -    | -      | 3      |
| Total                  | 17   | 17     | 16     |
| SECOND YEAR.           | Fall | Winter | Spring |
| Study of Breeds        | 4    | 2      | -      |
| Animal Nutrition       | -    | 3      | 3      |
| Live Stock Management  | -    | -      | 3      |
| Veterinary Science     | -    | 4      | -      |
| Entomology             | 2    | 3      | 2      |
| Agronomy               | 2    | 3      | -      |
| Economics              | 2    | 2      | 2      |
| Botany                 | 4    | -      | -      |
| Pomology               | 2    | -      | -      |
| Road Making            | -    | -      | 2      |
| Dairying               | -    | -      | 3      |
| Home Grounds           | -    | -      | 2      |
| Total                  | 16   | 17     | 17     |

### THE SHORT WINTER COURSE IN AGRICULTURE.

Beginning in January of each year, a short course of ten weeks is offered to farmers' boys of limited time and means for special training. It emphasizes the practical and business aspects of farming as a means of livelihood, and is aimed to meet the needs of young men, farmers and farmers' sons, who cannot afford the time or money required to take the full agricultural or other courses in college, but who yet wish to secure a more thorough preparation for their life work. It is designed in the ten weeks of this course to give instruction that shall be of the most helpful and practical kind possible.

As it aims primarily to aid the young man upon the business side of farming, not especially in the direction of academic scholarship, there are no examinations for admission as in the longer courses. The applicant, however, must be at least seventeen years of age, and it is essential that he should have a good common school education, and the more thorough and extensive his general education has been, the more benefit he will derive from the course. It is particularly important that he should have had good training in English and Arithmetic, as short course students are sometimes seriously handicapped by their deficiencies in these subjects.

Tuition is free to residents of Kentucky. Non-residents pay a nominal fee of \$5.00 for matriculation.

Persons interested in this course should write for the **Short Course Circular** which will be sent, upon application to the Dean, College of Agriculture, State University, Lexington Ky.

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THE COLLEGE OF ARTS AND SCIENCE.  
THE STATE UNIVERSITY.

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**THE COLLEGE OF ARTS AND SCIENCE.**

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**Faculty.**

JAMES KENNEDY PATTERSON, Ph. D., LL. D., President,  
*Professor of History, Economics, and Metaphysics.*

JOHN HENRY NEVILLE, A. M., LL. D., Dean,  
*Professor of Greek and Latin.*

ARTHUR McQUISTON MILLER, A. M., Dean,  
*Professor of Geology, Zoology, and Entomology.*

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

CLARENCE WENTWORTH MATHEWS, B. S.,  
*Professor of Botany, etc.*

FRANKLIN ELLIOTT TUTTLE, A. M., Ph. D.,  
*Professor of Chemistry.*

MISS ISABELLA WEST MARSHALL, A. B.,  
*Instructor in Domestic Science.*

JAMES THOMAS COTTON NOE, A. M.,  
*Assistant Professor of Education.*

ALEXANDER ST. CLAIR MACKENZIE, M. A., F. R. S. L.,  
*Professor of English and Logic.*

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

ALFRED CHARLES ZEMBROD, A. M.,  
*Professor of Modern Languages.*

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



**The College of Arts and Science.**

The College of Arts and Science offers courses leading to the Degrees of A.B. and B.S., to the Degree of B.S. in Chemistry and A.B. and B.S. in education.

To receive any of the above degrees a student must be able to offer a minimum of 64 credit hours exclusive of those required in Military Science and Physical Training. Men are required to offer three credits in Military Science and two in Physical Training and women are required to offer two credits in Domestic Science and two in Physical Training.

The term "credit hour," or briefly a "credit," as used in this College, is defined as the satisfactory completion of a study involving lectures or recitations for one hour per week for one year, or laboratory work for two hours per week for the same period.

Military Science and Physical Training are classed as laboratory work.

Persons excused from Military Science or Physical Training, for disability or any other cause, must offer an equivalent number of credits in some other subjects.

A student must take a sufficient amount of work each year to secure at least 14 credits, and he will not be allowed for the same time more than 18 credits.

The degree of A.B. will be conferred only on students who at graduation have completed, in addition to other requirements, a minimum of five years in Latin—three units of preparatory and two units (6 credits) of university Latin.

The branches taught in this college are grouped into thirteen courses, as a rule designated by a major subject. Deviations from this grouping must receive the sanction of the Dean of the College and the head of the Department under whom the student elects to take his major subject.

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**Department of Anatomy and Physiology.****DR. 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 lecture-room 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 have 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.

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 student and lecturer.

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 laboratory is provided with a Bausch and Lomb incubator, microscopes, microtomes, paraffin bath, etc. Tables are provided for individual students. Each table is equipped with the apparatus necessary for experimental work in Physiology. Students also have access to and use the kymograph, artificial circulation scheme, (Porter's), capillary electrometer, artificial eye (Kuhne's), heart-holder, ergograph, rheochord, plethysmograph, tambour, signal magnet, etc.

The Department is supplied with all kinds of models, such as an Auzoux papier-mache 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 Dudgeon's and 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 a course leading to the degree of B. S., or A. B., are required to attend lectures two terms of twenty weeks, three hours per week, during the Freshman year.

#### COURSE PREPARATORY TO THE STUDY OF MEDICINE.

This course, leading to the degree of A.B., with Anatomy and Physiology as the major study, is arranged to suit students who intend to enter upon a profession, and especially those who are to devote themselves to the study of medicine.

A liberal education in the Arts and Sciences is of incalculable advantage to one intending to pursue the study of Medicine.

It is a difficult matter to teach modern medicine to one who has not had some of these preliminaries.

A thorough training in Chemistry and Physics; a reading knowledge of German and French; a working knowledge of the Microscope, and the process of imbedding, sectioning and staining; a solid foundation in Anatomy and Physiology will not only give advanced standing in the medical school, but will lay a truly scientific foundation, upon which a substantial superstructure may be erected.

#### THE LABORATORY COURSE IN PHYSIOLOGY.

Is required of Seniors during the first term in the afternoon from 1:30 to 3:30. The work begins with the central nervous system. The first exercise begins with the study of the normal frog; its posture when at rest; its movements when in water and on solids; compensatory movements, etc. A careful dissection of the frog's brain and drawings of it are made. Then follow experiments upon decerebrized frogs. Perfect cleanliness and aseptic surgical methods are observed as nearly as possible. Reflex action and inhibition of

reflexes are studied with the pithed frog. The crayfish and earth-worm are also used in the study of the central nervous system.

#### MUSCLE.

The student must familiarize himself with the electrical apparatus necessary for the work that follows; nerve muscle preparations are made, the different kinds of stimuli are studied, graphic records are made with the kymograph, showing certain phenomena of muscular contraction, among them a single muscular contraction or twitch; the effect of load; repeated stimulation; summation of stimuli, etc.

#### HAEMODYNAMICS.

The artificial scheme used, which illustrates the mechanics of the circulation in the higher vertebrates, demonstrates arterial and venous pressure, and this is measured with mercury manometer. The scheme also shows the conversion of an intermittent stream into a continuous flow. Incompetence and stenosis of the mitral and aortic valves are demonstrated, and with the thistle tube and kymograph pulse-tracings are made that compare favorably with those made with the sphygmograph by members of the class. Abnormal cases are often included.

#### NORMAL HAEMATOLOGY.

Clinical examinations of the blood are made including the enumeration of the blood corpuscles with the Thoma-Zeiss haemacytometer; the estimation of haemoglobin, with Fleischel's hemometer; the staining and fixing of blood corpuscles; the reaction and specific gravity of blood, etc.

#### THE SPECIAL SENSES.

The anatomy, gross and minute, of the eye and ear and the physiology of these organs, are treated as fully as the time permits. During the year students dissect such mammals (dog, cat, and rabbit) as may be used to illustrate the lectures preceding and accompanying the practical work. Especial attention is given to the gross anatomy of the viscera, thoracic, abdominal and pelvic.

To a prospective student of medicine the advantages of this course can hardly be estimated. The additional training in Botany, Physics, Zoology, Osteology, Embryology, Chemistry, Physiological Chemistry, and in experimental and laboratory work in Physiology, places him far in advance of those who have not pursued these studies.

Text-books: Martin's *Human Body*, Stewart's *Manual*; *Syllabus of the Professor's Lectures*.

Books of Reference: Gray's *Anatomy*, Gerrish's *Anatomy*, Shaefer's *Physiology*, Hall's *Physiology*, American *Text-Book*, Loeb's *Physiology of the Brain*.



### A Four Year Course Leading to the Degree of Bachelor of Arts.

#### MAJOR ANATOMY AND PHYSIOLOGY.

| FRESHMAN YEAR.      | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|---------------------|----------------------|------------------------|------------------------|
| English             | 3                    | 3                      | 3                      |
| Mathematics         | 5                    | 5                      | 5                      |
| German              | 3                    | 2                      | 2                      |
| Physiology          | 2                    | 3                      | 3                      |
| Latin               | 5                    | 2                      | 2                      |
| Chemistry           | 1                    | 4                      | 3                      |
| Chem. Lab.          | 1                    | 3                      | 3                      |
| Drawing             | 2                    | 2                      | 1                      |
| Botany (Entrance)   | 1                    | 1                      | 3                      |
| Total               | 18                   | 24                     | 24                     |
|                     |                      |                        |                        |
| SOPHOMORE YEAR.     |                      |                        |                        |
| Analytids           | 5                    | 2                      | 1                      |
| German              | 3                    | 5                      | 2                      |
| French              | 2                    | 3                      | 3                      |
| Physics             | 3                    | 2                      | 3                      |
| Latin               | 3                    | 3                      | 3                      |
| Botany              | 1                    | 1                      | 1                      |
| Botany Lab.         | 3                    | 1                      | 1                      |
| Zoology Lab.        | 3                    | 3                      | 1                      |
| Embryology          | 1                    | 1                      | 3                      |
| Total               | 23                   | 13                     | 13                     |
|                     |                      |                        |                        |
| JUNIOR YEAR.        |                      |                        |                        |
| Chemistry (Org.)    | 3                    | 3                      | 3                      |
| French              | 3                    | 3                      | 2                      |
| Osteology (Hum.)    | 2                    | 2                      | 2                      |
| History             | 2                    | 2                      | 2                      |
| Geology             | 2                    | 2                      | 2                      |
| Astronomy           | 3                    | 2                      | 1                      |
| Chemical Lab.       | 3                    | 3                      | 3                      |
| Physics Lab.        | 3                    | 3                      | 3                      |
| Total               | 21                   | 20                     | 15                     |
|                     |                      |                        |                        |
| SENIOR YEAR.        |                      |                        |                        |
| French              | 2                    | 3                      | 2                      |
| Entomology          | 3                    | 2                      | 2                      |
| Logic               | 3                    | 1                      | 2                      |
| Metaphysics         | 1                    | 3                      | 1                      |
| Ethics              | 1                    | 1                      | 3                      |
| Sociology           | 2                    | 2                      | 2                      |
| Physiology Advanced | 5                    | 5                      | 5                      |
| Physiology Lab.     | 5                    | 1                      | 2                      |
| Thesis              | 1                    | 5                      | 5                      |
| Total               | 20                   | 20                     | 19                     |

### A Four-Year Course Leading to the Degree of Bachelor of Science.

#### MAJOR ANATOMY AND PHYSIOLOGY.

|                            | Hours<br>Fall Term | Hours<br>Winter Term | Hours<br>Spring Term. |
|----------------------------|--------------------|----------------------|-----------------------|
| <b>FRESHMAN YEAR.</b>      |                    |                      |                       |
| English                    | 3                  | 3                    | 3                     |
| Mathematics                | 5                  | 5                    | 5                     |
| German                     | 3                  | 2                    | 2                     |
| Physiology                 | -                  | 3                    | 3                     |
| Chemistry                  | -                  | 4                    | 3                     |
| Chemistry Lab.             | -                  | 3                    | -                     |
| Drawing                    | 2                  | 2                    | 3                     |
| Botany (Entrance)          | -                  | -                    | -                     |
| <b>Total</b>               | <b>13</b>          | <b>22</b>            | <b>22</b>             |
| <br><b>SOPHOMORE YEAR.</b> |                    |                      |                       |
| Mathematics                | 5                  | 5                    | 5                     |
| German                     | 3                  | 2                    | 2                     |
| French                     | 2                  | 3                    | 3                     |
| Physics                    | 3                  | 2                    | 2                     |
| Botany                     | 1                  | -                    | -                     |
| Botany Lab.                | 3                  | -                    | 3                     |
| Physics Lab.               | 2                  | 2                    | -                     |
| Geology                    | 2                  | 2                    | -                     |
| <b>Total</b>               | <b>21</b>          | <b>16</b>            | <b>15</b>             |
| <br><b>JUNIOR YEAR.</b>    |                    |                      |                       |
| Entomology                 | 3                  | 3                    | 3                     |
| Zoology                    | 2                  | 2                    | -                     |
| Zoology Lab.               | 3                  | 3                    | -                     |
| Embryology                 | -                  | -                    | 3                     |
| French                     | 2                  | 3                    | 3                     |
| Osteology (Comp.)          | 2                  | -                    | -                     |
| Osteology (Hum.)           | 2                  | 2                    | 2                     |
| History                    | 2                  | 2                    | 2                     |
| Astronomy                  | 3                  | 2                    | -                     |
| Economics                  | 2                  | 2                    | 2                     |
| <b>Total</b>               | <b>21</b>          | <b>19</b>            | <b>15</b>             |
| <br><b>SENIOR YEAR.</b>    |                    |                      |                       |
| French                     | 2                  | 3                    | 2                     |
| Entomology                 | 3                  | 2                    | 2                     |
| Logic                      | 3                  | -                    | -                     |
| Metaphysics                | -                  | 3                    | -                     |
| Ethics                     | -                  | -                    | 3                     |
| Physiology (Advanced)      | 5                  | 5                    | 5                     |
| Physiology Lab.            | 5                  | -                    | -                     |
| Thesis                     | -                  | 5                    | 5                     |
| <b>Total</b>               | <b>18</b>          | <b>18</b>            | <b>17</b>             |



**Department of Botany.**

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PROFESSOR MATHEWS AND ASSISTANT PROFESSOR GILBERT.

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The department occupies commodious and well lighted rooms upon the first floor of the new Agricultural building.

The lecture-room in the front part of the building is occupied jointly with classes in horticulture, and is equipped with opera chairs, an electric lantern both for ordinary and micro-projection, charts, and other illustrative material.

The laboratories are liberally supplied with the best types of simple and compound microscopes, microtomes, ovens for paraffin imbedding, apparatus for plant physiology, etc.

The department herbarium contains a fairly complete representation of the flora of the state with many exchanges from other states and countries. The nucleus of the present collection was due mainly to the effort of the late Dr. Robert Peter who travelled widely through the state making collections about sixty years ago, and made exchanges with many of the noted botanists of that period, so that the collection possesses considerable historic interest.

Arrangements are in progress for the attachment of a laboratory greenhouse to the rear of the Agricultural building during the summer of 1908, and the structure will be of great value to the classes in Botany in the way of supplying material for class use and for experiments in plant physiology, etc. The older greenhouses near the Main Building will still continue to furnish additional material for the varied needs of botanical classes.

## ELEMENTARY BOTANY.

I. Spring Term. Freshman year or later. Lectures and laboratory practice. T.W.Th. 1:30 to 3:30. Three credits.

This consists of a study of the elements of structural botany and plant physiology, with determination of a number of species of the flowering plants. If satisfactory evidence is presented, by examination or otherwise, that such a course has been completed before entering the College, the student will be admitted directly to the *general botany* of the Sophomore class. During the course participation in one or more trips to neighboring points of botanical interest will be required.

Text-books: Bergen and Davis' *Principles of Botany* and Bergen and Davis' *Laboratory Manual*. Reference books: Gray's *Manual of Botany* and Bailey's *Lessons with Plants*.

## GENERAL BOTANY.

II. Fall Term. Sophomore. Lecture .T 11:30. Laboratory M. T. Th. (or by appointment) 1:30. Four credits. Winter Term. Lectures T. Th. 11:30. Laboratory by appointment. Five credits.

The work of this course comprises a general survey of the morphology and physiology of plants, and is designed to give the student who goes no farther 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 enlarge his field of view.

Text-books: Bergen and Davis' *Principles of Botany* and *Laboratory Manual*. Reference books: Campbell's *Evolution of Plants* and Campbell's *Text-book of Botany* and Strasberger's *Text-book of Botany*, Coulter's *Plant Structures*.

## SYSTEMATIC BOTANY.

III. Spring Term. Sophomore. Lectures T.Th. 11:30. Four credits.

This course involves practice in the description and identification of the ferns and flowering plants, with special reference to those groups which are of economic importance. As in course I, one or more field excursions may be required.

Reference books; Bergen and Davis' *Principles of Botany*; Gray's *Manual of Botany*; Gray's *Field, Forest and Garden Botany*; Britton and Brown's *Illustrated Flora*.

## PLANT HISTOLOGY AND ECONOMIC BOTANY.

IV. Fall Term. Junior. Lecture and Laboratory M. W. F. 9 to 11:30. Three credits.



In Economic Botany 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, paraffin, and other methods of preparing vegetable tissues for microscopic study; accompanied and followed by a study of the slides so prepared.

Text-book: Chamberlain's *Methods in Plant Histology*.

PLANT PHYSIOLOGY AND PLANT PATHOLOGY.

V. Spring Term. Lectures and laboratory work. M. W. F. 9 to 11:30. Three credits.

This course is designed to present the main facts and principles of plant physiology and in pathology to take up briefly, by the aid of collected specimens and greenhouse material, a study of some of the more common diseases of plants with a discussion of remedies.

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**Major Botany Course.**

|                        | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|------------------------|----------------------|------------------------|------------------------|
| <b>FRESHMAN YEAR.</b>  |                      |                        |                        |
| English                | 3                    | 3                      | 3                      |
| Mathematics            | 5                    | 5                      | 5                      |
| German                 | 3                    | 2 W. F.                | 2 W. F.                |
| Chemistry Lec.         | -                    | 4 M. T. W. F.          | 3 M. W. F.             |
| Chemistry Lab.         | 3                    | 3 M. F. S.             | 3 M. F. S.             |
| Free-hand Drawing      | 2                    | 2                      | -                      |
| Elem. Botany           | -                    | -                      | 3 T. W. Th.            |
| Physiology             | 3                    | -                      | -                      |
| <b>SOPHOMORE YEAR.</b> |                      |                        |                        |
| Mathematics            | 5                    | 5                      | 5                      |
| German                 | 3                    | 2                      | 2                      |
| Physics                | 3                    | 2                      | 2                      |
| Botany Lec.            | 1 T.                 | 2                      | 2                      |
| Botany Lab.            | 3 M. T. Th.          | 3 M. T. Th.            | 2 M. F.                |
| Chemistry Lab.         | 3 W. F. S.           | -                      | -                      |
| <b>JUNIOR YEAR.</b>    |                      |                        |                        |
| Entomology             | 2                    | 2                      | 3                      |
| Paleontology           | 3                    | 3                      | 3                      |
| History                | 2                    | 2                      | 2                      |
| Economics              | 2                    | 2                      | 2                      |
| Botany                 | 5                    | 2                      | 5                      |
| Zoology                | 3 M. T. Th.          | 3 M. T. Th.            | -                      |
| Embryology             | -                    | -                      | 3                      |
| <b>SENIOR YEAR.</b>    |                      |                        |                        |
| Zoology                | 2                    | 2                      | -                      |
| Botany                 | 5                    | 2                      | 4                      |
| Logic                  | 3                    | -                      | -                      |
| Metaphysics            | -                    | 3                      | -                      |
| Ethics                 | -                    | -                      | 3                      |
| Sociology              | 2                    | 2                      | 2                      |
| Astronomy              | 3                    | 2                      | -                      |
| Landscape Gardening    | -                    | -                      | 2                      |
| Systematic Zoology     | 2                    | 2                      | 2                      |
| Mineralogy             | -                    | 2                      | 2                      |



**Department of Chemistry.**

PROF. TUTTLE, ASSISTANT PROF. MAXSON,  
AND MR. ESSEX.

The Course in Chemistry, leading to the degree Bachelor of Science in Chemistry, is adapted to the preparation of the student for a life work in chemistry. It not only provides a foundation for the study of medicine or some other post-graduate course of study which in turn enables the one so trained to cope successfully with one or more of the intricate scientific or industrial problems of the day, but immediately at the termination of the four years' course, the services of the graduate are in demand at a remunerative salary in the various technical and educational institutions of the country.

GENERAL DESCRIPTION OF THE COURSES OF STUDY  
OFFERED BY THE DEPARTMENT OF CHEMISTRY.

GENERAL INORGANIC CHEMISTRY.

- I. Lectures, laboratory work and class-room exercises.

QUALITATIVE ANALYSIS.

- II. Laboratory work accompanied by recitation periods. Must be preceded by course I, or its equivalent.

INORGANIC PREPARATIONS.

- III. A practical laboratory course devoted to the preparation of inorganic compounds from the crude material.

INORGANIC CHEMISTRY.

- IV. A more advanced course in inorganic chemistry, primarily for the students in the Course in Chemistry.

ORGANIC CHEMISTRY.

- V. An elementary course following Remsen's Introduction to the Study of the Compounds of Carbon.

QUANTITATIVE ANALYSIS.

- VI. A laboratory course accompanied by lectures and class-room exercises. Gravimetric and volumetric methods of analysis are

studied in detail during the last two terms of the sophomore and the first term of the junior year.

#### AGRICULTURAL ANALYSIS.

VII. This course in quantitative analysis is arranged for students in the Course in Agriculture. The elements of quantitative analysis are studied with special reference to the constituents of soils, fertilizers and agricultural products. Prerequisite, courses 1 and 2.

#### ORGANIC CHEMISTRY.

VIII. A more advanced course of lectures and class-room exercises extending through the junior year.

#### THEORETICAL CHEMISTRY.

IX. Lectures and recitations on the modern theories of physical chemistry.

#### ORGANIC PREPARATIONS AND ANALYSIS.

X. A laboratory course in the preparation and analysis of typical organic compounds. Must be preceded by at least one term of course 8.

#### GAS ANALYSIS.

XI. A laboratory course in the analysis of illuminating, natural and flue gases, using the methods and apparatus of Hempel, Orsat and others.

#### ADVANCED QUANTITATIVE ANALYSIS.

XII. A laboratory course in the analysis of ores, alloys, slags, rocks, iron and steel. The chemistry of the methods employed is studied in detail.

#### WATER ANALYSIS.

XIII. In this course waters are examined to determine their suitability for domestic and other purposes.

#### INDUSTRIAL CHEMISTRY.

XIV. In this course the chemistry of manufacturing processes is studied in detail, and when possible, manufacturing establishments in the vicinity are visited.

#### ELECTROCHEMISTRY.

XV. Lectures and recitations on the theory and practical application of electricity to chemical industrial processes.



PHYSICAL CHEMISTRY.

XVI. Laboratory studies in physico-chemical measurements.

SEMINARY.

XVII. A weekly exercise for seniors in the Course in Chemistry devoted to a study of current periodical literature and conferences.

THESIS.

XVIII. Laboratory work and collateral reading, with presentation of results in thesis form.

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**Schedule of the Course in Chemistry.****FRESHMAN YEAR.****FIRST TERM.**

|                           |   |
|---------------------------|---|
| English I                 | 3 |
| German                    | 3 |
| Mathematics, Trigonometry | 5 |
| Botany                    | 1 |
| Botany, Laboratory        | 3 |
| Drawing                   | 3 |

**SECOND TERM.**

|                             |   |
|-----------------------------|---|
| English IIa                 | 3 |
| German                      | 2 |
| Mathematics, Higher algebra | 5 |
| Chemistry I                 | 4 |
| Chemistry I, laboratory     | 2 |
| Drawing                     | 2 |

**THIRD TERM.**

|                                  |   |
|----------------------------------|---|
| English IIb                      | 3 |
| German                           | 2 |
| Mathematics, Higher algebra      | 5 |
| Chemistry, I (cont.)             | 3 |
| Chemistry, I, Laboratory (cont.) | 3 |
| Inorganic Preparations III       | 2 |

**SOPHOMORE YEAR.****FIRST TERM.**

|                                    |   |
|------------------------------------|---|
| German                             | 2 |
| Mathematics, Analytical geometry   | 3 |
| Mathematics, Higher algebra        | 2 |
| Inorganic chemistry IV             | 2 |
| Chemistry, Qualitative analysis II | 4 |
| Physics                            | 3 |
| Physics, Laboratory                | 3 |

**SECOND TERM.**

|                                          |   |
|------------------------------------------|---|
| German                                   | 3 |
| Mathematics, Analytical geometry         | 5 |
| Chemistry, Quantitative analysis VI      | 1 |
| Chemistry, Quantitative analysis VI Lab. | 4 |
| Physics                                  | 2 |
| Physics, Laboratory                      | 2 |
| Organic chemistry V                      | 2 |

**THIRD TERM.**

|                                                |   |
|------------------------------------------------|---|
| German                                         | 3 |
| Mathematics, Analytical geometry               | 5 |
| Chemistry, Organic chemistry V                 | 2 |
| Chemistry, Quantitative analysis VI cont.      | 1 |
| Chemistry, Quantitative analysis VI cont. lab. | 3 |
| Physics                                        | 2 |
| Physics, Laboratory                            | 3 |

**JUNIOR YEAR.****FIRST TERM.**

|                                                |   |
|------------------------------------------------|---|
| German                                         | 2 |
| History                                        | 2 |
| Economics                                      | 2 |
| Chemistry, Organic chemistry VIII              | 3 |
| Chemistry, Theoretical chemistry IX            | 2 |
| Chemistry, Quantitative analysis VI cont.      | 1 |
| Chemistry, Quantitative analysis VI cont. lab. | 6 |

**SECOND TERM.**

|                                         |   |
|-----------------------------------------|---|
| German                                  | 2 |
| History                                 | 2 |
| Economics                               | 2 |
| Chemistry, Organic chem. VIII cont.     | 3 |
| Chemistry, Theoretical chem. IX cont.   | 2 |
| Chemistry, Organic prep. and analysis X | 5 |
| Mineralogy, Laboratory (III)            | 2 |

**THIRD TERM.**

|                                               |   |
|-----------------------------------------------|---|
| German                                        | 2 |
| History                                       | 2 |
| Economics                                     | 2 |
| Chemistry, Organic chem. VIII cont.           | 2 |
| Chemistry, Theoretical chem. IX cont.         | 2 |
| Chemistry, Organic prep. and analysis X cont. | 5 |
| Chemistry, Gas analysis XI                    | 2 |
| Mineralogy, Laboratory (III)                  | 2 |

**SENIOR YEAR.****FIRST TERM.**

|                                        |   |
|----------------------------------------|---|
| Geology I                              | 2 |
| Metallurgy                             | 3 |
| Logic VIIb                             | 3 |
| Chemistry, Industrial chemistry XIV    | 2 |
| Chemistry, Seminar XVII                | 1 |
| Chemistry, Advanced quan. analysis XII | 7 |

**SECOND TERM.**

|                                       |   |
|---------------------------------------|---|
| Geology I                             | 2 |
| Metallurgy                            | 3 |
| Metaphysics (Hamilton)                | 3 |
| Chemistry, Industrial chem. XIV cont. | 2 |
| Chemistry, Seminar XVII cont.         | 1 |
| Chemistry, Thesis XVIII               | 6 |
| Assaying                              | 2 |

**THIRD TERM.**

|                                       |   |
|---------------------------------------|---|
| Ethics (Mackenzie's Manual)           | 3 |
| Chemistry, Industrial chem. XIV cont. | 2 |
| Chemistry, Seminar XVII cont.         | 1 |
| Chemistry, Electrochemistry XV        | 3 |
| Chemistry, Thesis XVIII cont.         | 7 |
| Chemistry, Physical chemistry XVI     | 2 |



COLLEGE OF ARTS AND SCIENCE.

**Department of Domestic Science.**

**MISS MARSHALL.**

Courses of instruction given in this department are planned to meet the needs of two classes of students, namely, those who specialize in other departments and those who desire to obtain a more thorough knowledge of the subject by taking all of the courses offered.

The intimate connection which exists between a comprehensive study of foods and the Science of Chemistry makes it necessary to include in the course in Domestic Science a considerable portion of the Chemistry which is offered to students taking the course in Chemistry.

There are certain other features in the course which may be mentioned, namely, the three terms of Botany which are co-ordinate with the laboratory work in Domestic Science, and the elimination of higher Mathematics after the first term of the Sophomore Year.

This course is both thorough and practical and will be of value to women desiring to teach or practise the principles of Domestic Science.

**EQUIPMENT.**

The department occupies the third floor of the Education Building. The quarters consist of a large, well lighted and well ventilated laboratory for practical cookery, which is supplied with all the necessary equipment for modern individual work, and a lecture-room fitted up with folding lecture-room chairs and an ample supply of food samples for illustrating lectures. A commodious store-room, adjacent to the lecture-room, is arranged to meet the needs of the department.

**BRANCHES OF STUDY.**

The general order of succession in studies which pertain strictly to Domestic Science is:

- (I) Practical Cookery.
- (II) Food Production and Manufacture.
- (III) Dietetics.
- (IV) Chemistry in Nutrition.

## PRACTICAL COOKERY.

I. First and Second Terms. Three laboratory periods per week, required of all women who are candidates for degree of A. B. and B. S.

The instruction given familiarizes students with facts concerning cookery and impresses these facts by practical work in cookery.

Class and laboratory work consists of the consideration of:

- a. Animal Foods, including meat, fish, extracts, jellies, milk, cheese, eggs, etc.
- b. Vegetables Foods, including bread and cereals.
- c. Leavening Agents, including baking powder, yeast, etc., etc.

## FOOD PRODUCTION AND MANUFACTURE.

II. Second and Third Terms. Two hours a week, W. F.

Lectures in this course describe the preparation of various staple foods, from their raw state to the condition in which they reach the household, together with a discussion as to their nutritive value and cost.

Among the subjects considered are: Cereals, Fruits, Vegetables, Sugars, Meats, Tea, Coffee, Dairy Products, etc.

## DIETETICS.

III. Second and Third Terms. Two hours a week, M. & W.

This course consists of a theoretical arrangement of the relation of diet to health; the influence of age, sex and occupation upon the diet. Material for a meal is weighed out by the students and furnished to the class in Practical Cookery to be prepared.

## CHEMISTRY IN NUTRITION.

IV. First and Second Terms. Three hours per week, Tuesday, Thursday and Friday.

This course deals mainly with the functions of the proteids, fats, carbohydrates, and salts in nutrition. It includes a critical study of the methods and results of recent investigations in food chemistry and human nutrition.

A uniform cap and apron is required of all students in the laboratory courses in Domestic Science.

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**Major Domestic Science Course.**

|                           | Hours<br>Fall Term. | Hours<br>Winter Term. | Hours<br>Spring Term. |
|---------------------------|---------------------|-----------------------|-----------------------|
| <b>FRESHMAN</b>           |                     |                       |                       |
| English                   | 3                   | 3                     | 3                     |
| Mathematics               | 5                   | 5                     | 5                     |
| German                    | 3                   | 3                     | 2                     |
| Physiology                | -                   | 3                     | 3                     |
| Chemistry                 | -                   | 4                     | 3                     |
| Chemistry, Lab.           | -                   | 2                     | 3                     |
| Drawing                   | 2                   | -                     | -                     |
| Domestic Science, Lab.    | 3                   | 3                     | -                     |
|                           | <hr/> 16            | <hr/> 23              | <hr/> 19              |
| Average credits 19½       |                     |                       |                       |
| <br><b>SOPHOMORE</b>      |                     |                       |                       |
| Mathematics               | 5                   | -                     | -                     |
| German                    | 3                   | 2                     | 2                     |
| French                    | 2                   | 3                     | 3                     |
| Physics                   | 3                   | 2                     | 2                     |
| Chemistry                 | 2                   | 2                     | 3                     |
| Food Production and Manf. | -                   | 2                     | 2                     |
| Botany Lect.              | 1                   | 2                     | 2                     |
| Botany Lab.               | 3                   | 3                     | 2                     |
| Chem. Lab.                | 3                   | 3                     | 3                     |
| Chemistry                 | -                   | 1                     | 1                     |
|                           | <hr/> 22            | <hr/> 20              | <hr/> 20              |
| Average credits 20¾       |                     |                       |                       |
| <br><b>JUNIOR.</b>        |                     |                       |                       |
| French                    | 2                   | 3                     | 2                     |
| Zoology                   | 2                   | 2                     | -                     |
| Dietetics                 | -                   | 2                     | 2                     |
| History                   | 2                   | 2                     | 2                     |
| Chemistry                 | 3                   | 3                     | 2                     |
| Economics                 | 2                   | 2                     | 2                     |
| Zoology Lab.              | 3                   | -                     | -                     |
| Chemistry Lab.            | 3                   | 5                     | 5                     |
| Chemistry                 | 1                   | -                     | -                     |
|                           | <hr/> 18            | <hr/> 19              | <hr/> 15              |
| Average 17½.              |                     |                       |                       |
| <br><b>SENIOR.</b>        |                     |                       |                       |
| Geology                   | 3                   | 2                     | -                     |
| Chemistry in Nutrition    | 3                   | 3                     | 3                     |
| History                   | 3                   | 3                     | 3                     |
| Logic                     | 3                   | -                     | -                     |
| Metaphysics               | 0                   | 3                     | -                     |
| Ethics                    | -                   | -                     | 3                     |
| Chemistry Lab.            | 5                   | 5                     | 5                     |
|                           | <hr/> 16            | <hr/> 16              | <hr/> 11              |
| Average 14½.              |                     |                       |                       |
| Grand Total 71¾.          |                     |                       |                       |

**Department of Education.**

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**ASSISTANT PROFESSORS NOE, FLESHMAN, AND GILLIS.**

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The General Assembly of the State of Kentucky, by an Act approved March 16th, 1908, established in the State University a Department of Education with collegiate rank, leading to the usual degrees in pedagogy as maintained in other similar institutions, with the provision that the degrees of Bachelor of Arts in Education and Bachelor of Science in Education may be conferred, which, with the approval of the State Superintendent of Public Instruction, will entitle the holder to teach in any of the common schools and high schools of the Commonwealth without further examination during life or good behavior.

The same Act further provided that the Board of Trustees of the State University shall have power and authority, subject to the approval of the State Superintendent of Public Instruction, to confer, under its corporate seal, upon students of said department of Education, the following certificates:

1. An elementary certificate upon the completion of one year's work, which shall entitle the holder thereof to teach in any public school of this State for a period of two years from date thereof, without further examination.
2. An intermediate certificate upon the completion of two years' work, which shall entitle the holder thereof to teach in any public school of this State for a period of four years from date thereof, without further examination.
3. An advanced certificate upon the completion of three years' work, which shall entitle the holder thereof to teach in any public school of this State for a period of



three years from date thereof without further examination, and, if at the end of three years, a teacher holding an advanced certificate shall present, to the Board of Trustees which granted the same, satisfactory evidence of successful teaching during said period, and of good moral character, then the advanced certificate may be extended for life or good behavior by said Board, subject, however, to the approval of the State Superintendent of Public Instruction, and it shall be endorsed by the said Board, and the holder thereof shall be entitled to teach in any public school of this State during good behavior, without further examination.

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#### EQUIPMENT AND FACILITIES.

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The building known as the "Department of Education." is one of the handsomest and best appointed buildings on the campus. It contains seven recitation or lecture rooms, a department library room, a ladies' waiting room, the Dean's office, a large beautifully furnished society hall, toilet rooms, etc. The library contains about one thousand well selected books, the larger number of them dealing with the subjects of education and teaching. The leading magazines come to the reading room every month, and students are encouraged to keep abreast of the times both in educational thought and general progress,—political, social, and industrial. The department is also equipped with encyclopedias, dictionaries, maps, globes and charts.

The courses of study outlined below are intended to prepare students for a high grade of teaching in graded schools, high schools, colleges and universities. More than that, no more attractive course of study is offered in the university to one who wishes to engage in business or to enter upon any professional career.

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#### COURSES IN EDUCATION.

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##### ELEMENTARY PSYCHOLOGY.

I. Halleck's Psychology and Psychic Culture is used as the basis of this course. A brief review of the nervous system is given, and

an examination of the doctrine of the physiological basis of the mind is made. Special stress is laid on the training of the attention and memory.

#### EDUCATIONAL THEORY.

II. The theory and practice of teaching in elementary schools is studied in this course twice a week throughout the year, alternating with elementary psychology. Text-book, lectures, and observation work.

#### ADVANCED EDUCATIONAL PSYCHOLOGY.

III. This course embraces a general study of mental processes and their laws. Lectures, text-book and laboratory work as a basis of psychological training and observation.

#### METHOD IN EDUCATION.

IV. Three terms in method are given, devoted respectively to Primary, Secondary and Major Method. A study of the various methods and theories of modern educators and modern schools is made.

#### EDUCATIONAL CLASSICS.

V. Reading and class-room discussions of essays on Education from Aristotle, Plato, Rousseau, Montaigne, Locke and others.

#### HISTORY OF EDUCATION.

VI. A complete survey of the history of education is made, ancient, mediaeval and modern. Monroe's text-book is used.

#### LITERATURE IN ENGLISH FOR TEACHERS.

VII. Three of the world's masterpieces will be studied each year, the selections varying from year to year. Homer's Iliad, the Divine Comedy, and the Faust will be studied in 1908-'09.

#### HISTORY OF PHILOSOPHY.

VIII. Careful attention is paid throughout this course to the relations of philosophical movements to the movements of history, ancient, mediaeval, and modern.

#### PRINCIPLES OF EDUCATION.

IX. A systematic treatment of the factors of education, physical, intellectual, and social. Text-book, lectures and reports.



## ADOLESCENCE.

X. A study of the physical, mental, social, and moral growth of the child and youth, as related to the various problems of primary and secondary education, such as interest, study, ideals, discipline, etc.

## SEMINARY IN EDUCATION.

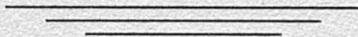
XI. One hour a week is devoted to the various problems of educational interest in the seminary. Papers and discussions by the teacher and class. Practice in using the library, the study of sources, educational reports, thesis work, etc.

## SCHOOL SYSTEMS.

XII. The senior class will study two hours a week for one term the school systems of Europe and America.

## AESTHETICS.

XIII. A brief course in aesthetics and the history of art will be given, some attention being paid to landscape gardening for schools and to school-room decoration, as well as school architecture.



### Course for B. S. in Education.

|                                     | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|-------------------------------------|----------------------|------------------------|------------------------|
| <b>FRESHMAN YEAR.</b>               |                      |                        |                        |
| Mathematics                         | 5                    | 5                      | 5                      |
| German                              | 3 (M.T.Th.)          | 2                      | 2                      |
| Physiology                          | -                    | 3                      | 3                      |
| Chemistry                           | -                    | 4 (M.T.W.F.)           | 3                      |
| English                             | 3                    | 3                      | 3                      |
| Ele. Ed. Psychology                 | 3                    | 3                      | 3                      |
| Theory of Ed.                       | 2                    | 2                      | 2                      |
| Drawing                             | 2                    | 2                      | 2                      |
| Elementary Botany                   | -                    | -                      | 3 (T.W.Th.)            |
| <b>Total</b>                        | <b>18</b>            | <b>24</b>              | <b>26</b>              |
| Average credits 22 $\frac{2}{3}$ .  |                      |                        |                        |
| <b>SOPHOMORE YEAR.</b>              |                      |                        |                        |
| Mathematics                         | 5                    | -                      | -                      |
| Physics                             | 3                    | 2                      | 2                      |
| Phys. Lab.                          | 2                    | 2                      | 2                      |
| English                             | 2                    | 3                      | -                      |
| Adv. Ed. Psychology                 | 3                    | 3                      | 3                      |
| Method                              | 2                    | 2                      | 2                      |
| French                              | 2                    | 3                      | 3                      |
| Seminary in Education               | 1                    | 1                      | 1                      |
| <b>Total</b>                        | <b>20</b>            | <b>16</b>              | <b>13</b>              |
| Average credits 16 $\frac{1}{3}$ .  |                      |                        |                        |
| <b>JUNIOR YEAR.</b>                 |                      |                        |                        |
| Zoology (Text-book)                 | 2                    | 2                      | -                      |
| English                             | 3                    | 2                      | 3                      |
| French                              | 2                    | 3 (M. T. Th.)          | 2                      |
| Ed. Classics                        | 2                    | 2                      | 2                      |
| Literature in English               | 3                    | 3                      | 3                      |
| History of Education                | 3                    | 3                      | 3                      |
| History                             | 2                    | 2                      | 2                      |
| Astronomy                           | 3                    | 2                      | -                      |
| Sem. in Education                   | 1                    | 1                      | 1                      |
| <b>Total</b>                        | <b>21</b>            | <b>20</b>              | <b>16</b>              |
| Average credits 19.                 |                      |                        |                        |
| <b>SENIOR YEAR.</b>                 |                      |                        |                        |
| Geology                             | 2 (M. W.)            | 2 (M. W.)              | -                      |
| Logic                               | 3 Metaphysics        | 3                      | Ethics 3               |
| Sociology                           | 2                    | 2                      | 2                      |
| History                             | 3                    | 3                      | 3                      |
| History of Philosophy               | 3                    | 3                      | 3                      |
| Principles of Educat.               | 3                    | 3                      | 3                      |
| Adolescence                         | 2                    | School Systems 2       | Aesthetics 2           |
| Research in Educat.                 | 1                    | 1                      | 1                      |
| Phys. Geog.                         | 2                    | 2                      | 2                      |
| <b>Total</b>                        | <b>21</b>            | <b>22</b>              | <b>19</b>              |
| Average credits 20.                 |                      |                        |                        |
| <b>Grand Total</b> - - - <b>72.</b> |                      |                        |                        |



**Course for A. B. in Education.**

| FRESHMAN YEAR.                     | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|------------------------------------|----------------------|------------------------|------------------------|
| Mathematics                        | 5                    | 5                      | 5                      |
| English                            | 3                    | 3                      | 3                      |
| German or Greek                    | 3 M. T. Th.          | 2 W. F.                | 2 M. W.                |
| Latin                              | 5                    | 2 Th. S.               | 2 Th. S.               |
| Physiology                         | -                    | 3 M.T.Th.              | 3 M.T.Th.              |
| Chemistry                          | -                    | 4 M.T.W.F.             | 3                      |
| Elem. Ed. Psychology               | 3                    | 3                      | 3                      |
| Theory of Education                | 2                    | 2                      | 2                      |
| Total                              | 21                   | 24                     | 23                     |
| Average credits 22 $\frac{1}{3}$ . |                      |                        |                        |

| SOPHOMORE YEAR.                    |           |           |           |
|------------------------------------|-----------|-----------|-----------|
| Mathematics                        | 5         | -         | -         |
| Latin                              | 3 T.Th.S. | 3 T.Th.S. | 3 T.Th.S. |
| French                             | 2         | 3         | 3         |
| Physics                            | 3         | 2         | 2         |
| Botany                             | 2         | 3         | -         |
| Adv. Ed. Psychology                | 3         | 3         | 3         |
| Method                             | 2         | 2         | 2         |
| Seminary in Ed.                    | 1         | 1         | 1         |
| Total                              | 21        | 17        | 14        |
| Average credits 17 $\frac{1}{3}$ . |           |           |           |

| JUNIOR YEAR.                       |    |         |         |
|------------------------------------|----|---------|---------|
| English                            | 3  | 2       | 3       |
| Educational Classics               | 2  | 2       | 2       |
| Lit. in English                    | 3  | 3       | 3       |
| History of Education               | 3  | 3       | 3       |
| History                            | 2  | 2       | 2       |
| Astronomy                          | 3  | 2 W. F. | 2 W. F. |
| Seminary in Education              | 1  | 1       | 1       |
| Total                              | 19 | 18      | 19      |
| Average credits 18 $\frac{2}{3}$ . |    |         |         |

| SENIOR YEAR.        |    |                |              |
|---------------------|----|----------------|--------------|
| Logic               | 3  | Metaphysics 3  | Ethics 3     |
| Sociology           | 2  | 2              | 2            |
| History             | 3  | 3              | 3            |
| His. of Philosophy  | 3  | 3              | 3            |
| Prin. of Education  | 3  | 3              | 3            |
| Adolescence         | 2  | School Syst. 2 | Aesthetics 2 |
| Research in Ed.     | 1  | 1              | 1            |
| Phys. Geog. Lab.    | 2  | 2              | 2            |
| Total               | 19 | 19             | 19           |
| Average credits 19. |    |                |              |

Grand Total, - - 72.

For any changes or optional work, see the Dean in charge of these courses.

**Department of English and Logic.**

PROFESSOR MACKENZIE AND ASSISTANT PROFESSOR MILLER.

## BRANCHES OF STUDY.

- I. Rhetoric.
- II. English Literature.
- III. Literatology.
- IV. English Language.
- V. Anglo-Saxon.
- VI. Comparative Philology.
- VII. Logic.

## RHETORIC.

I. First Term. Three hours per week. M. W. F. Required of all Freshman students who are candidates for any baccalaureate degree.

Systematic practice in prose composition and the simple forms of prosody; lectures on style; guidance in precis-writing as well as in preparation of the essay and cognate forms.

## LITERATURE.

II. *a. American Poetry.* Second Term. Three hours per week. M. W. F. Required of all undergraduates, except those who are credited from a university of equal standing.

Study of the more advanced American poetry such as the Sonnets of Mifflin. The aim is not to acquire a knowledge of literary history but to develop the esthetic sense and to imbue the student with a love for life as reflected in metre.

*b. Modern Drama.* Third Term. Three hours per week. M. W. F. Freshman requirement in all courses.

Modern drama, especially as regards histrionic construction and character analysis. The study is valueless if it does not quicken self-revelation and help to a knowledge of the practical world. The weekly themes are based upon the same principle.

*c. Ballad.* First Term. Two hours per week. T. Th. Required of all candidates (Sophomore) for degree of A. B.

From year to year the course will vary in details. For instance, the term may be devoted to a study of the Ballad as a literary type, its origin and evolution. In other years the whole available time may be taken up with the Elizabethan Lyric, the Romantic Movement, or Satire. The lectures and themes aim at utilitarian as well as cultural results. If help to students does not lead them to self-help and self-reliance, time is wasted.

*d. Medieval* First Term. Three hours per week. M. W. F. Op-



tional for agricultural and engineering students; mainly for Juniors pursuing liberal arts and science. Light will be thrown upon the so-called Dark Age of literary history. Here as in the foregoing courses systematic collateral reading is obligatory, and frequent exercises are given in order to cultivate oral and graphic expression.

## LITERATOLOGY.

III. *a. General.* Second Term. Three hours per week. M.W.F. Mainly for Junior A. B. and B. S. undergraduates. This is not a course in Literary history; chronology and biography are ignored. It is an attempt to make a scientific study of literary art. In other words, by the inductive method the students glean and apply facts which tend to raise literary criticism above the purely subjective stage. As pioneer research work, some of it is naturally tentative.

*b. Genetics of Poetry.* Second Term. Three hours per week. (1909-10).

With the aid of anthropology and social psychology the study of primitive poetic sources fosters literary taste and tends to put exegesis upon an objective basis. This is a specialization in Comparative Literature.

## LANGUAGE.

IV. *a. Early History.* Third Term. Three hours per week. M.W.F. Mainly for Junior undergraduates. (1908-9).

The earlier history of the English Language. The obscure Pictish question, especially the misunderstood Kymric and Gaelic factors, will receive such attention as may elucidate the pre-Norman growth of the Kelto-Saxon dialects. The survival of the fittest is too vague as an explanation of the Mercian victory (Herbert Spencer).

*b. Late History.* Third Term. Three hours per week. M.W.F. Same as above (1909-10).

The later history of our language; the philosophy of its growth; the law of mental inertia and its limitations; Tarde's laws of imitation; modern differentiation as witnessed in America and the motherland.

*c. Journalism.* Second and Third Terms. Two hours per week. Voluntary. Mainly for Juniors and Seniors.

Exercises in reporting, editing of copy and proofreading. The aim is to train in the use of good journalistic English.

Text-books for collateral reading: Dana's *Art of Newspaper Making*; Luce's *Writing for the Press*.

## ANGLO-SAXON.

V. *a. Grammar.* Three Terms. Two hours per week. M. W. Required of Junior students who have English as their major study.

An elementary course in the extant beginnings of Old English. Consistent with a fair knowledge of the syntactical rudiments the student begins to read as soon as possible. The real test of knowledge, as in the case of other languages, is prose composition.

*b. Reading.* Three Terms. Two hours per week. T. Th. This course is for Seniors who have English as a major.

More advanced reading, especially in the sphere of verse. Incidentally the runic symbols are illustrated as well as the 3 x 8 formulation of the futhark.

## COMPARATIVE PHILOLOGY.

VI. *a. Elements.* Second and Third Terms. Two hours per week. M. W. Same as in Va and b.

The elements of semeiology, phonology, graphonomy, and graphology. Wundt and others are compared.

*b. Advanced.* Three Terms. Two or more hours according to circumstances. Optional.

Elementary Sanskrit or Hebrew for philological students who intend to specialize in theology or didactics. VI. *a* is prerequisite.

## LOGIC.

VII. *a. Engineering.* Three Terms. Two hours per week. T. Th. Mainly for engineering students who belong to the Senior class.

The object of this course is to train the mind so that it shall readily detect the fallacies of the workshop and world. The student masters the principles of reasoning rather than the traditional rules of the syllogism.

*b. Arts and Science.* Three hours per week. M. W. F. Required of all Seniors who are candidates for degrees in Agriculture, Arts and Science.

Stoichiology and Methodology; the Aristotelian and Hamiltonian analytics; Sources of Error; Induction and Analogy; lectures on Evidence.

## ADDENDA.

*a. Thesis.* In the course of studies leading to the degree of A. B. (major study, English) is included a thesis, which must be written by Seniors upon a topic approved by the Professor of English.

*b. Graduate Courses.* Candidates for the degree of A. M., with English as a major or minor, can arrange their line of investigation by private consultation.



**Major English Course.**

|                                          | Hours<br>Fall Term | Hours<br>Winter Term | Hours<br>Spring Term. |
|------------------------------------------|--------------------|----------------------|-----------------------|
| <b>FRESHMAN YEAR.</b>                    |                    |                      |                       |
| English                                  | 3                  | 3                    | 3                     |
| Mathematics                              | 5                  | 5                    | 5                     |
| Latin                                    | 5                  | 2                    | 2                     |
| German or Greek                          | 3 M. T. Th.        | 2 W. F.              | 2 W. F.               |
| Physiology                               | -                  | 3 M. T. Th.          | 3 M. T. Th.           |
| Botany, Elem. Lab.                       | -                  | -                    | 3 T. W. Th.           |
| Chemistry                                | -                  | 4 M. T. W. F.        | 3                     |
| Total                                    | 16                 | 19                   | 21                    |
| Average credits 18 $\frac{2}{3}$ .       |                    |                      |                       |
| <b>SOPHOMORE YEAR.</b>                   |                    |                      |                       |
| Mathematics                              | 5                  | 5                    | 5                     |
| English                                  | 2                  | 3 T. Th. F.          | -                     |
| Physics                                  | 3                  | 2                    | 2                     |
| Zoology Invert. Lab.                     | 3 M. T. Th.        | -                    | -                     |
| Greek or German                          | 3                  | 2                    | 2                     |
| French                                   | 2                  | 3                    | 3                     |
| Total                                    | 18                 | 15                   | 12                    |
| Average credits 15.                      |                    |                      |                       |
| <b>JUNIOR YEAR.</b>                      |                    |                      |                       |
| English                                  | 3                  | 2                    | 3                     |
| Astronomy                                | 3                  | 2 W. F.              | -                     |
| Ang.-Saxon                               | 2 M. W.            | 2 M. W.              | 2 M. W.               |
| Economics                                | 2                  | 2                    | 2                     |
| History                                  | 2                  | 2                    | 2                     |
| French                                   | 2                  | 3 M. W. Th.          | 2                     |
| Zoology Text-book                        | 2                  | 2                    | -                     |
| Greek or German                          | 2 W. F.            | 2 M. W.              | 3                     |
| Total                                    | 18                 | 17                   | 14                    |
| Average credits 16 $\frac{1}{3}$ .       |                    |                      |                       |
| <b>SENIOR YEAR.</b>                      |                    |                      |                       |
| Ang.-Saxon                               | 2                  | 2                    | 2                     |
| Comp. Phil.                              | 3 T. Th. F.        | 2 M. W.              | 2 M. W.               |
| French or German                         | 2-3                | 3-2                  | 2-3                   |
| History                                  | 3                  | 3                    | 3                     |
| Logic, Meta., Ethics                     | 3                  | 3                    | 3                     |
| Sociology                                | 2                  | 2                    | 2                     |
| Geology                                  | 2 M. W.            | 2 M. W.              | -                     |
| Total                                    | 17 or 18           | 16 or 17             | 14 or 15              |
| Average credits 16 or 16 $\frac{1}{3}$ . |                    |                      |                       |
| Grand Total,                             | -                  | -                    | 66 $\frac{2}{3}$ .    |

**Department of Entomology.**

SEE UNDER "DEPARTMENTS OF GEOLOGY, ZOOLOGY AND  
ENTOMOLOGY."

**Departments of Geology, Zoology and Entomology.**

PROFESSOR MILLER AND MISS McCANN.

**Geology.****EQUIPMENT AND FACILITIES.**

The Department occupies one-half of the second floor of the Natural Science Building.

The Geological Laboratory is fitted up with tables and chairs, and contains the study collection which consists of representative specimens 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, lantern-stand, sliding blackboard, wall-screen and means for quickly darkening the room, is admirably adapted to recitation and lecture uses.

The collections in Mineralogy and Paleontology 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, photographic views, and a rock-slicing machine.



The Department is also fortunate as regards the geological location of the University. Situated in the very heart of the Blue-grass Region, near 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.

#### BRANCHES OF STUDY.

The general order in the geological studies is as follows:

- I. Elementary Geology.
- II. Paleontology.
- III. Mineralogy.
- IV. Laboratory Physical Geography.
- V. Advanced Geology.
- VI. Economic Geology.

#### ELEMENTARY GEOLOGY.

I. First and Second Terms. Two hours per week (M. W.). Major geology students take this subject during the Sophomore year. Others may take it as late as the Senior year. Required of all students who are candidates for the degrees of A. B. and B. S., except those for whom (VI) is prescribed.

The attempt is made here to acquaint the student with the general facts and principles which are involved in Dynamical, Structural, Physiographical and Historical Geology. Two excursions occupying one day each are required.

Text-book: Brigham's *Text-book of Geology*.

#### PALEONTOLOGY.

II. First and Second Terms. Three hours per week. (Monday, Wednesday and Friday). This course should accompany or follow the beginning work in Zoology.

Lectures on the nature and zoological position of different fossil groups of animals are given, and the student is expected to verify descriptions of fossils by an examination of the specimens themselves and to so learn their peculiarities that he can identify many species and genera at sight.

Special attention is paid to fossils which are important in Kentucky stratigraphy. The collections of the department are well suited for this purpose. The instruction is almost entirely by lecture and laboratory work.

## MINERALOGY.

III. Second and Third Terms. Two laboratory periods per week (Wednesday and Friday).

The object of the study is to render the student familiar with the compositions and physical characters of those common minerals likely to be met with both in the course of every-day observation and in geological pursuits. The course involves both laboratory and text-book work.

Text and Laboratory Guide: Crosby's *Tables for Determination of Common Minerals*  
LABORATORY PHYSICAL GEOGRAPHY.

IV. Throughout the year. Two hours per week, one credit. (Tuesday and Thursday). The student is given a series of exercises which involve the interpretation of physiographic structures as revealed in maps, photographs and models; the making of clay and sand models; the construction of weather maps; the practical use of the barometer, compass, clinometer and other instruments required by modern laboratory and field methods in Physical Geography. Two excursions in the Fall and two in Spring Term required.

## ADVANCED GEOLOGY.

V. Throughout the year. Two hours per week. (Tuesday and Thursday.)

The same topics are treated here as in (I) but more thoroughly, as it is fitting such should be treated after the student has had courses (II) and (III) as well as work in other departments which better fit him for an understanding of the deeper problems of geology. Two excursions in the Fall and two in the Spring Term required.

Text-book. Scott's *Introduction to Geology*.

## ECONOMIC GEOLOGY.

VI. Second and Third Terms. Two hours per week (Tuesday and Thursday). As the name indicates it is the industrial side of geology that is here presented. Historical geology is studied here briefly and in outline. Fossils are considered important only in so far as they serve to determine stratigraphic position of rocks and deposits. Structural Geology becomes relatively important and Mineralogy and Lithology occupy leading places. 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 Stones; Clay and Cement; Geological Fertilizers; Relation of Geology to Agriculture; Relation of Geology to Engineering.

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



**Major Geology Course.**

| FRESHMAN YEAR. | Hours<br>Fall Term. | Hours<br>Winter Term. | Hours<br>Spring Term. |
|----------------|---------------------|-----------------------|-----------------------|
| English        | 3                   | 3                     | 3                     |
| Mathematics    | 5                   | 5                     | 5                     |
| German         | 3 M. T. Th.         | 2 W. F.               | 2 W. F.               |
| or             |                     |                       |                       |
| Latin          | 5                   | 2 Th. S.              | 2 Th. S.              |
| Chemistry      | -                   | 4 M. T. W. F.         | 3 M. W. F.            |
| Drawing        | 2                   | 2                     | 3                     |
| Botany Elem.   | -                   | -                     | -                     |
|                | <u>13 or 15</u>     | <u>16</u>             | <u>16</u>             |

Total credits 15 or 15½.

| SOPHOMORE YEAR.     | Hours          | Hours           | Hours     |
|---------------------|----------------|-----------------|-----------|
| Mathematics         | 5              | 5               | 5         |
| German              | 3              | 2               | 2         |
| or                  |                |                 |           |
| Latin               | 3              | 3               | 3         |
| French              | 2              | 3               | 3         |
| Physics, Text-book, | 3              | 2               | 2         |
| Physics, Lab.       | 2              | 2               | 2         |
| Botany Lecture      | 1              | 2               | 2         |
| Botany Lab.         | 3 days by app. | -               | -         |
| Geology             | 2 M. W.        | 2 M. W.         | -         |
|                     | <u>21</u>      | <u>16 or 17</u> | <u>18</u> |

Total credits 18½ or 18¾.

| JUNIOR YEAR.          | Hours          | Hours          | Hours          |
|-----------------------|----------------|----------------|----------------|
| French                | 2              | 3 MT. Th.      | 2              |
| History               | 2              | 2              | 2              |
| Astronomy             | 3              | 2              | -              |
| Zoology, Text-book    | 2              | 2              | -              |
| Zoology, Invert. Lab. | 3 days by app. | 3              | -              |
| Zoology, Vert. Lab.   | -              | 3 days by app. | -              |
| Embryology            | -              | -              | 3 days by app. |
| Paleontology          | 3              | 3              | -              |
| Osteology             | 2 M. W.        | -              | -              |
| Mineralogy            | -              | 2 W. F.        | 2 W. F.        |
| Surveying             | 2 days by app. | -              | -              |
| Mechan. Drawing       | -              | 2 days by app. | -              |
| Economics             | 2              | 2              | 2              |
|                       | <u>21</u>      | <u>21</u>      | <u>11</u>      |

Total credits 17¾.

| SENIOR YEAR.        | Hours     | Hours     | Hours     |
|---------------------|-----------|-----------|-----------|
| Logic               | 3         | -         | -         |
| Metaphysics         | -         | 3         | -         |
| Ethics              | -         | -         | 3         |
| History             | 3         | 3         | 3         |
| Physical Geog. Lab. | 2         | 2         | 2         |
| Geology Advanced    | 2         | 2         | 2         |
| Economic Geology    | -         | 3         | 2         |
| Geology - Thesis    | 5         | 5         | 2         |
|                     | <u>15</u> | <u>17</u> | <u>17</u> |

Total Credits 16½. Grand total credits 67½ or 68.

### Zoology.

#### EQUIPMENT AND FACILITIES.

The Department of Zoology occupies two rooms on the first floor of the Natural Science Building. These rooms are provided with tables and a special set of apparatus, including compound microscopes, for each student. There is in addition a complete general equipment for all lines of zoological investigation, such as zoological charts for the study of systematic zoology, microtomes and paraffin ovens for work in microscopy, an incubator for work in embryology, a selection of type skeletons (some of which have been mounted by students) for illustrating osteology, alcoholic specimens of both marine and inland forms of animals to illustrate general zoology with duplicates for class dissection, and finally a library of standard zoological literature, including the leading periodicals devoted to the interests of biological science. Abundant opportunity for collecting fresh zoological material, as well as for studying living animals in their native habitats is afforded by the "Excursions".

#### BRANCHES OF STUDY

The general order of succession in the zoological studies is as follows:

- I. Invertebrate Zoology.
- II. Vertebrate Zoology.
- III. Embryology.
- IV. Text-book Zoology.
- V. Osteology.
- VI. Comparative Anatomy.
- VII. Systematic Zoology and Ecology.

#### INVERTEBRATE ZOOLOGY

- I. First Term. Three laboratory periods per week, M. T. Th., or days by appointment.

The student studies the form and structure of typical representa-



tives of each of the invertebrate sub-kingdoms and is given lectures on the systematic position, habits and development.

Laboratory Text-book: Pratt's *Invertebrate Zoology*. A copy of this book is furnished to each student as a part of the laboratory equipment. One all-day field excursion required.

#### VERTEBRATE ZOOLOGY

II. Second Term. Three laboratory periods per week, M. T. Th., or days by appointment.

This is a course on Vertebrate Anatomy similar to I. on Invertebrates.

Text-books: Pratt's *Vertebrate Zoology* and Jordan's *Manual of the Vertebrates of the Eastern United States*. Both books furnished to students as part of the laboratory equipment.

#### EMBRYOLOGY

III. Third Term. Three laboratory periods per week, M. T. Th., or days by appointment.

This course consists of lectures on the general facts and principles of embryology, accompanied by practical work on the embryonic development of such vertebrates as the frog and chick.

Text-books: Balfour's *Elements of Embryology* and Holmes's *Biology of the Frog*.

#### ZOOLOGY (TEXT AND LECTURES)

IV. First and Second Terms. Two hours per week, T. Th. It is recommended that students should take this after having had I. or that both I. and IV. be taken together.

The topics discussed in this course are: The Interrelation of Plants and Animals, Struggle for Existence, Coloration of Animals, Social Life of Animals, Protoplasm, Origin of Life, Physiological Division of Labor, Animal Psychology, Principles of Embryology, Past History of Animals, Doctrine of Evolution.

Text-book: Arthur Thompson's *Animal Life*.

#### OSTEOLOGY

V. First Term. Two hours per week, M. W. This course consists of a comparative study of the vertebrate skeleton, chiefly that of the Mammalia. At the close of the course the student is given the option of mounting a disarticulated skeleton or standing an examination.

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

#### COMPARATIVE ANATOMY

VI. Third Term. Three hours per week, M. W. F. This course should follow I. and II. It consists of a comparative study of the structure of groups of animals.

## SYSTEMATIC ZOOLOGY AND ECOLOGY

VII. Throughout the year. Two laboratory periods per week. This course is open only to students who have taken I. and II. It consists of laboratory and field work devoted to the identification of species, the study of their habits, and relation of animals to their Environment. Two all-day field excursions required in the Fall Term and two in the Spring Term.

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**Entomology.**

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## EQUIPMENT AND FACILITIES.

The general laboratory and lecture room of the Entomological Department is located on the first floor of the Natural Science Building.

The equipment of the Department includes tables, dissecting and compound microscopes, breeding cages, aquaria, collecting apparatus, charts and lantern slides to illustrate economic entomology; histological preparations, besides an excellent collection of noxious and beneficial insects, a large general collection and life-history collections, all of which will be freely used for illustrative purposes.

There is also a library, which contains the best standard entomological literature. The work embraces lectures, recitations, field excursions and laboratory work. Short excursions will be substituted for laboratory periods from time to time and all-day excursions will be planned for students in all courses in this Department.

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BRANCHES OF STUDY.

The general order of succession in the entomological studies is as follows:

- I. General Entomology and Elementary Morphology of Insects.
- II. Elementary Systematic Entomology and Entomotaxy.



- III. Economic Entomology.
- IV. Advanced Entomology, (Life Histories).
- V. Insect Histology.
- VI. Advanced Systematic Entomology.

## ELEMENTARY MORPHOLOGY OF INSECTS, GENERAL ENTOMOLOGY.

I. First and Second Terms. Three hours per week, M. W. F. This course should follow Zoology.

Elementary Morphology of insects is a laboratory course designed to present to the student the essentials of insect anatomy. General Entomology is a parallel course comprising a study of the characteristics of the orders, sub-orders and important families of insects. This course has a value of one credit. One all-day field excursion required in the Fall Term.

Laboratory Guide: Comstock and Kellogg's *Elements of Insect Anatomy*.  
Text-book: Comstock's *Manual for the Study of Insects*.

## ELEMENTARY SYSTEMATIC ENTOMOLOGY, ENTOMOTAXY.

II. Third Term Two hours per week, T. Th. A laboratory and field course designed to give the student practice in the classification of insects and in the methods of collecting and preparing specimens for the cabinet. Two all-day field excursions required. For completion of this subject, one third of a credit is allowed.

## ECONOMIC ENTOMOLOGY.

III. First Term. Three hours per week, M. W. F. The purpose of this course is to familiarize the student with the habits and life histories of the more important noxious insects and with the methods of combating them.

## ENTOMOLOGY (LIFE HISTORIES).

IV. First Term. Three hours per week, M. T. Th. An advanced course offering an opportunity for breeding and determining the life histories of insects. One all-day field excursion required. One half of a credit.

## INSECT HISTOLOGY.

V. Second and Third Terms. Two hours per week, Second Term, and three hours per week, Third Term. A study of the histological structure of the arthropods. Five sixths of a credit.

## ADVANCED SYSTEMATIC ENTOMOLOGY.

VI. Second Term. Three hours per week M. W. F. This course is open only to those who have taken Entomology I and II. An advanced course in which practice is given in the identification of species. One half of a credit.

**Major Zoology and Entomology.**

|                         | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|-------------------------|----------------------|------------------------|------------------------|
| <b>FRESHMAN YEAR.</b>   |                      |                        |                        |
| English                 | 3                    | 3                      | 3                      |
| Mathematics             | 5                    | 5                      | 5                      |
| German                  | 3                    | 2 W.F.                 | 2 W.F.                 |
| or                      |                      |                        |                        |
| Latin                   | 5                    | 2 Th. S.               | 2 Th. S.               |
| Chemistry               | -                    | 4 M.T.W.F.,            | 3 M. W. F.             |
| Chemistry, Lab.         | -                    | 2 M. F.                | 3 M. F.S.              |
| Drawing                 | 2                    | 2                      | -                      |
| Physiology              | -                    | 3 M. T. Th.            | 3 M. T. Th.            |
| Botany, Elementary      | -                    | -                      | 3 T.W.Th.              |
| Total                   | 13 or 15             | 21                     | 22                     |
| Average credits 18      |                      |                        |                        |
| <b>SOPHOMORE YEAR.</b>  |                      |                        |                        |
| Mathematics             | 5                    | 5                      | 5                      |
| German                  | 3                    | 2                      | 2                      |
| Physics                 | 3                    | 2                      | 2                      |
| French                  | 2                    | 3                      | 3                      |
| Botany, Lecture         | 1 T.                 | 2                      | -                      |
| Botany, Lab.            | 3 Days by appoint.   | 3 Days by appoint.     | -                      |
| Geology                 | 2 M. W.              | 2 M. W.                | -                      |
| Zoology, Invert., Lab.  | 3 M. T. Th.          | -                      | -                      |
| Zoology, Vert., Lab.    | -                    | 3 M. T. Th.            | -                      |
| Embryology              | -                    | -                      | 3 M. T. Th.            |
| Total                   | 22                   | 22                     | 15                     |
| Average credits 18.     |                      |                        |                        |
| <b>JUNIOR YEAR.</b>     |                      |                        |                        |
| Entomology, Lab.        | 1½                   | 1½                     | 1                      |
| Zoology, Text-book      | 2                    | 2                      | -                      |
| Osteology               | 2 M. W.              | -                      | -                      |
| French                  | 2                    | 3                      | 2                      |
| Comp. Anatomy           | -                    | -                      | 3                      |
| History                 | 2                    | 2                      | 2                      |
| Astronomy               | 3                    | 2 M. F.                | -                      |
| Economics               | 2                    | 2                      | 2                      |
| Chemistry, Lab.         | 3 W. F. S.           | 3 W. F. S.             | 3 W. F. S.             |
| Total                   | 17½                  | 15½                    | 13                     |
| Average credits 15½.    |                      |                        |                        |
| <b>SENIOR YEAR.</b>     |                      |                        |                        |
| French                  | 2                    | 3                      | 2                      |
| Paleontology            | 3                    | 3                      | -                      |
| Economic Entomol.       | 3                    | -                      | -                      |
| Logic, Meta., Ethics    | 3                    | 3                      | 3                      |
| Insect Histology        | -                    | 1                      | 1½                     |
| Adv. Entomology         | 1½                   | -                      | -                      |
| Adv. Syst. Entom.       | -                    | 1½                     | -                      |
| Syst. Zool. and Ecol.   | 2 W. F.              | 2                      | 2                      |
| Mineralogy              | -                    | 2 W. F.                | 2 W. F.                |
| Sociology               | 2                    | 2                      | 2                      |
| Total                   | 16½                  | 17½                    | 12½                    |
| Average credits 15 3-6. |                      |                        |                        |

Grand Total credits 66 5-6.



**Department of Greek and Latin.**

PROFESSOR NEVILLE, ASSISTANT PROFESSOR LEAPHART.

**LATIN.****PREPARATORY.**

*First Year.* Moore's Grammar, with a daily exercise in inflection and in translation from and into Latin on the blackboard; easy Latin readings.

*Second Year.* Twelve lives of Nepos and four books of Caesar, or Greenough's Second Year Latin; Daniell's New Latin Composition.

*Third Year.* 2,500 lines of Ovid, with scanning; seven orations of Cicero.

**FRESHMAN CLASS.**

Six books of the *Æneid*; Sallust's Jugurthine War; Cicero de Senectute; Johnson's Private Life of the Romans.

**SOPHOMORE CLASS.**

The Captives of Plautus; Suetonius's Life of Augustus; Livy, books I. and XXI.; exercises in Latin composition.

**JUNIOR CLASS.**

Horace, except a part of the Epodes and most of the Satires, with the scanning of the more common metres; the Germania and the Agricola; letters of Cicero or of Pliny; Bradley's Latin Prose Composition.

**SENIOR CLASS.**

The third, eighth, tenth, and fourteenth Satires of Juvenal; Seneca de Beneficiis; selections from Lucretius; prose composition.

**GREEK.****PREPARATORY.**

*First Year.* White's Beginner's Greek Book, with a daily exercise in inflection and in translation from and into Greek on the blackboard; selections from a Greek Reader.

*Second Year.* Four books of the Anabasis; six of the Iliad; exercises in Greek prose composition.

**FRESHMAN CLASS.**

Selections from Herodotus; Xenophon's Memorabilia; Plato's Apology, Crito; and Phaedo (selections): Jebb's Sketch of Greek Literature.

## SOPHOMORE CLASS.

Selections from Lucian's dialogues; Lysias against Eratosthenes; Demosthenes on the Crown; exercises in Greek syntax and composition.

## JUNIOR CLASS.

Selections from Thucydides; poems of Theocritus, Bion, and Moschus.

## SENIOR CLASS.

Three dramas—Prometheus, Medea or The Clouds, Œdipus Tyrannus or Antigone.

The curriculum leading to the classical degree of A. B., includes English, Latin, Greek or French and German, History, Political Economy, Metaphysics, Mathematics, and some Physical Science. The grouping of these studies is designed to meet the needs of those students whose tastes and aptitudes incline them to literature rather than to science; who seek not knowledge alone but culture\* as well; and who, moreover, desire a course of studies suited to those who are to prepare themselves for a profession, and to become teachers, preachers, physicians, lawyers, journalists, writers or scholars, or, it may be, legislators or authors.

To this brief statement of the objects kept in view in making up this group of studies it is due to this Department, and not meant to be invidious, to add, that statistics published annually by the U. S. Commissioner of Education show that, even in this country where scientific and the so-called practical studies are so strongly and so justly recommended and encouraged, that even here the classical group is from three to six times more popular than any other; while the English, the French, and the Germans, who in letters, arts, and arms rank highest in the scale of nations, devote far more attention to these studies than we.

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The Professors of this Department offer courses of study equal to those of the best land-grant colleges, courses 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

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\*Culture implies knowledge, but it is much more. A man of liberal culture is he whose mind has been trained to express thought, by tongue or pen, on many subjects, and in words of clearness, force and beauty.



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 black-board 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 the writing of exercises. 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, precision, 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 sub-

stitute can equal.

The Germans are admitted to be the leading educators of the world. In the nine years' curriculum of their 468 gymnasia, which are their best secondary schools (corresponding to our colleges, but conferring no degrees and 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 227 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 gymnsia, Latin is valued at 72, Greek at 41, Mathematics at 33; in those of Wuertemburg, 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 Lycees, 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.

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 wonderful nineteenth century has contributed enormously to the comfort and 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.

Greek, the marvelous tongue of the most intellectual of all the races; the tongue that has contributed thousands of words to our own; the tongue that enshrines the noble literature, which has been the model of supreme excellence for twenty centuries; Greek, in the crowded curricula of American schools, especially of co-educational schools,

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\*"The classical literature is, and will continue to be, the source of all our culture. It must remain, therefore, not only 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.



will, for ordinary students, naturally give place to the easier and more practical French and German. The more gifted or ambitious, who seek high scholarship and a more liberal culture, will learn Greek, and of course French and German. Nay, when a student of high spirit finds that he must know eight languages to read the notes to so common a work as Macaulay's History or Buckle's, he will be ashamed to skip any, and he will not be satisfied till he can read them all, including those in Greek.

It is timely to mention that after long and earnest debate, the proposition to substitute French and German for Greek in the course for A. B. at Oxford and Cambridge has lately been voted down by a great majority. A needless wrangle, easy to settle once for all by giving a higher degree to those who learn all these languages and a lower to those who omit Greek or French or German.

In the eighteenth century the supreme writers of English prose were Burke and Gibbon; in the nineteenth, De Quincey and Macaulay. All of them were distinguished classical scholars, and they used more words of Latin than of Saxon origin. But whether a writer should use more words of either class than of the other, depends on his subject and his readers; a Saxon-English *Paradise Lost*, and a Latin-English *Pilgrim's Progress* would have been alike impossible.

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**Major Classical Course.**

|                                    | Hours<br>Fall Term | Hours<br>Winter Term | Hours<br>Spring Term. |
|------------------------------------|--------------------|----------------------|-----------------------|
| <b>FRESHMAN YEAR.</b>              |                    |                      |                       |
| English                            | 3                  | 3                    | 3                     |
| Mathematics                        | 5                  | 5                    | 5                     |
| Latin                              | 5                  | 2 Th. S.             | 2 Th. S.              |
| Greek or German                    | 3                  | 2                    | 2                     |
| Chemistry                          | -                  | 4                    | 3 T. W. Th.           |
| Botany, Elemen.                    | -                  | -                    | 3 T. W. Th.           |
| Physiology                         | -                  | 3                    | 3                     |
| Total                              | 16                 | 19                   | 21                    |
| Average credits 18.                |                    |                      |                       |
| <b>SOPHOMORE YEAR.</b>             |                    |                      |                       |
| Mathematics                        | 5                  | 5                    | 5                     |
| Latin                              | 3                  | 3                    | 3                     |
| Greek or German                    | 3                  | 2                    | 2                     |
| French                             | 2                  | 3                    | 3                     |
| Physics                            | 3                  | 2                    | 2                     |
| Zoology, Invert. Lab.              | 3                  | -                    | -                     |
| Total                              | 19                 | 15                   | 15                    |
| Average credits 16 $\frac{1}{3}$ . |                    |                      |                       |
| <b>JUNIOR YEAR.</b>                |                    |                      |                       |
| English                            | 3                  | 2                    | 3                     |
| Latin                              | 3                  | 2 M. W.              | 3                     |
| Greek                              | 2 W. F.            | 2 M. W.              | 3                     |
| German                             | 2 M. W.            | 2 W. F.              | 3                     |
| History                            | 2                  | 2                    | 2                     |
| French                             | 2                  | 3                    | 2                     |
| Economics                          | 2                  | 2                    | 2                     |
| Zoology, Text-book                 | 2                  | 2                    | -                     |
| Total                              | 18                 | 17                   | 18                    |
| Average credits 17 $\frac{2}{3}$ . |                    |                      |                       |
| <b>SENIOR YEAR.</b>                |                    |                      |                       |
| Latin                              | 2                  | 2                    | 2                     |
| German                             | 3                  | 2                    | 3                     |
| Greek                              | 2                  | 2                    | 2                     |
| Geology                            | 2 M. W.            | 2 M. W.              | -                     |
| History                            | 3                  | 3                    | 3                     |
| Logic, Metaph., Ethics             | 3                  | 3                    | 3                     |
| Philology                          | 3 T. Th. F.        | -                    | 3 M. W.               |
| Total                              | 18                 | 14                   | 15                    |
| Average credits 15 $\frac{2}{3}$ . |                    |                      |                       |
| Grand Total,                       | -                  | -                    | 67 $\frac{2}{3}$ .    |



**Department of History, Political Economy, and Metaphysics.**

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PRESIDENT PATTERSON.

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## HISTORY.

I. 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 the History of England and of the United States occupy the most prominent place.

## ECONOMICS.

II. 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.

## PHILOSOPHY.

III. The study of Mental and Moral Philosophy extends through two terms. 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.

**Department of Mathematics and Astronomy.**

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PROFESSOR WHITE, ASSISTANT PROFESSOR DAVIS, MISS WHITE,  
MR. REES.

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## PLANE TRIGONOMETRY.

I. This course is given five times per week during the Fall Term. It is required of all students.

In this course the student should become familiar with, and be able to use, the principal formulas expressing the relations of the various trigonometric functions to each other. He should be able to find natural and logarithmic functions of angles of any magnitude, to compute the parts of any plane triangle, and to learn practical applications of the subject to Surveying.

## SPHERICAL TRIGONOMETRY.

II. This course is given three times per week during the Winter Term. It is required of Civil Engineering students and is open to all others.

After gaining a working knowledge of the formulas, students are required to apply them to many practical problems in navigation, geodesy and astronomy.

## ADVANCED ALGEBRA.

III. This course is given five times per week during the Winter and Spring Terms and is required of all students.

A thorough and comprehensive knowledge of algebra is of vital importance to students who pursue courses in higher Mathematics, whether pure or applied, and in such sciences as Physics and Chemistry. Special care is therefore taken to see that students have a thorough training in this subject. Fine's College Algebra will be the text-book for the session 1908-9.

*Note.* The time heretofore given, in this institution, to Algebra by Freshman students (Spring Term only) has not been sufficient to give them an adequate knowledge of the subject. To meet this deficiency, two hours per week during the Fall Term of session 1908-9 will be devoted to the study of Fine's College Algebra by all students who take Analytical Geometry.

## ANALYTICAL GEOMETRY.

IV. Three times per week during the Fall Term and five times per week during the Winter and Spring Terms. The Fall Term's work is required of all students. The work of the Winter and Spring Terms is required of Engineers and is open to all students. The Fall Term's work is designed to acquaint the student with analytical



methods of investigation and is limited to the straight line and the circle. During the Winter Term second degree curves are studied and the Spring Term is given to the study of "higher plane curves", the plane, the right line in space and surfaces of the second degree.

#### CALCULUS.

V. Five times per week for engineers and three times per week for other students during an entire year. Required of engineers and open to all others. Engineers begin the subject in January of their Sophomore year, but other students are advised to begin in January of their Junior year. During the Winter Term the principles of the differential calculus are developed. The Spring Term is given to the study of numerous applications of the derivative, such as tangents, normals, maxima and minima, etc., and to the simpler forms for integration.

The Fall Term is given to the study of more complicated forms of integration and the usual applications of the principles of Integral Calculus to the determination of volumes and surfaces, rectification of curves, centers of gravity, and moments of inertia.

Text-book: Granville's *Differential and Integral Calculus*.

#### ADVANCED MATHEMATICS.

VI. Courses in Theory of Equations, Determinants, Differential Equations and History of Mathematics will be given, if desired by a sufficient number of persons qualified to pursue them.

#### PRACTICAL ASTRONOMY.

VII. This course follows one in Spherical Trigonometry and is given three times per week during the Winter and Spring Terms. It is required of Civil Engineers and is open to all students. It has for its object the training of Engineering students in those parts of Astronomical practice pertaining to their profession, viz. (a) the accurate use of the sextant and transit with special reference to the elimination of errors of observation, (b) the determination of time, latitude and azimuth, (c) the art of numerical calculation.

#### GENERAL ASTRONOMY.

VII. This course is given three times per week during the Fall Term and two times per week during the Winter Term and is open to all students.

A general view of the subject will be given by text-book and lectures and frequent use of an 18-inch celestial globe.

Class-room work will be supplemented by the identification of the principal constellations and by the use of the 8-inch refracting telescope in the observatory.

**Department of Modern Languages.**

PROFESSOR ZEMBROD AND ASSISTANT PROFESSOR MELCHER.

The Department of Modern Languages offers a four years' course in the German Language and Literature; a three-year course in the French language and literature; a course of one year each in the Spanish and Italian languages.

The Department Library has been considerably increased in the last two years, and new books are constantly added.

The following are the courses offered:

**GERMAN.**

FRESHMAN. Bierwierth's *Elements of German*; Storm's *Immensee*; Hillern's *Hoher als die Kirche*; Hatfield's *German Lyrics*; Howe's *German Prose Composition*.

SOPHOMORE. Eichendorff's *Aus dem Leben eines Taugenichts*; Hatfield's *German Lyrics* or equivalent; Heine's *Harzreise Buch der Lieder*; Meyerfoerster's *Karl Heinrich*; Schiller's *Wilhelm Tell*, *Lyrics*; German Prose Composition.

JUNIOR. Lessing's *Minna von Barnhelm*; *Emilia Galotti*; Schiller's *Der Neffe als Onkel*, *Maria Stuart*; Goethe's *Egmont*; *Poems*; *Goetz von Berlichingen*.

SENIOR. Goethe's *Faust, Part I*; Lessing's *Nathan der Weise*; History of German Literature in the 18th and 19th Centuries.

**FRENCH.**

SOPHOMORE. Fraser and Squair's *French Grammar*; Elementary French Grammar; Verne's *Michel Strogoff*.

JUNIOR. Fraser and Squair's *French Grammar*; Bowen's *French Lyrics*; French Prose 19th Century; Selections from Th. Gautier; Lamartine; Hugo; Collateral Reading.

SENIOR. Fraser and Squair's *French Grammar*; French Classical Literature of the 17th Century; Selections from Corneille, Racine, Moliere; Collateral Reading; History of French Literature.

**SPANISH.**

Edgren's *Elements of Spanish Grammar*; Traub's *The Spanish Verb*; Bransby's *A Spanish Reader*.

**ITALIAN.**

Grandgent's *Italian Grammar*; Bowen's *Italian Reader*.



**Major German Course.**

| FRESHMAN YEAR. | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|----------------|----------------------|------------------------|------------------------|
| English        | 3                    | 3                      | 3                      |
| Mathematics    | 5                    | 5                      | 5                      |
| German         | 3 M. T. Th.          | 2 W. F.                | 2 W. F.                |
| Latin          | 5                    | 2 Th. S.               | 2 Th. S.               |
| Chemistry      | -                    | 4 M. T. W. F.          | 3 M. T. W.             |
| Physiology     | -                    | 3                      | 3                      |
| Botany         | -                    | -                      | 3                      |
| Total          | 16                   | 19                     | 21                     |

Average credits 18.

## SOPHOMORE YEAR.

|             |         |         |         |
|-------------|---------|---------|---------|
| English     | 2       | 3       | -       |
| Mathematics | 5       | 5       | 5       |
| German      | 3       | 2       | 3       |
| French      | 2       | 3       | 3       |
| Physics     | 3       | 2       | 2       |
| Latin       | 3       | 3       | 3       |
| Ang. Saxon  | 2 M. W. | 2 M. W. | 2 M. W. |
| Total       | 20      | 20      | 18      |

Average credits 18.

## JUNIOR YEAR.

|               |                    |             |         |
|---------------|--------------------|-------------|---------|
| German        | 2                  | 2 M. W.     | 3       |
| History       | 2                  | 2           | 2       |
| English       | 3                  | 2           | 3       |
| French        | 2                  | 3 M. T. Th. | 2       |
| Ang. Saxon    | 2                  | 2           | 2       |
| Zoology       | 2                  | 2           | -       |
| Zoology, Lab. | 3 days by appoint. | -           | -       |
| Mineralogy    | -                  | 2 W. F.     | 2 W. F. |
| Total         | 16                 | 15          | 14      |

Average credits 15.

## SENIOR YEAR.

|                        |             |         |             |
|------------------------|-------------|---------|-------------|
| Logic, Metaph., Ethics | 3           | 3       | 3           |
| Sociology              | 2           | 2       | 2           |
| His. of Philology      | 3 T. Th. F. | 2       | 3 T. Th. F. |
| French                 | 2           | 3       | 2           |
| German                 | 3           | 2       | 3           |
| Geology                | 2 M. W.     | 2 M. W. | -           |
| Thesis                 | 1           | 1       | 1           |
| Total                  | 16          | 15      | 14          |

Average credits 15.

Grand Total, - - 66.

**Department of Physics.**

PROFESSOR PENCE, ASSISTANT WEBB, INSTRUCTOR———.

**GENERAL PHYSICS.**

I. Text-book and recitations, two hours per week during the First Term and three hours per week during the Second and Third Terms. For all students in engineering.

**PHYSICAL MEASUREMENTS.**

II. Nine hours per week during the Second Term and six hours per week during the Third Term. Measurements in the mechanics of solids, liquids, and gases, and in heat, sound, light, electricity and magnetism. For students in civil and mining engineering.

**GENERAL PHYSICS.**

III. Same as physics No. I; three hours per week during the First Term, and two hours per week during the Second and Third Terms. For all students except those in engineering.

**PHYSICAL MEASUREMENTS.**

IV. Five hours per week, one hour daily, during the First Term. Measurements in the mechanics of solids, liquids, and gases, and in heat. For students in mechanical engineering.

**PHYSICAL MEASUREMENTS.**

V. Periods of two to three hours on two days per week during the First and Second Terms, and on three days per week during the Third Term. About the same as physics No. II, being somewhat more extensive. For students in the College of Arts and Science and the College of Agriculture.

**ADVANCED PHYSICS.**

VI. First Term, three hours per week. Lectures, text-book, and recitations, on mechanics, sound and light. For students in civil and mining engineering and for students whose major is physics. Elective for others.

Prerequisite: Physics I. or III. and II.

**ADVANCED PHYSICS.**

VII. Second and Third Terms, three hours per week. Lectures, text-book, and recitations, on heat, electricity and magnetism. For all students in engineering, and for others who take physics VI.

**ADVANCED PHYSICAL MEASUREMENTS.**

VIII. Periods of two to three hours on three days per week during the year. Measurements in selected subjects. For students whose major is physics. Elective for others.

Prerequisite: Physics VI. or VII. or both.

**THESIS.**

IX. For students whose major is physics.



**Major Physics Course.**

|                          | Hours.<br>Fall Term. | Hours.<br>Winter Term. | Hours.<br>Spring Term. |
|--------------------------|----------------------|------------------------|------------------------|
| <b>FRESHMAN YEAR.</b>    |                      |                        |                        |
| English                  | 3                    | 3                      | 3                      |
| Mathematics              | 5                    | 5                      | 5                      |
| German                   | 3                    | 2                      | 2                      |
| Botany, Lecture          | 1 T.                 | -                      | -                      |
| Botany, Lab.             | 3 M. T. Th.          | -                      | -                      |
| Physiology               | 3                    | 3                      | -                      |
| Chemistry                | -                    | 4                      | 3                      |
| Chemistry, Lab.          | -                    | 2 M. F.                | 3 M. F. S.             |
| Drawing                  | 2                    | 2                      | -                      |
| Total                    | 20                   | 21                     | 16                     |
| Average credits 19.      |                      |                        |                        |
| <b>SOPHOMORE YEAR.</b>   |                      |                        |                        |
| German                   | 3                    | 2                      | 2                      |
| Mathematics, Analyt.     | 5                    | 5                      | 5                      |
| Math., Calculus          | -                    | 3                      | 3                      |
| Physics                  | 3                    | 2                      | 2                      |
| English                  | 2                    | 3                      | -                      |
| Geology                  | 2 M. W.              | 2 M. W.                | -                      |
| Physics, Lab.            | 2                    | 2                      | 3                      |
| Chemistry, Lab.          | 3 W. F. S.           | 3 W. F. S.             | 3 W. F. S.             |
| Total                    | 20                   | 22                     | 18                     |
| Average credits 20.      |                      |                        |                        |
| <b>JUNIOR YEAR.</b>      |                      |                        |                        |
| Zoology, Text-book       | 2                    | 2                      | -                      |
| Physics                  | 3                    | 3                      | 3                      |
| Math., Calculus          | 3                    | -                      | -                      |
| History                  | 2                    | 2                      | 2                      |
| Astronomy and S. Trig.   | 2                    | 3                      | -                      |
| Physics, Lab.            | 3                    | 3                      | 5                      |
| Mineralogy               | -                    | 2 W. F.                | 2 W. F.                |
| Total                    | 15                   | 15                     | 12                     |
| Average credits 14.      |                      |                        |                        |
| <b>SENIOR YEAR.</b>      |                      |                        |                        |
| History                  | 3                    | 3                      | 3                      |
| Logic, Meta., Ethics     | 3                    | 3                      | 3                      |
| Sociology                | 2                    | 2                      | 2                      |
| Economics                | 2                    | 2                      | 2                      |
| Physics, Thesis          | 5                    | 5                      | 5                      |
| Total                    | 15                   | 15                     | 15                     |
| Average credits 15.      |                      |                        |                        |
| Grand Total credits 67½. |                      |                        |                        |

**Department of Zoology.**

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SEE UNDER "DEPARTMENTS OF GEOLOGY, ZOOLOGY AND  
ENTOMOLOGY."



**THE COLLEGE OF LAW.**

JUDGE LAFFERTY, DEAN.

The State University, as successor to Kentucky State College, has provided for a College of Law, which will begin its first year's work on the second Thursday of September 1908. The design of this College is to teach the student the fundamental principles of English and American Law, and to so extend the course of study as to fit him for the bar in any State. The course offered will be thorough and comprehensive, giving such training as will prepare him for usefulness as a citizen, and success as a practitioner. The instruction will not be limited solely to those who may choose the law as a profession, but will be given also to special students who may elect to take a limited course on such subjects as will be found useful in the pursuit of some other business or occupation.

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**ADMISSION.**

Students who are candidates for a degree must be at least eighteen years of age, and before entrance must satisfy the Faculty that they have had a preliminary education equivalent to a High School course under competent instructors. All students who have matriculated in the College of Law, and have paid the fees required, will have the privilege of attending free of charge any of the lectures and recitations of the University, thus affording an opportunity to extend any special course of study desired. Students in other departments of the University may, by the consent of the Faculty, have the privilege of attending free of charge any of the lectures and recitations of the College of Law.

**ADVANCED STANDING.**

To be admitted to advanced standing, students must present satisfactory evidence that they have pursued successfully the study of subjects for which they wish credit, in an approved law school, or

upon examination prove themselves proficient in those subjects.

#### SPECIAL STUDENTS.

Special Students will be received, who wish to pursue any particular subject or subjects of the law, but no certificate will be issued for such special work.

#### COURSE OF STUDY.

The following course of study has been prepared and extends over a period of two years.

##### JUNIOR YEAR.

Study of the Common Law,  
Domestic Relations,  
Torts,  
Criminal Law,  
Contracts,  
Bills, notes and cheques,  
Agency,  
Principles of Sales,  
Common Law Pleadings,  
Evidence,  
Real Property.

##### SENIOR YEAR.

Equity Jurisprudence,  
Evidence,  
Corporations,  
Insurance,  
Bailment and Carriers,  
Wills,  
Conflict of Laws,  
Elements of Constitutional Law,  
International Law,  
Jurisdiction and Proceedings of U. S. Court,  
Code Pleadings.

#### METHOD OF INSTRUCTION.

The method of instruction pursued will be the use of text-books, lectures and illustrative cases, and such other methods as the Faculty may deem advisable. Examinations will be held at the end of each year upon the work covered during that period.

#### MOOT COURT.

A Moot Court will be organized, and the students will be instructed in the practice before a Court. They will be required to prepare and file pleadings, demurrers, etc., and as counsel they will carry



through the various steps taken in a cause from its inception to the final judgment. Cases in both law and equity will be made up and tried. They will also be required to fill each of the official positions connected with the Court and be instructed in the duties of each. The preparation of wills, deeds, abstracts of title and all other documents usually required of the practitioner will be taught. The Courts of Fayette County being in continuous session, students will at intervals attend these Courts so that the help of the Moot Court and the Fayette Courts will give to them a thorough knowledge of the practical part of the course of instruction.

#### PRIVILEGES.

Students of this department will be admitted to all the privileges of the literary societies, gymnasium and library, upon equal terms with other students of the University. By permission of the Fayette Bar Association they will be permitted to use the large library under its control, which is located in the Court House in Lexington and contains a very large and valuable collection of text-books, reports of both Federal and State Courts, pamphlets and other books of value usually found in our best Law Libraries.

#### LOCATION.

This department will be located in one of the buildings on the University grounds, and will be supplied with lecture and classrooms. A library room will also be provided, and books will be accumulated for the establishment of a library of this department.

#### DEGREES.

The degree of Bachelor of Laws will be conferred by the Board of Trustees, upon such students as shall have completed the required course herein prescribed, and have satisfactorily passed the examination thereon.

#### EXPENSES.

A matriculation fee of \$5.00 will be charged each law student. The tuition fee will be \$30.00 per year, and the diploma fee will be \$10.00. Good board can be had in private families at prices ranging from \$3.00 to \$5.00 per week. The text-books for the required work will cost about \$35.00 per year.

#### FACULTY.

When the Board of Trustees meet in June 1908, a first-class Faculty will be chosen to assist the Dean in undertaking the duties connected with the College of Law.

**SCHOOL OF CIVIL ENGINEERING.**

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**Faculty.**

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JAMES KENNEDY PATTERSON, PH. D., LL. D., Pres.  
*Professor of History and Political Economy.*

WALTER ELLSWORTH ROWE, DEAN. C. E.,  
*Professor of Civil Engineering.*

WILLIAM JOSEPH CARREL, B. S.,  
*Assistant Professor of Civil Engineering.*

ALEXANDER ST. CLAIR MACKENZIE., M. A., F. R. S. L.,  
*Professor of English Language and Literature.*

PHILIP WORTHINGTON CORBUSIER, Lieut. U. S. A.  
*Professor of Military Science.*

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

ARTHUR McQUISTON MILLER, A. M.,  
*Professor of Geology.*

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

LEON KAUFMAN FRANKEL, M. E.,  
*Professor of Analytical Mechanics.*

LOUIS EDWARD NOLLAU, B. M. E.,  
*Assistant Professor of Descriptive Geometry.*

LOUIS STERLING BOGGESS, B. C. E.  
*Instructor in Mechanical Drawing.*



**Civil Engineering.**

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PROF. ROWE, ASSISTANT PROF. CARREL, MESSRS.  
REES AND BOGGESS.

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The School of Civil Engineering is the oldest engineering school in the University and at present comprises the largest single department in the institution. The school has had a steady and uninterrupted growth from the beginning. The students are loyal and enthusiastic, and the general attitude of every student is that of helpfulness. For the past three years they have published monthly, during the session, the *Transit* which is a general university magazine. This journal has filled a great need, as it is the only representative student publication issued at the University. The Brooks Engineering Society, named in honor of the former dean of the School, is a flourishing organization and gives plenty of opportunity for the discussion of general engineering topics from both theoretical and practical standpoints.

The home of the School of Civil Engineering is at present in the boys' old dormitory. The school space is very much crowded, but in a very short time this state of affairs will be remedied, as the last legislative Assembly made provision for a civil engineering building. When new quarters are provided, it will be possible to increase greatly the quantity and quality of the work done by this school.

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**EQUIPMENT.**

The field and office equipment belonging to the department consists of eight transits, four engineers' levels, two solar attachments, one needle compass, one plane table, one precise pantograph, one polar planimeter, one thatcher machine, one set of splines, six hand levels, one sextant, one aneroid barometer, one cement testing machine, one set of railroad curves, level rods, cross-section rods, tapes, flags and minor accessories.

## LIBRARY.

The library for use of the students in engineering contains a well-selected supply of standard literature and periodicals pertaining especially to civil engineering, and to this library numerous additions are made yearly.

## AIMS.

The Course of Civil Engineering is planned to acquaint the student with the knowledge of the subject necessary to enable the civil engineer to develop himself into a skillful practitioner of his profession in any of its branches. So far as 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 make the course valuable not only for the 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 the profession are kept in view. In addition to the purely technical matters included in the course, provision is made for the study of English, History, Astronomy, and Political Economy.

## DRAWING.

I. *a.* Geometrical problems, detail and dimension drawing, pen topography, free-hand and mechanical lettering.

*b.* *Descriptive Geometry.* A study of the representation of lines, planes, surfaces, shades, shadows and perspective. Lectures, recitations, drawings, and assigned problems.

*c.* *Stereotomy.* Plane-sided surfaces, structures containing developable surfaces, structures containing double-curved surfaces.

## SURVEYING AND GEODESY.

II. *a.* *Land Surveying.* An elementary course in land-surveying methods and the use of surveying instruments, with recitations, lectures and field work. The field work affords practice in the use of chain, tape, compass, transit, and level.

*b.* *Topographical Surveying.* The use of the hand level, the theory and use of the stadia and other instruments employed in making a topographic survey are studied; also the method of topographic surveying. A complete topographic survey is made, based on a system of triangulation, including the calculations and completing as well as platting the map.

*c.* *Geodesy.* Base-line measurements, measurements of angles, horizontal and vertical; field methods for time, latitude, longitude



and azimuth. Students are required to make and reduce observations illustrating the work of the course.

#### APPLIED MECHANICS AND HYDRAULICS.

III. *a. Elementary Strength of Materials.* Elastic and ultimate strength; general properties; moments for beams; cantilever and simple beams; columns and struts; the torsion of shafts; elastic deformations; resilience of materials; reinforced concrete.

*b. Elementary Mechanics.* Concurrent forces; parallel forces; center of gravity; resistance and work; simple machines; gravity and motion; inertia and rotation.

*c. Advanced Strength of Materials.* A study of the principles and applications to engineering of the mechanics of solids, as related to the mutual actions, motions, pressures, strength, stiffness, and resilience of the members of structures and machines.

*d. Analytical Mechanics.* Statics of a material point; statics of a rigid body; statics of flexible cords; rectilinear motion of a material point; curvilinear motion of a material point; moment of inertia; dynamics of a rigid body; work, energy, power and friction.

*e. Hydraulics.* This course consists of text-book exercises together with the solution of numerous problems covering the principles of hydrostatic and hydrodynamic pressure, the flow of water through orifices and nozzles, over weirs, and through pipes and open channels, also the loss from friction and other sources.

*f. Irrigation and Drainage.* Grades, cross-section and capacity of canals; surveys, design of structures, dams, conduits, levees etc. Lectures, readings and collateral reports.

*g. Material Laboratory.* Testing of wood, iron, steel and cement. This course is given in connection with strength of materials.

*h. Hydraulic Laboratory.* Experimental Hydraulics. Lectures, computations and drawing.

#### MUNICIPAL AND SANITARY ENGINEERING.

IV. *a. Water Supply and Water Works Design.* Requisites of supply: sources of supply; rainfall; surface water; rivers and lakes; ground water; gravity systems; pumping systems; dams and embankments; purification of water; pumping and pumping engines; designing, construction, maintenance.

*b. Sanitary Engineering.* Sewerage systems, separate and combined; hydraulics of sewers; determination of size and capacity; surveys for drainage systems; design of system in detail; specifications and estimate of cost; inspection of work; methods of disposal; irrigation; filtration; chemical precipitation; bacteriolytic methods;

house drainage; garbage disposal.

*c. Sanitary Design.* This course consists of maps, profiles, details of manholes, flushtanks, catch-basins and all other details necessary to make up a complete design for the collection and purification of sewage.

*d. Highway Engineering.* Location of country roads; earth-work; drainage and culverts; bridges; retaining walls; reconstruction and improvement of country roads; maintenance; staking out the work; specifications and contracts; implements and prices.

*e. Streets and Pavements.* Pavements; material employed in the construction of pavements; resistance to traction. Lectures, assigned readings and reports.

#### RAILWAY ENGINEERING.

*V. a. Railroad Curves.* An elementary course in the theory of railway curves, with sufficient field practice to give familiarity with field methods,

*b. Railway Location.* This course consists of the study of economic methods of railway location together with the actual location of a railway line several miles in length, including reconnaissance, preliminary survey, topography, maps, projecting the location, making approximate estimates and final location.

*c. Railway Construction.* The work in construction will consist of lectures, recitations, and assigned readings in connection with office and field work in railway construction including cross-sectioning calculation of quantities, haul, monthly and final estimate. A complete estimate of quantities and cost of line will be made.

*d. Railway Maintenance.* Construction and maintenance of track and accessory structures. The improvement of gradient and alignment. The design and maintenance of yards and terminals, Lectures, recitations and assigned readings.

*e. Economics of Railway Operation.* Organization. Relation of management and operation departments to construction and maintenance departments. Block signaling and interlocking. Rapid transit. Employment, education and discipline of force. Accounts and accounting. Reports. Betterments.

#### BRIDGE ENGINEERING.

*VI. a. Structural Drafting.* The work in structural drafting consists of fifteen plates of structural details. This course is completed before any other work of a structural nature is undertaken.

*b. Bridge Stresses.* This course is the analytical method of finding stresses in roof and bridge trusses and consists of the following: roof



trusses, bridge trusses under live and dead loads, final stresses for bridge trusses, American bridge trusses, bridge bracing members and floors.

*c. Bridge Stresses.* Graphic method. Principles and methods, roof trusses, bridge trusses, locomotive wheel loads, trusses with broken chords, miscellaneous trusses.

*d. Structural Details.* Methods of proportioning individual members of framed structures, and the design of joints and splices in steel and wooden structures; design of a roof truss and a railway plate girder bridge; practice in making complete shop drawings,

*e. Metal Construction.* The study and design of mill buildings are taken up and also the study of railroad trestles, mine structures, grain elevators, towers, tanks, etc.

*f. Bridge Design.* Theory and design of steel structures; including a complete design for highway and railway bridges.

#### CONSTRUCTION.

VII. *a. Tunneling.* A study of the principles of tunneling, and of the methods employed in constructing some of the noted tunnels.

*b. Masonry Construction.* Properties of stone, brick, cement and concrete, and their uses in engineering structures. Foundations, retaining walls, piers and abutments, dams and chimneys, the design of masonry structures including arches, dams, and the application of the principles of descriptive geometry to problems in stone cutting.

*b. Reinforced Concrete.* Determination of forms and proportions. Lectures, recitations, computations, and drawings. Design of columns, beams, and also a complete design of an arch of reinforced concrete construction, including its abutments and centering.

*d. Cement Testing and Handling.* In this course students are given cement testing and also actual practice in handling cement in making walks, curbs, foundations, hollow block, and reinforced slabs.

#### LAW OF CONTRACTS, SPECIFICATIONS AND THESIS.

VIII. *a. Specifications and Law of Contracts.* A short course of the law of contracts, as applied in engineering construction, will be given. A detailed study of typical contracts and specifications.

*b. Thesis.* The subject of the thesis is to determine the student's ability to enter upon a course of independent investigation and thus to apply some of the fundamental principles.

#### ARCHITECTURE.

IX. *a. Wood Construction.* Study of columns, beams, girders, etc., of wood and metal. Solution of examples. Wood and its uses

in construction and decoration, defects and modes of protection from decay. Construction and design of wooden floors, walls, ceilings, roofs and joinery, doors, windows, stairs, etc.

*b. Architectural Perspective.* This work consists of problems in angular, parallel, vertical and curvilinear perspective, as well as in perspective shades and shadows.

*c. Masonry and Metal Construction.* Foundations of stone, brick, concrete, and piles. Materials employed in stone masonry, uses, defects, qualities and mode of preparation. Stone cutting. Brick masonry. Special properties and value of metal in a structure.

*d. Requirements and Planning of Buildings.* Necessary requirements to be considered in planning schools, churches, libraries, theatres, hospitals, and other usual types of buildings. Problems in planning are given.

*e. History of Architecture.* This course continues throughout the year beginning with Egyptian and ending with modern architecture. A careful study is made of the more important styles. Especial attention is given to ideas useful or suggestive in American work. Recitations, illustrated lectures and assigned readings.

*f. Sanitary Construction.* Designs for special problems. Plumbing; water-closets; baths; urinals; etc. Sewerage disposal; water supply. Recitations, assigned readings and lectures.

*g. Graphic Statics and Roof-truss Design.* Forces, equilibrium, reactions, moments, bending moments, and shear on beams. Design of wooden and metallic roof trusses.

*h. Working Drawings.* Conventional methods for representing the different parts of buildings in general and in detail. Systems of lettering and figuring drawings; working drawings, tracings, drawings for reproduction.

*i. Architectural Drawings.* Continuation of the study of Graphic Statics with the application to the analysis of metallic roofs of wide span. Roof trusses of unusual form. The strength of walls, dams, retaining walls, and large chimneys is investigated, also the effect of moving loads on girders and the construction and details of steel skeleton buildings. Working drawings.

*j. Heating and Ventilating.* Different systems of heating by furnaces, hot-water and steam systems are studied in detail. Requirements for good ventilation. Blower systems of heating. Automatic Regulation. Plans and Specifications.

*k. History and Criticism of Art.* A course of illustrated lectures, supplemented by readings, devoted to a critical analysis of the development of beauty through the historic period.



*l. Architectural Engineering.* Readings, reports and discussions of correct literature pertaining to architectural construction.

*m. Thesis.* Subject assigned and the preliminary work on the-  
sis must be commenced during the first term of the senior year.

*n. Superintendence, Estimates, and Specifications.* Duties of  
superintendent, his relation to architect, owner and contractor. Va-  
rious methods of making estimates. A study of specifications is first  
taken up and then several sets of specifications are written.

#### COURSES FOR GRADUATES.

- a.* Railway Location and Construction.
- b.* Yards and Terminals.
- c.* Motive Power and Rolling Stock.
- d.* Railway Operation and Management.
- e.* Metallic Arches.
- f.* Bridge Design.
- g.* Reinforced Concrete.
- h.* Water Power Development.
- i.* Engineering Jurisprudence.

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#### ADVANCED DEGREE.

For the degree of C. E., Railway Location and Construction, Yards and Terminals, Motive Power and Rolling Stock, Railway Operations and Management, Metallic Arches, Bridge Design, Reinforced Concrete, Water Power Development, Engineering Jurisprudence, Municipal Engineering or Mining Engineering may be selected as a major study; and minor studies will be assigned from Mathematics, Astronomy, Mechanical Engineering, Geology, Chemistry, Physics, Political Economy, English, French and German.

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**Schedule for Courses in B. C. E.**

| YEAR.     | FIRST HOUR.<br>8-9 A. M.                    | SECOND HOUR.<br>9-10 A. M.        | THIRD HOUR.<br>10:30-11:30 A. M.                | FOURTH HOUR.<br>11:30 A. M.-12:30 P. M.        | 1:30-3:30 P. M.                                 | 3:30-4:30 P. M.            | SATURDAY<br>A. M.       | TERM. |
|-----------|---------------------------------------------|-----------------------------------|-------------------------------------------------|------------------------------------------------|-------------------------------------------------|----------------------------|-------------------------|-------|
| FRESHMAN  | English<br>Drawing 3<br>2                   | Trigonome-<br>try 3<br>2          | Physics<br>Drawing 2<br>2                       | El. Strength of<br>Materials 5                 | Drawing 5                                       | Drill 5<br>4:30-5:30 Gym 3 | Drawing                 | I     |
|           | English<br>El. Mechanics 3<br>2             | Higher Alge-<br>bra 2             | Physics<br>Surveying 3<br>2                     | Chemistry 4                                    | Chemistry<br>Lab. Physics Lab. 3                | Drill 4<br>4:30-5:30 Gym 3 | Drawing                 | II    |
|           | English<br>El. Mechanics 3<br>2             | Higher Alge-<br>bra 3             | Physics<br>Surveying 3<br>2                     | Chemistry 3                                    | Chemistry<br>Lab. Physics Lab. 3                | Drill 4<br>4:30-5:30 Gym 3 | Field Work<br>Drawing   | III   |
| SOPHOMORE | Analytical<br>Geometry 5                    | Adv. Physics 3<br>R.R. Location 2 | Advanced<br>Surveying<br>Field Work 3           | Root Design<br>Field Work 4                    | Field Work 1<br>Chemistry 3<br>Lab. 4           | Drill 4<br>4:30-5:30 Gym 3 | Field Work              | I     |
|           | Analytical<br>Geometry 5                    | Adv. Physics 3                    | Calculus 5                                      | Desc. Geom. 5                                  | R. R. Curves<br>Office Work 5                   | Drill 4<br>4:30-5:30 Gym 3 | Descriptive<br>Geometry | II    |
|           | Analytical<br>Geometry 5                    | Adv. Physics 5                    | Calculus 5                                      | Desc. Geom. 5                                  | Field Work 5                                    | Drill 4<br>4:30-5:30 Gym 3 | Descriptive<br>Geometry | III   |
| JUNIOR    | Geodesy<br>Bridge<br>Stresses 3<br>2        | Mechanics of<br>Materials 5       | Calculus 5                                      | Stone Cutting 5                                | Geodetic and<br>Topographic<br>Field Work. 5    | Drill 5                    | Cement Test-<br>ing     | I     |
|           | Bridge<br>Stresses 5                        | Analytical<br>Mechanics 5         | R. R. Spiral 2                                  | Sph. Trig. and<br>Astronomy 3<br>Econ. Geol. 2 | Graphic Sta-<br>tics 3                          | Drill 5                    | Graphic Sta-<br>tics    | II    |
|           | Retaining<br>Walls<br>Mas. Dams 2           | R. R. Construc-<br>tion 2         | Analytical<br>Mechanics 5                       | Astronomy 3<br>Econ. Geol. 2                   | R. R. Fld. Work<br>Des. of Walls<br>and Dams. 2 | Drill 5                    | R. R. Field<br>Work     | III   |
| SENIOR    | Hydraulics<br>Reinforced<br>Concrete 2<br>3 | History<br>Sociology 3            | R. R. Mainte-<br>nance 3. Bri-<br>dge Design 2  | Masonry Con-<br>struction 3                    | Bridge Design 3                                 | Drill 5                    | Bridge Design           | I     |
|           | Water Supply<br>Tunneling 2<br>3            | History<br>Sociology 3            | San. Eng. 3. R.<br>R. Operation<br>and Manag. 2 | Roads Sts. and<br>Pavements 3                  | Bridge Design 3                                 | Drill 5                    | Sewer Design            | II    |
|           | Hydraulic<br>Mach.<br>Thesis 3              | History<br>Sociology 3            | Thesis 2                                        | Thesis 2                                       | Hydr. Design 3                                  | Drill 5                    | Thesis                  | III   |

Numbers give hours recitation per week.

2's Recite on Tuesdays and Thursdays.

3's on Mondays, Wednesdays and Fridays.



**SCHOOL OF MECHANICAL AND ELECTRICAL  
ENGINEERING.**

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**Faculty.**

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FREDERICK PAUL ANDERSON, M. E., Director,  
*Professor of Mechanical Engineering.*

ALEXANDER MASSEY WILSON, M. E.,  
*Professor of Electrical Engineering.*

LEON KAUFMAN FRANKEL, M. E.,  
*Professor of Machine Design.*

LOUIS EDWARD NOLLAU, B. M. E.,  
*Instructor in Mechanical Engineering.*

JOSEPH DICKER,  
*Instructor in Foundry and Forge Shop.*

LEO LOGAN LEWIS, B. M. E.,  
*Instructor in Wood Shop and Drawing.*

CHARLES EDGAR SCHOENE, B. M. E.,  
*Instructor in Steam and Electrical Laboratory.*

GEORGE MCINTYRE HOWARD,  
*Assistant in Experimental Laboratory.*

G. O. THURMAN,  
*Engineer and Assistant in Wood Shop.*

JOHN B. DICKER,  
*Assistant in Shops.*

MRS. ANNA BERRY JONES,  
*Secretary to the Director.*

### **Mechanical and Electrical Engineering.**

PROFESSORS ANDERSON, WILSON AND FRANKEL.

This school was organized August 1891. The growth in attendance has been healthy, and for some years the school has had the largest attendance of all of the four-year courses.

The home of this school is Mechanical Hall, a brick building trimmed with stone, having a floor area of 20,000 square feet. There are three recitation rooms and two drawing rooms, in which theoretical subjects and mechanical drawing and design are taught.

Practical experience in the wood and pattern shop, the foundry, the blacksmith shop and the machine shop, is obtained during the first two years of the course.

Experimental work in mechanical and electrical engineering is done in the engineering laboratories. The main laboratory is in Mechanical Hall, and contains the necessary machinery and apparatus for experimental work of a dynamic character, in both mechanical and electrical engineering. An auxiliary laboratory is situated in a detached two-story building. This building contains concrete piers, so that careful measurements can be made in the study of magnetic and electric phenomena; it also contains apparatus for work in photometry and telephony.

### **EQUIPMENT.**

The equipment of the department is described briefly as follows: The drawing rooms contain drawing tables and boards to accommodate about one hundred students.

Power is supplied to the shops by a 10-inch by 24-inch Hamilton-Corliss non-condensing engine.

The wood shop contains thirty benches, each with a complete set of bench tools; and twenty-two lathes, each with a complete set of



wood-turning tools. Besides these there are a band saw, a jig saw, two circular saw tables, a trimmer and a grindstone.

The foundry contains a 30-inch cupola furnace, having a capacity of a ton of metal per hour, a brass furnace, twelve complete sets of moulder's tools, twelve benches, besides the ladles, flasks, clamps, core oven, pattern rack, and other equipment such as is used in practical foundry operation.

The blacksmith shop is equipped with fifteen down-draft forges. With each forge there is a set of blacksmith tools. A power hammer is available for heavy work.

The machine shop contains seven lathes, two milling machines, one planer, one shaper, two drilling machines, one dry emery grinder, one wet emery grinder, one universal grinding machine, two sensitive drills, twelve vises for bench work in metal, an air compressor, some pneumatic tools, and a small punch and shear.

The tool room is equipped with a varied assortment of such tools and supplies as are used in the shops. In connection with the shops there is a wash-room containing lockers for the accommodation of the students.

There are two separate boiler-houses. One contains a 50-horse-power Babcock and Wilcox boiler and a No.3 Dean pump. The boiler is used for heating and to supply steam to the Hamilton-Corliss engine which furnishes power to the shops. The other boiler house is situated close to the steam laboratory, and a 100-horse-power Babcock and Wilcox boiler has just been installed in it. This boiler can furnish steam at 200 pounds pressure, and an elaborate equipment for boiler testing has been installed, including induced draft apparatus, barrels and scales for weighing water, and devices for burning oil and gas, as well as coal.

The steam engineering laboratory is equipped with indicators, planimeters, gauges, pyrometers, reducing motion apparatus, scales, micrometers, tachometers, etc. It contains a 40-horse-power Houston, Stanwood and Gamble cross-compound throttling engine, a 10-horse-power Corliss engine, a 25-horse-power Buffalo Forge engine, a 35-horse-power Westinghouse single-acting compound engine, a small slide-valve engine for elementary experimental work in valve setting, a small engine with Stephenson valve gear, and a 10 horse-power De Laval turbine. There is also a 4-horse-power Fairbanks-Morse gasoline engine with gas attachment, and the necessary auxiliary apparatus for testing.

For work in testing materials of construction there is a 100,000

pound Riehle testing machine, and a Fairbanks-Morse cement-testing equipment.

For the experimental engineering work in electrical engineering there are a 10 kw., d. c. Edison dynamo, a 9 kw., d. c. motor, a 2-horse-power General Electric induction motor, a 1.5 kw. polyphase dynamo, a Wagner induction motor, d. c. generator set furnishing 3 kw., a potentiometer, a photometer, and several galvanometers, Wheatstone bridges, and other apparatus of the same general character.

There is quite an extensive equipment for pursuing the study of telephony, consisting of a small switchboard containing jacks and operators for both common battery and magnet circuits, built by the American Telephone Company. Then there is a number of subscribers' instruments, some of the American Telephone Company's make, and some of the Western Electric Company's. This equipment is sufficient to enable the students to obtain a comprehensive grasp of some of the advanced problems of telephony.

The aim of the school of Mechanical and Electrical Engineering, as a part of the State University, will be primarily to train young men to be competent to take up the work usually assigned to graduates of engineering schools, either in mechanical or electrical engineering. In addition to this, as opportunity offers, it is expected to pursue advanced scientific research pertaining to all the branches of mechanical, electrical, and chemical engineering.

#### COURSE OF STUDY.

The practical work extends over a period of two years, and includes the experience in the wood shop, machine shop, foundry, and forge shop. During this period the class-room work and drawing are preparatory to the theoretical studies taken up during the third and fourth years. The course in Mechanical Engineering, as administered at the State University of Kentucky, may be considered as being divided into three parts, as follows:

1. *Mechanical Engineering Proper.* Under this heading come the studies of steam engineering practice, the operation and design of gas engines and producers, and the operation and design of manufacturing machinery.

2. *Chemical Engineering.* This is intended especially for those who will go into the making of iron and steel, and involves study of the various methods of analysis of iron, steel, coals, fluxes, and refractory substances.

3. *Electrical Engineering.* This involves the study of the design



and operation of electrical apparatus and machinery.

Of course, the foregoing is a general classification. Each of the subjects mentioned permits of further subdivision to suit the needs of the student.

### DEGREES.

The courses of study in Mechanical and Electrical Engineering all lead to the degree or B. M. E. (Bachelor of Mechanical Engineering). The advanced degree, M. E. (Mechanical Engineer), may be obtained by a resident student in one year after taking the degree B. M. E. from the State University of Kentucky, or any institution of equal requirements, provided he has done the work assigned him satisfactorily, passed his examination, and presented an acceptable thesis.

A non-resident student may obtain the degree of M. E. three years after graduation, if he has been engaged in practical engineering work during that time, passes an examination, and presents an acceptable thesis. At least two years' notice must be given to the Faculty that post-graduate work is to be done, and the work must be approved by the Faculty.

### FRESHMAN YEAR.

1. *Technical Instruction.* Thirty-five weeks, one hour per week. (a) Recitation 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, molding and casting.

2. *Mechanical and Free-hand Drawing.* Thirty-five weeks, seven and a half 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. (e) Blue-printing.

3. *Shop-work.* Thirty-five weeks, eleven and a half hours per week. (a) Bench-work in wood, including exercises in the following operations: planing, sawing, rabbeting, plowing, 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 experience in the construction of patterns for foundry work. (d) Foundry work, including the various operations of molding, core-making and the melting of iron and brass.

4. *English.* Thirty-five weeks, three hours per week.

5. *Higher Algebra.* Twenty weeks, five hours per week.

6. *Trigonometry*. Fifteen weeks, five hours per week.
7. *Physics*. Fifteen weeks, two hours per week; twenty weeks, three hours per week.
8. *Chemistry*. Fifteen weeks, three hours per week; twenty weeks, two hours per week.

## SOPHOMORE YEAR.

1. *Mechanical Drawing*. Fifteen weeks, eight hours per week.  
(a) Drawing the parts of machines and complete machines to scale.  
(b) Isometric and Descriptive Geometry problems. (c) Design of machine details.
2. *Shop-work*. Thirty-one weeks, ten 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.
3. *Shop Practice*. Fifteen weeks, two hours per week.
4. *Descriptive Geometry*. Twenty weeks, eight hours per week.
5. *Physical Laboratory*. Fifteen weeks, five hours per week.
6. *Advanced Physics*. Fifteen weeks, three hours per week.
7. *Analytical Geometry*. Thirty-five weeks, five hours per week.
8. *Surveying*. Twenty weeks, two hours per week.
9. *Calculus*. Twenty weeks, five hours per week.
10. *Electricity and Magnetism*. Twenty weeks, three hours per week.
11. *Field Work in Surveying*. Four weeks, ten hours per week.

## JUNIOR YEAR.

1. *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.
2. *Mechanical Drawing*. Fifteen weeks, nine hours per week; ten weeks, ten hours per week and ten weeks, eight hours per week. The work consists of Kinematic Drawing, including spur, bevel, worm and spiral gearing: Design of Shop Machines, such as lathes, planers, shapers, drills, etc., including an original design by each student of some shop machine complete, with all detail drawings.
3. *Analytical Mechanics*. Twenty weeks, five hours per week.
4. *Strength of Materials*. Fifteen weeks, five hours per week.
5. *Elements of Electrical Engineering*. Fifteen weeks, five hours per week.



6. *Graphic Statics*. Ten weeks, five hours per week.
7. *Calculus*. Fifteen weeks, five hours per week.
8. *Electrodynamic Machinery*. Ten weeks, five hours per week.
9. *Theory of Machine Design*. Five weeks, five hours per week.
10. *Dynamo and Motor Design*. Ten weeks, five hours per week.
11. *Electrical Design*. Ten weeks, five hours per week, and five weeks, five hours per week.
12. *Electrical Laboratory*. Ten weeks, two hours per week.
13. *Chemistry and Gas Analysis*. Ten weeks, five hours per week.
14. *Flue Gas Analysis*. Ten weeks, three hours per week.
15. *Chemical Laboratory*. Fifteen weeks, four hours per week.
16. *Testing of Materials Laboratory*. Fifteen weeks, one hour per week.

## SENIOR YEAR.

1. *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 turbine, and gas engine.
2. *Steam Boilers*. Fifteen weeks, two hours per week. A study of the various commercial steam boilers, consumption of fuel, incrustations, determining the horse power of boilers, boiler tests, the design of boilers for efficiency and economy, and the methods of transmission.
3. *Valve Gearing*. Fifteen weeks, three hours per week. The study of various forms of standard engine valves and methods of designing.
4. *Hydraulics*. Fifteen weeks, two hours per week.
5. *Alternating Currents; Dynamo and Motor Design*. Fifteen weeks, five hours per week.
6. *Electrical Laboratory*. Twenty-five weeks, three hours per week.
7. *Alternating Currents and Power Plants*. Ten weeks, five hours per week.
8. *Logic*. Thirty-five weeks, two hours per week.
9. *History*. Thirty-five weeks, three hours per week.
10. *Dynamometers and Measurement of Power*. Ten weeks, two hours per week.
11. *Steam Turbines*. Ten weeks, three hours per week.
12. *Mechanical Drawing*. Ten weeks, eight hours per week, and five weeks, five hours per week. This consists in working out valve gear problems.
13. *Engine and Machine Designing*. Fifteen weeks, five hours per

week. A study of the modern methods of designing engines, boilers and machines.

14. *Experimental Engineering*. Twenty-five weeks, three hours per week. This includes a study of the steam engine indicator, making engine, boiler, and materials for construction tests, and experimental engineering work in electrical engineering.

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

16. *Electrical Design*. Twenty five weeks, three hours per week. This consists of drawing-room work, Saturday mornings.

17. *Thesis Work*. Ten weeks, fifteen 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 these are assigned to students by the Dean of the Mechanical and Electrical Engineering Faculty, and the complete theses are kept on file with the college records, that they may serve as a reference for future investigators.

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**Schedule of Studies for the Degree B. M. E.**

| YEAR.     | FIRST HOUR.<br>8-9 A. M.       | SECOND HOUR.<br>9-10 A. M.   | THIRD HOUR.<br>10:30-11:30 A. M.    | FOURTH HOUR.<br>11:30-12:30 A. M. | 1:30-3:30 P. M.                 | 3:30-4:30 P. M.      | SATURDAY<br>9-12 A. M.  | TERM. |
|-----------|--------------------------------|------------------------------|-------------------------------------|-----------------------------------|---------------------------------|----------------------|-------------------------|-------|
| FRESHMAN  | English Drawing 3              | Trigonometry 5               | Physics Drawing 3                   | Chemistry Drawing 2               | Wood Shop Bench Lathe 3         | Drill Gym. 4:30-5:30 | Wood Shop Drawing       | I     |
|           | English Drawing 3              | Higher Algebra 5             | Physics Drawing 3                   | Chemistry Drawing 3               | Pattern Mak. & Foundry 2        | Drill Gym. 4:30-5:30 | Pattern Mak. & Drawing  | II    |
|           | English Drawing 3              | Higher Algebra 5             | Physics Drawing 3                   | Chemistry Drawing 3               | Pattern Mak. & Foundry 2        | Drill Gym. 4:30-5:30 | Pattern Mak. & Drawing  | III   |
| SOPHOMORE | Analytical Geometry 5          | Adv. Physics Shop Practice 3 | Elementary Design 5                 | Physical Lab. 5                   | Iron & Steel Forging 5          | Drill Gym. 4:30-5:30 | Elementary Design       | I     |
|           | Analytical Geometry 5          | Elec. & Mag. Surveying 3     | Calculus 5                          | Desc. Geom. 5                     | Machine Shop Work 5             | Drill Gym. 4:30-5:30 | Descriptive Geom. Draw. | II    |
|           | Analytical Geometry 5          | Elec. & Mag. Surveying 3     | Calculus 5                          | Desc. Geom. 5                     | Machine Shop Work & Surveying 5 | Drill Gym. 4:30-5:30 | Descriptive Geom. Draw. | III   |
| JUNIOR    | Elementary Electricity 5       | Mechanics of Materials 5     | Calculus 5                          | Kinematics 5                      | Kinem. Draw. Chemical Lab. 5    | Drill                | Testing of Materials    | I     |
|           | Analytical Mechanics 5         | Electrical Design 5          | Chem. & Gas Analysis 5              | Mach. & Elec. Design 5            | Machine Des. 5                  | Drill                | Flue Gas Analysis       | II    |
|           | Graphic Statics 5              | Dyn. & Mot. Design 5         | Analytical Mechanics 5              | Dyn. Elec. Machinery 5            | Machine Des. Elec. Lab. 5       | Drill                | Electrical Design       | III   |
| SENIOR    | Thermodyn. Hydraulics 3        | History Logic 2              | Altern. Curr. & Dyn. Mot. Design. 3 | Valve Gears Steam Boil. 2         | Valve Des. & Elec. Lab. 3       | Library              | Steam Laboratory        | I     |
|           | Altern. Curr. & Power Plants 5 | History Logic 2              | Steam Eng. & Pump Design 3          | Dynamo-meters Steam Turbi. 2      | Valve & Mot Des. 3              | Library              | Steam Laboratory        | II    |
|           | Thesis 5                       | History Logic 2              | Photography 5                       | Thesis 5                          | Thesis. 5                       | Library              | Thesis                  | III   |

*Numbers give hours recitation per week.*

*2's Recite on Tuesdays and Thursdays.*

*3's on Mondays, Wednesdays and Fridays.*

**SCHOOL OF MINING ENGINEERING.**

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**Faculty.**

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- JAMES KENNEDY PATTERSON, PH. D., LL. D., PRES.,  
*Professor of History and Political Economy.*
- CHARLES JOSEPH NORWOOD, M. S., DEAN,  
*Professor of Mining Engineering and Metallurgy.*
- HARRY DRAPER EASTON, B. S.,  
*Assistant in Mining Engineering, Assaying, Metallurgical  
Laboratory, Mine Surveying, Senior Design.*
- ALEXANDER ST. CLAIR MACKENZIE, M. A., F. R. S. L.,  
*Professor of English Language and Literature.*
- PHILIP WORTHINGTON CORBUSIER, Lieut. U. S. A.,  
*Professor of Military Science.*
- JAMES GARRARD WHITE, A. M.,  
*Professor of Mathematics and Astronomy.*
- FREDERICK PAUL ANDERSON, M. E.,  
*Professor of Mechanical Engineering.*
- ARTHUR McQUISTON MILLER, A. M.,  
*Professor of Geology and Mineralogy.*
- FRANKLIN ELLIOTT TUTTLE, A. M., PH. D.,  
*Professor of Chemistry.*
- MERRY LEWIS PENCE, M. S.,  
*Professor of Physics.*
- ALEXANDER MASSEY WILSON, M. E.,  
*Professor of Electrical Engineering.*
- LEON KAUFMAN FRANKEL, M. E.,  
*Professor of Machine Design.*
- WALTER ELLSWORTH ROWE, C. E.,  
*Professor of Civil Engineering. (Hydraulics).*
- LOUIS EDWARD NOLLAU, B. M. E.,  
*Instructor in Descriptive Geometry.*
- LEO LOGAN LEWIS, B. M. E.,  
*Instructor in Drawing and Shopwork.*
- ASHER GRAHAM SPILLMAN,  
*Assistant Inspector of Mines.*



### **Mining Engineering.**

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PROFESSOR NORWOOD\* and ASSISTANT EASTON.

(\*State Inspector of Mines and State Geologist).

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The establishment of this School was authorized by an Act of the General Assembly, Session of 1898, which went into effect in 1902. Two courses have been arranged, with a third one under consideration, namely:

1. The full course, which extends through four years and leads to the degree of Bachelor of Mining Engineering.

2. A short course for practical miners, mine foremen, and mine managers who desire to improve their knowledge of the principles that underlie correct mining. This course, which covers a term of eight or ten weeks, will be opened in June 1908 and will annually thereafter form one of the regular courses of the University. Detailed information concerning the course will be found elsewhere in this Catalogue.

3. A two years' course is in contemplation for young men who for any reason may not be prepared to take the full course, but who desire to obtain more than an elementary training in the methods of mining. It is hoped that this course may be established during the coming year. Requirements for entrance will be less exacting than are those for the full course, just as the range of instruction will be less comprehensive. No degree will be conferred, but a certificate of proficiency in the studies pursued will be given.

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### **BUILDINGS.**

During the past year the University authorities have erected a commodious Mining Laboratory. The building is of brick, 40 feet by 80 feet, and two stories high. The first floor is used for instruction in ore dressing and metallurgy; the upper one for assaying and metallurgy. Space is provided on the first floor for the clay-testing

kilns of the State Geological Survey, and the chemical laboratory of the Survey occupies part of the second floor. This building constitutes a wing of a proposed building, for which an appropriation was made by the General Assembly in 1908, which will contain classrooms, drawing-rooms, offices, etc., for the Mining School, and offices and rooms for records, books, maps, etc., of the State Inspector of Mines and the Geological Survey, together with the State Geological Museum. At present, rooms in the Natural Science Building are used for instruction and for the State offices and Museum.

#### THE FULL COURSE.

This course is laid out with the design of affording the student a thoroughly good foundation for professional work in Mining, Metallurgy, Assaying, and Geology, and of so preparing him that he may readily and quickly assimilate that knowledge of the details of practice which may be gained only through experience.

#### MINING.

The instruction in the special theme of Mining (including both coal and metal) is laid out along a continuous line, each subject being introductory to that which follows, and is given by lectures, supplemented by text-books and special reading. The School is equipped with an excellent electric-light stereopticon, and a reflectoscope, with a large number of special slides for illustrating lectures; also with many charts, photographs, and blue prints, illustrating mining methods and mining machinery. The equipment for lecture room demonstrations also includes a working model of a mine hoist with safety catches; examples of mining tools; safety lamps of various types, and apparatus for measuring ventilation. For the more elaborate study of mine gases, the School has use of the apparatus provided for the office of the State Inspector of Mines. A general statement of the subjects discussed under the head of Mining is given under the appropriate years following.

#### MINE SURVEYING.

In Mine Surveying, which comes in the Sophomore and Junior years, the application of the art of surveying to the work of the mining engineer is emphasized. Following the preliminary instruction and the solution of general problems, the practical applications are taken up, including running outcrop; determining the proper locations of mine opening and tippie; locating buildings, bodies of water and streams with relation to underground workings; bringing branch lines in from main track; carrying meridian into mine; plumbing shafts, surveying entries and rooms, grading mine entry for track,



setting out curves, changing distances between room necks with variations of the entry, driving both ways, locating bore-holes for pipes, etc., solving drainage problems, surveying stopes with German dial (string survey) and with transit, construction of mine maps, and sections, etc. Opportunity for practice in underground surveying is afforded at the coal mines and at the vein mines (lead, zinc, and spar) within short distance from Lexington. The mine maps filed by the various companies with the State Inspector of Mines are at the service of the student for study and comparison.

In Chemistry, preparatory for metallurgy, three terms of work are required, the first two being in the Freshman year. The course for the first term consists of lectures and recitations on general chemistry, together with laboratory work. The second term is devoted to qualitative analysis. Quantitative analysis comes in the third term, and is given in the Sophomore year.

#### METALLURGY.

In Metallurgy, which begins with the third term of the Sophomore year, five terms of work are provided for. A term of instruction is provided for the student in mechanical engineering and in chemistry, who may not elect to pursue the subject further. The work in Metallurgy is apportioned thus, the periods indicated being times each week:

Metallurgy 1. Elements of Metallurgy, including the physical properties of metals, refractory materials, metallurgical fuels, a general review of metallurgical processes, furnace types, metallurgy of iron, steel, copper, etc., and metallurgical computations. Sophomore 3d, 3 afts. and Junior 2d, 2 afts.

Metallurgy 2. Copper, lead, zinc, specialized, including physical properties, reduction processes, etc. Junior 1st, 5 afts.

Metallurgy 3. Iron and steel, including an elaboration of processes, furnaces, metallurgical calculations, and iron founding with practical work with the cupola. Junior 2d, 3 times, mornings and afts.

Metallurgy 4. Copper elaborated, silver, gold, and alloys; also iron founding with cupola practice, and metallurgical calculations. Junior 3d, 2 times in mornings, and 3 afts.

Metallurgy 5. Other metals; hydrometallurgy of gold and silver; metallurgical mill construction; fuel testing. Senior 1st, 2 times and Lab.

#### ASSAYING AND ORE DRESSING.

Assaying is carried on during the second and third terms of the Junior year. Advanced assaying may be taken up during the Senior year.

Ore dressing, which includes the various processes for separating and concentrating ores and other useful minerals, is carried through two terms of the Junior year, and may be continued in the Senior year if the student so elects.

The Assay and Metallurgical Laboratory is provided with several gasoline assay furnaces; a plant of gas furnaces; a coke (or charcoal) furnace; crushing, grinding and sampling apparatus, etc; an Abbe "Double Trojan" Ball Mill; a Rotating Machine for "barrel chlorination," and apparatus for studying the cyanide and amalgamation processes. A Calorimeter for the study of fuels and a special furnace for testing clays are also at the command of the School.

It is intended that the Mining Laboratory shall not only serve the purpose of instruction, but that it shall prove helpful, as a testing laboratory, to those engaged in mining operations in the coal, lead, zinc and spar districts of the State. The present equipment includes a standard, full-sized Wilfley Concentrating Table; a Three-stamp Mill, made by the Allis-Chalmers Company (to whom the School is indebted for generous treatment); a Hallet Hand Jig; a Vezin Jig; a Munroe Laboratory Slime Table; a Munroe Laboratory Classifier; a Dings Electro-Magnetic Separator; an electro-static separator; a Campbell Coal-washer; a complete model of the St. Bernard Mining Company's coal-washery; and a complete ventilating fan and fan-house. The last three were provided through the generosity of Mr. John B. Atkinson, President of the St. Bernard Mining Company, Earlington, Ky. The fan has been so installed that various problems relating to mine ventilation may readily be studied. The machines are operated by electric motors. Additional apparatus will be provided from time to time.

Instruction in Applied Electricity, given by the Professor of Electrical Engineering, extends through the Junior year into the Senior year. A full term is given to lectures, in connection with design, on electrical appliances with especial reference to their use in mining operations, including electric haulage, hoisting and pumping machinery, trolley lines, intracommunicating telephones, power generators, installation of electric motors, winding of armatures, etc. A number of afternoons are given to work in the Steam and Electric Laboratory in the study of the care and management of steam and electric machinery and gasoline engines.

The State University is exceptionally well situated with reference to the practical study of both coal and metal mining (including lead, zinc and iron), and for the study of metallurgical practice in certain lines, there being within the State numerous coal and metal mines,



and several iron and steel metallurgical establishments within easy reach of Lexington. Practical work in concentrating lead ores may be studied at the Gratz and the Kissinger mines, in near-by counties. At the Gratz mine the plant includes crushers, jigs, a Huntington mill, and Woodbury concentrators. At the Kissinger mine the plant includes crusher, rolls, Huntington mill, Woodbury concentrators, and a smelter. The latter mine may be reached by trolley line and a short drive. Elaborate lead and zinc concentrating plants may be studied in the western part of the State. Coal washing and coking may be studied at Ashland, where a Robinson washer is used, and at Earlington, where a Campbell plant is in operation. The copper mines of Tennessee, the iron mines of Virginia, Alabama and Tennessee, and the gold mining regions of Alabama and Georgia, with their accompanying metallurgical plants, may be reached within twenty-four hours or less of travel.

#### COURSE OF STUDY.

The schedule on a succeeding page exhibits the studies that lead to the degree of B. E. M.

The courses are as follows:

##### FRESHMAN YEAR.

*First Term.* English, Physics, Trigonometry, Woodwork (Tools and Machinery), Drawing, Shopwork (Bench and Lathe).

*Second Term.* English, Higher Algebra, Physics, Chemistry, Drawing.

*Third Term.* English, Higher Algebra, Physics, Chemistry, Drawing.

##### SOPHOMORE YEAR.

*First Term.* Analytical Geometry, Electricity and Magnetism, Elementary Design, Physical Laboratory, Iron and Steel Forging.

*Second Term.* Analytical Geometry, Electricity and Magnetism, Quantitative Analysis, Calculus, Descriptive Geometry, Mine Surveying and Mapping.

*Third Term.* Analytical Geometry, Electricity and Magnetism, Calculus, Descriptive Geometry, Elements of Metallurgy, Mine Surveying and Mapping.

##### JUNIOR YEAR.

*Electrical Engineering*, First Term; Professor Wilson.

*Calculus (concluded)*, First Term; Professor White.

*Strength of Materials*, First Term; Professor Frankel.

*Metallurgy*, Three Terms; Professor Norwood, and Assistant Easton.

*Analytical Mechanics*, Second and Third Terms; Professor Frankel.

*Physical Geology*, Second Term; Professor Miller.

*Economic Geology*, Second and Third Terms; Professor Miller.

*Assaying*, Second and Third Terms; Assistant Easton.

*Mineralogy*, Second and Third Terms; Professor Miller.

*Dynamo-Electric Machinery*, Third Term; Professor Wilson.

*Mine Surveying*, First Term; Assistant Easton.

MINING 1. *Introductory, Excavating, Quarrying.* (a) Excavation in soft-ground and in rock: Tools and methods; steam excavators and dredges; by water, etc. (b) Explosives and blasting: Kinds and effects of explosives; theory and practice of blasting, placing, charging, and firing holes under various conditions; precautions in blasting; substitutes for explosives. (c) Quarrying: Plants and methods for various sorts of rock; underground quarries.

MINING 2. *Boring, Shaft-Sinking, Shaft-Boring.* (a) Boring: Methods with auger, with rods, and with rope; rotary boring, boring tools; casing; recovering lost tools; drive piping. (b) Shaft-sinking: General principles. Methods in soft-ground and in rock. Hoisting, ventilating, and draining during sinking. Timbering, walling, tubing, and linings for special cases. Sinking linings in watery ground and in quicksand. (c) Shaft-boring: General observations. Various methods described and compared.

MINING 3. *Development, Methods of Working.* (a) Exploration and Development: Preliminary questions as to commercial feasibility of working particular deposits. Choice of exploratory methods—shaft, adit, slope. Location of openings with reference to development. Laying out the workings, and order of exploration. Driving tunnels, drifts, gangways, slopes, levels, cross-cuts. Advancing by single breast and by benches. Maintaining alignment—"sights". Accidents. Upraises—vertical and inclined. Winzes—methods of sinking and raising. (b) Methods of Working and of Supporting Excavation: General rules as to choice of mode of working away, etc. Breaking ground (1) in coal mining, and (2) in metal mining. Support of excavations (1) by pillars of mineral, (2) by timbering, (3) by caving and filling. Methods of working applicable to deposits according to their origin, thickness, inclination, and character. Coal, Vein, and Mass mining. Open cuts and stream workings. Hydraulic mining, Dredging.

MINING 4. *Ore and Coal Dressing, Milling, Coal Washing.* General principles and theories. Picking, crushing, theory of mineral separations, sizing, classification, jigging, concentration and concen-



trators. Coal-washing. Gold and silver milling; stamp and other mills. Amalgamation: Theory and practice; care of mill plates; losses of mercury, etc. Pan amalgamation. "Patent" substitutes for plate amalgamation. Fan assays for free-milling ores, etc.

## SENIOR YEAR.

*History*, Three Terms; President Patterson.

*Logic*, Three Terms; Professor Mackenzie.

*Steam Engine, etc.*, First Term; Professor Anderson.

*Hydraulics*, First Term; Professor Rowe.

*Alternating Currents and Power Plants*, Second Term; Professor Wilson.

*Metallurgy*, First Term; Prof. Norwood and Assistant Easton.

*Mine Plant Design*, Third Term; Assistant Easton.

*Thesis Work*.

MINING 5. *Ore Deposits, Prospecting*. (a) Geological Considerations. Origin of Ores. Classification of ore deposits. Irregularities and disturbances of beds and veins. (b) Prospecting: Systematic Methods. Value of Geology. Tracing outcrops. Construction of sections.

MINING 6. *Extraction, Ventilation, etc.* Extraction and removal of material: Mine and surface haulage roads; rope and other means of haulage. Hoisting. Drainage: Controlling and removing water; dams, drainage levels, air lift. Ventilation: Theoretical considerations; mine gases; methods of ventilation; distribution of air supply. Illumination. Descent and ascent. Accidents: Causes; places; explosions; safeguards; rescue and relief.

MINING 7. *Mine Plant*. Machinery and appliances for mining, hoisting, draining, ventilating, hauling, screening, loading, storing, etc.

MINING 8. *Examination and Valuation of Mines, etc.* Methods and precautions in examination and valuation. "Salting," concealing exhausted workings, etc. Relation of capital invested to actual dividends. Mine management. Cost sheets.

MINING 9. *Mine Visitation*. Opportunity for visiting mines under the guidance of the Dean, or of an Assistant Inspector of Mines, will be given at the close of the term.

The larger part of the third term is devoted to thesis work, subjects for which are assigned by the Dean.

## ADVANCED DEGREE.

For the degree of E. M., Ore Dressing, Milling, Coal Mining, Metal Mining, Mine Plant, Metallurgy, or Electricity Applied to Mining, may be selected as major study; and minor studies may be assigned from Civil Engineering, Mechanical Engineering, Electrical Engineering, Geology, Chemistry, Physics, Mathematics, Political Economy, Sociology, English, French, and German.

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**Schedule of Studies for the Degree B. E. M.**

| YEAR.     | FIRST HOUR.<br>8-9 A. M.       | SECOND HOUR.<br>9-10 A. M.        | THIRD HOUR.<br>10:30-11:30 A. M. | FOURTH HOUR.<br>11:30-12:30 A. M.      | 1:30-3:30 P. M.                             | 3:30-4:30 P. M. | SATURDAY<br>9-12 A. M.       | TERM. |
|-----------|--------------------------------|-----------------------------------|----------------------------------|----------------------------------------|---------------------------------------------|-----------------|------------------------------|-------|
| FRESHMAN  | English<br>Drawing 3           | Trigonome-<br>try 2               | Physics<br>Drawing 3             | Drawing 5                              | Wood Shop<br>Bench Lathe 3                  | Drill<br>Gym. 3 | Wood Shop<br>Drawing 3       | I     |
|           | English<br>Drawing 3           | Higher Alge-<br>bra 2             | Physics<br>Drawing 3             | Chemistry<br>Drawing 4                 | Chem. Lab. 2<br>Drawing 3                   | Drill<br>Gym. 3 | Drawing 3                    | II    |
|           | English<br>Drawing 3           | Higher Alge-<br>bra 2             | Physics<br>Drawing 3             | Chemistry<br>Drawing 3                 | Chem. Lab. 3<br>Drawing 2                   | Drill<br>Gym. 3 | Drawing 3                    | III   |
| SOPHOMORE | Analytical<br>Geometry 5       | Electricity<br>and<br>Magnetism 5 | Elementary<br>Design 5           | Physical Lab.<br>5                     | Iron and Steel<br>Forging 2                 | Drill<br>Gym. 2 | Elementary<br>Design 2       | I     |
|           | Analytical<br>Geometry 5       | Elec & Mag. 3<br>Mine Survey 2    | Calculus 5                       | Quant. Ana. 1<br>Desc. Geom. 4         | Quant. Chem.<br>Lab. 2                      | Drill<br>Gym. 2 | Descriptive<br>Geom. Draw. 2 | II    |
|           | Analytical<br>Geometry 5       | Elec. & Mag. 3<br>Mine Survey 2   | Calculus 5                       | Desc. Geom. 5                          | Elementary<br>Metallurgy 3<br>Sur. & Maps 2 | Drill<br>Gym. 2 | Surveying<br>Maps 2          | III   |
| JUNIOR    | Electric Eng.<br>Materials 5   | Strength of<br>Materials 5        | Calculus 5                       | Mining(1,2) 5                          | Metallurgy 3<br>Mine Survey 2               | Drill 3         | Met. Lab. 3                  | I     |
|           | Mining (3). 5                  | An. Mechanics 5                   | Metallurgy 3<br>Phys. Geo. 2     | Ore Drs.<br>Econ. Geo. 2               | Met. & Assay-<br>ing Mineralogy 3           | Drill 3         | Assaying 3                   | II    |
|           | Mining (3). 5                  | Ore Dressing 3<br>Metallurgy 2    | Analytical<br>Mechanics 5        | Dyn. Elec.<br>Machy. 3<br>Econ. Geo. 2 | Met. & Assay-<br>ing Mineralogy 3           | Drill 3         | Mining Lab. 3                | III   |
| SENIOR    | Hydraulics 2<br>Steam Engine 3 | History<br>Logic 2                | Mining(6,7) 3                    | Ore Deposits 3<br>Metallurgy 2         | Mining Lab. 3                               | Library 3       | Mining Lab. 3                | I     |
|           | Alt. Currents<br>Power Plant 3 | History<br>Logic 3                | Mining(7) 3                      | Mine Plant<br>Design 5                 | Mining Lab. 3<br>Assaying 2                 | Library 3       | Design<br>Assaying 2         | II    |
|           | Mine Plant<br>Design 3         | History<br>Logic 3                | Thesis<br>Design 2               | Mining(8,9) 5                          | Thesis 5                                    | Library 5       | Thesis 5                     | III   |

### DEGREES.

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The State University confers the degrees of:

Bachelor of Science in Agriculture (B. S. Agr.),  
Bachelor of Arts (A. B.),  
Bachelor of Science (B. S.),  
Bachelor of Laws (LL. B.),  
Bachelor of Civil Engineering (B. C. E.),  
Bachelor of Mechanical Engineering (B. M. E.),  
Bachelor of Mining Engineering (B. E. M.),  
Bachelor of Science in Education (B. S. Educ.),  
Bachelor of Arts in Education (A. B. Educ.),  
Master of Science in Agriculture (M. S. Agr.),  
Master of Arts (A. M.),  
Master of Science (M. S.),  
Master of Civil Engineering (C. E.),  
Master of Mechanical Engineering (M. E.),  
Master of Mining Engineering (E. M.),

#### CONDITIONS OF GRADUATION.

To attain the Bachelor's degree the applicant must have been a student of the University at least one session, and he must have passed the examinations on all of 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 University 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 University 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 University for the same degree: and he must matriculate and study under the direction of the Faculty at least one session.

A student who completes a part of any course in a satisfactory manner may, in attestation of the fact, receive a Certificate of Proficiency.



**LECTURES IN ENGLISH LITERATURE.**

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MISS ELIZABETH SHELBY KINKEAD,

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*Lecturer.*

The course of instruction by means of weekly lectures in English literature was established by the action of the Board of Trustees in June, 1903, and the present lecturer was appointed. The work is of an interpretative and critical rather than of a technical nature, and therefore does not infringe upon that offered in the regular department of English. The object of the course is the elucidation of the principles of literature as related to life. Lectures are delivered solely upon specimens of English literature that may be termed classic, such writings, however, being selected as are not emphasized in the average text-book course, but with which persons of culture are familiar. Thus the student who goes out from the class has had opportunity to become somewhat acquainted with certain models of literature, through the medium of formulated criticism, and by means of recitation by the lecturer of the more beautiful passages of the composition discussed. In addition, therefore, to the mere intellectual value of such instruction, is the possible gain of that polish and enlightenment of spirit which is derived from contact with what is fine and delicate. In the lectures an attempt is made to inspire the student and to quicken in him the power of imagination which is necessary to success in every calling in life—just as necessary to the success of the engineer and the scientist as to that of the author and the professional man. It is through ideas, and not through mere knowledge of facts, or through technical training alone, that all great achievements are accomplished. The facts and the technical training are absolutely necessary, as a matter of course, but they are only the tools, with which ideas work; and the best means of arousing ideas in an undeveloped mind is through the presentation of the exalted thoughts and inspiring records of literature.

The lectures are delivered every Wednesday morning at ten o'clock in the Senior lecture room of Mechanical Hall, and attendance upon the course is compulsory upon the members of the Senior class. It is required that every member of the class shall take notes upon the lectures and prepare at each examination time a paper illustrating the principles that have been explained during the term.

**ACADEMY.**

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**Faculty.**

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[In the order of appointment.]

WALTER KENNEDY PATTERSON,  
*Principal.*

ALBERT NEWLON WHITLOCK,  
KNOX JAMESON,

JOHN LESLIE PURDOM,  
ALFRED GAY MCGREGOR,

*Assistants.*



### Academy.

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The Academy was established as an integral part of the Institution by the General Assembly in order to prepare students to enter the Freshman Class in any of the Colleges of the State University. A large number of county appointees and others who have passed through the common schools require fully three years of preparation before they can enter the Freshman Class. Because of its relationship to the University and because it is created for the express purpose of bridging over the interval between the common schools and the Freshman Class, it possesses special advantages for this work. It adapts itself in quality and quantity to the kind of preparation needed and to its amount. The burden of work required in the colleges of the University renders thorough preparation indispensable and this preparation the Academy supplies.

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#### COURSE OF STUDY.

FIRST YEAR.—Arithmetic, Wells' *Academic*; Algebra, Wells' *Essentials* to Chapter XVII; English Grammar, Patterson's *Advanced*; Latin Grammar, Moore's *Elements*; D'Ooge's *Easy Latin*; American History, Montgomery.

SECOND YEAR.—Algebra, Wells' *Higher* to Chapter XXVIII; Plane Geometry, Beman and Smith; Rhetoric, Genung's *Outlines*; Synonyms, Crabb; Latin Grammar, continued; Twelve Lives of *Nepos*, or an equivalent of four books of *Cæsar*; Daniel's *New Latin Composition*; Beginning German, Bierwirth; *Glueck Auf*, Mueller and Wenckebach; Greek Grammar, White's *Beginner's*.

THIRD YEAR.—Solid Geometry, Beman and Smith; Studies in English Literature, Swinton; Physics, Gage's *Elements*; Physical Geography, Davis' *Elementary*; Selections from *Ovid*—2,500 lines with instruction in scanning, eight orations of *Cicero*; Elements of German, Bierwirth, *Hoher als die Kirche, Immensee*, Composition; Greek Grammar, continued; Xenophon's *Anabasis*—four books; Greek Prose; Composition, Pearson; General History, Myers;

The Academy is under the immediate direction and management of the Principal and four Assistants.

The students are subject to the same rules and regulations as the students of the University. The attendance at the University is required only during the hours of recitation and other prescribed University exercise, the preparation of their lessons being made elsewhere.

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

#### ENTRANCE.

Every applicant, to be admitted to the Academy, is required to pass a satisfactory examination in Spelling, Reading, Writing, Geography, American History, 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 graded schools of the State must present certificates from their respective School Boards, setting forth that they have completed with credit 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 the beginning of the year will be required to pass a satisfactory examination on the work already gone over by the classes they propose to enter.

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

#### ENTRANCE EXAMINATIONS.

Will be held as follows: Thursday, September 3, 1908, on Arithmetic, English Grammar, Higher Algebra and Rhetoric; Friday, September 4, on Essentials of Algebra, Latin Grammar, Plane Geometry, Nepos and Caesar; Saturday, September 5, on Political and Descriptive Geography, American History, Greek Grammar, and Beginning German; Monday, September 7, on General History and



Physical Geography. The hours of examination on each day will be from 8 a. m. to 12 m. and from 2 p. m. to 5 p. m.

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 applicants will be examined, but that they indicate the minimum attainments necessary to enter the Academy of the University. 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.

French Grammar, Fraser and Squair's, part 1; French Reader, Rambeau's *Elementary*.

#### COURSE IN READING.

FIRST YEAR.—Coleridge's *Ancient Mariner*; Milton's *L' Allegro*, *Il Penseroso*, *Comus* and *Lycidas*. In Class.

Scott's *Ivanhoe*; Scott's *Lady of the Lake*. Parallel.

SECOND YEAR.—Macaulay's *Essay on Addison*; Macaulay's *Life of Johnson*; Burke's *Speech on Conciliation with the American Colonies*; Shakespeare's *Julius Caesar*. In Class.

Shakespeare's *Merchant of Venice*; Shakespeare's *Macbeth*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *the Passing of Arthur*. Parallel.

THIRD YEAR.—Addison's *Sir Roger de Coverley Papers*; George Eliot's *Silas Marner*; Lowell's *Vision of Sir Launfal*; Irving's *Life of Goldsmith*. Parallel.

#### I. ARITHMETIC.

Find the greatest common divisor of:

$$8, \frac{1}{2}, 4\frac{4}{5}, \text{ and } 13\frac{5}{7}.$$

Simplify:

$$\frac{6\frac{5}{8} - 5\frac{1}{5} + 4\frac{3}{4} - 3\frac{1}{2}}{8\frac{9}{10} - 7\frac{7}{8} + 6\frac{4}{5} - 5\frac{1}{4}}.$$

Find in gallons the contents of a cylindrical tank five feet in diameter and seven feet deep.

If .488 of a ton of coal cost \$3.05, what will be the cost of 7.56 tons?

A certain number is divided into parts proportional to the numbers 3, 6, 11 and 18, such that the fourth part exceeds the third part by 35. What are the parts?

How many shot  $\frac{1}{16}$  of an inch in diameter can be made from a ball 1 foot in diameter?

What per cent above cost must goods be marked, to allow a discount of  $12\frac{1}{4}\%$  from the list price and still make a profit of  $13\frac{4}{8}\%$ ?

What annual income will be realized by investing \$4331.25 in a  $7\frac{3}{4}\%$  per cent stock, at a premium of  $23\frac{1}{2}\%$ , brokerage  $\frac{1}{4}\%$ ?

If A can do a piece of work in three days, B in 4 days, and C in 5 days, how long will it take them all to finish the work after A and C have worked 1 day?

A farmer sows 7 bushels, 3 pecks, 1 quart, and  $1\frac{1}{2}$  pints of seed, and reaps 147 bushels, 2 pecks and 1 quart. What is the yield per bushel of seed?

## II. GRAMMAR.

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

In what three ways may the gender of nouns be indicated? Give examples.

Give the plural forms of ox, axis, folio, cargo, radius, penny, brother-in-law, and wagon-load.

Write the possessive case of fly, men, ladies, Cyrus, The Harpers, and Brown and Co.

Define redundant and defective verbs, and give the principal parts of am, can, cleave, choose, lay, lie, and set.

Define inflection, declension, comparison, and conjugation.

Define gender, case, mood, and voice.

Give the different ways that infinitive and participial phrases are used.

Parse all of the words in the following sentences: "I know him to be a leader," "The ditch is twenty feet wide."

Analyze the following sentence:

So nigh is grandeur to our dust,  
So near is God to man,  
When duty whispers low "Thou must."  
The youth replies "I can."

## III. HISTORY.

Give a brief account of the first settlement in each of the original thirteen colonies.

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

Give the dates, causes, and results of each of the colonial wars.

Describe the Declaration of Independence, its causes, and two important battles of the War of the Revolution.

Give the boundaries of the United States at the time of the adoption of the Constitution, and indicate briefly the time, manner and extent of each subsequent acquisition of contiguous territory.

Name the causes and results of the War of 1812, and give an account of the battles of Lake Erie and New Orleans.

State the causes of the Civil War and describe the following battles: Antietam, Gettysburg, Atlanta.

Give a full account of two naval battles of the Spanish-American War.

Give a brief account of each of the great Political Parties since the adoption of the Constitution, indicating their prominent principles.

Write a brief account of Benjamin Franklin, John Quincy Adams, Andrew Jack-



son, Daniel Webster, John C. Calhoun, James G. Blaine.

#### IV. GEOGRAPHY.

Where is the Sea of Japan? Bay of Bengal? Arabian Sea? Gulf of Guinea? Caribbean Sea? Hudson's Bay?

What great lakes in Africa? Western Asia? Where are the great lakes of the Western Hemisphere? Where is the Amazon river? The Mississippi? In what direction do these rivers flow? Where is the Nile?

In what ocean are most of the islands of the world? What large islands between Asia and Australia? What large island east of Africa? What group southeast of the United States? What group encloses the Behring Sea?

Name in order, from North to South the States touching the east bank of the Mississippi and give chief towns in each.

Bound California, Massachusetts, Ohio, Florida and name the capital and chief city of each.

What are the chief natural products of Eastern Kentucky? Of Central Kentucky? Of Western Kentucky?

Do the island possessions acquired by the United States since 1893 lie north or south of the Tropic of Cancer?

What European nations have possessions in Asia? Give the location of these possessions.

Name the constitutional monarchies of Europe and give their capitals.

Locate Manchuria, Cape Colony, Venezuela, Oklahoma.

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**TABLE OF STUDIES IN THE ACADEMY.**  
**I Arts and Science**  
**1908-09.**

| YEAR   | TERM | FIRST HOUR             | SECOND HOUR                  | THIRD HOUR              | FOURTH HOUR           | FIFTH HOUR                       | AFTERNOON                     |
|--------|------|------------------------|------------------------------|-------------------------|-----------------------|----------------------------------|-------------------------------|
| FIRST  | I    | Adv. English Grammar   | Latin Grammar                | Academic Arithmetic     | Essentials of Algebra | Physical Training                | American History              |
|        | II   | Eng. Grammar and Comp. | Latin Grammar and Easy Latin | Academic Arithmetic     | Essentials of Algebra | Physical Training                |                               |
| SECOND | I    | Rhetoric and Synonyms  | Higher Algebra               | Latin Grammar and Nepos | Plane Geometry        | Phy. Training & Military Science | German or Greek Grammar       |
|        | II   | Rhetoric and Synonyms  | Higher Algebra               | Caesar and Composition  | Plane Geometry        | Phy. Training & Military Science | German or Greek Grammar       |
| THIRD  | I    | Physics                | General History              | Solid Geometry          | Ovid and Scanning     | Phy. Training & Military Science | French or Arab. & Prose Comp. |
|        | II   | Physics                | General History              | Physical Geography      | Cicero                | Phy. Training & Military Science | French or Arab. & Prose Comp. |

**II Engineering**

| YEAR   | TERM | FIRST HOUR               | SECOND HOUR                  | THIRD HOUR              | FOURTH HOUR                | FIFTH HOUR                       | AFTERNOON              |
|--------|------|--------------------------|------------------------------|-------------------------|----------------------------|----------------------------------|------------------------|
| FIRST  | I    | Adv. English Grammar     | Latin Grammar                | Academic Arithmetic     | Essentials of Algebra      | Physical Training                | American History       |
|        | II   | Eng. Grammar and Comp.   | Latin Grammar and Easy Latin | Academic Arithmetic     | Essentials of Algebra      | Physical Training                |                        |
| SECOND | I    | Rhetoric and Composition | Higher Algebra               | Latin Grammar and Nepos | Plane Geometry             | Phy. Training & Military Science | German                 |
|        | II   | Rhetoric and Composition | Higher Algebra               | Caesar and Composition  | Plane Geometry             | Phy. Training & Military Science | German                 |
| THIRD  | I    | Physics                  | General History              | Solid Geometry          | Studies in Eng. Literature | Phy. Training & Military Science | German and Composition |
|        | II   | Physics                  | General History              | Physical Geography      | Studies in Eng. Literature | Phy. Training & Military Science | German and Composition |



**Department of Military Science.****LIEUTENANT CORBUSIER.**

The military instruction is under the charge of an officer of the United States Army. The course as a whole has special reference to the duties of the line. A full supply of arms and ammunition is furnished by the War Department for the use of the cadets in this course.

Every male student able to perform military duty, and not excused for sufficient cause, is required to drill twice each week and to attend the required lectures and recitations throughout the Freshman and Sophomore years. The standings in study and drill are placed on record, and are requisite to graduation in every Course in the University.

The battalion is composed of four companies and the artillery and signal detachments. The officers are usually selected from the Junior class and the non-commissioned officers from the Sophomore class. The officers are paid a small sum for their services.

The uniform prescribed is of cadet gray; coat, trimmed with black mohair braid; trousers, with black cloth stripe, cut after the army pattern. In order that all uniforms worn here may be, in quality, make, and finish, in strict accordance with the specifications adopted by the University, all students enrolled in the military department are required to obtain them from the firm only that may for the time being be under agreement to furnish said uniforms at a stated price and of standard quality.

**THEORETICAL INSTRUCTION FOR ALL MALE STUDENTS.**

Infantry drill regulations, U. S. Army. Firing regulations. Manual of guard duty. Army regulations.

Lectures on the organization and administration of the United States Army, and the general principles of the art of war. Freshman and Sophomore years, one hour per week.

**PRACTICAL INSTRUCTION FOR MALE STUDENTS.**

*Infantry.*—School of the soldier, squad, company and battalion; ceremonies; guard duty; minor tactics.

*Artillery.*—School of the cannoneer, and battery, dismounted; ceremonies; guard duty. Freshman and Sophomore years, two hours per week.

**THEORETICAL INSTRUCTION FOR ALL OFFICERS AND SERGEANTS.**

Military administration; field engineering; elements of the art of war; preparation of reports and returns.

Sophomore and Junior years, one hour per week.

**Department of Physical Education.****I. FOR YOUNG WOMEN.**

MRS. ROBERT LEE STOUT, DIRECTOR.

*Graduate New Haven Normal School of Gymnastics.*

Upon the completion of a well equipped gymnasium in January 1902, the Department of Physical Education for Women was organized under the present Director.

**DEPARTMENTAL AIMS.**

The aims of Physical Education are hygienic and educational: 1st. To stimulate the functioning of all bodily organs, and correct defects of the body external. 2nd. To develop the mental faculties of attention, discrimination, judgment, re-action time and self-control. 3rd. To develop character by the creation of high ideals.

**GYMNASTICS.**

A German gymnastic lesson is composed of four parts: Military Tactics, Free Gymnastics, Apparatus Work, Artistic Gymnastics or Classic Dancing.

Students are required to do two hours' work each week in the gymnasium. Physical Education is compulsory for all young women except Seniors, and as part of the curriculum is graded as other studies. Pupils must have an examination of heart and lungs by the University physician, Dr. Pryor, and an anthropometric examination by the Director before entering for work.

**SWIMMING.**

The swimming school for women is the only one of the kind in the South and it was organized two years ago. It opens after the Annual Gymnastic Tournament in April, and is remarkably popular. Swimming is the best exercise for perfecting health after warm weather begins.

The system taught is that of Max Schwartz, of Yale, and after five or six lessons in the pool the pupils have caught the art of the breast-stroke, with correct breathing.

The pupil who makes an annual average of 13.5 and upwards may enter the class in May, if she so elects. Young women who learned to swim last spring will be taught advanced forms. Each lesson lasts for half an hour and is given to groups of six. All pupils are drilled in resuscitation of drowning persons, after the manner of the U. S. Life-saving Crews.



## BASKET-BALL.

Social games like basket-ball have a definite purpose in Physical Education. Players require quickness of thought, judgment, and self-control under excitement. They learn to sacrifice self for the sake of the team as a whole. Gymnastic training has given our young women such suppleness and endurance that their fame is more than local.

## II. FOR YOUNG MEN.

W. W. H. MUSTAINE B. S., *Director*.

J. W. PRYOR, M. D., *Medical Advisor*.

## ASSISTANTS.

H. H. DOWNING, J. S. CROSTHWAITE, T. B. SHORT.

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*"Orandum est ut sit mens sana in corpore sano".—Juvenal.*

Plato is said to have called any one lame, who exercised the mind while the body was allowed to suffer. In these days when so much time is spent in training the mind, when specialization in almost all lines has developed to such a degree that man has practically lost his all-round activity, when labor-saving machines are saving his muscles but not his nerves, when competition is so close and the motto "Press Onward" is ever before him, when the rush of our population from the healthful influences of country life to vitiating influences of the cities is increasing,—in short, when nearly all of the conditions and activities that have served to make our ancestors healthy and the great legacy of health which was inherited by our fathers and in a measure, by us, are being gradually withdrawn from us, it urgently behooves all of us to pay more attention to our physical welfare.

This is especially the case with college students. In college the student is urged toward mentality. It is the purpose of the Department of Physical Education to see not only that our students do not deteriorate in health and general physical stamina, but that they actually improve, while pursuing their studies here. Many of them come from rural communities. These are usually strong and vigorous. For this they are indebted to pure air, good food, sunshine, and healthful exercise. It were exceedingly inadvisable to withdraw these conditions from them. They cannot thrive in changed conditions as well as the city boys who are more or less accustomed to the

opposite environment. But there is even a greater need of this work for the city boys who are pale, flat-chested, and poorly developed.

Montaigne said, "It is not a soul, it is not a body that we are training, but a *man* and we must not divide him." Educators are taking hold of this idea, that real education must be broad enough to include the entire man. This Department is supported by the Board of Trustees and the Faculty of the institution the same as any other department. It includes nearly all of the students. It is for the masses. The work is necessary in order to graduation. During the past year about eighty per cent of all the students enrolled were present at every lesson.

#### PHYSICAL EXAMINATION.

Upon entrance every student is subjected to a medical examination of the heart and lungs by the Medical Advisor. If found ineligible to enter the work of the Department, theoretical work is assigned. If eligible, the Director of the Department will make an anthropometric examination consisting of the important physical measurements, strength tests, capacity of lungs, etc. He will also note the condition of the skin and examine for the usual physical deformities. Tests will be made of the vision, the hearing, and the color sense, and information concerning the family history of the student will be secured.

If advisable, special work will be prescribed, based upon the foregoing examinations; otherwise, the student will be assigned to some of the regular classes.

#### AIMS.

The work of the Department will be done with six main purposes in view, (*a*) the promotion and maintenance of health, (*b*) the development of the muscles for strength, grace, and good carriage, (*c*) the prevention and correction of physical deformities, such as flat foot, round shoulders, flat chest, spinal curvature, etc., (*d*) the overcoming of hereditary tendencies to disease, (*e*) the development of the faculties of attention, judgment, precision, discrimination, etc., and (*f*) the cultivation of the highest ethical ideals.

Two or more hours per week are required during the entire collegiate year, theoretical instruction being the more prominent during the warm weather of the Fall and Spring.

#### PHYSICAL INTROSPECTION.

Another feature of the work is that of physical introspection. Under this head is included (*a*) the effort to enlist the interest of the



student in his physical welfare and to teach him the value of physical education in order to the greatest possible efficiency in life's work, (b) frequent talks on applied physiology as well as on personal and public hygiene, (c) lectures on the several aspects of physical education including (1) its history,—status among the Greeks and growth to the present time, (2) its relation to sociology, psychology, and morality, (3) its relation to bacteriology and hygiene, and (4) first aid to the injured.

#### THE LITERATURE.

A feature of the coming year will be text-book instruction in the care of the body,—value of air, sunshine, bathing, exercise, hygiene, etc. Selections will be made from the following books: Gulick's *The Efficient Life*, Gulick's *Physical Education by Muscular Exercise*, Miles' *Avenues to Health*, Miles' *A Boy's Control and Self Expression*, Chesterton's *Theory of Physical Education*, Dulles' or Butler's *Emergencies*. Other books and magazine articles will be assigned for parallel reading, and essays on various subjects relating to health will be required.

#### FLOOR-WORK.

Swedish gymnastics will form the foundation of the practical floor-work, but this will be frequently interspersed with German gymnastics and musical accompaniment. Arrangements have been made with the Military Department whereby the entire cadet corps will be instructed in the physical drill and "setting up" exercises by the Director of this Department at stated intervals during the winter term. Swedish exercises will also form a part of this instruction.

For recreation basket-ball and other gymnastic games will be employed. Opportunities for instruction in such personal contests as boxing, fencing, single sticks, wrestling, etc., are provided and the work will be conducted by special instructors. As much of the work of the Department as possible will be conducted out-of-doors.

The attention of all patrons of the University is respectfully called to this Department and their hearty support is earnestly requested.

### ASSOCIATIONS.

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#### Y. M. C. A.

This body occupies a spacious room in the Gymnasium. The room, which is well lighted and heated, and provided with suitable furniture, offers to the members a place both attractive and convenient in which to spend their leisure time in religious service, in Bible or secular reading, or in playing harmless games.

The Association has ninety-five members. In addition to its religious work, including weekly meetings, lectures and Bible Study work, it controls the tennis courts on the University campus and offers an interesting social life to its members. In order to promote most efficiently this varied and important work, a secretary is employed.

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#### Y. W. C. A.

This organization is an important feature of life in Patterson Hall. The association has two nice rooms, one for religious meetings, the other a reading room open to all young women residing in Patterson Hall. The latter has during the past year been nicely furnished by the University and is well supplied with the leading magazines of the day.

The association has about thirty members who take part in the Sunday afternoon services and also in the Bible classes which meet one evening in each week.

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#### THE UNION LITERARY SOCIETY.

This, the oldest of the literary associations connected with The State University, 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 Gymnasium 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 22nd 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 University, 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.

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### THE PHILOSOPHIAN AND NEVILLE SOCIETIES.

These Societies, instituted, the former in 1882, the latter in 1905, by young women of the University, for literary improvement and social pleasure, offer, besides the usual weekly meetings, public entertainments consisting of declamations, essays, criticisms, and addresses.

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### THE ENGINEERING SOCIETY.

This body, composed of matriculates in the courses 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 University.

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### 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.

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## ALUMNI.

1869.  
Munson, William Benjamin, B. S.....Denison, Texas.
1870.  
Munson, Thomas Volney, B. S., M. S., '83, 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., M. S., '76, Winchester.  
Smith, Edward Everett, B. S.....Chicago, Ill.
1875.  
Brown, Edgar Thomas, B. S., M. S., '77....Chicago, Ill.
1877.  
Floete, Franklin, B. S.....St. Paul, Minn.  
Ward, Ballard Preston, B. S.....Rural Retreat, Va.
1878.  
Cole, Moses Salvador, B. S.....Rivas, Nicaragua  
\*Mackie, Mahlon, B. S.....Mt. Sterling.
1879.  
Blakely, Charles Graham, B. S., M. S., '84 .Topeka, Kansas.  
Hays, Napoleon Bonaparte, B. S., M. S., '84, Frankfort.  
Perry, Caleb Sykes, B. S.....Indianapolis, Ind.  
Wright, Henry Moses, B. S.....Alton Park, Tenn.
1880.  
\*Crawford, James, B. S.....Lexie, Tenn.  
Peter, Alfred Meredith, B. S., M. S., '85....Lexington.  
Weller, Nicholas John, B. S.....Pineville.  
Whatley, George Croghan, B. S.....Birmingham, Ala.
1881.  
Pence, Merry Lewis, B. S., M. S., '85.....Lexington.
1882.  
\*Berry, George Gist, B. S.....Lexington.  
DeRoode, Louis Kuinders, A. B., A. M., '86, Bethlehem, Pa.  
Patterson, John Letcher, A. B., A. M., '86, Louisville.  
Rogers, Edward Lee, A. B.....Lexington.  
Shackleford, John Armstrong, A. B., A. M., '86, Tacoma, Wash  
Stoll, John William, A. B.....Lexington.
1883.  
\*King, William Elijah, B. S.....Nelson County.  
Taylor, James W., A. B., A. M., '86.....Carrollton.
1884.  
Eubanks, Burton Prendergast, B. S.....Dallas, Texas.  
Graves, Clarence Scott, B. S.....Lexington.  
\*Jones, Henry Clay, B. S.....Monticello.  
Kastle, Joseph Hoeing, B. S., M. S., '86....Washington, D. C.
- \*Deceased.



Ramsey, Russell Thomas, B. S.....Denver, Colo.  
 Riley, Otis Violet, B. S.....Pineville.

1885.

DeRoode, Rudolph John Julius, B. S., M. S., '87, Glens Falls, N. Y.  
 Gess, George Thomas, B. S.....Lexington.  
 Gordon, John Crittenden, B. S.....Eminence.  
 Lambuth, William David, A. B.....Seattle, Wash.  
 Scott, James Russell, B. S.....Lexington.  
 \*Thornbury, William Garland, B. S.....Brooklyn, N. Y.

1886.

Morgan, Thomas Hunt, B. S., M. S., '88....New York.  
 \*Prewitt, Robert Lee, A. B.....Memphis, Tenn.  
 Prewitt, William Chandley, A. B.....Fort Worth, Texas.  
 \*Deceased.

1887.

Hifner, Kearney Lee, B. S.....Lexington.  
 Shackelford, Thomas Wheatley, A. B.....Seattle, Wash.

1888.

\*Bartlett, Frederick Vincent, B. S.....Lexington.  
 Bryan, George Gist, B. S.....Norfolk, Va.  
 Curtis, Henry Ernest, B. S., M. S., '92....Lexington.  
 Gunn, Belle Clement, B. S.....Springfield, O.  
 Payne, Robert Treat, B. S.....Santa Rosa, Mexico.

1889.

Ellershaw, Edward, A. B., A. M., '92.....Bristol, England.  
 Frazer, Hugh Miller, B. S.....Lexington.  
 \*Patterson, William Andrew, B. S.....Lexington.  
 Prewitt, Annie Gist, B. S.....Lexington.  
 Walker, Robert Bernie, B. S.....New York.

1890.

Anderson, Richard Thomas, Jr., B. S.....Lexington.  
 Baker, Annie Jane, B. S.....Lexington.  
 Brock, Charles Robert, B. S.....Denver, Colo.  
 Forston, Keene Richards, B. S.....Nicholasville.  
 Gunn, John Wesley, C. E.....Lexington.  
 Hoeing, Charles, A. B.....Rochester, N. Y.  
 Wilson, Margaret Agnes, B. S.....Deadwood, Colo.  
 Yates, James Anderson, B. S. M. S., '99, Ottawa, Kansas.

1891.

Berry, Henry Skillman, B. S.....Lexington.  
 Clardy, U. L., B. S.....Cheyenne Agency, S. D.  
 Muncy, Victor Emanuel, B. S., M. S., '07, Cincinnati, O.  
 Wallis, William Russell, C. E.....Memphis, Tenn.  
 Warner, B. Callie, B. S.....Washington, D. C.

1892.

Cox, Arthur Melville, A. B.....Cynthiana.  
 \*Elkin, Fielding Clay, B. S.....Lexington.  
 Hunt, Irene Leonora, B. S., B. Ped.....Lexington.  
 Maxey, John Gee, A. B.....Louisville.  
 \*Deceased.

Page, William Seabury, C. E.....Danville, Wash.  
 Pottinger, Samuel Lancaster, A. B.....Louisville.  
 \*Reynolds, Frank Craig, C. E.....Lexington.  
 Scovell, Frank Elmer, C. E.....Chamois, Mo.  
 Shaw, Hiram, B. S.....Chicago, Ill.  
 Shelby, Isaac Prather, C. E.....Pine Bluff, Ark.  
 Southgate, Butler Turpin, A. B.....Lexington.

## 1893.

Adams, Katherine Innis, A. B.....Las Cruces, N. M.  
 Bryan, John Irwin, B. S., B. M. E., '95....Pensacola, Fla.  
 Courtney, Edmond, B. Ped.....Neave.  
 Gunn, Henry Martin, B. S.....Mt. Sterling.  
 Hobdy, William Cott, B. S.....Angel Island, Cal.  
 Johnson, James Richard, B. M. E.....Richmond.  
 McFarlin, John William, B. S.....Franklin.  
 Railey, Morton Sanders, C. E.....Washington, D. C.  
 Roberts, Daniel Stillwell, B. Ped., A. M., '01, Louisville.  
 Smith, Denny Perryman, B. S.....Cadiz.  
 Speyer, Rosa, B. S., M. S., 1900.....Leipsig, Germany.  
 Ware, Cora E., B. Ped.....Pineville, La.  
 \*White, Milford, C. E., M. S., 1900.....Lexington.  
 Willis, Benjamin Grant, B. S.....Lexington.

## 1894.

Aulick, Edwin Chesterfield, A. B.....Louisville.  
 Bradshaw, George Dickie, B. Ped.....Chicago, Ill.  
 Brand, Edward, A. B., A. M., '96, M. S., '05, East Lake, Ala.  
 Curtis, Carlton Coleman, B. S.....New York.  
 Faig, John Theodore, B. M. E., M. E., '97, Cincinnati, O.  
 Garred, Ulysses Anderson, B. M. E.....Anaconda, Mont.  
 \*Griffing, Emma Rosetta, B. S.....Lexington.  
 Hays, James Morrison, A. B.....Barbourville.  
 Hughes, Leonard Samuel, B. S.....San Francisco, Cal.  
 Jones, Mattison Boyd, A. B.....Los Angeles, Cal.  
 Keiser, Benjamin Christopher, B. S.....St. Louis, Mo.  
 Kroesing, Lillie, B. S.....Lexington.  
 Newton, Nathan Alexander, B. M. E., M. E., '99, Oil City, Pa.  
 Norman, Albert Clift, B. M. E.....Mobile, Ala.  
 Oots, Nina Pearl, B. S.....Lexington.  
 Shelby, Katherine, B. S.....Lexington.  
 Sledd, Dora, B. Ped.....Chicago, Ill.  
 Trigg, William Clay, C. E.....Helena, Ark.  
 Warner, Hattie Hocker, B. S., M. S., '96....Angel Island, Cal.

## 1895.

Atkins, Mary Lyons, B. S.....Lexington.  
 Barber, Lanis Spurgeon, B. S.....Brooksville, Fla.  
 Bush, Henry Skillman, B. S.....Lexington.  
 Didlake, Mary LeGrand, B. S., M. S., '97, Lexington.  
 Downing, Joseph Milton, B. M. E.....Mantua, O.  
 \*Deceased.



Faulkner, John Vick, C. E.....Simon, Ind. Ter.  
 Fitzhugh, Lucy Stuart, A. B., A. M., '96....Lexington.  
 Foster, Nettie Belle, B. S.....Lexington.  
 King, Elizabeth Whittington, A. B., A. M., '97, Ft. Wayne, Ind.  
 Lewis, Thomas Stone, A. B.....Lexington.  
 McConathy, James Asa, B. S.....Kirklevington.  
 McCaughliffe, Mary Catherine, B. S.....Lexington.  
 Murrill, Paul Ingold, B. S., M. S., '96.....Wilmington, Del.  
 Newman, Roberta, B. S.....Lexington.  
 Reynolds, Nellie Anna, B. S., M. S., '96....Lexington.  
 Stoll, Richard Charles, A. B.....Lexington.  
 Weaver, Rufus Lee, B. S.....New York.  
 Willmott, John Webb, A. B.....Wewoka, I. T.  
 Woods, John Joseph, A. B.....Lexington.

## 1896.

Alford, Smith Edison, A. B.....Flushing, Long Island.  
 Carnahan, James Williams, A. B.....Cincinnati, O.  
 Case, Daniel Morris, B. M. E.....Lexington.  
 Davidson, Harry Adolph, C. E.....Louisville.  
 Dean, Thomas Roland, A. B.....S. McAlister, I. T.  
 Duck, Alice, B. S.....Lexington.  
 Dunlap, John Jennings, A. B.....Covington.  
 Kerrick, Felix, A. B., A. M., '01.....Louisville.  
 Lyle, Joseph Irvin, B. M. E., M. E., '02....New York.  
 McDowell, Edward Campbell, B. M. E....Berwick, Pa.  
 Orman, Henry, B. M. E.....Danville.  
 Trigg, John Henry, B. S.....New Columbus.  
 Woods, John Wesley, A. B.....Ashland.

## 1897.

Allen, William Raymond, A. B.....Muscogee, I. T.  
 Anderson, Henry Clay, B. M. E.....Ann Arbor, Mich.  
 \*Atkins, Antoinette Thornton, B. S.....Lexington.  
 Blessing, George Frederick, B. M. E., M. E., '04, Ithaca, N. Y.  
 Bullock, Samuel Archibald, B. M. E., M. E., '04, Berwick, Pa.  
 Cassidy, Elizabeth, B. S.....Richmond.  
 Clarke, Mary Eva, B. S., M. S., '98.....Lexington.  
 Collier, William Henry, B. M. E.....Jackson, Tenn.  
 DeBow, Samuel Carruthers, B. M. E.....Union City, Tenn.  
 Downing, George Crutcher, B. Ped., M. S., '98, Frankfort.  
 Duck, Berkley Wilson, B. M. E.....Indianapolis, Ind.  
 Duncan, William Adolphus, B. M. E.....Manila, P. I.  
 Frazer, Joseph Christie, B. S.....Baltimore, Md.  
 Geary, John Thomas, B. S.....Newport, R. I.  
 Gordon, Robert Lee, A. B., A. M., '98.....Bartlesville, I. T.  
 Gunn, Clara Brooke, B. S.....Lexington.  
 \*Haley, John Thomas, B. S.....Fayette County.  
 Hendren, James Harry, B. S.....Blanche.  
 Hicks, Arthur Lee, A. B.....Washington, D. C.  
 Kelly, Thomas Conway, B. M. E., M. E., '06, Cincinnati, O.

\*Deceased.

- McHargue, Barbara Susan, B. S. .... Morris, Minn.  
 Morgan, George Matt, B. S. .... Cincinnati, O.  
 Pope, Robert Lee, A. B. .... Williamsburg.  
 Scott, John, A. B. .... Ft. Thomas.  
 Searcy, Lula, B. Ped. .... Lexington, Okla.  
 Simrall, James Orlando Harrison, A. B. .... Lexington.  
 Warner, Logan Hocker, B. S. .... Wilmington, Del.  
 White, Martha Ripperdan, B. S., M. S. '02, Lexington.  
 1898.  
 Brock, George Green, A. B., M. S., '99. .... London.  
 Brock, Lafayette Breckinridge, B. S. .... Lexington.  
 Cahill, William James David, B. M. E. .... Lexington.  
 Campbell, Thomas Luther, A. B. .... Memphis, Tenn.  
 Carpenter, William Thomas, B. M. E. .... San Diego, Cal.  
 Farley, Frank Preston, A. B. .... Flatlick.  
 Hammock, David William, B. S. .... Cane Creek.  
 Hamilton, Thomas Smith, B. M. E., M. E., '99, Louisville.  
 Johnson, Jack Stubblefield, A. B. .... Paris.  
 King, Margaret Isadora, A. B. .... Lexington.  
 Loevenhart, Arthur Solomon, B. S., M. S., '99, Baltimore, Md.  
 Loevenhart, Edgar Charles, B. M. E. .... Denver, Colo.  
 Lucas, Ida West, A. B. .... Flushing, Long Island.  
 Straus, Charles Louis, B. M. E., M. E., '99, Lexington.  
 Terry, Lila Beatrice, A. B. .... Paris.  
 Trosper, Henderson Taylor, A. B. .... London.  
 Turner, Job Darbin, B. Ped. .... Lexington.  
 Ward, Paul Sterling, B. M. E. .... Cincinnati, O.  
 Wilson, Henry Clay, A. B. .... Georgetown.  
 1899.  
 Allen, Leonard Barnes, B. C. E. .... Ashland.  
 Brock, Walter Lucas, A. B. .... London.  
 Bronaugh, Will Logan, B. M. E., M. E., '03, Chicago, Ill.  
 Bullock, Frederick Dabney, B. S. .... Baltimore, Md.  
 Bullock, Joseph Hunt, B. S. .... Lexington.  
 Butler, Frances Victor, A. B., A. M., '02, Paris.  
 Copland, Alexander Chisholm, B. C. E. .... Richmond, Va.  
 Cox, Jane Bramblett, A. B. .... Lexington.  
 \*Davidson, Joseph Ernest, B. C. E. .... Louisville.  
 Graves, Leila May, B. S. .... Huntington, W. Va.  
 Grinstead, Wrenn Jones, A. B. .... Richmond.  
 Horton, Minnie Leigh, A. B. .... Mt. Sterling.  
 Hughes, James William, B. M. E. .... Camden, N. J.  
 Jett, Carter Coleman, B. M. E. .... Youngstown, O.  
 Johnston, Philip Preston, B. M. E. .... Lexington.  
 \*Maddocks, Roydon Keith, B. C. E. .... Wehrum, Pa.  
 Marks, Samuel Blackburn, B. S. .... Lexington.  
 Morrow, Joseph, B. Ped. .... Rankin.  
 Roberts, George, B. Ped., M. S., '01. .... Lexington.  
 Sasser, William Henry, B. S. .... Hazard.  
 \*Deceased.



Scherffius, William Henry, B. S., M. S., '05, Lexington.  
 Scholtz, Theodore Walter, B. M. E.....Edgewood, Pa.  
 Simpson, Eugene Erwin, A. B., A. M., B. M. E., Los Angeles, Cal.  
 Smith, Sidney Allan, A. B.....Louisville.  
 Vance, Arthur John, B. M. E.....Cincinnati, O.  
 \*Warren, Richard Evans, A. B.....Lexington.  
 Willmott, Jennie Walker, B. S.....Cincinnati, O.  
 Young, Bradley Woodruff, B. S.....Cincinnati, O.

## 1900.

Allen, Robert McDowell, A. B.....Lexington.  
 Bowden, Mary Willa, A. B.....Paris.  
 Brock, David Merrice, B. C. E.....Memphis, Tenn.  
 Cornett, Charles George, B. Ped.....Pineville, Oregon.  
 Cox, Lula May, B. S.....Deatsville.  
 Darling, Lewis Andrew, B. M. E.....Lynn, Mass.  
 Frankel, Leon Kaufman, B. M. E., M. E., '02, Lexington.  
 Graham, James Hiram, B. C. E., C. E., '03, Knoxville, Tenn.  
 Graves, James Madison, B. M. E., M. E., '01, Pittsburg, Pa.  
 Gunn, John Tevis, A. B., A. M., '01.....Lafayette, Ind.  
 Hestand, John Emerson, B. S.....Edmonton.  
 Hundley, Leslie, B. S.....Rome.  
 Johnston, John Pelham, B. M. E., M. E., '01, Lexington.  
 Johnston, Marius Early, B. S.....Lexington.  
 Jones, Thomas Almon, A. B.....Chicago, Ill.  
 Lester, Arthur Vane, B. C. E.....Richmond, Va.  
 McCarty, William Carpenter, B. S.....Louisville.  
 Musselman, Joseph Franklin, B. M. E., M. E., '04, New York.  
 Neal, Mary Eliza, A. B.....Paris.  
 Nichols, Thomas Ashbrook, B. M. E.....Detroit, Mich.  
 Peyton, Nellie Evans, B. S.....Lexington.  
 \*Ragan, Leonidas, A. B.....Shearer Valley.  
 Reed, Jewett Villeroy, B. S.....Jeffersonville, Ind.  
 \*Rieser, Eugene Feist, B. M. E.....Louisville.  
 Scrugham, James Graves, B. M. E., M. E., '06, Reno, Nev.  
 Smith, Albert Elias, B. S.....Hindman.  
 Smith, Joshua Soule, B. M. E.....Chicago, Ill.  
 Spears, Miranda Louise, B. S.....Tucumcari, N. M.  
 Wilson, Joseph Buckley, B. M. E., M. E., '05, Louisville.

## 1901.

Bassett, Henry Preston, B. S., M. S., '02, Cynthiana.  
 Bewlay, Harry, B. M. E.....Chicago, Ill.  
 \*Blessing, Charles Albert, B. M. E.....Buffalo, N. Y.  
 Bliss, Charlotte Miriam, A. B.....Louisville.  
 Bradley, Charles Walter, B. M. E.....Norfolk, Va.  
 Butler, Nannie Etta, B. S.....Lexington.  
 Craig, William James, A. B.....Owensboro.  
 Cutler, Frank Garfield, B. M. E., M. E., '04, Ensley, Ala.  
 Dabney, Albert Smith, A. B.....Cadiz.  
 \*Deceased.

- Daugherty, Frank, B. M. E.....Philadelphia, Pa.  
 Ellis, Nicholas Henry, B. Ped.....Cold Springs.  
 Gilbert, John Whittington, B. S.....Lawrenceburg.  
 Gordon, Mary Logan, A. B.....Frankfort.  
 Hailey, George Hereford, B. C. E.....Springfield, Ill.  
 Hardin, Calvin Evans, B. S.....Leesville, Ala.  
 \*Humphrey, Claude Loecher, B. M. E.....Lexington.  
 Hunt, Robert Bruce, B. M. E.....St. Augustine, Fla.  
 Johnson, William Platt, B. Ped.....Paducah.  
 Jones, Leila Eleanor, B. Ped.....Arlington, Cal.  
 Kaufman, Philip Levy, B. M. E.....Chicago, Ill.  
 Klein, Garnet Rosel, B. M. E., M. E., '05, Louisville.  
 Lary, Alleen Pettit, B. S.....Lexington.  
 Lewis, Charles Dickens, B. Ped.....Berea.  
 Luten, Drew William, A. B.....Arkadelphia, Ark.  
 Marshall, Albert Ross, B. S., M. S., '02....Campton.  
 Milburn, Frank William, B. M. E., M. E., '04, Jackson, Tenn.  
 Moore, Thomas Brent, A. B.....New York.  
 Offutt, Jimmie Morrison, B. S., M. S., '04, Seattle, Wash.  
 Pennington, William Lee, B. Ped.....Robard.  
 Perkins, Wade Hampton, B. C. E.....Crab Orchard.  
 Rankin, Flora Emma, A. B.....Rankin.  
 Richmond, Thomas Logan, B. Agr.....Arlington, Cal.  
 Seibert, Frank Thomas, B. M. E.....Alamoqordo, N. M.  
 Sharon, John Albertus, B. Ped.....Richmond.  
 Shedd, Oliver March, B. S., M. S., '04....Lexington.  
 Taylor, Gibson Walker, A. B.....Magnolia, Ark.  
 Treas, Charles, B. C. E.....Greenville, Miss.  
 Webb, William Snyder, B. S., M. S., '02....Lexington.  
 West, Perry, B. M. E., M. E., '04.....New York.  
 Williams, Ella Campbell, B. S., M. S., '02, Chilesburg.  
 1902.  
 Barr, Thomas James, B. M. E.....Cannel City.  
 Berry, Jesse Cecil, B. Ped.....Manila, P. I.  
 Boulware, Lemuel Ford, A. B.....Campbellsburg.  
 Bowling, Willet Lee, B. M. E.....New York.  
 Campbell, Walter Gilbert, A. B.....Washington, D. C.  
 Clay, Mathew Martin, B. C. E.....Lexington.  
 Cox, Spencer Foster, B. M. E.....Philadelphia, Pa.  
 Crider, Albert Foster, A. B., M. S., '03....Biloxi, Miss.  
 Ditto, Leola, B. Ped.....Eminence.  
 Donan, Daniel Cummins, B. Ped., M. S., '03, Louisville.  
 Doyle, Chester Lawrence, B. M. E.....Parnassus, Penn.  
 Dunn, Oswald Thorp, B. C. E., C. E., '04, Water Valley, Miss.  
 Evans, Edwin Clinton, B. M. E., M. E., '05, Syracuse, N. Y.  
 Ewell, George Watkins, A. B.....Seattle, Wash.  
 Frazee, George Burbridge, Jr., B. M. E.....Louisville.  
 Gaither, Morton Williams, B. M. E.....City of Mexico, Mexico.  
 Grady, Clyde, A. B., A. M., '03.....Smith's Mills.  
 \*Deceased.



Hart, William Frederick, B. C. E.....St. Louis, Mo.  
 Hatfield, Ulysses Grant, B. Ped.....Russell Spring.  
 Haynes, Robert, B. Ped.....Capiz, P. I.  
 Hoeing, Howard Aubrey, B. M. E., M. E., '05, Cincinnati, O.  
 Hoeing, Wallace, B. M. E., M. E., '05....Louisville.  
 Hughes, William Neal, P. C. E.....Washington, D. C.  
 Humphrey, Hubert Lee, B. M. E.....Cleveland, O.  
 Jackson, John Hunt, B. Ped.....New Columbus.  
 Jett, Charles Mills, B. M. E.....Minneapolis, Minn.  
 Jones, Theodore Tolman, A. B., A. M., '03, Lexington.  
 Kehce, John Hickey, B. M. E.....Goldfield, Nev.  
 Lawhorn, Jesse Sherman, B. Ped.....Middleburg.  
 Lyne, William, B. M. E.....Boston, Mass.  
 Maddox, David Campbell, A. B.....Hickman.  
 Martin, Lewis Wynn, B. M. E., M. E., '05, St. Louis, Mo.  
 Mason, Glenn Frank, B. S., M. S., '03....Avalon, Pa.  
 McDonald, Samuel Gilbert, B. Agr.....Chicago, Ill.  
 Moorman, Robert Emmett, B. C. E.....Glendene.  
 Pulverman, William Edward, B. M. E., M. E., '05, Philadelphia, Pa.  
 Scott, Wellington F., A. B.....Lexington.  
 Smith, Chester Martin, B. M. E.....Chicago, Ill.  
 Smith, Orville Francis, B. C. E.....Phoenixville, Pa.  
 Stoner, John Lee, B. C. E.....Pikeville.  
 Sumner, Herman, B. M. E.....Chicago, Ill.  
 Taylor, Flemin Coffee, B. M. E., M. E., '05, City of Mexico, Mexico.  
 Taylor, Lewis Nelson, B. S.....Somerset.  
 Threlkeld, Lal Duncan, A. B.....Paducah.  
 Uppington, George Paul, B. M. E.....Hyde Park, Miss.  
 Warnock, Thomas Edwin, B. M. E., ....Chicago, Ill.  
 Williams, Cora, B. Ped.....Bellevue.  
 Wilson, Richard Napoleon, B. M. E.....Cincinnati, O.

1903.

Austin, Mary Wickliffe, A. B.....Paris.  
 Barkley, George LaRue, B. M. E.....Springfield, Ill.  
 Bradford, Homer Theodore, B. M. E.....Falmouth.  
 Brown, John Edwin, B. Agr.....Shelbyville.  
 Bullock, Barry, A. B.....Lexington.  
 Chern, Sarah Marshall, A. B., A. M., '05, Lexington.  
 Cutler, Thomas Henry, B. M. E.....Gary, Ind.  
 Ellis, Richard Washington, B. M. E., M. E., '06, Brooklyn, N. Y.  
 Elveve, Elias, B. S., M. S., '04.....Pittsburg, Pa.  
 Evans, Frederick Huston, B. M. E., M. E., '06, Peoria, Ill.  
 Finneran, James Cornelius, B. M. E.....New Orleans, La.  
 Finneran, Thomas Francis, B. C. E.....Midway.  
 Gaither, Edward Basil, B. M. E.....City of Mexico, Mexico.  
 Galloway, Clarence Albert, A. B.....Independence, Mo.  
 Hamilton, Lloyd Logan, B. M. E.....Chicago.  
 \*Hancock, Mason Wallace, A. B.....Columbia.  
 Heaton, Herman Creel, B. M. E.....Chicago, Ill.

\*Deceased.

Higgins, Lucy Joseph, A. B. .... Louisville.  
 Hutchings, John Bacon, B. C. E. .... Louisville.  
 Kelly, Edwin Owen Guerrant, B. S., M. S., '04, Manhattan, Kan.  
 Lancaster, John Ralph, B. M. E. .... Cleveland, O.  
 Lyle, Cornelius Railey, B. M. E. .... New York.  
 Marks, William Mathews, B. M. E. .... Chicago, Ill.  
 Marshall, Isabella West, A. B. .... Lexington.  
 McKee, Neal Trimble, B. M. E. .... Cleveland, O.  
 McLaughlin, Marguerite, A. B. .... Lexington.  
 Miller, Mina Garrard, B. S. .... Clarksville, Tenn.  
 Naive, Miriam Wynter, B. S. .... Gary, Ind.  
 Norvell, Lucy Hargis, A. B. .... Carlisle.  
 Peckinpugh, Charles Leon, B. C. E. .... Louisville.  
 Pence, Alice Courtney, B. S., M. S., '04 .... Lexington.  
 Perrine, Charles Duke, B. M. E. .... Maysville.  
 Rand, Edward, B. M. E. .... New York.  
 Render, Fannie Prudence, A. B. .... Hartford.  
 Rice, Guy Wickliffe, B. C. E. .... Hinton, W. Va.  
 Sadler, Reuben Batson, B. S., M. S., '04 .... Wilmore.  
 Shannon, Bernardette, A. B. .... Lexington.  
 Spencer, Howell Mason, B. M. E. .... San Francisco, Cal.  
 Sprake, Eleanor Hedges, A. B. .... Piqua.  
 \*Tandy, Clarke Howell, A. B. .... Oxford, Eng.  
 Thomas, Smith Riley, B. M. E. .... St. Louis, Mo.  
 Thompson, John James, B. M. E. .... Cincinnati, O.  
 Vogt, John Henry Leon, B. M. E. .... Stearns.  
 Whitfield, Nellie Herbert, B. S., M. S., '04, Lexington.  
 Whittinghill, Jackson Pate, B. S. .... Owensboro.  
 Whittinghill, Roscoe Timoleon, B. Ped. .... Owensboro.  
 Wurtele, Edward Conrad, A. B. .... Louisville.

## 1904.

Arnett, Richard Hood, B. Ped. .... Troy.  
 Austin, Lillian, A. B. .... Paris.  
 Barclay, Robert Hargrave, B. E. M. .... Louisville.  
 Bell, Howard Kerfoot, B. S., B. C. E. .... Midway.  
 Buford, Nancy Bell, A. B. .... New Castle.  
 Butner, Robert Clarke, B. M. E. .... Lexington.  
 Clo, J. Harry, B. S., M. S., '05 .... Charlottesville, Va.  
 Coleman, Harry Raymond, B. Ped. .... Chicago, Ill.  
 Crutchfield, William Boulden A. B., A. M., '05, Lexington.  
 Denny, Samuel Alfred, B. S. .... Madisonville.  
 Dodson, Marcus Alvin, B. Ped. .... Greenwood.  
 Dowling, Edward Thomas, B. M. E. .... Lexington.  
 Doyle, Martin Augustus, B. M. E. .... Philadelphia, Pa.  
 Dyer, Orville Kirk, B. M. E. .... Buffalo, N. Y.  
 Freeman, William Edwin, B. M. E. .... Lexington.  
 Fry, Henry Skillman, B. M. E. .... Rochester, N. Y.  
 Gardner, James Henry, B. S. .... Lexington.  
 \*First Kentucky holder of Rhodes Scholarship.



- Gary, William Edward, B. S. .... Louisville.  
 Gilliland, Eugene, B. M. E. .... Cincinnati, O.  
 Gilmore, Charles Robert, B. S. .... Muskogee, I. T.  
 Gordon, Amos Alvin, B. C. E. .... Owensboro.  
 Grey, William David, B. C. E. .... Louisville.  
 Gullion, Carroll Hanks, B. M. E., M. E., '06, New Castle.  
 Harding, George Othniel, B. C. E. .... Campbellsville.  
 Hart, Benjamin Robert, B. S., M. S., '07 .... Washington, D. C.  
 Hart, Margaret Rebecca, A. B. .... Pisgah.  
 Hedges, Fleming Dillard, A. B. .... San Rafael, Cal.  
 Hoagland, Roy Chan, B. S. .... Eminence.  
 House, Beverly Pryor, A. B. .... Cambridge, Mass.  
 Howard, Styles Trenton, B. M. E. .... Clemson College, S. C.  
 Hunter, Patrick Owen, B. M. E. .... Glendene.  
 Jager, Helen Louise, A. B. .... San Diego, Cal.  
 Jenkins, Alexander Lewis, B. M. E. .... Cincinnati, O.  
 Johnson, Frank Yarbrough, B. M. E. .... Atlanta, Ga.  
 Johnston, Hampton Wallace, B. M. E. .... Collinwood, O.  
 Kelly, Walter Pearson, B. S. .... Lafayette, Ind.  
 Lewis, Joseph Graham, B. C. E. .... Fresno, Cal.  
 Madara, Helen Glenn, A. B. .... Buffalo, N. Y.  
 Maguire, Mary Josephine, B. S. .... Lexington.  
 Matlick, Charles Aloysius, B. M. E. .... Lexington.  
 Matthews, John Eve, B. M. E., M. E., '07, Philadelphia, Pa.  
 McCann, Sue Dobyns, B. S., M. S., '05 .... Lexington.  
 McCauley, James Simeon, B. M. E. .... Versailles.  
 McCaw, Eloise Chesley Hance, B. S. .... Auburn, Ala.  
 Monson, Bessie Lee, B. Ped. .... Anniston, Ala.  
 Montgomery, Francis Joseph, A. B. .... Manila, P. I.  
 Nollau, Louis Edward, B. M. E. .... Lexington.  
 Payne, William Campbell, B. S. .... Cynthiana.  
 Peratt, Charles Oscar, A. B. .... Tompkinsville.  
 Pickles, George Wellington, B. C. E. .... Richmond.  
 Porch, Madison B., B. S. .... Washington, D. C.  
 Puckett, Homer, B. C. E. .... Bay St. Louis, Miss.  
 Ramey, Emerson Everett, B. M. E., M. E., '07, Chicago.  
 Renz, Gertrude, B. S. .... Louisville.  
 Rice, Heber Holbrook, B. S. .... Cambridge, Mass.  
 Sandefur, James Franklin, A. B. .... Cambridge, Mass.  
 Schneider, Frederic Lewis, B. C. E. .... Evansville, Ind.  
 \*Schultz, Elmer Wilkerson, A. B. .... Lexington.  
 Shelby, John Craig, A. B. .... Lexington.  
 Shobe, William Merritt, B. Agr. .... Salem, N. J.  
 Smedley, Sarah Cleveland, A. B. .... Lexington.  
 Smith, Claude Robert, B. S. .... Elizabethtown.  
 Smith, Thomas Marshall, B. S., M. S., '05, Cynthiana.  
 Stackhouse, Clifton Carr, B. M. E. .... Lexington.  
 \*St. John, Claire Porter, B. M. E. .... Brooklyn, N. Y.  
 Thurman, Zella Mae, B. S. .... Somerset.  
 \*Deceased.

Tucker, Nannie Susan, A. B. .... Maysville.  
 Vaughn, Earl Cleveland, A. B. .... Lexington.  
 Warder, William Henry, B. C. E. .... Glasgow.  
 Ware, Cornelius, B. Ped. .... Pulaski.  
 Wilkie, Margaret Donald Erskine, B. S., M. S., '05, Lexington.  
 Wilson, George Hancock, B. S. .... Lexington.  
 Wurtele, Henry Joseph, B. C. E. .... Gary, Ind.

1905.

Adamson, Keith Frazee, B. M. E. .... Milwaukee, Wis.  
 Akin, Allison, B. M. E. .... Chicago, Ill.  
 Amoss, Harold Lindsay, B. S., M. S., '07, Washington, D. C.  
 Baumgarten, Louis Erwin, B. M. E. .... Ensley, Ala.  
 Bickel, Charles Alfred, B. M. E. .... Norwood, O.  
 Brashear, Sue Ashbrook, A. B. .... Cynthia.  
 Bryan, Ruth Mitchell, A. B. .... Lexington.  
 \*Burt, Wilson Bryant, B. C. E., C. E., '06,, Philippine Islands.  
 Campbell, Marion, B. S. .... Louisville.  
 Cline, Edgar Allen, B. M. E. .... Kansas City, Mo.  
 Coons, Joseph Morrison, B. C. E. .... Louisville.  
 Darnall, Frank Kendrick, B. M. E. .... Wilkinsburg, Pa.  
 Drake, Jimmie, A. B. .... Heppner, Ore.  
 Edwards, Harry Griswold, B. M. E. .... Schenectady, N. Y.  
 Eubank, Walter Pendleton, B. C. E. .... Cleveland, O.  
 Gfroerer, Fannye Rosalie, B. S. .... Louisville.  
 Gilbert, George Hubbard, B. M. E. .... Chicago, Ill.  
 Grady, William Henry, B. M. E. .... Indianapolis, Ind.  
 Ham, Clarence Walker, B. M. E. .... Ithaca, N. Y.  
 Haynes, Chastain Wilson, B. S. .... Marion.  
 Ingels, Howard Payne, B. M. E. .... Milton, Pa.  
 Johnston, Fayette, B. M. E. .... Lexington.  
 Kelly, William Cobb, B. C. E. .... Bloomington, Ill.  
 Kroell, Oscar Robert, B. E. M. .... Lexington.  
 Layson, William George, B. M. E. .... Indianapolis, Ind.  
 Morris, Stewart Minor, B. M. E. .... Anaconda, Mont.  
 Murphey, Ernest James, A. B. .... Pembroke.  
 Murrell, Artemus Denmark, B. M. E. .... St. Louis, Mo.  
 Ogg, Grace Truman, A. B. .... Williamsburg.  
 Owens, Charles Beland, B. M. E. .... Berwick, Pa.  
 Payne, William Johnson, B. M. E. .... Philadelphia, Pa.  
 Pierce, Claude Stone, A. B. .... Pulaski.  
 Pope, Henry B., B. E. M., E. M., '06. .... Brooks.  
 Powell, Max West, B. M. E. .... Beloit, Wis.  
 Prather, Harry Logan, B. M. E. .... San Francisco, Cal.  
 Ransom, Edward Rogers, B. Agr. .... Blandville.  
 Roberts, Virgil Dick, B. M. E. .... Hamburg, Ark.  
 Rogers, Anna Gist, A. B. .... Lexington.  
 Schoene, William J., B. Agr. .... Geneva, N. Y.  
 Scholtz, Herman Frederick, B. C. E. .... Mechanicsville, Pa.  
 Shipp, Joel Fithian, B. M. E. .... Norwood, O.

\*From U. S. Military Academy, 1898.



Sprake, James Breckinridge, B. M. E.....Iowa City, Ia.  
 Stiles, Elijah Bland, B. C. E.....Springfield, Ill.  
 Thomas, Bennett, B. M. E.....Lexington.  
 Tomlinson, Hugh Joseph, B. M. E.....Toledo, O.  
 Tye, Rachel, A. B.....Williamsburg.  
 Urmston, Henry Howard, B. M. E.....Ames, Ia.  
 Wallis, Charles Reese, B. M. E.....Schenectady, N. Y.  
 Walsh, Robert Bright, A. B.....Heidelberg, Ger.  
 Wathen, Sallyneill, B. S.....Louisville.  
 Weaver, Walter Simeon, B. Agr.....Washington, D. C.  
 Webb, Elzie, B. C. E.....Covington.  
 Werness, Inga Marie, B. S.....Louisville.  
 West, Howard Murphy, B. M. E.....New York.  
 Woerner, Emma Josephine, B. S.....Louisville.  
 Wood, Hugh Nelson, B. C. E.....Hopkinsville.  
 Woosley, Herman Cassidy, B. Agr.....Lexington.  
 Wright, Charles Roy, B. C. E.....Stanford.

## 1906.

Allen, David Hugh, B. M. E.....Edna, Tex.  
 Baxter, William Jefferson, A. B.....Logana.  
 Bogard, Frank, B. M. E.....Clemson College, S. C.  
 Brown, Llewellyn Chauncey, B. M. E.....Harrodsburg.  
 Bryan, Daniel Boone, B. M. E.....Cincinnati, O.  
 Cartwright, Coleman Clyde, B. C. E.....Louisville.  
 Chinn, Alexander Julian, B. M. E.....Buffalo, N. Y.  
 \*Clo, Nelson Lewis, B. M. E.....Science Hill.  
 Darling, Henry Bosworth, B. M. E.....Carrollton.  
 Daugherty, Garrard, B. S.....Paris.  
 Dietrich, Karl Lander, B. M. E.....Milton, Pa.  
 Downing, William Franklin, B. M. E.....Georgetown.  
 Dragoo, Robert Estill, B. M. E.....Lexington.  
 Du Valle, Rankin Powers, B. C. E.....Stamping Ground.  
 Edmonds, George Peck, B. M. E.....Lebanon.  
 Ellis, Richard Washington, B. M. E.....New Castle.  
 Freeman, Thomas Willmott, B. M. E.....Reno, Nev.  
 Goggin, Bessie Engleman, B. S.....Somerset.  
 Gough, Achilles Calloway, B. M. E.....Ames, Ia.  
 Gregory, Mary Cottell, A. B.....Louisville.  
 Gullion, Carroll Hanks, B. M. E.....Carrollton.  
 Hamilton, James Clay, B. M. E.....Boston, Mass.  
 Harper, Joseph Nelson, M. S.....Clemson College, S. C.  
 Hedges, Charles Cleveland, B. S.....Ithaca, N. Y.  
 Hopgood, Roy Caldwell, B. M. E.....Chicago, Ill.  
 Hopson, Katherine Temple, A. B.....Lexington.  
 Hutchcraft, Lucy Keller, A. B.....Lexington.  
 Jones, Sadocie Connellee, B. Agr.....Urbana, Ill.  
 Kelly, Edward Patrick, A. B.....Richmond.  
 Kemper, William Priest, B. C. E.....Millersburg.  
 Lancaster, Charles Prentice, B. C. E.....Paris.

\*Deceased.

Lancaster, John Wilbur, B. Ped.....Josephine.  
 Lewis, Alexander Thornton, B. M. E.....Buffalo, N. Y.  
 Magee, Wallace Hopkins, B. M. E.....Indianapolis, Ind.  
 Mahan, Fred Coyt, B. M. E.....Lexington.  
 Mahoney, Margaret Elizabeth, B. S.....Lexington.  
 McClelland, Byron, B. S.....Washington, D. C.  
 McCulloch, Eugenia Susan, B. S.....Louisville.  
 McDowell, Omer, B. M. E.....Indianapolis, Ind.  
 McHargue, James Spencer, B. S.....Lexington.  
 McKee, Walter Reid, B. M. E.....Mt. Sterling.  
 McPherson, Charles Jarrett, B. M. E.....Philadelphia, Pa.  
 Montgomery, George Carter, B. M. E.....Chicago, Ill.  
 Moore, Henry Ray, B. M. E.....Chicago, Ill.  
 Newman, James Cleveland, B. M. E.....Lexington.  
 Nisbet, James Clarence, B. C. E.....Providence.  
 Nunnelley, Eva May, A. B.....Lexington.  
 Paddison, George Lucas, A. M.....Oxford, Miss.  
 Rankin, French Warder, B. M. E.....Cynthiana.  
 Read, Henry English, B. M. E.....San Francisco, Cal.  
 Riefkin, Philip, B. M. E.....Washington, D. C.  
 Robinson, Herman Clayton, B. M. E.....Chicago, Ill.  
 Rogers, James Dell, B. C. E.....Muncie, Ind.  
 Scott, Henry Skillman, B. M. E.....Bement, Ill.  
 Scott, Mary Estill, B. S.....Richmond.  
 Scrugham, Mary, A. B.....Lexington.  
 Sellman, Frank Raymond, B. M. E.....San Francisco, Cal.  
 Smith, Maxwell Waide, B. C. E.....El Fuerte, Mex.  
 Stevens, Harold Edwin, B. Agr.....Manila, P. I.  
 Sweeney, Mary E., M. S.....Lexington.  
 Taylor, Hugh Wilbur, B. Agr.....Carlisle, Pa.  
 Terrell, Robert Craig, B. C. E.....Heidelberg.  
 Trice, John Buckner, B. M. E.....Schenectady, N. Y.  
 Volkman, Alice, A. B.....Louisville.  
 Wallis, Anna, A. B.....Lexington.  
 Warren, Joseph Evans, B. S.....Lexington.  
 Weir, Fanny, A. B.....Louisville.  
 Wendt, Wiley, B. C. E.....Lansing, Mich.  
 Whitlock, Albert Newlon, A. B.....Lexington.  
 Wiley, Rodman, B. C. E.....Orville, Cal.  
 Wilkie, Florence, A. B.....Ludlow.  
 Wilson, Horace Hildebrand, B. M. E.....Philadelphia, Pa.

1907.

Acker, Robert Lewis, B. C. E.....Bishop, Cal.  
 Alexander, Josie McCoun, A. B.....Paris.  
 Allan, John Griffin, B. C. E.....Barston, Tex.  
 Ammerman, John Roger, B. M. E.....Manila, P. I.  
 Baer, Stanley T., B. C. E.....Longville, La.  
 Bagby, Mary Logan, A. B.....Camden Point, Mo.  
 Boggess, Louis Sterling, B. C. E.....Lexington.  
 Branson, Don Pedro, B. S. in Agr.....Manila, P. I.



|                                              |                     |
|----------------------------------------------|---------------------|
| Brown, William Waters, B. C. E.....          | Ensley, Ala.        |
| Carmody, Catherine Gertrude, A. B.....       | Mt. Sterling.       |
| Carse, Robert Allen, B. M. E.....            | Berwick, Pa.        |
| Coleman, Samuel Boin, B. C. E.....           | Butte, Mont.        |
| Craig, Berrywick Staley, B. M. E.....        | Schenectady, N. Y.  |
| Cram, Ambrose Byrd, B. C. E.....             | Georgetown.         |
| Crawley, Alice Lyle, A. B.....               | Louisville.         |
| Crenshaw, Anne Scott, A. B.....              | Versailles.         |
| Denham, Ernest Meyers, B. C. E.....          | Jellico, Tenn.      |
| Dodd, Daniel Jackson, B. C. E.....           | Lexington.          |
| Donan, Arthur Liston, B. C. E.....           | Ambridge, Pa.       |
| Edgar, Graham, B. S.....                     | Lexington.          |
| Estill, David Chenault, B. M. E.....         | Lynn, Mass.         |
| Farrell, Walter Augustus, B. M. E.....       | Cincinnati, O.      |
| Gordon, Flora McPheeters, A. B.....          | Barboursville.      |
| Grunwell, Paul Clifton, B. M. E.....         | Washington, D. C.   |
| Hamilton, William Shacklette, A. B.....      | Mt. Sterling.       |
| Hart, Robert Singleton, A. B.....            | Pisgah.             |
| Herman, Joseph George, B. C. E.....          | Newport.            |
| Hillenmeyer, Louis Edward, B. S. in Agr..... | Lexington.          |
| Howard, Guylie Benton, B. M. E.....          | Rockvale.           |
| Karsner, Albert Sharkey, B. C. E.....        | Lexington.          |
| Kirby, Augustus Montillmon, A. B.....        | Manila, P. I.       |
| Kornfeld, Louise Marie, B. S.....            | Louisville.         |
| Lawson, Fayette Hewitt, B. M. E.....         | Chicago, Ill.       |
| Lazarus, Goldye Theo., B. S.....             | Louisville.         |
| Letton, James Harvey, B. C. E.....           | Paris.              |
| Lewis, Leo Logan, B. M. E.....               | Lexington.          |
| Lewis, Viola Cosby, A. B.....                | Louisville.         |
| Lockridge, Mary Andrew, A. B.....            | Mt. Sterling.       |
| Maddocks, Florence May, B. S.....            | Murfreesboro, Tenn. |
| Madison, James Talbot, B. C. E.....          | Frankfort.          |
| Mahan, Charles Alfred, B. S. in Agr.....     | Lancaster.          |
| Martin, Sadie Spears, A. B.....              | Visalia.            |
| McClelland, Thomas Brown, A. B.....          | San Juan, P. I.     |
| McKinney, Walter, B. C. E.....               | Hamburg, Ark.       |
| Nicholls, William Durrett, B. S. in Agr..... | Bloomfield.         |
| Ott, Thomas Foreman, B. S.....               | Georgetown.         |
| Parrish, Charles Swift, A. B.....            | Lexington.          |
| Paulin, Frank Chester, B. C. E.....          | Springfield, Ill.   |
| Rankin, Fred Jones, B. M. E.....             | Lynn, Mass.         |
| Rees, Elijah Latham, B. C. E.....            | Lexington.          |
| Rule, Perrin, B. M. E.....                   | Chicago, Ill.       |
| Scearce, George Gwin, B. S.....              | Frankfort.          |
| Schoene, Charles Edgar, B. M. E.....         | Lexington.          |
| Shannon, Philip Francis, B. C. E.....        | Lexington.          |
| Smith, Ina Kay, A. B.....                    | Lexington.          |
| Spears, Howell Davis, B. S.....              | Lexington.          |
| Sprague, Joseph Miles, B. M. E.....          | Ensley, Ala.        |
| Stigers, James Francis, B. C. E.....         | Frankfort.          |

Stiles, Mildred, A. B.....Pasadena, Cal.  
Strachan, George Morris, B. C. E.....Louisville.  
Sumner, Gordon, B. C. E.....Ambridge, Pa.  
Thomas, John William, B. M. E.....Georgetown.  
Thorne, James Webstein, B. M. E.....Schenectady, N. Y.  
Towery, Beverly Todd, A. B.....Cambridge, Mass.  
Wallis, Elizabeth Ward, B. S.....Bardstown.  
Webster, Margaret Butler, A. B.....Louisville.  
Woodward, William Drane, B. C. E.....Beaver Dam.  
Yager, John Joel, B. M. E.....Buffalo, N. Y.

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**MILITARY DEPARTMENT.****Roster of Battalion.**

FIRST LIEUT. P. W. CORBUSIER, 14TH CAVALRY, U. S. A.  
*Commandant.*

**REGIMENTAL STAFF.**

T. P. Warren, *Captain and Adjutant.*  
M. E. Boales, *Captain and Quartermaster.*

**NON-COMMISSIONED STAFF.**

D. Logan, *Sergeant Major.*  
P. B. Blakemore, *Quartermaster-Sergeant.*

**COLOR SERGEANTS.**

B. H. Logan.  
T. Slade.

**1st BATTALION.**

T. R. Bryant *Major.*  
G. R. Veal, *1st Lieut.*  
*and Battalion Adjut.*

**2nd BATTALION.**

H. H. Downing, *Major.*  
R. S. Haff,  
*1st Lieut. and Battalion Adjut*

**NON-COMMISSIONED STAFF.**

J. B. Shelby, R. A. Lowry,  
*Battalion Sergeants Major.*

**BAND.**

B. E. W. Stout,  
*1st Lieut. and Drum Major.*  
C. G. Taylor,  
*2nd Lieut. and Chief Musician.*  
P. Francis,  
*Principal Musician.*

**SERGEANTS.**

G. B. Taylor.  
T. C. Bell.  
A. W. King.  
C. White.

**CORPORALS.**

F. H. Tucker.  
J. R. Burchfield.  
A. M. Mathers.

**COMPANY A.**

E. Bennett, *Captain*.  
 O. B. Chisholm, *1st Lieut*.  
 G. T. Scott, *2nd Lieut*.  
 E. B. Webb, *1st Sergeant*.  
 G. R. Eastwood, *Qm. Sergeant*.  
 I. Horine, *Sergeant*.  
 G. P. Mills, *Sergeant*.  
 V. L. Downing, *Sergeant*.  
 J. S. Dorman, *Corporal*.  
 G. M. Toewater, *Corporal*.  
 L. S. O'Roark, *Corporal*.  
 E. L. Shuff, *Corporal*.  
 W. C. Shultz, *Corporal*.

**COMPANY B.\***

C. C. Garvin, *Captain*.  
 J. S. Crosthwaite, *1st Lieut*.  
 R. R. Atkins, *2nd Lieut*.  
 J. S. Garvin, *1st Sergeant*.  
 R. W. Jones, *Qm. Sergeant*.  
 F. W. Staples, *Sergeant*.  
 W. A. Wallace, *Sergeant*.  
 L. E. Brown, *Sergeant*.  
 G. Becker, *Corporal*.  
 F. T. Miles, *Corporal*.  
 J. H. Wilcox, *Corporal*.

\*Winner of Company Medal.

**COMPANY C.**

G. B. Riedel, *Captain*.  
 B. D. Williams, *1st Lieut*.  
 L. M. Allison, *2nd Lieut*.  
 H. W. Smith, *1st Sergeant*.  
 A. E. Ewan, *Qm. Sergeant*.  
 W. G. Clugston, *Sergeant*.  
 L. C. Bridges, *Sergeant*.  
 R. M. Barker, *Sergeant*.  
 E. H. Lewis, *Sergeant*.  
 G. M. Kridler, *Corporal*.  
 J. B. Riefkin, *Corporal*.  
 W. D. Barrows, *Corporal*.  
 V. W. Thompson, *Corporal*.

**COMPANY D.**

J. W. Gilbert, *Captain*.  
 J. C. Lewis, *1st Lieut*.  
 B. C. Ford, *2nd Lieut*.  
 S. Post, *1st Sergeant*.  
 R. W. Adams, *Qm. Sergeant*.  
 R. C. Mayhall, *Sergeant*.  
 R. H. Cram, *Sergeant*.  
 M. T. Craft, *Sergeant*.  
 W. W. Prewitt, *Sergeant*.  
 H. A. Nelson, *Corporal*.  
 T. H. Hays, *Corporal*.  
 J. A. Jones, *Corporal*.  
 F. A. Carlisle, *Corporal*.  
 M. A. Cleveland, *Corporal*.

**COMPANY E.**

J. F. Chambers, *Captain*.  
 H. E. Townsend, *1st Lieut*.  
 F. C. Dugan, *2nd Lieut*.  
 R. S. Webb, *1st Sergeant*.  
 H. P. Baker, *Qm. Sergeant*.  
 B. H. Collings, *Sergeant*.  
 R. A. Bateman, *Sergeant*.  
 T. B. Short, *Sergeant*.  
 J. Wilhoite, *Sergeant*.  
 R. A. Edwards, *Corporal*.  
 A. B. Haswell, *Corporal*.  
 T. H. Ireland, *Corporal*.  
 W. A. Harn, *Corporal*.

**COMPANY F.**

J. T. Neighbors, *Captain*.  
 W. O. Stackhouse, *1st Lieut*.  
 W. L. Rankin, *2nd Lieut*.  
 H. H. Hudson, *1st Sergeant*.  
 J. H. Glass, *Qm. Sergeant*.  
 C. C. Mayhall, *Sergeant*.  
 F. O'Day, *Sergeant*.  
 J. F. Grimes, *Sergeant*.  
 H. R. Creal, *Sergeant*.  
 A. C. Ball, *Corporal*.  
 P. R. Cassidy, *Corporal*.  
 J. E. Johnson, *Corporal*.  
 S. H. Stivers, *Corporal*.



**POST GRADUATES.**

Alexander, Josie McCoun, A. B.....Paris.  
 Barkley, George LaRue, B. M. E.....Springfield, Ill.  
 Boggess, Louis Sterling, B. C. E.....Lawrenceburg.  
 Buford, Nancy Bell, A. B.....New Castle.  
 Carrel, William Joseph, B. S.....Lexington.  
 Cline, Edgar Allen, B. M. E.....Kansas City, Mo.  
 Darnaby, Edward .....Lexington.  
 Davis, Joseph Morton, A. B .....Lexington.  
 Deenan, Arthur Liston, B. C. E.....Ambridge, Pa.  
 Hart, Robert Singleton, A. B.....Pisgah.  
 Ingles, Howard Payne, B. M. E.....Milton, Pa.  
 Johnson, Frank Yarbrough, B. M. E.....Atlanta, Ga.  
 Kelley, William Cobb, B. C. E.....Bloomington, Ill.  
 Madison, James Talbott, B. C. E.....Frankfort.  
 Mahan, Charles Alfred, B. Agr.....Lancaster.  
 Nisbet, James Clarence, B. C. E.....Providence.  
 Nollau, Louis Edward, B. M. E.....Lexington.  
 Peckinpugh, Charles Leon, B. C. E.....Louisville.  
 Puckett, Homer, B. C. E.....Bay St. Louis, Miss.  
 Rees, Elijah Latham, B. C. E.....Lexington.  
 Rogers, John Dell, B. C. E.....Louisville.  
 Schoene, William Jay, B. Agr.....Geneva, N. Y.  
 Smith, Maxwell Waide, B. C. E.....El Fuerte, Mexico.  
 Spears, Howell Davis, B. S.....Lexington.  
 Terrell, Robert Craig, B. C. E.....Heidelberg.  
 Webster, Margaret, A. B.....Louisville.  
 Whitlock, Albert Newlon, A. B.....Richmond.  
 Wilkie, Florence, A. B.....Lexington.  
 Wilkie, Margaret Donald Erskine, B. S., Lexington.

**UNDERGRADUATES.**

SENIORS.

Alden, William Oliver.....Civ. Eng.....Petersburg.  
 Allen, Lutie Darrall.....Classical .....Lexington.  
 Babbage, Arthur Wallace....Classical .....Cloverport.  
 Battaile, James Frank.....Mech. Eng.....Lexington.  
 Beaumont, Arthur Bishop....Scientific .....Mayfield.  
 Becker, Theodore.....Mech. Eng.....Louisville.  
 Bell, Benjamin Duncan .....Civ. Eng.....Nicholasville.  
 Bennett, Benj. Warfield.....Mech. Eng.....Lexington.  
 Bogard, George Taylor.....Mech. Eng.....Golden Pond.  
 Bowden, Aberdeen Orlando...Classical .....Sedalia.  
 Bowlds, Fleming .....Education .....Lexington.  
 Boyd, Hattie Elizabeth.....Classical .....Louisville.  
 Brewer, Bruce Elder.....Agricultural ....Williamstown.

|                               |                    |                    |
|-------------------------------|--------------------|--------------------|
| Brewer, Leo.....              | Classical .....    | Mayfield.          |
| Brockman, George Frederick..  | Min. Eng.....      | Louisville.        |
| Browning, John Keith.....     | Mech. Eng.....     | Maysville.         |
| Bryant, Thomas Ripley.....    | Agricultural ..... | Eminence.          |
| Buckner, Ella Simpson.....    | Classical .....    | Lexington.         |
| Buckner, Garrett Davis.....   | Scientific .....   | Lexington.         |
| Carmody, John Paul.....       | Mech. Eng.....     | Mt. Sterling.      |
| Carter, Sarah McEachin.....   | Classical .....    | Lexington.         |
| Chinn, Aubyn.....             | Classical .....    | Frankfort.         |
| Cornelison, Hubert LeGrand..  | Mech. Eng.....     | Richmond.          |
| Craft, Morgan Tennyson.....   | Classical .....    | London.            |
| Crowder, Margaret Lee.....    | Classical .....    | Sinal.             |
| Curtis, James Stewart.....    | Mech. Eng.....     | Lexington.         |
| Dean, Willis Johnson.....     | Civ. Eng.....      | Owensboro.         |
| Denham, Newton Randolph..     | Min. Eng.....      | Williamsburg.      |
| Downing, Harold Hardesty...   | Civ. Eng.....      | Lexington.         |
| Earle, Irlie Benjamin.....    | Civ. Eng.....      | Madisonville.      |
| Elam, Arthur Matthew.....     | Mech. Eng.....     | Ashland.           |
| Frost, Minnie Carfield.....   | Classical .....    | Louisville.        |
| Galloway, Clinton Robert...   | Mech. Eng.....     | Falmouth.          |
| Graham, Frank Heber.....      | Mech. Eng.....     | Bowling Green.     |
| Grannis, James Kidwell.....   | Civ. Eng.....      | Flemingsburg.      |
| Green, Warren Thornton.....   | Mech. Eng.....     | Worthville.        |
| Guerrazt, Russell Hamilton... | Mech. Eng.....     | Wilmore.           |
| Hamilton, Wm. P. Browning.    | Mech. Eng.....     | Lexington.         |
| Hanna, Aline Guthrie.....     | Classical .....    | Lexington.         |
| Hayres, Louise Sarah.....     | Classical .....    | Indianapolis, Ind. |
| Herling, Henry Lemuel.....    | Mech. Eng.....     | Oakville.          |
| Holland, Reuben Miller.....   | Classical .....    | Whiteville.        |
| Hewerton, Thomas McC.....     | Civ. Eng.....      | Shelbyville.       |
| Humphrey, Robert Andrew...    | Mech. Eng.....     | Bloomfield.        |
| Kiesel, Walter Christian..... | Mech. Eng.....     | Carrollton.        |
| Kelley, Cott C.....           | Civ. Eng.....      | Hickory Flat.      |
| Kirk, Estill.....             | Civ. Eng.....      | Philphat.          |
| Kirk, Maurice Cushman.....    | Civ. Eng.....      | Maysville.         |
| Leigh, Florence Bascom.....   | Classical .....    | Little Rock, Ark.  |
| McCandless, Helen.....        | Classical .....    | Louisville.        |
| McCorkle, Graham King.....    | Mech. Eng.....     | Eminence.          |
| McPheron, Robert Lee.....     | Education .....    | Somerset.          |
| Martin, Grace Lee.....        | Classical .....    | Lexington.         |
| Mathews, Wm. Chamberlain..    | Mech. Eng.....     | Mayslick.          |
| Metzler, Daniel.....          | Mech. Eng.....     | Louisville.        |
| Muncy, Victor Emanuel.....    | Mech. Eng.....     | Cincinnati, O.     |
| Newberger, Wallace.....       | Min. Eng.....      | Louisville.        |
| Oldham, Edwin Bronston.....   | Mech. Eng.....     | Lexington.         |
| Pence, Christina.....         | Classical .....    | Lexington.         |
| Penrod, Alphon.....           | Mech. Eng.....     | Lexington.         |
| Piper, Mary Hammond.....      | Classical .....    | Lexington.         |
| Pogue, Joseph Latham.....     | Mech. Eng.....     | Mayslick.          |
| Porter, Colton Alexander....  | Mech. Eng.....     | Louisville.        |



Poynter, Arthur Lawrence....Mech. Eng.....Royse City, Texas.  
 Rice, Clayton Jefferson.....Civ. Eng.....Greenville.  
 Rodes, William.....Scientific .....Lexington.  
 Roswell, Charles Miller.....Mech. Eng.....Sparta.  
 Samuel, Robert Lovell.....Mech. Eng.....Maysville.  
 Schultz, Oscar Lewis.....Civ. Eng.....Hartford.  
 Shaw, Lillian Belle.....Classical .....Jetts.  
 Shelby, William W., Jr.....Min. Eng.....Henderson.  
 Smiley, Proctor Knott.....Mech. Eng.....Catlettsburg.  
 Smith, Milton Sears.....Mech. Eng.....Nicholasville.  
 Stone, Neville Earle.....Civ. Eng.....Hopkinsville.  
 Sweeney, Sunshine.....Classical .....Lexington.  
 Taylor, Guy Baker.....Scientific .....Lexington.  
 Walker, Madie Lee.....Classical .....Lexington.  
 Wanless, Margaret Jane.....Classical .....Louisville.  
 Watson, James Saffet.....Civ. Eng.....Lexington.  
 Wells, Emery.....Civ. Eng.....Lexington.  
 Wheat, Frank Merrill.....Scientific .....Williamsburg.  
 Wilhoit, Arza Lytle.....Mech. Eng.....Utica.  
 Wilkes, Francis Marshall....Mech. Eng.....Washington.  
 Wilson, Carter Lindsay.....Mech. Eng.....Louisville.  
 Wilson, James Morrison.....Civ. Eng.....Louisville.  
 Yates, Howard Clifford.....Classical .....Covington.

### JUNIORS.

Adair, George Stolworthy....Mech. Eng.....Paris.  
 Akers, Mary Elizabeth.....Classical .....Lexington.  
 Akers, Susan Gray.....Classical .....Lexington.  
 Bennett, Clarence Sanson....Mech. Eng.....Narrows, O.  
 Bennett, Edgar.....Mech. Eng.....Basin Springs.  
 Bewlay, Willard Crawford...Mech. Eng.....Lexington.  
 Blumenthal, Philip Lee.....Scientific .....Lexington.  
 Boales, Maxwell Ellis.....Mech. Eng.....Hopkinsville.  
 Browning, George Francis...Mech. Eng.....Lewisburg.  
 Cannon, Harry Sharp.....Classical .....Nicholasville.  
 Carroll, Tarlton Combs.....Classical .....Louisville.  
 Caudill, Stephen Emery.....Civ. Eng.....Whitesburg.  
 Chambers, Joseph Floyd....Civ. Eng.....Owensboro.  
 Chisholm, Otho B.....Agricultural ....Acton.  
 Cook, Holton.....Civ. Eng.....Mt. Sterling.  
 Crawford, Andrew Jackson...Mech. Eng.....Georgetown.  
 Crosthwaite, John S.....Classical .....Lexington.  
 Davis, Harry Arnold.....Scientific .....Maysville.  
 Daugherty, Helen Lucile....Classical .....Paris.  
 Douglas, Ernest Thompson...Mech. Eng.....Owenton.  
 Dugan, Frank Clarke.....Civ. Eng.....Louisville.  
 Eifort, Harry Earl.....Mech. Eng.....Ashland.

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|------------------------------------|--------------------|-------------------|
| Elliott, Alvin Clarence.....       | Education .....    | Eubank.           |
| Ellis, Cecil Byrne.....            | Classical .....    | Tracy.            |
| Fleischaker, Miriam.....           | Scientific .....   | Louisville.       |
| Garvin, Cecil Clement.....         | Civ. Eng.....      | Olive Hill.       |
| Gilbert, James William.....        | Mech. Eng.....     | Owensboro.        |
| Glass, Rhoda Virginia.....         | Classical .....    | Lexington.        |
| Haff, Robert Schuyler.....         | Civ. Eng.....      | Frankfort.        |
| Hardesty, Lizzie Belle.....        | Scientific .....   | Muir.             |
| Harp, William David.....           | Civ. Eng.....      | Lexington.        |
| Harrison, Erbie Lee.....           | Classical .....    | Glasgow.          |
| Haynes, Clyde Giv n.....           | Mech. Eng.....     | Morganfield.      |
| Hinesley, Pearl Russell.....       | Classical .....    | Louisville.       |
| Horine, Ernest England.....        | Mech. Eng.....     | Nicholasville.    |
| Horine, John Sherman.....          | Mech. Eng.....     | Nicholasville.    |
| Hudgins, Thomas Frederick.....     | Mech. Eng.....     | Olive Hill.       |
| Hudson, William Edward.....        | Civ. Eng.....      | Godfrey.          |
| Isaacs, Edith Jeanette.....        | Scientific .....   | Louisville.       |
| Jablow, Charles.....               | Mech. Eng.....     | Louisville.       |
| Johns, Charles Ashley.....         | Mech. Eng.....     | Lexington.        |
| Kaufman, Sara Rachel.....          | Scientific .....   | Lexington.        |
| King, Abner William.....           | Mech. Eng.....     | Cox's Creek.      |
| Letton, Harry Thomas.....          | Agricultural ..... | Carlisle.         |
| Logan, Emmett.....                 | Agricultural ..... | Bowling Green.    |
| Lowry, Hiter H., Jr.....           | Mech. Eng.....     | Nicholasville.    |
| Luton, Inez Ware.....              | Classical .....    | Hickman.          |
| Maddox, Robert Lytton.....         | Classical .....    | Mayfield.         |
| Marks, Louis Thornton.....         | Mech. Eng.....     | Versailles.       |
| Mathers, Albert Merion.....        | Mech. Eng.....     | Carlisle.         |
| Mattingly, Aline C. Cleopatra..... | Scientific .....   | Louisville.       |
| Moore, Virgil Yandell.....         | Classical .....    | Marion.           |
| Neblett, Patrick Henry.....        | Classical .....    | Turner's Station. |
| Neighbors, Jesse Thomas.....       | Mech. Eng.....     | Glendale.         |
| Parrish, Charles Swift.....        | Mech. Eng.....     | Lexington.        |
| Perrine, Emmett Burgess.....       | Mech. Eng.....     | Maysville.        |
| Raney, Murray.....                 | Mech. Eng.....     | Carrollton.       |
| Rankin, Harry Lee.....             | Civ. Eng.....      | Monticello.       |
| Rapier, Stephen Augustus.....      | Mech. Eng.....     | Bardstown.        |
| Riedel, Gus.....                   | Mech. Eng.....     | Holt.             |
| Robinson, James Russell.....       | Classical .....    | London.           |
| Rodes, Mary McEachin.....          | Classical .....    | Monticello.       |
| Sampson, Reid Johnson.....         | Min. Eng.....      | Middlesboro.      |
| Sanders, Hugh Berkley.....         | Scientific .....   | Louisville.       |
| Scott, George Thomas.....          | Agricultural ..... | Earles.           |
| Shankland, Marshall Wood.....      | Civ. Eng.....      | Lexington.        |
| Shanklin, Shelby.....              | Mech. Eng.....     | Lexington.        |
| Sims, Robert Lee.....              | Mech. Eng.....     | Lexington.        |
| Simon, Ray Whitaker.....           | Civ. Eng.....      | Brookville.       |
| Stackhouse, Wm. Ousley.....        | Classical .....    | Lexington.        |
| Stivers, Mattie.....               | Classical .....    | Paris.            |



Stout, Benj. Ellis Warren....Civ. Eng.....Owensboro.  
 Talbott, Daniel Cline.....Mech. Eng.....Lexington.  
 Taylor, Harry Edward.....Min. Eng.....Crawford, Tenn.  
 Taylor, Newton Stout.....Mech. Eng.....Carrollton.  
 Tigert, John James.....Mech. Eng.....Louisville.  
 Townsend, Hal Eubank.....Mech. Eng.....Bowling Green.  
 Troll, Ivy Marie.....Scientific .....Shepherdsville.  
 Veal, Guy Roscoe.....Classical .....Sedalia.  
 Wallace, Leonard De Long...Classical .....Lexington.  
 Wells, Charles D.....Civ. Eng.....Bardstown.  
 White, Charles.....Mech. Eng.....Warsaw.  
 Wilson, Benjamin Dunbar....Scientific .....Lexington.  
 Yankey, Andrew George....Civ. Eng.....Springfield.  
 Williams, Byron Demetrius Mech. Eng.....Auburn.

### SOPHOMORES.

Adams, Robert William.....Scientific .....Henderson.  
 Allison, Leonidas Metcalf...Mech. Eng.....Carlisle.  
 Ammerman, Edward Clifton...Mech. Eng.....Cynthiana.  
 Atkins, Robert Ryland.....Mech. Eng.....Lexington.  
 Bain, Charles Kremer.....Min. Eng.....Lexington.  
 Barbee, Richard Carroll....Civ. Eng.....Lexington.  
 Barker, Richard McLean....Civ. Eng.....Adairville.  
 Bateman, Ray Atkins.....Mech. Eng.....Bradfordsville.  
 Batts, Lindsay.....Mech. Eng.....New Castle.  
 Becker, George, Jr.....Agricultural ....Beard.  
 Bell, Thomas Cleland.....Min. Eng.....Harrodsburg.  
 Bodkin, Jesse Thomas.....Mech. Eng.....Bardwell.  
 Blakemore, Page Blanton...Min. Eng.....Hopkinsville.  
 Bridges, Leonard Cahill....Min. Eng.....Stamping Ground.  
 Brown, Ira Clay.....Education .....Humphrey.  
 Brown, Lawrence Edward....Mech. Eng.....Boneset.  
 Bryant, Hal Farnsworth....Agricultural ....Eminence.  
 Bunnell, Harry Ethelbert...Mech. Eng.....Binghamton, N. Y.  
 Burchfield, James Ralph....Min. Eng.....Pineville.  
 Campbell, Harry Joseph....Civ. Eng.....Vanceburg.  
 Campbell, John.....Mech. Eng.....Butler.  
 Carr, Haviland.....Scientific .....Claysville.  
 Cassady, Marietta Finley...Classical .....Versailles.  
 Catlett, Wake Cannan.....Mech. Eng.....Owenton.  
 Cawood, Frank Finlay.....Civ. Eng.....Harlan.  
 Champion, Joseph Gentry....Mech. Eng.....Lawrenceburg.  
 Clarke, William Frederick...Mech. Eng.....Carthage, Mo.  
 Clugston, William George...Classical .....Lexington.  
 Coons, William Lester.....Civ. Eng.....Lexington.  
 Cornish, William Redman...Mech. Eng.....Birmingham, Ala.  
 Cram, Royalston Haywood...Mech. Eng.....Williamstown.  
 Creal, Hugh Raymond.....Civ. Eng.....Buffalo.

|                               |                   |                |
|-------------------------------|-------------------|----------------|
| Crowder, Myrtie Florence..... | Classical .....   | Sinai.         |
| Curtis, John James.....       | Mech. Eng.....    | Greendale.     |
| Dawson, John Stanley.....     | Mech. Eng.....    | Bloomfield.    |
| Dorman, James Caldwell.....   | Mech. Eng.....    | Nicholasville. |
| Dunn, John William.....       | Mech. Eng.....    | Lancaster.     |
| Eastwood, George Robert....   | Agricultural .... | Madisonville.  |
| Edwards, Richard Alexander..  | Education .....   | Boydsville.    |
| Elgin, Jeff Craig.....        | Civ. Eng.....     | Paris.         |
| Estes, Jordan Grove.....      | Civ. Eng.....     | Lebanon.       |
| Ewan, Avery Early.....        | Agricultural .... | Helena.        |
| Fleming, Ruby Ringo.....      | Classical .....   | Hickman.       |
| Foster, John Milton.....      | Mech. Eng.....    | Richmond.      |
| Fox, Walter Cuthbert.....     | Civ. Eng.....     | Newport.       |
| Frankel, Monroe Jacob.....    | Mech. Eng.....    | Louisville.    |
| Garman, Frederick.....        | Scientific .....  | Lexington.     |
| Garrett, John Wilmore.....    | Mech. Eng.....    | Fort Garrett.  |
| Giltner, James Bristow.....   | Mech. Eng.....    | Carrollton.    |
| Ginn, Eloise Elizabeth.....   | Classical .....   | Lexington.     |
| Graham, Lawrence B.....       | Mech. Eng.....    | Bowling Green. |
| Greathouse, Wm. McCoy.....    | Mech. Eng.....    | Hamesville.    |
| Greathouse, Wm. Wesley.....   | Agricultural .... | Versailles.    |
| Gullion, Walter Cyrus.....    | Mech. Eng.....    | New Castle.    |
| Hall, James Henry.....        | Mech. Eng.....    | Lexington.     |
| Hart, George Denny.....       | Classical .....   | Lexington.     |
| Hayden, Mary Elizabeth.....   | Classical .....   | Lewisport.     |
| Hays, Thomas Hercules.....    | Mech. Eng.....    | Versailles.    |
| Hendrickson, George M.....    | Min. Eng.....     | Lexington.     |
| Horine, Irving.....           | Mech. Eng.....    | Nicholasville. |
| Hubbard, Alpha.....           | Classical .....   | Hubbard.       |
| Hudson, Holcomb.....          | Classical .....   | Lexington.     |
| Hughes, James Irvine Craig..  | Mech. Eng.....    | Versailles.    |
| Hughes, James Melvin.....     | Civ. Eng.....     | Lexington.     |
| Irvine, Oscar William.....    | Scientific .....  | Greenville.    |
| Johnston, Wm. Bradley.....    | Mech. Eng.....    | Lancaster.     |
| Jones, Lida.....              | Scientific .....  | Lexington.     |
| Koltinsky, Samuel K.....      | Mech. Eng.....    | Princeton.     |
| Kuehler, Chester Arthur....   | Mech. Eng.....    | Louisville.    |
| Lewis, Edward Hugh.....       | Civ. Eng.....     | College Hill.  |
| Logan, Ben Harrison.....      | Mech. Eng.....    | Trenton.       |
| Logan, Dulaney.....           | Mech. Eng.....    | Bowling Green. |
| Lowry, Robert Alexander....   | Civ. Eng.....     | Catlettsburg.  |
| Lusk, Joseph Sherwood.....    | Civ. Eng.....     | Dayton.        |
| McCarroll, Charles.....       | Min. Eng.....     | Hopkinsville.  |
| Marshall, Caleb Wallace....   | Civ. Eng.....     | Lexington.     |
| Marshall, Sarah Rossitter...  | Classical .....   | Lexington.     |
| Mastin, James Edward.....     | Agricultural .... | Versailles.    |
| Mayhall, Creston Clarke.....  | Scientific .....  | Somerset.      |
| Mayhall, Russell Collins....  | Mech. Eng.....    | Frankfort.     |
| Miller, Humphrey.....         | Mech. Eng.....    | New Hope.      |
| Milligan, Vincent Bartlett... | Mech. Eng.....    | Lexington.     |



|                                |                  |                 |
|--------------------------------|------------------|-----------------|
| Mills, Geo. Pemberton.....     | Mech. Eng.....   | Lexington.      |
| Mills, Grover Cleveland.....   | Mech. Eng.....   | Kenton.         |
| Montgomery, James W.....       | Mech. Eng.....   | Frankfort.      |
| Moore, John Bowman.....        | Civ. Eng.....    | Harrodsburg.    |
| Mosley, William Eugene.....    | Civ. Eng.....    | Bardwell.       |
| Naylor, Floyd Reed.....        | Civ. Eng.....    | Hickman.        |
| Nelson, Harry.....             | Civ. Eng.....    | Uniontown.      |
| Nichols, Jesse Bell.....       | Scientific ..... | Paducah.        |
| Nollau, Walter Charles.....    | Mech. Eng.....   | St. Louis, Mo.  |
| O'Roark, Lauren Snyder.....    | Mech. Eng.....   | Cannel City.    |
| Patrick, Wellington.....       | Education .....  | Netty.          |
| Paynter, Walter Burton.....    | Mech. Eng.....   | Lawrenceburg.   |
| Pence, Mary Bell.....          | Classical .....  | Lexington.      |
| Peratt, William Hurst.....     | Mech. Eng.....   | Ewing.          |
| Piper, Lula Allen.....         | Classical .....  | Lexington.      |
| Post, Shelby.....              | Mech. Eng.....   | Kingston, N. Y. |
| Prentice, Anna Lucille.....    | Classical .....  | Morganfield.    |
| Reddish, William D.....        | Scientific ..... | Somerset.       |
| Riefkin, Jacob.....            | Mech. Eng.....   | Newport.        |
| Rembold, Elmer Louis.....      | Scientific ..... | Owensboro.      |
| Robertson, Isaac William.....  | Scientific ..... | Smithland.      |
| Robinson, Benj. Franklin.....  | Civ. Eng.....    | Lexington.      |
| Safford, John.....             | Mech. Eng.....   | Richieu.        |
| Sargent, Elizabeth.....        | Classical .....  | Frankfort.      |
| Schachle, Stephen Andrew.....  | Civ. Eng.....    | Butler.         |
| Schultz, Wm. Claude.....       | Classical .....  | Narrows.        |
| Shelby, Joseph Bryan.....      | Mech. Eng.....   | Lexington.      |
| Shelley, James Charles.....    | Civ. Eng.....    | Louisville.     |
| Shuff, Evans Layton.....       | Mech. Eng.....   | Georgetown.     |
| Simrall, Anne Dowd.....        | Classical .....  | Mt. Sterling.   |
| Sisco, Pope.....               | Mech. Eng.....   | Bardstown.      |
| Slade, Theodore.....           | Mech. Eng.....   | Lexington.      |
| Smith, Guy Warren.....         | Mech. Eng.....   | Muir.           |
| Smith, Hal Walker.....         | Civ. Eng.....    | Henderson.      |
| Spencer, Mary Scott.....       | Classical .....  | Lexington.      |
| Stivers, Sherman Harry.....    | Civ. Eng.....    | Paris.          |
| Taylor, Carrol Thalon.....     | Mech. Eng.....   | Lexington.      |
| Terrell, Daniel Vaiers.....    | Civ. Eng.....    | Bedford.        |
| Thompson, Volney Wayne.....    | Mech. Eng.....   | Frost.          |
| Tucker, Frederick Harrig.....  | Scientific ..... | Madisonville.   |
| Utterback, Fannie Wallace..... | Scientific ..... | Lawrenceburg.   |
| Vaughn, Esther.....            | Classical .....  | Waddy.          |
| Wallace, Harry Buford.....     | Mech. Eng.....   | Lexington.      |
| Waller, James William.....     | Civ. Eng.....    | Paris.          |
| Warren, Thomas Philip.....     | Mech. Eng.....   | Lexington.      |
| Webb, Earl Benton.....         | Classical .....  | Willard.        |
| Wells, Frank Thomas.....       | Mech. Eng.....   | Bloomfield.     |
| Wilcox, John Henry.....        | Classical .....  | Elkin.          |
| Wilson, Daniel Hunter.....     | Mech. Eng.....   | Louisville.     |
| Wilson, Homer.....             | Classical .....  | Lexington.      |

Winston, Algernon Sidney....Civ. Eng.....Sturgis.

### FRESHMEN.

Adair, Bruce.....Mech. Eng.....Paris.  
 Adams, Lois Litsey.....Mech. Eng.....Harrodsburg.  
 Babb, Harvey Arthur.....Education .....Providence.  
 Baird, Obed Elmo.....Education .....Utica.  
 Baker, Hodge Pomeroy.....Agricultural ....Kyle.  
 Ball, Arthur Carlton.....Agricultural ....Millersburg.  
 Barrows, Willard Dante.....Civ. Eng.....Dixon.  
 Beard, Joseph Breckenridge..Civ. Eng.....Richmond.  
 Beatty, Thomas Elmer.....Mech. Eng.....Smithfield.  
 Bennett, Harry Nichols .....Classical .....Hartford.  
 Bennett, Waller.....Mech. Eng.....Lexington.  
 Boyd, James Alfred.....Mech. Eng.....Cave City.  
 Brownfield, Wyatt.....Civ. Eng.....Elizabethtown.  
 Bryant, Ethel May.....Classical .....Lexington.  
 Bruner, Joseph Franklin.....Education .....Whitesville.  
 Burguières, Henry Isadore...Mech. Eng.....New Orleans, La.  
 Cardwell, John Wesley.....Mech. Eng.....Harrodsburg.  
 Cash, Richard Turner.....Civ. Eng.....Elizabethtown.  
 Cary, James White.....Mech. Eng.....Versailles.  
 Cary, Mattie Virginia.....Classical .....Versailles.  
 Cassidy, Perry Rogan.....Mech. Eng.....Lexington.  
 Clarke, Frank Rowland.....Mech. Eng.....Owensboro.  
 Claybrook, Edora Pearl.....Education .....Springfield.  
 Cleveland, Minor Armenius..Mech. Eng.....Boyd.  
 Cochran, William Thomas..Mech. Eng.....Madison, Ind.  
 Collett, Frank William.....Mech. Eng.....Bowling Green  
 Collings, Benj. Hays.....Civ. Eng.....Lebanon Junction.  
 Collins, Minerva.....Scientific .....Hindman.  
 Collis, Mark.....Mech. Eng.....Lexington.  
 Crowell, Charles Frederick..Min. Eng.....Ashland.  
 Daniel, Charles Elwood.....Mech. Eng.....Hazelgreen.  
 Denham, Clarence Welder...Civ. Eng.....Williamsburg.  
 Downing, Virgil Leonard....Mech. Eng.....Lexington.  
 Dunlap, George Green.....Civ. Eng.....Dry Ridge.  
 Easterday, Clinton Homer..Civ. Eng.....Carrollton.  
 Egbert, Margaret Ethlyn....Mech. Eng.....Lexington.  
 Ensminger, Robert Fulton...Mech. Eng.....Harrodsburg.  
 Estill, Robert Rodes.....Civ. Eng.....Lexington.  
 Ferguson, Lillian Terry.....Scientific .....La Center.  
 Fields, Robert Fulton.....Mech. Eng.....Harrodsburg.  
 Finley, Joseph Bradford....Mech. Eng.....Georgetown.  
 Fitzpatrick, John James....Mech. Eng.....Liberty.  
 Foster, Hayes.....Civ. Eng.....Stanford.  
 Francis, Paul.....Min. Eng.....Jellico, Tenn.



|                                  |                   |                 |
|----------------------------------|-------------------|-----------------|
| Gaines, David Porter.....        | Classical .....   | Worthville.     |
| Glass, James Howard.....         | Agricultural .... | Rockdale.       |
| Glenn, Nannie Gribbon.....       | Classical .....   | Eddyville.      |
| Gragg, Viola Evelyn.....         | Classical .....   | Somerset.       |
| Greathouse, Joseph Felix.....    | Classical .....   | Versailles.     |
| Grimes, John Frank.....          | Civ. Eng.....     | Lexington.      |
| Grobmyer, Stanley Aloysius.....  | Mech. Eng.....    | Carrollton.     |
| Grundy, Samuel McMeekin.....     | Civ. Eng.....     | Bloomfield.     |
| Hager, Charles Ernest.....       | Civ. Eng.....     | Brandenburg.    |
| Hailey, Robert Mockbee.....      | Civ. Eng.....     | Paducah.        |
| Harn, Walter Andrew.....         | Civ. Eng.....     | Muir.           |
| Hayden, Helen.....               | Scientific .....  | Lexington.      |
| Hollar, Orie Willard.....        | Mech. Eng.....    | Paris.          |
| Hopkins, Mrs. Nellie Parker..... | Mech. Eng.....    | Lexington.      |
| Hughes, Albert Eades.....        | Min. Eng.....     | Lexington.      |
| Janes, Ford Brent.....           | Civ. Eng.....     | Paducah.        |
| Jenkins, Troy.....               | Education .....   | Mayfield.       |
| Johnson, Joseph Ebert.....       | Mech. Eng.....    | Waverly.        |
| Johnson, Marion Gilbert.....     | Classical .....   | Lawrenceburg.   |
| Jones, James Arden.....          | Mech. Eng.....    | Slaughterville. |
| Jones, Robert Leslie.....        | Mech. Eng.....    | Walton.         |
| Kam, Fred Stone.....             | Mech. Eng.....    | Owensboro.      |
| Keeley, John Clennons.....       | Civ. Eng.....     | Owensboro.      |
| Kelly, Washington Irving.....    | Mech. Eng.....    | New Castle.     |
| Kridler, George Mathew.....      | Mech. Eng.....    | Somerset.       |
| Lander, Willie Dee.....          | Classical .....   | Eddyville.      |
| Lee, Daniel Franklin.....        | Scientific .....  | Campbellsburg.  |
| Lewis, James Otis.....           | Education .....   | Stanley.        |
| Lurtey, William Augustus.....    | Mech. Eng.....    | Maysville.      |
| Lytle, Hendricks Gilbert.....    | Civ. Eng.....     | Flemingsburg.   |
| McCarthy, Charles Bernard.....   | Civ. Eng.....     | Paris.          |
| McDaniel, Oscar Pearl.....       | Mech. Eng.....    | Ewing.          |
| McGehee, John Marshall.....      | Mech. Eng.....    | Princeton.      |
| McGuire, Francis Falsom.....     | Education .....   | Mt. Vernon.     |
| Marks, Thomas.....               | Mech. Eng.....    | Versailles.     |
| Martin, Allen.....               | Agricultural .... | Lexington.      |
| May, Ollie Lewis.....            | Civ. Eng.....     | John.           |
| Mayes, James Robert.....         | Civ. Eng.....     | Springfield.    |
| Merchant, George Brite.....      | Civ. Eng.....     | Sulphur.        |
| Miles, Frank Thrapp.....         | Mech. Eng.....    | Ft. Thomas.     |
| Miller, Charles Roswell.....     | Mech. Eng.....    | Sparta.         |
| Moore, Harvey Lee.....           | Mech. Eng.....    | Georgetown.     |
| Morris, Jesse Neal.....          | Civ. Eng.....     | Sulphur.        |
| Moynahan, Bernard.....           | Civ. Eng.....     | Nicholasville.  |
| Murray, Hal J.....               | Civ. Eng.....     | Louisville.     |
| O'Day, Margaret.....             | Mech. Eng.....    | Lexington.      |
| O'Day, Thomas Michael.....       | Mech. Eng.....    | Lexington.      |
| Parker, Preston Piper.....       | Civ. Eng.....     | Maysville.      |
| Penny, William Purvant.....      | Civ. Eng.....     | Hemp Ridge.     |
| Phister, Albert Brown.....       | Mech. Eng.....    | Newport.        |

|                               |                  |                    |
|-------------------------------|------------------|--------------------|
| Prewitt, Wm. Wathem.....      | Mech. Eng.....   | Osceola, Ark.      |
| Rice, Herman John.....        | Education .....  | Chambers.          |
| Reiter, Arthur Wilhelm.....   | Min. Eng.....    | Fredonia.          |
| Robertson, John Edward.....   | Civ. Eng.....    | Waddy.             |
| Rodes, Peter Powell.....      | Mech. Eng.....   | Lexington.         |
| Rogers, John.....             | Civ. Eng.....    | Glasgow.           |
| Rout, Beverly Ellis.....      | Mech. Eng.....   | Stanwood.          |
| Routt, Grover Cleveland.....  | Education .....  | Stinnett.          |
| Schmid, Robert Lynden.....    | Mech. Eng.....   | Louisville.        |
| Schoene, Katherine M.....     | Scientific ..... | Henderson.         |
| Shanklin, George Bryan.....   | Mech. Eng.....   | Lexington.         |
| Sharmon, William James....    | Civ. Eng.....    | Lexington.         |
| Short, Thompson Bailey.....   | Mech. Eng.....   | Lexington.         |
| Sides, Fred Herbert.....      | Mech. Eng.....   | Hickory, N. Y.     |
| Sink, Verna Jewell.....       | Scientific ..... | Lexington.         |
| Skeens, Jimison.....          | Education .....  | Potter.            |
| Sloan, Jesse Neal.....        | Civ. Eng.....    | Shelbyville.       |
| Smarr, Ben McAtee.....        | Mech. Eng.....   | Brooksville.       |
| Smith, Daniel Walter.....     | Mech. Eng.....   | Nicholasville.     |
| Smith, Lucius Ernest.....     | Scientific ..... | Hindman.           |
| Smith, Mary Barrett.....      | Education .....  | Richmond.          |
| Smith, Maurice Bowers.....    | Mech. Eng.....   | Lexington.         |
| Snyder, Eness Ewing.....      | Min. Eng.....    | Hot Springs, Ark.  |
| Stagg, Joseph Overstreet....  | Mech. Eng.....   | Harrodsburg.       |
| Stahel, Leslie Conrad.....    | Civ. Eng.....    | Versailles.        |
| Staples, Frederick William... | Mech. Eng.....   | Lexington.         |
| Stofer, Richard Thompson...   | Mech. Eng.....   | Mt. Sterling.      |
| Sudduth, Taylor Bean.....     | Civ. Eng.....    | Winchester.        |
| Tanner, Thomas.....           | Mech. Eng.....   | Lexington.         |
| Taylor, Orville Heber.....    | Civ. Eng.....    | Beaver Dam.        |
| Thomas, Robert Palmer.....    | Mech. Eng.....   | Hodgenville.       |
| Toewater, George Myers....    | Mech. Eng.....   | Lexington.         |
| Valentine, Vernon.....        | Mech. Eng.....   | New Castle.        |
| Vanaman, Charles W.....       | Mech. Eng.....   | Philadelphia, Pa.  |
| Vivian, Glave Goddard.....    | Mech. Eng.....   | Harrodsburg.       |
| Waleshy, Alfred Edwin.....    | Civ. Eng.....    | Louisville.        |
| Walker, Horace Lackey.....    | Scientific ..... | Lancaster.         |
| Wall, Franklin Pearce.....    | Mech. Eng.....   | Cayca.             |
| Wallace, Wm. Abithal.....     | Civ. Eng.....    | Cerulean.          |
| Wallis, Nell Virginia.....    | Scientific ..... | Lexington.         |
| Wardle, Charles William....   | Min. Eng.....    | Maysville.         |
| Webb, Edgar Hedger.....       | Education .....  | Sadieville.        |
| Webb, Richard Spun.....       | Mech. Eng.....   | Lexington.         |
| Wharton, Russell Zollinger... | Mech. Eng.....   | Valley View.       |
| Williams, Alice Cary.....     | Classical .....  | Lexington.         |
| Wilson, Meek Boyd.....        | Education .....  | Lynnville.         |
| Woods, Everett Dedman....     | Mech. Eng.....   | Clarksville, Tenn. |
| Wright, Walter Franklin....   | Classical .....  | Manchester.        |
| Young, Alfred Combs.....      | Scientific ..... | Cordie.            |



**NORMAL STUDENTS.****For the State Diploma.**


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|                               |                      |             |
|-------------------------------|----------------------|-------------|
| Acree, Mary Olive.....        | Hazel .....          | Calloway.   |
| Anderson, Frances Fern.....   | Wilmore .....        | Jessamine.  |
| Barnett, Robert Wilson.....   | Middlesboro .....    | Bell.       |
| Bartley, Gladys.....          | Hopkinsville .....   | Christian.  |
| Bingham, William Colson.....  | Pineville .....      | Bell.       |
| Boswell, William Marion.....  | Wilmore .....        | Jessamine.  |
| Brown, Cyrus Lee.....         | Humphrey .....       | Casey.      |
| Carlisle, Floyd Anderson..... | Slaughterville ..    | Webster.    |
| Catlett, Necie Urey.....      | Princeton .....      | Caldwell.   |
| Clark, Sarah Gregory.....     | Lexington .....      | Fayette.    |
| Conley, Nell Ray.....         | Louisa .....         | Lawrence.   |
| Cregor, Minton.....           | Springfield .....    | Washington. |
| Crenshaw, Anne Scott.....     | Versailles .....     | Woodford.   |
| Depp, Delsie John.....        | Summer Shade.....    | Metcalf.    |
| Dobyns, Mrs. Minnie B.....    | Minerva .....        | Mason.      |
| Dunlap, Helen Margaret.....   | Williamstown ..      | Grant.      |
| Dunn, Charles Francis.....    | Morning View.....    | Kenton.     |
| Edwards, Joe William.....     | Lynnville .....      | Graves.     |
| Fisher, Nannie Janie.....     | Bardwell .....       | Carlisle.   |
| Fuller, George Thomas.....    | Mayfield .....       | Graves.     |
| Gary, Lawrence Mitchell.....  | Pinchico .....       | Ohio.       |
| Gentry, James Alvin.....      | Barrett's Ferry..... | Ohio.       |
| Gillis, Cleo .....            | Lexington .....      | Fayette.    |
| Gillis, Inis.....             | Lexington .....      | Fayette.    |
| Hayden, Gretchen.....         | Lexington .....      | Fayette.    |
| Hahn, Elizabeth.....          | Frankfort .....      | Franklin.   |
| Haney, William Henry.....     | Ezel .....           | Morgan.     |
| Hart, Ethel Eleanor.....      | Cynthiana .....      | Harrison.   |
| Hendley, Harry Jackson.....   | Mayfield .....       | Graves.     |
| Henry, Elizabeth B.....       | Lexington .....      | Fayette.    |
| Hind, Arrela Catherine.....   | Verona .....         | Boone.      |
| Karrick, James Vance.....     | Bardstown .....      | Nelson.     |
| Keeton, Arthur.....           | Hager .....          | Magoffin.   |
| Kirk, Herschel Roscoe.....    | Owensboro .....      | Daviess.    |
| Kirk, John Riley.....         | Philpot .....        | Daviess.    |
| Luton, Albert Roscoe.....     | Golden Pond.....     | Trigg.      |
| McMullin, Luella.....         | Corydon .....        | Henderson.  |
| Major, Nannie Arelia.....     | Hopkinsville.....    | Christian.  |
| Markwell, Annie Walton.....   | Foxport .....        | Fleming.    |
| Martin, Clara .....           | Gracey .....         | Christian.  |
| Merritt, Marietta Louise..... | Hopkinsville ..      | Christian.  |
| Payne, John Howard.....       | Cold Spring.....     | Campbell.   |
| Purdom, Annie Mitchell.....   | Parksville .....     | Boyle.      |
| Purdom, Zora Veida.....       | Parksville .....     | Boyle.      |
| Reeves, Luther Willis.....    | Right Angle.....     | Clark.      |

Roberts, Ricketts Arrelda....Verona .....Boone.  
 Robinett, George Matthew....Hagar .....Magoffin.  
 Scott, Bertha.....Maysville .....Mason.  
 Sebastian, Grover Cleveland.Daysboro .....Wolf.  
 Shull, Mrs. Lena M.....Lexington .....Fayette.  
 Skillman, John Miller.....Hardinsburg ....Breckinridge.  
 Stevenson, Robert W.....Fredonia .....Crittenden.  
 Stewart, Robert Whitefield Bedford .....Trimble.  
 Townsend, William Henry...Glenview .....Anderson.  
 Wall, James William.....Eubank .....Casey.  
 Wayne, Mrs. Alice.....Springfield .....Washington.  
 Williams, Leda.....Russellville ....Logan.  
 Willis, Paul Turner.....New York City.New York.  
 Willingham, Mabel L.....Highway .....Clinton.  
 Willson, Burnam.....Paint Lick.....Garrard.  
 Wilson, John .....Paint Lick .....Garrard.

**For the State Certificate.**

Arnold, William Earle.....Maud .....Nelson.  
 Ammerman, May Jane.....Cynthiana .....Harrison.  
 Bailey, Edgar Allen.....Morgantown ...Butler.  
 Beaumont, Wortham C.....Mayfield .....Graves.  
 Benjamin, Oliver Kerney....Providence .....Webster.  
 Bratcher, Ewart Emmett....Leach .....Grayson.  
 Broomfield, Rebecca.....Nicholasville ...Jessamine.  
 Broughton, Mary Elizabeth..Pineville .....Bell.  
 Brown, Bessie Gardner.....Manchester ....Clay.  
 Bryson, Abraham Huston....Fullerton .....Greenup.  
 Burnett, Clyde.....Mayfield .....Graves.  
 Burruss, Nellie Bly.....Lexington .....Fayette.  
 Carroll, Nannie Haydon....Lexington .....Fayette.  
 Chambers, Wayne.....Kensee .....Whitley.  
 Collins, Annie Buckner....Mount Eden.....Spencer.  
 Cooper, George Washington..Eby .....Carter.  
 Craddock, William Edward...Munfordville ...Hart.  
 Crowder, Mabel.....Lexington .....Fayette.  
 Davis, James Edward.....Hager .....Magoffin.  
 Day, James.....Caney .....Morgan.  
 DeChamp, Mattie C.....Henderson .....Henderson.  
 Dowell, Goldie Frances....Lexington .....Fayette.  
 Drake, Burgess.....South Hill.....Butler.  
 Dumas, Lena Rivers.....Lexington .....Fayette.  
 Fishback, Elizabeth.....Livingston .....Rock Castle.  
 Gaines, Allie Templeton....Huntsville .....Butler.  
 Garrett, Anna Beryl.....Waddy .....Shelby.  
 Graves, Carrie Morgan....Winchester .....Clark.  
 Hancock, Dorothy May....Morganfield ....Union.  
 Harris, Bertha Amner.....Wilomore .....Jessamine.  
 Hart, Martha Jane.....Cynthiana .....Harrison.



Hisle, Mary Blanche.....Winchester .....Clark.  
 Hogan, Wilma Maud.....Campbellsville ..Taylor.  
 Jackson, Stonewall.....Arlington .....Carlisle.  
 Johnson, James Garfield.....Speight .....Pike.  
 Justice, Zachariah.....Fishtrap .....Pike.  
 Keeton, Alonzo.....Hager .....Magoffin.  
 Klein, George William.....Kenton .....Kenton.  
 Liles, Everett Frost.....Renfrow .....Ohio.  
 Martin, Grace.....Gracey .....Christian.  
 Martin, Virginia.....Lexington .....Fayette.  
 May, Vivian Ella.....Bradfordsville ..Marion.  
 Mills, Ethel.....Jeffersontown ..Jefferson.  
 Myers, William Griffin.....Dunbar .....Butler.  
 Myers, Martha.....Vernona .....Boone.  
 Palmore, Addino Berry.....Persimmon .....Monroe.  
 Palmore, Emma Lee.....Persimmon .....Monroe.  
 Palmore, John Stanley.....Persimmon .....Monroe.  
 Parker, Rosa Ellen.....Bryant's Store..Knox.  
 Parsons, Noah.....Bardwell .....Carlisle.  
 Patrick, Malcom.....Netty .....Magoffin.  
 Pope, George Riley.....London .....Laurel.  
 Porter, Otis May.....Bardstown June Nelson.  
 Ramsey, Daniel Boone.....Virgie .....Pike.  
 Reid, Carlos Buell.....Hager .....Magoffin.  
 Robertson, Fanny Carter.....Wallonia .....Trigg.  
 Robinson, Isabelle.....Ashbrooke .....Anderson.  
 Routt, Seneca Claiborn.....Stinnitt .....Anderson.  
 Scott, Mary Taylor.....Lexington .....Fayette.  
 Scott, Edna Robert.....Lexington .....Fayette.  
 Scott, Nancy Prather.....Wilmore .....Jessamine.  
 Seltsam, Heinrich.....Junction City...Boyle.  
 Shirley, Ernest.....Georgetown ...Scott.  
 Shultz, Frederick Thomas...Narrows .....Ohio.  
 Thompson, Clarence Philip...Cadiz .....Trigg.  
 Trail, James Dent.....Birdsville .....Livingston.  
 Watkins, Elizabeth Clark...Lexington .....Fayette.  
 Willis, Paul Turner.....New York, N. Y  
 Wilson, William Claude.....Dalton .....Hopkins.  
 White, Charles Anderson...Akersville .....Monroe.  
 Wood, Miriam Myrtle.....Wilmore .....Jessamine.  
 Yeager, Addie May.....Van Buren .....Anderson.

**For the County Certificate.**

Blanchett, Louie Paubel.....Sugar .....Gallatin.  
 Blanford, Hattie A.....Springfield .....Washington.  
 Boulware, Milton Tevis.....Utica .....Davies.  
 Bowman, John White.....Pineville .....Bell.  
 Bryson, Arthur Titus.....Fullerton .....Greenup.  
 Burchfield, Daisy Ruth.....Pineville .....Bell.

|                               |                   |              |
|-------------------------------|-------------------|--------------|
| Bush, Price.....              | Waco .....        | Madison.     |
| Combs, Raymond King.....      | Midway .....      | Woodford.    |
| Cox, Onice Jessanine.....     | Newtown .....     | Scott.       |
| Coy, George Mason.....        | Cynthiana .....   | Harrison.    |
| Crow, LaRue.....              | Indian Fields.... | Clark.       |
| Dawson, James Duncan.....     | Bloomfield .....  | Nelson.      |
| Daves, Clyde Grayson.....     | Dalton .....      | Hopkins.     |
| Eades, Franklin Owen.....     | Ashland .....     | Boyd.        |
| Edwards, Owen Travis.....     | Liletown .....    | Green.       |
| Ferry, Rodman.....            | Leitchfield ..... | Grayson.     |
| Fishback, Annie .....         | Livingston .....  | Rock Castle. |
| Flege, Charles.....           | Williamstown ..   | Grant.       |
| Gaines, Ruth Stratton.....    | Frankfort .....   | Woodford.    |
| Hager, Charles Ernest.....    | Brandenburg ...   | Meade.       |
| Harkness, Maud.....           | Bardstown .....   | Nelson.      |
| Hart, Lena Elizabeth.....     | Lexington .....   | Fayette.     |
| Hayes, James Glenn.....       | Gamaliel .....    | Monroe.      |
| Hite, Thomas.....             | Bardstown .....   | Nelson.      |
| Hocks, Floyd.....             | Confederate ....  | Lyon.        |
| Hubbard, Martha Jane.....     | Richmond .....    | Madison.     |
| Jenkins, Granville.....       | Glendale .....    | Hardin.      |
| Jennette, Ullie.....          | Little Hickman .. | Jessamine.   |
| Johnson, Mary Smith.....      | Muir .....        | Fayette.     |
| Joplin, Nannie Bell.....      | Mt. Vernon.....   | Rock Castle. |
| Keene, Flora.....             | Springfield ..... | Washington.  |
| Keffer, Albert Howe.....      | Grayson .....     | Carter.      |
| Kimbrel, Dora Bush.....       | Indian Fields.... | Clark.       |
| Large, Harrison.....          | Dishman .....     | Whitley.     |
| Major, Carl King.....         | Slaughterville .. | Webster.     |
| Matthews, Carmen Grace....    | Lexington .....   | Fayette.     |
| May, C. Dana.....             | Pikeville .....   | Pike.        |
| Mills, Howard Hendricks....   | Kenton .....      | Kenton.      |
| Otis, Anna Liza.....          | Moore's Ferry.... | Bath.        |
| Palmore, John Stanly.....     | Persimmon .....   | Monroe.      |
| Preston, Gussie.....          | Patrick .....     | Lawrence.    |
| Roberts, Victoria May.....    | Louisa .....      | Lawrence.    |
| Smith, Samuel Loth.....       | Russell .....     | Greenup.     |
| Todd, Marion Erasmus.....     | Burkley .....     | Carlisle.    |
| Todd, Myrtle Alice.....       | Piney .....       |              |
| Wallace, King Robert.....     | Canton .....      | Trigg.       |
| Walters, Elizabeth Mollie.... | Lexington .....   | Fayette.     |
| Wheatley, Mary Lula.....      | Springfield ..... | Washington.  |
| Wilson, John Wills.....       | Lynnville .....   | Graves.      |



## STUDENTS OF THE SUMMER SCHOOLS.

## I. In the Normal Department.

|                                 |                   |             |
|---------------------------------|-------------------|-------------|
| Acree, Lydia.....               | Hazel .....       | Calloway.   |
| Acree, Luella.....              | Hazel .....       | Calloway.   |
| Adams, Meda.....                | Latonia .....     | Kenton.     |
| Adams, Mattie.....              | Lawrenceburg ..   | Anderson.   |
| Atkins, Leota.....              | Williamsburg ...  | Whitley.    |
| Atkins, Davis.....              | Lexington .....   | Fayette.    |
| Babb, Harvey Arthur.....        | Providence .....  | Webster.    |
| Baird, Obed Elmo.....           | Livia .....       | McClain.    |
| Baird, Anna.....                | Frankfort .....   | Franklin.   |
| Berkley, Mrs. W. T.....         | Lexington .....   | Fayette.    |
| Berry, Annie.....               | Nashville .....   | Tenn.       |
| Bowden, Aberdeen Orlando.....   | Sedalia .....     | Graves.     |
| Bosley, John Logan.....         | Winchester .....  | Clarke.     |
| Erashear, Sampson.....          | Hazard .....      | Perry.      |
| Bridwell, Nora.....             | Solitude .....    | Bullitt.    |
| Brown, Bessie.....              | Paris .....       | Bourbon.    |
| Brooks, Essie.....              | Lexington .....   | Fayette.    |
| Bruner, Jacob Franklin.....     | Whitesville ..... | Daviess.    |
| Bush, Alma.....                 | Fountain Run...   | Monroe.     |
| Bush, Gillum C.....             | Fountain Run...   | Monroe.     |
| Caddell, Roxy.....              | Williamsburg ...  | Whitley.    |
| Chambers, Mary.....             | Princeton .....   | Caldwell.   |
| Carmody, Catherine.....         | Mt. Sterling....  | Montgomery. |
| Carpenter, John L.....          | Irvine .....      | Estill.     |
| Carpenter, Stella.....          | Florence .....    | Boone.      |
| Cockerham, Mrs. Mary.....       | Shelbyville ..... | Shelby.     |
| Collis, Mark, Jr.....           | Lexington .....   | Fayette.    |
| Collins, Lela.....              | Morganfield ..... | Union.      |
| Cooper, Mrs. Lucy Wedding.....  | Hartford .....    | Ohio.       |
| Craycroft, Charles W.....       | Vine Grove.....   | Meade.      |
| Criscillis, Mary.....           | Williamsburg ..   | Whitley.    |
| Crowder, Margaret Lee.....      | Sinai .....       | Anderson.   |
| Curd, Lillian.....              | Wilmore .....     | Jessamine.  |
| Darbroe, Elizabeth.....         | Carrollton .....  | Carroll.    |
| Davis, Henry W.....             | Benton .....      | Marshall.   |
| Deane, Mrs. Mary.....           | Nicholasville ..  | Jessamine.  |
| DeJarnette, J. F.....           | Hawesville ....   | Hancock.    |
| Dickson, Mrs. Kate.....         | Latonia .....     | Kenton.     |
| Dobyns, Mrs. Minnie.....        | Minerva .....     | Mason.      |
| Duncan, Mona.....               | Latonia .....     | Kenton.     |
| Dunlap, George Green.....       | Dry Ridge .....   | Grant.      |
| Dunn, Charles F.....            | Morning View..    | Boone.      |
| Dutton, Mary.....               | Lexington .....   | Fayette.    |
| Edwards, Richard Alexander..... | Boydsville .....  | Graves.     |
| Ermitt, Hettie.....             | Newport .....     | Campbell.   |
| Evans, Cecil C.....             | Plu'mer's Land..  | Fleming.    |

|                             |                     |            |
|-----------------------------|---------------------|------------|
| Feedback, Mrs. M. E.....    | Carlisle .....      | Nicholas.  |
| Fitzpatrick, John.....      | Liberty .....       | Casey.     |
| Franklin, Virginia.....     | Newport .....       | Campbell.  |
| Frelinger, Katherine.....   | Newport .....       | Campbell.  |
| Florence, N. E.....         | Lexington .....     | Fayette.   |
| Garnett, Mary.....          | Hopkinsville .....  | Christian. |
| Gillis, Cleo... ..          | Lexington .....     | Fayette.   |
| Givens, Alma.....           | Fulton .....        | Fulton.    |
| Gordon, Flora.....          | Frankfort .....     | Franklin.  |
| Graddy, Sara.....           | Versailles .....    | Woodford.  |
| Gragg, Viola.....           | Somerset .....      | Pulaski.   |
| Green, Irvine T.....        | Horse Cave.....     | Hart.      |
| Greenlie, Minnie.....       | Minerva .....       | Mason.     |
| Hanna, Virginia.....        | Lexington .....     | Fayette.   |
| Harrison, Anna.....         | Lebanon .....       | Marion.    |
| Harrison, Ira.....          | Leitchfield .....   | Grayson.   |
| Hart, Ethel.....            | Cynthiana .....     | Harrison.  |
| Henry, Elizabeth.....       | Lexington .....     | Fayette.   |
| Herndon, Alleen.....        | Lexington .....     | Fayette.   |
| Hickman, Mrs. Mamie.....    | Dover .....         | Mason.     |
| Hind, Arrelida.....         | Verona .....        | Boone.     |
| Holcom, Clara.....          | Somerset .....      | Pulaski.   |
| Hopkins, William Isaac..... | Cynthiana .....     | Harrison.  |
| Hurst, Hettie.....          | Millersburg .....   | Bourbon.   |
| Hutchinson, Rebecca Lyle... | Nepton .....        | Fleming.   |
| Ingles, Kate.....           | Lexington .....     | Fayette.   |
| Ingles, Clara Belle.....    | Lexington .....     | Fayette.   |
| Johnson, Maria.....         | Nicholasville ..... | Jessamine. |
| Jones, Nettie.....          | Millersburg .....   | Bourbon.   |
| Jones, Lula.....            | Williamsburg .....  | Whitley.   |
| Jones, Mrs. Marian R.....   | Newport .....       | Campbell.  |
| Kridler, Jennie.....        | Somerset .....      | Pulaski.   |
| Lee, Augustus.....          | Evelyn .....        | West Va.   |
| Lewis, James Otis.....      | Stanley .....       | Daviess.   |
| Luton, Albert Roscoe.....   | Golden Pond....     | Trigg.     |
| Markwell, Anna.....         | Foxport .....       | Fleming.   |
| Massey, Carrie.....         | Somerset .....      | Pulaski.   |
| Martin, Sadie.....          | Visalia .....       | Kenton.    |
| Maugens, Octa.....          | Williamsburg .....  | Whitley.   |
| Milton, Frankie May.....    | Lexington .....     | Fayette.   |
| Morgan, Mary.....           | Bedford .....       | Trimble.   |
| Moore, Belle.....           | Somerset .....      | Pulaski.   |
| Moore, Minnie.....          | Lexington .....     | Fayette.   |
| Paris, Mayme G.....         | Wilsonville .....   | Spencer.   |
| Pearl, Mattie.....          | Lexington .....     | Fayette.   |
| Perkins, David Florian..... | Williamsburg .....  | Whitley.   |
| Perry, Katherine .....      | Newport .....       | Campbell.  |
| Phillips, Elizabeth.....    | Lexington .....     | Fayette.   |
| Phillips, Virginia.....     | Newport .....       | Campbell.  |
| Piper, Lula.....            | Lexington .....     | Fayette.   |



|                                  |                   |               |
|----------------------------------|-------------------|---------------|
| Poinsett, Irene.....             | Newport .....     | Campbell.     |
| Prewitt, Anna.....               | Lexington .....   | Fayette.      |
| Reynolds, Welby.....             | Ludlow .....      | Boone.        |
| Rice, Herman J.....              | Chambers .....    | Hancock.      |
| Risen, Elizabeth.....            | Williamstown ...  | Grant.        |
| Risen, Fanny.....                | Williamstown ...  | Grant.        |
| Roscoe, Daisy.....               | Princeton .....   | Caldwell.     |
| Rolland, Thurman.....            | Dukes .....       | Hancock.      |
| Rouse, Lillian.....              | Lexington .....   | Fayette.      |
| Routt, Grover Cleveland.....     | Stinnitt .....    | Anderson.     |
| Safriet, Bessie.....             | Williamsburg ...  | Whitley.      |
| Scherffius, Edward Geo.....      | Lynnville .....   | Graves.       |
| Scherffius, Frederick Fanon..... | Lynnville .....   | Graves.       |
| Scott, Bertha.....               | Dover .....       | Mason.        |
| Scott, Edna.....                 | Lexington .....   | Fayette.      |
| Sears, Gertrude.....             | Lexington .....   | Fayette.      |
| Seltsam, Heinrich.....           | Junction City...  | Boyle.        |
| Shaw, Anna B.....                | Henderson .....   | Henderson.    |
| Shaw, Lilliana.....              | Jetts .....       | Franklin.     |
| Shultz, Wm. Claude.....          | Narrows .....     | Ohio.         |
| Simpson, Susie.....              | Lebanon .....     | Marion.       |
| Skeens, Jimison.....             | Louisa .....      | Lawrence.     |
| Snyder, Mima.....                | Williamsburg ...  | Whitley.      |
| Slack, Lucinda.....              | Minerva .....     | Mason.        |
| Smith, Martha.....               | Williamsburg ...  | Whitley.      |
| Smitha, Ina K.....               | Lexington .....   | Fayette.      |
| Stone, Sallie.....               | Taylorville ..... | Spencer.      |
| Spiers, Willie.....              | Lexington .....   | Fayette.      |
| Tanner, C. A.....                | Winchester .....  | Clarke.       |
| Tingle, Virginia.....            | Lexington .....   | Fayette.      |
| Wall, James.....                 | Humphrey .....    | Casey.        |
| Walters, Elizabeth.....          | Lexington .....   | Fayette.      |
| Ware, Daisy.....                 | Somerset .....    | Pulaski.      |
| Webb, Edgar Hedge.....           | Sadieville .....  | Scott.        |
| Werhle, Lena.....                | Lexington .....   | Fayette.      |
| Wesley, Lawrence.....            | Bethel Ridge....  | Casey.        |
| Wharton, Russell.....            | Valley View....   | Madison.      |
| Wroe, Edmund.....                | Cloverport .....  | Breckinridge. |
| Whitaker, Anna.....              | Newport .....     | Campbell.     |
| White, Mary Maud.....            | Newport .....     | Campbell.     |
| Willett, Georgia.....            | Bardstown .....   | Nelson.       |
| Wilson, Burnam.....              | Station Camp...   | Estill.       |
| Wilson, John.....                | Station Camp...   | Estill.       |
| Wilson, Maud.....                | Cynthiana .....   | Harrison.     |
| Wilson, Meek Boyd.....           | Lynnville .....   | Graves.       |
| Woode, Moses E.....              | Leitchfield ..... | Grayson.      |
| Yates, William A.....            | Vine Grove.....   | Meade.        |
| Yewell, Blanche.....             | Owensboro .....   | Daviess.      |

## II. In Physics.

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|                                  |                    |
|----------------------------------|--------------------|
| Atkins, David Corbin.....        | Lexington.         |
| Best, Thomas Douiphan.....       | Maysville.         |
| Bosley, John Logan.....          | Winchester         |
| Brashear, Sampson B.....         | Hazard.            |
| Bridwell, Norah.....             | Solitude.          |
| Bruner, Jacob Franklin.....      | Whitesville.       |
| Burchfield, James Ralph.....     | Pineville.         |
| Bush, Gillum Clements.....       | Fountain Run.      |
| Bunnell, Harry Ethelbert.....    | New York, N. Y.    |
| Clarke, Gus.....                 | Lexington.         |
| Clarke, Richard Bate.....        | Chicago, Ill.      |
| Collis, Mark, Jr.....            | Lexington.         |
| Crosthwaite, John Searce.....    | Lexington.         |
| Curd, Lillian Virginia.....      | Wilmore.           |
| Darbro, Elizabeth .....          | Carrollton.        |
| Dunn, Charles F.....             | Morning View.      |
| Dunn, Susan Allen.....           | Bryantville.       |
| Dutton, Mary Elizabeth.....      | Lexington.         |
| Estill, Robert Rodes.....        | Lexington.         |
| Feebach, Tillie Hamilton.....    | Carlisle.          |
| Fitzpatrick, John James.....     | Liberty.           |
| Florence, Nicholas Evert.....    | Lexington.         |
| Francis, Louis Paul.....         | Red Ash.           |
| Garrett, John Wilmore, Jr.....   | Fort Garrett.      |
| Glass, Rhoda Virginia.....       | Lexington.         |
| Harrison, Annie.....             | Lebanon.           |
| Harrison, Ira L. ....            | Leitchfield.       |
| Hedges, Henry Berkley.....       | Lexington.         |
| Herndon, Alleen .....            | Lexington.         |
| Hickman, Mamie .....             | Dover.             |
| Holland, Robert Thomas.....      | Paintsville.       |
| Hood, David Campbell .....       | Jersey City, N. J. |
| Hughes, Joseph Irvine Craig..... | Versailles.        |
| Hurst, Nettie .....              | Millersburg.       |
| Hutchison, Rebecca Lyle.....     | Nepton.            |
| Ingles, Kate.....                | Lexington.         |
| Jones, Roger Walter.....         | Lexington.         |
| Lewis, James Otis.....           | Stanley.           |
| Marshall, Caleb Wallace.....     | Lexington.         |
| Mayes, James Robert.....         | Springfield.       |
| Merchant, George Brite.....      | Lexington.         |
| Miles, Frank Thorpe.....         | Fort Thomas.       |
| Moore, Minnie .....              | Lexington.         |
| Morgan, Mary .....               | Bedford.           |
| Phillips, Virginia L. ....       | Newport.           |
| Piper, Lula .....                | Lexington.         |
| Prewitt, Anna Gist .....         | Lexington.         |
| Rice, Herman John.....           | Chambers           |



|                                  |              |
|----------------------------------|--------------|
| Routt, Grover Cleveland.....     | Stinnett.    |
| Scott, Bertha .....              | Minerva.     |
| Scott, Edna R. ....              | Lexington.   |
| Shaw, Anna .....                 | Henderson.   |
| Shuff, Evans Layton.....         | Georgetown.  |
| Shultz, Williams Claude.....     | Narrows.     |
| Slade, Theodore .....            | Lexington.   |
| Staples, Frederick William.....  | Lexington.   |
| Stephenson, Corbett .....        | Marion.      |
| Stivers, Mattie .....            | Paris.       |
| Taylor, Carroll Gholson.....     | Lexington.   |
| Tingle, Virginia Lawler.....     | Lexington.   |
| Van Meter, Margaret Lewis.....   | Lexington.   |
| Wallace, Henry Buford.....       | Lexington.   |
| Wallace, Leonard DeLong.....     | Lexington.   |
| Webb, Edgar Hedges.....          | Sadieville.  |
| Wharton, Russell Zollinger ..... | Valley View. |
| Wilhoit, John .....              | Versailles.  |
| Wilson, Meek Boyd.....           |              |

## PHYSICAL LABORATORY.

|                                      |               |
|--------------------------------------|---------------|
| Dunn, Susan Allen.....               | Bryantsville. |
| Hanna, Varian Davis.....             | Lexington.    |
| Wilkie, Margaret Donald Erskine..... | Mayfield.     |

## III. In Mechanic Arts.

|                                       |                   |
|---------------------------------------|-------------------|
| Akin, Willis.....                     | Bloomington, Ind. |
| Alden, William.....                   | Petersburg.       |
| Battaile, James Frank.....            | Lexington.        |
| Bell, H. W.....                       | Lexington.        |
| Bell, Duncan.....                     | Nicholasville.    |
| Bennett, Clarence C.....              | Narrows, O.       |
| Bennett, Waller.....                  | Lexington.        |
| Bogarte, Martin Bruce.....            | Lafayette, Ind.   |
| Bogle, John Cowan.....                | Danville.         |
| Browning, George Francis.....         | Maysville.        |
| Carmody, John Paul.....               | Mt. Sterling.     |
| Chalkley, Lyman, Jr.....              | Lexington.        |
| Douglas, Ernest Thompson.....         | Lexington.        |
| Edmonds, Eugene Allen .....           | Winchester.       |
| Foster, John Milton.....              | Richmond.         |
| Gardner, Andrew Burchell.....         | Lexington.        |
| Guerrant, Russell Hamilton.....       | Lexington.        |
| Hall, James Henry.....                | Lexington.        |
| Hamilton, William Perry Browning..... | Lexington.        |
| Link, Edgar William.....              | Lexington.        |
| Lybrook, Bird Hugh.....               | Lafayette, Ind.   |
| Morgan, George Claude.....            | Lexington.        |

|                               |                 |
|-------------------------------|-----------------|
| Muncy, Victor Emanuel.....    | Cincinnati, O.  |
| Nollau, Walter Charles.....   | St. Louis, Mo.  |
| Nunan, Thomas Richard.....    | Winchester.     |
| Oldham, Edwin Bronston.....   | Lexington.      |
| Parrish, Charles Swift.....   | Lexington.      |
| Pogue, Joel Latham.....       | Mayslick.       |
| Poynter, Arthur Lawrence..... | Royse, Texas.   |
| Rice, Clayton Jefferson.....  | Greenville.     |
| Samuel, Robert Lovell.....    | Maysville.      |
| Silkman, Edwin French.....    | Lafayette, Ind. |
| Shanklin, Shelby.....         | Lexington.      |
| Stepherson, Harry Elmore..... | Lexington.      |
| Tunis, John Theodore, Jr..... | Lexington.      |
| Williams, Roger, Jr.....      | Lexington.      |
| Wood, Newman Adolphus.....    | Detroit, Mich.  |
| Wilson, Carter Lindsay.....   | Louisville.     |

#### IV. In Arts and Science.

|                                  |                           |
|----------------------------------|---------------------------|
| Aitkin, Maurice Duty.....        | Lexington.                |
| Allen, Andrew Darnell.....       | Elizaville.               |
| Allen, Lutie Darnell.....        | Lexington.                |
| Bagby, Marv Logan.....           | Danville.                 |
| Becker, Theodore.....            | Beard.                    |
| Bowden, Aberdeen Orlando.....    | Sedalia.                  |
| Brady, Emma Noyes.....           | Lexington.                |
| Bunnell, Harry Ethelbert.....    | Lexington.                |
| Burchfield, James Ralph.....     | Pineville.                |
| Champion, Joseph G.....          | Lawrenceburg.             |
| Clarke, Richard Bate.....        | Chicago, Ill.             |
| Crawford, Larlton Wade.....      | Murray.                   |
| Daniel, Gilbert Joseph.....      | Long Plane, S. Australia. |
| Durrett, Morrie Wakefield.....   | Springfield.              |
| Eastwood, George Robert.....     | Madisonville.             |
| Edwards, Robert Alec.....        | Boydsville.               |
| Elliott, Alvin Clarence.....     | Eubank.                   |
| Elliott, Frederick Stone.....    | Clinton.                  |
| Estill, Robert Rodes.....        | Lexington.                |
| Francis, Lewis Paul.....         | Red Ash.                  |
| Ferguson, Lillian Terry.....     | La Centre.                |
| Goodwin, George Earley.....      | Lexington.                |
| Hanna, Aline Guthrie.....        | Lexington.                |
| Harris, Lelia Jane.....          | Richmond.                 |
| Harrison, Irby Lee.....          | Glasgow.                  |
| Hedges, Henry Berkley.....       | Lexington.                |
| Hood, David Campbell.....        | Jersey City, N. J.        |
| Hughes, Joseph Irvine Craig..... | Versailles.               |
| Jones, Roger Walter.....         | Lexington.                |
| Lowry, Helen Bullett.....        | Lexington.                |



|                                   |                              |
|-----------------------------------|------------------------------|
| Lynch, Lena Margaret.....         | Frankfort.                   |
| Maddox, Robert Lytton.....        | Maysfield.                   |
| Mastin, James Edward.....         | Versailles.                  |
| Mayes, James Robert.....          | Springfield.                 |
| Merchant, George Brite.....       | Lexington.                   |
| Miles, Frank Thorp.....           | Fort Thomas.                 |
| McCallum, William Cecil.....      | Kaniva, Victoria, Australia. |
| McCarthy, Charles Bernard.....    | Lexington.                   |
| Nash, Cornelius.....              | Lexington.                   |
| Nunnelley, Charles Middleton..... | Greendale.                   |
| Parker, Preston Piper.....        | Maysville.                   |
| Perrine, Emmett Burgess.....      | Maysville.                   |
| Pegram, Wilhelmina.....           | Sherman, Texas.              |
| Piper, Mary Hammond.....          | Lexington.                   |
| Roswell, Charles Miller.....      | Sparta.                      |
| Sanders, Myra.....                | Shepherdsville.              |
| Shanklin, Shelby.....             | Lexington.                   |
| Shuff, Evans Lytton.....          | Georgetown.                  |
| Shultz, William Claude.....       | Narrows.                     |
| Slade, Theodore.....              | Lexington.                   |
| Smith, Sarah Wallace.....         | Frankfort.                   |
| Staples, Frederick William.....   | Lexington.                   |
| Taylor, Carroll Gholson.....      | Lexington.                   |
| Taylor, Harry Edward.....         | Crawford, Tenn.              |
| Teed, Edmond.....                 | Ludlow.                      |
| Terrell, Daniel Voiers.....       | Bedford.                     |
| Troll, Ivy Marie.....             | Shepherdsville.              |
| White, Charles.....               | Warsaw.                      |
| Wilhoit, John.....                | Versailles.                  |
| Wilson, Benjamin Dunbar.....      | Lexington.                   |

#### V. In Chemistry.

|                               |              |
|-------------------------------|--------------|
| Carter, Sarah McEachin.....   | Lexington.   |
| Crawford, Andrew Jackson..... | Georgetown.  |
| Crosthwaite, John Searce..... | Lexington.   |
| Holland, Robert Thomas.....   | Paintsville. |
| Martin, Grace Lee.....        | Lexington.   |
| Raney, Murray.....            | Lexington.   |
| Rodes, Mary McEachin.....     | Lexington.   |

## ACADEMY STUDENTS.

## Second Year Students.

|                                |                    |
|--------------------------------|--------------------|
| Atkins, Davis Corbin.....      | Lexington.         |
| Atkinson, Otie Clarence.....   | Stanton.           |
| Blake, Joseph Henry.....       | Four Mile.         |
| Brooks, Earl Reynolds.....     | Minerva.           |
| Brown, William Richard.....    | Bloomfield.        |
| Bruner, Claude Beverly.....    | Nicholasville.     |
| Butler, Thomas Fisher.....     | Hinton.            |
| Byars, Walton McLean.....      | Adairsville.       |
| Carroll, George Thomas.....    | South Hill.        |
| Chambers, John Sharp..         | Harris Grove.      |
| Christopher, Bertha.....       | Buena Vista.       |
| Clarke, Richard Bate.....      | Chicago, Ill.      |
| Cooper, Henry Montgomery.....  | Midway.            |
| Culton, Thomas Bain.....       | Crab Orchard.      |
| Doughetee, Stanley.....        | Sherman.           |
| Day, John Francis.....         | Poplar Plain.      |
| Denman, William Henry.....     | Nicholasville.     |
| Duncan, Herchell Mills.....    | Fountain Run.      |
| Duncan, Wallace Clifton.....   | Springfield.       |
| Durrett, Morrie Wakefield..... | Springfield.       |
| Easton, Eckford Preston.....   | Lexington.         |
| Estill, Robert Rodes.....      | Lexington.         |
| Farmer, Henry Lester.....      | George.            |
| Fithian, Harry Brent.....      | Paris.             |
| Gaines, Gordon.....            | Burlington.        |
| Gatz, John Clarence...         | Harrod's Creek.    |
| Goodwin, George Early.....     | Lexington.         |
| Groom, Stewart Bibb.....       | Princeton.         |
| Grooms, Hugh Love.....         | Fountain Run.      |
| Hardesty, Llewellyn Coons..... | Muir.              |
| Harrison, Marion Myrl.....     | Philpot.           |
| Harrison, Thomas Whitney.....  | Lexington.         |
| Hart, Derrill Wason.....       | Pisgah.            |
| Hill, Henry Prewitt.....       | Pontiac, Mich.     |
| Hodges, Grover Cleveland.....  | Pineville.         |
| Holt, Julian Stanley.....      | Horse Cave.        |
| Hood, David Campbell.....      | Jersey City, N. J. |
| Ireland, Thomas Hughes.....    | Skillman.          |
| Kelly, Clemont Francis.....    | Jackson.           |
| Kimball, Paul Gordon.....      | Louisville.        |
| Kunzman, John Williams.....    | Buechel.           |
| Lebus, Lena Catherine.....     | Cynthiana.         |
| Lemen, Elvine Lenath..         | Iron Hill.         |
| Link, Edgar William.....       | Lexington.         |
| Lyon, Robert Lee.....          | Irvington.         |
| McCoy, Edward Malcolm.....     | Lexington.         |



|                                      |               |
|--------------------------------------|---------------|
| McDonald, Harry James.....           | Avon.         |
| McMurtrey, John Dallas.....          | Burksville.   |
| Martin, Mary Lois.....               | Williamstown. |
| Miller, Robert Lake.....             | Kirksey.      |
| Palmore, Hovey Duncan.....           | Persimmon.    |
| Pedigo, Jack Murray.....             | Horse Cave.   |
| Pogue, Frank.....                    | Mayslick.     |
| Pollitt, Mabel.....                  | Vanceburg.    |
| Prewitt, John Coleman.....           | Shelbyville.  |
| Ragan, Yandell.....                  | Cold Spring.  |
| Rowland, Robert Bush.....            | Arlington.    |
| Ruble, Irene McGrath.....            | Buena Vista.  |
| Scherffius, Cleveland Hendricks..... | Lynnville.    |
| Scilhan, Oscar Turner.....           | Mont.         |
| Settles, Grover Cleveland.....       | Danville.     |
| Shannon, William James.....          | Lexington.    |
| Sharp, Ella Belle.....               | Lexington.    |
| Shimfessel, Mary Gillis.....         | Clay City.    |
| Smith, Henry.....                    | Horse Cave.   |
| Stivers, Ruby.....                   | Paris.        |
| Walker, Rice.....                    | Lexington.    |
| White, Edward Rice.....              | Cave City.    |
| Woodson, Robert Marion.....          | Eddyville.    |

**First Year Students.**

|                                       |               |
|---------------------------------------|---------------|
| Ashbrook, Felix.....                  | Grundy.       |
| Bates, Butler Grady.....              | Pikeville.    |
| Blevins, Charles Elms.....            | Owingsville.  |
| Butler, Charles Edward, Jr.....       | Paris.        |
| Comer, Frederick.....                 | Gamaliel.     |
| DeBell, Claud Bosworth.....           | Lexington.    |
| DeLong, George Edmund.....            | Lexington.    |
| DeLong, Joseph Curtis.....            | Lexington.    |
| Dowd, Genevieve Frances Anneresa..... | Lexington.    |
| Eubank, Warren Lyddane.....           | Lexington.    |
| Eversole, Lydia Margaret.....         | Hazard.       |
| Faries, Fithian Brent.....            | Paris.        |
| Goode, Mollie.....                    | Lexington.    |
| Goodwin, Joseph Alfred.....           | Lexington.    |
| Haggerman, Robert.....                | Louisville.   |
| Humphrey, William David.....          | Kidd's Store. |
| Jarbos, Sterrett Lander.....          | Cloverport.   |
| Jones, James Elliott.....             | Mt. Sterling. |
| Juett, James Guy.....                 | Wickliffe.    |
| Lyman, Robert Graham.....             | Buechel.      |
| McDaniel, Benjamin Clinton.....       | Lexington.    |
| Moore, Ogden.....                     | Cynthiana.    |
| Nunnelle, Charles Middleton.....      | Greendale.    |
| O'Neill, Martin Pearce.....           | Lexington.    |
| Orme, Howard.....                     | Abigail.      |

|                                  |                 |
|----------------------------------|-----------------|
| Pence, Edgar Allen.....          | Lexington.      |
| Purveyar, James Mathew.....      | Shepherdsville. |
| Ramsey, James Chandler.....      | Lexington       |
| Rogers, Adams Eldridge.....      | Mt. Sterling.   |
| Sayre, James .....               | Lexington.      |
| Scott, Alice Mayhille.....       | Buena Vista.    |
| Sharp, Ira.....                  | Nicholasville.  |
| Smith, Martin Green.....         | Harlan.         |
| Smith, William Albert.....       | Versailles.     |
| Standrod, Drew Williams.....     | Rock Castle.    |
| Sterett, Baird .....             | Hawesville.     |
| Stone, William Carr.....         | Hinton.         |
| Talbutt, Allene .....            | Lexington.      |
| Walker, Edward Bullock.....      | Clinton.        |
| Watson, Alexander Campbell ..... | Chicago, Ill.   |
| Wells, Velma.....                | Lexington.      |
| Welch, Marie Scott.....          | Lexington.      |
| Westcott, Lydia Elizabeth.....   | Clay City.      |
| Wilson, Allen Barrios.....       | Cave City.      |
| Yankey, Frank Grimstead.....     | Springfield.    |
| Zweigart, Thomas Frederick.....  | Maysville.      |

**Spécial Students.**

|                              |              |       |                |
|------------------------------|--------------|-------|----------------|
| Pigstaff, Odd Samuel.....    | Agricultural | ..... | Lexington.     |
| Brown, Robert Kerrick.....   | Agricultural | ..... | Shelbyville.   |
| Cravens, Frances Ora.....    | Scientific   | ..... | Lexington.     |
| Cravens, Anna Laura.....     | Scientific   | ..... | Lexington.     |
| Doty, Alexander, Jr.....     | Agricultural | ..... | Lancaster.     |
| Ford, Bascom Carlisle.....   | Agricultural | ..... | Lancaster.     |
| Herring, Arthur Philip.....  | Agricultural | ..... | Oakville.      |
| Hester, Horace Caldwell....  | Agricultural | ..... | Mayfield.      |
| Hillenmeyer, Walter William. | Agricultural | ..... | Lexington.     |
| Keffer, Dr. Smithfield.....  | Scientific   | ..... | Lexington.     |
| Lee, John Joseph.....        | Agricultural | ..... | Cynthiana.     |
| Money, Lester Sleadd.....    | Agricultural | ..... | Shelbyville.   |
| Morris, Charles Galloway.... | Agricultural | ..... | Memphis, Tenn. |
| Payne, John Hamilton.....    | Agricultural | ..... | Payne's Depot. |
| Preston, William.....        | Agricultural | ..... | Lexington.     |
| Pugg, John Alonzo, Jr....    |              |       | Morganfield.   |
| Wilson, William Bocne.....   | Agricultural | ..... | Eminence.      |

**Students of the Short Course in Agriculture.**

|                                 |                 |
|---------------------------------|-----------------|
| Biggsby, John Thomas.....       | Preachersville. |
| Button, William Raymond.....    | Bedford.        |
| Hagan, Robert Murray.....       | Owensboro.      |
| Karsner, Ralph Outton.....      | Lexington.      |
| Lloyd, Fred Hubert.....         | High Grove.     |
| McKee, Dr. James Aloysius.....  | Versailles.     |
| Nichols, Archibald Axton.....   | Bloomfield.     |
| Richardson, John H.....         | Bedford.        |
| Winstel, Frederic Clarence..... | Newport.        |



| <u>Collegiate Students</u>                   | Scien-<br>tific | Class-<br>ical | Civil<br>Eng. | Meeh.<br>Eng. | Min.<br>Eng. | Edu. | Agr. | Total |
|----------------------------------------------|-----------------|----------------|---------------|---------------|--------------|------|------|-------|
| Post-Graduates-----                          | 3               | 7              | 11            | 5             | -            | -    | 2    | 29    |
| Seniors-----                                 | 5               | 25             | 16            | 33            | 4            | 2    | 2    | 87    |
| Juniors-----                                 | 10              | 21             | 14            | 34            | 2            | 1    | 4    | 86    |
| Sophomores-----                              | 12              | 21             | 26            | 59            | 6            | 3    | 6    | 133   |
| Freshmen-----                                | 10              | 11             | 37            | 61            | 6            | 13   | 4    | 142   |
| Total-----                                   | 40              | 85             | 104           | 192           | 18           | 19   | 18   | 477   |
| Collegiate Students-----                     |                 |                |               |               |              |      |      | 477   |
| Special Students-----                        |                 |                |               |               |              |      |      | 17    |
| Students of Short Course in Agriculture----- |                 |                |               |               |              |      |      | 9     |
| Normal Students-----                         |                 |                |               |               |              |      |      | 182   |
| Academy Students-----                        |                 |                |               |               |              |      |      | 115   |
| Summer School Students-----                  |                 |                |               |               |              |      |      | 264   |

|             |      |
|-------------|------|
| Grand Total | 1064 |
|-------------|------|

## REGULATIONS.

### PUBLIC EXERCISES.

All exercises assigned for commencement or any other public occasion must be submitted to the President for approval at least one week before the time for the performance; and, if any student shall deliver an address, or part of an address, which has not been approved by the President, his diploma and his degree, if any has been awarded, may be withheld.

### TRAVELING EXPENSES OF STUDENTS.

By the terms of the recent legislation upon the State University a county appointee is entitled to have his traveling expenses from his home to the University and return paid by the University 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.

2nd. He must travel from home to the University 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 University.

3rd. He must present himself for matriculation at the beginning of the fall term of the University 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 University for ten consecutive months, or one University year.

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

8th. He must sign a declaration at the end of the University 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 University grounds or in the University buildings.



If at the end of the University year the foregoing conditions have been complied with, the President of the University shall certify the fact to the Treasurer of the University 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 the University 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 money intended for the use of the students should be deposited with the Commandant.

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

|                          |         |
|--------------------------|---------|
| Tuition free .....       | \$00.00 |
| Matriculation free ..... | 00.00   |
| Gymnasium free .....     | 00.00   |
| Room rent free .....     | 00.00   |
| Use of furniture .....   | 2.50    |
| Washing, about .....     | 10.00   |
| Uniform .....            | 16.00   |
| Books, about .....       | 10.00   |
| Total .....              | \$38.50 |

Board in clubs, \$2.00 per week; in families, \$3 to \$4. For students not county appointees the necessary expenses are:

|                                                                                         |         |
|-----------------------------------------------------------------------------------------|---------|
| Tuition in the Schools of Civil, Electrical,<br>Mechanical and Mining Engineering ..... | \$40.00 |
| Tuition in the College of Law .....                                                     | 30.00   |
| Tuition in the College of Arts and Science and<br>in the College of Agriculture .....   | 25.00   |
| Tuition in the Academy .....                                                            | 20.00   |
| Matriculation fee .....                                                                 | 5.00    |
| Gymnasium fee .....                                                                     | 5.00    |
| For each laboratory, fee .....                                                          | 5.00    |
| Washing, about .....                                                                    | 10.00   |
| Room and furniture .....                                                                | 20.00   |
| Uniform .....                                                                           | 16.00   |
| Books, about .....                                                                      | 10.00   |

Board in clubs, about \$2.00 per week; in families, \$3 to \$4. All who occupy rooms in dormitories make a deposit of \$5 to cover damage done during their occupancy. This is refunded at the close of

the year, less the amount of damage assessed against the depositor.

Board and lodging are provided in Patterson Hall for young women at \$3 per week. The occupants furnish their own napkins, towels, and bedding, except mattresses and pillows, and pay their own laundry bills. This handsome three-story building, a fourth of a mile from the University, affords accommodation for 122 students.

#### DIPLOMA.

By order of the Board of Trustees, a fee of \$5 is charged for each diploma issued by the University, except in the College of Law, in which it is \$10.

#### FREE TUITION, BENEFICIARIES.

Each county in the State is made the unit of appointment and is entitled to select and to send to the State University one or more properly prepared students, free of charge for tuition fees, as follows:

Each county is entitled to make one appointment each year for 4,500 white pupils or less within the common school age, based upon the last official census preceding said appointment, and for each 3,000 white pupils over 4,500, is entitled to make one additional appointment.

County appointments exempt appointees from payment of tuition fees and provide traveling expenses to those matriculated in the Academy and in any regular course of study which leads to a degree in the University, but are not valid for the College of Law or other professional courses. Appointments 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.

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 University.

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 University.

Each appointee is required to pass an entrance examination at the University 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 University on payment of fees, but no one who is not an appointee receives traveling expenses or is exempt from the payment of fees.

#### CHANGE OF CLASSIFICATION.

Students are not allowed to change from one college, school, or department of the University to another until they have completed and passed a satisfactory examination on each subject pursued in the college, school, or department in which they were matriculated during the preceding year; and no such change is permitted during a current year.

#### MANUAL LABOR.

The work necessary for carrying on the agricultural and horticultural operations of the University is done by the students, and is paid for at rates varying from six to ten cents per hour. Its design is twofold: 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 University is that of Agricultural Colleges generally—that compensated labor is not remunerative to the University.

*The University 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 University 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 University or Academy must bring satisfactory testimonials of good moral character.

#### THE MONITRESS.

The young women who attend the University 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 long been connected with the University, and is well qualified for her duties.

## ENLISTMENT OF CADETS.

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

## RULES OF CLASSIFICATION.

1. No student shall be considered as belonging to a given class, unless he takes at least three studies selected in that class or in a higher.

2. No student shall pass into a higher class while he has to make up studies required of him in the preceding year.

3. Students may be permitted, by the Deans of their courses and the Professors with whom they take their major studies, to register for studies not more than one year in advance of their classifications.

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**SUMMER SCHOOLS.****Sixth Session.****1908.****School of Arts and Science.****JUNE 8th—JULY 31st.**

The Summer School of Arts and Science embraces all the courses herein offered in Language, History, Mathematics, Astronomy, Physics, Chemistry, Zoology, Geology, Physiology, Botany and Agriculture, and courses preparatory to these.

**OBJECTS OF THE SCHOOL.**

1. To furnish the teachers of Kentucky an opportunity to fit themselves better for their work.
2. To help students remove any condition they may have from the preceding years' work.
3. To advance students who desire to finish their course in a shorter time than that prescribed, or who may desire to take additional work.
4. To give students, expecting to enter the Freshman Class in September, an opportunity to make up any units of credit they may lack.
5. To instruct students desiring to enter any of the classes of the Academy. Many students might enter a year higher by spending eight weeks of the summer here.

**BUSINESS STATEMENT.**

Students desiring any of the work embraced under the head of The School of Arts and Science will register and pay their fees in Professor White's room, on the first floor of the Main Building. There they will be given a card to the professor, whose work they desire to take, stating that they have registered and settled their fees.

No student will be admitted to any class until his fees have been settled. The fee for tuition is usually ten dollars for a term's work in any subject. Where the student desires to take as many as three subjects a reduction is made and a single fee of twenty-five dollars is charged. No student is expected to take more than three subjects and only in exceptional cases will it be permitted.

The registration room will be open Friday and Saturday, June 5th and 6th, and students are urged to register on those days so as to be prepared to enter on their work on Monday the eighth.

For further information address either the Professor in charge of the work desired, or

J. Morton Davis,  
340 Park Place, Lexington, Ky.

#### **Education.**

Instead of the usual Kentucky State Summer School for Teachers leading to County Certificate, State Certificate and State Diploma, the State University, this summer, in its desire to stimulate the educational awakening already begun in the state, will throw open the doors of every department of the Institution for eight weeks in order to furnish an opportunity for Higher Education at a time when the active teacher may take advantage of it.

Kentucky is calling for better things along educational lines and with this call comes a demand for more High Schools and better ones. This means an increased and insistent demand for better prepared teachers, teachers who know more of a given subject than they expect to teach.

The University, realizing the need, has, at considerable sacrifice, made this effort to meet it, feeling confident that the thoughtful, progressive teacher whether in the Common School, High School, Academy or College will be glad to take advantage of the opportunity.

Students who are already matriculated in the Department of Education in the University, or one preparing in the Summer School for matriculation, will receive credit for all work done in any subject in the Summer School.

#### **Preparatory.**

A. G. MCGREGOR—ASSISTANT IN THE ACADEMY.

The Preparatory Courses cover the full work of the Academy, and offer an excellent opportunity for students to advance themselves or to make up deficiencies. The attention of students desiring to enter the Freshman Class is called to the fact that Solid Geometry, one year of Physics, and two years of some Foreign Language are required for entrance to the Freshman Class in any department of the University.



**Mathematics and Astronomy.**

JUNE 8th—JULY 31st.

J. MORTON DAVIS—ASSISTANT PROFESSOR OF MATHEMATICS.

I. *Mathematics*.—The courses planned are identical with those offered during the regular session, and embrace Murray's Plane and Spherical Trigonometry, Fine's College Algebra, Beman & Smith's Solid Geometry, Nichols' Analytical Geometry, and Granville's Differential & Integral Calculus.

Students desiring special work in Higher Mathematics may be able to make arrangements for it.

II. *Astronomy*.—Two courses will be offered: one as nearly identical with the course offered during the regular session as possible, for which a knowledge of Spherical Trigonometry is required; the other, a course in Popular Astronomy meant for those who have not the necessary mathematical basis, but who may wish to become better acquainted with the heavens. No credit will be given for this work in any of the courses of the University.

**Language and History.**

JUNE 8th—JULY 31st.

T. T. JONES—ASSISTANT PROFESSOR OF LATIN AND GREEK.

C. R. MELCHER—ASSISTANT PROFESSOR OF GERMAN AND FRENCH.

I. *Latin and Greek*.—While the prescribed course of the regular session is made the basis of the work in the Summer School, pains will be taken to arrange special work for students desiring it.

II. *German, French and Spanish*.—The work will be arranged to suit the wants of the students as far as possible. Two courses, at least, will be offered in each language; the first for those just beginning, and the second for those who have already a grammatical knowledge of the languages. Advanced courses will be offered if desired.

III. *English and History*.—While the Professors of English and History will not teach in the Summer School they are satisfied with those in charge and authorize them to offer any of the work of the regular courses, provided only, that those who take only one year's work in English, may not do more than two terms' work during the summer.

**Physics.**

JUNE 8th—JULY 17th.

PROF. M. L. PENCE.

I. A Course in Elementary Physics. The work of this course is that which is required for admission to the Freshman Class of the University. Gage's Elements of Physics will be completed.

II. A Course in Theoretical Physics. This course is equivalent to the Freshman Engineering, or Sophomore Scientific, work in the University. It embraces General Physical Phenomena, Mechanics, Sound, Heat, Light, Electricity and Magnetism. The work of these two courses will be fully illustrated by lectures and experiments with daily recitations.

III. An Elementary Course in the Physical Laboratory as given in Gage's Physical Experiments. This course may not be given unless ten or more apply for it.

The above courses of study are offered to those who may be unable to attend the regular sessions of the University, and who may desire to prepare themselves better for teaching Physics, or to do other work in Physical Science. Those who have tried to learn Physics from the text-book alone will appreciate this opportunity to see and do physical experiments.

This work is also offered to students who wish to shorten their regular University schedule of studies. All persons who do any of the above work satisfactorily will receive the same credit as if the work had been done during a regular session of the University.

The Department of Physics is well equipped with all apparatus needed in the above work. Students will be given opportunities to see and learn something about X-rays, radium, and wireless telegraphy.

The fee for Course 1 will be \$10; for Course 2, \$10; for Course 3, \$12; for Course 1 or 2 and Course 3, \$20.

During the Summer Session of 1907, there were 69 students enrolled in Physics.

**Chemistry.**

JUNE 8th—JULY 31st.

R. N. MAXSON—ASSISTANT PROFESSOR OF CHEMISTRY.

The following courses in Chemistry are offered for the Summer Session of 1908.

**ELEMENTARY CHEMISTRY, INORGANIC.**

I. The descriptive chemistry of the non-metals and metals will be



studied together with the fundamental laws of the science. Instruction will be given by means of lectures and recitations. *One hour daily.*

II. The descriptive chemistry of the metals will be studied by means of lectures and recitations. *One hour daily.*

III. The characteristic reactions of the metals and non-metals, with special reference to their analytical applications, will be studied in the laboratory. *Two hours daily.*

#### QUALITATIVE CHEMICAL ANALYSIS.

IV. The identification of both positive and negative ions will be studied and systematic qualitative examination made of salts, alloys and industrial products. *Three hours daily.*

#### GAS ANALYSIS.

V. The typical methods for the analysis of gases and their practical applications will be studied in the laboratory.

#### GENERAL STATEMENT.

The work of Courses I, II and III are especially adapted to those who wish to prepare themselves for elementary chemical instruction.

Regular college students having conditions in these subjects have an opportunity to repeat the work in preparation for the removal of their conditions.

The minimum number of students for whom these courses will be given is five.

The work of Course IV will meet the requirements of that larger class whose interest is chiefly with the disciplinary side of the subject or with general preparation for other lines of work.

EXPENSES.—A fee of \$10.00 (ten dollars), payable in *advance*, will be charged for any course described above.

A deposit of \$5.00 (five dollars), to cover the cost of breakage, will be required for all laboratory courses.

For further information, address

R. N. Maxson, 522 Rose Street,  
Lexington, Ky.

#### **Zoology and Geology.**

JUNE 8th—JULY 31st.

MISS SUE D. McCANN.

##### I. GENERAL ZOOLOGY.

Lectures, laboratory and field work. Lectures will treat of the systematic position, habits and developments of animals. Labora-

tory periods will be devoted to the study of the form and structure of invertebrates and will involve an extensive use of the compound microscope. Some practice will be given in the determination of species and in the preparation of tissues as permanent mounts for microscopical study. Field work will be devoted to the study of the fauna about Lexington. The course is equivalent to the course in Invertebrate Zoology given in the University. Three two-hour periods per week.

#### II. GENERAL ENTOMOLOGY, ENTOMOTAXY.

Lectures on the characteristics of the orders, sub-orders and important families of insects accompanied by field work. Much time will be spent in familiarizing the student with the more important injurious insects and with the methods of combating them.

In Entomotaxy, practice will be given in collecting insects and in preparing them for the cabinet. Two two-hour periods per week.

#### III. GENERAL GEOLOGY.

If there is sufficient demand for it, a course will be offered in General Geology. While Professor Miller cannot be present all the time, he will see that the work is in competent hands, and will give a series of lectures to the class.

EXPENSE.—A fee of ten dollars (\$10) each, payable in advance, will be charged for Courses I, II. and III.

A deposit of five dollars (\$5) to cover cost of any breakage will be required for each laboratory.

#### **Advanced Physiology.**

JUNE 8th—JULY 31st.

DR. JOSEPH W. PRYOR.

A class in advanced Physiology will be organized under the supervision of the head of this department. The course will consist of lectures, demonstrations and laboratory exercises. The following subjects will be taken up in the order named:

##### MUSCLE.

In treating the subject of muscle the gross appearance, histology, chemical composition, general and special physiology will be considered. This includes a description and demonstration of the electrical apparatus used in connection with nerve-muscle preparations. Graphic records are made with the Kymograph. The various kinds of stimuli and the phenomena of muscle contraction are exhibited and explained.



## HAEMODYNAMICS.

The circulation of the blood and lymph are explained and demonstrated.

The artificial circulation scheme used shows both arterial and venous blood pressure, which are measured with the mercury manometer. It also shows the conversion of an intermittent into a continuous flow. Incompetence and stenosis of the aortic and mitral valves are demonstrated and pulse tracings are made with a thistle tube and Kymographic that compare favorably with those made by the Sphygmograph. Sphygmographic tracings are made by members of the class and compared with those from the artificial circulation scheme.

## NORMAL HAEMATOLOGY.

Clinical examinations of the blood are made, including the enumeration of blood corpuscles with the Thoma-Zeiss Haemacytometer; the estimation of haemaglobin with Fleischel's Haemometer, and the staining and fixing of blood corpuscles.

The student will have the opportunity of making a microscopic observation of the circulating blood and graphic records of ventricular contraction of the frog's heart.

## THE SPECIAL SENSES.

The anatomy of the eye and ear and the physiology of these organs will be treated as fully as time will permit.

This course is intended to illustrate some of the fundamental laws of physiology and the phenomena upon which these laws are based. Full credit in the regular University courses will be given for work done during the Summer Term.

The fee for the Course will be ten dollars (\$10.00).

**Botany and Elementary Agriculture.**

JUNE 8th—JULY 17th.

BOTANY—PROF. CLARENCE W. MATHEWS AND ASSISTANT.

AGRICULTURE—PROF. J. J. HOOPER.

I. *Elementary Botany*.—Comprises the study of the structure and physiology of the seed plants, and is conducted mainly upon the laboratory plan of study. The plant laboratories of the College of Agriculture are abundantly equipped with microscopes and various forms of physiological and other apparatus. Nine laboratory hours per week, by appointment,

II. *The Morphology and Classification of the Lower Plants*.—Begins with a preliminary study of the compound microscope and its uses, and comprises a general survey of the morphology and classification of the Thallophytes, Bryophytes, and Pteridophytes. Nine laboratory hours per week.

III. *Plant Histology*.—Is designed to give instruction and training in the various methods of preparing vegetable tissues for microscopic study, accompanied by a systematic study of the various plant tissues thus prepared. The advanced laboratory for this purpose is equipped with ovens, microtomes and all other necessary apparatus for conducting this work in an effective manner. Nine laboratory hours per week.

IV. *Principles of Plant Culture*.—Includes a study of the fundamental activities of plant life, with special reference to the flower and vegetable garden and the orchard; the influences of normal and abnormal temperature, the proper supply of water, light, food, etc.; the effect of insect and plant parasites and other conditions. Further study is made of such practical details as propagation, seed selection, seed sowing, transplanting, pruning, spraying, etc. Lectures and practical exercises. Six hours per week.

V. *Elements of Agriculture*.—The Course presents a study of soils and fertilizers, the crops of the farm, and live-stock judging, feeding and management. The subject of dairying is discussed from the point of milk production and butter-making. Lectures and practical exercises. Six hours per week.

Six students are the minimum number for which any of the above courses will be offered. The fee for any one course will be \$10. A laboratory deposit of five dollars (\$5) to cover cost of possible breakage, etc., will be required in botany.

#### **Domestic Science.**

MISS ISABELLA WEST MARSHALL.

JUNE 8th—JULY 17th.

The following courses in Domestic Science are offered to students of the Summer Session.

The courses are designed to meet the needs of teachers who desire to acquire a knowledge of the subject sufficient to teach in elementary schools under the direction of a Supervisor of Domestic Science.

It may also be taken as an introduction to the subject by students who wish to continue the course either during the regular University Session or during a future Summer Session.



The department is thoroughly equipped for a proper presentation of the subject.

Besides a lecture room there is a large, cool laboratory, fitted up with individual gas burners, cookery apparatus and all the conveniences of modern sanitary plumbing.

Time for classes will be arranged during the cool morning hours.

Laboratory period,  $1\frac{1}{2}$  hours.

Lecture period,  $\frac{1}{2}$  hour.

#### COURSES.

1. Practical Cookery, including discussion of foods belonging to the following classes:

- (a) Heat-giving and energy-supplying foods: Cereals, bread, potatoes, etc.
- (b) Tissue-forming foods: Meat, milk, eggs, fish, etc.
- (c) Foods containing excess of mineral salts: Fruits, vegetables, including salads.
- (d) Sugars—candy.
- (e) Beverages: Tea, coffee, chilled non-alcoholic beverages.
- (f) Special diets.
- (g) Ices and gelatine mixtures.

2. Lectures upon Food Production and Manufacture.

- (a) Consideration of Nature, Nutritive Constituents and Relative Value of Foods.
- (b) Amount of Food Required in Health and Influence of Various Conditions Upon Amount of Food Required.
- (c) Consideration of Different Kinds of Foods, together with percentages of nutritive constituents found in them.

Fee of \$10 will be charged for one or all the courses.

#### **School of Mining Engineering.**

JUNE 15th—AUGUST 8th.

PROFESSOR NORWOOD AND ASSISTANT EASTON.

This Course is intended especially for practical miners, mine foremen, and mine managers who desire to improve their knowledge of the principles that underlie the methods of coal mining. Instruction will also be given to others, however, who may wish to acquire some knowledge of mining.

Instruction will be given in—

1. The different systems of mining coal. Laying out the workings. Methods for thin and thick seams, and for flat and pitching seams. Causes and management of squeezes, etc., etc.

2. Blasting. Various explosives. Pointing and loading holes. Evils resulting from improper blasting. Dangerous and safe methods. Dangers from black powder and dynamite. Precautions in blasting.

3. Ventilation. Necessities for ventilation. Composition of mine air. Wholesome air. Methods of obtaining and increasing ventilation. Study of furnaces and fans. Methods of coursing, splitting and regulating the current; overcasts and undercasts, etc. Measuring the ventilation; use of anemometer, water gauge, etc.

4. Mine gases. Nature and origin of each. Indications of the presence of each. Testing for explosive gas and black damp. Principle of the safety lamp, and various types of such lamps. Use of safety lamps, etc. The instruction in mine gases is illustrated with experiments, and the effect of different percentages of marsh gas on the safety lamp flame is shown.

5. Explosions. The various causes. Relation of coal dust to explosions, and management of dust. Relation of blasting to coal dust and other explosions. Prevention of explosions. Rescue work.

6. Supporting excavations, including the principles underlying timbering, the different methods of timbering, computing the strength of pillars, etc.

7. Safety appliances for shaft and slope mine.

8. Mine fires. Causes and management.

9. Surveying, including use of compass, putting up sights, marking off rooms at various angles, grading track (use of level), laying out curves, etc.

10. Map drawing.

The instruction is illustrated with demonstrations and experiments wherever possible. The equipment includes a mine fan, which may be used to illustrate the principles of both the compressive (forcing fan) and vacuum (exhaust fan) system of ventilation; also, anemometer, water gauge, safety lamps of various types, surveying instruments, etc.

Students will be expected to provide themselves with drawing tools, which may be obtained in Lexington at reasonable prices.



Persons desiring to take examinations for mine foremen from time to time will find the course quite helpful.

The session begins June 15th and ends August 8th. Fee, \$10.00.

Rooms for a limited number free. Table board from \$2 to \$3 per week.

For further information address

C. J. Norwood or H. D. Easton,  
Lexington. Ky.

### **School of Civil Engineering.**

Students who wish to secure additional credit, or make up deficiencies in order to shorten their regular collegiate schedule or lighten their work for the ensuing year, will find the course offered directly adapted to meet their wants and will receive the same credit therein as if the work had been given during a regular university session. Short courses will be especially arranged for those who are unable to attend the regular university session, but who desire to prepare themselves for more advanced engineering work.

#### **COURSE IN DETAIL.**

*Structural Drafting.* The work in structural drafting consists of fifteen plates of structural detail and covers nearly every phase of structural detail met in actual practice.

*Plane Surveying.* An elementary course in land surveying methods and the use of surveying instruments. Recitations, lectures and field work.

*Graphic Statics.* Principles and methods. Roof trusses. Bridge trusses. Locomotive wheel loads. Trusses with broken chords.

*Railway Engineering.* Location of curves. Compound curves. Changing radius. Shifting curve. Turnouts from straight track. Turnouts from curved tracks. Location and earthwork computation.

*Roof and Bridge Design.* Theory and design of roofs, bridges, standpipes, towers and other problems of structural interest.

*Stone Cutting.* Plane-sided surfaces. Structures containing developable surfaces. Structures containing warped surfaces. Structures containing double-curved surfaces.

#### **EXPENSES.**

A fee of ten dollars, payable in advance, will be charged for any one course, and five dollars each for all additional courses.

For additional information send for regular university catalogue or write.

Walter E. Rowe, Dean, School of Civil Engineering.  
518 Rose St., Lexington, Ky.

**School of Mechanic Arts.**

PROFESSORS ANDERSON, WILSON AND FRANKEL.

The Summer School of Mechanic Arts was established to give to machinists, carpenters, metal workers, engineers, firemen, superintendents of electric light plants and public buildings having power plants and artisans of all classes, that training in engineering subjects which they have been unable to secure in the ordinary plans proposed by correspondence schools and technical books. The courses are especially adapted to young men who are contemplating taking up engineering work. High schools are enabled to carry shop-work courses and drawing-room courses during the summer, so as to relieve themselves of the great burden of carrying this work, in connect on with the four-year course in engineering. For most of the work in connection with the industrial arts, it is not necessary for a man to have a full and comprehensive course for four years, such as is given in an engineering school.

A working knowledge of mechanical drawing is almost indispensable to the mechanic in every line of work. The facility to make drawings is not only of value in itself, but the study of mechanical drawing develops the power to read and interpret mechanical and architectural drawings properly. Elementary courses have been projected in the Summer School in all of the branches taught in the full four-year course in mechanical and electrical engineering, and all of these subjects are presented from an elementary standpoint without the aid of higher mathematics. Courses are provided in testing of steam and electrical machinery, and all problems relative to the transmission of power.

The elective system is not employed in American technical schools. Students during the regular university year are required to follow a well defined course of



study. The shops and laboratories are so crowded with regular students that it is impossible to provide independent courses in shop-work, mechanical drawing and laboratory work. The main object of the Summer School is to give the greatest possible freedom in the selection of those subjects in which any man may be interested.

#### ENTRANCE.

The entrance requirements for advanced courses in engineering are beyond many men. No detailed educational requirements will be specified for entrance in the Summer School. Every applicant will be allowed to pursue any course that he elects, and the same will be pitched on a thoroughly fundamental plane.

A speaking and writing knowledge of the English language is desired, together with a knowledge of elementary arithmetic. It is intended that no man shall be handicapped on account of his previous education, for an attempt is made to put all courses on such a basis that they are within the reach of every man. In order to accomplish this purpose each student will be placed largely on an independent footing, and dealt with as an individual, rather than as a member of a large class in which he is required to maintain a certain standard.

Those students who are matriculated in the full four-year engineering courses of any engineering school will be given such instructions as will enable them to clear up the shop-work and receive credit for this work in connection with their full engineering course.

The great amount of shop and laboratory work that is required from engineering students is frequently a serious obstacle to the proper preparation of the theoretical work. It would be a decided advantage if all students contemplating engineering courses could complete the shop-work and drawing-room courses outside of the regular term.

#### HIGH SCHOOL STUDENTS.

It is highly important that those young men who contemplate pursuing an engineering course should obtain some proficiency in shop-work and mechanical drawing before entering upon the full four-year course in engineering. Students in high schools will be able during their summer vacations to complete practically all of the shop-work, also a great deal of elementary mechanical drawing required in the advanced course in engineering, while carrying on their academic studies preparatory to taking up their university engineering work later.

## OTHER STUDENTS.

Any young men who are pursuing courses of Arts, Letters and Science in schools throughout the South will be enabled to obtain a certain proficiency in certain technical branches that are not given in the courses in which they are matriculated.

Students in Medicine and Law would undoubtedly obtain a great deal of benefit from courses such as are contemplated in shop-work and drawing.

Students pursuing the general or scientific courses will be able to obtain a certain training of the hand that is entirely out of the question in connection with an academic university course. By employing the summers during the academic course, a training can be obtained in certain technical subjects—indispensable to every man.

Teachers who would like to take up manual training work, may, during the summer session, become proficient in shop-work and mechanical drawing.

Special courses in Mechanical Drawing are provided. During the eight weeks' period of this Summer School a student may acquire sufficient skill in the use of drawing instruments to take up the simpler work in an architect's office or in the drafting room of a machine-building establishment.

## RECITATION HOURS.

The hours of recitation, shop-work, drawing-room and laboratory exercises will extend from 8 a. m. to 1 p. m., and from 2 p. m. to 5 p. m., and on Saturdays from 8 a. m. to 12 m., and every student is expected to devote forty-three hours each week to his work.

## FEES.

A uniform fee of twenty-five (\$25.00) dollars will be charged every student in the Summer School either for day or night work. This fee of \$25.00 includes every expense connected with tuition. No incidental fees are charged for use of laboratories, drawing rooms or shops.

Within the capacities of the dormitories of the State University students will be given quarters in the dormitories free of charge. Satisfactory board in the neighborhood of the State University can be secured from \$2.00 to \$2.50 per week.

## COURSES IN STEAM ENGINEERING.

1. Lectures on the Elementary Theory of Heat.
2. Lectures on Steam Engines and Boilers.
3. Experimental Work in Steam Laboratory.
4. Operation and Management of Engines and Boilers.
5. Gas and Gasoline Engines.



## COURSES IN APPLIED SCIENCE.

1. Dynamos and Motors.
2. Electric Wiring.
3. Meters, Transformers and Lighting.
4. Telephone Service.
5. Electric Batteries.
6. Electric Station Records.
7. Elementary Theory of Alternating Currents and Their Applications.
8. Electroplating.

## MACHINE DESIGN.

1. Use of Elementary Formulae.
2. Mechanical Drawing for Artisans.
3. Mechanical Drawing for Manual Training Teachers.
4. Advanced Design.

## THE MATERIALS OF CONSTRUCTION AND TRANSMISSION OF POWER.

1. Lectures on the Properties of Materials.
2. Tests of the Strength of Materials.
3. Transmission of Power.

## SHOP-WORK.

1. Bench and Machine Work in Wood.
2. Foundry Work.
3. Bench Work in Iron.
4. Production of Flat Surfaces and Straight Edges.
5. Machine Work in Iron.
6. Practice with the Planing and Shaping Machines.
7. Practice with the Lathe and Milling Machines.
8. Forge Work.
9. Tool making.
10. Machine Construction and Pattern Work.

For further information address,

A. M. Wilson,

Lexington, Kentucky.

**CALENDAR.****1908.**

|                             |                            |
|-----------------------------|----------------------------|
| Summer Schools open         | from June 3rd to Aug. 1st. |
| Entrance Examinations begin | Thursday, Sept. 3rd.       |
| First Term begins           | Thursday, Sept. 10th.      |
| Thanksgiving                | Thursday, Nov. 26th.       |
| Board of Trustees meet      | Tuesday, Dec. 8th.         |
| Christmas Holidays begin    | Thursday, Dec. 25th.       |

**1909.**

|                                   |                      |
|-----------------------------------|----------------------|
| Second Term begins                | Monday, Jan. 4th.    |
| Second Term of the Academy begins | Monday, Jan. 25th.   |
| Washington's Birthday             | Monday, Feb. 22d.    |
| Union Society Contest             | Monday, Feb. 22d.    |
| Third Term begins                 | Monday, March 22nd.  |
| Patterson Society Contest         | Friday, March 26th.  |
| Final Examinations begin          | Monday, May 24th.    |
| Board of Trustees meet            | Tuesday, June 1st.   |
| Class Day                         | Wednesday, June 2nd. |
| Alumni Banquet                    | Wednesday, June 2nd. |
| Commencement                      | Thursday, June 3rd.  |



**Erratum.**

Page 27. Eliminate all asterisks as well as the note connected therewith.

**Note.**

Page 113. The term "Faculty" comprises only those who are continuously engaged in this school in any capacity other than that of student. In a more comprehensive sense the term, of course, would include President Patterson and certain heads of departments.

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